



PRECISION
ENVIRONMENTAL SERVICES, INC.

831 RT. 67, LOT 38 A
BALLSTON SPA, NY 12020
TEL: 518-885-4399
FAX: 518-885-4416

CERTIFIED WOMEN-OWNED BUSINESS ENTERPRISE



December 18, 2023

Via Electronic Mail: anthony.bollasina@dec.ny.gov

Mr. Anthony Bollasina
New York State Department of Environmental Conservation
Division of Environmental Remediation
625 Broadway
Albany, New York 12233-7014

**RE: Report of Findings
Fair Street Landfill, Sampling Summary
NYSDEC Site No.: 340021**

Mr. Bollasina:

Precision Environmental Services, Inc. (PES), has prepared this letter report to document sample activities on the Fair Street Landfill property (hereafter referred to as 'the Site') (see – Figure 1, for site location detail). The work described within this report was performed on behalf of the New York State Department of Environmental Conservation (NYSDEC) and completed in accordance with Prime Contract C100614. Work tasks completed and documented within this report include surface water sampling, sediment sampling and monitoring well sampling to identify the presence of Per- and Polyfluoroalkyl Substances (PFAS).

Groundwater Monitoring Well Sampling

Well Gauging

On September 12, 2023, four groundwater-monitoring wells (MW-2, MW-3, MW-5, and MW-6) were gauged to determine depth to water at each location. Monitoring well locations are presented in Figure 2. The top of monitoring well casing elevations was calculated from HRP's Site Characterization Report, dated July 21, 2021. Groundwater elevations ranged from a high of 723.16-feet (MW-5) to a low of 690.99-feet (MW-3). The well gauging data is summarized in attached Table 1.

Well Sampling and Results

Monitoring wells MW-2, MW-3, MW-5, and MW-6 were purged and sampled on September 12, 2023. Samples were collected using low flow techniques. The purging was completed using a peristaltic pump with dedicated high density polyethylene tubing. The Horiba brand multi-meter was used to record water chemistry and turbidity. All purge water was discharged to the ground surface at the well locations. The pre-collection field parameters are presented on sample logs included as Attachment A. All secured groundwater samples were obtained by aseptic techniques to prevent cross-contamination, labeled, and placed on iced storage for subsequent submission under chain of custody to Con-Test/Pace Analytical for analysis using Method 537.

Individual PFAS analytes were detected in all four monitor well samples, and the duplicate sample collected from the MW-3 location (Table 2). PFOS was detected exceeding guidance levels at

MW-2 (130 ppt), MW-3 (130 ppt), Dup at MW-3 (130 ppt), MW-5 (16 ppt), and MW-6 (41 ppt). The guidance level for PFOS is 2.7 ppt. Perfluorooctanoic acid (PFOA) was detected exceeding guidance levels at MW-2 (820 ppt), MW-3 (1,400 ppt), the duplicate at MW-3 (1,200 ppt), MW-5 (15 ppt), and MW-6 (84 ppt). The guidance level for PFOA is 6.7 ppt. Complete Con-Test/Pace Analytical data package is included as Attachment B. PES included the November 13, 2020, PFAS results in Table 2. Threefold increases occurred between these dates at MW-2 and MW-3. While decreasing, total PFAS concentrations occurred at MW-5, from 103.15 ppt to 78.4 ppt and increase at MW-6 from 79.26 ppt to 210 ppt.

Surface Water and Sediment

On September 13, 2023, PES collected surface water and co-located sediment samples at the Site (see Figure 2). Surface water samples were collected directly into laboratory supplied containers. Sediment samples were collected using pre-cleaned stainless-steel spoons and bowls. Prior to and following each sample the spoons and bowls were decontaminated (cleaned) using an Alconox® wash followed by rinse with laboratory supplied PFAS free water. Samples were collected, then analyzed for PFAS using Method 537. Equipment blanks were collected, using laboratory provided PFAS-free water. Con-Test/Pace Analytical performed the laboratory analysis.

Numerous PFAS analytes were detected in six of the seven surface water samples. Only SW-4C, the furthest southeast and across the drainage valley from the Site, recorded no detectable levels for PFAS. PFOA detections ranging from 33 nanograms per liter or parts per trillion (ppt) at SW-7 to 530 ppt at SW-5, respectively. Like SW-4C, SW-7 is across the drainage valley from the Site, while SW-5 is along the topographic base of the Site close to the center of the valley stream originating at the culvert outfall. PFOS detections ranging from non-detectable at SW-7 to 230 ppt at SW-6, respectively. The SW-6 sample location was central to the drainage in the valley. A complete summary of these results is provided in Table 3. Complete Con-Test/Pace Analytical data package is included as Attachment B.

Only two of seven sediment sample locations recorded no detectable levels for PFAS (i.e., SED-4C and SED-7). Like their collocated surface water locations, they are across the drainage valley from the Site. A complete summary of these results is provided in Table 2. Complete Con-Test/Pace Analytical data package is included as Attachment B.

Should you have any questions regarding the above report, please feel free to contact the undersigned at 518-885-4399.

Sincerely,

PRECISION ENVIRONMENTAL SERVICES, INC.

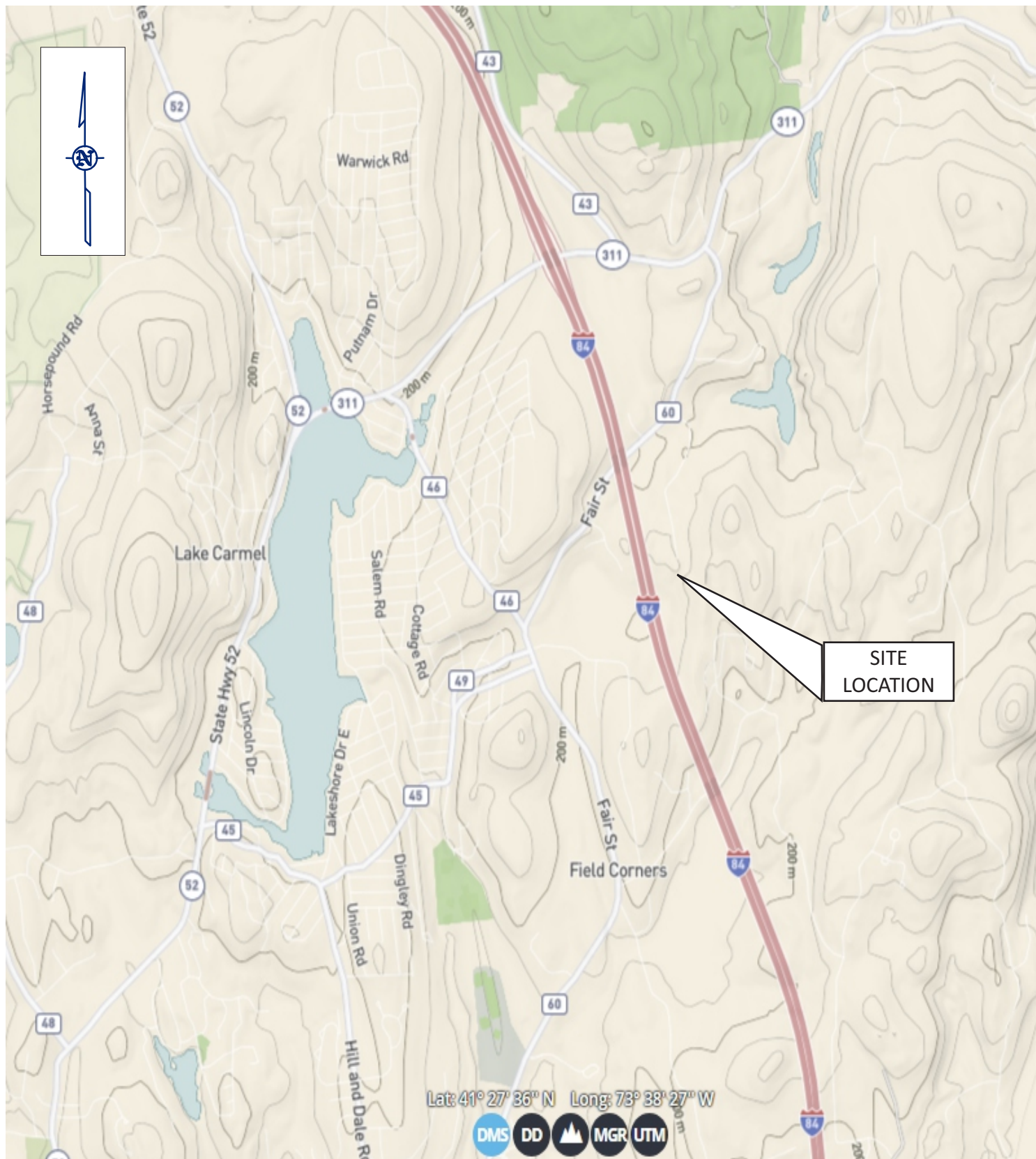


Brian Neumann
Project Manager

Enclosures:

Figures 1 and 2
Tables 1 through 3
Attachment A: Monitor Well Sample Logs
Attachment B: Laboratory Data Package

Figures



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CERTIFIED WOMEN-OWNED BUSINESS ENTERPRISE

Fair Street Landfill
131 Commerce Drive, Carmel, NY

NYSDEC Site #: 340021

Date: Oct 2023

Map Courtesy of USGS

Figure: 1

SITE LOCATION MAP



MAGNETIC



PRECISION
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CERTIFIED WOMEN-OWNED BUSINESS ENTERPRISE

PROJECT : Fair Street Landfill	
FIGURE: 2 - Sample Locatins.	
LOCATION: Carmel, NY.	
NYS DEC Site No.: 340021.	
DATE: 12/23	REVISED BY: JJJ

LEGEND

MW-1

 - Monitoring Well.

SW-4A/SED-4A

 - Co-Located Surface Water and Sediment Samples.

NOTES: ALL LOCATIONS ARE APPROXIMATE

Tables

TABLE 1

Summary of Monitoring Well Data (Gauging Results)

Fair Street Landfill

NYSDEC Site No. 340021

Monitor Well ID	Top of Casing Elevation	Depth to Water From Top of Casing 9/12/2023	Groundwater Elevation 9/12/2023
MW-2	707.82	14.47	693.35
MW-3	699.31	8.32	690.99
MW-5	750.23	27.07	723.16
MW-6	701.98	3.05	698.93

NOTES:

All Values are expressed in feet.

Top of casing elevations from HRP July 21, 2021 Site Characterization Report.

TABLE 2
Summary of Water Well Data
Fair Street Landfill
NYSDEC Site No. 340021

Sample Collection Date		Sample Identification									
		MW-2		MW-3		MW-Dup (@MW-3)	MW-5		MW-6		NYS Raw Water Source Guidance Levels (Human Health)
		11/13/20	09/12/23	11/13/20	09/12/23		11/13/20	09/12/23	11/13/20	09/12/23	
Analyte	Method										
Perfluorobutanoic acid (PFBA)	Modified 537	25	35	56	76	97	6.1	16	2.6	15	--
Perfluoropentanoic acid (PFPeA)		52	89	96	130	120	13	10	2.1	18	--
Perfluorohexanoic acid (PFHxA)		46	86	100	130	140	12	7.8	2.6	19	--
Perfluoroheptanoic acid (PFHpA)		55	110	87	130	130	12	4.8	4.5	15	--
Perfluorooctanoic acid (PFOA)		150	820	69	1400	1200	20	15	23	84	6.7
Perfluorononanoic acid (PFNA)		11	15	6	17	17	2.2	3.1	2	ND	--
Perfluorodecanoic acid (PFDA)		1.9	ND	1.9	5.7	5.6	2.1	ND	0.51	ND	--
Perfluoroundecanoic acid (PFUnA)		ND	ND	ND	ND	ND	ND	ND	ND	ND	--
Perfluorododecanoic acid (PFDoA)		ND	ND	ND	ND	ND	ND	ND	ND	ND	--
Perfluorotridecanoic acid (PFTriA)		ND	ND	ND	ND	ND	ND	ND	ND	ND	--
Perfluorotetradecanoic acid (PFTeA)		ND	ND	ND	ND	ND	ND	ND	ND	ND	--
Perfluorobutanesulfonic acid (PFBS)		6.5	7.9	8.6	7.5	10	0.87	2.2	0.56	ND	--
Perfluorohexanesulfonic acid (PFHxS)		80	110	59	92	100	3.5	3.5	3.9	18	--
Perfluoroheptanesulfonic acid (PFHpS)		7.3	15	3.1	8.3	6.3	ND	ND	0.9	ND	--
Perfluoropetanesulfonic acid (PFPeS)		ND	10	ND	11	12	ND	ND	ND	ND	--
Perfluorodecanesulfonic acid (PFDS)		ND	ND	ND	ND		ND	ND	ND	ND	--
Perfluorooctanesulfonic acid (PFOS)		NA	130	ND	130	130	25	16	35	41	2.7
Perfluoro-1-hexanesulfonamide (FHxSA)		ND	ND	ND	5.9	5.5	ND	ND	ND	ND	--
Perfluoro-1-butanefulfonamide (FBSA)		ND	ND	ND	3.9	4	ND	ND	ND	ND	--
Perfluorooctanesulfonamide (FOSA)		ND	ND	ND	ND	ND	ND	ND	ND	ND	--
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)		ND	ND	ND	ND	ND	0.78	ND	0.97	ND	--
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)		1.2	ND	0.88	ND	ND	1.4	ND	ND	ND	--
6:2 FTS		ND	ND	25	ND	ND	4.2	ND	0.62	ND	--
8:2 FTS		ND	ND	ND	ND	ND	ND	ND	ND	ND	--
Total incl PFOA & PFOS			434.70	1427.90	512.48	2147.30	1977.40	103.15	78.40	79.26	210.00

NOTES:
Sampling (9/12/2023) performed by Precision Environmental Services, Inc.
All values are reported in ng/L - parts per trillion (ppt)
Only those analytes detected at one or more locations presented
Analytical Facility - Eurofins Test America and Pace Analytical
ND indicates values reported below the laboratory minimum detection limits
NA indicates not submitted for analysis
Values in **BOLD** indicate values reported above the laboratory minimum detection limits
Green highlighting indicates NYS Guidance Level exceedence

TABLE 3
Summary of Surface Water & Sediment Data
Fair Street Landfill
NYSDEC Site No. 340021

		Sample Identification																				NYS Levels			
		SW-2		SW-3	SW-Dup (@SW-3)	SW-4 & SW-4A		SW-4C	SW-5	SW-6	SW-7	NYS Raw Water Source Guidance Levels (Human Health)	S-2 & SED-2		SED-3	SED-Dup (@SED-3)	S-4 & SED-4A		SED-4C	SED-5	SED-6		SED-7		
		11/03/20	09/13/23	09/13/23		11/03/20	09/13/23		09/13/23				11/03/20	09/13/23		09/13/23		11/03/20	09/13/23		09/13/23				
Sample Collection Date																									
Analyte	Method																								
Perfluorobutanoic acid (PFBA)	Modified 537	20.00	29.00	44.00	62.00	11.00	22.00	ND	65.00	57.00	11.00	NA	0.63	ND	ND	ND	0.39	ND	ND	ND	ND	ND	ND	ND	NA
Perfluoropentanoic acid (PFPeA)		20.00	20.00	25.00	17.00	30.00	ND	110.00	35.00	18.00	NA	0.69	ND	ND	ND	0.24	ND	ND	ND	ND	ND	ND	ND	NA	
Perfluorohexanoic acid (PFHxA)		36.00	24.00	20.00	33.00	15.00	25.00	ND	100.00	36.00	17.00	NA	0.26	ND	ND	ND	0.22	ND	ND	ND	ND	ND	ND	ND	NA
Perfluoroheptanoic acid (PFHpA)		32.00	22.00	22.00	36.00	13.00	22.00	ND	90.00	30.00	ND	NA	0.23	ND	ND	ND	0.24	ND	ND	ND	ND	ND	ND	ND	NA
Perfluorooctanoic acid (PFOA)		33.00	110.00	110.00	180.00	15.00	160.00	ND	530.00	210.00	33.00	6.7	3.60	ND	ND	1.00	2.90	1.40	ND	16.00	ND	ND	ND	ND	NA
Perfluorononanoic acid (PFNA)		4.20	13.00	9.20	14.00	2.00	5.90	ND	9.40	18.00	ND	NA	0.32	ND	ND	ND	0.28	ND	ND	ND	ND	ND	ND	ND	NA
Perfluorodecanoic acid (PFDA)		1.20	6.60	4.90	5.90	ND	1.70	ND	ND	8.00	ND	NA	0.72	ND	ND	ND	0.17	ND	ND	ND	ND	ND	ND	ND	NA
Perfluoroundecanoic acid (PFUnA)		ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	0.39	ND	ND	ND	0.26	ND	ND	ND	ND	ND	ND	ND	NA
Perfluorododecanoic acid (PFDoA)		ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	0.34	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA
Perfluorotridecanoic acid (PFTrA)		ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	0.12	ND	ND	ND	0.2	ND	ND	ND	ND	ND	ND	ND	NA
Perfluorotetradecanoic acid (PFTEA)		ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	0.12	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA
Perfluorobutanesulfonic acid (PFBS)		2.20	14.00	ND	8.60	2.90	3.90	ND	6.00	5.80	ND	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA
Perfluorohexanesulfonic acid (PFHxS)		15.00	24.00	23.00	37.00	13.00	22.00	ND	75.00	43.00	ND	NA	0.46	ND	ND	ND	0.36	ND	ND	ND	ND	ND	ND	ND	NA
Perfluoropentanesulfonic acid (PFPeS)		ND	ND	ND	ND	ND	2.00	ND	10.00	ND	ND	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA
Perfluoroheptanesulfonic acid (PFHpS)		0.88	5.10	ND	5.00	0.72	2.70	ND	4.70	5.10	ND	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA
Perfluorodecanesulfonic acid (PFDS)		ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	0.21	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA
Perfluorooctanesulfonic acid (PFOS)		220.00	110.00	94.00	150.00	120.00	52.00	ND	71.00	230.00	ND	2.7	6.60	4.50	5.20	5.30	2.20	1.60	ND	19.00	11.00	ND	ND	ND	NA
Perfluorooctanesulfonamide (FOSA)		ND	2.50	5.10	6.60	ND	ND	ND	ND	7.70	ND	NA	0.48	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)		ND	4.60	ND	ND	ND	ND	ND	ND	ND	ND	NA	5.6	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA
N-ethylperfluorooctanesulfonamidoacetic acid (NEFOSAA)		2.60	41.00	12.00	21.00	ND	ND	ND	ND	20.00	ND	NA	1.4	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA
Total incl PFOA & PFOS		396.08	220.00	204.00	330.00	209.22	212.00	0.00	601.00	440.00	79.00	NA	22.17	4.50	5.20	6.30	7.46	3.00	0.00	35.00	11.00	0.00		NA	

NOTES:
Sampling performed by Precision Environmental Services, Inc.
Only those analytes detected at one or more locations presented
All Surface Water values are reported in ng/L - parts per trillion (ppt)
All Sediment values are reported in ug/kg - parts per billion (ppb)
Analytical Facility - Eurofins Test America and Pace Analytical
ND indicates values reported below the laboratory minimum detection limits
Values in **BOLD** indicate values reported above the laboratory minimum detection limits
Exceeds Guidance Levels

Attachment A – Monitor Well Sample Logs



PRECISION
ENVIRONMENTAL SERVICES, INC.

831 RT. 67, LOT 38 A
BALLSTON SPA, NY 12020
TEL: 518-885-4230
FAX: 518-885-4416

CERTIFIED WOMEN-OWNED BUSINESS ENTERPRISE

GROUND WATER MONITOR WELL FIELD DATA SHEET

Project Name: Fair St. LE Project Number: _____ Well ID: MW-2

Weather: mostly sun, 80°F, muggy

WATER LEVEL DATA Date: 9-12-23 Time: _____ Well Locked? Yes _____ No _____

(a) Total Sounded Well Depth _____ (feet) *Volume Factors: 2-inch well = 0.163 gal/ft
(circle one) 4-inch well = 0.653 gal/ft

(b) Depth to Water (below measuring point) 14.47 (feet) 6-inch well = 1.468 gal/ft

(c) Height of Water Column _____ (feet) 8-inch well = 2.611 gal/ft

Well Volume ([c] x volume factor*) = _____ feet x _____ gallons/foot = _____ gallons

PURGE DATA Date: 9-12-23 Time: 1243 start _____ finish _____

Method: peristaltic, HOPE tubing, 151
(Water, bailer, submersible pump, etc.)

Purge Volume (3 to 5 times well volume) = _____ volumes x _____ gallons/volume = _____ gallons

Did well dry out? Yes _____ No X Number of times _____ Actual Volume Removed: 4.5L gallons

PURGE/SAMPLING DATA

Time	Temp	pH	Conductivity	DO	ORP	Turbidity
1245	18.4	6.51	2169	3.08	59.3	4.14
1255	15.2	6.49	2480	0.15	108.8	2.92
1300	15.9	6.49	2493	0.07	18.3	4.22
1305	16.0	6.49	2482	0.04	123.1	5.73
1310	15.5	6.50	2490	0.02	121.6	7.04
1315	15.8	6.50	2476	0.0	131.9	10.77
1320	15.7	6.50	2481	-0.01	134.8	13.35

Appearance (visual turbidity) clear Color 10 Odor 10

Sampling Method: _____

Constituents Sampled	Container Description	Preservative	Filtered?
<u>PAS 537 MGA</u>	<u>2-750ML WCK</u>	<u>NO</u>	yes <u>no</u> <u>X</u>
_____	_____	_____	yes <u>no</u>
_____	_____	_____	yes <u>no</u>

COMMENTS

MW-2 09/12/23 @ 1330

Personnel: Brian N. + E.N.



PRECISION
ENVIRONMENTAL SERVICES, INC.

831 RT. 67, LOT 36 A
BALLSTON SPA, NY 12020
TEL: 518-885-4399
FAX: 518-885-4410

CERTIFIED WOMEN-OWNED BUSINESS ENTERPRISE

GROUND WATER MONITOR WELL FIELD DATA SHEET

Project Name: FAIRSF-LE Project Number: _____ Well ID: MW-3

Weather: overcast, 75°F, MW/gv

WATER LEVEL DATA Date: 9.12.23 Time: 1025 Well Locked? Yes _____ No ☒

(a) Total Sounded Well Depth _____ (feet)

*Volume Factors: 2-inch well = 0.163 gal/ft
(circle one) 4-inch well = 0.653 gal/ft

(b) Depth to Water (below measuring point) 8.32 (feet)

6-inch well = 1.468 gal/ft

(c) Height of Water Column _____ (feet)

8-inch well = 2.611 gal/ft

Well Volume ((c) x volume factor*) = _____ feet x _____ gallons/foot = _____ gallons

PURGE DATA Date: 9.12.23 Time: 1040 start _____ finish _____

Method: Peripump, HDPE tubing, YSI
(Water, bailer, submersible pump, etc.)

Purge Volume (3 to 5 times well volume) = _____ volumes x _____ gallons/volume = _____ gallons

Did well dry out? Yes _____ No ☒ Number of times _____ Actual Volume Removed: 2 3/4 gallons

PURGE/SAMPLING DATA

Time	Temp	pH	Conductivity ^{us/cm}	DO ^{mg/L}	ORP	Turbidity
1045	15.8	6.62	1805	3.00	228.4	5.30
1051	15.9	6.65	1805	2.79	229.6	6.43
1056	15.7	6.65	1810	2.67	231.4	10.58
1105	16.1	6.63	1820	2.41	224.2	16.72
1110	16.0	6.63	1833	2.29	145.0	23.0
1120	16.7	6.64	1860	1.79	206.1	32.8
1125	17.0	6.60	1908	1.45	212.0	37.26
1130	17.0	2430/960	1925	1.23	213.6	412.44

WL ~ 10.15'

Appearance (visual turbidity) _____ Color none Odor none

Sampling Method: peripump + tubing

Constituents Sampled	Container Description	Preservative	Filtered?
<u>PEAS 537 Mod</u>	<u>2-250mL HDPE</u>	<u>NONE</u>	yes ☒ no ☐
_____	_____	_____	yes ☐ no ☐
_____	_____	_____	yes ☐ no ☐

COMMENTS

MW-3 09/12/2023 @ 1130
MW-Dup 09/12/2023 duplicate @ 1345
Personnel: Brian N. and Eli N.



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CERTIFIED WOMEN-OWNED BUSINESS ENTERPRISE

GROUND WATER MONITOR WELL FIELD DATA SHEET

Project Name: Kon St LF Project Number: _____ Well ID: MW-5

Weather: _____

WATER LEVEL DATA Date: _____ Time: _____ Well Locked? Yes _____ No X

(a) Total Sounded Well Depth _____ (feet) *Volume Factors: 2-inch well = 0.163 gal/ft
(b) Depth to Water (below measuring point) 27.07 (feet) (circle one) 4-inch well = 0.653 gal/ft
6-inch well = 1.468 gal/ft
8-inch well = 2.611 gal/ft
(c) Height of Water Column _____ (feet)

Well Volume ([c] x volume factor*) = _____ feet x _____ gallons/foot = _____ gallons

PURGE DATA Date: 9-12-23 Time: 1405 start _____ finish _____

Method: per pump, perching, 451
(Water, bailer, submersible pump, etc.)

Purge Volume (3 to 5 times well volume) = _____ volumes x _____ gallons/volume = _____ gallons

Did well dry out? Yes _____ No _____ Number of times _____ Actual Volume Removed: 5.5L gallons

PURGE/SAMPLING DATA

Time	Temp	pH	Conductivity	DO	ORP	Turbidity
1410	15.7	6.45	1651	6.29	153.2	17.55
1415	15.4	6.42	160.0	6.30	164.9	14.91
1420	15.2	6.40	151.7	6.44	177.2	12.76
1425	14.8	6.38	145.0	6.49	185.2	10.26
1430	15.4	6.37	141.0	6.80	188.8	8.31
1435	17.8	6.36	138.0	6.50	178.7	7.12
1440	19.0	6.36	137.6	6.30	172.6	7.29

Appearance (visual turbidity) Clear Color NO Odor NO

Sampling Method: per pump, perching

Constituents Sampled	Container Description	Preservative	Filtered?
<u>PFAS 537Mnd</u>	<u>2-750mL HDPE</u>	<u>NO</u>	yes <u>no</u> <u>X</u>
_____	_____	_____	yes <u>no</u> _____
_____	_____	_____	yes <u>no</u> _____

COMMENTS

MW-5 09/12/2023 @ 1445
MW-6 09/12/2023 @ 1345

Personnel: _____

501 on 451 chamber



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CERTIFIED WOMEN-OWNED BUSINESS ENTERPRISE

GROUND WATER MONITOR WELL FIELD DATA SHEET

Project Name: Far 5 LF Project Number: _____ Well ID: MW-6

Weather: Partly cloudy, 75°F, muggy

WATER LEVEL DATA Date: 9.12.23 Time: 1145 Well Locked? Yes _____ No X

(a) Total Sounded Well Depth _____ (feet) *Volume Factors: 2-inch well = 0.163 gal/ft
(circle one) 4-inch well = 0.653 gal/ft

(b) Depth to Water (below measuring point) 3.05 (feet) 6-inch well = 1.468 gal/ft
8-inch well = 2.611 gal/ft

(c) Height of Water Column _____ (feet)

Well Volume ((c) x volume factor*) = _____ feet x _____ gallons/foot = 7 ft x 1.468 gallons

PURGE DATA Date: 9.12.23 Time: 1147 start _____ finish _____

Method: Peristaltic pump, HDPE tubing, 151
(Water, bailer, submersible pump, etc.)

Purge Volume (3 to 5 times well volume) = _____ volumes x _____ gallons/volume = _____ gallons

Did well dry out? Yes _____ No X Number of times _____ Actual Volume Removed: 7L gallons.

PURGE/SAMPLING DATA

Time	Temp	pH	Conductivity	DO	ORP	Turbidity
1150	16.7	6.48	655	0.22	-45.8	198.25
1155	17.0	6.42	642	0.24	-41.4	59.78
1200	16.8	6.41	636	0.13	-41.8	44.08
1205	16.6	6.41	629	0.06	-43.5	51.35
1210	16.8	6.41	626	0.03	-44.5	55.02
1215	16.7	6.41	623	0.02	-45.4	77.83
1225	16.7	6.42	617	0.00	-47.4	95.14

Appearance (visual turbidity) cloudy, lt. brown Color no Odor no

Sampling Method: peristaltic pump

Constituents Sampled	Container Description	Preservative	Filtered?
<u>PBS 539 MOD.</u>	<u>2-250ml HDPE</u>	<u>no</u>	yes <u>no</u> <u>X</u>
_____	_____	_____	yes <u>no</u> _____
_____	_____	_____	yes <u>no</u> _____

COMMENTS

MW-6 09/22/23 @ 1230 MS/MSD

Personnel: Brian N + Eric N.

Attachment B – Laboratory Data Package

October 12, 2023

Brian Neumann
NYDEC_Precision Environmental Services, Inc
831 Rt. 67 Lot 38A
Ballston Spa, NY 12020

Project Location: Carmel, NY
Client Job Number:
Project Number: 340021
Laboratory Work Order Number: 23I1834

Enclosed are results of analyses for samples as received by the laboratory on September 15, 2023. If you have any questions concerning this report, please feel free to contact me.

Sincerely,



Kyle A. Murray
Project Manager

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39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

NYDEC_Precision Environmental Services, Inc
831 Rt. 67 Lot 38A
Ballston Spa, NY 12020
ATTN: Brian Neumann

REPORT DATE: 10/12/2023

PURCHASE ORDER NUMBER: 147752

PROJECT NUMBER: 340021

ANALYTICAL SUMMARY

WORK ORDER NUMBER: 2311834

The results of analyses performed on the following samples submitted to CON-TEST, a Pace Analytical Laboratory, are found in this report.

PROJECT LOCATION: Carmel, NY

FIELD SAMPLE #	LAB ID:	MATRIX	SAMPLE DESCRIPTION	TEST	SUB LAB
MW-2 09122023	2311834-01	Ground Water		SOP-454 PFAS	
MW-6 09122023	2311834-02	Ground Water		SOP-454 PFAS	
MW-3 09122023	2311834-03	Ground Water		SOP-454 PFAS	
MW-DUP 09122023	2311834-04	Ground Water		SOP-454 PFAS	
MW-5 09122023	2311834-05	Ground Water		SOP-454 PFAS	
MW-EQBLNK 09122023	2311834-06	Equipment Blank Water		SOP-454 PFAS	
SW-2	2311834-07	Ground Water		SOP-454 PFAS	
SED-2	2311834-08	Soil		SM 2540G	
				SOP-466 PFAS	
SW-3	2311834-09	Ground Water		SOP-454 PFAS	
SED-3	2311834-10	Soil		SM 2540G	
				SOP-466 PFAS	
SW-4A	2311834-11	Ground Water		SOP-454 PFAS	
SED-4A	2311834-12	Soil		SM 2540G	
				SOP-466 PFAS	
SW-4C	2311834-13	Ground Water		SOP-454 PFAS	
SED-4C	2311834-14	Soil		SM 2540G	
				SOP-466 PFAS	
SW-5	2311834-15	Ground Water		SOP-454 PFAS	
SED-5	2311834-16	Soil		SM 2540G	
				SOP-466 PFAS	
SW-6	2311834-17	Ground Water		SOP-454 PFAS	
SED-6	2311834-18	Soil		SM 2540G	
				SOP-466 PFAS	
SW-7	2311834-19	Ground Water		SOP-454 PFAS	
SED-7	2311834-20	Soil		SM 2540G	
				SOP-466 PFAS	
SW-DUP	2311834-21	Ground Water		SOP-454 PFAS	
SED-DUP	2311834-22	Soil		SM 2540G	
				SOP-466 PFAS	
SED-EQBLNK	2311834-23	Equipment Blank Water		SOP-454 PFAS	

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CASE NARRATIVE SUMMARY

All reported results are within defined laboratory quality control objectives unless listed below or otherwise qualified in this report.

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

SM 2540G**Qualifications:****H-06**

Sample was extracted past the recommended holding time.

Analyte & Samples(s) Qualified:**% Solids**

23I1834-08[SED-2], 23I1834-10[SED-3], 23I1834-12[SED-4A], 23I1834-14[SED-4C], 23I1834-16[SED-5], 23I1834-18[SED-6], 23I1834-20[SED-7], 23I1834-22[SED-DUP]

SOP-454 PFAS**Qualifications:****D-01**

Sample extracted/prepared at a dilution due to sample matrix.

Analyte & Samples(s) Qualified:

23I1834-02[MW-6 09122023], 23I1834-09RE1[SW-3], 23I1834-13[SW-4C], 23I1834-15[SW-5], 23I1834-17[SW-6], 23I1834-19[SW-7], 23I1834-21[SW-DUP]

MS-12

Matrix spike recovery and matrix spike duplicate recovery outside of control limits. Possibility of sample matrix effects that lead to a high bias for reported result or non-homogeneous sample aliquots cannot be eliminated.

Analyte & Samples(s) Qualified:**4:2 Fluorotelomersulfonic acid (4:2FTS A)**

B353115-MS1, B353115-MSD2

6:2 Fluorotelomersulfonic acid (6:2FTS A)

B353115-MS1, B353115-MS2, B353115-MSD1, B353115-MSD2

8:2 Fluorotelomersulfonic acid (8:2FTS A)

B353115-MS1, B353115-MS2, B353115-MSD1, B353115-MSD2

N-EtFOSAA (NEtFOSAA)

23I1834-07[SW-2], B353115-MS1, B353115-MS2, B353115-MSD1, B353115-MSD2

N-MeFOSAA (NMeFOSAA)

23I1834-07[SW-2], B353115-MS1, B353115-MS2, B353115-MSD1, B353115-MSD2

Perfluoro-4-oxapentanoic acid (PFMPA)

B353115-MS2, B353115-MSD2

Perfluorobutanesulfonic acid (PFBS)

B353115-MS1, B353115-MSD1

Perfluorobutanoic acid (PFBA)

23I1834-07[SW-2], B353115-MS2, B353115-MSD2

Perfluorodecanoic acid (PFDA)

23I1834-07[SW-2], B353115-MS1, B353115-MS2, B353115-MSD1, B353115-MSD2

Perfluorododecanoic acid (PFDoA)

B353115-MS2, B353115-MSD2

Perfluoroheptanoic acid (PFHpA)

23I1834-07[SW-2], B353115-MS2, B353115-MSD2

Perfluorohexanesulfonic acid (PFHxS)

23I1834-02[MW-6 09122023], B353115-MS1, B353115-MSD1

Perfluorohexanoic acid (PFHxA)

23I1834-02[MW-6 09122023], B353115-MS1, B353115-MSD1

Perfluorononanoic acid (PFNA)

23I1834-07[SW-2], B353115-MS1, B353115-MS2, B353115-MSD1, B353115-MSD2

Perfluorooctanesulfonic acid (PFOS)

23I1834-02[MW-6 09122023], 23I1834-07[SW-2], B353115-MS1, B353115-MS2, B353115-MSD1, B353115-MSD2

Perfluoropentanesulfonic acid (PFPeS)

B353115-MS1, B353115-MS2, B353115-MSD1, B353115-MSD2

Perfluoropentanoic acid (PFPeA)

23I1834-02[MW-6 09122023], B353115-MS1, B353115-MSD1

Perfluorotetradecanoic acid (PFTA)

B353115-MS1, B353115-MS2, B353115-MSD1, B353115-MSD2

Perfluorotridecanoic acid (PFTrDA)

B353115-MS2, B353115-MSD2

Perfluoroundecanoic acid (PFUnA)

B353115-MS2, B353115-MSD2

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MS-19

Sample to spike ratio is greater than or equal to 4:1. Spiked amount is not representative of the native amount in the sample. Appropriate or meaningful recoveries cannot be calculated.

Analyte & Samples(s) Qualified:**Perfluorooctanoic acid (PFOA)**

23I1834-02[MW-6 09122023], 23I1834-07[SW-2], B353115-MS1, B353115-MS2, B353115-MSD2

MS-22

Either matrix spike or MS duplicate is outside of control limits, but the other is within limits. RPD between the two MS/MSD results is within method specified criteria.

Analyte & Samples(s) Qualified:**11CI-PF3OUdS (F53B Major)**

B353115-MS2

Hexafluoropropylene oxide dimer acid (HFPO-DA)

B353115-MS2

Perfluoro(2-ethoxyethane)sulfonic acid (PFEEISA)

B353115-MSD2

Perfluoro-4-oxapentanoic acid (PFMPA)

B353115-MS1

Perfluorobutanesulfonic acid (PFBS)

23I1834-07[SW-2], B353115-MSD2

Perfluorobutanoic acid (PFBA)

23I1834-02[MW-6 09122023], B353115-MS1

Perfluoroheptanesulfonic acid (PFHpS)

23I1834-07[SW-2], B353115-MS1, B353115-MS2

Perfluoroheptanoic acid (PFHpA)

23I1834-02[MW-6 09122023], B353115-MS1

Perfluorohexanesulfonic acid (PFHxS)

23I1834-07[SW-2], B353115-MSD2

Perfluorohexanoic acid (PFHxA)

23I1834-07[SW-2], B353115-MSD2

Perfluorooctanesulfonamide (FOSA)

23I1834-07[SW-2], B353115-MS1, B353115-MSD2

Perfluorotridecanoic acid (PFTrDA)

B353115-MS1

Perfluoroundecanoic acid (PFUnA)

B353115-MSD1

PF-17

Extracted Internal Standard recovery is outside of control limits. Data is not significantly affected since associated analyte is not detected and bias is on the high side.

Analyte & Samples(s) Qualified:**M2-4:2FTS**

23I1834-01RE1[MW-2 09122023], 23I1834-03RE1[MW-3 09122023], 23I1834-04RE1[MW-DUP 09122023], 23I1834-07[SW-2], 23I1834-09RE1[SW-3], 23I1834-21[SW-DUP]

M2-6:2FTS

23I1834-01RE1[MW-2 09122023], 23I1834-03RE1[MW-3 09122023], 23I1834-04RE1[MW-DUP 09122023], 23I1834-07[SW-2], 23I1834-09RE1[SW-3], 23I1834-11[SW-4A], 23I1834-21[SW-DUP]

M2-8:2FTS

23I1834-02[MW-6 09122023], 23I1834-05[MW-5 09122023], 23I1834-06[MW-EQBLNK 09122023], 23I1834-07[SW-2], 23I1834-11[SW-4A], 23I1834-13[SW-4C], 23I1834-15[SW-5], 23I1834-17[SW-6], 23I1834-19[SW-7], 23I1834-21[SW-DUP], B 353115-BLK1

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PF-18

Duplicate analysis confirmed Extracted Internal Standard failure due to matrix effects.

Analyte & Samples(s) Qualified:**M2-4:2FTS**

B353115-MS2, B353115-MSD2

M2-6:2FTS

B353115-MS2, B353115-MSD2

M2PFTA

23I1834-01RE1[MW-2 09122023], 23I1834-07[SW-2], B353115-MS2, B353115-MSD2

M3HFPO-DA

23I1834-03RE1[MW-3 09122023], 23I1834-04RE1[MW-DUP 09122023], 23I1834-07[SW-2], B353115-MS2, B353115-MSD2

M5PFPeA

23I1834-03RE1[MW-3 09122023], 23I1834-04RE1[MW-DUP 09122023], 23I1834-07[SW-2], B353115-MS2, B353115-MSD2

M8FOSA

23I1834-07[SW-2], B353115-MS2, B353115-MSD2

MPFBA

23I1834-01RE1[MW-2 09122023], 23I1834-03RE1[MW-3 09122023], 23I1834-04RE1[MW-DUP 09122023], 23I1834-07[SW-2], 23I1834-09RE1[SW-3], B353115-MS2, B353115-MSD2

MPFDoA

23I1834-07[SW-2], B353115-MS2, B353115-MSD2

PF-19

Sample re-analyzed at a dilution that was re-fortified with internal standard.

Analyte & Samples(s) Qualified:**Perfluorooctanoic acid (PFOA)**

23I1834-01RE3[MW-2 09122023], 23I1834-03RE3[MW-3 09122023], 23I1834-04RE3[MW-DUP 09122023], 23I1834-15RE1[SW-5]

PF-20

Quantifying ion signal to noise ratio is <10. Detection is suspect.

Analyte & Samples(s) Qualified:**Perfluorobutanesulfonic acid (PFBS)**

23I1834-21[SW-DUP]

Perfluorobutanoic acid (PFBA)

23I1834-03RE1[MW-3 09122023], 23I1834-07[SW-2]

Perfluoroheptanesulfonic acid (PFHpS)

23I1834-07[SW-2], 23I1834-21[SW-DUP]

Perfluorohexanesulfonic acid (PFHxS)

23I1834-07[SW-2]

Perfluoropentanoic acid (PFPeA)

23I1834-07[SW-2]

R-06

Matrix spike duplicate RPD is outside of control limits. Reduced precision is anticipated for reported result for this compound in this sample.

Analyte & Samples(s) Qualified:**Perfluorodecanesulfonic acid (PFDS)**

23I1834-07[SW-2], B353115-MSD2

Perfluorotridecanoic acid (PFTrDA)

B353115-MSD2

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S-29

Extracted Internal Standard is outside of control limits.

Analyte & Samples(s) Qualified:**M2-6:2FTS**

23I1834-17[SW-6]

M2-8:2FTS

B353115-BS1, B353115-MS1, B353115-MS2, B353115-MSD1, B353115-MSD2, S094634-CCV3, S094634-CCV4, S094634-CCV5

M2PFTA

23I1834-05[MW-5 09122023], 23I1834-06[MW-EQBLNK 09122023], 23I1834-11[SW-4A], 23I1834-13[SW-4C], 23I1834-15[SW-5], 23I1834-17[SW-6], B353115-MS1

M3HFPO-DA

23I1834-01RE1[MW-2 09122023], 23I1834-09RE1[SW-3]

M5PFPeA

23I1834-11[SW-4A]

M7PFUnA

23I1834-11[SW-4A], B353115-MS2

M8FOSA

23I1834-05[MW-5 09122023], 23I1834-11[SW-4A], 23I1834-15[SW-5], 23I1834-17[SW-6], 23I1834-21[SW-DUP], B353115-MSD1

MPFBA

23I1834-05[MW-5 09122023], 23I1834-11[SW-4A], 23I1834-15[SW-5], 23I1834-17[SW-6], 23I1834-21[SW-DUP]

MPFDoA

23I1834-05[MW-5 09122023], 23I1834-11[SW-4A], 23I1834-13[SW-4C], 23I1834-15[SW-5], 23I1834-17[SW-6]

SOP-466 PFAS**Qualifications:****MS-22**

Either matrix spike or MS duplicate is outside of control limits, but the other is within limits. RPD between the two MS/MSD results is within method specified criteria.

Analyte & Samples(s) Qualified:**Perfluorooctanesulfonic acid (PFOS)**

23I1834-08[SED-2], B352507-MSD1

PF-17

Extracted Internal Standard recovery is outside of control limits. Data is not significantly affected since associated analyte is not detected and bias is on the high side.

Analyte & Samples(s) Qualified:**M2-6:2FTS**

23I1834-12[SED-4A], 23I1834-16[SED-5], 23I1834-20[SED-7]

S-29

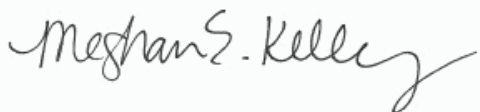
Extracted Internal Standard is outside of control limits.

Analyte & Samples(s) Qualified:**M2-4:2FTS**

S093923-CCV3

The results of analyses reported only relate to samples submitted to Con-Test, a Pace Analytical Laboratory, for testing.

I certify that the analyses listed above, unless specifically listed as subcontracted, if any, were performed under my direction according to the approved methodologies listed in this document, and that based upon my inquiry of those individuals immediately responsible for obtaining the information, the material contained in this report is, to the best of my knowledge and belief, accurate and complete.

