

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

Division of Environmental Remediation, Remedial Bureau E

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www.dec.ny.gov

March 15, 2023

Mr. George Meyers, Supervisor
Town of New Windsor
555 Union Avenue
New Windsor, New York 12553

Re: New Windsor Public Water Supply Well Sample Results
Kroll Well, New Windsor (T), Orange County

Dear Supervisor George Meyers:

The New York State Department of Environmental Conservation (DEC) is providing you with a copy of analytical results derived from the February 9, 2023 sampling of the granular activated carbon (GAC) water treatment system by DEC representatives that was installed on the Town of New Windsor (Town) Kroll Well located at 354 Mount Airy Road.

No PFOS or PFOA was detected in the Kroll Well GAC-treated water. The NYS maximum contaminant levels (MCLs) are 10 ppt for PFOS and 10 ppt for PFOA.

Specifically, the samples were analyzed for a total of twenty-five per- and polyfluoroalkyl substances (PFAS), including Perfluorooctanoic acid (PFOA) and Perfluorooctanesulfonic acid (PFOS). Data received for the 25 PFAS list analysis has been attached. During this event, sampling for the 25 PFAS list was conducted at 9 locations:

- pre-treatment (raw untreated water), which has a “RAW WATER” identifier in the Client Sample ID;
- 25 % treatment – lead tank (A-25 identifier);
- 50 % treatment – lead tank (A-50 identifier);
- 75 % treatment – lead tank (A-75 identifier);
- mid-treatment (after the first GAC canister and prior to the second GAC canister), which has a “MID POINT” identifier in the Client Sample ID;
- 25 % treatment – lag tank (B-25 identifier);
- 50 % treatment – lag tank (B-50 identifier);
- 75 % treatment – lag tank (B-75_identifier); and
- post-treatment (after the entire treatment system), which has a “EFFLUENT” identifier in the Client Sample ID.

The 9 locations sampled (and their associated identifiers) are depicted in Figure 1. Please note that the next sampling event will be scheduled around December 2022.

If you have any technical questions regarding the analytical results or on the operation and performance of the GAC treatment system, please feel free to contact me or Meghan Miller, EA Science and Technology (DEC's Project Engineer) at (315) 565-6557 or mmiller@eaest.com. For weekday or off hour / weekend emergency repair issues, please call DEC's contractor, Brian Neumann of Precision Environmental Services at (518) 441-1520 (cell). For questions regarding site-related health concerns, please contact Steve Gagnon of the Orange County DOH at (845) 291-2331 or Steve Gladding of the NYSDOH Bureau of Water Supply Protection at (518) 402-7688.

Sincerely,



David J. Chiusano
Environmental Engineer/Project Manager
Remedial Section A, Remedial Bureau E
Division of Environmental Remediation

Enclosures

- ec: w/enclosures
- D. Zagon, Town of New Windsor
 - J. Marina, Town of New Windsor
 - J. Egitto, Town of New Windsor
 - K. Rea, Town of New Windsor
 - J. Conrad, PVE LLC
 - C. Brown, PVE LLC
 - M. Weeks, MHE
 - K. Wheeler, NYSDOH
 - S. Gagnon, OCDOH
 - M. Andersen, OCDOH
 - M. Miller, EA Engineering
 - B. Neumann, PES
 - M. Cruden, NYSDEC
 - B. Rung, NYSDEC
 - D. Pollack, Region 3 DER