Meghan E. Kelley
Reporting Specialist

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: Carmel, NY

Sample Description:

Work Order: 23I1834

Date Received: 9/15/2023

Field Sample #: MW-2 09122023

Sampled: 9/12/2023 13:30

Sample ID: 23I1834-01

Sample Matrix: Ground Water

Semivolatile Organic Compounds by - LC/MS-MS

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Perfluorobutanoic acid (PFBA)	35	2.0	ng/L	1		SOP-454 PFAS	10/10/23	10/11/23 16:30	QNW
Perfluorobutanesulfonic acid (PFBS)	7.9	2.0	ng/L	1		SOP-454 PFAS	10/10/23	10/11/23 16:30	QNW
Perfluoropentanoic acid (PFPeA)	89	2.0	ng/L	1		SOP-454 PFAS	10/10/23	10/11/23 16:30	QNW
Perfluorohexanoic acid (PFHxA)	86	2.0	ng/L	1		SOP-454 PFAS	10/10/23	10/11/23 16:30	QNW
11Cl-PF3OUdS (F53B Major)	ND	2.0	ng/L	1		SOP-454 PFAS	10/10/23	10/11/23 16:30	QNW
9Cl-PF3ONS (F53B Minor)	ND	2.0	ng/L	1		SOP-454 PFAS	10/10/23	10/11/23 16:30	QNW
4,8-Dioxo-3H-perfluorononanoic acid (ADONA)	ND	2.0	ng/L	1		SOP-454 PFAS	10/10/23	10/11/23 16:30	QNW
Hexafluoropropylene oxide dimer acid (HFPO-DA)	ND	2.0	ng/L	1		SOP-454 PFAS	10/10/23	10/11/23 16:30	QNW
8:2 Fluorotelomersulfonic acid (8:2FTS A)	ND	2.0	ng/L	1		SOP-454 PFAS	10/10/23	10/11/23 16:30	QNW
Perfluorodecanoic acid (PFDA)	ND	2.0	ng/L	1		SOP-454 PFAS	10/10/23	10/11/23 16:30	QNW
Perfluorododecanoic acid (PFDoA)	ND	2.0	ng/L	1		SOP-454 PFAS	10/10/23	10/11/23 16:30	QNW
Perfluoro(2-ethoxyethane)sulfonic acid (PFEEA)	ND	2.0	ng/L	1		SOP-454 PFAS	10/10/23	10/11/23 16:30	QNW
Perfluoroheptanesulfonic acid (PFHpS)	15	2.0	ng/L	1		SOP-454 PFAS	10/10/23	10/11/23 16:30	QNW
N-EtFOSAA (NEtFOSAA)	ND	2.0	ng/L	1		SOP-454 PFAS	10/10/23	10/11/23 16:30	QNW
N-MeFOSAA (NMeFOSAA)	ND	2.0	ng/L	1		SOP-454 PFAS	10/10/23	10/11/23 16:30	QNW
Perfluorotetradecanoic acid (PFTA)	ND	2.0	ng/L	1		SOP-454 PFAS	10/10/23	10/11/23 16:30	QNW
Perfluorotridecanoic acid (PFTTrDA)	ND	2.0	ng/L	1		SOP-454 PFAS	10/10/23	10/11/23 16:30	QNW
4:2 Fluorotelomersulfonic acid (4:2FTS A)	ND	2.0	ng/L	1		SOP-454 PFAS	10/10/23	10/11/23 16:30	QNW
Perfluorodecanesulfonic acid (PFDS)	ND	2.0	ng/L	1		SOP-454 PFAS	10/10/23	10/11/23 16:30	QNW
Perfluorooctanesulfonamide (FOSA)	ND	2.0	ng/L	1		SOP-454 PFAS	10/10/23	10/11/23 16:30	QNW
Perfluorononanesulfonic acid (PFNS)	ND	2.0	ng/L	1		SOP-454 PFAS	10/10/23	10/11/23 16:30	QNW
Perfluoro-1-hexanesulfonamide (FHxSA)	ND	2.0	ng/L	1		SOP-454 PFAS	10/10/23	10/11/23 16:30	QNW
Perfluoro-1-butanefulfonamide (FBFA)	ND	2.0	ng/L	1		SOP-454 PFAS	10/10/23	10/11/23 16:30	QNW
Perfluorohexanesulfonic acid (PFHxS)	110	2.0	ng/L	1		SOP-454 PFAS	10/10/23	10/11/23 16:30	QNW
Perfluoro-4-oxapentanoic acid (PFMPA)	ND	2.0	ng/L	1		SOP-454 PFAS	10/10/23	10/11/23 16:30	QNW
Perfluoro-5-oxahexanoic acid (PFMBA)	ND	2.0	ng/L	1		SOP-454 PFAS	10/10/23	10/11/23 16:30	QNW
6:2 Fluorotelomersulfonic acid (6:2FTS A)	ND	2.0	ng/L	1		SOP-454 PFAS	10/10/23	10/11/23 16:30	QNW
Perfluoropentanesulfonic acid (PFPeS)	10	2.0	ng/L	1		SOP-454 PFAS	10/10/23	10/11/23 16:30	QNW
Perfluoroundecanoic acid (PFUnA)	ND	2.0	ng/L	1		SOP-454 PFAS	10/10/23	10/11/23 16:30	QNW
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	ND	2.0	ng/L	1		SOP-454 PFAS	10/10/23	10/11/23 16:30	QNW
Perfluoroheptanoic acid (PFHpA)	110	2.0	ng/L	1		SOP-454 PFAS	10/10/23	10/11/23 16:30	QNW
Perfluorooctanoic acid (PFOA)	820	39	ng/L	20	PF-19	SOP-454 PFAS	10/10/23	10/11/23 17:13	QNW
Perfluorooctanesulfonic acid (PFOS)	130	2.0	ng/L	1		SOP-454 PFAS	10/10/23	10/11/23 16:30	QNW
Perfluorononanoic acid (PFNA)	15	2.0	ng/L	1		SOP-454 PFAS	10/10/23	10/11/23 16:30	QNW

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: Carmel, NY

Sample Description:

Work Order: 2311834

Date Received: 9/15/2023

Field Sample #: MW-6 09122023

Sampled: 9/12/2023 12:30

Sample ID: 2311834-02

Sample Matrix: Ground Water

Sample Flags: D-01

Semivolatile Organic Compounds by - LC/MS-MS

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Perfluorobutanoic acid (PFBA)	15	4.2	ng/L	1	MS-22	SOP-454 PFAS	10/2/23	10/10/23 0:21	QNW
Perfluorobutanesulfonic acid (PFBS)	ND	4.2	ng/L	1		SOP-454 PFAS	10/2/23	10/10/23 0:21	QNW
Perfluoropentanoic acid (PFPeA)	18	4.2	ng/L	1	MS-12	SOP-454 PFAS	10/2/23	10/10/23 0:21	QNW
Perfluorohexanoic acid (PFHxA)	19	4.2	ng/L	1	MS-12	SOP-454 PFAS	10/2/23	10/10/23 0:21	QNW
11Cl-PF3OUdS (F53B Major)	ND	4.2	ng/L	1		SOP-454 PFAS	10/2/23	10/10/23 0:21	QNW
9Cl-PF3ONS (F53B Minor)	ND	4.2	ng/L	1		SOP-454 PFAS	10/2/23	10/10/23 0:21	QNW
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	ND	4.2	ng/L	1		SOP-454 PFAS	10/2/23	10/10/23 0:21	QNW
Hexafluoropropylene oxide dimer acid (HFPO-DA)	ND	4.2	ng/L	1		SOP-454 PFAS	10/2/23	10/10/23 0:21	QNW
8:2 Fluorotelomersulfonic acid (8:2FTS A)	ND	4.2	ng/L	1		SOP-454 PFAS	10/2/23	10/10/23 0:21	QNW
Perfluorodecanoic acid (PFDA)	ND	4.2	ng/L	1		SOP-454 PFAS	10/2/23	10/10/23 0:21	QNW
Perfluorododecanoic acid (PFDoA)	ND	4.2	ng/L	1		SOP-454 PFAS	10/2/23	10/10/23 0:21	QNW
Perfluoro(2-ethoxyethane)sulfonic acid (PFEEA)	ND	4.2	ng/L	1		SOP-454 PFAS	10/2/23	10/10/23 0:21	QNW
Perfluoroheptanesulfonic acid (PFHpS)	ND	4.2	ng/L	1		SOP-454 PFAS	10/2/23	10/10/23 0:21	QNW
N-EtFOSAA (NEtFOSAA)	ND	4.2	ng/L	1		SOP-454 PFAS	10/2/23	10/10/23 0:21	QNW
N-MeFOSAA (NMeFOSAA)	ND	4.2	ng/L	1		SOP-454 PFAS	10/2/23	10/10/23 0:21	QNW
Perfluorotetradecanoic acid (PFTA)	ND	4.2	ng/L	1		SOP-454 PFAS	10/2/23	10/10/23 0:21	QNW
Perfluorotridecanoic acid (PFTTrDA)	ND	4.2	ng/L	1		SOP-454 PFAS	10/2/23	10/10/23 0:21	QNW
4:2 Fluorotelomersulfonic acid (4:2FTS A)	ND	4.2	ng/L	1		SOP-454 PFAS	10/2/23	10/10/23 0:21	QNW
Perfluorodecanesulfonic acid (PFDS)	ND	4.2	ng/L	1		SOP-454 PFAS	10/2/23	10/10/23 0:21	QNW
Perfluorooctanesulfonamide (FOSA)	ND	4.2	ng/L	1		SOP-454 PFAS	10/2/23	10/10/23 0:21	QNW
Perfluorononanesulfonic acid (PFNS)	ND	4.2	ng/L	1		SOP-454 PFAS	10/2/23	10/10/23 0:21	QNW
Perfluoro-1-hexanesulfonamide (FHxSA)	ND	4.2	ng/L	1		SOP-454 PFAS	10/2/23	10/10/23 0:21	QNW
Perfluoro-1-butanesulfonamide (FBSA)	ND	4.2	ng/L	1		SOP-454 PFAS	10/2/23	10/10/23 0:21	QNW
Perfluorohexanesulfonic acid (PFHxS)	18	4.2	ng/L	1	MS-12	SOP-454 PFAS	10/2/23	10/10/23 0:21	QNW
Perfluoro-4-oxapentanoic acid (PFMPA)	ND	4.2	ng/L	1		SOP-454 PFAS	10/2/23	10/10/23 0:21	QNW
Perfluoro-5-oxahexanoic acid (PFMBA)	ND	4.2	ng/L	1		SOP-454 PFAS	10/2/23	10/10/23 0:21	QNW
6:2 Fluorotelomersulfonic acid (6:2FTS A)	ND	4.2	ng/L	1		SOP-454 PFAS	10/2/23	10/10/23 0:21	QNW
Perfluoropentanesulfonic acid (PFPeS)	ND	4.2	ng/L	1		SOP-454 PFAS	10/2/23	10/10/23 0:21	QNW
Perfluoroundecanoic acid (PFUnA)	ND	4.2	ng/L	1		SOP-454 PFAS	10/2/23	10/10/23 0:21	QNW
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	ND	4.2	ng/L	1		SOP-454 PFAS	10/2/23	10/10/23 0:21	QNW
Perfluoroheptanoic acid (PFHpA)	15	4.2	ng/L	1	MS-22	SOP-454 PFAS	10/2/23	10/10/23 0:21	QNW
Perfluorooctanoic acid (PFOA)	84	4.2	ng/L	1	MS-19	SOP-454 PFAS	10/2/23	10/10/23 0:21	QNW
Perfluorooctanesulfonic acid (PFOS)	41	4.2	ng/L	1	MS-12	SOP-454 PFAS	10/2/23	10/10/23 0:21	QNW
Perfluorononanoic acid (PFNA)	ND	4.2	ng/L	1		SOP-454 PFAS	10/2/23	10/10/23 0:21	QNW

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: Carmel, NY

Sample Description:

Work Order: 23I1834

Date Received: 9/15/2023

Field Sample #: MW-3 09122023

Sampled: 9/12/2023 11:30

Sample ID: 23I1834-03

Sample Matrix: Ground Water

Semivolatile Organic Compounds by - LC/MS-MS

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Perfluorobutanoic acid (PFBA)	76	2.0	ng/L	1	PF-20	SOP-454 PFAS	10/10/23	10/11/23 16:37	QNW
Perfluorobutanesulfonic acid (PFBS)	7.5	2.0	ng/L	1		SOP-454 PFAS	10/10/23	10/11/23 16:37	QNW
Perfluoropentanoic acid (PFPeA)	130	2.0	ng/L	1		SOP-454 PFAS	10/10/23	10/11/23 16:37	QNW
Perfluorohexanoic acid (PFHxA)	130	2.0	ng/L	1		SOP-454 PFAS	10/10/23	10/11/23 16:37	QNW
11Cl-PF3OUdS (F53B Major)	ND	2.0	ng/L	1		SOP-454 PFAS	10/10/23	10/11/23 16:37	QNW
9Cl-PF3ONS (F53B Minor)	ND	2.0	ng/L	1		SOP-454 PFAS	10/10/23	10/11/23 16:37	QNW
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	ND	2.0	ng/L	1		SOP-454 PFAS	10/10/23	10/11/23 16:37	QNW
Hexafluoropropylene oxide dimer acid (HFPO-DA)	ND	2.0	ng/L	1		SOP-454 PFAS	10/10/23	10/11/23 16:37	QNW
8:2 Fluorotelomersulfonic acid (8:2FTS A)	ND	2.0	ng/L	1		SOP-454 PFAS	10/10/23	10/11/23 16:37	QNW
Perfluorodecanoic acid (PFDA)	5.7	2.0	ng/L	1		SOP-454 PFAS	10/10/23	10/11/23 16:37	QNW
Perfluorododecanoic acid (PFDoA)	ND	2.0	ng/L	1		SOP-454 PFAS	10/10/23	10/11/23 16:37	QNW
Perfluoro(2-ethoxyethane)sulfonic acid (PFEEA)	ND	2.0	ng/L	1		SOP-454 PFAS	10/10/23	10/11/23 16:37	QNW
Perfluoroheptanesulfonic acid (PFHpS)	8.3	2.0	ng/L	1		SOP-454 PFAS	10/10/23	10/11/23 16:37	QNW
N-EtFOSAA (NEtFOSAA)	ND	2.0	ng/L	1		SOP-454 PFAS	10/10/23	10/11/23 16:37	QNW
N-MeFOSAA (NMeFOSAA)	ND	2.0	ng/L	1		SOP-454 PFAS	10/10/23	10/11/23 16:37	QNW
Perfluorotetradecanoic acid (PFTA)	ND	2.0	ng/L	1		SOP-454 PFAS	10/10/23	10/11/23 16:37	QNW
Perfluorotridecanoic acid (PFTTrDA)	ND	2.0	ng/L	1		SOP-454 PFAS	10/10/23	10/11/23 16:37	QNW
4:2 Fluorotelomersulfonic acid (4:2FTS A)	ND	2.0	ng/L	1		SOP-454 PFAS	10/10/23	10/11/23 16:37	QNW
Perfluorodecanesulfonic acid (PFDS)	ND	2.0	ng/L	1		SOP-454 PFAS	10/10/23	10/11/23 16:37	QNW
Perfluorooctanesulfonamide (FOSA)	ND	2.0	ng/L	1		SOP-454 PFAS	10/10/23	10/11/23 16:37	QNW
Perfluorononanesulfonic acid (PFNS)	ND	2.0	ng/L	1		SOP-454 PFAS	10/10/23	10/11/23 16:37	QNW
Perfluoro-1-hexanesulfonamide (FHxSA)	5.9	2.0	ng/L	1		SOP-454 PFAS	10/10/23	10/11/23 16:37	QNW
Perfluoro-1-butanefulfonamide (FBFA)	3.9	2.0	ng/L	1		SOP-454 PFAS	10/10/23	10/11/23 16:37	QNW
Perfluorohexanesulfonic acid (PFHxS)	92	2.0	ng/L	1		SOP-454 PFAS	10/10/23	10/11/23 16:37	QNW
Perfluoro-4-oxapentanoic acid (PFMPA)	ND	2.0	ng/L	1		SOP-454 PFAS	10/10/23	10/11/23 16:37	QNW
Perfluoro-5-oxahexanoic acid (PFMBA)	ND	2.0	ng/L	1		SOP-454 PFAS	10/10/23	10/11/23 16:37	QNW
6:2 Fluorotelomersulfonic acid (6:2FTS A)	ND	2.0	ng/L	1		SOP-454 PFAS	10/10/23	10/11/23 16:37	QNW
Perfluoropentanesulfonic acid (PFPeS)	11	2.0	ng/L	1		SOP-454 PFAS	10/10/23	10/11/23 16:37	QNW
Perfluoroundecanoic acid (PFUnA)	ND	2.0	ng/L	1		SOP-454 PFAS	10/10/23	10/11/23 16:37	QNW
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	ND	2.0	ng/L	1		SOP-454 PFAS	10/10/23	10/11/23 16:37	QNW
Perfluoroheptanoic acid (PFHpA)	130	2.0	ng/L	1	PF-19	SOP-454 PFAS	10/10/23	10/11/23 16:37	QNW
Perfluorooctanoic acid (PFOA)	1400	99	ng/L	50		SOP-454 PFAS	10/10/23	10/11/23 17:20	QNW
Perfluorooctanesulfonic acid (PFOS)	130	2.0	ng/L	1		SOP-454 PFAS	10/10/23	10/11/23 16:37	QNW
Perfluorononanoic acid (PFNA)	17	2.0	ng/L	1		SOP-454 PFAS	10/10/23	10/11/23 16:37	QNW

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: Carmel, NY

Sample Description:

Work Order: 23I1834

Date Received: 9/15/2023

Field Sample #: MW-DUP 09122023

Sampled: 9/12/2023 13:45

Sample ID: 23I1834-04

Sample Matrix: Ground Water

Semivolatile Organic Compounds by - LC/MS-MS

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Perfluorobutanoic acid (PFBA)	97	2.0	ng/L	1		SOP-454 PFAS	10/10/23	10/11/23 16:44	QNW
Perfluorobutanesulfonic acid (PFBS)	10	2.0	ng/L	1		SOP-454 PFAS	10/10/23	10/11/23 16:44	QNW
Perfluoropentanoic acid (PFPeA)	120	2.0	ng/L	1		SOP-454 PFAS	10/10/23	10/11/23 16:44	QNW
Perfluorohexanoic acid (PFHxA)	140	2.0	ng/L	1		SOP-454 PFAS	10/10/23	10/11/23 16:44	QNW
11Cl-PF3OUdS (F53B Major)	ND	2.0	ng/L	1		SOP-454 PFAS	10/10/23	10/11/23 16:44	QNW
9Cl-PF3ONS (F53B Minor)	ND	2.0	ng/L	1		SOP-454 PFAS	10/10/23	10/11/23 16:44	QNW
4,8-Dioxo-3H-perfluorononanoic acid (ADONA)	ND	2.0	ng/L	1		SOP-454 PFAS	10/10/23	10/11/23 16:44	QNW
Hexafluoropropylene oxide dimer acid (HFPO-DA)	ND	2.0	ng/L	1		SOP-454 PFAS	10/10/23	10/11/23 16:44	QNW
8:2 Fluorotelomersulfonic acid (8:2FTS A)	ND	2.0	ng/L	1		SOP-454 PFAS	10/10/23	10/11/23 16:44	QNW
Perfluorodecanoic acid (PFDA)	5.6	2.0	ng/L	1		SOP-454 PFAS	10/10/23	10/11/23 16:44	QNW
Perfluorododecanoic acid (PFDoA)	ND	2.0	ng/L	1		SOP-454 PFAS	10/10/23	10/11/23 16:44	QNW
Perfluoro(2-ethoxyethane)sulfonic acid (PFEEA)	ND	2.0	ng/L	1		SOP-454 PFAS	10/10/23	10/11/23 16:44	QNW
Perfluoroheptanesulfonic acid (PFHpS)	6.3	2.0	ng/L	1		SOP-454 PFAS	10/10/23	10/11/23 16:44	QNW
N-EtFOSAA (NEtFOSAA)	ND	2.0	ng/L	1		SOP-454 PFAS	10/10/23	10/11/23 16:44	QNW
N-MeFOSAA (NMeFOSAA)	2.0	2.0	ng/L	1		SOP-454 PFAS	10/10/23	10/11/23 16:44	QNW
Perfluorotetradecanoic acid (PFTA)	ND	2.0	ng/L	1		SOP-454 PFAS	10/10/23	10/11/23 16:44	QNW
Perfluorotridecanoic acid (PFTTrDA)	ND	2.0	ng/L	1		SOP-454 PFAS	10/10/23	10/11/23 16:44	QNW
4:2 Fluorotelomersulfonic acid (4:2FTS A)	ND	2.0	ng/L	1		SOP-454 PFAS	10/10/23	10/11/23 16:44	QNW
Perfluorodecanesulfonic acid (PFDS)	ND	2.0	ng/L	1		SOP-454 PFAS	10/10/23	10/11/23 16:44	QNW
Perfluorooctanesulfonamide (FOSA)	ND	2.0	ng/L	1		SOP-454 PFAS	10/10/23	10/11/23 16:44	QNW
Perfluorononanesulfonic acid (PFNS)	ND	2.0	ng/L	1		SOP-454 PFAS	10/10/23	10/11/23 16:44	QNW
Perfluoro-1-hexanesulfonamide (FHxSA)	5.5	2.0	ng/L	1		SOP-454 PFAS	10/10/23	10/11/23 16:44	QNW
Perfluoro-1-butanefulfonamide (FBFA)	4.0	2.0	ng/L	1		SOP-454 PFAS	10/10/23	10/11/23 16:44	QNW
Perfluorohexanesulfonic acid (PFHxS)	100	2.0	ng/L	1		SOP-454 PFAS	10/10/23	10/11/23 16:44	QNW
Perfluoro-4-oxapentanoic acid (PFMPA)	ND	2.0	ng/L	1		SOP-454 PFAS	10/10/23	10/11/23 16:44	QNW
Perfluoro-5-oxahexanoic acid (PFMBA)	ND	2.0	ng/L	1		SOP-454 PFAS	10/10/23	10/11/23 16:44	QNW
6:2 Fluorotelomersulfonic acid (6:2FTS A)	ND	2.0	ng/L	1		SOP-454 PFAS	10/10/23	10/11/23 16:44	QNW
Perfluoropentanesulfonic acid (PFPeS)	12	2.0	ng/L	1		SOP-454 PFAS	10/10/23	10/11/23 16:44	QNW
Perfluoroundecanoic acid (PFUnA)	ND	2.0	ng/L	1		SOP-454 PFAS	10/10/23	10/11/23 16:44	QNW
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	ND	2.0	ng/L	1		SOP-454 PFAS	10/10/23	10/11/23 16:44	QNW
Perfluoroheptanoic acid (PFHpA)	130	2.0	ng/L	1		SOP-454 PFAS	10/10/23	10/11/23 16:44	QNW
Perfluorooctanoic acid (PFOA)	1200	100	ng/L	50	PF-19	SOP-454 PFAS	10/10/23	10/11/23 17:28	QNW
Perfluorooctanesulfonic acid (PFOS)	130	2.0	ng/L	1		SOP-454 PFAS	10/10/23	10/11/23 16:44	QNW
Perfluorononanoic acid (PFNA)	17	2.0	ng/L	1		SOP-454 PFAS	10/10/23	10/11/23 16:44	QNW

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: Carmel, NY

Sample Description:

Work Order: 2311834

Date Received: 9/15/2023

Field Sample #: MW-5 09122023

Sampled: 9/12/2023 14:45

Sample ID: 2311834-05

Sample Matrix: Ground Water

Semivolatile Organic Compounds by - LC/MS-MS

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Perfluorobutanoic acid (PFBA)	16	2.1	ng/L	1		SOP-454 PFAS	10/2/23	10/10/23 0:43	QNW
Perfluorobutanesulfonic acid (PFBS)	2.2	2.1	ng/L	1		SOP-454 PFAS	10/2/23	10/10/23 0:43	QNW
Perfluoropentanoic acid (PFPeA)	10	2.1	ng/L	1		SOP-454 PFAS	10/2/23	10/10/23 0:43	QNW
Perfluorohexanoic acid (PFHxA)	7.8	2.1	ng/L	1		SOP-454 PFAS	10/2/23	10/10/23 0:43	QNW
11Cl-PF3OUdS (F53B Major)	ND	2.1	ng/L	1		SOP-454 PFAS	10/2/23	10/10/23 0:43	QNW
9Cl-PF3ONS (F53B Minor)	ND	2.1	ng/L	1		SOP-454 PFAS	10/2/23	10/10/23 0:43	QNW
4,8-Dioxo-3H-perfluorononanoic acid (ADONA)	ND	2.1	ng/L	1		SOP-454 PFAS	10/2/23	10/10/23 0:43	QNW
Hexafluoropropylene oxide dimer acid (HFPO-DA)	ND	2.1	ng/L	1		SOP-454 PFAS	10/2/23	10/10/23 0:43	QNW
8:2 Fluorotelomersulfonic acid (8:2FTS A)	ND	2.1	ng/L	1		SOP-454 PFAS	10/2/23	10/10/23 0:43	QNW
Perfluorodecanoic acid (PFDA)	ND	2.1	ng/L	1		SOP-454 PFAS	10/2/23	10/10/23 0:43	QNW
Perfluorododecanoic acid (PFDoA)	ND	2.1	ng/L	1		SOP-454 PFAS	10/2/23	10/10/23 0:43	QNW
Perfluoro(2-ethoxyethane)sulfonic acid (PFEEESA)	ND	2.1	ng/L	1		SOP-454 PFAS	10/2/23	10/10/23 0:43	QNW
Perfluoroheptanesulfonic acid (PFHpS)	ND	2.1	ng/L	1		SOP-454 PFAS	10/2/23	10/10/23 0:43	QNW
N-EtFOSAA (NEtFOSAA)	ND	2.1	ng/L	1		SOP-454 PFAS	10/2/23	10/10/23 0:43	QNW
N-MeFOSAA (NMeFOSAA)	ND	2.1	ng/L	1		SOP-454 PFAS	10/2/23	10/10/23 0:43	QNW
Perfluorotetradecanoic acid (PFTA)	ND	2.1	ng/L	1		SOP-454 PFAS	10/2/23	10/10/23 0:43	QNW
Perfluorotridecanoic acid (PFTTrDA)	ND	2.1	ng/L	1		SOP-454 PFAS	10/2/23	10/10/23 0:43	QNW
4:2 Fluorotelomersulfonic acid (4:2FTS A)	ND	2.1	ng/L	1		SOP-454 PFAS	10/2/23	10/10/23 0:43	QNW
Perfluorodecanesulfonic acid (PFDS)	ND	2.1	ng/L	1		SOP-454 PFAS	10/2/23	10/10/23 0:43	QNW
Perfluorooctanesulfonamide (FOSA)	ND	2.1	ng/L	1		SOP-454 PFAS	10/2/23	10/10/23 0:43	QNW
Perfluorononanesulfonic acid (PFNS)	ND	2.1	ng/L	1		SOP-454 PFAS	10/2/23	10/10/23 0:43	QNW
Perfluoro-1-hexanesulfonamide (FHxSA)	ND	2.1	ng/L	1		SOP-454 PFAS	10/2/23	10/10/23 0:43	QNW
Perfluoro-1-butanefulfonamide (FBFA)	ND	2.1	ng/L	1		SOP-454 PFAS	10/2/23	10/10/23 0:43	QNW
Perfluorohexanesulfonic acid (PFHxS)	3.5	2.1	ng/L	1		SOP-454 PFAS	10/2/23	10/10/23 0:43	QNW
Perfluoro-4-oxapentanoic acid (PFMPA)	ND	2.1	ng/L	1		SOP-454 PFAS	10/2/23	10/10/23 0:43	QNW
Perfluoro-5-oxahexanoic acid (PFMBA)	ND	2.1	ng/L	1		SOP-454 PFAS	10/2/23	10/10/23 0:43	QNW
6:2 Fluorotelomersulfonic acid (6:2FTS A)	ND	2.1	ng/L	1		SOP-454 PFAS	10/2/23	10/10/23 0:43	QNW
Perfluoropentanesulfonic acid (PFPeS)	ND	2.1	ng/L	1		SOP-454 PFAS	10/2/23	10/10/23 0:43	QNW
Perfluoroundecanoic acid (PFUnA)	ND	2.1	ng/L	1		SOP-454 PFAS	10/2/23	10/10/23 0:43	QNW
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	ND	2.1	ng/L	1		SOP-454 PFAS	10/2/23	10/10/23 0:43	QNW
Perfluoroheptanoic acid (PFHpA)	4.8	2.1	ng/L	1		SOP-454 PFAS	10/2/23	10/10/23 0:43	QNW
Perfluorooctanoic acid (PFOA)	15	2.1	ng/L	1		SOP-454 PFAS	10/2/23	10/10/23 0:43	QNW
Perfluorooctanesulfonic acid (PFOS)	16	2.1	ng/L	1		SOP-454 PFAS	10/2/23	10/10/23 0:43	QNW
Perfluorononanoic acid (PFNA)	3.1	2.1	ng/L	1		SOP-454 PFAS	10/2/23	10/10/23 0:43	QNW

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: Carmel, NY

Sample Description:

Work Order: 2311834

Date Received: 9/15/2023

Field Sample #: MW-EQBLNK 09122023

Sampled: 9/12/2023 13:45

Sample ID: 2311834-06

Sample Matrix: Equipment Blank Water

Semivolatile Organic Compounds by - LC/MS-MS

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Perfluorobutanoic acid (PFBA)	ND	2.0	ng/L	1		SOP-454 PFAS	10/2/23	10/10/23 0:50	QNW
Perfluorobutanesulfonic acid (PFBS)	ND	2.0	ng/L	1		SOP-454 PFAS	10/2/23	10/10/23 0:50	QNW
Perfluoropentanoic acid (PFPeA)	ND	2.0	ng/L	1		SOP-454 PFAS	10/2/23	10/10/23 0:50	QNW
Perfluorohexanoic acid (PFHxA)	ND	2.0	ng/L	1		SOP-454 PFAS	10/2/23	10/10/23 0:50	QNW
11Cl-PF3OUdS (F53B Major)	ND	2.0	ng/L	1		SOP-454 PFAS	10/2/23	10/10/23 0:50	QNW
9Cl-PF3ONS (F53B Minor)	ND	2.0	ng/L	1		SOP-454 PFAS	10/2/23	10/10/23 0:50	QNW
4,8-Dioxo-3H-perfluorononanoic acid (ADONA)	ND	2.0	ng/L	1		SOP-454 PFAS	10/2/23	10/10/23 0:50	QNW
Hexafluoropropylene oxide dimer acid (HFPO-DA)	ND	2.0	ng/L	1		SOP-454 PFAS	10/2/23	10/10/23 0:50	QNW
8:2 Fluorotelomersulfonic acid (8:2FTS A)	ND	2.0	ng/L	1		SOP-454 PFAS	10/2/23	10/10/23 0:50	QNW
Perfluorodecanoic acid (PFDA)	ND	2.0	ng/L	1		SOP-454 PFAS	10/2/23	10/10/23 0:50	QNW
Perfluorododecanoic acid (PFDoA)	ND	2.0	ng/L	1		SOP-454 PFAS	10/2/23	10/10/23 0:50	QNW
Perfluoro(2-ethoxyethane)sulfonic acid (PFEEESA)	ND	2.0	ng/L	1		SOP-454 PFAS	10/2/23	10/10/23 0:50	QNW
Perfluoroheptanesulfonic acid (PFHpS)	ND	2.0	ng/L	1		SOP-454 PFAS	10/2/23	10/10/23 0:50	QNW
N-EtFOSAA (NEtFOSAA)	ND	2.0	ng/L	1		SOP-454 PFAS	10/2/23	10/10/23 0:50	QNW
N-MeFOSAA (NMeFOSAA)	ND	2.0	ng/L	1		SOP-454 PFAS	10/2/23	10/10/23 0:50	QNW
Perfluorotetradecanoic acid (PFTA)	ND	2.0	ng/L	1		SOP-454 PFAS	10/2/23	10/10/23 0:50	QNW
Perfluorotridecanoic acid (PFTTrDA)	ND	2.0	ng/L	1		SOP-454 PFAS	10/2/23	10/10/23 0:50	QNW
4:2 Fluorotelomersulfonic acid (4:2FTS A)	ND	2.0	ng/L	1		SOP-454 PFAS	10/2/23	10/10/23 0:50	QNW
Perfluorodecanesulfonic acid (PFDS)	ND	2.0	ng/L	1		SOP-454 PFAS	10/2/23	10/10/23 0:50	QNW
Perfluorooctanesulfonamide (FOSA)	ND	2.0	ng/L	1		SOP-454 PFAS	10/2/23	10/10/23 0:50	QNW
Perfluorononanesulfonic acid (PFNS)	ND	2.0	ng/L	1		SOP-454 PFAS	10/2/23	10/10/23 0:50	QNW
Perfluoro-1-hexanesulfonamide (FHxSA)	ND	2.0	ng/L	1		SOP-454 PFAS	10/2/23	10/10/23 0:50	QNW
Perfluoro-1-butanefulfonamide (FBFA)	ND	2.0	ng/L	1		SOP-454 PFAS	10/2/23	10/10/23 0:50	QNW
Perfluorohexanesulfonic acid (PFHxS)	ND	2.0	ng/L	1		SOP-454 PFAS	10/2/23	10/10/23 0:50	QNW
Perfluoro-4-oxapentanoic acid (PFMPA)	ND	2.0	ng/L	1		SOP-454 PFAS	10/2/23	10/10/23 0:50	QNW
Perfluoro-5-oxahexanoic acid (PFMBA)	ND	2.0	ng/L	1		SOP-454 PFAS	10/2/23	10/10/23 0:50	QNW
6:2 Fluorotelomersulfonic acid (6:2FTS A)	ND	2.0	ng/L	1		SOP-454 PFAS	10/2/23	10/10/23 0:50	QNW
Perfluoropentanesulfonic acid (PFPeS)	ND	2.0	ng/L	1		SOP-454 PFAS	10/2/23	10/10/23 0:50	QNW
Perfluoroundecanoic acid (PFUnA)	ND	2.0	ng/L	1		SOP-454 PFAS	10/2/23	10/10/23 0:50	QNW
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	ND	2.0	ng/L	1		SOP-454 PFAS	10/2/23	10/10/23 0:50	QNW
Perfluoroheptanoic acid (PFHpA)	ND	2.0	ng/L	1		SOP-454 PFAS	10/2/23	10/10/23 0:50	QNW
Perfluorooctanoic acid (PFOA)	ND	2.0	ng/L	1		SOP-454 PFAS	10/2/23	10/10/23 0:50	QNW
Perfluorooctanesulfonic acid (PFOS)	ND	2.0	ng/L	1		SOP-454 PFAS	10/2/23	10/10/23 0:50	QNW
Perfluorononanoic acid (PFNA)	ND	2.0	ng/L	1		SOP-454 PFAS	10/2/23	10/10/23 0:50	QNW

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: Carmel, NY

Sample Description:

Work Order: 2311834

Date Received: 9/15/2023

Field Sample #: SW-2

Sampled: 9/13/2023 08:50

Sample ID: 2311834-07

Sample Matrix: Ground Water

Semivolatile Organic Compounds by - LC/MS-MS

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Perfluorobutanoic acid (PFBA)	29	1.8	ng/L	1	MS-12, PF-20	SOP-454 PFAS	10/2/23	10/10/23 0:57	QNW
Perfluorobutanesulfonic acid (PFBS)	14	1.8	ng/L	1	MS-22	SOP-454 PFAS	10/2/23	10/10/23 0:57	QNW
Perfluoropentanoic acid (PFPeA)	20	1.8	ng/L	1	PF-20	SOP-454 PFAS	10/2/23	10/10/23 0:57	QNW
Perfluorohexanoic acid (PFHxA)	24	1.8	ng/L	1	MS-22	SOP-454 PFAS	10/2/23	10/10/23 0:57	QNW
11Cl-PF3OUdS (F53B Major)	ND	1.8	ng/L	1		SOP-454 PFAS	10/2/23	10/10/23 0:57	QNW
9Cl-PF3ONS (F53B Minor)	ND	1.8	ng/L	1		SOP-454 PFAS	10/2/23	10/10/23 0:57	QNW
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	ND	1.8	ng/L	1		SOP-454 PFAS	10/2/23	10/10/23 0:57	QNW
Hexafluoropropylene oxide dimer acid (HFPO-DA)	ND	1.8	ng/L	1		SOP-454 PFAS	10/2/23	10/10/23 0:57	QNW
8:2 Fluorotelomersulfonic acid (8:2FTS A)	ND	1.8	ng/L	1		SOP-454 PFAS	10/2/23	10/10/23 0:57	QNW
Perfluorodecanoic acid (PFDA)	6.6	1.8	ng/L	1	MS-12	SOP-454 PFAS	10/2/23	10/10/23 0:57	QNW
Perfluorododecanoic acid (PFDoA)	ND	1.8	ng/L	1		SOP-454 PFAS	10/2/23	10/10/23 0:57	QNW
Perfluoro(2-ethoxyethane)sulfonic acid (PFEEA)	ND	1.8	ng/L	1		SOP-454 PFAS	10/2/23	10/10/23 0:57	QNW
Perfluoroheptanesulfonic acid (PFHpS)	5.1	1.8	ng/L	1	MS-22, PF-20	SOP-454 PFAS	10/2/23	10/10/23 0:57	QNW
N-EtFOSAA (NEtFOSAA)	41	1.8	ng/L	1	MS-12	SOP-454 PFAS	10/2/23	10/10/23 0:57	QNW
N-MeFOSAA (NMeFOSAA)	4.6	1.8	ng/L	1	MS-12	SOP-454 PFAS	10/2/23	10/10/23 0:57	QNW
Perfluorotetradecanoic acid (PFTA)	ND	1.8	ng/L	1		SOP-454 PFAS	10/2/23	10/10/23 0:57	QNW
Perfluorotridecanoic acid (PFTTrDA)	ND	1.8	ng/L	1		SOP-454 PFAS	10/2/23	10/10/23 0:57	QNW
4:2 Fluorotelomersulfonic acid (4:2FTS A)	ND	1.8	ng/L	1		SOP-454 PFAS	10/2/23	10/10/23 0:57	QNW
Perfluorodecanesulfonic acid (PFDS)	ND	1.8	ng/L	1	R-06	SOP-454 PFAS	10/2/23	10/10/23 0:57	QNW
Perfluorooctanesulfonamide (FOSA)	2.5	1.8	ng/L	1	MS-22	SOP-454 PFAS	10/2/23	10/10/23 0:57	QNW
Perfluorononanesulfonic acid (PFNS)	ND	1.8	ng/L	1		SOP-454 PFAS	10/2/23	10/10/23 0:57	QNW
Perfluoro-1-hexanesulfonamide (FHxSA)	ND	1.8	ng/L	1		SOP-454 PFAS	10/2/23	10/10/23 0:57	QNW
Perfluoro-1-butanesulfonamide (FBSA)	ND	1.8	ng/L	1		SOP-454 PFAS	10/2/23	10/10/23 0:57	QNW
Perfluorohexanesulfonic acid (PFHxS)	24	1.8	ng/L	1	MS-22, PF-20	SOP-454 PFAS	10/2/23	10/10/23 0:57	QNW
Perfluoro-4-oxapentanoic acid (PFMPA)	ND	1.8	ng/L	1		SOP-454 PFAS	10/2/23	10/10/23 0:57	QNW
Perfluoro-5-oxahexanoic acid (PFMBA)	ND	1.8	ng/L	1		SOP-454 PFAS	10/2/23	10/10/23 0:57	QNW
6:2 Fluorotelomersulfonic acid (6:2FTS A)	ND	1.8	ng/L	1		SOP-454 PFAS	10/2/23	10/10/23 0:57	QNW
Perfluoropentanesulfonic acid (PFPeS)	ND	1.8	ng/L	1		SOP-454 PFAS	10/2/23	10/10/23 0:57	QNW
Perfluoroundecanoic acid (PFUnA)	ND	1.8	ng/L	1		SOP-454 PFAS	10/2/23	10/10/23 0:57	QNW
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	ND	1.8	ng/L	1		SOP-454 PFAS	10/2/23	10/10/23 0:57	QNW
Perfluoroheptanoic acid (PFHpA)	22	1.8	ng/L	1	MS-12	SOP-454 PFAS	10/2/23	10/10/23 0:57	QNW
Perfluorooctanoic acid (PFOA)	110	1.8	ng/L	1	MS-19	SOP-454 PFAS	10/2/23	10/10/23 0:57	QNW
Perfluorooctanesulfonic acid (PFOS)	110	1.8	ng/L	1	MS-12	SOP-454 PFAS	10/2/23	10/10/23 0:57	QNW
Perfluorononanoic acid (PFNA)	13	1.8	ng/L	1	MS-12	SOP-454 PFAS	10/2/23	10/10/23 0:57	QNW

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: Carmel, NY

Sample Description:

Work Order: 23I1834

Date Received: 9/15/2023

Field Sample #: SED-2

Sampled: 9/13/2023 09:00

Sample ID: 23I1834-08

Sample Matrix: Soil

Semivolatile Organic Compounds by - LC/MS-MS

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Perfluorobutanoic acid (PFBA)	ND	1.1	µg/kg dry	1		SOP-466 PFAS	9/22/23	9/26/23 10:42	QNW
Perfluorobutanesulfonic acid (PFBS)	ND	1.1	µg/kg dry	1		SOP-466 PFAS	9/22/23	9/26/23 10:42	QNW
Perfluoropentanoic acid (PFPeA)	ND	1.1	µg/kg dry	1		SOP-466 PFAS	9/22/23	9/26/23 10:42	QNW
Perfluorohexanoic acid (PFHxA)	ND	1.1	µg/kg dry	1		SOP-466 PFAS	9/22/23	9/26/23 10:42	QNW
11Cl-PF3OUdS (F53B Major)	ND	1.1	µg/kg dry	1		SOP-466 PFAS	9/22/23	9/26/23 10:42	QNW
9Cl-PF3ONS (F53B Minor)	ND	1.1	µg/kg dry	1		SOP-466 PFAS	9/22/23	9/26/23 10:42	QNW
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	ND	1.1	µg/kg dry	1		SOP-466 PFAS	9/22/23	9/26/23 10:42	QNW
Hexafluoropropylene oxide dimer acid (HFPO-DA)	ND	1.1	µg/kg dry	1		SOP-466 PFAS	9/22/23	9/26/23 10:42	QNW
8:2 Fluorotelomersulfonic acid (8:2FTS A)	ND	1.1	µg/kg dry	1		SOP-466 PFAS	9/22/23	9/26/23 10:42	QNW
Perfluorodecanoic acid (PFDA)	ND	1.1	µg/kg dry	1		SOP-466 PFAS	9/22/23	9/26/23 10:42	QNW
Perfluorododecanoic acid (PFDoA)	ND	1.1	µg/kg dry	1		SOP-466 PFAS	9/22/23	9/26/23 10:42	QNW
Perfluoro(2-ethoxyethane)sulfonic acid (PFEEA)	ND	1.1	µg/kg dry	1		SOP-466 PFAS	9/22/23	9/26/23 10:42	QNW
Perfluoroheptanesulfonic acid (PFHpS)	ND	1.1	µg/kg dry	1		SOP-466 PFAS	9/22/23	9/26/23 10:42	QNW
N-EtFOSAA (NEtFOSAA)	ND	1.1	µg/kg dry	1		SOP-466 PFAS	9/22/23	9/26/23 10:42	QNW
N-MeFOSAA (NMeFOSAA)	ND	1.1	µg/kg dry	1		SOP-466 PFAS	9/22/23	9/26/23 10:42	QNW
Perfluorotetradecanoic acid (PFTA)	ND	1.1	µg/kg dry	1		SOP-466 PFAS	9/22/23	9/26/23 10:42	QNW
Perfluorotridecanoic acid (PFTrDA)	ND	1.1	µg/kg dry	1		SOP-466 PFAS	9/22/23	9/26/23 10:42	QNW
4:2 Fluorotelomersulfonic acid (4:2FTS A)	ND	1.1	µg/kg dry	1		SOP-466 PFAS	9/22/23	9/26/23 10:42	QNW
Perfluorodecanesulfonic acid (PFDS)	ND	1.1	µg/kg dry	1		SOP-466 PFAS	9/22/23	9/26/23 10:42	QNW
Perfluorooctanesulfonamide (FOSA)	ND	1.1	µg/kg dry	1		SOP-466 PFAS	9/22/23	9/26/23 10:42	QNW
Perfluorononanesulfonic acid (PFNS)	ND	1.1	µg/kg dry	1		SOP-466 PFAS	9/22/23	9/26/23 10:42	QNW
Perfluoro-1-hexanesulfonamide (FHxSA)	ND	1.1	µg/kg dry	1		SOP-466 PFAS	9/22/23	9/26/23 10:42	QNW
Perfluoro-1-butanefulfonamide (FBFA)	ND	1.1	µg/kg dry	1		SOP-466 PFAS	9/22/23	9/26/23 10:42	QNW
Perfluorohexanesulfonic acid (PFHxS)	ND	1.1	µg/kg dry	1		SOP-466 PFAS	9/22/23	9/26/23 10:42	QNW
Perfluoro-4-oxapentanoic acid (PFMPA)	ND	1.1	µg/kg dry	1		SOP-466 PFAS	9/22/23	9/26/23 10:42	QNW
Perfluoro-5-oxahexanoic acid (PFMBA)	ND	1.1	µg/kg dry	1		SOP-466 PFAS	9/22/23	9/26/23 10:42	QNW
6:2 Fluorotelomersulfonic acid (6:2FTS A)	ND	1.1	µg/kg dry	1		SOP-466 PFAS	9/22/23	9/26/23 10:42	QNW
Perfluoropentanesulfonic acid (PFPeS)	ND	1.1	µg/kg dry	1		SOP-466 PFAS	9/22/23	9/26/23 10:42	QNW
Perfluoroundecanoic acid (PFUnA)	ND	1.1	µg/kg dry	1		SOP-466 PFAS	9/22/23	9/26/23 10:42	QNW
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	ND	1.1	µg/kg dry	1		SOP-466 PFAS	9/22/23	9/26/23 10:42	QNW
Perfluoroheptanoic acid (PFHpA)	ND	1.1	µg/kg dry	1		SOP-466 PFAS	9/22/23	9/26/23 10:42	QNW
Perfluorooctanoic acid (PFOA)	ND	1.1	µg/kg dry	1		SOP-466 PFAS	9/22/23	9/26/23 10:42	QNW
Perfluorooctanesulfonic acid (PFOS)	4.5	1.1	µg/kg dry	1	MS-22	SOP-466 PFAS	9/22/23	9/26/23 10:42	QNW
Perfluorononanoic acid (PFNA)	ND	1.1	µg/kg dry	1		SOP-466 PFAS	9/22/23	9/26/23 10:42	QNW

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: Carmel, NY

Sample Description:

Work Order: 23I1834

Date Received: 9/15/2023

Field Sample #: SED-2

Sampled: 9/13/2023 09:00

Sample ID: 23I1834-08

Sample Matrix: Soil

Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
% Solids	39.0		% Wt	1	H-06	SM 2540G	9/22/23	9/22/23 14:24	AGG

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: Carmel, NY

Sample Description:

Work Order: 23I1834

Date Received: 9/15/2023

Field Sample #: SW-3

Sampled: 9/13/2023 09:45

Sample ID: 23I1834-09

Sample Matrix: Ground Water

Sample Flags: D-01

Semivolatile Organic Compounds by - LC/MS-MS

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Perfluorobutanoic acid (PFBA)	44	4.1	ng/L	1		SOP-454 PFAS	10/10/23	10/11/23 16:52	QNW
Perfluorobutanesulfonic acid (PFBS)	ND	4.1	ng/L	1		SOP-454 PFAS	10/10/23	10/11/23 16:52	QNW
Perfluoropentanoic acid (PFPeA)	20	4.1	ng/L	1		SOP-454 PFAS	10/10/23	10/11/23 16:52	QNW
Perfluorohexanoic acid (PFHxA)	20	4.1	ng/L	1		SOP-454 PFAS	10/10/23	10/11/23 16:52	QNW
11Cl-PF3OUdS (F53B Major)	ND	4.1	ng/L	1		SOP-454 PFAS	10/10/23	10/11/23 16:52	QNW
9Cl-PF3ONS (F53B Minor)	ND	4.1	ng/L	1		SOP-454 PFAS	10/10/23	10/11/23 16:52	QNW
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	ND	4.1	ng/L	1		SOP-454 PFAS	10/10/23	10/11/23 16:52	QNW
Hexafluoropropylene oxide dimer acid (HFPO-DA)	ND	4.1	ng/L	1		SOP-454 PFAS	10/10/23	10/11/23 16:52	QNW
8:2 Fluorotelomersulfonic acid (8:2FTS A)	ND	4.1	ng/L	1		SOP-454 PFAS	10/10/23	10/11/23 16:52	QNW
Perfluorodecanoic acid (PFDA)	4.9	4.1	ng/L	1		SOP-454 PFAS	10/10/23	10/11/23 16:52	QNW
Perfluorododecanoic acid (PFDoA)	ND	4.1	ng/L	1		SOP-454 PFAS	10/10/23	10/11/23 16:52	QNW
Perfluoro(2-ethoxyethane)sulfonic acid (PFEEA)	ND	4.1	ng/L	1		SOP-454 PFAS	10/10/23	10/11/23 16:52	QNW
Perfluoroheptanesulfonic acid (PFHpS)	ND	4.1	ng/L	1		SOP-454 PFAS	10/10/23	10/11/23 16:52	QNW
N-EtFOSAA (NEtFOSAA)	12	4.1	ng/L	1		SOP-454 PFAS	10/10/23	10/11/23 16:52	QNW
N-MeFOSAA (NMeFOSAA)	ND	4.1	ng/L	1		SOP-454 PFAS	10/10/23	10/11/23 16:52	QNW
Perfluorotetradecanoic acid (PFTA)	ND	4.1	ng/L	1		SOP-454 PFAS	10/10/23	10/11/23 16:52	QNW
Perfluorotridecanoic acid (PFTTrDA)	ND	4.1	ng/L	1		SOP-454 PFAS	10/10/23	10/11/23 16:52	QNW
4:2 Fluorotelomersulfonic acid (4:2FTS A)	ND	4.1	ng/L	1		SOP-454 PFAS	10/10/23	10/11/23 16:52	QNW
Perfluorodecanesulfonic acid (PFDS)	ND	4.1	ng/L	1		SOP-454 PFAS	10/10/23	10/11/23 16:52	QNW
Perfluorooctanesulfonamide (FOSA)	5.1	4.1	ng/L	1		SOP-454 PFAS	10/10/23	10/11/23 16:52	QNW
Perfluorononanesulfonic acid (PFNS)	ND	4.1	ng/L	1		SOP-454 PFAS	10/10/23	10/11/23 16:52	QNW
Perfluoro-1-hexanesulfonamide (FHxSA)	ND	4.1	ng/L	1		SOP-454 PFAS	10/10/23	10/11/23 16:52	QNW
Perfluoro-1-butanefulfonamide (FBFA)	ND	4.1	ng/L	1		SOP-454 PFAS	10/10/23	10/11/23 16:52	QNW
Perfluorohexanesulfonic acid (PFHxS)	23	4.1	ng/L	1		SOP-454 PFAS	10/10/23	10/11/23 16:52	QNW
Perfluoro-4-oxapentanoic acid (PFMPA)	ND	4.1	ng/L	1		SOP-454 PFAS	10/10/23	10/11/23 16:52	QNW
Perfluoro-5-oxahexanoic acid (PFMBA)	ND	4.1	ng/L	1		SOP-454 PFAS	10/10/23	10/11/23 16:52	QNW
6:2 Fluorotelomersulfonic acid (6:2FTS A)	ND	4.1	ng/L	1		SOP-454 PFAS	10/10/23	10/11/23 16:52	QNW
Perfluoropentanesulfonic acid (PFPeS)	ND	4.1	ng/L	1		SOP-454 PFAS	10/10/23	10/11/23 16:52	QNW
Perfluoroundecanoic acid (PFUnA)	ND	4.1	ng/L	1		SOP-454 PFAS	10/10/23	10/11/23 16:52	QNW
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	ND	4.1	ng/L	1		SOP-454 PFAS	10/10/23	10/11/23 16:52	QNW
Perfluoroheptanoic acid (PFHpA)	22	4.1	ng/L	1		SOP-454 PFAS	10/10/23	10/11/23 16:52	QNW
Perfluorooctanoic acid (PFOA)	110	4.1	ng/L	1		SOP-454 PFAS	10/10/23	10/11/23 16:52	QNW
Perfluorooctanesulfonic acid (PFOS)	94	4.1	ng/L	1		SOP-454 PFAS	10/10/23	10/11/23 16:52	QNW
Perfluorononanoic acid (PFNA)	9.2	4.1	ng/L	1		SOP-454 PFAS	10/10/23	10/11/23 16:52	QNW

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: Carmel, NY

Sample Description:

Work Order: 23I1834

Date Received: 9/15/2023

Field Sample #: SED-3

Sampled: 9/13/2023 09:55

Sample ID: 23I1834-10

Sample Matrix: Soil

Semivolatile Organic Compounds by - LC/MS-MS

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Perfluorobutanoic acid (PFBA)	ND	0.93	µg/kg dry	1		SOP-466 PFAS	9/22/23	9/26/23 10:49	QNW
Perfluorobutanesulfonic acid (PFBS)	ND	0.93	µg/kg dry	1		SOP-466 PFAS	9/22/23	9/26/23 10:49	QNW
Perfluoropentanoic acid (PFPeA)	ND	0.93	µg/kg dry	1		SOP-466 PFAS	9/22/23	9/26/23 10:49	QNW
Perfluorohexanoic acid (PFHxA)	ND	0.93	µg/kg dry	1		SOP-466 PFAS	9/22/23	9/26/23 10:49	QNW
11Cl-PF3OUdS (F53B Major)	ND	0.93	µg/kg dry	1		SOP-466 PFAS	9/22/23	9/26/23 10:49	QNW
9Cl-PF3ONS (F53B Minor)	ND	0.93	µg/kg dry	1		SOP-466 PFAS	9/22/23	9/26/23 10:49	QNW
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	ND	0.93	µg/kg dry	1		SOP-466 PFAS	9/22/23	9/26/23 10:49	QNW
Hexafluoropropylene oxide dimer acid (HFPO-DA)	ND	0.93	µg/kg dry	1		SOP-466 PFAS	9/22/23	9/26/23 10:49	QNW
8:2 Fluorotelomersulfonic acid (8:2FTS A)	ND	0.93	µg/kg dry	1		SOP-466 PFAS	9/22/23	9/26/23 10:49	QNW
Perfluorodecanoic acid (PFDA)	ND	0.93	µg/kg dry	1		SOP-466 PFAS	9/22/23	9/26/23 10:49	QNW
Perfluorododecanoic acid (PFDoA)	ND	0.93	µg/kg dry	1		SOP-466 PFAS	9/22/23	9/26/23 10:49	QNW
Perfluoro(2-ethoxyethane)sulfonic acid (PFEEA)	ND	0.93	µg/kg dry	1		SOP-466 PFAS	9/22/23	9/26/23 10:49	QNW
Perfluoroheptanesulfonic acid (PFHpS)	ND	0.93	µg/kg dry	1		SOP-466 PFAS	9/22/23	9/26/23 10:49	QNW
N-EtFOSAA (NEtFOSAA)	ND	0.93	µg/kg dry	1		SOP-466 PFAS	9/22/23	9/26/23 10:49	QNW
N-MeFOSAA (NMeFOSAA)	ND	0.93	µg/kg dry	1		SOP-466 PFAS	9/22/23	9/26/23 10:49	QNW
Perfluorotetradecanoic acid (PFTA)	ND	0.93	µg/kg dry	1		SOP-466 PFAS	9/22/23	9/26/23 10:49	QNW
Perfluorotridecanoic acid (PFTrDA)	ND	0.93	µg/kg dry	1		SOP-466 PFAS	9/22/23	9/26/23 10:49	QNW
4:2 Fluorotelomersulfonic acid (4:2FTS A)	ND	0.93	µg/kg dry	1		SOP-466 PFAS	9/22/23	9/26/23 10:49	QNW
Perfluorodecanesulfonic acid (PFDS)	ND	0.93	µg/kg dry	1		SOP-466 PFAS	9/22/23	9/26/23 10:49	QNW
Perfluorooctanesulfonamide (FOSA)	ND	0.93	µg/kg dry	1		SOP-466 PFAS	9/22/23	9/26/23 10:49	QNW
Perfluorononanesulfonic acid (PFNS)	ND	0.93	µg/kg dry	1		SOP-466 PFAS	9/22/23	9/26/23 10:49	QNW
Perfluoro-1-hexanesulfonamide (FHxSA)	ND	0.93	µg/kg dry	1		SOP-466 PFAS	9/22/23	9/26/23 10:49	QNW
Perfluoro-1-butanefulfonamide (FBFA)	ND	0.93	µg/kg dry	1		SOP-466 PFAS	9/22/23	9/26/23 10:49	QNW
Perfluorohexanesulfonic acid (PFHxS)	ND	0.93	µg/kg dry	1		SOP-466 PFAS	9/22/23	9/26/23 10:49	QNW
Perfluoro-4-oxapentanoic acid (PFMPA)	ND	0.93	µg/kg dry	1		SOP-466 PFAS	9/22/23	9/26/23 10:49	QNW
Perfluoro-5-oxahexanoic acid (PFMBA)	ND	0.93	µg/kg dry	1		SOP-466 PFAS	9/22/23	9/26/23 10:49	QNW
6:2 Fluorotelomersulfonic acid (6:2FTS A)	ND	0.93	µg/kg dry	1		SOP-466 PFAS	9/22/23	9/26/23 10:49	QNW
Perfluoropentanesulfonic acid (PFPeS)	ND	0.93	µg/kg dry	1		SOP-466 PFAS	9/22/23	9/26/23 10:49	QNW
Perfluoroundecanoic acid (PFUnA)	ND	0.93	µg/kg dry	1		SOP-466 PFAS	9/22/23	9/26/23 10:49	QNW
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	ND	0.93	µg/kg dry	1		SOP-466 PFAS	9/22/23	9/26/23 10:49	QNW
Perfluoroheptanoic acid (PFHpA)	ND	0.93	µg/kg dry	1		SOP-466 PFAS	9/22/23	9/26/23 10:49	QNW
Perfluorooctanoic acid (PFOA)	ND	0.93	µg/kg dry	1		SOP-466 PFAS	9/22/23	9/26/23 10:49	QNW
Perfluorooctanesulfonic acid (PFOS)	5.2	0.93	µg/kg dry	1		SOP-466 PFAS	9/22/23	9/26/23 10:49	QNW
Perfluorononanoic acid (PFNA)	ND	0.93	µg/kg dry	1		SOP-466 PFAS	9/22/23	9/26/23 10:49	QNW

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: Carmel, NY

Sample Description:

Work Order: 23I1834

Date Received: 9/15/2023

Field Sample #: SED-3

Sampled: 9/13/2023 09:55

Sample ID: 23I1834-10

Sample Matrix: Soil

Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
% Solids	46.8		% Wt	1	H-06	SM 2540G	9/22/23	9/22/23 14:24	AGG

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: Carmel, NY

Sample Description:

Work Order: 2311834

Date Received: 9/15/2023

Field Sample #: SW-4A

Sampled: 9/13/2023 12:20

Sample ID: 2311834-11

Sample Matrix: Ground Water

Semivolatile Organic Compounds by - LC/MS-MS

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Perfluorobutanoic acid (PFBA)	22	1.7	ng/L	1		SOP-454 PFAS	10/2/23	10/10/23 1:12	QNW
Perfluorobutanesulfonic acid (PFBS)	3.3	1.7	ng/L	1		SOP-454 PFAS	10/2/23	10/10/23 1:12	QNW
Perfluoropentanoic acid (PFPeA)	30	1.7	ng/L	1		SOP-454 PFAS	10/2/23	10/10/23 1:12	QNW
Perfluorohexanoic acid (PFHxA)	25	1.7	ng/L	1		SOP-454 PFAS	10/2/23	10/10/23 1:12	QNW
11Cl-PF3OUdS (F53B Major)	ND	1.7	ng/L	1		SOP-454 PFAS	10/2/23	10/10/23 1:12	QNW
9Cl-PF3ONS (F53B Minor)	ND	1.7	ng/L	1		SOP-454 PFAS	10/2/23	10/10/23 1:12	QNW
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	ND	1.7	ng/L	1		SOP-454 PFAS	10/2/23	10/10/23 1:12	QNW
Hexafluoropropylene oxide dimer acid (HFPO-DA)	ND	1.7	ng/L	1		SOP-454 PFAS	10/2/23	10/10/23 1:12	QNW
8:2 Fluorotelomersulfonic acid (8:2FTS A)	ND	1.7	ng/L	1		SOP-454 PFAS	10/2/23	10/10/23 1:12	QNW
Perfluorodecanoic acid (PFDA)	1.7	1.7	ng/L	1		SOP-454 PFAS	10/2/23	10/10/23 1:12	QNW
Perfluorododecanoic acid (PFDoA)	ND	1.7	ng/L	1		SOP-454 PFAS	10/2/23	10/10/23 1:12	QNW
Perfluoro(2-ethoxyethane)sulfonic acid (PFEEA)	ND	1.7	ng/L	1		SOP-454 PFAS	10/2/23	10/10/23 1:12	QNW
Perfluoroheptanesulfonic acid (PFHpS)	2.7	1.7	ng/L	1		SOP-454 PFAS	10/2/23	10/10/23 1:12	QNW
N-EtFOSAA (NEtFOSAA)	ND	1.7	ng/L	1		SOP-454 PFAS	10/2/23	10/10/23 1:12	QNW
N-MeFOSAA (NMeFOSAA)	ND	1.7	ng/L	1		SOP-454 PFAS	10/2/23	10/10/23 1:12	QNW
Perfluorotetradecanoic acid (PFTA)	ND	1.7	ng/L	1		SOP-454 PFAS	10/2/23	10/10/23 1:12	QNW
Perfluorotridecanoic acid (PFTrDA)	ND	1.7	ng/L	1		SOP-454 PFAS	10/2/23	10/10/23 1:12	QNW
4:2 Fluorotelomersulfonic acid (4:2FTS A)	ND	1.7	ng/L	1		SOP-454 PFAS	10/2/23	10/10/23 1:12	QNW
Perfluorodecanesulfonic acid (PFDS)	ND	1.7	ng/L	1		SOP-454 PFAS	10/2/23	10/10/23 1:12	QNW
Perfluorooctanesulfonamide (FOSA)	ND	1.7	ng/L	1		SOP-454 PFAS	10/2/23	10/10/23 1:12	QNW
Perfluorononanesulfonic acid (PFNS)	ND	1.7	ng/L	1		SOP-454 PFAS	10/2/23	10/10/23 1:12	QNW
Perfluoro-1-hexanesulfonamide (FHxSA)	ND	1.7	ng/L	1		SOP-454 PFAS	10/2/23	10/10/23 1:12	QNW
Perfluoro-1-butanefulfonamide (FBFA)	ND	1.7	ng/L	1		SOP-454 PFAS	10/2/23	10/10/23 1:12	QNW
Perfluorohexanesulfonic acid (PFHxS)	22	1.7	ng/L	1		SOP-454 PFAS	10/2/23	10/10/23 1:12	QNW
Perfluoro-4-oxapentanoic acid (PFMPA)	ND	1.7	ng/L	1		SOP-454 PFAS	10/2/23	10/10/23 1:12	QNW
Perfluoro-5-oxahexanoic acid (PFMBA)	ND	1.7	ng/L	1		SOP-454 PFAS	10/2/23	10/10/23 1:12	QNW
6:2 Fluorotelomersulfonic acid (6:2FTS A)	ND	1.7	ng/L	1		SOP-454 PFAS	10/2/23	10/10/23 1:12	QNW
Perfluoropentanesulfonic acid (PFPeS)	2.0	1.7	ng/L	1		SOP-454 PFAS	10/2/23	10/10/23 1:12	QNW
Perfluoroundecanoic acid (PFUnA)	ND	1.7	ng/L	1		SOP-454 PFAS	10/2/23	10/10/23 1:12	QNW
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	ND	1.7	ng/L	1		SOP-454 PFAS	10/2/23	10/10/23 1:12	QNW
Perfluoroheptanoic acid (PFHpA)	22	1.7	ng/L	1		SOP-454 PFAS	10/2/23	10/10/23 1:12	QNW
Perfluorooctanoic acid (PFOA)	160	1.7	ng/L	1		SOP-454 PFAS	10/2/23	10/10/23 1:12	QNW
Perfluorooctanesulfonic acid (PFOS)	52	1.7	ng/L	1		SOP-454 PFAS	10/2/23	10/10/23 1:12	QNW
Perfluorononanoic acid (PFNA)	5.9	1.7	ng/L	1		SOP-454 PFAS	10/2/23	10/10/23 1:12	QNW

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: Carmel, NY

Sample Description:

Work Order: 23I1834

Date Received: 9/15/2023

Field Sample #: SED-4A

Sampled: 9/13/2023 12:25

Sample ID: 23I1834-12

Sample Matrix: Soil

Semivolatile Organic Compounds by - LC/MS-MS

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Perfluorobutanoic acid (PFBA)	ND	1.3	µg/kg dry	1		SOP-466 PFAS	9/22/23	9/26/23 10:57	QNW
Perfluorobutanesulfonic acid (PFBS)	ND	1.3	µg/kg dry	1		SOP-466 PFAS	9/22/23	9/26/23 10:57	QNW
Perfluoropentanoic acid (PFPeA)	ND	1.3	µg/kg dry	1		SOP-466 PFAS	9/22/23	9/26/23 10:57	QNW
Perfluorohexanoic acid (PFHxA)	ND	1.3	µg/kg dry	1		SOP-466 PFAS	9/22/23	9/26/23 10:57	QNW
11Cl-PF3OUdS (F53B Major)	ND	1.3	µg/kg dry	1		SOP-466 PFAS	9/22/23	9/26/23 10:57	QNW
9Cl-PF3ONS (F53B Minor)	ND	1.3	µg/kg dry	1		SOP-466 PFAS	9/22/23	9/26/23 10:57	QNW
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	ND	1.3	µg/kg dry	1		SOP-466 PFAS	9/22/23	9/26/23 10:57	QNW
Hexafluoropropylene oxide dimer acid (HFPO-DA)	ND	1.3	µg/kg dry	1		SOP-466 PFAS	9/22/23	9/26/23 10:57	QNW
8:2 Fluorotelomersulfonic acid (8:2FTS A)	ND	1.3	µg/kg dry	1		SOP-466 PFAS	9/22/23	9/26/23 10:57	QNW
Perfluorodecanoic acid (PFDA)	ND	1.3	µg/kg dry	1		SOP-466 PFAS	9/22/23	9/26/23 10:57	QNW
Perfluorododecanoic acid (PFDoA)	ND	1.3	µg/kg dry	1		SOP-466 PFAS	9/22/23	9/26/23 10:57	QNW
Perfluoro(2-ethoxyethane)sulfonic acid (PFEEA)	ND	1.3	µg/kg dry	1		SOP-466 PFAS	9/22/23	9/26/23 10:57	QNW
Perfluoroheptanesulfonic acid (PFHpS)	ND	1.3	µg/kg dry	1		SOP-466 PFAS	9/22/23	9/26/23 10:57	QNW
N-EtFOSAA (NEtFOSAA)	ND	1.3	µg/kg dry	1		SOP-466 PFAS	9/22/23	9/26/23 10:57	QNW
N-MeFOSAA (NMeFOSAA)	ND	1.3	µg/kg dry	1		SOP-466 PFAS	9/22/23	9/26/23 10:57	QNW
Perfluorotetradecanoic acid (PFTA)	ND	1.3	µg/kg dry	1		SOP-466 PFAS	9/22/23	9/26/23 10:57	QNW
Perfluorotridecanoic acid (PFTTrDA)	ND	1.3	µg/kg dry	1		SOP-466 PFAS	9/22/23	9/26/23 10:57	QNW
4:2 Fluorotelomersulfonic acid (4:2FTS A)	ND	1.3	µg/kg dry	1		SOP-466 PFAS	9/22/23	9/26/23 10:57	QNW
Perfluorodecanesulfonic acid (PFDS)	ND	1.3	µg/kg dry	1		SOP-466 PFAS	9/22/23	9/26/23 10:57	QNW
Perfluorooctanesulfonamide (FOSA)	ND	1.3	µg/kg dry	1		SOP-466 PFAS	9/22/23	9/26/23 10:57	QNW
Perfluorononanesulfonic acid (PFNS)	ND	1.3	µg/kg dry	1		SOP-466 PFAS	9/22/23	9/26/23 10:57	QNW
Perfluoro-1-hexanesulfonamide (FHxSA)	ND	1.3	µg/kg dry	1		SOP-466 PFAS	9/22/23	9/26/23 10:57	QNW
Perfluoro-1-butanefulfonamide (FBFA)	ND	1.3	µg/kg dry	1		SOP-466 PFAS	9/22/23	9/26/23 10:57	QNW
Perfluorohexanesulfonic acid (PFHxS)	ND	1.3	µg/kg dry	1		SOP-466 PFAS	9/22/23	9/26/23 10:57	QNW
Perfluoro-4-oxapentanoic acid (PFMPA)	ND	1.3	µg/kg dry	1		SOP-466 PFAS	9/22/23	9/26/23 10:57	QNW
Perfluoro-5-oxahexanoic acid (PFMBA)	ND	1.3	µg/kg dry	1		SOP-466 PFAS	9/22/23	9/26/23 10:57	QNW
6:2 Fluorotelomersulfonic acid (6:2FTS A)	ND	1.3	µg/kg dry	1		SOP-466 PFAS	9/22/23	9/26/23 10:57	QNW
Perfluoropentanesulfonic acid (PFPeS)	ND	1.3	µg/kg dry	1		SOP-466 PFAS	9/22/23	9/26/23 10:57	QNW
Perfluoroundecanoic acid (PFUnA)	ND	1.3	µg/kg dry	1		SOP-466 PFAS	9/22/23	9/26/23 10:57	QNW
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	ND	1.3	µg/kg dry	1		SOP-466 PFAS	9/22/23	9/26/23 10:57	QNW
Perfluoroheptanoic acid (PFHpA)	ND	1.3	µg/kg dry	1		SOP-466 PFAS	9/22/23	9/26/23 10:57	QNW
Perfluorooctanoic acid (PFOA)	1.4	1.3	µg/kg dry	1		SOP-466 PFAS	9/22/23	9/26/23 10:57	QNW
Perfluorooctanesulfonic acid (PFOS)	1.6	1.3	µg/kg dry	1		SOP-466 PFAS	9/22/23	9/26/23 10:57	QNW
Perfluorononanoic acid (PFNA)	ND	1.3	µg/kg dry	1		SOP-466 PFAS	9/22/23	9/26/23 10:57	QNW

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: Carmel, NY

Sample Description:

Work Order: 23I1834

Date Received: 9/15/2023

Field Sample #: SED-4A

Sampled: 9/13/2023 12:25

Sample ID: 23I1834-12

Sample Matrix: Soil

Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
% Solids	34.6		% Wt	1	H-06	SM 2540G	9/22/23	9/22/23 14:24	AGG

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: Carmel, NY

Sample Description:

Work Order: 23I1834

Date Received: 9/15/2023

Field Sample #: SW-4C

Sampled: 9/13/2023 12:50

Sample ID: 23I1834-13

Sample Matrix: Ground Water

Sample Flags: D-01

Semivolatile Organic Compounds by - LC/MS-MS

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Perfluorobutanoic acid (PFBA)	ND	20	ng/L	1		SOP-454 PFAS	10/2/23	10/10/23 1:19	QNW
Perfluorobutanesulfonic acid (PFBS)	ND	20	ng/L	1		SOP-454 PFAS	10/2/23	10/10/23 1:19	QNW
Perfluoropentanoic acid (PFPeA)	ND	20	ng/L	1		SOP-454 PFAS	10/2/23	10/10/23 1:19	QNW
Perfluorohexanoic acid (PFHxA)	ND	20	ng/L	1		SOP-454 PFAS	10/2/23	10/10/23 1:19	QNW
11Cl-PF3OUdS (F53B Major)	ND	20	ng/L	1		SOP-454 PFAS	10/2/23	10/10/23 1:19	QNW
9Cl-PF3ONS (F53B Minor)	ND	20	ng/L	1		SOP-454 PFAS	10/2/23	10/10/23 1:19	QNW
4,8-Dioxo-3H-perfluorononanoic acid (ADONA)	ND	20	ng/L	1		SOP-454 PFAS	10/2/23	10/10/23 1:19	QNW
Hexafluoropropylene oxide dimer acid (HFPO-DA)	ND	20	ng/L	1		SOP-454 PFAS	10/2/23	10/10/23 1:19	QNW
8:2 Fluorotelomersulfonic acid (8:2FTS A)	ND	20	ng/L	1		SOP-454 PFAS	10/2/23	10/10/23 1:19	QNW
Perfluorodecanoic acid (PFDA)	ND	20	ng/L	1		SOP-454 PFAS	10/2/23	10/10/23 1:19	QNW
Perfluorododecanoic acid (PFDoA)	ND	20	ng/L	1		SOP-454 PFAS	10/2/23	10/10/23 1:19	QNW
Perfluoro(2-ethoxyethane)sulfonic acid (PFEEA)	ND	20	ng/L	1		SOP-454 PFAS	10/2/23	10/10/23 1:19	QNW
Perfluoroheptanesulfonic acid (PFHpS)	ND	20	ng/L	1		SOP-454 PFAS	10/2/23	10/10/23 1:19	QNW
N-EtFOSAA (NEtFOSAA)	ND	20	ng/L	1		SOP-454 PFAS	10/2/23	10/10/23 1:19	QNW
N-MeFOSAA (NMeFOSAA)	ND	20	ng/L	1		SOP-454 PFAS	10/2/23	10/10/23 1:19	QNW
Perfluorotetradecanoic acid (PFTA)	ND	20	ng/L	1		SOP-454 PFAS	10/2/23	10/10/23 1:19	QNW
Perfluorotridecanoic acid (PFTTrDA)	ND	20	ng/L	1		SOP-454 PFAS	10/2/23	10/10/23 1:19	QNW
4:2 Fluorotelomersulfonic acid (4:2FTS A)	ND	20	ng/L	1		SOP-454 PFAS	10/2/23	10/10/23 1:19	QNW
Perfluorodecanesulfonic acid (PFDS)	ND	20	ng/L	1		SOP-454 PFAS	10/2/23	10/10/23 1:19	QNW
Perfluorooctanesulfonamide (FOSA)	ND	20	ng/L	1		SOP-454 PFAS	10/2/23	10/10/23 1:19	QNW
Perfluorononanesulfonic acid (PFNS)	ND	20	ng/L	1		SOP-454 PFAS	10/2/23	10/10/23 1:19	QNW
Perfluoro-1-hexanesulfonamide (FHxSA)	ND	20	ng/L	1		SOP-454 PFAS	10/2/23	10/10/23 1:19	QNW
Perfluoro-1-butanefulfonamide (FBFA)	ND	20	ng/L	1		SOP-454 PFAS	10/2/23	10/10/23 1:19	QNW
Perfluorohexanesulfonic acid (PFHxS)	ND	20	ng/L	1		SOP-454 PFAS	10/2/23	10/10/23 1:19	QNW
Perfluoro-4-oxapentanoic acid (PFMPA)	ND	20	ng/L	1		SOP-454 PFAS	10/2/23	10/10/23 1:19	QNW
Perfluoro-5-oxahexanoic acid (PFMBA)	ND	20	ng/L	1		SOP-454 PFAS	10/2/23	10/10/23 1:19	QNW
6:2 Fluorotelomersulfonic acid (6:2FTS A)	ND	20	ng/L	1		SOP-454 PFAS	10/2/23	10/10/23 1:19	QNW
Perfluoropentanesulfonic acid (PFPeS)	ND	20	ng/L	1		SOP-454 PFAS	10/2/23	10/10/23 1:19	QNW
Perfluoroundecanoic acid (PFUnA)	ND	20	ng/L	1		SOP-454 PFAS	10/2/23	10/10/23 1:19	QNW
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	ND	20	ng/L	1		SOP-454 PFAS	10/2/23	10/10/23 1:19	QNW
Perfluoroheptanoic acid (PFHpA)	ND	20	ng/L	1		SOP-454 PFAS	10/2/23	10/10/23 1:19	QNW
Perfluorooctanoic acid (PFOA)	ND	20	ng/L	1		SOP-454 PFAS	10/2/23	10/10/23 1:19	QNW
Perfluorooctanesulfonic acid (PFOS)	ND	20	ng/L	1		SOP-454 PFAS	10/2/23	10/10/23 1:19	QNW
Perfluorononanoic acid (PFNA)	ND	20	ng/L	1		SOP-454 PFAS	10/2/23	10/10/23 1:19	QNW

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: Carmel, NY

Sample Description:

Work Order: 23I1834

Date Received: 9/15/2023

Field Sample #: SED-4C

Sampled: 9/13/2023 12:55

Sample ID: 23I1834-14

Sample Matrix: Soil

Semivolatile Organic Compounds by - LC/MS-MS

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Perfluorobutanoic acid (PFBA)	ND	2.1	µg/kg dry	1		SOP-466 PFAS	9/22/23	9/26/23 11:04	QNW
Perfluorobutanesulfonic acid (PFBS)	ND	2.1	µg/kg dry	1		SOP-466 PFAS	9/22/23	9/26/23 11:04	QNW
Perfluoropentanoic acid (PFPeA)	ND	2.1	µg/kg dry	1		SOP-466 PFAS	9/22/23	9/26/23 11:04	QNW
Perfluorohexanoic acid (PFHxA)	ND	2.1	µg/kg dry	1		SOP-466 PFAS	9/22/23	9/26/23 11:04	QNW
11Cl-PF3OUdS (F53B Major)	ND	2.1	µg/kg dry	1		SOP-466 PFAS	9/22/23	9/26/23 11:04	QNW
9Cl-PF3ONS (F53B Minor)	ND	2.1	µg/kg dry	1		SOP-466 PFAS	9/22/23	9/26/23 11:04	QNW
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	ND	2.1	µg/kg dry	1		SOP-466 PFAS	9/22/23	9/26/23 11:04	QNW
Hexafluoropropylene oxide dimer acid (HFPO-DA)	ND	2.1	µg/kg dry	1		SOP-466 PFAS	9/22/23	9/26/23 11:04	QNW
8:2 Fluorotelomersulfonic acid (8:2FTS A)	ND	2.1	µg/kg dry	1		SOP-466 PFAS	9/22/23	9/26/23 11:04	QNW
Perfluorodecanoic acid (PFDA)	ND	2.1	µg/kg dry	1		SOP-466 PFAS	9/22/23	9/26/23 11:04	QNW
Perfluorododecanoic acid (PFDoA)	ND	2.1	µg/kg dry	1		SOP-466 PFAS	9/22/23	9/26/23 11:04	QNW
Perfluoro(2-ethoxyethane)sulfonic acid (PFEEA)	ND	2.1	µg/kg dry	1		SOP-466 PFAS	9/22/23	9/26/23 11:04	QNW
Perfluoroheptanesulfonic acid (PFHpS)	ND	2.1	µg/kg dry	1		SOP-466 PFAS	9/22/23	9/26/23 11:04	QNW
N-EtFOSAA (NEtFOSAA)	ND	2.1	µg/kg dry	1		SOP-466 PFAS	9/22/23	9/26/23 11:04	QNW
N-MeFOSAA (NMeFOSAA)	ND	2.1	µg/kg dry	1		SOP-466 PFAS	9/22/23	9/26/23 11:04	QNW
Perfluorotetradecanoic acid (PFTA)	ND	2.1	µg/kg dry	1		SOP-466 PFAS	9/22/23	9/26/23 11:04	QNW
Perfluorotridecanoic acid (PFTrDA)	ND	2.1	µg/kg dry	1		SOP-466 PFAS	9/22/23	9/26/23 11:04	QNW
4:2 Fluorotelomersulfonic acid (4:2FTS A)	ND	2.1	µg/kg dry	1		SOP-466 PFAS	9/22/23	9/26/23 11:04	QNW
Perfluorodecanesulfonic acid (PFDS)	ND	2.1	µg/kg dry	1		SOP-466 PFAS	9/22/23	9/26/23 11:04	QNW
Perfluorooctanesulfonamide (FOSA)	ND	2.1	µg/kg dry	1		SOP-466 PFAS	9/22/23	9/26/23 11:04	QNW
Perfluorononanesulfonic acid (PFNS)	ND	2.1	µg/kg dry	1		SOP-466 PFAS	9/22/23	9/26/23 11:04	QNW
Perfluoro-1-hexanesulfonamide (FHxSA)	ND	2.1	µg/kg dry	1		SOP-466 PFAS	9/22/23	9/26/23 11:04	QNW
Perfluoro-1-butanefulfonamide (FBFA)	ND	2.1	µg/kg dry	1		SOP-466 PFAS	9/22/23	9/26/23 11:04	QNW
Perfluorohexanesulfonic acid (PFHxS)	ND	2.1	µg/kg dry	1		SOP-466 PFAS	9/22/23	9/26/23 11:04	QNW
Perfluoro-4-oxapentanoic acid (PFMPA)	ND	2.1	µg/kg dry	1		SOP-466 PFAS	9/22/23	9/26/23 11:04	QNW
Perfluoro-5-oxahexanoic acid (PFMBA)	ND	2.1	µg/kg dry	1		SOP-466 PFAS	9/22/23	9/26/23 11:04	QNW
6:2 Fluorotelomersulfonic acid (6:2FTS A)	ND	2.1	µg/kg dry	1		SOP-466 PFAS	9/22/23	9/26/23 11:04	QNW
Perfluoropentanesulfonic acid (PFPeS)	ND	2.1	µg/kg dry	1		SOP-466 PFAS	9/22/23	9/26/23 11:04	QNW
Perfluoroundecanoic acid (PFUnA)	ND	2.1	µg/kg dry	1		SOP-466 PFAS	9/22/23	9/26/23 11:04	QNW
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	ND	2.1	µg/kg dry	1		SOP-466 PFAS	9/22/23	9/26/23 11:04	QNW
Perfluoroheptanoic acid (PFHpA)	ND	2.1	µg/kg dry	1		SOP-466 PFAS	9/22/23	9/26/23 11:04	QNW
Perfluorooctanoic acid (PFOA)	ND	2.1	µg/kg dry	1		SOP-466 PFAS	9/22/23	9/26/23 11:04	QNW
Perfluorooctanesulfonic acid (PFOS)	ND	2.1	µg/kg dry	1		SOP-466 PFAS	9/22/23	9/26/23 11:04	QNW
Perfluorononanoic acid (PFNA)	ND	2.1	µg/kg dry	1		SOP-466 PFAS	9/22/23	9/26/23 11:04	QNW

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: Carmel, NY

Sample Description:

Work Order: 23I1834

Date Received: 9/15/2023

Field Sample #: SED-4C

Sampled: 9/13/2023 12:55

Sample ID: 23I1834-14

Sample Matrix: Soil

Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
% Solids	20.9		% Wt	1	H-06	SM 2540G	9/22/23	9/22/23 14:24	AGG

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: Carmel, NY

Sample Description:

Work Order: 2311834

Date Received: 9/15/2023

Field Sample #: SW-5

Sampled: 9/13/2023 11:10

Sample ID: 2311834-15

Sample Matrix: Ground Water

Sample Flags: D-01

Semivolatile Organic Compounds by - LC/MS-MS

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Perfluorobutanoic acid (PFBA)	65	4.2	ng/L	1		SOP-454 PFAS	10/2/23	10/10/23 1:41	QNW
Perfluorobutanesulfonic acid (PFBS)	8.0	4.2	ng/L	1		SOP-454 PFAS	10/2/23	10/10/23 1:41	QNW
Perfluoropentanoic acid (PFPeA)	110	4.2	ng/L	1		SOP-454 PFAS	10/2/23	10/10/23 1:41	QNW
Perfluorohexanoic acid (PFHxA)	100	4.2	ng/L	1		SOP-454 PFAS	10/2/23	10/10/23 1:41	QNW
11Cl-PF3OUdS (F53B Major)	ND	4.2	ng/L	1		SOP-454 PFAS	10/2/23	10/10/23 1:41	QNW
9Cl-PF3ONS (F53B Minor)	ND	4.2	ng/L	1		SOP-454 PFAS	10/2/23	10/10/23 1:41	QNW
4,8-Dioxo-3H-perfluorononanoic acid (ADONA)	ND	4.2	ng/L	1		SOP-454 PFAS	10/2/23	10/10/23 1:41	QNW
Hexafluoropropylene oxide dimer acid (HFPO-DA)	ND	4.2	ng/L	1		SOP-454 PFAS	10/2/23	10/10/23 1:41	QNW
8:2 Fluorotelomersulfonic acid (8:2FTS A)	ND	4.2	ng/L	1		SOP-454 PFAS	10/2/23	10/10/23 1:41	QNW
Perfluorodecanoic acid (PFDA)	ND	4.2	ng/L	1		SOP-454 PFAS	10/2/23	10/10/23 1:41	QNW
Perfluorododecanoic acid (PFDoA)	ND	4.2	ng/L	1		SOP-454 PFAS	10/2/23	10/10/23 1:41	QNW
Perfluoro(2-ethoxyethane)sulfonic acid (PFEEA)	ND	4.2	ng/L	1		SOP-454 PFAS	10/2/23	10/10/23 1:41	QNW
Perfluoroheptanesulfonic acid (PFHpS)	4.7	4.2	ng/L	1		SOP-454 PFAS	10/2/23	10/10/23 1:41	QNW
N-EtFOSAA (NEtFOSAA)	ND	4.2	ng/L	1		SOP-454 PFAS	10/2/23	10/10/23 1:41	QNW
N-MeFOSAA (NMeFOSAA)	ND	4.2	ng/L	1		SOP-454 PFAS	10/2/23	10/10/23 1:41	QNW
Perfluorotetradecanoic acid (PFTA)	ND	4.2	ng/L	1		SOP-454 PFAS	10/2/23	10/10/23 1:41	QNW
Perfluorotridecanoic acid (PFTTrDA)	ND	4.2	ng/L	1		SOP-454 PFAS	10/2/23	10/10/23 1:41	QNW
4:2 Fluorotelomersulfonic acid (4:2FTS A)	ND	4.2	ng/L	1		SOP-454 PFAS	10/2/23	10/10/23 1:41	QNW
Perfluorodecanesulfonic acid (PFDS)	ND	4.2	ng/L	1		SOP-454 PFAS	10/2/23	10/10/23 1:41	QNW
Perfluorooctanesulfonamide (FOSA)	ND	4.2	ng/L	1		SOP-454 PFAS	10/2/23	10/10/23 1:41	QNW
Perfluorononanesulfonic acid (PFNS)	ND	4.2	ng/L	1		SOP-454 PFAS	10/2/23	10/10/23 1:41	QNW
Perfluoro-1-hexanesulfonamide (FHxSA)	ND	4.2	ng/L	1		SOP-454 PFAS	10/2/23	10/10/23 1:41	QNW
Perfluoro-1-butanefulfonamide (FBFA)	ND	4.2	ng/L	1		SOP-454 PFAS	10/2/23	10/10/23 1:41	QNW
Perfluorohexanesulfonic acid (PFHxS)	75	4.2	ng/L	1		SOP-454 PFAS	10/2/23	10/10/23 1:41	QNW
Perfluoro-4-oxapentanoic acid (PFMPA)	ND	4.2	ng/L	1		SOP-454 PFAS	10/2/23	10/10/23 1:41	QNW
Perfluoro-5-oxahexanoic acid (PFMBA)	ND	4.2	ng/L	1		SOP-454 PFAS	10/2/23	10/10/23 1:41	QNW
6:2 Fluorotelomersulfonic acid (6:2FTS A)	ND	4.2	ng/L	1		SOP-454 PFAS	10/2/23	10/10/23 1:41	QNW
Perfluoropentanesulfonic acid (PFPeS)	10	4.2	ng/L	1		SOP-454 PFAS	10/2/23	10/10/23 1:41	QNW
Perfluoroundecanoic acid (PFUnA)	ND	4.2	ng/L	1		SOP-454 PFAS	10/2/23	10/10/23 1:41	QNW
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	ND	4.2	ng/L	1		SOP-454 PFAS	10/2/23	10/10/23 1:41	QNW
Perfluoroheptanoic acid (PFHpA)	90	4.2	ng/L	1		SOP-454 PFAS	10/2/23	10/10/23 1:41	QNW
Perfluorooctanoic acid (PFOA)	530	83	ng/L	20	PF-19	SOP-454 PFAS	10/2/23	10/10/23 16:06	QNW
Perfluorooctanesulfonic acid (PFOS)	71	4.2	ng/L	1		SOP-454 PFAS	10/2/23	10/10/23 1:41	QNW
Perfluorononanoic acid (PFNA)	9.4	4.2	ng/L	1		SOP-454 PFAS	10/2/23	10/10/23 1:41	QNW