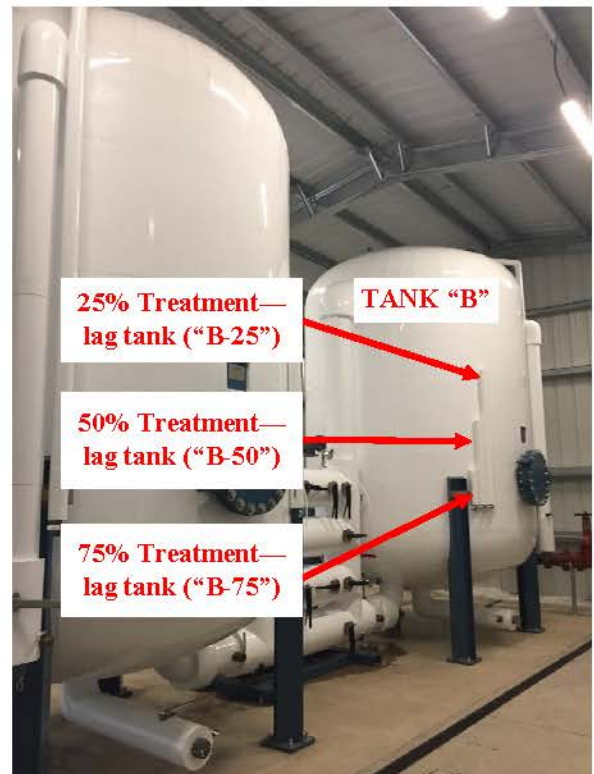
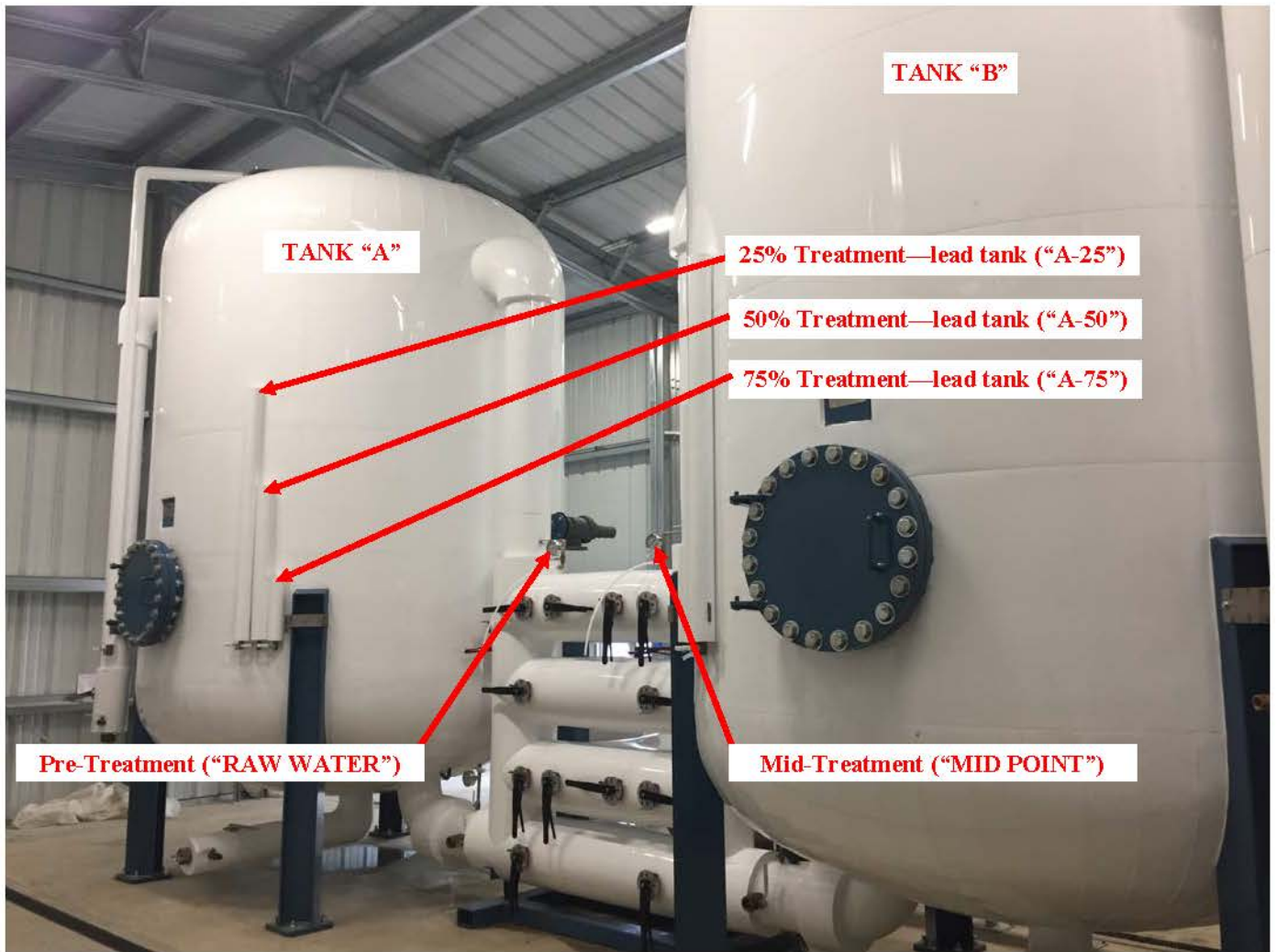