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: Carmel, NY

Sample Description:

Work Order: 23I1834

Date Received: 9/15/2023

Field Sample #: SED-5

Sampled: 9/13/2023 11:15

Sample ID: 23I1834-16

Sample Matrix: Soil

Semivolatile Organic Compounds by - LC/MS-MS

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Perfluorobutanoic acid (PFBA)	ND	3.2	µg/kg dry	1		SOP-466 PFAS	9/22/23	9/26/23 11:11	QNW
Perfluorobutanesulfonic acid (PFBS)	ND	3.2	µg/kg dry	1		SOP-466 PFAS	9/22/23	9/26/23 11:11	QNW
Perfluoropentanoic acid (PFPeA)	ND	3.2	µg/kg dry	1		SOP-466 PFAS	9/22/23	9/26/23 11:11	QNW
Perfluorohexanoic acid (PFHxA)	ND	3.2	µg/kg dry	1		SOP-466 PFAS	9/22/23	9/26/23 11:11	QNW
11Cl-PF3OUds (F53B Major)	ND	3.2	µg/kg dry	1		SOP-466 PFAS	9/22/23	9/26/23 11:11	QNW
9Cl-PF3ONS (F53B Minor)	ND	3.2	µg/kg dry	1		SOP-466 PFAS	9/22/23	9/26/23 11:11	QNW
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	ND	3.2	µg/kg dry	1		SOP-466 PFAS	9/22/23	9/26/23 11:11	QNW
Hexafluoropropylene oxide dimer acid (HFPO-DA)	ND	3.2	µg/kg dry	1		SOP-466 PFAS	9/22/23	9/26/23 11:11	QNW
8:2 Fluorotelomersulfonic acid (8:2FTS A)	ND	3.2	µg/kg dry	1		SOP-466 PFAS	9/22/23	9/26/23 11:11	QNW
Perfluorodecanoic acid (PFDA)	ND	3.2	µg/kg dry	1		SOP-466 PFAS	9/22/23	9/26/23 11:11	QNW
Perfluorododecanoic acid (PFDoA)	ND	3.2	µg/kg dry	1		SOP-466 PFAS	9/22/23	9/26/23 11:11	QNW
Perfluoro(2-ethoxyethane)sulfonic acid (PFEEA)	ND	3.2	µg/kg dry	1		SOP-466 PFAS	9/22/23	9/26/23 11:11	QNW
Perfluoroheptanesulfonic acid (PFHpS)	ND	3.2	µg/kg dry	1		SOP-466 PFAS	9/22/23	9/26/23 11:11	QNW
N-EtFOSAA (NEtFOSAA)	ND	3.2	µg/kg dry	1		SOP-466 PFAS	9/22/23	9/26/23 11:11	QNW
N-MeFOSAA (NMeFOSAA)	ND	3.2	µg/kg dry	1		SOP-466 PFAS	9/22/23	9/26/23 11:11	QNW
Perfluorotetradecanoic acid (PFTA)	ND	3.2	µg/kg dry	1		SOP-466 PFAS	9/22/23	9/26/23 11:11	QNW
Perfluorotridecanoic acid (PFTrDA)	ND	3.2	µg/kg dry	1		SOP-466 PFAS	9/22/23	9/26/23 11:11	QNW
4:2 Fluorotelomersulfonic acid (4:2FTS A)	ND	3.2	µg/kg dry	1		SOP-466 PFAS	9/22/23	9/26/23 11:11	QNW
Perfluorodecanesulfonic acid (PFDS)	ND	3.2	µg/kg dry	1		SOP-466 PFAS	9/22/23	9/26/23 11:11	QNW
Perfluorooctanesulfonamide (FOSA)	ND	3.2	µg/kg dry	1		SOP-466 PFAS	9/22/23	9/26/23 11:11	QNW
Perfluorononanesulfonic acid (PFNS)	ND	3.2	µg/kg dry	1		SOP-466 PFAS	9/22/23	9/26/23 11:11	QNW
Perfluoro-1-hexanesulfonamide (FHxSA)	ND	3.2	µg/kg dry	1		SOP-466 PFAS	9/22/23	9/26/23 11:11	QNW
Perfluoro-1-butanefulfonamide (FBFA)	ND	3.2	µg/kg dry	1		SOP-466 PFAS	9/22/23	9/26/23 11:11	QNW
Perfluorohexanesulfonic acid (PFHxS)	ND	3.2	µg/kg dry	1		SOP-466 PFAS	9/22/23	9/26/23 11:11	QNW
Perfluoro-4-oxapentanoic acid (PFMPA)	ND	3.2	µg/kg dry	1		SOP-466 PFAS	9/22/23	9/26/23 11:11	QNW
Perfluoro-5-oxahexanoic acid (PFMBA)	ND	3.2	µg/kg dry	1		SOP-466 PFAS	9/22/23	9/26/23 11:11	QNW
6:2 Fluorotelomersulfonic acid (6:2FTS A)	ND	3.2	µg/kg dry	1		SOP-466 PFAS	9/22/23	9/26/23 11:11	QNW
Perfluoropentanesulfonic acid (PFPeS)	ND	3.2	µg/kg dry	1		SOP-466 PFAS	9/22/23	9/26/23 11:11	QNW
Perfluoroundecanoic acid (PFUnA)	ND	3.2	µg/kg dry	1		SOP-466 PFAS	9/22/23	9/26/23 11:11	QNW
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	ND	3.2	µg/kg dry	1		SOP-466 PFAS	9/22/23	9/26/23 11:11	QNW
Perfluoroheptanoic acid (PFHpA)	ND	3.2	µg/kg dry	1		SOP-466 PFAS	9/22/23	9/26/23 11:11	QNW
Perfluorooctanoic acid (PFOA)	16	3.2	µg/kg dry	1		SOP-466 PFAS	9/22/23	9/26/23 11:11	QNW
Perfluorooctanesulfonic acid (PFOS)	19	3.2	µg/kg dry	1		SOP-466 PFAS	9/22/23	9/26/23 11:11	QNW
Perfluorononanoic acid (PFNA)	ND	3.2	µg/kg dry	1		SOP-466 PFAS	9/22/23	9/26/23 11:11	QNW

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: Carmel, NY

Sample Description:

Work Order: 23I1834

Date Received: 9/15/2023

Sampled: 9/13/2023 11:15

Field Sample #: SED-5

Sample ID: 23I1834-16

Sample Matrix: Soil

Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
% Solids	13.3		% Wt	1	H-06	SM 2540G	9/22/23	9/22/23 14:24	AGG

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: Carmel, NY

Sample Description:

Work Order: 2311834

Date Received: 9/15/2023

Field Sample #: SW-6

Sampled: 9/13/2023 11:30

Sample ID: 2311834-17

Sample Matrix: Ground Water

Sample Flags: D-01

Semivolatile Organic Compounds by - LC/MS-MS

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Perfluorobutanoic acid (PFBA)	57	4.1	ng/L	1		SOP-454 PFAS	10/2/23	10/10/23 1:48	QNW
Perfluorobutanesulfonic acid (PFBS)	5.8	4.1	ng/L	1		SOP-454 PFAS	10/2/23	10/10/23 1:48	QNW
Perfluoropentanoic acid (PFPeA)	35	4.1	ng/L	1		SOP-454 PFAS	10/2/23	10/10/23 1:48	QNW
Perfluorohexanoic acid (PFHxA)	36	4.1	ng/L	1		SOP-454 PFAS	10/2/23	10/10/23 1:48	QNW
11Cl-PF3OUdS (F53B Major)	ND	4.1	ng/L	1		SOP-454 PFAS	10/2/23	10/10/23 1:48	QNW
9Cl-PF3ONS (F53B Minor)	ND	4.1	ng/L	1		SOP-454 PFAS	10/2/23	10/10/23 1:48	QNW
4,8-Dioxo-3H-perfluorononanoic acid (ADONA)	ND	4.1	ng/L	1		SOP-454 PFAS	10/2/23	10/10/23 1:48	QNW
Hexafluoropropylene oxide dimer acid (HFPO-DA)	ND	4.1	ng/L	1		SOP-454 PFAS	10/2/23	10/10/23 1:48	QNW
8:2 Fluorotelomersulfonic acid (8:2FTS A)	ND	4.1	ng/L	1		SOP-454 PFAS	10/2/23	10/10/23 1:48	QNW
Perfluorodecanoic acid (PFDA)	8.0	4.1	ng/L	1		SOP-454 PFAS	10/2/23	10/10/23 1:48	QNW
Perfluorododecanoic acid (PFDoA)	ND	4.1	ng/L	1		SOP-454 PFAS	10/2/23	10/10/23 1:48	QNW
Perfluoro(2-ethoxyethane)sulfonic acid (PFEEA)	ND	4.1	ng/L	1		SOP-454 PFAS	10/2/23	10/10/23 1:48	QNW
Perfluoroheptanesulfonic acid (PFHpS)	5.1	4.1	ng/L	1		SOP-454 PFAS	10/2/23	10/10/23 1:48	QNW
N-EtFOSAA (NEtFOSAA)	20	4.1	ng/L	1		SOP-454 PFAS	10/2/23	10/10/23 1:48	QNW
N-MeFOSAA (NMeFOSAA)	ND	4.1	ng/L	1		SOP-454 PFAS	10/2/23	10/10/23 1:48	QNW
Perfluorotetradecanoic acid (PFTA)	ND	4.1	ng/L	1		SOP-454 PFAS	10/2/23	10/10/23 1:48	QNW
Perfluorotridecanoic acid (PFTDA)	ND	4.1	ng/L	1		SOP-454 PFAS	10/2/23	10/10/23 1:48	QNW
4:2 Fluorotelomersulfonic acid (4:2FTS A)	ND	4.1	ng/L	1		SOP-454 PFAS	10/2/23	10/10/23 1:48	QNW
Perfluorodecanesulfonic acid (PFDS)	ND	4.1	ng/L	1		SOP-454 PFAS	10/2/23	10/10/23 1:48	QNW
Perfluorooctanesulfonamide (FOSA)	7.7	4.1	ng/L	1		SOP-454 PFAS	10/2/23	10/10/23 1:48	QNW
Perfluorononanesulfonic acid (PFNS)	ND	4.1	ng/L	1		SOP-454 PFAS	10/2/23	10/10/23 1:48	QNW
Perfluoro-1-hexanesulfonamide (FHxSA)	ND	4.1	ng/L	1		SOP-454 PFAS	10/2/23	10/10/23 1:48	QNW
Perfluoro-1-butanefulfonamide (FBFA)	ND	4.1	ng/L	1		SOP-454 PFAS	10/2/23	10/10/23 1:48	QNW
Perfluorohexanesulfonic acid (PFHxS)	43	4.1	ng/L	1		SOP-454 PFAS	10/2/23	10/10/23 1:48	QNW
Perfluoro-4-oxapentanoic acid (PFMPA)	ND	4.1	ng/L	1		SOP-454 PFAS	10/2/23	10/10/23 1:48	QNW
Perfluoro-5-oxahexanoic acid (PFMBA)	ND	4.1	ng/L	1		SOP-454 PFAS	10/2/23	10/10/23 1:48	QNW
6:2 Fluorotelomersulfonic acid (6:2FTS A)	6.7	4.1	ng/L	1		SOP-454 PFAS	10/2/23	10/10/23 1:48	QNW
Perfluoropentanesulfonic acid (PFPeS)	ND	4.1	ng/L	1		SOP-454 PFAS	10/2/23	10/10/23 1:48	QNW
Perfluoroundecanoic acid (PFUnA)	ND	4.1	ng/L	1		SOP-454 PFAS	10/2/23	10/10/23 1:48	QNW
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	ND	4.1	ng/L	1		SOP-454 PFAS	10/2/23	10/10/23 1:48	QNW
Perfluoroheptanoic acid (PFHpA)	30	4.1	ng/L	1		SOP-454 PFAS	10/2/23	10/10/23 1:48	QNW
Perfluorooctanoic acid (PFOA)	210	4.1	ng/L	1		SOP-454 PFAS	10/2/23	10/10/23 1:48	QNW
Perfluorooctanesulfonic acid (PFOS)	230	4.1	ng/L	1		SOP-454 PFAS	10/2/23	10/10/23 1:48	QNW
Perfluorononanoic acid (PFNA)	18	4.1	ng/L	1		SOP-454 PFAS	10/2/23	10/10/23 1:48	QNW

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: Carmel, NY

Sample Description:

Work Order: 23I1834

Date Received: 9/15/2023

Field Sample #: SED-6

Sampled: 9/13/2023 11:35

Sample ID: 23I1834-18

Sample Matrix: Soil

Semivolatile Organic Compounds by - LC/MS-MS

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Perfluorobutanoic acid (PFBA)	ND	1.9	µg/kg dry	1		SOP-466 PFAS	9/22/23	9/26/23 11:18	QNW
Perfluorobutanesulfonic acid (PFBS)	ND	1.9	µg/kg dry	1		SOP-466 PFAS	9/22/23	9/26/23 11:18	QNW
Perfluoropentanoic acid (PFPeA)	ND	1.9	µg/kg dry	1		SOP-466 PFAS	9/22/23	9/26/23 11:18	QNW
Perfluorohexanoic acid (PFHxA)	ND	1.9	µg/kg dry	1		SOP-466 PFAS	9/22/23	9/26/23 11:18	QNW
11Cl-PF3OUds (F53B Major)	ND	1.9	µg/kg dry	1		SOP-466 PFAS	9/22/23	9/26/23 11:18	QNW
9Cl-PF3ONS (F53B Minor)	ND	1.9	µg/kg dry	1		SOP-466 PFAS	9/22/23	9/26/23 11:18	QNW
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	ND	1.9	µg/kg dry	1		SOP-466 PFAS	9/22/23	9/26/23 11:18	QNW
Hexafluoropropylene oxide dimer acid (HFPO-DA)	ND	1.9	µg/kg dry	1		SOP-466 PFAS	9/22/23	9/26/23 11:18	QNW
8:2 Fluorotelomersulfonic acid (8:2FTS A)	ND	1.9	µg/kg dry	1		SOP-466 PFAS	9/22/23	9/26/23 11:18	QNW
Perfluorodecanoic acid (PFDA)	ND	1.9	µg/kg dry	1		SOP-466 PFAS	9/22/23	9/26/23 11:18	QNW
Perfluorododecanoic acid (PFDoA)	ND	1.9	µg/kg dry	1		SOP-466 PFAS	9/22/23	9/26/23 11:18	QNW
Perfluoro(2-ethoxyethane)sulfonic acid (PFEEA)	ND	1.9	µg/kg dry	1		SOP-466 PFAS	9/22/23	9/26/23 11:18	QNW
Perfluoroheptanesulfonic acid (PFHpS)	ND	1.9	µg/kg dry	1		SOP-466 PFAS	9/22/23	9/26/23 11:18	QNW
N-EtFOSAA (NEtFOSAA)	ND	1.9	µg/kg dry	1		SOP-466 PFAS	9/22/23	9/26/23 11:18	QNW
N-MeFOSAA (NMeFOSAA)	ND	1.9	µg/kg dry	1		SOP-466 PFAS	9/22/23	9/26/23 11:18	QNW
Perfluorotetradecanoic acid (PFTA)	ND	1.9	µg/kg dry	1		SOP-466 PFAS	9/22/23	9/26/23 11:18	QNW
Perfluorotridecanoic acid (PFTrDA)	ND	1.9	µg/kg dry	1		SOP-466 PFAS	9/22/23	9/26/23 11:18	QNW
4:2 Fluorotelomersulfonic acid (4:2FTS A)	ND	1.9	µg/kg dry	1		SOP-466 PFAS	9/22/23	9/26/23 11:18	QNW
Perfluorodecanesulfonic acid (PFDS)	ND	1.9	µg/kg dry	1		SOP-466 PFAS	9/22/23	9/26/23 11:18	QNW
Perfluorooctanesulfonamide (FOSA)	ND	1.9	µg/kg dry	1		SOP-466 PFAS	9/22/23	9/26/23 11:18	QNW
Perfluorononanesulfonic acid (PFNS)	ND	1.9	µg/kg dry	1		SOP-466 PFAS	9/22/23	9/26/23 11:18	QNW
Perfluoro-1-hexanesulfonamide (FHxSA)	ND	1.9	µg/kg dry	1		SOP-466 PFAS	9/22/23	9/26/23 11:18	QNW
Perfluoro-1-butanefulfonamide (FBFA)	ND	1.9	µg/kg dry	1		SOP-466 PFAS	9/22/23	9/26/23 11:18	QNW
Perfluorohexanesulfonic acid (PFHxS)	ND	1.9	µg/kg dry	1		SOP-466 PFAS	9/22/23	9/26/23 11:18	QNW
Perfluoro-4-oxapentanoic acid (PFMPA)	ND	1.9	µg/kg dry	1		SOP-466 PFAS	9/22/23	9/26/23 11:18	QNW
Perfluoro-5-oxahexanoic acid (PFMBA)	ND	1.9	µg/kg dry	1		SOP-466 PFAS	9/22/23	9/26/23 11:18	QNW
6:2 Fluorotelomersulfonic acid (6:2FTS A)	ND	1.9	µg/kg dry	1		SOP-466 PFAS	9/22/23	9/26/23 11:18	QNW
Perfluoropentanesulfonic acid (PFPeS)	ND	1.9	µg/kg dry	1		SOP-466 PFAS	9/22/23	9/26/23 11:18	QNW
Perfluoroundecanoic acid (PFUnA)	ND	1.9	µg/kg dry	1		SOP-466 PFAS	9/22/23	9/26/23 11:18	QNW
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	ND	1.9	µg/kg dry	1		SOP-466 PFAS	9/22/23	9/26/23 11:18	QNW
Perfluoroheptanoic acid (PFHpA)	ND	1.9	µg/kg dry	1		SOP-466 PFAS	9/22/23	9/26/23 11:18	QNW
Perfluorooctanoic acid (PFOA)	ND	1.9	µg/kg dry	1		SOP-466 PFAS	9/22/23	9/26/23 11:18	QNW
Perfluorooctanesulfonic acid (PFOS)	11	1.9	µg/kg dry	1		SOP-466 PFAS	9/22/23	9/26/23 11:18	QNW
Perfluorononanoic acid (PFNA)	ND	1.9	µg/kg dry	1		SOP-466 PFAS	9/22/23	9/26/23 11:18	QNW

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: Carmel, NY

Sample Description:

Work Order: 23I1834

Date Received: 9/15/2023

Field Sample #: SED-6

Sampled: 9/13/2023 11:35

Sample ID: 23I1834-18

Sample Matrix: Soil

Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
% Solids	23.0		% Wt	1	H-06	SM 2540G	9/22/23	9/22/23 14:24	AGG

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: Carmel, NY

Sample Description:

Work Order: 2311834

Date Received: 9/15/2023

Field Sample #: SW-7

Sampled: 9/13/2023 11:45

Sample ID: 2311834-19

Sample Matrix: Ground Water

Sample Flags: D-01

Semivolatile Organic Compounds by - LC/MS-MS

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Perfluorobutanoic acid (PFBA)	11	10	ng/L	1		SOP-454 PFAS	10/2/23	10/10/23 1:55	QNW
Perfluorobutanesulfonic acid (PFBS)	ND	10	ng/L	1		SOP-454 PFAS	10/2/23	10/10/23 1:55	QNW
Perfluoropentanoic acid (PFPeA)	18	10	ng/L	1		SOP-454 PFAS	10/2/23	10/10/23 1:55	QNW
Perfluorohexanoic acid (PFHxA)	17	10	ng/L	1		SOP-454 PFAS	10/2/23	10/10/23 1:55	QNW
11Cl-PF3OUdS (F53B Major)	ND	10	ng/L	1		SOP-454 PFAS	10/2/23	10/10/23 1:55	QNW
9Cl-PF3ONS (F53B Minor)	ND	10	ng/L	1		SOP-454 PFAS	10/2/23	10/10/23 1:55	QNW
4,8-Dioxo-3H-perfluorononanoic acid (ADONA)	ND	10	ng/L	1		SOP-454 PFAS	10/2/23	10/10/23 1:55	QNW
Hexafluoropropylene oxide dimer acid (HFPO-DA)	ND	10	ng/L	1		SOP-454 PFAS	10/2/23	10/10/23 1:55	QNW
8:2 Fluorotelomersulfonic acid (8:2FTS A)	ND	10	ng/L	1		SOP-454 PFAS	10/2/23	10/10/23 1:55	QNW
Perfluorodecanoic acid (PFDA)	ND	10	ng/L	1		SOP-454 PFAS	10/2/23	10/10/23 1:55	QNW
Perfluorododecanoic acid (PFDoA)	ND	10	ng/L	1		SOP-454 PFAS	10/2/23	10/10/23 1:55	QNW
Perfluoro(2-ethoxyethane)sulfonic acid (PFEEA)	ND	10	ng/L	1		SOP-454 PFAS	10/2/23	10/10/23 1:55	QNW
Perfluoroheptanesulfonic acid (PFHpS)	ND	10	ng/L	1		SOP-454 PFAS	10/2/23	10/10/23 1:55	QNW
N-EtFOSAA (NEtFOSAA)	ND	10	ng/L	1		SOP-454 PFAS	10/2/23	10/10/23 1:55	QNW
N-MeFOSAA (NMeFOSAA)	ND	10	ng/L	1		SOP-454 PFAS	10/2/23	10/10/23 1:55	QNW
Perfluorotetradecanoic acid (PFTA)	ND	10	ng/L	1		SOP-454 PFAS	10/2/23	10/10/23 1:55	QNW
Perfluorotridecanoic acid (PFTTrDA)	ND	10	ng/L	1		SOP-454 PFAS	10/2/23	10/10/23 1:55	QNW
4:2 Fluorotelomersulfonic acid (4:2FTS A)	ND	10	ng/L	1		SOP-454 PFAS	10/2/23	10/10/23 1:55	QNW
Perfluorodecanesulfonic acid (PFDS)	ND	10	ng/L	1		SOP-454 PFAS	10/2/23	10/10/23 1:55	QNW
Perfluorooctanesulfonamide (FOSA)	ND	10	ng/L	1		SOP-454 PFAS	10/2/23	10/10/23 1:55	QNW
Perfluorononanesulfonic acid (PFNS)	ND	10	ng/L	1		SOP-454 PFAS	10/2/23	10/10/23 1:55	QNW
Perfluoro-1-hexanesulfonamide (FHxSA)	ND	10	ng/L	1		SOP-454 PFAS	10/2/23	10/10/23 1:55	QNW
Perfluoro-1-butanedisulfonamide (FBSA)	ND	10	ng/L	1		SOP-454 PFAS	10/2/23	10/10/23 1:55	QNW
Perfluorohexanesulfonic acid (PFHxS)	ND	10	ng/L	1		SOP-454 PFAS	10/2/23	10/10/23 1:55	QNW
Perfluoro-4-oxapentanoic acid (PFMPA)	ND	10	ng/L	1		SOP-454 PFAS	10/2/23	10/10/23 1:55	QNW
Perfluoro-5-oxahexanoic acid (PFMBA)	ND	10	ng/L	1		SOP-454 PFAS	10/2/23	10/10/23 1:55	QNW
6:2 Fluorotelomersulfonic acid (6:2FTS A)	ND	10	ng/L	1		SOP-454 PFAS	10/2/23	10/10/23 1:55	QNW
Perfluoropentanesulfonic acid (PFPeS)	ND	10	ng/L	1		SOP-454 PFAS	10/2/23	10/10/23 1:55	QNW
Perfluoroundecanoic acid (PFUnA)	ND	10	ng/L	1		SOP-454 PFAS	10/2/23	10/10/23 1:55	QNW
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	ND	10	ng/L	1		SOP-454 PFAS	10/2/23	10/10/23 1:55	QNW
Perfluoroheptanoic acid (PFHpA)	ND	10	ng/L	1		SOP-454 PFAS	10/2/23	10/10/23 1:55	QNW
Perfluorooctanoic acid (PFOA)	33	10	ng/L	1		SOP-454 PFAS	10/2/23	10/10/23 1:55	QNW
Perfluorooctanesulfonic acid (PFOS)	ND	10	ng/L	1		SOP-454 PFAS	10/2/23	10/10/23 1:55	QNW
Perfluorononanoic acid (PFNA)	ND	10	ng/L	1		SOP-454 PFAS	10/2/23	10/10/23 1:55	QNW

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: Carmel, NY

Sample Description:

Work Order: 23I1834

Date Received: 9/15/2023

Field Sample #: SED-7

Sampled: 9/13/2023 11:50

Sample ID: 23I1834-20

Sample Matrix: Soil

Semivolatile Organic Compounds by - LC/MS-MS

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Perfluorobutanoic acid (PFBA)	ND	4.1	µg/kg dry	1		SOP-466 PFAS	9/22/23	9/26/23 11:26	QNW
Perfluorobutanesulfonic acid (PFBS)	ND	4.1	µg/kg dry	1		SOP-466 PFAS	9/22/23	9/26/23 11:26	QNW
Perfluoropentanoic acid (PFPeA)	ND	4.1	µg/kg dry	1		SOP-466 PFAS	9/22/23	9/26/23 11:26	QNW
Perfluorohexanoic acid (PFHxA)	ND	4.1	µg/kg dry	1		SOP-466 PFAS	9/22/23	9/26/23 11:26	QNW
11Cl-PF3OUdS (F53B Major)	ND	4.1	µg/kg dry	1		SOP-466 PFAS	9/22/23	9/26/23 11:26	QNW
9Cl-PF3ONS (F53B Minor)	ND	4.1	µg/kg dry	1		SOP-466 PFAS	9/22/23	9/26/23 11:26	QNW
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	ND	4.1	µg/kg dry	1		SOP-466 PFAS	9/22/23	9/26/23 11:26	QNW
Hexafluoropropylene oxide dimer acid (HFPO-DA)	ND	4.1	µg/kg dry	1		SOP-466 PFAS	9/22/23	9/26/23 11:26	QNW
8:2 Fluorotelomersulfonic acid (8:2FTS A)	ND	4.1	µg/kg dry	1		SOP-466 PFAS	9/22/23	9/26/23 11:26	QNW
Perfluorodecanoic acid (PFDA)	ND	4.1	µg/kg dry	1		SOP-466 PFAS	9/22/23	9/26/23 11:26	QNW
Perfluorododecanoic acid (PFDoA)	ND	4.1	µg/kg dry	1		SOP-466 PFAS	9/22/23	9/26/23 11:26	QNW
Perfluoro(2-ethoxyethane)sulfonic acid (PFEEA)	ND	4.1	µg/kg dry	1		SOP-466 PFAS	9/22/23	9/26/23 11:26	QNW
Perfluoroheptanesulfonic acid (PFHpS)	ND	4.1	µg/kg dry	1		SOP-466 PFAS	9/22/23	9/26/23 11:26	QNW
N-EtFOSAA (NEtFOSAA)	ND	4.1	µg/kg dry	1		SOP-466 PFAS	9/22/23	9/26/23 11:26	QNW
N-MeFOSAA (NMeFOSAA)	ND	4.1	µg/kg dry	1		SOP-466 PFAS	9/22/23	9/26/23 11:26	QNW
Perfluorotetradecanoic acid (PFTA)	ND	4.1	µg/kg dry	1		SOP-466 PFAS	9/22/23	9/26/23 11:26	QNW
Perfluorotridecanoic acid (PFTTrDA)	ND	4.1	µg/kg dry	1		SOP-466 PFAS	9/22/23	9/26/23 11:26	QNW
4:2 Fluorotelomersulfonic acid (4:2FTS A)	ND	4.1	µg/kg dry	1		SOP-466 PFAS	9/22/23	9/26/23 11:26	QNW
Perfluorodecanesulfonic acid (PFDS)	ND	4.1	µg/kg dry	1		SOP-466 PFAS	9/22/23	9/26/23 11:26	QNW
Perfluorooctanesulfonamide (FOSA)	ND	4.1	µg/kg dry	1		SOP-466 PFAS	9/22/23	9/26/23 11:26	QNW
Perfluorononanesulfonic acid (PFNS)	ND	4.1	µg/kg dry	1		SOP-466 PFAS	9/22/23	9/26/23 11:26	QNW
Perfluoro-1-hexanesulfonamide (FHxSA)	ND	4.1	µg/kg dry	1		SOP-466 PFAS	9/22/23	9/26/23 11:26	QNW
Perfluoro-1-butanefulfonamide (FBFA)	ND	4.1	µg/kg dry	1		SOP-466 PFAS	9/22/23	9/26/23 11:26	QNW
Perfluorohexanesulfonic acid (PFHxS)	ND	4.1	µg/kg dry	1		SOP-466 PFAS	9/22/23	9/26/23 11:26	QNW
Perfluoro-4-oxapentanoic acid (PFMPA)	ND	4.1	µg/kg dry	1		SOP-466 PFAS	9/22/23	9/26/23 11:26	QNW
Perfluoro-5-oxahexanoic acid (PFMBA)	ND	4.1	µg/kg dry	1		SOP-466 PFAS	9/22/23	9/26/23 11:26	QNW
6:2 Fluorotelomersulfonic acid (6:2FTS A)	ND	4.1	µg/kg dry	1		SOP-466 PFAS	9/22/23	9/26/23 11:26	QNW
Perfluoropentanesulfonic acid (PFPeS)	ND	4.1	µg/kg dry	1		SOP-466 PFAS	9/22/23	9/26/23 11:26	QNW
Perfluoroundecanoic acid (PFUnA)	ND	4.1	µg/kg dry	1		SOP-466 PFAS	9/22/23	9/26/23 11:26	QNW
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	ND	4.1	µg/kg dry	1		SOP-466 PFAS	9/22/23	9/26/23 11:26	QNW
Perfluoroheptanoic acid (PFHpA)	ND	4.1	µg/kg dry	1		SOP-466 PFAS	9/22/23	9/26/23 11:26	QNW
Perfluorooctanoic acid (PFOA)	ND	4.1	µg/kg dry	1		SOP-466 PFAS	9/22/23	9/26/23 11:26	QNW
Perfluorooctanesulfonic acid (PFOS)	ND	4.1	µg/kg dry	1		SOP-466 PFAS	9/22/23	9/26/23 11:26	QNW
Perfluorononanoic acid (PFNA)	ND	4.1	µg/kg dry	1		SOP-466 PFAS	9/22/23	9/26/23 11:26	QNW

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: Carmel, NY

Sample Description:

Work Order: 23I1834

Date Received: 9/15/2023

Field Sample #: SED-7

Sampled: 9/13/2023 11:50

Sample ID: 23I1834-20

Sample Matrix: Soil

Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
% Solids	10.4		% Wt	1	H-06	SM 2540G	9/22/23	9/22/23 14:24	AGG

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: Carmel, NY

Sample Description:

Work Order: 2311834

Date Received: 9/15/2023

Field Sample #: SW-DUP

Sampled: 9/13/2023 10:35

Sample ID: 2311834-21

Sample Matrix: Ground Water

Sample Flags: D-01

Semivolatile Organic Compounds by - LC/MS-MS

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Perfluorobutanoic acid (PFBA)	62	4.1	ng/L	1		SOP-454 PFAS	10/2/23	10/10/23 2:03	QNW
Perfluorobutanesulfonic acid (PFBS)	8.0	4.1	ng/L	1	PF-20	SOP-454 PFAS	10/2/23	10/10/23 2:03	QNW
Perfluoropentanoic acid (PFPeA)	25	4.1	ng/L	1		SOP-454 PFAS	10/2/23	10/10/23 2:03	QNW
Perfluorohexanoic acid (PFHxA)	33	4.1	ng/L	1		SOP-454 PFAS	10/2/23	10/10/23 2:03	QNW
11Cl-PF3OUdS (F53B Major)	ND	4.1	ng/L	1		SOP-454 PFAS	10/2/23	10/10/23 2:03	QNW
9Cl-PF3ONS (F53B Minor)	ND	4.1	ng/L	1		SOP-454 PFAS	10/2/23	10/10/23 2:03	QNW
4,8-Dioxo-3H-perfluorononanoic acid (ADONA)	ND	4.1	ng/L	1		SOP-454 PFAS	10/2/23	10/10/23 2:03	QNW
Hexafluoropropylene oxide dimer acid (HFPO-DA)	ND	4.1	ng/L	1		SOP-454 PFAS	10/2/23	10/10/23 2:03	QNW
8:2 Fluorotelomersulfonic acid (8:2FTS A)	ND	4.1	ng/L	1		SOP-454 PFAS	10/2/23	10/10/23 2:03	QNW
Perfluorodecanoic acid (PFDA)	5.9	4.1	ng/L	1		SOP-454 PFAS	10/2/23	10/10/23 2:03	QNW
Perfluorododecanoic acid (PFDoA)	ND	4.1	ng/L	1		SOP-454 PFAS	10/2/23	10/10/23 2:03	QNW
Perfluoro(2-ethoxyethane)sulfonic acid (PFEEA)	ND	4.1	ng/L	1		SOP-454 PFAS	10/2/23	10/10/23 2:03	QNW
Perfluoroheptanesulfonic acid (PFHpS)	5.0	4.1	ng/L	1	PF-20	SOP-454 PFAS	10/2/23	10/10/23 2:03	QNW
N-EtFOSAA (NEtFOSAA)	21	4.1	ng/L	1		SOP-454 PFAS	10/2/23	10/10/23 2:03	QNW
N-MeFOSAA (NMeFOSAA)	ND	4.1	ng/L	1		SOP-454 PFAS	10/2/23	10/10/23 2:03	QNW
Perfluorotetradecanoic acid (PFTA)	ND	4.1	ng/L	1		SOP-454 PFAS	10/2/23	10/10/23 2:03	QNW
Perfluorotridecanoic acid (PFTrDA)	ND	4.1	ng/L	1		SOP-454 PFAS	10/2/23	10/10/23 2:03	QNW
4:2 Fluorotelomersulfonic acid (4:2FTS A)	ND	4.1	ng/L	1		SOP-454 PFAS	10/2/23	10/10/23 2:03	QNW
Perfluorodecanesulfonic acid (PFDS)	ND	4.1	ng/L	1		SOP-454 PFAS	10/2/23	10/10/23 2:03	QNW
Perfluorooctanesulfonamide (FOSA)	6.6	4.1	ng/L	1		SOP-454 PFAS	10/2/23	10/10/23 2:03	QNW
Perfluorononanesulfonic acid (PFNS)	ND	4.1	ng/L	1		SOP-454 PFAS	10/2/23	10/10/23 2:03	QNW
Perfluoro-1-hexanesulfonamide (FHxSA)	ND	4.1	ng/L	1		SOP-454 PFAS	10/2/23	10/10/23 2:03	QNW
Perfluoro-1-butanefulfonamide (FBFA)	ND	4.1	ng/L	1		SOP-454 PFAS	10/2/23	10/10/23 2:03	QNW
Perfluorohexanesulfonic acid (PFHxS)	37	4.1	ng/L	1		SOP-454 PFAS	10/2/23	10/10/23 2:03	QNW
Perfluoro-4-oxapentanoic acid (PFMPA)	ND	4.1	ng/L	1		SOP-454 PFAS	10/2/23	10/10/23 2:03	QNW
Perfluoro-5-oxahexanoic acid (PFMBA)	ND	4.1	ng/L	1		SOP-454 PFAS	10/2/23	10/10/23 2:03	QNW
6:2 Fluorotelomersulfonic acid (6:2FTS A)	ND	4.1	ng/L	1		SOP-454 PFAS	10/2/23	10/10/23 2:03	QNW
Perfluoropentanesulfonic acid (PFPeS)	ND	4.1	ng/L	1		SOP-454 PFAS	10/2/23	10/10/23 2:03	QNW
Perfluoroundecanoic acid (PFUnA)	ND	4.1	ng/L	1		SOP-454 PFAS	10/2/23	10/10/23 2:03	QNW
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	ND	4.1	ng/L	1		SOP-454 PFAS	10/2/23	10/10/23 2:03	QNW
Perfluoroheptanoic acid (PFHpA)	36	4.1	ng/L	1		SOP-454 PFAS	10/2/23	10/10/23 2:03	QNW
Perfluorooctanoic acid (PFOA)	180	4.1	ng/L	1		SOP-454 PFAS	10/2/23	10/10/23 2:03	QNW
Perfluorooctanesulfonic acid (PFOS)	150	4.1	ng/L	1		SOP-454 PFAS	10/2/23	10/10/23 2:03	QNW
Perfluorononanoic acid (PFNA)	14	4.1	ng/L	1		SOP-454 PFAS	10/2/23	10/10/23 2:03	QNW

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: Carmel, NY

Sample Description:

Work Order: 23I1834

Date Received: 9/15/2023

Field Sample #: SED-DUP

Sampled: 9/13/2023 10:15

Sample ID: 23I1834-22

Sample Matrix: Soil

Semivolatile Organic Compounds by - LC/MS-MS

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Perfluorobutanoic acid (PFBA)	ND	1.0	µg/kg dry	1		SOP-466 PFAS	9/22/23	9/26/23 12:23	QNW
Perfluorobutanesulfonic acid (PFBS)	ND	1.0	µg/kg dry	1		SOP-466 PFAS	9/22/23	9/26/23 12:23	QNW
Perfluoropentanoic acid (PFPeA)	ND	1.0	µg/kg dry	1		SOP-466 PFAS	9/22/23	9/26/23 12:23	QNW
Perfluorohexanoic acid (PFHxA)	ND	1.0	µg/kg dry	1		SOP-466 PFAS	9/22/23	9/26/23 12:23	QNW
11Cl-PF3OUds (F53B Major)	ND	1.0	µg/kg dry	1		SOP-466 PFAS	9/22/23	9/26/23 12:23	QNW
9Cl-PF3ONS (F53B Minor)	ND	1.0	µg/kg dry	1		SOP-466 PFAS	9/22/23	9/26/23 12:23	QNW
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	ND	1.0	µg/kg dry	1		SOP-466 PFAS	9/22/23	9/26/23 12:23	QNW
Hexafluoropropylene oxide dimer acid (HFPO-DA)	ND	1.0	µg/kg dry	1		SOP-466 PFAS	9/22/23	9/26/23 12:23	QNW
8:2 Fluorotelomersulfonic acid (8:2FTS A)	ND	1.0	µg/kg dry	1		SOP-466 PFAS	9/22/23	9/26/23 12:23	QNW
Perfluorodecanoic acid (PFDA)	ND	1.0	µg/kg dry	1		SOP-466 PFAS	9/22/23	9/26/23 12:23	QNW
Perfluorododecanoic acid (PFDoA)	ND	1.0	µg/kg dry	1		SOP-466 PFAS	9/22/23	9/26/23 12:23	QNW
Perfluoro(2-ethoxyethane)sulfonic acid (PFEEA)	ND	1.0	µg/kg dry	1		SOP-466 PFAS	9/22/23	9/26/23 12:23	QNW
Perfluoroheptanesulfonic acid (PFHpS)	ND	1.0	µg/kg dry	1		SOP-466 PFAS	9/22/23	9/26/23 12:23	QNW
N-EtFOSAA (NEtFOSAA)	ND	1.0	µg/kg dry	1		SOP-466 PFAS	9/22/23	9/26/23 12:23	QNW
N-MeFOSAA (NMeFOSAA)	ND	1.0	µg/kg dry	1		SOP-466 PFAS	9/22/23	9/26/23 12:23	QNW
Perfluorotetradecanoic acid (PFTA)	ND	1.0	µg/kg dry	1		SOP-466 PFAS	9/22/23	9/26/23 12:23	QNW
Perfluorotridecanoic acid (PFTTrDA)	ND	1.0	µg/kg dry	1		SOP-466 PFAS	9/22/23	9/26/23 12:23	QNW
4:2 Fluorotelomersulfonic acid (4:2FTS A)	ND	1.0	µg/kg dry	1		SOP-466 PFAS	9/22/23	9/26/23 12:23	QNW
Perfluorodecanesulfonic acid (PFDS)	ND	1.0	µg/kg dry	1		SOP-466 PFAS	9/22/23	9/26/23 12:23	QNW
Perfluorooctanesulfonamide (FOSA)	ND	1.0	µg/kg dry	1		SOP-466 PFAS	9/22/23	9/26/23 12:23	QNW
Perfluorononanesulfonic acid (PFNS)	ND	1.0	µg/kg dry	1		SOP-466 PFAS	9/22/23	9/26/23 12:23	QNW
Perfluoro-1-hexanesulfonamide (FHxSA)	ND	1.0	µg/kg dry	1		SOP-466 PFAS	9/22/23	9/26/23 12:23	QNW
Perfluoro-1-butanefulfonamide (FBFA)	ND	1.0	µg/kg dry	1		SOP-466 PFAS	9/22/23	9/26/23 12:23	QNW
Perfluorohexanesulfonic acid (PFHxS)	ND	1.0	µg/kg dry	1		SOP-466 PFAS	9/22/23	9/26/23 12:23	QNW
Perfluoro-4-oxapentanoic acid (PFMPA)	ND	1.0	µg/kg dry	1		SOP-466 PFAS	9/22/23	9/26/23 12:23	QNW
Perfluoro-5-oxahexanoic acid (PFMBA)	ND	1.0	µg/kg dry	1		SOP-466 PFAS	9/22/23	9/26/23 12:23	QNW
6:2 Fluorotelomersulfonic acid (6:2FTS A)	ND	1.0	µg/kg dry	1		SOP-466 PFAS	9/22/23	9/26/23 12:23	QNW
Perfluoropentanesulfonic acid (PFPeS)	ND	1.0	µg/kg dry	1		SOP-466 PFAS	9/22/23	9/26/23 12:23	QNW
Perfluoroundecanoic acid (PFUnA)	ND	1.0	µg/kg dry	1		SOP-466 PFAS	9/22/23	9/26/23 12:23	QNW
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	ND	1.0	µg/kg dry	1		SOP-466 PFAS	9/22/23	9/26/23 12:23	QNW
Perfluoroheptanoic acid (PFHpA)	ND	1.0	µg/kg dry	1		SOP-466 PFAS	9/22/23	9/26/23 12:23	QNW
Perfluorooctanoic acid (PFOA)	1.0	1.0	µg/kg dry	1		SOP-466 PFAS	9/22/23	9/26/23 12:23	QNW
Perfluorooctanesulfonic acid (PFOS)	5.3	1.0	µg/kg dry	1		SOP-466 PFAS	9/22/23	9/26/23 12:23	QNW
Perfluorononanoic acid (PFNA)	ND	1.0	µg/kg dry	1		SOP-466 PFAS	9/22/23	9/26/23 12:23	QNW

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: Carmel, NY

Sample Description:

Work Order: 23I1834

Date Received: 9/15/2023

Field Sample #: SED-DUP

Sampled: 9/13/2023 10:15

Sample ID: 23I1834-22

Sample Matrix: Soil

Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
% Solids	42.5		% Wt	1	H-06	SM 2540G	9/22/23	9/22/23 14:24	AGG

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: Carmel, NY

Sample Description:

Work Order: 23I1834

Date Received: 9/15/2023

Field Sample #: SED-EQBLNK

Sampled: 9/13/2023 08:30

Sample ID: 23I1834-23

Sample Matrix: Equipment Blank Water

Semivolatile Organic Compounds by - LC/MS-MS

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Perfluorobutanoic acid (PFBA)	ND	1.8	ng/L	1		SOP-454 PFAS	10/10/23	10/11/23 16:59	QNW
Perfluorobutanesulfonic acid (PFBS)	ND	1.8	ng/L	1		SOP-454 PFAS	10/10/23	10/11/23 16:59	QNW
Perfluoropentanoic acid (PFPeA)	ND	1.8	ng/L	1		SOP-454 PFAS	10/10/23	10/11/23 16:59	QNW
Perfluorohexanoic acid (PFHxA)	ND	1.8	ng/L	1		SOP-454 PFAS	10/10/23	10/11/23 16:59	QNW
11Cl-PF3OUdS (F53B Major)	ND	1.8	ng/L	1		SOP-454 PFAS	10/10/23	10/11/23 16:59	QNW
9Cl-PF3ONS (F53B Minor)	ND	1.8	ng/L	1		SOP-454 PFAS	10/10/23	10/11/23 16:59	QNW
4,8-Dioxo-3H-perfluorononanoic acid (ADONA)	ND	1.8	ng/L	1		SOP-454 PFAS	10/10/23	10/11/23 16:59	QNW
Hexafluoropropylene oxide dimer acid (HFPO-DA)	ND	1.8	ng/L	1		SOP-454 PFAS	10/10/23	10/11/23 16:59	QNW
8:2 Fluorotelomersulfonic acid (8:2FTS A)	ND	1.8	ng/L	1		SOP-454 PFAS	10/10/23	10/11/23 16:59	QNW
Perfluorodecanoic acid (PFDA)	ND	1.8	ng/L	1		SOP-454 PFAS	10/10/23	10/11/23 16:59	QNW
Perfluorododecanoic acid (PFDoA)	ND	1.8	ng/L	1		SOP-454 PFAS	10/10/23	10/11/23 16:59	QNW
Perfluoro(2-ethoxyethane)sulfonic acid (PFEEA)	ND	1.8	ng/L	1		SOP-454 PFAS	10/10/23	10/11/23 16:59	QNW
Perfluoroheptanesulfonic acid (PFHpS)	ND	1.8	ng/L	1		SOP-454 PFAS	10/10/23	10/11/23 16:59	QNW
N-EtFOSAA (NEtFOSAA)	ND	1.8	ng/L	1		SOP-454 PFAS	10/10/23	10/11/23 16:59	QNW
N-MeFOSAA (NMeFOSAA)	ND	1.8	ng/L	1		SOP-454 PFAS	10/10/23	10/11/23 16:59	QNW
Perfluorotetradecanoic acid (PFTA)	ND	1.8	ng/L	1		SOP-454 PFAS	10/10/23	10/11/23 16:59	QNW
Perfluorotridecanoic acid (PFTTrDA)	ND	1.8	ng/L	1		SOP-454 PFAS	10/10/23	10/11/23 16:59	QNW
4:2 Fluorotelomersulfonic acid (4:2FTS A)	ND	1.8	ng/L	1		SOP-454 PFAS	10/10/23	10/11/23 16:59	QNW
Perfluorodecanesulfonic acid (PFDS)	ND	1.8	ng/L	1		SOP-454 PFAS	10/10/23	10/11/23 16:59	QNW
Perfluorooctanesulfonamide (FOSA)	ND	1.8	ng/L	1		SOP-454 PFAS	10/10/23	10/11/23 16:59	QNW
Perfluorononanesulfonic acid (PFNS)	ND	1.8	ng/L	1		SOP-454 PFAS	10/10/23	10/11/23 16:59	QNW
Perfluoro-1-hexanesulfonamide (FHxSA)	ND	1.8	ng/L	1		SOP-454 PFAS	10/10/23	10/11/23 16:59	QNW
Perfluoro-1-butanesulfonamide (FBSA)	ND	1.8	ng/L	1		SOP-454 PFAS	10/10/23	10/11/23 16:59	QNW
Perfluorohexanesulfonic acid (PFHxS)	ND	1.8	ng/L	1		SOP-454 PFAS	10/10/23	10/11/23 16:59	QNW
Perfluoro-4-oxapentanoic acid (PFMPA)	ND	1.8	ng/L	1		SOP-454 PFAS	10/10/23	10/11/23 16:59	QNW
Perfluoro-5-oxahexanoic acid (PFMBA)	ND	1.8	ng/L	1		SOP-454 PFAS	10/10/23	10/11/23 16:59	QNW
6:2 Fluorotelomersulfonic acid (6:2FTS A)	ND	1.8	ng/L	1		SOP-454 PFAS	10/10/23	10/11/23 16:59	QNW
Perfluoropentanesulfonic acid (PFPeS)	ND	1.8	ng/L	1		SOP-454 PFAS	10/10/23	10/11/23 16:59	QNW
Perfluoroundecanoic acid (PFUnA)	ND	1.8	ng/L	1		SOP-454 PFAS	10/10/23	10/11/23 16:59	QNW
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	ND	1.8	ng/L	1		SOP-454 PFAS	10/10/23	10/11/23 16:59	QNW
Perfluoroheptanoic acid (PFHpA)	ND	1.8	ng/L	1		SOP-454 PFAS	10/10/23	10/11/23 16:59	QNW
Perfluorooctanoic acid (PFOA)	ND	1.8	ng/L	1		SOP-454 PFAS	10/10/23	10/11/23 16:59	QNW
Perfluorooctanesulfonic acid (PFOS)	ND	1.8	ng/L	1		SOP-454 PFAS	10/10/23	10/11/23 16:59	QNW
Perfluorononanoic acid (PFNA)	ND	1.8	ng/L	1		SOP-454 PFAS	10/10/23	10/11/23 16:59	QNW

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Sample Extraction Data

Prep Method:% Solids **Analytical Method:**SM 2540G

Lab Number [Field ID]	Batch	Date
23I1834-08 [SED-2]	B352814	09/22/23
23I1834-10 [SED-3]	B352814	09/22/23
23I1834-12 [SED-4A]	B352814	09/22/23
23I1834-14 [SED-4C]	B352814	09/22/23
23I1834-16 [SED-5]	B352814	09/22/23
23I1834-18 [SED-6]	B352814	09/22/23
23I1834-20 [SED-7]	B352814	09/22/23
23I1834-22 [SED-DUP]	B352814	09/22/23

Prep Method:SOP 454-PFAAS **Analytical Method:**SOP-454 PFAS

Lab Number [Field ID]	Batch	Initial [mL]	Final [mL]	Date
23I1834-02 [MW-6 09122023]	B353115	120	1.00	10/02/23
23I1834-05 [MW-5 09122023]	B353115	240	1.00	10/02/23
23I1834-06 [MW-EQBLNK 09122023]	B353115	256	1.00	10/02/23
23I1834-07 [SW-2]	B353115	281	1.00	10/02/23
23I1834-11 [SW-4A]	B353115	296	1.00	10/02/23
23I1834-13 [SW-4C]	B353115	25.0	1.00	10/02/23
23I1834-15 [SW-5]	B353115	120	1.00	10/02/23
23I1834-15RE1 [SW-5]	B353115	120	1.00	10/02/23
23I1834-17 [SW-6]	B353115	121	1.00	10/02/23
23I1834-19 [SW-7]	B353115	48.0	1.00	10/02/23
23I1834-21 [SW-DUP]	B353115	123	1.00	10/02/23

Prep Method:SOP 454-PFAAS **Analytical Method:**SOP-454 PFAS

Lab Number [Field ID]	Batch	Initial [mL]	Final [mL]	Date
23I1834-01RE1 [MW-2 09122023]	B354579	256	1.00	10/10/23
23I1834-01RE3 [MW-2 09122023]	B354579	256	1.00	10/10/23
23I1834-03RE1 [MW-3 09122023]	B354579	253	1.00	10/10/23
23I1834-03RE3 [MW-3 09122023]	B354579	253	1.00	10/10/23
23I1834-04RE1 [MW-DUP 09122023]	B354579	249	1.00	10/10/23
23I1834-04RE3 [MW-DUP 09122023]	B354579	249	1.00	10/10/23
23I1834-09RE1 [SW-3]	B354579	122	1.00	10/10/23
23I1834-23RE1 [SED-EQBLNK]	B354579	275	1.00	10/10/23

Prep Method:SOP 466-PFAAS **Analytical Method:**SOP-466 PFAS

Lab Number [Field ID]	Batch	Initial [g]	Final [mL]	Date
23I1834-08 [SED-2]	B352507	5.85	5.00	09/22/23
23I1834-10 [SED-3]	B352507	5.70	5.00	09/22/23
23I1834-12 [SED-4A]	B352507	5.53	5.00	09/22/23
23I1834-14 [SED-4C]	B352507	5.73	5.00	09/22/23
23I1834-16 [SED-5]	B352507	5.80	5.00	09/22/23
23I1834-18 [SED-6]	B352507	5.70	5.00	09/22/23
23I1834-20 [SED-7]	B352507	5.80	5.00	09/22/23
23I1834-22 [SED-DUP]	B352507	5.78	5.00	09/22/23

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

QUALITY CONTROL
Semivolatile Organic Compounds by - LC/MS-MS - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch B352507 - SOP 466-PFAAS
Blank (B352507-BLK1)

Prepared: 09/20/23 Analyzed: 09/26/23

Perfluorobutanoic acid (PFBA)	ND	0.41	µg/kg wet
Perfluorobutanesulfonic acid (PFBS)	ND	0.41	µg/kg wet
Perfluoropentanoic acid (PFPeA)	ND	0.41	µg/kg wet
Perfluorohexanoic acid (PFHxA)	ND	0.41	µg/kg wet
11Cl-PF3OUdS (F53B Major)	ND	0.41	µg/kg wet
9Cl-PF3ONS (F53B Minor)	ND	0.41	µg/kg wet
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	ND	0.41	µg/kg wet
Hexafluoropropylene oxide dimer acid (HFPO-DA)	ND	0.41	µg/kg wet
8:2 Fluorotelomersulfonic acid (8:2FTS A)	ND	0.41	µg/kg wet
Perfluorodecanoic acid (PFDA)	ND	0.41	µg/kg wet
Perfluorododecanoic acid (PFDoA)	ND	0.41	µg/kg wet
Perfluoro(2-ethoxyethane)sulfonic acid (PFEESA)	ND	0.41	µg/kg wet
Perfluoroheptanesulfonic acid (PFHpS)	ND	0.41	µg/kg wet
N-EtFOSAA (NEtFOSAA)	ND	0.41	µg/kg wet
N-MeFOSAA (NMeFOSAA)	ND	0.41	µg/kg wet
Perfluorotetradecanoic acid (PFTA)	ND	0.41	µg/kg wet
Perfluorotridecanoic acid (PFTrDA)	ND	0.41	µg/kg wet
4:2 Fluorotelomersulfonic acid (4:2FTS A)	ND	0.41	µg/kg wet
Perfluorodecanesulfonic acid (PFDS)	ND	0.41	µg/kg wet
Perfluorooctanesulfonamide (FOSA)	ND	0.41	µg/kg wet
Perfluorononanesulfonic acid (PFNS)	ND	0.41	µg/kg wet
Perfluoro-1-hexanesulfonamide (FHxSA)	ND	0.41	µg/kg wet
Perfluoro-1-butanedisulfonamide (FBSA)	ND	0.41	µg/kg wet
Perfluorohexanesulfonic acid (PFHxS)	ND	0.41	µg/kg wet
Perfluoro-4-oxapentanoic acid (PFMPA)	ND	0.41	µg/kg wet
Perfluoro-5-oxahexanoic acid (PFMBA)	ND	0.41	µg/kg wet
6:2 Fluorotelomersulfonic acid (6:2FTS A)	ND	0.41	µg/kg wet
Perfluoropentanesulfonic acid (PFPeS)	ND	0.41	µg/kg wet
Perfluoroundecanoic acid (PFUnA)	ND	0.41	µg/kg wet
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	ND	0.41	µg/kg wet
Perfluoroheptanoic acid (PFHpA)	ND	0.41	µg/kg wet
Perfluorooctanoic acid (PFOA)	ND	0.41	µg/kg wet
Perfluorooctanesulfonic acid (PFOS)	ND	0.41	µg/kg wet
Perfluorononanoic acid (PFNA)	ND	0.41	µg/kg wet

LCS (B352507-BS1)

Prepared: 09/20/23 Analyzed: 09/26/23

Perfluorobutanoic acid (PFBA)	1.83	0.44	µg/kg wet	2.23	82.0	71-135
Perfluorobutanesulfonic acid (PFBS)	1.57	0.44	µg/kg wet	1.97	79.4	72-128
Perfluoropentanoic acid (PFPeA)	1.78	0.44	µg/kg wet	2.23	80.0	69-132
Perfluorohexanoic acid (PFHxA)	1.76	0.44	µg/kg wet	2.23	79.1	70-132
11Cl-PF3OUdS (F53B Major)	1.58	0.44	µg/kg wet	2.10	75.3	40.1-127
9Cl-PF3ONS (F53B Minor)	1.45	0.44	µg/kg wet	2.08	69.8	42.3-128
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	1.69	0.44	µg/kg wet	2.10	80.5	50-150
Hexafluoropropylene oxide dimer acid (HFPO-DA)	1.78	0.44	µg/kg wet	2.23	79.8	36.8-134
8:2 Fluorotelomersulfonic acid (8:2FTS A)	1.71	0.44	µg/kg wet	2.14	79.6	65-137
Perfluorodecanoic acid (PFDA)	1.88	0.44	µg/kg wet	2.23	84.3	69-133
Perfluorododecanoic acid (PFDoA)	1.88	0.44	µg/kg wet	2.23	84.3	69-135
Perfluoro(2-ethoxyethane)sulfonic acid (PFEESA)	1.51	0.44	µg/kg wet	1.99	76.2	42.2-136

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QUALITY CONTROL
Semivolatile Organic Compounds by - LC/MS-MS - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch B352507 - SOP 466-PFAAS
LCS (B352507-BS1)

Prepared: 09/20/23 Analyzed: 09/26/23

Perfluoroheptanesulfonic acid (PFHpS)	1.72	0.44	µg/kg wet	2.13		80.9	70-132			
N-EtFOSAA (NEtFOSAA)	1.87	0.44	µg/kg wet	2.23		83.7	61-139			
N-MeFOSAA (NMeFOSAA)	1.99	0.44	µg/kg wet	2.23		89.2	63-144			
Perfluorotetradecanoic acid (PFTA)	1.82	0.44	µg/kg wet	2.23		81.6	69-133			
Perfluorotridecanoic acid (PFTTrDA)	1.84	0.44	µg/kg wet	2.23		82.6	66-139			
4:2 Fluorotelomersulfonic acid (4:2FTS A)	1.70	0.44	µg/kg wet	2.09		81.7	62-145			
Perfluorodecanesulfonic acid (PFDS)	1.77	0.44	µg/kg wet	2.15		82.1	59-134			
Perfluorooctanesulfonamide (FOSA)	1.90	0.44	µg/kg wet	2.23		85.3	67-137			
Perfluorononanesulfonic acid (PFNS)	1.64	0.44	µg/kg wet	2.14		76.5	69-125			
Perfluoro-1-hexanesulfonamide (FHxSA)	1.62	0.44	µg/kg wet	2.23		72.7	34.4-146			
Perfluoro-1-butanefulfonamide (FBSA)	1.78	0.44	µg/kg wet	2.23		79.9	41.3-135			
Perfluorohexanesulfonic acid (PFHxS)	1.64	0.44	µg/kg wet	2.04		80.2	67-130			
Perfluoro-4-oxapentanoic acid (PFMPA)	1.70	0.44	µg/kg wet	2.23		76.4	38.9-139			
Perfluoro-5-oxahexanoic acid (PFMBA)	1.62	0.44	µg/kg wet	2.23		72.4	40.3-140			
6:2 Fluorotelomersulfonic acid (6:2FTS A)	1.79	0.44	µg/kg wet	2.12		84.5	64-140			
Perfluoropentanesulfonic acid (PFPeS)	1.69	0.44	µg/kg wet	2.10		80.6	73-123			
Perfluoroundecanoic acid (PFUnA)	1.60	0.44	µg/kg wet	2.23		71.6	64-136			
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	1.73	0.44	µg/kg wet	2.23		77.7	41.8-145			
Perfluoroheptanoic acid (PFHpA)	1.80	0.44	µg/kg wet	2.23		80.5	71-131			
Perfluorooctanoic acid (PFOA)	1.90	0.44	µg/kg wet	2.23		85.4	69-133			
Perfluorooctanesulfonic acid (PFOS)	1.73	0.44	µg/kg wet	2.06		83.9	68-136			
Perfluorononanoic acid (PFNA)	1.77	0.44	µg/kg wet	2.23		79.3	72-129			

Matrix Spike (B352507-MS1)
Source: 23I1834-08

Prepared: 09/20/23 Analyzed: 09/26/23

Perfluorobutanoic acid (PFBA)	4.70	1.1	µg/kg dry	5.54	ND	84.8	71-135			
Perfluorobutanesulfonic acid (PFBS)	3.94	1.1	µg/kg dry	4.90	ND	80.4	72-128			
Perfluoropentanoic acid (PFPeA)	4.65	1.1	µg/kg dry	5.54	ND	83.8	69-132			
Perfluorohexanoic acid (PFHxA)	4.57	1.1	µg/kg dry	5.54	ND	82.4	70-132			
11Cl-PF3OUdS (F53B Major)	3.97	1.1	µg/kg dry	5.22	ND	76.1	55.9-127			
9Cl-PF3ONS (F53B Minor)	3.68	1.1	µg/kg dry	5.17	ND	71.2	65.8-121			
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	4.32	1.1	µg/kg dry	5.22	ND	82.7	50-150			
Hexafluoropropylene oxide dimer acid (HFPO-DA)	4.28	1.1	µg/kg dry	5.54	ND	77.3	43.9-138			
8:2 Fluorotelomersulfonic acid (8:2FTS A)	4.58	1.1	µg/kg dry	5.32	ND	86.1	65-137			
Perfluorodecanoic acid (PFDA)	5.31	1.1	µg/kg dry	5.54	ND	95.8	69-133			
Perfluorododecanoic acid (PFDoA)	4.92	1.1	µg/kg dry	5.54	ND	88.8	69-135			
Perfluoro(2-ethoxyethane)sulfonic acid (PFEEA)	3.65	1.1	µg/kg dry	4.93	ND	73.9	65.5-133			
Perfluoroheptanesulfonic acid (PFHpS)	4.17	1.1	µg/kg dry	5.30	ND	78.8	70-132			
N-EtFOSAA (NEtFOSAA)	5.53	1.1	µg/kg dry	5.54	0.660	87.9	61-139			
N-MeFOSAA (NMeFOSAA)	4.86	1.1	µg/kg dry	5.54	ND	87.7	63-144			
Perfluorotetradecanoic acid (PFTA)	4.46	1.1	µg/kg dry	5.54	ND	80.5	69-133			
Perfluorotridecanoic acid (PFTTrDA)	4.56	1.1	µg/kg dry	5.54	ND	82.2	66-139			
4:2 Fluorotelomersulfonic acid (4:2FTS A)	4.16	1.1	µg/kg dry	5.19	ND	80.1	62-145			
Perfluorodecanesulfonic acid (PFDS)	5.72	1.1	µg/kg dry	5.34	ND	107	59-134			
Perfluorooctanesulfonamide (FOSA)	5.35	1.1	µg/kg dry	5.54	ND	96.5	67-137			
Perfluorononanesulfonic acid (PFNS)	3.88	1.1	µg/kg dry	5.32	ND	72.9	69-125			
Perfluoro-1-hexanesulfonamide (FHxSA)	4.17	1.1	µg/kg dry	5.54	ND	75.2	43.7-166			
Perfluoro-1-butanefulfonamide (FBSA)	4.54	1.1	µg/kg dry	5.54	ND	81.9	59.6-139			
Perfluorohexanesulfonic acid (PFHxS)	4.50	1.1	µg/kg dry	5.08	ND	88.7	67-130			
Perfluoro-4-oxapentanoic acid (PFMPA)	4.33	1.1	µg/kg dry	5.54	ND	78.2	63.5-137			
Perfluoro-5-oxahexanoic acid (PFMBA)	3.98	1.1	µg/kg dry	5.54	ND	71.8	64.7-135			

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QUALITY CONTROL
Semivolatile Organic Compounds by - LC/MS-MS - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B352507 - SOP 466-PFAAS										
Matrix Spike (B352507-MS1)	Source: 2311834-08			Prepared: 09/20/23 Analyzed: 09/26/23						
6:2 Fluorotelomersulfonic acid (6:2FTS A)	4.38	1.1	µg/kg dry	5.27	ND	83.2	64-140			
Perfluoropentanesulfonic acid (PFPeS)	4.00	1.1	µg/kg dry	5.21	ND	76.7	73-123			
Perfluoroundecanoic acid (PFUnA)	4.36	1.1	µg/kg dry	5.54	ND	78.6	64-136			
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	4.34	1.1	µg/kg dry	5.54	ND	78.4	59.8-147			
Perfluoroheptanoic acid (PFHpA)	4.71	1.1	µg/kg dry	5.54	ND	85.0	71-131			
Perfluorooctanoic acid (PFOA)	5.91	1.1	µg/kg dry	5.54	0.998	88.5	69-133			
Perfluorooctanesulfonic acid (PFOS)	9.01	1.1	µg/kg dry	5.12	4.48	88.6	68-136			
Perfluorononanoic acid (PFNA)	4.73	1.1	µg/kg dry	5.54	ND	85.3	72-129			
Matrix Spike Dup (B352507-MSD1)	Source: 2311834-08			Prepared: 09/20/23 Analyzed: 09/26/23						
Perfluorobutanoic acid (PFBA)	4.96	1.1	µg/kg dry	5.47	ND	90.6	71-135	5.36	30	
Perfluorobutanesulfonic acid (PFBS)	4.14	1.1	µg/kg dry	4.84	ND	85.6	72-128	4.90	30	
Perfluoropentanoic acid (PFPeA)	4.89	1.1	µg/kg dry	5.47	ND	89.4	69-132	5.22	30	
Perfluorohexanoic acid (PFHxA)	4.76	1.1	µg/kg dry	5.47	ND	86.9	70-132	4.03	30	
11Cl-PF3OUdS (F53B Major)	4.11	1.1	µg/kg dry	5.16	ND	79.8	55.9-127	3.49	30	
9Cl-PF3ONS (F53B Minor)	3.90	1.1	µg/kg dry	5.10	ND	76.5	65.8-121	5.93	30	
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	4.50	1.1	µg/kg dry	5.16	ND	87.3	50-150	4.24	30	
Hexafluoropropylene oxide dimer acid (HFPO-DA)	5.10	1.1	µg/kg dry	5.47	ND	93.2	43.9-138	17.4	30	
8:2 Fluorotelomersulfonic acid (8:2FTS A)	4.38	1.1	µg/kg dry	5.25	ND	83.4	65-137	4.42	30	
Perfluorodecanoic acid (PFDA)	5.30	1.1	µg/kg dry	5.47	ND	96.8	69-133	0.248	30	
Perfluorododecanoic acid (PFDoA)	4.68	1.1	µg/kg dry	5.47	ND	85.5	69-135	4.93	30	
Perfluoro(2-ethoxyethane)sulfonic acid (PFEEA)	3.82	1.1	µg/kg dry	4.87	ND	78.3	65.5-133	4.56	30	
Perfluoroheptanesulfonic acid (PFHpS)	4.16	1.1	µg/kg dry	5.23	ND	79.5	70-132	0.251	30	
N-EtFOSAA (NEtFOSAA)	5.34	1.1	µg/kg dry	5.47	0.660	85.5	61-139	3.62	30	
N-MeFOSAA (NMeFOSAA)	4.88	1.1	µg/kg dry	5.47	ND	89.2	63-144	0.508	30	
Perfluorotetradecanoic acid (PFTA)	4.74	1.1	µg/kg dry	5.47	ND	86.6	69-133	6.05	30	
Perfluorotridecanoic acid (PFTrDA)	4.53	1.1	µg/kg dry	5.47	ND	82.8	66-139	0.495	30	
4:2 Fluorotelomersulfonic acid (4:2FTS A)	4.39	1.1	µg/kg dry	5.12	ND	85.7	62-145	5.50	30	
Perfluorodecanesulfonic acid (PFDS)	5.14	1.1	µg/kg dry	5.28	ND	97.5	59-134	10.6	30	
Perfluorooctanesulfonamide (FOSA)	5.87	1.1	µg/kg dry	5.47	ND	107	67-137	9.23	30	
Perfluorononanesulfonic acid (PFNS)	4.31	1.1	µg/kg dry	5.25	ND	82.0	69-125	10.5	30	
Perfluoro-1-hexanesulfonamide (FHxSA)	4.20	1.1	µg/kg dry	5.47	ND	76.7	43.7-166	0.770	30	
Perfluoro-1-butanedisulfonamide (FBSA)	4.67	1.1	µg/kg dry	5.47	ND	85.3	59.6-139	2.82	30	
Perfluorohexanesulfonic acid (PFHxS)	4.86	1.1	µg/kg dry	5.01	ND	97.0	67-130	7.62	30	
Perfluoro-4-oxapentanoic acid (PFMPA)	4.55	1.1	µg/kg dry	5.47	ND	83.1	63.5-137	4.83	30	
Perfluoro-5-oxahexanoic acid (PFMBA)	4.15	1.1	µg/kg dry	5.47	ND	75.8	64.7-135	4.12	30	
6:2 Fluorotelomersulfonic acid (6:2FTS A)	4.80	1.1	µg/kg dry	5.20	ND	92.3	64-140	9.12	30	
Perfluoropentanesulfonic acid (PFPeS)	4.35	1.1	µg/kg dry	5.14	ND	84.6	73-123	8.57	30	
Perfluoroundecanoic acid (PFUnA)	4.33	1.1	µg/kg dry	5.47	ND	79.1	64-136	0.571	30	
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	4.64	1.1	µg/kg dry	5.47	ND	84.7	59.8-147	6.54	30	
Perfluoroheptanoic acid (PFHpA)	4.80	1.1	µg/kg dry	5.47	ND	87.7	71-131	1.83	30	
Perfluorooctanoic acid (PFOA)	6.12	1.1	µg/kg dry	5.47	0.998	93.6	69-133	3.59	30	
Perfluorooctanesulfonic acid (PFOS)	11.1	1.1	µg/kg dry	5.06	4.48	132	68-136	21.0	30	MS-22
Perfluorononanoic acid (PFNA)	4.93	1.1	µg/kg dry	5.47	ND	90.1	72-129	4.18	30	

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QUALITY CONTROL
Semivolatile Organic Compounds by - LC/MS-MS - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch B353115 - SOP 454-PFAAS
Blank (B353115-BLK1)

Prepared: 10/02/23 Analyzed: 10/09/23

Perfluorobutanoic acid (PFBA)	ND	2.0	ng/L
Perfluorobutanesulfonic acid (PFBS)	ND	2.0	ng/L
Perfluoropentanoic acid (PFPeA)	ND	2.0	ng/L
Perfluorohexanoic acid (PFHxA)	ND	2.0	ng/L
11Cl-PF3OUdS (F53B Major)	ND	2.0	ng/L
9Cl-PF3ONS (F53B Minor)	ND	2.0	ng/L
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	ND	2.0	ng/L
Hexafluoropropylene oxide dimer acid (HFPO-DA)	ND	2.0	ng/L
8:2 Fluorotelomersulfonic acid (8:2FTS A)	ND	2.0	ng/L
Perfluorodecanoic acid (PFDA)	ND	2.0	ng/L
Perfluorododecanoic acid (PFDoA)	ND	2.0	ng/L
Perfluoro(2-ethoxyethane)sulfonic acid (PFEESA)	ND	2.0	ng/L
Perfluoroheptanesulfonic acid (PFHpS)	ND	2.0	ng/L
N-EtFOSAA (NEtFOSAA)	ND	2.0	ng/L
N-MeFOSAA (NMeFOSAA)	ND	2.0	ng/L
Perfluorotetradecanoic acid (PFTA)	ND	2.0	ng/L
Perfluorotridecanoic acid (PFTrDA)	ND	2.0	ng/L
4:2 Fluorotelomersulfonic acid (4:2FTS A)	ND	2.0	ng/L
Perfluorodecanesulfonic acid (PFDS)	ND	2.0	ng/L
Perfluorooctanesulfonamide (FOSA)	ND	2.0	ng/L
Perfluorononanesulfonic acid (PFNS)	ND	2.0	ng/L
Perfluoro-1-hexanesulfonamide (FHxSA)	ND	2.0	ng/L
Perfluoro-1-butanesulfonamide (FBSA)	ND	2.0	ng/L
Perfluorohexanesulfonic acid (PFHxS)	ND	2.0	ng/L
Perfluoro-4-oxapentanoic acid (PFMPA)	ND	2.0	ng/L
Perfluoro-5-oxahexanoic acid (PFMBA)	ND	2.0	ng/L
6:2 Fluorotelomersulfonic acid (6:2FTS A)	ND	2.0	ng/L
Perfluoropentanesulfonic acid (PFPeS)	ND	2.0	ng/L
Perfluoroundecanoic acid (PFUnA)	ND	2.0	ng/L
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	ND	2.0	ng/L
Perfluoroheptanoic acid (PFHpA)	ND	2.0	ng/L
Perfluorooctanoic acid (PFOA)	ND	2.0	ng/L
Perfluorooctanesulfonic acid (PFOS)	ND	2.0	ng/L
Perfluorononanoic acid (PFNA)	ND	2.0	ng/L

LCS (B353115-BS1)

Prepared: 10/02/23 Analyzed: 10/09/23

Perfluorobutanoic acid (PFBA)	10.1	2.0	ng/L	9.89	102	73-129
Perfluorobutanesulfonic acid (PFBS)	8.48	2.0	ng/L	8.76	96.8	72-130
Perfluoropentanoic acid (PFPeA)	10.2	2.0	ng/L	9.89	103	72-129
Perfluorohexanoic acid (PFHxA)	10.2	2.0	ng/L	9.89	103	72-129
11Cl-PF3OUdS (F53B Major)	6.59	2.0	ng/L	9.32	70.7	43.3-138
9Cl-PF3ONS (F53B Minor)	6.49	2.0	ng/L	9.22	70.4	52-140
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	9.09	2.0	ng/L	9.32	97.5	53.7-152
Hexafluoropropylene oxide dimer acid (HFPO-DA)	13.5	2.0	ng/L	9.89	136	42.1-145
8:2 Fluorotelomersulfonic acid (8:2FTS A)	10.2	2.0	ng/L	9.50	107	67-138
Perfluorodecanoic acid (PFDA)	10.1	2.0	ng/L	9.89	102	71-129
Perfluorododecanoic acid (PFDoA)	9.53	2.0	ng/L	9.89	96.3	72-134
Perfluoro(2-ethoxyethane)sulfonic acid (PFEESA)	9.23	2.0	ng/L	8.81	105	52.7-147

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QUALITY CONTROL
Semivolatile Organic Compounds by - LC/MS-MS - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch B353115 - SOP 454-PFAAS
LCS (B353115-BS1)

Prepared: 10/02/23 Analyzed: 10/09/23

Perfluoroheptanesulfonic acid (PFHpS)	9.33	2.0	ng/L	9.45		98.8	69-134			
N-EtFOSAA (NEtFOSAA)	11.5	2.0	ng/L	9.89		117	61-135			
N-MeFOSAA (NMeFOSAA)	12.2	2.0	ng/L	9.89		123	65-136			
Perfluorotetradecanoic acid (PFTA)	9.64	2.0	ng/L	9.89		97.5	71-132			
Perfluorotridecanoic acid (PFTTrDA)	9.59	2.0	ng/L	9.89		97.0	65-144			
4:2 Fluorotelomersulfonic acid (4:2FTS A)	9.99	2.0	ng/L	9.25		108	63-143			
Perfluorodecanesulfonic acid (PFDS)	8.73	2.0	ng/L	9.55		91.5	53-142			
Perfluorooctanesulfonamide (FOSA)	10.2	2.0	ng/L	9.89		103	67-137			
Perfluorononanesulfonic acid (PFNS)	8.37	2.0	ng/L	9.50		88.1	69-127			
Perfluoro-1-hexanesulfonamide (FHxSA)	7.72	2.0	ng/L	9.89		78.0	50-150			
Perfluoro-1-butanefulfonamide (FBSA)	8.34	2.0	ng/L	9.89		84.3	50-150			
Perfluorohexanesulfonic acid (PFHxS)	9.34	2.0	ng/L	9.05		103	68-131			
Perfluoro-4-oxapentanoic acid (PFMPA)	8.96	2.0	ng/L	9.89		90.5	53.8-150			
Perfluoro-5-oxahexanoic acid (PFMBA)	8.73	2.0	ng/L	9.89		88.2	54.5-152			
6:2 Fluorotelomersulfonic acid (6:2FTS A)	9.60	2.0	ng/L	9.40		102	64-140			
Perfluoropentanesulfonic acid (PFPeS)	8.63	2.0	ng/L	9.30		92.8	71-127			
Perfluoroundecanoic acid (PFUnA)	10.1	2.0	ng/L	9.89		102	69-133			
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	10.0	2.0	ng/L	9.89		101	50.5-159			
Perfluoroheptanoic acid (PFHpA)	9.28	2.0	ng/L	9.89		93.8	72-130			
Perfluorooctanoic acid (PFOA)	9.65	2.0	ng/L	9.89		97.6	71-133			
Perfluorooctanesulfonic acid (PFOS)	8.59	2.0	ng/L	9.15		93.8	65-140			
Perfluorononanoic acid (PFNA)	10.2	2.0	ng/L	9.89		103	69-130			

Matrix Spike (B353115-MS1)
Source: 23I1834-02

Prepared: 10/02/23 Analyzed: 10/09/23

Perfluorobutanoic acid (PFBA)	44.9	4.2	ng/L	20.8	15.2	142	*	73-129		MS-22
Perfluorobutanesulfonic acid (PFBS)	29.3	4.2	ng/L	18.4	2.97	143	*	72-130		MS-12
Perfluoropentanoic acid (PFPeA)	51.6	4.2	ng/L	20.8	17.9	162	*	72-129		MS-12
Perfluorohexanoic acid (PFHxA)	49.5	4.2	ng/L	20.8	18.7	148	*	72-129		MS-12
11Cl-PF3OUdS (F53B Major)	18.0	4.2	ng/L	19.6	ND	91.6		50-150		
9Cl-PF3ONS (F53B Minor)	19.4	4.2	ng/L	19.4	ND	99.7		50-150		
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	27.0	4.2	ng/L	19.6	ND	137		51.4-161		
Hexafluoropropylene oxide dimer acid (HFPO-DA)	29.0	4.2	ng/L	20.8	ND	139		40.3-148		
8:2 Fluorotelomersulfonic acid (8:2FTS A)	29.0	4.2	ng/L	20.0	ND	145	*	67-138		MS-12
Perfluorodecanoic acid (PFDA)	30.3	4.2	ng/L	20.8	ND	145	*	71-129		MS-12
Perfluorododecanoic acid (PFDoA)	27.8	4.2	ng/L	20.8	ND	133		72-134		
Perfluoro(2-ethoxyethane)sulfonic acid (PFEEESA)	26.8	4.2	ng/L	18.5	ND	145		57.2-150		
Perfluoroheptanesulfonic acid (PFHpS)	29.4	4.2	ng/L	19.9	1.89	138	*	69-134		MS-22
N-EtFOSAA (NEtFOSAA)	34.7	4.2	ng/L	20.8	ND	167	*	61-135		MS-12
N-MeFOSAA (NMeFOSAA)	37.9	4.2	ng/L	20.8	ND	182	*	65-136		MS-12
Perfluorotetradecanoic acid (PFTA)	29.2	4.2	ng/L	20.8	ND	140	*	71-132		MS-12
Perfluorotridecanoic acid (PFTTrDA)	35.3	4.2	ng/L	20.8	ND	170	*	65-144		MS-22
4:2 Fluorotelomersulfonic acid (4:2FTS A)	28.3	4.2	ng/L	19.5	ND	145	*	63-143		MS-12
Perfluorodecanesulfonic acid (PFDS)	24.5	4.2	ng/L	20.1	ND	122		53-142		
Perfluorooctanesulfonamide (FOSA)	29.9	4.2	ng/L	20.8	ND	143	*	67-137		MS-22
Perfluorononanesulfonic acid (PFNS)	21.4	4.2	ng/L	20.0	ND	107		69-127		
Perfluoro-1-hexanesulfonamide (FHxSA)	22.0	4.2	ng/L	20.8	ND	106		50-150		
Perfluoro-1-butanefulfonamide (FBSA)	25.8	4.2	ng/L	20.8	ND	124		49.5-154		
Perfluorohexanesulfonic acid (PFHxS)	44.5	4.2	ng/L	19.1	17.8	140	*	68-131		MS-12

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QUALITY CONTROL
Semivolatile Organic Compounds by - LC/MS-MS - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B353115 - SOP 454-PFAAS										
Matrix Spike (B353115-MS1)	Source: 2311834-02			Prepared: 10/02/23 Analyzed: 10/09/23						
Perfluoro-4-oxapentanoic acid (PFMPA)	32.9	4.2	ng/L	20.8	ND	158	* 50-150			MS-22
Perfluoro-5-oxahexanoic acid (PFMBA)	25.9	4.2	ng/L	20.8	ND	124	58.1-164			
6:2 Fluorotelomersulfonic acid (6:2FTS A)	29.8	4.2	ng/L	19.8	ND	150	* 64-140			MS-12
Perfluoropentanesulfonic acid (PFPeS)	28.1	4.2	ng/L	19.6	2.63	130	* 71-127			MS-12
Perfluoroundecanoic acid (PFUnA)	27.5	4.2	ng/L	20.8	ND	132	69-133			
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	28.8	4.2	ng/L	20.8	ND	138	54.6-170			
Perfluoroheptanoic acid (PFHpA)	45.1	4.2	ng/L	20.8	15.1	144	* 72-130			MS-22
Perfluorooctanoic acid (PFOA)	116	4.2	ng/L	20.8	84.2	153	* 71-133			MS-19
Perfluorooctanesulfonic acid (PFOS)	70.2	4.2	ng/L	19.3	41.4	150	* 65-140			MS-12
Perfluorononanoic acid (PFNA)	32.7	4.2	ng/L	20.8	3.44	140	* 69-130			MS-12
Matrix Spike (B353115-MS2)	Source: 2311834-07			Prepared: 10/02/23 Analyzed: 10/09/23						
Perfluorobutanoic acid (PFBA)	46.3	1.8	ng/L	9.04	29.0	191	* 73-129			MS-12
Perfluorobutanesulfonic acid (PFBS)	23.8	1.8	ng/L	8.00	14.1	120	72-130			
Perfluoropentanoic acid (PFPeA)	29.0	1.8	ng/L	9.04	19.9	100	72-129			
Perfluorohexanoic acid (PFHxA)	35.6	1.8	ng/L	9.04	24.5	123	72-129			
11Cl-PF3OUdS (F53B Major)	3.97	1.8	ng/L	8.52	ND	46.6	* 50-150			MS-22
9Cl-PF3ONS (F53B Minor)	8.07	1.8	ng/L	8.43	ND	95.8	50-150			
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	10.9	1.8	ng/L	8.52	ND	128	51.4-161			
Hexafluoropropylene oxide dimer acid (HFPO-DA)	14.7	1.8	ng/L	9.04	1.11	150	* 40.3-148			MS-22
8:2 Fluorotelomersulfonic acid (8:2FTS A)	14.4	1.8	ng/L	8.68	ND	166	* 67-138			MS-12
Perfluorodecanoic acid (PFDA)	19.4	1.8	ng/L	9.04	6.64	141	* 71-129			MS-12
Perfluorododecanoic acid (PFDoA)	13.4	1.8	ng/L	9.04	ND	149	* 72-134			MS-12
Perfluoro(2-ethoxyethane)sulfonic acid (PFEESA)	11.8	1.8	ng/L	8.05	ND	147	57.2-150			
Perfluoroheptanesulfonic acid (PFHpS)	18.9	1.8	ng/L	8.64	5.07	160	* 69-134			MS-22
N-EtFOSAA (NEtFOSAA)	53.8	1.8	ng/L	9.04	41.4	137	* 61-135			MS-12
N-MeFOSAA (NMeFOSAA)	19.3	1.8	ng/L	9.04	4.57	163	* 65-136			MS-12
Perfluorotetradecanoic acid (PFTA)	12.8	1.8	ng/L	9.04	ND	142	* 71-132			MS-12
Perfluorotridecanoic acid (PFTriDA)	37.3	1.8	ng/L	9.04	ND	412	* 65-144			MS-12
4:2 Fluorotelomersulfonic acid (4:2FTS A)	12.0	1.8	ng/L	8.45	ND	142	63-143			
Perfluorodecanesulfonic acid (PFDS)	6.12	1.8	ng/L	8.73	ND	70.2	53-142			
Perfluorooctanesulfonamide (FOSA)	14.2	1.8	ng/L	9.04	2.48	129	67-137			
Perfluorononanesulfonic acid (PFNS)	10.3	1.8	ng/L	8.68	ND	119	69-127			
Perfluoro-1-hexanesulfonamide (FHxSA)	4.82	1.8	ng/L	9.04	ND	53.3	50-150			
Perfluoro-1-butanedisulfonamide (FBSA)	10.1	1.8	ng/L	9.04	0.765	103	49.5-154			
Perfluorohexanesulfonic acid (PFHxS)	32.5	1.8	ng/L	8.27	23.6	108	68-131			
Perfluoro-4-oxapentanoic acid (PFMPA)	15.5	1.8	ng/L	9.04	ND	172	* 50-150			MS-12
Perfluoro-5-oxahexanoic acid (PFMBA)	12.6	1.8	ng/L	9.04	ND	139	58.1-164			
6:2 Fluorotelomersulfonic acid (6:2FTS A)	15.0	1.8	ng/L	8.59	ND	174	* 64-140			MS-12
Perfluoropentanesulfonic acid (PFPeS)	13.2	1.8	ng/L	8.50	1.10	142	* 71-127			MS-12
Perfluoroundecanoic acid (PFUnA)	12.4	1.8	ng/L	9.04	ND	137	* 69-133			MS-12
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	11.5	1.8	ng/L	9.04	ND	128	54.6-170			
Perfluoroheptanoic acid (PFHpA)	36.5	1.8	ng/L	9.04	21.6	165	* 72-130			MS-12
Perfluorooctanoic acid (PFOA)	123	1.8	ng/L	9.04	107	180	* 71-133			MS-19
Perfluorooctanesulfonic acid (PFOS)	133	1.8	ng/L	8.36	108	298	* 65-140			MS-12
Perfluorononanoic acid (PFNA)	27.3	1.8	ng/L	9.04	12.7	161	* 69-130			MS-12

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QUALITY CONTROL
Semivolatile Organic Compounds by - LC/MS-MS - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch B353115 - SOP 454-PFAAS