Figure 1—Kroll Well GAC Treatment System
Sampling Locations

Town of New Windsor

Kroll Well GAC Operation and Maintenance PFOA and PFOS Sampling Results ** (Parts Per Trillion (PPT))

(Last updated: February 2023)

Date	Analyte	Result ¹ Raw Water	Result A25	Result ² A50	Result A75	Result Mid-Point	Result B25	Result B50	Result B75	Treated Effluent	USEPA Drinking Water Health Advisory Guidance Value	Proposed NYS MCLs
September 2019 (Based on 21 PFAS Analysis Data only)	PFOA	8.4	ND	6.1	ND	ND	ND	ND	ND	ND	70 ⁴	10 ⁵
	PFOS	14	ND	7.8	ND	ND	ND	ND	ND	ND	70 ⁴	10 ⁵
October 2019 (Based on 21 PFAS Analysis Data only)	PFOA	7.9	6.5	ND	ND	ND	ND	ND	ND	ND	70 ⁴	10 ⁵
	PFOS	13	8.7	ND	ND	ND	ND	ND	ND	ND	70 ⁴	10 ⁵
November 2019 (Based on 21 PFAS Analysis Data only)	PFOA	12	10	ND	ND	ND	ND	ND	ND	ND	70 ⁴	10 ⁵
	PFOS	10	8.4	ND	ND	ND	ND	ND	ND	ND	70 ⁴	10 ⁵
December 2019 (Based on 21 PFAS Analysis Data only)	PFOA	12	10	ND	ND	ND	ND	ND	ND	ND	70 ⁴	10 ⁵
	PFOS	10	8.7	ND	ND	ND	ND	ND	ND	ND	70 ⁴	10 ⁵
January 2020 (Based on 21 PFAS Analysis Data only)	PFOA	11	10	2.2	ND	ND	ND	ND	ND	ND	70 ⁴	10 ⁵
	PFOS	10	8.7	ND	ND	ND	ND	ND	ND	ND	70 ⁴	10 ⁵
February 2020 (Based on 21 PFAS Analysis Data only)	PFOA	11	9.9	3.3	ND	ND	ND	ND	ND	ND	70 ⁴	10 ⁵
	PFOS	9.7	8.4	ND	ND	ND	ND	ND	ND	ND	70 ⁴	10 ⁵

Notes:

** 21 PFAS List Analysis.

1. PFOS and PFOA results and comparison values are reported in parts per trillion (ppt, nanograms per liter, ng/l).
2. "ND" means non-detect. The analyte was not detected in the sample.
3. MCL (Maximum Contaminant Level, mg/l) is the maximum permissible level of a contaminant in water delivered by a public water system.
4. Guidance: USEPA Drinking Water Health Advisory guidance value is currently 70 ppt.
5. The proposed NYS maximum contaminant levels (MCLs) are 10 ppt for PFOS and 10 ppt for PFOA.

Town of New Windsor

Kroll Well GAC Operation and Maintenance PFOA and PFOS Sampling Results ** (Parts Per Trillion (PPT)) Continued

(Last updated: February 2023)

Date	Analyte	Result ¹ Raw Water	Result A25	Result ² A50	Result A75	Result Mid-Point	Result B25	Result B50	Result B75	Treated Effluent	USEPA Drinking Water Health Advisory Guidance Value	NYS MCLs
March 2020 (Based on 21 PFAS Analysis Data only)	PFOA	9.3	9.2	4.2	ND	ND	ND	ND	ND	ND	70 ⁴	10 ⁵
	PFOS	9.6	11	ND	ND	ND	ND	ND	ND	ND	70 ⁴	10 ⁵
April 2020 (Based on 21 PFAS Analysis Data only)	PFOA	8.7	8.4	4.3	ND	ND	ND	ND	ND	ND	70 ⁴	10 ⁵
	PFOS	8.9	7.7	1.9	ND	ND	ND	ND	ND	ND	70 ⁴	10 ⁵
May 2020 (Based on 21 PFAS Analysis Data only)	PFOA	ND	7.9	4.8	ND	ND	ND	ND	ND	ND	70 ⁴	10 ⁵
	PFOS	11.0	7.7	2.0	ND	ND	ND	ND	ND	ND	70 ⁴	10 ⁵
August 2020 (Based on 21 PFAS Analysis Data only)	PFOA	9.4	9.2	6.8	ND	ND	ND	ND	ND	ND	70 ⁴	10 ⁵
	PFOS	11.0	11.0	4.5	ND	ND	ND	ND	ND	ND	70 ⁴	10 ⁵
	GAC CHANGE COMPLETED BY NYSDEC IN NOVEMBER 2020											
February 2021 (Based on 21 PFAS Analysis Data only)	PFOA	7.5	ND	ND	ND	ND	ND	ND	ND	ND	70 ⁴	10 ⁵
	PFOS	6.7	ND	ND	ND	ND	ND	ND	ND	ND	70 ⁴	10 ⁵
May 2021 (Based on 21 PFAS Analysis Data only)	PFOA	9.1	5.7	ND	ND	ND	ND	ND	ND	ND	70 ⁴	10 ⁵
	PFOS	7.4	2.6	ND	ND	ND	ND	ND	ND	ND	70 ⁴	10 ⁵