Matrix Spike Dup (B353115-MSD1)		Source: 23I1834-02		Prepared: 10/02/23		Analyzed: 10/10/23				
Perfluorobutanoic acid (PFBA)	41.7	4.1	ng/L	20.7	15.2	128	73-129	7.26	30	
Perfluorobutanesulfonic acid (PFBS)	28.3	4.1	ng/L	18.3	2.97	138	* 72-130	3.70	30	MS-12
Perfluoropentanoic acid (PFPeA)	56.7	4.1	ng/L	20.7	17.9	188	* 72-129	9.27	30	MS-12
Perfluorohexanoic acid (PFHxA)	47.4	4.1	ng/L	20.7	18.7	139	* 72-129	4.39	30	MS-12
11Cl-PF3OUdS (F53B Major)	19.7	4.1	ng/L	19.5	ND	101	50-150	9.25	30	
9Cl-PF3ONS (F53B Minor)	20.1	4.1	ng/L	19.3	ND	104	50-150	3.71	30	
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	24.8	4.1	ng/L	19.5	ND	128	51.4-161	8.16	30	
Hexafluoropropylene oxide dimer acid (HFPO-DA)	27.2	4.1	ng/L	20.7	ND	131	40.3-148	6.54	30	
8:2 Fluorotelomersulfonic acid (8:2FTS A)	28.6	4.1	ng/L	19.9	ND	144	* 67-138	1.41	30	MS-12
Perfluorodecanoic acid (PFDA)	29.6	4.1	ng/L	20.7	ND	143	* 71-129	2.36	30	MS-12
Perfluorododecanoic acid (PFDoA)	27.0	4.1	ng/L	20.7	ND	131	72-134	2.96	30	
Perfluoro(2-ethoxyethane)sulfonic acid (PFEEESA)	25.5	4.1	ng/L	18.4	ND	139	57.2-150	4.92	30	
Perfluoroheptanesulfonic acid (PFHpS)	28.3	4.1	ng/L	19.7	1.89	134	69-134	3.55	30	
N-EtFOSAA (NEtFOSAA)	34.5	4.1	ng/L	20.7	ND	167	* 61-135	0.814	30	MS-12
N-MeFOSAA (NMeFOSAA)	33.8	4.1	ng/L	20.7	ND	164	* 65-136	11.4	30	MS-12
Perfluorotetradecanoic acid (PFTA)	27.6	4.1	ng/L	20.7	ND	134	* 71-132	5.61	30	MS-12
Perfluorotridecanoic acid (PFTrDA)	28.4	4.1	ng/L	20.7	ND	137	65-144	21.8	30	
4:2 Fluorotelomersulfonic acid (4:2FTS A)	26.6	4.1	ng/L	19.3	ND	137	63-143	6.16	30	
Perfluorodecanesulfonic acid (PFDS)	25.4	4.1	ng/L	20.0	ND	127	53-142	3.33	30	
Perfluorooctanesulfonamide (FOSA)	27.7	4.1	ng/L	20.7	ND	134	67-137	7.50	30	
Perfluorononanesulfonic acid (PFNS)	23.8	4.1	ng/L	19.9	ND	120	69-127	10.9	30	
Perfluoro-1-hexanesulfonamide (FHxSA)	17.5	4.1	ng/L	20.7	ND	84.8	50-150	22.7	30	
Perfluoro-1-butanedisulfonamide (FBSA)	23.3	4.1	ng/L	20.7	ND	113	49.5-154	9.99	30	
Perfluorohexanesulfonic acid (PFHxS)	44.8	4.1	ng/L	18.9	17.8	143	* 68-131	0.786	30	MS-12
Perfluoro-4-oxapentanoic acid (PFMPA)	30.8	4.1	ng/L	20.7	ND	149	50-150	6.65	30	
Perfluoro-5-oxahexanoic acid (PFMBA)	25.0	4.1	ng/L	20.7	ND	121	58.1-164	3.87	30	
6:2 Fluorotelomersulfonic acid (6:2FTS A)	30.1	4.1	ng/L	19.6	ND	153	* 64-140	1.05	30	MS-12
Perfluoropentanesulfonic acid (PFPeS)	28.5	4.1	ng/L	19.4	2.63	133	* 71-127	1.44	30	MS-12
Perfluoroundecanoic acid (PFUnA)	29.7	4.1	ng/L	20.7	ND	143	* 69-133	7.64	30	MS-22
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	26.9	4.1	ng/L	20.7	ND	130	54.6-170	6.69	30	
Perfluoroheptanoic acid (PFHpA)	41.3	4.1	ng/L	20.7	15.1	127	72-130	8.58	30	
Perfluorooctanoic acid (PFOA)	112	4.1	ng/L	20.7	84.2	132	71-133	3.99	30	
Perfluorooctanesulfonic acid (PFOS)	72.6	4.1	ng/L	19.1	41.4	163	* 65-140	3.33	30	MS-12
Perfluorononanoic acid (PFNA)	31.5	4.1	ng/L	20.7	3.44	136	* 69-130	3.74	30	MS-12

Matrix Spike Dup (B353115-MSD2)		Source: 23I1834-07		Prepared: 10/02/23		Analyzed: 10/10/23				
Perfluorobutanoic acid (PFBA)	43.0	1.7	ng/L	8.74	29.0	159	* 73-129	7.40	30	MS-12
Perfluorobutanesulfonic acid (PFBS)	26.2	1.7	ng/L	7.74	14.1	156	* 72-130	9.88	30	MS-22
Perfluoropentanoic acid (PFPeA)	27.9	1.7	ng/L	8.74	19.9	92.2	72-129	3.56	30	
Perfluorohexanoic acid (PFHxA)	37.1	1.7	ng/L	8.74	24.5	145	* 72-129	4.15	30	MS-22
11Cl-PF3OUdS (F53B Major)	5.20	1.7	ng/L	8.24	ND	63.2	50-150	27.0	30	
9Cl-PF3ONS (F53B Minor)	7.54	1.7	ng/L	8.15	ND	92.5	50-150	6.83	30	
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	10.3	1.7	ng/L	8.24	ND	125	51.4-161	5.51	30	
Hexafluoropropylene oxide dimer acid (HFPO-DA)	13.7	1.7	ng/L	8.74	1.11	144	40.3-148	6.62	30	
8:2 Fluorotelomersulfonic acid (8:2FTS A)	13.7	1.7	ng/L	8.39	ND	164	* 67-138	5.03	30	MS-12
Perfluorodecanoic acid (PFDA)	19.1	1.7	ng/L	8.74	6.64	143	* 71-129	1.27	30	MS-12

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QUALITY CONTROL
Semivolatile Organic Compounds by - LC/MS-MS - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch B353115 - SOP 454-PFAAS

Matrix Spike Dup (B353115-MSD2)		Source: 2311834-07		Prepared: 10/02/23 Analyzed: 10/10/23						
Perfluorododecanoic acid (PFDoA)	12.4	1.7	ng/L	8.74	ND	142	* 72-134	8.16	30	MS-12
Perfluoro(2-ethoxyethane)sulfonic acid (PFEEESA)	12.1	1.7	ng/L	7.78	ND	156	* 57.2-150	2.69	30	MS-22
Perfluoroheptanesulfonic acid (PFHpS)	15.5	1.7	ng/L	8.35	5.07	125	69-134	19.6	30	
N-EtFOSAA (NEtFOSAA)	72.8	1.7	ng/L	8.74	41.4	359	* 61-135	30.0	30	MS-12
N-MeFOSAA (NMeFOSAA)	19.9	1.7	ng/L	8.74	4.57	175	* 65-136	3.14	30	MS-12
Perfluorotetradecanoic acid (PFTA)	12.3	1.7	ng/L	8.74	ND	140	* 71-132	4.40	30	MS-12
Perfluorotridecanoic acid (PFTrDA)	26.2	1.7	ng/L	8.74	ND	299	* 65-144	35.1	* 30	MS-12, R-06
4:2 Fluorotelomersulfonic acid (4:2FTS A)	12.2	1.7	ng/L	8.18	ND	150	* 63-143	1.68	30	MS-12
Perfluorodecanesulfonic acid (PFDS)	9.84	1.7	ng/L	8.44	ND	117	53-142	46.6	* 30	R-06
Perfluorooctanesulfonamide (FOSA)	14.9	1.7	ng/L	8.74	2.48	143	* 67-137	5.22	30	MS-22
Perfluorononanesulfonic acid (PFNS)	8.77	1.7	ng/L	8.39	ND	104	69-127	16.1	30	
Perfluoro-1-hexanesulfonamide (FHxSA)	4.63	1.7	ng/L	8.74	ND	52.9	50-150	4.09	30	
Perfluoro-1-butanedisulfonamide (FBSA)	9.92	1.7	ng/L	8.74	0.765	105	49.5-154	1.55	30	
Perfluorohexanesulfonic acid (PFHxS)	38.9	1.7	ng/L	8.00	23.6	191	* 68-131	17.7	30	MS-22
Perfluoro-4-oxapentanoic acid (PFMPA)	15.3	1.7	ng/L	8.74	ND	175	* 50-150	1.51	30	MS-12
Perfluoro-5-oxahexanoic acid (PFMBA)	12.6	1.7	ng/L	8.74	ND	144	58.1-164	0.212	30	
6:2 Fluorotelomersulfonic acid (6:2FTS A)	14.3	1.7	ng/L	8.31	ND	172	* 64-140	4.73	30	MS-12
Perfluoropentanesulfonic acid (PFPeS)	12.9	1.7	ng/L	8.22	1.10	143	* 71-127	2.42	30	MS-12
Perfluoroundecanoic acid (PFUnA)	13.9	1.7	ng/L	8.74	ND	159	* 69-133	11.6	30	MS-12
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	11.3	1.7	ng/L	8.74	ND	129	54.6-170	1.95	30	
Perfluoroheptanoic acid (PFHpA)	37.1	1.7	ng/L	8.74	21.6	177	* 72-130	1.67	30	MS-12
Perfluorooctanoic acid (PFOA)	124	1.7	ng/L	8.74	107	197	* 71-133	0.829	30	MS-19
Perfluorooctanesulfonic acid (PFOS)	121	1.7	ng/L	8.09	108	162	* 65-140	9.28	30	MS-12
Perfluorononanoic acid (PFNA)	26.8	1.7	ng/L	8.74	12.7	160	* 69-130	2.12	30	MS-12

Batch B354579 - SOP 454-PFAAS

Blank (B354579-BLK1)				Prepared: 10/10/23 Analyzed: 10/11/23						
Perfluorobutanoic acid (PFBA)	ND	1.8	ng/L							
Perfluorobutanesulfonic acid (PFBS)	ND	1.8	ng/L							
Perfluoropentanoic acid (PFPeA)	ND	1.8	ng/L							
Perfluorohexanoic acid (PFHxA)	ND	1.8	ng/L							
11Cl-PF3OUdS (F53B Major)	ND	1.8	ng/L							
9Cl-PF3ONS (F53B Minor)	ND	1.8	ng/L							
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	ND	1.8	ng/L							
Hexafluoropropylene oxide dimer acid (HFPO-DA)	ND	1.8	ng/L							
8:2 Fluorotelomersulfonic acid (8:2FTS A)	ND	1.8	ng/L							
Perfluorodecanoic acid (PFDA)	ND	1.8	ng/L							
Perfluorododecanoic acid (PFDoA)	ND	1.8	ng/L							
Perfluoro(2-ethoxyethane)sulfonic acid (PFEEESA)	ND	1.8	ng/L							
Perfluoroheptanesulfonic acid (PFHpS)	ND	1.8	ng/L							
N-EtFOSAA (NEtFOSAA)	ND	1.8	ng/L							
N-MeFOSAA (NMeFOSAA)	ND	1.8	ng/L							
Perfluorotetradecanoic acid (PFTA)	ND	1.8	ng/L							
Perfluorotridecanoic acid (PFTrDA)	ND	1.8	ng/L							
4:2 Fluorotelomersulfonic acid (4:2FTS A)	ND	1.8	ng/L							
Perfluorodecanesulfonic acid (PFDS)	ND	1.8	ng/L							
Perfluorooctanesulfonamide (FOSA)	ND	1.8	ng/L							

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QUALITY CONTROL
Semivolatile Organic Compounds by - LC/MS-MS - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch B354579 - SOP 454-PFAAS
Blank (B354579-BLK1)

Prepared: 10/10/23 Analyzed: 10/11/23

Perfluorononanesulfonic acid (PFNS)	ND	1.8	ng/L
Perfluoro-1-hexanesulfonamide (FHxSA)	ND	1.8	ng/L
Perfluoro-1-butanesulfonamide (FBSA)	ND	1.8	ng/L
Perfluorohexanesulfonic acid (PFHxS)	ND	1.8	ng/L
Perfluoro-4-oxapentanoic acid (PFMPA)	ND	1.8	ng/L
Perfluoro-5-oxahexanoic acid (PFMBA)	ND	1.8	ng/L
6:2 Fluorotelomersulfonic acid (6:2FTS A)	ND	1.8	ng/L
Perfluoropentanesulfonic acid (PFPeS)	ND	1.8	ng/L
Perfluoroundecanoic acid (PFUnA)	ND	1.8	ng/L
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	ND	1.8	ng/L
Perfluoroheptanoic acid (PFHpA)	ND	1.8	ng/L
Perfluorooctanoic acid (PFOA)	ND	1.8	ng/L
Perfluorooctanesulfonic acid (PFOS)	ND	1.8	ng/L
Perfluorononanoic acid (PFNA)	ND	1.8	ng/L

LCS (B354579-BS1)

Prepared: 10/10/23 Analyzed: 10/11/23

Perfluorobutanoic acid (PFBA)	8.03	1.9	ng/L	9.36	85.9	73-129
Perfluorobutanesulfonic acid (PFBS)	6.95	1.9	ng/L	8.28	83.9	72-130
Perfluoropentanoic acid (PFPeA)	8.02	1.9	ng/L	9.36	85.7	72-129
Perfluorohexanoic acid (PFHxA)	7.89	1.9	ng/L	9.36	84.3	72-129
11Cl-PF3OUdS (F53B Major)	7.62	1.9	ng/L	8.81	86.5	43.3-138
9Cl-PF3ONS (F53B Minor)	7.29	1.9	ng/L	8.72	83.6	52-140
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	9.22	1.9	ng/L	8.81	105	53.7-152
Hexafluoropropylene oxide dimer acid (HFPO-DA)	9.65	1.9	ng/L	9.36	103	42.1-145
8:2 Fluorotelomersulfonic acid (8:2FTS A)	7.37	1.9	ng/L	8.98	82.0	67-138
Perfluorodecanoic acid (PFDA)	9.32	1.9	ng/L	9.36	99.6	71-129
Perfluorododecanoic acid (PFDoA)	7.92	1.9	ng/L	9.36	84.6	72-134
Perfluoro(2-ethoxyethane)sulfonic acid (PFEEA)	8.61	1.9	ng/L	8.33	103	52.7-147
Perfluoroheptanesulfonic acid (PFHpS)	8.23	1.9	ng/L	8.94	92.1	69-134
N-EtFOSAA (NEtFOSAA)	9.05	1.9	ng/L	9.36	96.7	61-135
N-MeFOSAA (NMeFOSAA)	8.52	1.9	ng/L	9.36	91.1	65-136
Perfluorotetradecanoic acid (PFTA)	7.59	1.9	ng/L	9.36	81.1	71-132
Perfluorotridecanoic acid (PFTTrDA)	7.50	1.9	ng/L	9.36	80.2	65-144
4:2 Fluorotelomersulfonic acid (4:2FTS A)	7.42	1.9	ng/L	8.75	84.8	63-143
Perfluorodecanesulfonic acid (PFDS)	7.09	1.9	ng/L	9.03	78.6	53-142
Perfluorooctanesulfonamide (FOSA)	8.08	1.9	ng/L	9.36	86.4	67-137
Perfluorononanesulfonic acid (PFNS)	7.50	1.9	ng/L	8.98	83.5	69-127
Perfluoro-1-hexanesulfonamide (FHxSA)	7.53	1.9	ng/L	9.36	80.5	50-150
Perfluoro-1-butanesulfonamide (FBSA)	8.45	1.9	ng/L	9.36	90.4	50-150
Perfluorohexanesulfonic acid (PFHxS)	7.11	1.9	ng/L	8.56	83.1	68-131
Perfluoro-4-oxapentanoic acid (PFMPA)	9.44	1.9	ng/L	9.36	101	53.8-150
Perfluoro-5-oxahexanoic acid (PFMBA)	9.68	1.9	ng/L	9.36	103	54.5-152
6:2 Fluorotelomersulfonic acid (6:2FTS A)	8.08	1.9	ng/L	8.89	91.0	64-140
Perfluoropentanesulfonic acid (PFPeS)	7.11	1.9	ng/L	8.80	80.8	71-127
Perfluoroundecanoic acid (PFUnA)	7.86	1.9	ng/L	9.36	84.0	69-133
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	9.14	1.9	ng/L	9.36	97.6	50.5-159
Perfluoroheptanoic acid (PFHpA)	8.09	1.9	ng/L	9.36	86.5	72-130
Perfluorooctanoic acid (PFOA)	7.92	1.9	ng/L	9.36	84.6	71-133
Perfluorooctanesulfonic acid (PFOS)	7.22	1.9	ng/L	8.65	83.4	65-140

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QUALITY CONTROL
Semivolatile Organic Compounds by - LC/MS-MS - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B354579 - SOP 454-PFAAS										
LCS (B354579-BS1)										
				Prepared: 10/10/23 Analyzed: 10/11/23						
Perfluorononanoic acid (PFNA)	9.04	1.9	ng/L	9.36		96.6	69-130			
LCS Dup (B354579-BSD1)										
				Prepared: 10/10/23 Analyzed: 10/11/23						
Perfluorobutanoic acid (PFBA)	7.82	1.8	ng/L	9.21		84.9	73-129	2.73	30	
Perfluorobutanesulfonic acid (PFBS)	6.92	1.8	ng/L	8.15		84.9	72-130	0.419	30	
Perfluoropentanoic acid (PFPeA)	7.84	1.8	ng/L	9.21		85.1	72-129	2.29	30	
Perfluorohexanoic acid (PFHxA)	7.86	1.8	ng/L	9.21		85.3	72-129	0.407	30	
11Cl-PF3OUdS (F53B Major)	8.22	1.8	ng/L	8.68		94.7	43.3-138	7.60	30	
9Cl-PF3ONS (F53B Minor)	7.70	1.8	ng/L	8.59		89.7	52-140	5.54	30	
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	8.86	1.8	ng/L	8.68		102	53.7-152	3.97	30	
Hexafluoropropylene oxide dimer acid (HFPO-DA)	8.64	1.8	ng/L	9.21		93.7	42.1-145	11.1	30	
8:2 Fluorotelomersulfonic acid (8:2FTS A)	7.51	1.8	ng/L	8.84		84.9	67-138	1.89	30	
Perfluorodecanoic acid (PFDA)	9.41	1.8	ng/L	9.21		102	71-129	0.972	30	
Perfluorododecanoic acid (PFDoA)	7.41	1.8	ng/L	9.21		80.4	72-134	6.64	30	
Perfluoro(2-ethoxyethane)sulfonic acid (PFEEESA)	8.73	1.8	ng/L	8.20		106	52.7-147	1.30	30	
Perfluoroheptanesulfonic acid (PFHpS)	7.27	1.8	ng/L	8.80		82.7	69-134	12.3	30	
N-EtFOSAA (NEtFOSAA)	8.89	1.8	ng/L	9.21		96.4	61-135	1.84	30	
N-MeFOSAA (NMeFOSAA)	9.19	1.8	ng/L	9.21		99.7	65-136	7.50	30	
Perfluorotetradecanoic acid (PFTA)	7.13	1.8	ng/L	9.21		77.4	71-132	6.27	30	
Perfluorotridecanoic acid (PFTrDA)	7.36	1.8	ng/L	9.21		79.9	65-144	1.87	30	
4:2 Fluorotelomersulfonic acid (4:2FTS A)	7.61	1.8	ng/L	8.61		88.4	63-143	2.64	30	
Perfluorodecanesulfonic acid (PFDS)	6.74	1.8	ng/L	8.89		75.8	53-142	5.13	30	
Perfluorooctanesulfonamide (FOSA)	8.11	1.8	ng/L	9.21		88.1	67-137	0.414	30	
Perfluorononanesulfonic acid (PFNS)	6.59	1.8	ng/L	8.84		74.5	69-127	12.9	30	
Perfluoro-1-hexanesulfonamide (FHxSA)	7.28	1.8	ng/L	9.21		79.1	50-150	3.29	30	
Perfluoro-1-butanefulfonamide (FBSA)	8.10	1.8	ng/L	9.21		87.9	50-150	4.27	30	
Perfluorohexanesulfonic acid (PFHxS)	6.64	1.8	ng/L	8.43		78.7	68-131	6.93	30	
Perfluoro-4-oxapentanoic acid (PFMPA)	9.39	1.8	ng/L	9.21		102	53.8-150	0.542	30	
Perfluoro-5-oxahexanoic acid (PFMBA)	9.64	1.8	ng/L	9.21		105	54.5-152	0.448	30	
6:2 Fluorotelomersulfonic acid (6:2FTS A)	7.98	1.8	ng/L	8.75		91.2	64-140	1.24	30	
Perfluoropentanesulfonic acid (PFPeS)	7.02	1.8	ng/L	8.66		81.1	71-127	1.17	30	
Perfluoroundecanoic acid (PFUnA)	8.36	1.8	ng/L	9.21		90.7	69-133	6.19	30	
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	8.78	1.8	ng/L	9.21		95.3	50.5-159	3.93	30	
Perfluoroheptanoic acid (PFHpA)	7.91	1.8	ng/L	9.21		85.9	72-130	2.27	30	
Perfluorooctanoic acid (PFOA)	7.79	1.8	ng/L	9.21		84.6	71-133	1.58	30	
Perfluorooctanesulfonic acid (PFOS)	7.53	1.8	ng/L	8.52		88.4	65-140	4.26	30	
Perfluorononanoic acid (PFNA)	8.66	1.8	ng/L	9.21		94.0	69-130	4.32	30	

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FLAG/QUALIFIER SUMMARY

*	QC result is outside of established limits.
†	Wide recovery limits established for difficult compound.
‡	Wide RPD limits established for difficult compound.
#	Data exceeded client recommended or regulatory level
ND	Not Detected
RL	Reporting Limit is at the level of quantitation (LOQ)
DL	Detection Limit is the lower limit of detection determined by the MDL study
MCL	Maximum Contaminant Level
	Percent recoveries and relative percent differences (RPDs) are determined by the software using values in the calculation which have not been rounded.
	No results have been blank subtracted unless specified in the case narrative section.
D-01	Sample extracted/prepared at a dilution due to sample matrix.
H-06	Sample was extracted past the recommended holding time.
MS-12	Matrix spike recovery and matrix spike duplicate recovery outside of control limits. Possibility of sample matrix effects that lead to a high bias for reported result or non-homogeneous sample aliquots cannot be eliminated.
MS-19	Sample to spike ratio is greater than or equal to 4:1. Spiked amount is not representative of the native amount in the sample. Appropriate or meaningful recoveries cannot be calculated.
MS-22	Either matrix spike or MS duplicate is outside of control limits, but the other is within limits. RPD between the two MS/MSD results is within method specified criteria.
PF-17	Extracted Internal Standard recovery is outside of control limits. Data is not significantly affected since associated analyte is not detected and bias is on the high side.
PF-18	Duplicate analysis confirmed Extracted Internal Standard failure due to matrix effects.
PF-19	Sample re-analyzed at a dilution that was re-fortified with internal standard.
PF-20	Quantifying ion signal to noise ratio is <10. Detection is suspect.
R-06	Matrix spike duplicate RPD is outside of control limits. Reduced precision is anticipated for reported result for this compound in this sample.
S-29	Extracted Internal Standard is outside of control limits.

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INTERNAL STANDARD AREA AND RT SUMMARY

SOP-454 PFAS

Internal Standard	Response	RT	Reference Response	Reference RT	Area %	Area % Limits	RT Diff	RT Diff Limit	Q
MW-2 09122023 (23I1834-01RE1) Lab File ID: 23I1834-01RE1.d Analyzed: 10/11/23 16:30									
M8FOSA	399933.2	3.964583	680,473.00	3.9646	59	50 - 150	0.0000	+/-0.50	
M2-4:2FTS	414828	2.472183	197,074.00	2.4804	210	50 - 150	-0.0082	+/-0.50	*
M2PFTA	684901.1	4.27305	1,704,722.00	4.273067	40	50 - 150	0.0000	+/-0.50	*
M2-8:2FTS	420365.4	3.754983	409,674.00	3.755	103	50 - 150	0.0000	+/-0.50	
MPFBA	185573.7	1.025233	901,076.00	1.033533	21	50 - 150	-0.0083	+/-0.50	*
M3HFPO-DA	182880.8	2.806567	392,247.00	2.814767	47	50 - 150	-0.0082	+/-0.50	*
M6PFDA	1187686	3.755517	1,700,450.00	3.755517	70	50 - 150	0.0000	+/-0.50	
M3PFBS	238799.8	1.861817	330,821.00	1.878383	72	50 - 150	-0.0166	+/-0.50	
M7PFUnA	1139803	3.897883	1,433,304.00	3.897883	80	50 - 150	0.0000	+/-0.50	
M2-6:2FTS	253092.5	3.39635	122,554.00	3.404417	207	50 - 150	-0.0081	+/-0.50	*
M5PFPeA	436303.7	1.690017	807,094.00	1.698283	54	50 - 150	-0.0083	+/-0.50	
M5PFHxA	1158054	2.555917	1,446,702.00	2.57235	80	50 - 150	-0.0164	+/-0.50	
M3PFHxS	192378.1	3.177667	230,596.00	3.177667	83	50 - 150	0.0000	+/-0.50	
M4PFHpA	1305418	3.138483	1,570,011.00	3.146567	83	50 - 150	-0.0081	+/-0.50	
M8PFOA	1041179	3.413133	1,498,033.00	3.413133	70	50 - 150	0.0000	+/-0.50	
M8PFOS	170637.4	3.596267	228,224.00	3.596267	75	50 - 150	0.0000	+/-0.50	
M9PFNA	1129387	3.605283	1,300,990.00	3.6053	87	50 - 150	0.0000	+/-0.50	
MPFDoA	939927.9	4.0327	1,330,395.00	4.0327	71	50 - 150	0.0000	+/-0.50	
D5-NEtFOSAA	281061.8	3.90555	327,225.00	3.90555	86	50 - 150	0.0000	+/-0.50	
D3-NMeFOSAA	372411	3.825833	433,046.00	3.825833	86	50 - 150	0.0000	+/-0.50	
MW-2 09122023 (23I1834-01RE3) Lab File ID: 23I1834-01RE3.d Analyzed: 10/11/23 17:13									
M8PFOA	1721190	3.413133	1,498,033.00	3.413133	115	50 - 150	0.0000	+/-0.50	

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INTERNAL STANDARD AREA AND RT SUMMARY

SOP-454 PFAS

Internal Standard	Response	RT	Reference Response	Reference RT	Area %	Area % Limits	RT Diff	RT Diff Limit	Q
MW-6 09122023 (23I1834-02) Lab File ID: 23I1834-02.d Analyzed: 10/10/23 00:21									
M8FOSA	335681.6	3.99655	631,095.00	3.996567	53	50 - 150	0.0000	+/-0.50	
M2-4:2FTS	162947.8	2.45575	200,873.00	2.45575	81	50 - 150	0.0000	+/-0.50	
M2PFTA	963597.4	4.256834	1,542,992.00	4.25685	62	50 - 150	0.0000	+/-0.50	
M2-8:2FTS	387683.8	3.747017	165,082.00	3.747017	235	50 - 150	0.0000	+/-0.50	*
MPFBA	468024.6	1.033533	869,715.00	1.033533	54	50 - 150	0.0000	+/-0.50	
M3HFPO-DA	259949.6	2.798383	341,103.00	2.7902	76	50 - 150	0.0082	+/-0.50	
M6PFDA	1204084	3.747533	1,416,363.00	3.747533	85	50 - 150	0.0000	+/-0.50	
M3PFBS	263329	1.861817	346,840.00	1.853533	76	50 - 150	0.0083	+/-0.50	
M7PFUnA	1088890	3.8819	1,436,837.00	3.889883	76	50 - 150	-0.0080	+/-0.50	
M2-6:2FTS	108471.6	3.396333	112,667.00	3.39635	96	50 - 150	0.0000	+/-0.50	
M5PFPeA	615594.1	1.673467	752,075.00	1.673467	82	50 - 150	0.0000	+/-0.50	
M5PFHxA	1161041	2.539483	1,421,186.00	2.539483	82	50 - 150	0.0000	+/-0.50	
M3PFHxS	181134.6	3.169583	216,863.00	3.169583	84	50 - 150	0.0000	+/-0.50	
M4PFHpA	1266029	3.1304	1,440,583.00	3.1304	88	50 - 150	0.0000	+/-0.50	
M8PFOA	1293266	3.405067	1,464,153.00	3.405067	88	50 - 150	0.0000	+/-0.50	
M8PFOS	177572.4	3.59625	213,794.00	3.596267	83	50 - 150	0.0000	+/-0.50	
M9PFNA	1036410	3.597283	1,167,864.00	3.5973	89	50 - 150	0.0000	+/-0.50	
MPFDoA	888073.3	4.024683	1,338,679.00	4.0247	66	50 - 150	0.0000	+/-0.50	
D5-NEtFOSAA	217932.9	3.889383	310,667.00	3.897383	70	50 - 150	-0.0080	+/-0.50	
D3-NMeFOSAA	283988.4	3.817433	418,707.00	3.817433	68	50 - 150	0.0000	+/-0.50	

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INTERNAL STANDARD AREA AND RT SUMMARY
SOP-454 PFAS

Internal Standard	Response	RT	Reference Response	Reference RT	Area %	Area % Limits	RT Diff	RT Diff Limit	Q
MW-3 09122023 (23I1834-03RE1) Lab File ID: 23I1834-03RE1.d Analyzed: 10/11/23 16:37									
M8FOSA	501726.5	3.9646	680,473.00	3.9646	74	50 - 150	0.0000	+/-0.50	
M2-4:2FTS	532900.6	2.455767	197,074.00	2.4804	270	50 - 150	-0.0246	+/-0.50	*
M2PFTA	965309.6	4.273067	1,704,722.00	4.273067	57	50 - 150	0.0000	+/-0.50	
M2-8:2FTS	481017.6	3.755	409,674.00	3.755	117	50 - 150	0.0000	+/-0.50	
MPFBA	107849.7	1.016917	901,076.00	1.033533	12	50 - 150	-0.0166	+/-0.50	*
M3HFPO-DA	157114.3	2.7984	392,247.00	2.814767	40	50 - 150	-0.0164	+/-0.50	*
M6PFDA	1277858	3.755517	1,700,450.00	3.755517	75	50 - 150	0.0000	+/-0.50	
M3PFBS	219563.5	1.84525	330,821.00	1.878383	66	50 - 150	-0.0331	+/-0.50	
M7PFUnA	1478853	3.897883	1,433,304.00	3.897883	103	50 - 150	0.0000	+/-0.50	
M2-6:2FTS	292388.8	3.39635	122,554.00	3.404417	239	50 - 150	-0.0081	+/-0.50	*
M5PFPeA	346352.6	1.6652	807,094.00	1.698283	43	50 - 150	-0.0331	+/-0.50	*
M5PFHxA	1077656	2.5395	1,446,702.00	2.57235	74	50 - 150	-0.0329	+/-0.50	
M3PFHxS	207813.2	3.169583	230,596.00	3.177667	90	50 - 150	-0.0081	+/-0.50	
M4PFHpA	1214387	3.138483	1,570,011.00	3.146567	77	50 - 150	-0.0081	+/-0.50	
M8PFOA	896050.9	3.413133	1,498,033.00	3.413133	60	50 - 150	0.0000	+/-0.50	
M8PFOS	179055.9	3.596267	228,224.00	3.596267	78	50 - 150	0.0000	+/-0.50	
M9PFNA	1164421	3.597317	1,300,990.00	3.6053	90	50 - 150	-0.0080	+/-0.50	
MPFDoA	1262848	4.0327	1,330,395.00	4.0327	95	50 - 150	0.0000	+/-0.50	
D5-NEtFOSAA	362183.4	3.90555	327,225.00	3.90555	111	50 - 150	0.0000	+/-0.50	
D3-NMeFOSAA	424719.4	3.82585	433,046.00	3.825833	98	50 - 150	0.0000	+/-0.50	
MW-3 09122023 (23I1834-03RE3) Lab File ID: 23I1834-03RE3.d Analyzed: 10/11/23 17:20									
M8PFOA	1781120	3.413133	1,498,033.00	3.413133	119	50 - 150	0.0000	+/-0.50	

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INTERNAL STANDARD AREA AND RT SUMMARY

SOP-454 PFAS

Internal Standard	Response	RT	Reference Response	Reference RT	Area %	Area % Limits	RT Diff	RT Diff Limit	Q
MW-DUP 09122023 (23I1834-04RE1) Lab File ID: 23I1834-04RE1.d Analyzed: 10/11/23 16:44									
M8FOSA	448152.7	3.9646	680,473.00	3.9646	66	50 - 150	0.0000	+/-0.50	
M2-4:2FTS	491719.2	2.455767	197,074.00	2.4804	250	50 - 150	-0.0246	+/-0.50	*
M2PFTA	943547.3	4.27305	1,704,722.00	4.273067	55	50 - 150	0.0000	+/-0.50	
M2-8:2FTS	442173.8	3.755	409,674.00	3.755	108	50 - 150	0.0000	+/-0.50	
MPFBA	107339.6	1.016917	901,076.00	1.033533	12	50 - 150	-0.0166	+/-0.50	*
M3HFPO-DA	144038	2.7984	392,247.00	2.814767	37	50 - 150	-0.0164	+/-0.50	*
M6PFDA	1304237	3.755517	1,700,450.00	3.755517	77	50 - 150	0.0000	+/-0.50	
M3PFBS	208115.7	1.84525	330,821.00	1.878383	63	50 - 150	-0.0331	+/-0.50	
M7PFUnA	1433573	3.897883	1,433,304.00	3.897883	100	50 - 150	0.0000	+/-0.50	
M2-6:2FTS	282022.5	3.39635	122,554.00	3.404417	230	50 - 150	-0.0081	+/-0.50	*
M5PFPeA	341579.2	1.673483	807,094.00	1.698283	42	50 - 150	-0.0248	+/-0.50	*
M5PFHxA	1012920	2.5395	1,446,702.00	2.57235	70	50 - 150	-0.0329	+/-0.50	
M3PFHxS	185081.9	3.1696	230,596.00	3.177667	80	50 - 150	-0.0081	+/-0.50	
M4PFHpA	1141697	3.138483	1,570,011.00	3.146567	73	50 - 150	-0.0081	+/-0.50	
M8PFOA	879230.8	3.413133	1,498,033.00	3.413133	59	50 - 150	0.0000	+/-0.50	
M8PFOS	177332.5	3.596267	228,224.00	3.596267	78	50 - 150	0.0000	+/-0.50	
M9PFNA	1132799	3.5973	1,300,990.00	3.6053	87	50 - 150	-0.0080	+/-0.50	
MPFDoA	1232406	4.0327	1,330,395.00	4.0327	93	50 - 150	0.0000	+/-0.50	
D5-NEtFOSAA	350613.9	3.90555	327,225.00	3.90555	107	50 - 150	0.0000	+/-0.50	
D3-NMeFOSAA	381105.4	3.825833	433,046.00	3.825833	88	50 - 150	0.0000	+/-0.50	
MW-DUP 09122023 (23I1834-04RE3) Lab File ID: 23I1834-04RE3.d Analyzed: 10/11/23 17:28									
M8PFOA	1747622	3.413133	1,498,033.00	3.413133	117	50 - 150	0.0000	+/-0.50	

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INTERNAL STANDARD AREA AND RT SUMMARY

SOP-454 PFAS

Internal Standard	Response	RT	Reference Response	Reference RT	Area %	Area % Limits	RT Diff	RT Diff Limit	Q
MW-5 09122023 (23I1834-05)			Lab File ID: 23I1834-05.d			Analyzed: 10/10/23 00:43			
M8FOSA	116560.1	3.996567	631,095.00	3.996567	18	50 - 150	0.0000	+/-0.50	*
M2-4:2FTS	193221.8	2.45575	200,873.00	2.45575	96	50 - 150	0.0000	+/-0.50	
M2PFTA	173637.2	4.256834	1,542,992.00	4.25685	11	50 - 150	0.0000	+/-0.50	*
M2-8:2FTS	276534.2	3.747017	165,082.00	3.747017	168	50 - 150	0.0000	+/-0.50	*
MPFBA	299561.1	1.033533	869,715.00	1.033533	34	50 - 150	0.0000	+/-0.50	*
M3HFPO-DA	235593.2	2.7902	341,103.00	2.7902	69	50 - 150	0.0000	+/-0.50	
M6PFDA	946342.4	3.747533	1,416,363.00	3.747533	67	50 - 150	0.0000	+/-0.50	
M3PFBS	220562.2	1.853533	346,840.00	1.853533	64	50 - 150	0.0000	+/-0.50	
M7PFUnA	754412.1	3.889883	1,436,837.00	3.889883	53	50 - 150	0.0000	+/-0.50	
M2-6:2FTS	157034.4	3.39635	112,667.00	3.39635	139	50 - 150	0.0000	+/-0.50	
M5PFPeA	516004.4	1.673467	752,075.00	1.673467	69	50 - 150	0.0000	+/-0.50	
M5PFHxA	1044254	2.539483	1,421,186.00	2.539483	73	50 - 150	0.0000	+/-0.50	
M3PFHxS	162605.1	3.169583	216,863.00	3.169583	75	50 - 150	0.0000	+/-0.50	
M4PFHpA	1151382	3.1304	1,440,583.00	3.1304	80	50 - 150	0.0000	+/-0.50	
M8PFOA	1146737	3.405067	1,464,153.00	3.405067	78	50 - 150	0.0000	+/-0.50	
M8PFOS	136741.6	3.59625	213,794.00	3.596267	64	50 - 150	0.0000	+/-0.50	
M9PFNA	917598.6	3.5973	1,167,864.00	3.5973	79	50 - 150	0.0000	+/-0.50	
MPFDoA	463065.1	4.0247	1,338,679.00	4.0247	35	50 - 150	0.0000	+/-0.50	*
D5-NEtFOSAA	208152.5	3.897383	310,667.00	3.897383	67	50 - 150	0.0000	+/-0.50	
D3-NMeFOSAA	247143.3	3.817433	418,707.00	3.817433	59	50 - 150	0.0000	+/-0.50	

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INTERNAL STANDARD AREA AND RT SUMMARY
SOP-454 PFAS

Internal Standard	Response	RT	Reference Response	Reference RT	Area %	Area % Limits	RT Diff	RT Diff Limit	Q
MW-EQBLNK 09122023 (23I1834-06)			Lab File ID: 23I1834-06.d			Analyzed: 10/10/23 00:50			
M8FOSA	484373.3	3.996567	631,095.00	3.996567	77	50 - 150	0.0000	+/-0.50	
M2-4:2FTS	157101	2.455767	200,873.00	2.45575	78	50 - 150	0.0000	+/-0.50	
M2PFTA	501840.5	4.25685	1,542,992.00	4.25685	33	50 - 150	0.0000	+/-0.50	*
M2-8:2FTS	530717.1	3.747033	165,082.00	3.747017	321	50 - 150	0.0000	+/-0.50	*
MPFBA	530882.1	1.033533	869,715.00	1.033533	61	50 - 150	0.0000	+/-0.50	
M3HFPO-DA	349918.7	2.7984	341,103.00	2.7902	103	50 - 150	0.0082	+/-0.50	
M6PFDA	1436756	3.74755	1,416,363.00	3.747533	101	50 - 150	0.0000	+/-0.50	
M3PFBS	306655.4	1.861833	346,840.00	1.853533	88	50 - 150	0.0083	+/-0.50	
M7PFUnA	1179104	3.8899	1,436,837.00	3.889883	82	50 - 150	0.0000	+/-0.50	
M2-6:2FTS	95787.42	3.39635	112,667.00	3.39635	85	50 - 150	0.0000	+/-0.50	
M5PFPeA	731625.6	1.68175	752,075.00	1.673467	97	50 - 150	0.0083	+/-0.50	
M5PFHxA	1344220	2.547717	1,421,186.00	2.539483	95	50 - 150	0.0082	+/-0.50	
M3PFHxS	201387.3	3.1696	216,863.00	3.169583	93	50 - 150	0.0000	+/-0.50	
M4PFHpA	1448951	3.130417	1,440,583.00	3.1304	101	50 - 150	0.0000	+/-0.50	
M8PFOA	1383869	3.405083	1,464,153.00	3.405067	95	50 - 150	0.0000	+/-0.50	
M8PFOS	166972.3	3.596267	213,794.00	3.596267	78	50 - 150	0.0000	+/-0.50	
M9PFNA	1199782	3.5973	1,167,864.00	3.5973	103	50 - 150	0.0000	+/-0.50	
MPFDoA	925364.5	4.024717	1,338,679.00	4.0247	69	50 - 150	0.0000	+/-0.50	
D5-NEtFOSAA	260249.5	3.897383	310,667.00	3.897383	84	50 - 150	0.0000	+/-0.50	
D3-NMeFOSAA	337143.8	3.81745	418,707.00	3.817433	81	50 - 150	0.0000	+/-0.50	

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INTERNAL STANDARD AREA AND RT SUMMARY

SOP-454 PFAS

Internal Standard	Response	RT	Reference Response	Reference RT	Area %	Area % Limits	RT Diff	RT Diff Limit	Q
SW-2 (23I1834-07)		Lab File ID: 23I1834-07.d				Analyzed: 10/10/23 00:57			
M8FOSA	131021.9	3.996567	631,095.00	3.996567	21	50 - 150	0.0000	+/-0.50	*
M2-4:2FTS	421188.2	2.4228	200,873.00	2.45575	210	50 - 150	-0.0330	+/-0.50	*
M2PFTA	235885.6	4.25685	1,542,992.00	4.25685	15	50 - 150	0.0000	+/-0.50	*
M2-8:2FTS	313425.5	3.73905	165,082.00	3.747017	190	50 - 150	-0.0080	+/-0.50	*
MPFBA	152675	1.016917	869,715.00	1.033533	18	50 - 150	-0.0166	+/-0.50	*
M3HFPO-DA	158569.1	2.76565	341,103.00	2.7902	46	50 - 150	-0.0246	+/-0.50	*
M6PFDA	896655.3	3.739567	1,416,363.00	3.747533	63	50 - 150	-0.0080	+/-0.50	
M3PFBS	213614.6	1.820383	346,840.00	1.853533	62	50 - 150	-0.0332	+/-0.50	
M7PFUnA	883084.5	3.881917	1,436,837.00	3.889883	61	50 - 150	-0.0080	+/-0.50	
M2-6:2FTS	336451.5	3.3883	112,667.00	3.39635	299	50 - 150	-0.0080	+/-0.50	*
M5PFPeA	332150.8	1.640383	752,075.00	1.673467	44	50 - 150	-0.0331	+/-0.50	*
M5PFHxA	964944.3	2.506633	1,421,186.00	2.539483	68	50 - 150	-0.0329	+/-0.50	
M3PFHxS	157843	3.153433	216,863.00	3.169583	73	50 - 150	-0.0161	+/-0.50	
M4PFHpA	992434.1	3.122317	1,440,583.00	3.1304	69	50 - 150	-0.0081	+/-0.50	
M8PFOA	1030485	3.397017	1,464,153.00	3.405067	70	50 - 150	-0.0080	+/-0.50	
M8PFOS	152799.2	3.588267	213,794.00	3.596267	71	50 - 150	-0.0080	+/-0.50	
M9PFNA	880289.8	3.5893	1,167,864.00	3.5973	75	50 - 150	-0.0080	+/-0.50	
MPFDoA	547270.9	4.0167	1,338,679.00	4.0247	41	50 - 150	-0.0080	+/-0.50	*
D5-NEtFOSAA	226872	3.8894	310,667.00	3.897383	73	50 - 150	-0.0080	+/-0.50	
D3-NMeFOSAA	244546.2	3.817433	418,707.00	3.817433	58	50 - 150	0.0000	+/-0.50	

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INTERNAL STANDARD AREA AND RT SUMMARY
SOP-466 PFAS

Internal Standard	Response	RT	Reference Response	Reference RT	Area %	Area % Limits	RT Diff	RT Diff Limit	Q
SED-2 (23I1834-08)		Lab File ID: 23I1834-08.d				Analyzed: 09/26/23 10:42			
M8FOSA	245467.3	3.988567	254,732.00	3.980567	96	50 - 150	0.0080	+/-0.50	
M2-4:2FTS	45092.83	2.529667	58,177.00	2.529667	78	50 - 150	0.0000	+/-0.50	
M2PFTA	434017.3	4.30535	475,322.00	4.30535	91	50 - 150	0.0000	+/-0.50	
M2-8:2FTS	130204.2	3.78685	134,111.00	3.778883	97	50 - 150	0.0080	+/-0.50	
MPFBA	281463.2	1.066783	396,763.00	1.066783	71	50 - 150	0.0000	+/-0.50	
M3HFPO-DA	141712.9	2.855667	167,812.00	2.855667	84	50 - 150	0.0000	+/-0.50	
M6PFDA	633693.6	3.787383	661,378.00	3.787383	96	50 - 150	0.0000	+/-0.50	
M3PFBS	132218.3	1.911533	164,939.00	1.911533	80	50 - 150	0.0000	+/-0.50	
M7PFUnA	507663.3	3.93005	537,895.00	3.93005	94	50 - 150	0.0000	+/-0.50	
M2-6:2FTS	42301.39	3.4373	45,317.00	3.4373	93	50 - 150	0.0000	+/-0.50	
M5PFPeA	293970.8	1.731383	388,984.00	1.731383	76	50 - 150	0.0000	+/-0.50	
M5PFHxA	502834.6	2.6134	636,142.00	2.6134	79	50 - 150	0.0000	+/-0.50	
M3PFHxS	80533.36	3.21025	91,428.00	3.21025	88	50 - 150	0.0000	+/-0.50	
M4PFHpA	477282.2	3.178867	616,337.00	3.178867	77	50 - 150	0.0000	+/-0.50	
M8PFOA	580132.4	3.445833	621,924.00	3.445833	93	50 - 150	0.0000	+/-0.50	
M8PFOS	89839.66	3.6282	94,767.00	3.6282	95	50 - 150	0.0000	+/-0.50	
M9PFNA	544053.4	3.629233	551,821.00	3.629233	99	50 - 150	0.0000	+/-0.50	
MPFDoA	415106.9	4.07265	458,964.00	4.072667	90	50 - 150	0.0000	+/-0.50	
D5-NEtFOSAA	139773.9	3.937517	130,811.00	3.937517	107	50 - 150	0.0000	+/-0.50	
D3-NMeFOSAA	160803.8	3.865617	169,938.00	3.865617	95	50 - 150	0.0000	+/-0.50	

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INTERNAL STANDARD AREA AND RT SUMMARY
SOP-454 PFAS

Internal Standard	Response	RT	Reference Response	Reference RT	Area %	Area % Limits	RT Diff	RT Diff Limit	Q
SW-3 (23I1834-09RE1)			Lab File ID: 23I1834-09RE1.d			Analyzed: 10/11/23 16:52			
M8FOSA	581231.4	3.9646	680,473.00	3.9646	85	50 - 150	0.0000	+/-0.50	
M2-4:2FTS	441167.7	2.4804	197,074.00	2.4804	224	50 - 150	0.0000	+/-0.50	*
M2PFTA	1239345	4.27305	1,704,722.00	4.273067	73	50 - 150	0.0000	+/-0.50	
M2-8:2FTS	497938.4	3.755	409,674.00	3.755	122	50 - 150	0.0000	+/-0.50	
MPFBA	369685.8	1.033533	901,076.00	1.033533	41	50 - 150	0.0000	+/-0.50	*
M3HFPO-DA	183050	2.81475	392,247.00	2.814767	47	50 - 150	0.0000	+/-0.50	*
M6PFDA	1529354	3.755517	1,700,450.00	3.755517	90	50 - 150	0.0000	+/-0.50	
M3PFBS	261207.9	1.8701	330,821.00	1.878383	79	50 - 150	-0.0083	+/-0.50	
M7PFUnA	1556430	3.897883	1,433,304.00	3.897883	109	50 - 150	0.0000	+/-0.50	
M2-6:2FTS	381164.9	3.404417	122,554.00	3.404417	311	50 - 150	0.0000	+/-0.50	*
M5PFPeA	590130.1	1.690017	807,094.00	1.698283	73	50 - 150	-0.0083	+/-0.50	
M5PFHxA	1330134	2.564133	1,446,702.00	2.57235	92	50 - 150	-0.0082	+/-0.50	
M3PFHxS	206478.6	3.177667	230,596.00	3.177667	90	50 - 150	0.0000	+/-0.50	
M4PFHpA	1559632	3.14655	1,570,011.00	3.146567	99	50 - 150	0.0000	+/-0.50	
M8PFOA	1593966	3.413133	1,498,033.00	3.413133	106	50 - 150	0.0000	+/-0.50	
M8PFOS	211488	3.60425	228,224.00	3.596267	93	50 - 150	0.0080	+/-0.50	
M9PFNA	1365211	3.605283	1,300,990.00	3.6053	105	50 - 150	0.0000	+/-0.50	
MPFDoA	1291658	4.0327	1,330,395.00	4.0327	97	50 - 150	0.0000	+/-0.50	
D5-NEtFOSAA	393873.4	3.90555	327,225.00	3.90555	120	50 - 150	0.0000	+/-0.50	
D3-NMeFOSAA	488354.8	3.825833	433,046.00	3.825833	113	50 - 150	0.0000	+/-0.50	

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INTERNAL STANDARD AREA AND RT SUMMARY

SOP-466 PFAS

Internal Standard	Response	RT	Reference Response	Reference RT	Area %	Area % Limits	RT Diff	RT Diff Limit	Q
SED-3 (23I1834-10) Lab File ID: 23I1834-10.d Analyzed: 09/26/23 10:49									
M8FOSA	221557.2	3.988567	254,732.00	3.980567	87	50 - 150	0.0080	+/-0.50	
M2-4:2FTS	54767.93	2.529667	58,177.00	2.529667	94	50 - 150	0.0000	+/-0.50	
M2PFTA	404165.1	4.30535	475,322.00	4.30535	85	50 - 150	0.0000	+/-0.50	
M2-8:2FTS	119304.6	3.778883	134,111.00	3.778883	89	50 - 150	0.0000	+/-0.50	
MPFBA	319429.4	1.066783	396,763.00	1.066783	81	50 - 150	0.0000	+/-0.50	
M3HFPO-DA	137415	2.855667	167,812.00	2.855667	82	50 - 150	0.0000	+/-0.50	
M6PFDA	583572.1	3.787383	661,378.00	3.787383	88	50 - 150	0.0000	+/-0.50	
M3PFBS	148896.4	1.911533	164,939.00	1.911533	90	50 - 150	0.0000	+/-0.50	
M7PFUnA	457916.6	3.93005	537,895.00	3.93005	85	50 - 150	0.0000	+/-0.50	
M2-6:2FTS	46367.29	3.4373	45,317.00	3.4373	102	50 - 150	0.0000	+/-0.50	
M5PFPeA	328391.7	1.731383	388,984.00	1.731383	84	50 - 150	0.0000	+/-0.50	
M5PFHxA	559390.3	2.6134	636,142.00	2.6134	88	50 - 150	0.0000	+/-0.50	
M3PFHxS	85409.59	3.201883	91,428.00	3.21025	93	50 - 150	-0.0084	+/-0.50	
M4PFHpA	547452.5	3.178867	616,337.00	3.178867	89	50 - 150	0.0000	+/-0.50	
M8PFOA	572180.9	3.445833	621,924.00	3.445833	92	50 - 150	0.0000	+/-0.50	
M8PFOS	84851.52	3.6282	94,767.00	3.6282	90	50 - 150	0.0000	+/-0.50	
M9PFNA	512092.8	3.629233	551,821.00	3.629233	93	50 - 150	0.0000	+/-0.50	
MPFDoA	366808.1	4.064667	458,964.00	4.072667	80	50 - 150	-0.0080	+/-0.50	
D5-NEtFOSAA	124894.1	3.937517	130,811.00	3.937517	95	50 - 150	0.0000	+/-0.50	
D3-NMeFOSAA	139571.2	3.85765	169,938.00	3.865617	82	50 - 150	-0.0080	+/-0.50	

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INTERNAL STANDARD AREA AND RT SUMMARY
SOP-454 PFAS

Internal Standard	Response	RT	Reference Response	Reference RT	Area %	Area % Limits	RT Diff	RT Diff Limit	Q
SW-4A (23I1834-11) Lab File ID: 23I1834-11.d Analyzed: 10/10/23 01:12									
M8FOSA	151468.5	3.996567	631,095.00	3.996567	24	50 - 150	0.0000	+/-0.50	*
M2-4:2FTS	241595.5	2.447533	200,873.00	2.45575	120	50 - 150	-0.0082	+/-0.50	
M2PFTA	160533.7	4.256834	1,542,992.00	4.25685	10	50 - 150	0.0000	+/-0.50	*
M2-8:2FTS	267532.2	3.747017	165,082.00	3.747017	162	50 - 150	0.0000	+/-0.50	*
MPFBA	198195.1	1.025233	869,715.00	1.033533	23	50 - 150	-0.0083	+/-0.50	*
M3HFPO-DA	187363	2.7902	341,103.00	2.7902	55	50 - 150	0.0000	+/-0.50	
M6PFDA	819669.7	3.747533	1,416,363.00	3.747533	58	50 - 150	0.0000	+/-0.50	
M3PFBS	196218.7	1.845233	346,840.00	1.853533	57	50 - 150	-0.0083	+/-0.50	
M7PFUnA	702471.8	3.8899	1,436,837.00	3.889883	49	50 - 150	0.0000	+/-0.50	*
M2-6:2FTS	219829	3.3883	112,667.00	3.39635	195	50 - 150	-0.0080	+/-0.50	*
M5PFPeA	373916.8	1.6652	752,075.00	1.673467	50	50 - 150	-0.0083	+/-0.50	
M5PFHxA	920035.8	2.531267	1,421,186.00	2.539483	65	50 - 150	-0.0082	+/-0.50	
M3PFHxS	144085.3	3.1615	216,863.00	3.169583	66	50 - 150	-0.0081	+/-0.50	
M4PFHpA	993091.9	3.1304	1,440,583.00	3.1304	69	50 - 150	0.0000	+/-0.50	
M8PFOA	960238.9	3.405083	1,464,153.00	3.405067	66	50 - 150	0.0000	+/-0.50	
M8PFOS	124102.3	3.596267	213,794.00	3.596267	58	50 - 150	0.0000	+/-0.50	
M9PFNA	786321.7	3.589317	1,167,864.00	3.5973	67	50 - 150	-0.0080	+/-0.50	
MPFDoA	388897.7	4.0247	1,338,679.00	4.0247	29	50 - 150	0.0000	+/-0.50	*
D5-NEtFOSAA	191238.1	3.897383	310,667.00	3.897383	62	50 - 150	0.0000	+/-0.50	
D3-NMeFOSAA	224266.5	3.817433	418,707.00	3.817433	54	50 - 150	0.0000	+/-0.50	

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INTERNAL STANDARD AREA AND RT SUMMARY

SOP-466 PFAS

Internal Standard	Response	RT	Reference Response	Reference RT	Area %	Area % Limits	RT Diff	RT Diff Limit	Q
SED-4A (23I1834-12)		Lab File ID: 23I1834-12.d				Analyzed: 09/26/23 10:57			
M8FOSA	280925.9	3.988567	254,732.00	3.980567	110	50 - 150	0.0080	+/-0.50	
M2-4:2FTS	68800.23	2.529667	58,177.00	2.529667	118	50 - 150	0.0000	+/-0.50	
M2PFTA	520319.1	4.30535	475,322.00	4.30535	109	50 - 150	0.0000	+/-0.50	
M2-8:2FTS	167242	3.78685	134,111.00	3.778883	125	50 - 150	0.0080	+/-0.50	
MPFBA	378936.5	1.066783	396,763.00	1.066783	96	50 - 150	0.0000	+/-0.50	
M3HFPO-DA	160635.2	2.855667	167,812.00	2.855667	96	50 - 150	0.0000	+/-0.50	
M6PFDA	706723.6	3.787383	661,378.00	3.787383	107	50 - 150	0.0000	+/-0.50	
M3PFBS	183711.5	1.911533	164,939.00	1.911533	111	50 - 150	0.0000	+/-0.50	
M7PFUnA	578931.9	3.93005	537,895.00	3.93005	108	50 - 150	0.0000	+/-0.50	
M2-6:2FTS	70895.36	3.4373	45,317.00	3.4373	156	50 - 150	0.0000	+/-0.50	*
M5PFPeA	402138.7	1.731383	388,984.00	1.731383	103	50 - 150	0.0000	+/-0.50	
M5PFHxA	670780.4	2.6134	636,142.00	2.6134	105	50 - 150	0.0000	+/-0.50	
M3PFHxS	103949.3	3.21025	91,428.00	3.21025	114	50 - 150	0.0000	+/-0.50	
M4PFHpA	673833.3	3.178867	616,337.00	3.178867	109	50 - 150	0.0000	+/-0.50	
M8PFOA	754777.3	3.445833	621,924.00	3.445833	121	50 - 150	0.0000	+/-0.50	
M8PFOS	103339.7	3.6282	94,767.00	3.6282	109	50 - 150	0.0000	+/-0.50	
M9PFNA	676249.7	3.629233	551,821.00	3.629233	123	50 - 150	0.0000	+/-0.50	
MPFDoA	488719.2	4.07265	458,964.00	4.072667	106	50 - 150	0.0000	+/-0.50	
D5-NEtFOSAA	163842.4	3.945517	130,811.00	3.937517	125	50 - 150	0.0080	+/-0.50	
D3-NMeFOSAA	201580.7	3.865617	169,938.00	3.865617	119	50 - 150	0.0000	+/-0.50	

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INTERNAL STANDARD AREA AND RT SUMMARY
SOP-454 PFAS

Internal Standard	Response	RT	Reference Response	Reference RT	Area %	Area % Limits	RT Diff	RT Diff Limit	Q
SW-4C (23I1834-13)		Lab File ID: 23I1834-13.d				Analyzed: 10/10/23 01:19			
M8FOSA	334863.7	3.996567	631,095.00	3.996567	53	50 - 150	0.0000	+/-0.50	
M2-4:2FTS	148156.3	2.45575	200,873.00	2.45575	74	50 - 150	0.0000	+/-0.50	
M2PFTA	267237	4.256834	1,542,992.00	4.25685	17	50 - 150	0.0000	+/-0.50	*
M2-8:2FTS	316540.3	3.747017	165,082.00	3.747017	192	50 - 150	0.0000	+/-0.50	*
MPFBA	678723.5	1.03355	869,715.00	1.033533	78	50 - 150	0.0000	+/-0.50	
M3HFPO-DA	319345.6	2.798383	341,103.00	2.7902	94	50 - 150	0.0082	+/-0.50	
M6PFDA	1124513	3.747533	1,416,363.00	3.747533	79	50 - 150	0.0000	+/-0.50	
M3PFBS	272314.9	1.861817	346,840.00	1.853533	79	50 - 150	0.0083	+/-0.50	
M7PFUnA	917626.6	3.8819	1,436,837.00	3.889883	64	50 - 150	-0.0080	+/-0.50	
M2-6:2FTS	107162.8	3.39635	112,667.00	3.39635	95	50 - 150	0.0000	+/-0.50	
M5PFPeA	649136.8	1.68175	752,075.00	1.673467	86	50 - 150	0.0083	+/-0.50	
M5PFHxA	1202550	2.5477	1,421,186.00	2.539483	85	50 - 150	0.0082	+/-0.50	
M3PFHxS	177411.1	3.169583	216,863.00	3.169583	82	50 - 150	0.0000	+/-0.50	
M4PFHpA	1282738	3.1304	1,440,583.00	3.1304	89	50 - 150	0.0000	+/-0.50	
M8PFOA	1179050	3.405067	1,464,153.00	3.405067	81	50 - 150	0.0000	+/-0.50	
M8PFOS	156220.3	3.596267	213,794.00	3.596267	73	50 - 150	0.0000	+/-0.50	
M9PFNA	978834.3	3.5973	1,167,864.00	3.5973	84	50 - 150	0.0000	+/-0.50	
MPFDoA	618040.8	4.0247	1,338,679.00	4.0247	46	50 - 150	0.0000	+/-0.50	*
D5-NEtFOSAA	218246.9	3.8894	310,667.00	3.897383	70	50 - 150	-0.0080	+/-0.50	
D3-NMeFOSAA	288712.2	3.817433	418,707.00	3.817433	69	50 - 150	0.0000	+/-0.50	

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INTERNAL STANDARD AREA AND RT SUMMARY

SOP-466 PFAS

Internal Standard	Response	RT	Reference Response	Reference RT	Area %	Area % Limits	RT Diff	RT Diff Limit	Q
SED-4C (23I1834-14) Lab File ID: 23I1834-14.d Analyzed: 09/26/23 11:04									
M8FOSA	231446	3.988567	254,732.00	3.980567	91	50 - 150	0.0080	+/-0.50	
M2-4:2FTS	63689.19	2.529667	58,177.00	2.529667	109	50 - 150	0.0000	+/-0.50	
M2PFTA	502307.7	4.313416	475,322.00	4.30535	106	50 - 150	0.0081	+/-0.50	
M2-8:2FTS	150039.2	3.778883	134,111.00	3.778883	112	50 - 150	0.0000	+/-0.50	
MPFBA	341828.6	1.066783	396,763.00	1.066783	86	50 - 150	0.0000	+/-0.50	
M3HFPO-DA	136767.1	2.855667	167,812.00	2.855667	82	50 - 150	0.0000	+/-0.50	
M6PFDA	617443.2	3.787383	661,378.00	3.787383	93	50 - 150	0.0000	+/-0.50	
M3PFBS	161700.1	1.911533	164,939.00	1.911533	98	50 - 150	0.0000	+/-0.50	
M7PFUnA	548591.3	3.93005	537,895.00	3.93005	102	50 - 150	0.0000	+/-0.50	
M2-6:2FTS	63233.18	3.4373	45,317.00	3.4373	140	50 - 150	0.0000	+/-0.50	
M5PFPeA	351889.6	1.731383	388,984.00	1.731383	90	50 - 150	0.0000	+/-0.50	
M5PFHxA	597718.3	2.6134	636,142.00	2.6134	94	50 - 150	0.0000	+/-0.50	
M3PFHxS	90996.72	3.21025	91,428.00	3.21025	100	50 - 150	0.0000	+/-0.50	
M4PFHpA	597191.6	3.17885	616,337.00	3.178867	97	50 - 150	0.0000	+/-0.50	
M8PFOA	676817.1	3.445833	621,924.00	3.445833	109	50 - 150	0.0000	+/-0.50	
M8PFOS	93386.95	3.6282	94,767.00	3.6282	99	50 - 150	0.0000	+/-0.50	
M9PFNA	595830	3.637217	551,821.00	3.629233	108	50 - 150	0.0080	+/-0.50	
MPFDoA	474117.1	4.07265	458,964.00	4.072667	103	50 - 150	0.0000	+/-0.50	
D5-NEtFOSAA	154912.8	3.937517	130,811.00	3.937517	118	50 - 150	0.0000	+/-0.50	
D3-NMeFOSAA	177007.3	3.85765	169,938.00	3.865617	104	50 - 150	-0.0080	+/-0.50	

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INTERNAL STANDARD AREA AND RT SUMMARY
SOP-454 PFAS

Internal Standard	Response	RT	Reference Response	Reference RT	Area %	Area % Limits	RT Diff	RT Diff Limit	Q
SW-5 (23I1834-15) Lab File ID: 23I1834-15.d Analyzed: 10/10/23 01:41									
M8FOSA	267738.6	3.996567	631,095.00	3.99655	42	50 - 150	0.0000	+/-0.50	*
M2-4:2FTS	198116	2.447533	200,873.00	2.45575	99	50 - 150	-0.0082	+/-0.50	
M2PFTA	180567.6	4.25685	1,542,992.00	4.256834	12	50 - 150	0.0000	+/-0.50	*
M2-8:2FTS	281881.3	3.747017	165,082.00	3.73905	171	50 - 150	0.0080	+/-0.50	*
MPFBA	284389.8	1.033533	869,715.00	1.033533	33	50 - 150	0.0000	+/-0.50	*
M3HFPO-DA	206160.6	2.7902	341,103.00	2.7902	60	50 - 150	0.0000	+/-0.50	
M6PFDA	901918.8	3.739567	1,416,363.00	3.739567	64	50 - 150	0.0000	+/-0.50	
M3PFBS	207770.8	1.853533	346,840.00	1.853533	60	50 - 150	0.0000	+/-0.50	
M7PFUnA	759917	3.881917	1,436,837.00	3.8819	53	50 - 150	0.0000	+/-0.50	
M2-6:2FTS	147392.6	3.3883	112,667.00	3.39635	131	50 - 150	-0.0080	+/-0.50	
M5PFPeA	420042.2	1.673467	752,075.00	1.673467	56	50 - 150	0.0000	+/-0.50	
M5PFHxA	929973.7	2.539483	1,421,186.00	2.539483	65	50 - 150	0.0000	+/-0.50	
M3PFHxS	154060.8	3.169583	216,863.00	3.169583	71	50 - 150	0.0000	+/-0.50	
M4PFHpA	1051798	3.1304	1,440,583.00	3.1304	73	50 - 150	0.0000	+/-0.50	
M8PFOA	988334.2	3.405083	1,464,153.00	3.405067	68	50 - 150	0.0000	+/-0.50	
M8PFOS	137384.6	3.596267	213,794.00	3.59625	64	50 - 150	0.0000	+/-0.50	
M9PFNA	865200.7	3.589317	1,167,864.00	3.5893	74	50 - 150	0.0000	+/-0.50	
MPFDoA	462439.5	4.016716	1,338,679.00	4.0167	35	50 - 150	0.0000	+/-0.50	*
D5-NEtFOSAA	179071.2	3.8894	310,667.00	3.8894	58	50 - 150	0.0000	+/-0.50	
D3-NMeFOSAA	247573.2	3.817433	418,707.00	3.817433	59	50 - 150	0.0000	+/-0.50	
SW-5 (23I1834-15RE1) Lab File ID: 23I1834-15RE1R.d Analyzed: 10/10/23 16:06									
M8PFOA	1613172	3.437833	1,425,751.00	3.43785	113	50 - 150	0.0000	+/-0.50	

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INTERNAL STANDARD AREA AND RT SUMMARY
SOP-466 PFAS

Internal Standard	Response	RT	Reference Response	Reference RT	Area %	Area % Limits	RT Diff	RT Diff Limit	Q
SED-5 (23I1834-16) Lab File ID: 23I1834-16.d Analyzed: 09/26/23 11:11									
M8FOSA	259310	3.988567	254,732.00	3.980567	102	50 - 150	0.0080	+/-0.50	
M2-4:2FTS	72013.62	2.529667	58,177.00	2.529667	124	50 - 150	0.0000	+/-0.50	
M2PFTA	506124.3	4.30535	475,322.00	4.30535	106	50 - 150	0.0000	+/-0.50	
M2-8:2FTS	163856.9	3.778883	134,111.00	3.778883	122	50 - 150	0.0000	+/-0.50	
MPFBA	359661.3	1.066783	396,763.00	1.066783	91	50 - 150	0.0000	+/-0.50	
M3HFPO-DA	147641.8	2.855667	167,812.00	2.855667	88	50 - 150	0.0000	+/-0.50	
M6PFDA	694601.7	3.787383	661,378.00	3.787383	105	50 - 150	0.0000	+/-0.50	
M3PFBS	181493.3	1.911533	164,939.00	1.911533	110	50 - 150	0.0000	+/-0.50	
M7PFUnA	582319	3.93005	537,895.00	3.93005	108	50 - 150	0.0000	+/-0.50	
M2-6:2FTS	78810.14	3.4373	45,317.00	3.4373	174	50 - 150	0.0000	+/-0.50	*
M5PFPeA	382751.2	1.731383	388,984.00	1.731383	98	50 - 150	0.0000	+/-0.50	
M5PFHxA	654747.4	2.6134	636,142.00	2.6134	103	50 - 150	0.0000	+/-0.50	
M3PFHxS	102566.3	3.21025	91,428.00	3.21025	112	50 - 150	0.0000	+/-0.50	
M4PFHpA	650465.3	3.178867	616,337.00	3.178867	106	50 - 150	0.0000	+/-0.50	
M8PFOA	716620.8	3.445833	621,924.00	3.445833	115	50 - 150	0.0000	+/-0.50	
M8PFOS	97409.04	3.6282	94,767.00	3.6282	103	50 - 150	0.0000	+/-0.50	
M9PFNA	637711.6	3.629233	551,821.00	3.629233	116	50 - 150	0.0000	+/-0.50	
MPFDoA	511409.4	4.064667	458,964.00	4.072667	111	50 - 150	-0.0080	+/-0.50	
D5-NEtFOSAA	167501	3.937517	130,811.00	3.937517	128	50 - 150	0.0000	+/-0.50	
D3-NMeFOSAA	192468.8	3.85765	169,938.00	3.865617	113	50 - 150	-0.0080	+/-0.50	

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INTERNAL STANDARD AREA AND RT SUMMARY
SOP-454 PFAS

Internal Standard	Response	RT	Reference Response	Reference RT	Area %	Area % Limits	RT Diff	RT Diff Limit	Q
SW-6 (23I1834-17) Lab File ID: 23I1834-17.d Analyzed: 10/10/23 01:48									
M8FOSA	233653.8	3.996567	631,095.00	3.99655	37	50 - 150	0.0000	+/-0.50	*
M2-4:2FTS	244393.6	2.44755	200,873.00	2.45575	122	50 - 150	-0.0082	+/-0.50	
M2PFTA	240207.3	4.25685	1,542,992.00	4.256834	16	50 - 150	0.0000	+/-0.50	*
M2-8:2FTS	268141.5	3.747033	165,082.00	3.73905	162	50 - 150	0.0080	+/-0.50	*
MPFBA	312996.6	1.033533	869,715.00	1.033533	36	50 - 150	0.0000	+/-0.50	*
M3HFPO-DA	205176.1	2.7902	341,103.00	2.7902	60	50 - 150	0.0000	+/-0.50	
M6PFDA	932831.5	3.74755	1,416,363.00	3.739567	66	50 - 150	0.0080	+/-0.50	
M3PFBS	209008.3	1.853533	346,840.00	1.853533	60	50 - 150	0.0000	+/-0.50	
M7PFUnA	821390.5	3.881917	1,436,837.00	3.8819	57	50 - 150	0.0000	+/-0.50	
M2-6:2FTS	229540.5	3.39635	112,667.00	3.39635	204	50 - 150	0.0000	+/-0.50	*
M5PFPeA	447813.9	1.673467	752,075.00	1.673467	60	50 - 150	0.0000	+/-0.50	
M5PFHxA	960947.4	2.531283	1,421,186.00	2.539483	68	50 - 150	-0.0082	+/-0.50	
M3PFHxS	155694.4	3.169583	216,863.00	3.169583	72	50 - 150	0.0000	+/-0.50	
M4PFHpA	1088886	3.130417	1,440,583.00	3.1304	76	50 - 150	0.0000	+/-0.50	
M8PFOA	1081882	3.405083	1,464,153.00	3.405067	74	50 - 150	0.0000	+/-0.50	
M8PFOS	140238.6	3.596267	213,794.00	3.59625	66	50 - 150	0.0000	+/-0.50	
M9PFNA	865375.4	3.589317	1,167,864.00	3.5893	74	50 - 150	0.0000	+/-0.50	
MPFDoA	536906.5	4.016716	1,338,679.00	4.0167	40	50 - 150	0.0000	+/-0.50	*
D5-NEtFOSAA	209294.9	3.889417	310,667.00	3.8894	67	50 - 150	0.0000	+/-0.50	
D3-NMeFOSAA	245857.3	3.81745	418,707.00	3.817433	59	50 - 150	0.0000	+/-0.50	

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INTERNAL STANDARD AREA AND RT SUMMARY
SOP-466 PFAS

Internal Standard	Response	RT	Reference Response	Reference RT	Area %	Area % Limits	RT Diff	RT Diff Limit	Q
SED-6 (23I1834-18)		Lab File ID: 23I1834-18.d				Analyzed: 09/26/23 11:18			
M8FOSA	242391.8	3.988567	254,732.00	3.980567	95	50 - 150	0.0080	+/-0.50	
M2-4:2FTS	56654.26	2.52145	58,177.00	2.529667	97	50 - 150	-0.0082	+/-0.50	
M2PFTA	436156.2	4.30535	475,322.00	4.30535	92	50 - 150	0.0000	+/-0.50	
M2-8:2FTS	140077.5	3.78685	134,111.00	3.778883	104	50 - 150	0.0080	+/-0.50	
MPFBA	334360.4	1.066783	396,763.00	1.066783	84	50 - 150	0.0000	+/-0.50	
M3HFPO-DA	137005.3	2.855667	167,812.00	2.855667	82	50 - 150	0.0000	+/-0.50	
M6PFDA	619395.4	3.787383	661,378.00	3.787383	94	50 - 150	0.0000	+/-0.50	
M3PFBS	158597.8	1.911533	164,939.00	1.911533	96	50 - 150	0.0000	+/-0.50	
M7PFUnA	517939.3	3.93005	537,895.00	3.93005	96	50 - 150	0.0000	+/-0.50	
M2-6:2FTS	52209	3.4373	45,317.00	3.4373	115	50 - 150	0.0000	+/-0.50	
M5PFPeA	349614.4	1.731383	388,984.00	1.731383	90	50 - 150	0.0000	+/-0.50	
M5PFHxA	588498.3	2.6134	636,142.00	2.6134	93	50 - 150	0.0000	+/-0.50	
M3PFHxS	90264.11	3.21025	91,428.00	3.21025	99	50 - 150	0.0000	+/-0.50	
M4PFHpA	572518.8	3.178867	616,337.00	3.178867	93	50 - 150	0.0000	+/-0.50	
M8PFOA	642071	3.445833	621,924.00	3.445833	103	50 - 150	0.0000	+/-0.50	
M8PFOS	86917.38	3.6282	94,767.00	3.6282	92	50 - 150	0.0000	+/-0.50	
M9PFNA	571458.3	3.629233	551,821.00	3.629233	104	50 - 150	0.0000	+/-0.50	
MPFDoA	432618.8	4.064667	458,964.00	4.072667	94	50 - 150	-0.0080	+/-0.50	
D5-NEtFOSAA	141434.4	3.937517	130,811.00	3.937517	108	50 - 150	0.0000	+/-0.50	
D3-NMeFOSAA	173745.8	3.85765	169,938.00	3.865617	102	50 - 150	-0.0080	+/-0.50	

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INTERNAL STANDARD AREA AND RT SUMMARY

SOP-454 PFAS

Internal Standard	Response	RT	Reference Response	Reference RT	Area %	Area % Limits	RT Diff	RT Diff Limit	Q
SW-7 (23I1834-19)			Lab File ID: 23I1834-19.d			Analyzed: 10/10/23 01:55			
M8FOSA	359750.7	3.996583	631,095.00	3.99655	57	50 - 150	0.0000	+/-0.50	
M2-4:2FTS	144729.2	2.455767	200,873.00	2.45575	72	50 - 150	0.0000	+/-0.50	
M2PFTA	828725.6	4.25685	1,542,992.00	4.256834	54	50 - 150	0.0000	+/-0.50	
M2-8:2FTS	307980.2	3.747017	165,082.00	3.73905	187	50 - 150	0.0080	+/-0.50	*
MPFBA	496151.4	1.033533	869,715.00	1.033533	57	50 - 150	0.0000	+/-0.50	
M3HFPO-DA	275508.6	2.7984	341,103.00	2.7902	81	50 - 150	0.0082	+/-0.50	
M6PFDA	1117005	3.74755	1,416,363.00	3.739567	79	50 - 150	0.0080	+/-0.50	
M3PFBS	249375.6	1.861817	346,840.00	1.853533	72	50 - 150	0.0083	+/-0.50	
M7PFUnA	953420.8	3.881917	1,436,837.00	3.8819	66	50 - 150	0.0000	+/-0.50	
M2-6:2FTS	111914.7	3.39635	112,667.00	3.39635	99	50 - 150	0.0000	+/-0.50	
M5PFPeA	562627.8	1.68175	752,075.00	1.673467	75	50 - 150	0.0083	+/-0.50	
M5PFHxA	1016371	2.5395	1,421,186.00	2.539483	72	50 - 150	0.0000	+/-0.50	
M3PFHxS	175978.3	3.1696	216,863.00	3.169583	81	50 - 150	0.0000	+/-0.50	
M4PFHpA	1145104	3.130417	1,440,583.00	3.1304	79	50 - 150	0.0000	+/-0.50	
M8PFOA	1139540	3.405083	1,464,153.00	3.405067	78	50 - 150	0.0000	+/-0.50	
M8PFOS	159689.7	3.596267	213,794.00	3.59625	75	50 - 150	0.0000	+/-0.50	
M9PFNA	909067.3	3.5973	1,167,864.00	3.5893	78	50 - 150	0.0080	+/-0.50	
MPFDoA	845991.3	4.016716	1,338,679.00	4.0167	63	50 - 150	0.0000	+/-0.50	
D5-NEtFOSAA	219409.6	3.889417	310,667.00	3.8894	71	50 - 150	0.0000	+/-0.50	
D3-NMeFOSAA	276244.8	3.81745	418,707.00	3.817433	66	50 - 150	0.0000	+/-0.50	

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INTERNAL STANDARD AREA AND RT SUMMARY
SOP-466 PFAS

Internal Standard	Response	RT	Reference Response	Reference RT	Area %	Area % Limits	RT Diff	RT Diff Limit	Q
SED-7 (23I1834-20) Lab File ID: 23I1834-20.d Analyzed: 09/26/23 11:26									
M8FOSA	244724.6	3.988567	254,732.00	3.980567	96	50 - 150	0.0080	+/-0.50	
M2-4:2FTS	83695.88	2.529667	58,177.00	2.529667	144	50 - 150	0.0000	+/-0.50	
M2PFTA	503330.9	4.313416	475,322.00	4.30535	106	50 - 150	0.0081	+/-0.50	
M2-8:2FTS	171709	3.78685	134,111.00	3.778883	128	50 - 150	0.0080	+/-0.50	
MPFBA	370518.4	1.066783	396,763.00	1.066783	93	50 - 150	0.0000	+/-0.50	
M3HFPO-DA	167511.3	2.855667	167,812.00	2.855667	100	50 - 150	0.0000	+/-0.50	
M6PFDA	636803	3.787383	661,378.00	3.787383	96	50 - 150	0.0000	+/-0.50	
M3PFBS	191871.1	1.911533	164,939.00	1.911533	116	50 - 150	0.0000	+/-0.50	
M7PFUnA	565143.1	3.938033	537,895.00	3.93005	105	50 - 150	0.0080	+/-0.50	
M2-6:2FTS	112721.6	3.4373	45,317.00	3.4373	249	50 - 150	0.0000	+/-0.50	*
M5PFPeA	416439.3	1.731383	388,984.00	1.731383	107	50 - 150	0.0000	+/-0.50	
M5PFHxA	700706.1	2.621617	636,142.00	2.6134	110	50 - 150	0.0082	+/-0.50	
M3PFHxS	106320	3.21025	91,428.00	3.21025	116	50 - 150	0.0000	+/-0.50	
M4PFHpA	714275.9	3.178867	616,337.00	3.178867	116	50 - 150	0.0000	+/-0.50	
M8PFOA	741117.1	3.453817	621,924.00	3.445833	119	50 - 150	0.0080	+/-0.50	
M8PFOS	98758.99	3.636183	94,767.00	3.6282	104	50 - 150	0.0080	+/-0.50	
M9PFNA	680816.3	3.637217	551,821.00	3.629233	123	50 - 150	0.0080	+/-0.50	
MPFDoA	467013.8	4.07265	458,964.00	4.072667	102	50 - 150	0.0000	+/-0.50	
D5-NEtFOSAA	155133.6	3.9455	130,811.00	3.937517	119	50 - 150	0.0080	+/-0.50	
D3-NMeFOSAA	197562.5	3.865617	169,938.00	3.865617	116	50 - 150	0.0000	+/-0.50	

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INTERNAL STANDARD AREA AND RT SUMMARY

SOP-454 PFAS

Internal Standard	Response	RT	Reference Response	Reference RT	Area %	Area % Limits	RT Diff	RT Diff Limit	Q
SW-DUP (23I1834-21) Lab File ID: 23I1834-21.d Analyzed: 10/10/23 02:03									
M8FOSA	220487.7	3.996567	631,095.00	3.99655	35	50 - 150	0.0000	+/-0.50	*
M2-4:2FTS	344729.8	2.439333	200,873.00	2.45575	172	50 - 150	-0.0164	+/-0.50	*
M2PFTA	824853.4	4.256834	1,542,992.00	4.256834	53	50 - 150	0.0000	+/-0.50	
M2-8:2FTS	355870.7	3.73905	165,082.00	3.73905	216	50 - 150	0.0000	+/-0.50	*
MPFBA	313410.6	1.025233	869,715.00	1.033533	36	50 - 150	-0.0083	+/-0.50	*
M3HFPO-DA	237585.4	2.782017	341,103.00	2.7902	70	50 - 150	-0.0082	+/-0.50	
M6PFDA	1127897	3.739567	1,416,363.00	3.739567	80	50 - 150	0.0000	+/-0.50	
M3PFBS	250095.6	1.845233	346,840.00	1.853533	72	50 - 150	-0.0083	+/-0.50	
M7PFUnA	1160229	3.881917	1,436,837.00	3.8819	81	50 - 150	0.0000	+/-0.50	
M2-6:2FTS	307850.3	3.3883	112,667.00	3.39635	273	50 - 150	-0.0080	+/-0.50	*
M5PFPeA	485759.3	1.6652	752,075.00	1.673467	65	50 - 150	-0.0083	+/-0.50	
M5PFHxA	1116731	2.531267	1,421,186.00	2.539483	79	50 - 150	-0.0082	+/-0.50	
M3PFHxS	185595.3	3.1615	216,863.00	3.169583	86	50 - 150	-0.0081	+/-0.50	
M4PFHpA	1235444	3.1304	1,440,583.00	3.1304	86	50 - 150	0.0000	+/-0.50	
M8PFOA	1267022	3.405083	1,464,153.00	3.405067	87	50 - 150	0.0000	+/-0.50	
M8PFOS	171097.5	3.588283	213,794.00	3.59625	80	50 - 150	-0.0080	+/-0.50	
M9PFNA	1053544	3.589317	1,167,864.00	3.5893	90	50 - 150	0.0000	+/-0.50	
MPFDaA	938672.1	4.0247	1,338,679.00	4.0167	70	50 - 150	0.0080	+/-0.50	
D5-NEtFOSAA	296427.9	3.8894	310,667.00	3.8894	95	50 - 150	0.0000	+/-0.50	
D3-NMeFOSAA	303157.6	3.817433	418,707.00	3.817433	72	50 - 150	0.0000	+/-0.50	

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INTERNAL STANDARD AREA AND RT SUMMARY
SOP-466 PFAS

Internal Standard	Response	RT	Reference Response	Reference RT	Area %	Area % Limits	RT Diff	RT Diff Limit	Q
SED-DUP (23I1834-22)		Lab File ID: 23I1834-22.d				Analyzed: 09/26/23 12:23			
M8FOSA	235742.6	3.988567	254,732.00	3.988567	93	50 - 150	0.0000	+/-0.50	
M2-4:2FTS	63248.75	2.52145	58,177.00	2.51325	109	50 - 150	0.0082	+/-0.50	
M2PFTA	457395.2	4.30535	475,322.00	4.30535	96	50 - 150	0.0000	+/-0.50	
M2-8:2FTS	140324.7	3.778883	134,111.00	3.778883	105	50 - 150	0.0000	+/-0.50	
MPFBA	359933.5	1.066783	396,763.00	1.058467	91	50 - 150	0.0083	+/-0.50	
M3HFPO-DA	147259.7	2.855667	167,812.00	2.847483	88	50 - 150	0.0082	+/-0.50	
M6PFDA	640067.7	3.779417	661,378.00	3.779417	97	50 - 150	0.0000	+/-0.50	
M3PFBS	161123.9	1.90325	164,939.00	1.90325	98	50 - 150	0.0000	+/-0.50	
M7PFUnA	519614.7	3.93005	537,895.00	3.93005	97	50 - 150	0.0000	+/-0.50	
M2-6:2FTS	54076.98	3.4293	45,317.00	3.429317	119	50 - 150	0.0000	+/-0.50	
M5PFPeA	364768.9	1.7231	388,984.00	1.7231	94	50 - 150	0.0000	+/-0.50	
M5PFHxA	608233.8	2.605183	636,142.00	2.605183	96	50 - 150	0.0000	+/-0.50	
M3PFHxS	90529.52	3.201883	91,428.00	3.201883	99	50 - 150	0.0000	+/-0.50	
M4PFHpA	587071.6	3.170783	616,337.00	3.170783	95	50 - 150	0.0000	+/-0.50	
M8PFOA	658220.1	3.437833	621,924.00	3.437833	106	50 - 150	0.0000	+/-0.50	
M8PFOS	89070.7	3.6282	94,767.00	3.6282	94	50 - 150	0.0000	+/-0.50	
M9PFNA	564386	3.629233	551,821.00	3.629233	102	50 - 150	0.0000	+/-0.50	
MPFDoA	411702.3	4.064667	458,964.00	4.064667	90	50 - 150	0.0000	+/-0.50	
D5-NEtFOSAA	133389.8	3.937517	130,811.00	3.937517	102	50 - 150	0.0000	+/-0.50	
D3-NMeFOSAA	163862.6	3.85765	169,938.00	3.857667	96	50 - 150	0.0000	+/-0.50	

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INTERNAL STANDARD AREA AND RT SUMMARY
SOP-454 PFAS

Internal Standard	Response	RT	Reference Response	Reference RT	Area %	Area % Limits	RT Diff	RT Diff Limit	Q
SED-EQBLNK (23I1834-23RE1) Lab File ID: 23I1834-23RE1.d Analyzed: 10/11/23 16:59									
M8FOSA	381693.1	3.9646	680,473.00	3.9646	56	50 - 150	0.0000	+/-0.50	
M2-4:2FTS	157932	2.480383	197,074.00	2.4804	80	50 - 150	0.0000	+/-0.50	
M2PFTA	1703986	4.27305	1,704,722.00	4.273067	100	50 - 150	0.0000	+/-0.50	
M2-8:2FTS	489332.9	3.754983	409,674.00	3.755	119	50 - 150	0.0000	+/-0.50	
MPFBA	889423.7	1.033533	901,076.00	1.033533	99	50 - 150	0.0000	+/-0.50	
M3HFPO-DA	262961.3	2.81475	392,247.00	2.814767	67	50 - 150	0.0000	+/-0.50	
M6PFDA	1586205	3.755517	1,700,450.00	3.755517	93	50 - 150	0.0000	+/-0.50	
M3PFBS	316198	1.878383	330,821.00	1.878383	96	50 - 150	0.0000	+/-0.50	
M7PFUnA	1523659	3.897883	1,433,304.00	3.897883	106	50 - 150	0.0000	+/-0.50	
M2-6:2FTS	168298.9	3.4044	122,554.00	3.404417	137	50 - 150	0.0000	+/-0.50	
M5PFPeA	783258.1	1.698283	807,094.00	1.698283	97	50 - 150	0.0000	+/-0.50	
M5PFHxA	1420923	2.572333	1,446,702.00	2.57235	98	50 - 150	0.0000	+/-0.50	
M3PFHxS	215708.3	3.177667	230,596.00	3.177667	94	50 - 150	0.0000	+/-0.50	
M4PFHpA	1541491	3.14655	1,570,011.00	3.146567	98	50 - 150	0.0000	+/-0.50	
M8PFOA	1671834	3.413117	1,498,033.00	3.413133	112	50 - 150	0.0000	+/-0.50	
M8PFOS	216985.8	3.60425	228,224.00	3.596267	95	50 - 150	0.0080	+/-0.50	
M9PFNA	1372497	3.605283	1,300,990.00	3.6053	105	50 - 150	0.0000	+/-0.50	
MPFDoA	1376795	4.0327	1,330,395.00	4.0327	103	50 - 150	0.0000	+/-0.50	
D5-NEtFOSAA	350647.8	3.90555	327,225.00	3.90555	107	50 - 150	0.0000	+/-0.50	
D3-NMeFOSAA	320822.1	3.833783	433,046.00	3.825833	74	50 - 150	0.0080	+/-0.50	

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INTERNAL STANDARD AREA AND RT SUMMARY
SOP-466 PFAS

Internal Standard	Response	RT	Reference Response	Reference RT	Area %	Area % Limits	RT Diff	RT Diff Limit	Q
Blank (B352507-BLK1)			Lab File ID: B352507-BLK1.d			Analyzed: 09/26/23 09:59			
M8FOSA	187846.8	3.980567	254,732.00	3.980567	74	50 - 150	0.0000	+/-0.50	
M2-4:2FTS	43944.15	2.52145	58,177.00	2.529667	76	50 - 150	-0.0082	+/-0.50	
M2PFTA	355042	4.30535	475,322.00	4.30535	75	50 - 150	0.0000	+/-0.50	
M2-8:2FTS	101335.2	3.778883	134,111.00	3.778883	76	50 - 150	0.0000	+/-0.50	
MPFBA	284931.9	1.066783	396,763.00	1.066783	72	50 - 150	0.0000	+/-0.50	
M3HFPO-DA	119115.4	2.847483	167,812.00	2.855667	71	50 - 150	-0.0082	+/-0.50	
M6PFDA	509914	3.787383	661,378.00	3.787383	77	50 - 150	0.0000	+/-0.50	
M3PFBS	124502.2	1.911533	164,939.00	1.911533	75	50 - 150	0.0000	+/-0.50	
M7PFUnA	417711.4	3.93005	537,895.00	3.93005	78	50 - 150	0.0000	+/-0.50	
M2-6:2FTS	38431.41	3.4373	45,317.00	3.4373	85	50 - 150	0.0000	+/-0.50	
M5PFPeA	286914.1	1.731383	388,984.00	1.731383	74	50 - 150	0.0000	+/-0.50	
M5PFHxA	481736.9	2.6134	636,142.00	2.6134	76	50 - 150	0.0000	+/-0.50	
M3PFHxS	70082.13	3.201883	91,428.00	3.21025	77	50 - 150	-0.0084	+/-0.50	
M4PFHpA	463215.5	3.170783	616,337.00	3.178867	75	50 - 150	-0.0081	+/-0.50	
M8PFOA	519624.9	3.445833	621,924.00	3.445833	84	50 - 150	0.0000	+/-0.50	
M8PFOS	70846.52	3.6282	94,767.00	3.6282	75	50 - 150	0.0000	+/-0.50	
M9PFNA	434856.3	3.629233	551,821.00	3.629233	79	50 - 150	0.0000	+/-0.50	
MPFDoA	342041.1	4.064667	458,964.00	4.072667	75	50 - 150	-0.0080	+/-0.50	
D5-NEtFOSAA	112526.3	3.937517	130,811.00	3.937517	86	50 - 150	0.0000	+/-0.50	
D3-NMeFOSAA	128202.7	3.85765	169,938.00	3.865617	75	50 - 150	-0.0080	+/-0.50	

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INTERNAL STANDARD AREA AND RT SUMMARY
SOP-466 PFAS

Internal Standard	Response	RT	Reference Response	Reference RT	Area %	Area % Limits	RT Diff	RT Diff Limit	Q
LCS (B352507-BS1)			Lab File ID: B352507-BS1R.d			Analyzed: 09/26/23 12:15			
M8FOSA	283519.1	3.988567	254,732.00	3.988567	111	50 - 150	0.0000	+/-0.50	
M2-4:2FTS	77936.48	2.51325	58,177.00	2.51325	134	50 - 150	0.0000	+/-0.50	
M2PFTA	508260.2	4.30535	475,322.00	4.30535	107	50 - 150	0.0000	+/-0.50	
M2-8:2FTS	163769.9	3.778883	134,111.00	3.778883	122	50 - 150	0.0000	+/-0.50	
MPFBA	419387.3	1.058467	396,763.00	1.058467	106	50 - 150	0.0000	+/-0.50	
M3HFPO-DA	172938.8	2.847483	167,812.00	2.847483	103	50 - 150	0.0000	+/-0.50	
M6PFDA	714486.8	3.779417	661,378.00	3.779417	108	50 - 150	0.0000	+/-0.50	
M3PFBS	182339.1	1.90325	164,939.00	1.90325	111	50 - 150	0.0000	+/-0.50	
M7PFUnA	588651	3.93005	537,895.00	3.93005	109	50 - 150	0.0000	+/-0.50	
M2-6:2FTS	65658.71	3.4293	45,317.00	3.429317	145	50 - 150	0.0000	+/-0.50	
M5PFPeA	412631.9	1.7231	388,984.00	1.7231	106	50 - 150	0.0000	+/-0.50	
M5PFHxA	696030.7	2.605183	636,142.00	2.605183	109	50 - 150	0.0000	+/-0.50	
M3PFHxS	103384.1	3.201883	91,428.00	3.201883	113	50 - 150	0.0000	+/-0.50	
M4PFHpA	681151.3	3.170783	616,337.00	3.170783	111	50 - 150	0.0000	+/-0.50	
M8PFOA	719793.4	3.437833	621,924.00	3.437833	116	50 - 150	0.0000	+/-0.50	
M8PFOS	104562.5	3.6282	94,767.00	3.6282	110	50 - 150	0.0000	+/-0.50	
M9PFNA	642701.4	3.629233	551,821.00	3.629233	116	50 - 150	0.0000	+/-0.50	
MPFDoA	476060.7	4.064667	458,964.00	4.064667	104	50 - 150	0.0000	+/-0.50	
D5-NEtFOSAA	154463.4	3.937517	130,811.00	3.937517	118	50 - 150	0.0000	+/-0.50	
D3-NMeFOSAA	189117.1	3.85765	169,938.00	3.857667	111	50 - 150	0.0000	+/-0.50	

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INTERNAL STANDARD AREA AND RT SUMMARY
SOP-466 PFAS

Internal Standard	Response	RT	Reference Response	Reference RT	Area %	Area % Limits	RT Diff	RT Diff Limit	Q
Matrix Spike (B352507-MS1) Lab File ID: B352507-MS1.d Analyzed: 09/26/23 10:06									
M8FOSA	206573.5	3.980567	254,732.00	3.980567	81	50 - 150	0.0000	+/-0.50	
M2-4:2FTS	46008.15	2.52145	58,177.00	2.529667	79	50 - 150	-0.0082	+/-0.50	
M2PFTA	387510.1	4.30535	475,322.00	4.30535	82	50 - 150	0.0000	+/-0.50	
M2-8:2FTS	120713.9	3.778883	134,111.00	3.778883	90	50 - 150	0.0000	+/-0.50	
MPFBA	283542.3	1.066783	396,763.00	1.066783	71	50 - 150	0.0000	+/-0.50	
M3HFPO-DA	121722.7	2.855667	167,812.00	2.855667	73	50 - 150	0.0000	+/-0.50	
M6PFDA	524496.7	3.787383	661,378.00	3.787383	79	50 - 150	0.0000	+/-0.50	
M3PFBS	128559	1.911533	164,939.00	1.911533	78	50 - 150	0.0000	+/-0.50	
M7PFUnA	430771	3.93005	537,895.00	3.93005	80	50 - 150	0.0000	+/-0.50	
M2-6:2FTS	42526.62	3.4373	45,317.00	3.4373	94	50 - 150	0.0000	+/-0.50	
M5PFPeA	290296.7	1.731383	388,984.00	1.731383	75	50 - 150	0.0000	+/-0.50	
M5PFHxA	481722	2.6134	636,142.00	2.6134	76	50 - 150	0.0000	+/-0.50	
M3PFHxS	73156.59	3.21025	91,428.00	3.21025	80	50 - 150	0.0000	+/-0.50	
M4PFHpA	464805.4	3.178867	616,337.00	3.178867	75	50 - 150	0.0000	+/-0.50	
M8PFOA	505620.3	3.445833	621,924.00	3.445833	81	50 - 150	0.0000	+/-0.50	
M8PFOS	76662.23	3.6282	94,767.00	3.6282	81	50 - 150	0.0000	+/-0.50	
M9PFNA	455633.7	3.629233	551,821.00	3.629233	83	50 - 150	0.0000	+/-0.50	
MPFDoA	365006.3	4.064667	458,964.00	4.072667	80	50 - 150	-0.0080	+/-0.50	
D5-NEtFOSAA	112032.8	3.937517	130,811.00	3.937517	86	50 - 150	0.0000	+/-0.50	
D3-NMeFOSAA	139913.8	3.85765	169,938.00	3.865617	82	50 - 150	-0.0080	+/-0.50	

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INTERNAL STANDARD AREA AND RT SUMMARY
SOP-466 PFAS

Internal Standard	Response	RT	Reference Response	Reference RT	Area %	Area % Limits	RT Diff	RT Diff Limit	Q
Matrix Spike Dup (B352507-MSD1)			Lab File ID: B352507-MSD1.d			Analyzed: 09/26/23 10:13			
M8FOSA	199006.2	3.980567	254,732.00	3.980567	78	50 - 150	0.0000	+/-0.50	
M2-4:2FTS	46486.29	2.52145	58,177.00	2.529667	80	50 - 150	-0.0082	+/-0.50	
M2PFTA	394302.6	4.30535	475,322.00	4.30535	83	50 - 150	0.0000	+/-0.50	
M2-8:2FTS	116568	3.778883	134,111.00	3.778883	87	50 - 150	0.0000	+/-0.50	
MPFBA	293066.8	1.066783	396,763.00	1.066783	74	50 - 150	0.0000	+/-0.50	
M3HFPO-DA	117031.1	2.855667	167,812.00	2.855667	70	50 - 150	0.0000	+/-0.50	
M6PFDA	542177.1	3.787383	661,378.00	3.787383	82	50 - 150	0.0000	+/-0.50	
M3PFBS	131671.5	1.911533	164,939.00	1.911533	80	50 - 150	0.0000	+/-0.50	
M7PFUnA	444993.6	3.93005	537,895.00	3.93005	83	50 - 150	0.0000	+/-0.50	
M2-6:2FTS	44161.31	3.4373	45,317.00	3.4373	97	50 - 150	0.0000	+/-0.50	
M5PFPeA	299991.8	1.731383	388,984.00	1.731383	77	50 - 150	0.0000	+/-0.50	
M5PFHxA	496632.5	2.6134	636,142.00	2.6134	78	50 - 150	0.0000	+/-0.50	
M3PFHxS	73123.36	3.21025	91,428.00	3.21025	80	50 - 150	0.0000	+/-0.50	
M4PFHpA	491738.8	3.178867	616,337.00	3.178867	80	50 - 150	0.0000	+/-0.50	
M8PFOA	533024.4	3.445833	621,924.00	3.445833	86	50 - 150	0.0000	+/-0.50	
M8PFOS	72393.22	3.6282	94,767.00	3.6282	76	50 - 150	0.0000	+/-0.50	
M9PFNA	471585	3.629233	551,821.00	3.629233	85	50 - 150	0.0000	+/-0.50	
MPFDoA	381844.4	4.072667	458,964.00	4.072667	83	50 - 150	0.0000	+/-0.50	
D5-NEtFOSAA	125228.7	3.937517	130,811.00	3.937517	96	50 - 150	0.0000	+/-0.50	
D3-NMeFOSAA	153134.3	3.865617	169,938.00	3.865617	90	50 - 150	0.0000	+/-0.50	

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INTERNAL STANDARD AREA AND RT SUMMARY

SOP-454 PFAS

Internal Standard	Response	RT	Reference Response	Reference RT	Area %	Area % Limits	RT Diff	RT Diff Limit	Q
Blank (B353115-BLK1)			Lab File ID: B353115-BLK1.d			Analyzed: 10/09/23 23:38			
M8FOSA	483002.9	3.996567	631,095.00	3.996567	77	50 - 150	0.0000	+/-0.50	
M2-4:2FTS	146593	2.45575	200,873.00	2.45575	73	50 - 150	0.0000	+/-0.50	
M2PF _{TA}	1208529	4.25685	1,542,992.00	4.25685	78	50 - 150	0.0000	+/-0.50	
M2-8:2FTS	472318.1	3.747017	165,082.00	3.747017	286	50 - 150	0.0000	+/-0.50	*
MPFBA	749519.7	1.04185	869,715.00	1.033533	86	50 - 150	0.0083	+/-0.50	
M3HFPO-DA	312317	2.798383	341,103.00	2.7902	92	50 - 150	0.0082	+/-0.50	
M6PFDA	1329467	3.747533	1,416,363.00	3.747533	94	50 - 150	0.0000	+/-0.50	
M3PFBS	281306.8	1.861817	346,840.00	1.853533	81	50 - 150	0.0083	+/-0.50	
M7PFUnA	1208738	3.889883	1,436,837.00	3.889883	84	50 - 150	0.0000	+/-0.50	
M2-6:2FTS	108301.6	3.396333	112,667.00	3.39635	96	50 - 150	0.0000	+/-0.50	
M5PFPeA	695068.1	1.68175	752,075.00	1.673467	92	50 - 150	0.0083	+/-0.50	
M5PFHxA	1268608	2.5477	1,421,186.00	2.539483	89	50 - 150	0.0082	+/-0.50	
M3PFHxS	187812	3.169583	216,863.00	3.169583	87	50 - 150	0.0000	+/-0.50	
M4PFHpA	1373048	3.138467	1,440,583.00	3.1304	95	50 - 150	0.0081	+/-0.50	
M8PFOA	1341550	3.405067	1,464,153.00	3.405067	92	50 - 150	0.0000	+/-0.50	
M8PFOS	183381.8	3.596267	213,794.00	3.596267	86	50 - 150	0.0000	+/-0.50	
M9PFNA	1129582	3.5973	1,167,864.00	3.5973	97	50 - 150	0.0000	+/-0.50	
MPFDoA	1032416	4.0247	1,338,679.00	4.0247	77	50 - 150	0.0000	+/-0.50	
D5-NEtFOSAA	274262.6	3.897383	310,667.00	3.897383	88	50 - 150	0.0000	+/-0.50	
D3-NMeFOSAA	325196.4	3.817433	418,707.00	3.817433	78	50 - 150	0.0000	+/-0.50	

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INTERNAL STANDARD AREA AND RT SUMMARY
SOP-454 PFAS

Internal Standard	Response	RT	Reference Response	Reference RT	Area %	Area % Limits	RT Diff	RT Diff Limit	Q
LCS (B353115-BS1)		Lab File ID: B353115-BS1.d				Analyzed: 10/09/23 23:31			
M8FOSA	745208.1	3.996567	631,095.00	3.996567	118	50 - 150	0.0000	+/-0.50	
M2-4:2FTS	218411.4	2.45575	200,873.00	2.45575	109	50 - 150	0.0000	+/-0.50	
M2PF _{TA}	1575856	4.256834	1,542,992.00	4.25685	102	50 - 150	0.0000	+/-0.50	
M2-8:2FTS	770875.7	3.747017	165,082.00	3.747017	467	50 - 150	0.0000	+/-0.50	*
MPFBA	1147907	1.04185	869,715.00	1.033533	132	50 - 150	0.0083	+/-0.50	
M3HFPO-DA	341616.4	2.798383	341,103.00	2.7902	100	50 - 150	0.0082	+/-0.50	
M6PFDA	2063015	3.747533	1,416,363.00	3.747533	146	50 - 150	0.0000	+/-0.50	
M3PFBS	440783.9	1.861817	346,840.00	1.853533	127	50 - 150	0.0083	+/-0.50	
M7PF _{UnA}	1770121	3.889883	1,436,837.00	3.889883	123	50 - 150	0.0000	+/-0.50	
M2-6:2FTS	167920.1	3.396333	112,667.00	3.39635	149	50 - 150	0.0000	+/-0.50	
M5PF _{PeA}	1050644	1.681733	752,075.00	1.673467	140	50 - 150	0.0083	+/-0.50	
M5PF _{HxA}	1916523	2.5477	1,421,186.00	2.539483	135	50 - 150	0.0082	+/-0.50	
M3PF _{HxS}	305998.7	3.169583	216,863.00	3.169583	141	50 - 150	0.0000	+/-0.50	
M4PF _{HpA}	2071506	3.138483	1,440,583.00	3.1304	144	50 - 150	0.0081	+/-0.50	
M8PFOA	2032868	3.405067	1,464,153.00	3.405067	139	50 - 150	0.0000	+/-0.50	
M8PFOS	280580.9	3.59625	213,794.00	3.596267	131	50 - 150	0.0000	+/-0.50	
M9PFNA	1636009	3.597283	1,167,864.00	3.5973	140	50 - 150	0.0000	+/-0.50	
MPF _{DoA}	1504721	4.0247	1,338,679.00	4.0247	112	50 - 150	0.0000	+/-0.50	
D5-NEtFOSAA	366402.9	3.897367	310,667.00	3.897383	118	50 - 150	0.0000	+/-0.50	
D3-NMeFOSAA	468198.1	3.817433	418,707.00	3.817433	112	50 - 150	0.0000	+/-0.50	

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INTERNAL STANDARD AREA AND RT SUMMARY
SOP-454 PFAS

Internal Standard	Response	RT	Reference Response	Reference RT	Area %	Area % Limits	RT Diff	RT Diff Limit	Q
Matrix Spike (B353115-MS1) Lab File ID: B353115-MS1.d Analyzed: 10/09/23 23:45									
M8FOSA	407914.7	3.996567	631,095.00	3.996567	65	50 - 150	0.0000	+/-0.50	
M2-4:2FTS	182245.6	2.45575	200,873.00	2.45575	91	50 - 150	0.0000	+/-0.50	
M2PFTA	701896.8	4.25685	1,542,992.00	4.25685	45	50 - 150	0.0000	+/-0.50	*
M2-8:2FTS	397369.7	3.747017	165,082.00	3.747017	241	50 - 150	0.0000	+/-0.50	*
MPFBA	480586.9	1.033533	869,715.00	1.033533	55	50 - 150	0.0000	+/-0.50	
M3HFPO-DA	263234.4	2.798383	341,103.00	2.7902	77	50 - 150	0.0082	+/-0.50	
M6PFDA	1200274	3.74755	1,416,363.00	3.747533	85	50 - 150	0.0000	+/-0.50	
M3PFBS	256185.1	1.861817	346,840.00	1.853533	74	50 - 150	0.0083	+/-0.50	
M7PFUnA	1014678	3.8899	1,436,837.00	3.889883	71	50 - 150	0.0000	+/-0.50	
M2-6:2FTS	132747.9	3.39635	112,667.00	3.39635	118	50 - 150	0.0000	+/-0.50	
M5PFPeA	638397.8	1.681733	752,075.00	1.673467	85	50 - 150	0.0083	+/-0.50	
M5PFHxA	1166109	2.539483	1,421,186.00	2.539483	82	50 - 150	0.0000	+/-0.50	
M3PFHxS	181805.4	3.169583	216,863.00	3.169583	84	50 - 150	0.0000	+/-0.50	
M4PFHpA	1291423	3.130417	1,440,583.00	3.1304	90	50 - 150	0.0000	+/-0.50	
M8PFOA	1284405	3.405083	1,464,153.00	3.405067	88	50 - 150	0.0000	+/-0.50	
M8PFOS	169246.4	3.596267	213,794.00	3.596267	79	50 - 150	0.0000	+/-0.50	
M9PFNA	1079990	3.5973	1,167,864.00	3.5973	92	50 - 150	0.0000	+/-0.50	
MPFDoA	827189.4	4.016716	1,338,679.00	4.0247	62	50 - 150	-0.0080	+/-0.50	
D5-NEtFOSAA	213518.3	3.8894	310,667.00	3.897383	69	50 - 150	-0.0080	+/-0.50	
D3-NMeFOSAA	277013.8	3.81745	418,707.00	3.817433	66	50 - 150	0.0000	+/-0.50	

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INTERNAL STANDARD AREA AND RT SUMMARY

SOP-454 PFAS

Internal Standard	Response	RT	Reference Response	Reference RT	Area %	Area % Limits	RT Diff	RT Diff Limit	Q
Matrix Spike (B353115-MS2) Lab File ID: B353115-MS2.d Analyzed: 10/09/23 23:52									
M8FOSA	103903	3.996567	631,095.00	3.996567	16	50 - 150	0.0000	+/-0.50	*
M2-4:2FTS	470234.1	2.4146	200,873.00	2.45575	234	50 - 150	-0.0412	+/-0.50	*
M2PFTA	70171.8	4.25685	1,542,992.00	4.25685	05	50 - 150	0.0000	+/-0.50	*
M2-8:2FTS	312414.3	3.73905	165,082.00	3.747017	189	50 - 150	-0.0080	+/-0.50	*
MPFBA	144199.7	1.016917	869,715.00	1.033533	17	50 - 150	-0.0166	+/-0.50	*
M3HFPO-DA	169820.4	2.76565	341,103.00	2.7902	50	50 - 150	-0.0246	+/-0.50	
M6PFDA	854188.6	3.739583	1,416,363.00	3.747533	60	50 - 150	-0.0079	+/-0.50	
M3PFBS	227758.3	1.820383	346,840.00	1.853533	66	50 - 150	-0.0332	+/-0.50	
M7PFUnA	682434.8	3.881917	1,436,837.00	3.889883	47	50 - 150	-0.0080	+/-0.50	*
M2-6:2FTS	356940.9	3.3883	112,667.00	3.39635	317	50 - 150	-0.0080	+/-0.50	*
M5PFPeA	355671.3	1.640383	752,075.00	1.673467	47	50 - 150	-0.0331	+/-0.50	*
M5PFHxA	1028403	2.506633	1,421,186.00	2.539483	72	50 - 150	-0.0329	+/-0.50	
M3PFHxS	170595.5	3.153433	216,863.00	3.169583	79	50 - 150	-0.0161	+/-0.50	
M4PFHpA	1068328	3.122333	1,440,583.00	3.1304	74	50 - 150	-0.0081	+/-0.50	
M8PFOA	1111221	3.397017	1,464,153.00	3.405067	76	50 - 150	-0.0080	+/-0.50	
M8PFOS	146226.4	3.588283	213,794.00	3.596267	68	50 - 150	-0.0080	+/-0.50	
M9PFNA	894559	3.589317	1,167,864.00	3.5973	77	50 - 150	-0.0080	+/-0.50	
MPFDoA	359292.5	4.016716	1,338,679.00	4.0247	27	50 - 150	-0.0080	+/-0.50	*
D5-NEtFOSAA	194686.5	3.8894	310,667.00	3.897383	63	50 - 150	-0.0080	+/-0.50	
D3-NMeFOSAA	215687.3	3.817433	418,707.00	3.817433	52	50 - 150	0.0000	+/-0.50	

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INTERNAL STANDARD AREA AND RT SUMMARY
SOP-454 PFAS

Internal Standard	Response	RT	Reference Response	Reference RT	Area %	Area % Limits	RT Diff	RT Diff Limit	Q
Matrix Spike Dup (B353115-MSD1)			Lab File ID: B353115-MSD1.d			Analyzed: 10/10/23 00:00			
M8FOSA	289284	3.996567	631,095.00	3.996567	46	50 - 150	0.0000	+/-0.50	*
M2-4:2FTS	184013.1	2.455767	200,873.00	2.45575	92	50 - 150	0.0000	+/-0.50	
M2PFTA	1060938	4.256834	1,542,992.00	4.25685	69	50 - 150	0.0000	+/-0.50	
M2-8:2FTS	473441.4	3.747017	165,082.00	3.747017	287	50 - 150	0.0000	+/-0.50	*
MPFBA	485824.6	1.033533	869,715.00	1.033533	56	50 - 150	0.0000	+/-0.50	
M3HFPO-DA	275814.1	2.790217	341,103.00	2.7902	81	50 - 150	0.0000	+/-0.50	
M6PFDA	1270306	3.747533	1,416,363.00	3.747533	90	50 - 150	0.0000	+/-0.50	
M3PFBS	266677.1	1.861817	346,840.00	1.853533	77	50 - 150	0.0083	+/-0.50	
M7PFUnA	1116110	3.8899	1,436,837.00	3.889883	78	50 - 150	0.0000	+/-0.50	
M2-6:2FTS	135592.4	3.39635	112,667.00	3.39635	120	50 - 150	0.0000	+/-0.50	
M5PFPeA	655099.2	1.681733	752,075.00	1.673467	87	50 - 150	0.0083	+/-0.50	
M5PFHxA	1228090	2.5395	1,421,186.00	2.539483	86	50 - 150	0.0000	+/-0.50	
M3PFHxS	179137.5	3.169583	216,863.00	3.169583	83	50 - 150	0.0000	+/-0.50	
M4PFHpA	1348559	3.1304	1,440,583.00	3.1304	94	50 - 150	0.0000	+/-0.50	
M8PFOA	1347012	3.405083	1,464,153.00	3.405067	92	50 - 150	0.0000	+/-0.50	
M8PFOS	168103.6	3.596267	213,794.00	3.596267	79	50 - 150	0.0000	+/-0.50	
M9PFNA	1095167	3.5973	1,167,864.00	3.5973	94	50 - 150	0.0000	+/-0.50	
MPFDoA	961082.4	4.0247	1,338,679.00	4.0247	72	50 - 150	0.0000	+/-0.50	
D5-NEtFOSAA	255303.1	3.897383	310,667.00	3.897383	82	50 - 150	0.0000	+/-0.50	
D3-NMeFOSAA	312253.9	3.817433	418,707.00	3.817433	75	50 - 150	0.0000	+/-0.50	

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INTERNAL STANDARD AREA AND RT SUMMARY

SOP-454 PFAS

Internal Standard	Response	RT	Reference Response	Reference RT	Area %	Area % Limits	RT Diff	RT Diff Limit	Q
Matrix Spike Dup (B353115-MSD2) Lab File ID: B353115-MSD2.d Analyzed: 10/10/23 00:07									
M8FOSA	103494.3	3.996567	631,095.00	3.996567	16	50 - 150	0.0000	+/-0.50	*
M2-4:2FTS	415755	2.4146	200,873.00	2.45575	207	50 - 150	-0.0412	+/-0.50	*
M2PFTA	164078.9	4.25685	1,542,992.00	4.25685	11	50 - 150	0.0000	+/-0.50	*
M2-8:2FTS	309121	3.73905	165,082.00	3.747017	187	50 - 150	-0.0080	+/-0.50	*
MPFBA	143994.5	1.016917	869,715.00	1.033533	17	50 - 150	-0.0166	+/-0.50	*
M3HFPO-DA	151511.3	2.76565	341,103.00	2.7902	44	50 - 150	-0.0246	+/-0.50	*
M6PFDA	838627.3	3.739583	1,416,363.00	3.747533	59	50 - 150	-0.0079	+/-0.50	
M3PFBS	196041.8	1.820383	346,840.00	1.853533	57	50 - 150	-0.0332	+/-0.50	
M7PFUnA	846908.3	3.881917	1,436,837.00	3.889883	59	50 - 150	-0.0080	+/-0.50	
M2-6:2FTS	329890.6	3.3883	112,667.00	3.39635	293	50 - 150	-0.0080	+/-0.50	*
M5PFPeA	317411.8	1.640383	752,075.00	1.673467	42	50 - 150	-0.0331	+/-0.50	*
M5PFHxA	928708.2	2.498417	1,421,186.00	2.539483	65	50 - 150	-0.0411	+/-0.50	
M3PFHxS	148444	3.153433	216,863.00	3.169583	68	50 - 150	-0.0161	+/-0.50	
M4PFHpA	959312.6	3.122333	1,440,583.00	3.1304	67	50 - 150	-0.0081	+/-0.50	
M8PFOA	949701.9	3.397033	1,464,153.00	3.405067	65	50 - 150	-0.0080	+/-0.50	
M8PFOS	144586.6	3.588283	213,794.00	3.596267	68	50 - 150	-0.0080	+/-0.50	
M9PFNA	780910.9	3.589317	1,167,864.00	3.5973	67	50 - 150	-0.0080	+/-0.50	
MPFDoA	557425.9	4.016716	1,338,679.00	4.0247	42	50 - 150	-0.0080	+/-0.50	*
D5-NEtFOSAA	207758.9	3.889417	310,667.00	3.897383	67	50 - 150	-0.0080	+/-0.50	
D3-NMeFOSAA	215629	3.81745	418,707.00	3.817433	51	50 - 150	0.0000	+/-0.50	

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INTERNAL STANDARD AREA AND RT SUMMARY
SOP-454 PFAS

Internal Standard	Response	RT	Reference Response	Reference RT	Area %	Area % Limits	RT Diff	RT Diff Limit	Q
Blank (B354579-BLK1)			Lab File ID: B354579-BLK1.d			Analyzed: 10/11/23 14:31			
M8FOSA	639049.4	3.964617	680,473.00	3.964583	94	50 - 150	0.0000	+/-0.50	
M2-4:2FTS	162877.1	2.480383	197,074.00	2.480383	83	50 - 150	0.0000	+/-0.50	
M2PFTA	1640128	4.273083	1,704,722.00	4.27305	96	50 - 150	0.0000	+/-0.50	
M2-8:2FTS	435363.1	3.755017	409,674.00	3.754983	106	50 - 150	0.0000	+/-0.50	
MPFBA	869722.4	1.033533	901,076.00	1.033533	97	50 - 150	0.0000	+/-0.50	
M3HFPO-DA	298650.4	2.822933	392,247.00	2.81475	76	50 - 150	0.0082	+/-0.50	
M6PFDA	1732148	3.755533	1,700,450.00	3.7555	102	50 - 150	0.0000	+/-0.50	
M3PFBS	330761.2	1.878383	330,821.00	1.878383	100	50 - 150	0.0000	+/-0.50	
M7PFUnA	1410314	3.8979	1,433,304.00	3.897867	98	50 - 150	0.0000	+/-0.50	
M2-6:2FTS	146010.5	3.404417	122,554.00	3.404383	119	50 - 150	0.0000	+/-0.50	
M5PFPeA	796752.1	1.698283	807,094.00	1.698283	99	50 - 150	0.0000	+/-0.50	
M5PFHxA	1470243	2.572333	1,446,702.00	2.572333	102	50 - 150	0.0000	+/-0.50	
M3PFHxS	223812.3	3.177667	230,596.00	3.17765	97	50 - 150	0.0000	+/-0.50	
M4PFHpA	1637534	3.146567	1,570,011.00	3.14655	104	50 - 150	0.0000	+/-0.50	
M8PFOA	1712311	3.413133	1,498,033.00	3.413117	114	50 - 150	0.0000	+/-0.50	
M8PFOS	212827.1	3.604267	228,224.00	3.596267	93	50 - 150	0.0080	+/-0.50	
M9PFNA	1336216	3.605317	1,300,990.00	3.605283	103	50 - 150	0.0000	+/-0.50	
MPFDoA	1281324	4.040717	1,330,395.00	4.032683	96	50 - 150	0.0080	+/-0.50	
D5-NEtFOSAA	334129.7	3.905567	327,225.00	3.905533	102	50 - 150	0.0000	+/-0.50	
D3-NMeFOSAA	437810.3	3.833817	433,046.00	3.825833	101	50 - 150	0.0080	+/-0.50	

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INTERNAL STANDARD AREA AND RT SUMMARY
SOP-454 PFAS

Internal Standard	Response	RT	Reference Response	Reference RT	Area %	Area % Limits	RT Diff	RT Diff Limit	Q
LCS (B354579-BS1)			Lab File ID: B354579-BS1.d			Analyzed: 10/11/23 14:16			
M8FOSA	573488.6	3.964583	680,473.00	3.964583	84	50 - 150	0.0000	+/-0.50	
M2-4:2FTS	157263.9	2.4886	197,074.00	2.480383	80	50 - 150	0.0082	+/-0.50	
M2PFTA	1435896	4.27305	1,704,722.00	4.27305	84	50 - 150	0.0000	+/-0.50	
M2-8:2FTS	437656.6	3.754983	409,674.00	3.754983	107	50 - 150	0.0000	+/-0.50	
MPFBA	805669.7	1.033533	901,076.00	1.033533	89	50 - 150	0.0000	+/-0.50	
M3HFPO-DA	290252.9	2.81475	392,247.00	2.81475	74	50 - 150	0.0000	+/-0.50	
M6PFDA	1551705	3.755517	1,700,450.00	3.7555	91	50 - 150	0.0000	+/-0.50	
M3PFBS	310810.7	1.878383	330,821.00	1.878383	94	50 - 150	0.0000	+/-0.50	
M7PFUnA	1321058	3.897883	1,433,304.00	3.897867	92	50 - 150	0.0000	+/-0.50	
M2-6:2FTS	135090.8	3.4044	122,554.00	3.404383	110	50 - 150	0.0000	+/-0.50	
M5PFPeA	732412.8	1.698283	807,094.00	1.698283	91	50 - 150	0.0000	+/-0.50	
M5PFHxA	1366757	2.572333	1,446,702.00	2.572333	94	50 - 150	0.0000	+/-0.50	
M3PFHxS	215609	3.17765	230,596.00	3.17765	94	50 - 150	0.0000	+/-0.50	
M4PFHpA	1498818	3.14655	1,570,011.00	3.14655	95	50 - 150	0.0000	+/-0.50	
M8PFOA	1559084	3.413133	1,498,033.00	3.413117	104	50 - 150	0.0000	+/-0.50	
M8PFOS	196634.3	3.596267	228,224.00	3.596267	86	50 - 150	0.0000	+/-0.50	
M9PFNA	1257237	3.605283	1,300,990.00	3.605283	97	50 - 150	0.0000	+/-0.50	
MPFDoA	1194210	4.0327	1,330,395.00	4.032683	90	50 - 150	0.0000	+/-0.50	
D5-NEtFOSAA	304911.4	3.90555	327,225.00	3.905533	93	50 - 150	0.0000	+/-0.50	
D3-NMeFOSAA	403885.4	3.825833	433,046.00	3.825833	93	50 - 150	0.0000	+/-0.50	

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INTERNAL STANDARD AREA AND RT SUMMARY
SOP-454 PFAS

Internal Standard	Response	RT	Reference Response	Reference RT	Area %	Area % Limits	RT Diff	RT Diff Limit	Q
LCS Dup (B354579-BSD1) Lab File ID: B354579-BSD1R.d Analyzed: 10/11/23 15:21									
M8FOSA	558531.3	3.964583	680,473.00	3.964583	82	50 - 150	0.0000	+/-0.50	
M2-4:2FTS	159909.5	2.4886	197,074.00	2.480383	81	50 - 150	0.0082	+/-0.50	
M2PFTA	1434112	4.27305	1,704,722.00	4.27305	84	50 - 150	0.0000	+/-0.50	
M2-8:2FTS	428722.2	3.754983	409,674.00	3.754983	105	50 - 150	0.0000	+/-0.50	
MPFBA	794270.8	1.04185	901,076.00	1.033533	88	50 - 150	0.0083	+/-0.50	
M3HFPO-DA	296657.8	2.822933	392,247.00	2.81475	76	50 - 150	0.0082	+/-0.50	
M6PFDA	1536370	3.7555	1,700,450.00	3.7555	90	50 - 150	0.0000	+/-0.50	
M3PFBS	303575	1.886683	330,821.00	1.878383	92	50 - 150	0.0083	+/-0.50	
M7PFUnA	1271184	3.897867	1,433,304.00	3.897867	89	50 - 150	0.0000	+/-0.50	
M2-6:2FTS	138656.9	3.4044	122,554.00	3.404383	113	50 - 150	0.0000	+/-0.50	
M5PFPeA	734907.1	1.706567	807,094.00	1.698283	91	50 - 150	0.0083	+/-0.50	
M5PFHxA	1365307	2.58055	1,446,702.00	2.572333	94	50 - 150	0.0082	+/-0.50	
M3PFHxS	214744.5	3.177667	230,596.00	3.17765	93	50 - 150	0.0000	+/-0.50	
M4PFHpA	1500556	3.14655	1,570,011.00	3.14655	96	50 - 150	0.0000	+/-0.50	
M8PFOA	1558133	3.413117	1,498,033.00	3.413117	104	50 - 150	0.0000	+/-0.50	
M8PFOS	191909	3.60425	228,224.00	3.596267	84	50 - 150	0.0080	+/-0.50	
M9PFNA	1253928	3.605283	1,300,990.00	3.605283	96	50 - 150	0.0000	+/-0.50	
MPFDoA	1174105	4.040683	1,330,395.00	4.032683	88	50 - 150	0.0080	+/-0.50	
D5-NEtFOSAA	291114	3.905533	327,225.00	3.905533	89	50 - 150	0.0000	+/-0.50	
D3-NMeFOSAA	394589.7	3.833783	433,046.00	3.825833	91	50 - 150	0.0080	+/-0.50	

CERTIFICATIONS
Certified Analyses included in this Report

Analyte	Certifications
<i>SOP-454 PFAS in Water</i>	
Perfluorobutanoic acid (PFBA)	NH-P,PA,NY
Perfluorobutanesulfonic acid (PFBS)	NH-P,PA,NY
Perfluoropentanoic acid (PFPeA)	NH-P,PA,NY
Perfluorohexanoic acid (PFHxA)	NH-P,PA,NY
11Cl-PF3OUdS (F53B Major)	NH-P,PA,NY
9Cl-PF3ONS (F53B Minor)	NH-P,PA
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	NH-P,PA,NY
Hexafluoropropylene oxide dimer acid (HFPO-DA)	NH-P,PA,NY
8:2 Fluorotelomersulfonic acid (8:2FTS A)	NH-P,PA
Perfluorodecanoic acid (PFDA)	NH-P,PA,NY
Perfluorododecanoic acid (PFDoA)	NH-P,PA,NY
Perfluoro(2-ethoxyethane)sulfonic acid (PFEEESA)	NH-P,PA,NY
Perfluoroheptanesulfonic acid (PFHpS)	NH-P,PA,NY
N-EtFOSAA (NEtFOSAA)	NH-P,PA,NY
N-MeFOSAA (NMeFOSAA)	NH-P,PA,NY
Perfluorotetradecanoic acid (PFTA)	NH-P,PA,NY
Perfluorotridecanoic acid (PFTrDA)	NH-P,PA,NY
4:2 Fluorotelomersulfonic acid (4:2FTS A)	NH-P,PA,NY
Perfluorodecanesulfonic acid (PFDS)	NH-P,PA
Perfluorooctanesulfonamide (FOSA)	NH-P,PA
Perfluorononanesulfonic acid (PFNS)	NH-P,PA
Perfluoro-1-hexanesulfonamide (FHxSA)	NH-P,PA
Perfluoro-1-butanefulfonamide (FBSA)	NH-P,PA
Perfluorohexanesulfonic acid (PFHxS)	NH-P,PA,NY
Perfluoro-4-oxapentanoic acid (PFMPA)	NH-P,PA,NY
Perfluoro-5-oxahexanoic acid (PFMBA)	NH-P,PA,NY
6:2 Fluorotelomersulfonic acid (6:2FTS A)	NH-P,PA,NY
Perfluoropentanesulfonic acid (PFPeS)	NH-P,PA,NY
Perfluoroundecanoic acid (PFUnA)	NH-P,PA,NY
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	NH-P,PA
Perfluoroheptanoic acid (PFHpA)	NH-P,PA,NY
Perfluorooctanoic acid (PFOA)	NH-P,PA,NY
Perfluorooctanesulfonic acid (PFOS)	NH-P,PA,NY
Perfluorononanoic acid (PFNA)	NH-P,PA,NY
<i>SOP-466 PFAS in Soil</i>	
Perfluorobutanoic acid (PFBA)	NH-P,PA,NY
Perfluorobutanesulfonic acid (PFBS)	NH-P,PA
Perfluoropentanoic acid (PFPeA)	NH-P,PA,NY
Perfluorohexanoic acid (PFHxA)	NH-P,PA,NY
11Cl-PF3OUdS (F53B Major)	NH-P,PA
9Cl-PF3ONS (F53B Minor)	NH-P,PA
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	NH-P,PA
Hexafluoropropylene oxide dimer acid (HFPO-DA)	NH-P,PA
8:2 Fluorotelomersulfonic acid (8:2FTS A)	NH-P,PA,NY
Perfluorodecanoic acid (PFDA)	NH-P,PA,NY
Perfluorododecanoic acid (PFDoA)	NH-P,PA,NY

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CERTIFICATIONS
Certified Analyses included in this Report

Analyte	Certifications
<i>SOP-466 PFAS in Soil</i>	
Perfluoro(2-ethoxyethane)sulfonic acid (PFEESA)	NH-P,PA
Perfluoroheptanesulfonic acid (PFHpS)	NH-P,PA
N-EtFOSAA (NEtFOSAA)	NH-P,PA,NY
N-MeFOSAA (NMeFOSAA)	NH-P,PA
Perfluorotetradecanoic acid (PFTA)	NH-P,PA,NY
Perfluorotridecanoic acid (PFTrDA)	NH-P,PA,NY
4:2 Fluorotelomersulfonic acid (4:2FTS A)	NH-P,PA
Perfluorodecanesulfonic acid (PFDS)	NH-P,PA
Perfluorooctanesulfonamide (FOSA)	NH-P,PA
Perfluorononanesulfonic acid (PFNS)	NH-P,PA
Perfluoro-1-hexanesulfonamide (FHxSA)	NH-P,PA
Perfluoro-1-butanefulfonamide (FBSA)	NH-P,PA
Perfluorohexanesulfonic acid (PFHxS)	NH-P,PA
Perfluoro-4-oxapentanoic acid (PFMPA)	NH-P,PA
Perfluoro-5-oxahexanoic acid (PFMBA)	NH-P,PA
6:2 Fluorotelomersulfonic acid (6:2FTS A)	NH-P,PA
Perfluoropentanesulfonic acid (PFPeS)	NH-P,PA
Perfluoroundecanoic acid (PFUnA)	NH-P,PA,NY
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	NH-P,PA
Perfluoroheptanoic acid (PFHpA)	NH-P,PA,NY
Perfluorooctanoic acid (PFOA)	NH-P,PA,NY
Perfluorooctanesulfonic acid (PFOS)	NH-P,PA,NY
Perfluorononanoic acid (PFNA)	NH-P,PA,NY

Con-Test, a Pace Environmental Laboratory, operates under the following certifications and accreditations:

Code	Description	Number	Expires
NY	New York State Department of Health	10899 NELAP	04/1/2024
NH-P	New Hampshire Environmental Lab	2557 NELAP	09/6/2024
PA	Commonwealth of Pennsylvania DEP	68-05812	06/30/2024

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	DC#_Title: ENV-FRM-ELON-0001 v07_Sample Receiving Checklist
	Effective Date: 07/13/2023

Log In Back-Sheet

Client Precision Environmental Services
 Project Furr Street WCEFI
 MCP/RCP Required N/A
 Deliverable Package Requirement N/A
 Location Carmel, NY
 PWSID# (When Applicable) N/A
 Arrival Method:
 Courier ☒ Fed Ex ☐ Walk In ☐ Other ☐
 Received By / Date / Time LA 9/15/23/1013
 Back-Sheet By / Date / Time LA 9/15/23/302
 Temperature Method gun # 5
 Temp < 6° C Actual Temperature 2.5
 Rush Samples: Yes / ☒ No / Notify _____
 Short Hold: Yes / ☒ No / Notify _____

Notes regarding Samples/COC outside of SOP:

Login Sample Receipt Checklist – (Rejection Criteria Listing
 – Using Acceptance Policy) Any False statement will be
 brought to the attention of the Client – True or False

	True	False
Received on Ice	☒	☐
Received in Cooler	☒	☐
Custody Seal: DATE TIME	☐	☒
COC Relinquished	☒	☐
COC/Samples Labels Agree	☒	☐
All Samples in Good Condition	☒	☐
Samples Received within Holding Time	☒	☐
Is there enough Volume	☒	☐
Proper Media/Container Used	☒	☐
Splitting Samples Required	☐	☒
MS/MSD	☐	☒
Trip Blanks	☐	☒
Lab to Filters	☐	☒
COC Legible	☒	☐
COC Included: (Check all included)		
Client ☒	Analysis ☒	Sampler Name ☒
Project ☒	IDs ☒	Collection Date/Time ☒
All Samples Proper pH: <u>N/A</u> ☐ ☐		

Additional Container Notes

Note: West Virginia requires all samples to have their
 temperature taken. Note any outliers.



DC#_Title: ENV-FRM-ELON-0001 v07_Sample Receiving Checklist

Effective Date: 07/13/2023

Sample	Soils Jars				Ambers				Plastics								VOA Vials				Other / Fill in					
	16oz Amb/Clear	8oz Amb/Clear	4oz Amb/Clear	2oz Amb/Clear	Unpreserved	HCL	Sulfuric	Sulfuric	Phosphoric	HCl	Unpreserved	Unpreserved	Sulfuric	Unpreserved	Sulfuric	Nitric	NaOH	Ammonium Acetate	NaOH/Zinc	Unpreserved	HCl	MeOH	D.I. Water	BiSulfate	Col/Bact	125 mL Ambic
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