Notes:

** 21 PFAS List Analysis.

1. PFOS and PFOA results and comparison values are reported in parts per trillion (ppt, nanograms per liter, ng/l).
2. "ND" means non-detect. The analyte was not detected in the sample.
3. MCL (Maximum Contaminant Level, mg/l) is the maximum permissible level of a contaminant in water delivered by a public water system.
4. Guidance: USEPA Drinking Water Health Advisory guidance value is 70 ppt.
5. Effective August 2020 the NYS maximum contaminant levels (MCLs) are 10 ppt for PFOS and 10 ppt for PFOA.

Town of New Windsor

Kroll Well GAC Operation and Maintenance PFOA and PFOS Sampling Results *** (Parts Per Trillion (PPT)) Continued

(Last updated: February 2023)

Date	Analyte	Result ¹ Raw Water	Result A25	Result ² A50	Result A75	Result Mid-Point	Result B25	Result B50	Result B75	Treated Effluent	USEPA Drinking Water Health Advisory Guidance Value	NYS MCLs
August 2021** (Based on 21 PFAS Analysis Data only)	PFOA	7.0	4.9	ND	ND	ND	ND	ND	ND	ND	70 ⁴	10 ⁵
	PFOS	8.0	4.3	ND	ND	ND	ND	ND	ND	ND	70 ⁴	10 ⁵
November 2021*** (Based on 25 PFAS Analysis Data (EPA Method 533))	PFOA	7.6	6.4	3.6	0.72	ND	ND	ND	ND	ND	70 ⁴	10 ⁵
	PFOS	9.4	6.1	1.8	ND	ND	ND	ND	ND	ND	70 ⁴	10 ⁵
March 2022*** (Based on 25 PFAS Analysis Data (EPA Method 533))	PFOA	7.6	6.1	4.1	0.92	ND	ND	ND	ND	ND	70 ⁴	10 ⁵
	PFOS	9.5	4.5	1.6	ND	ND	ND	ND	ND	ND	70 ⁴	10 ⁵
May 2022*** (Based on 25 PFAS Analysis Data (EPA Method 533))	PFOA	7.4	7.9	4.6	ND	ND	ND	ND	ND	ND	70 ⁴	10 ⁵
	PFOS	7.3	3.9	ND	ND	ND	ND	ND	ND	ND	70 ⁴	10 ⁵
August 2022*** (Based on 25 PFAS Analysis Data (EPA Method 533))	PFOA	6.1	ND	4.8	2.1	ND	ND	ND	6.6	ND	70 ⁴	10 ⁵
	PFOS	7.9	ND	ND	ND	ND	ND	ND	3.1	ND	70 ⁴	10 ⁵
GAC CHANGE COMPLETED BY NYSDEC IN NOVEMBER-DECEMBER 2022												
February 2023*** (Based on 25 PFAS Analysis Data (EPA Method 533))	PFOA	17.0	ND	ND	ND	ND	ND	ND	ND	ND	70 ⁴	10 ⁵
	PFOS	12.0	ND	ND	ND	ND	ND	ND	ND	ND	70 ⁴	10 ⁵

Notes:

** 21 PFAS List Analysis

*** 25 PFAS List Analysis Via USEPA Method 533

1. PFOS and PFOA results and comparison values are reported in parts per trillion (ppt, nanograms per liter, ng/l).
2. "ND" means non-detect. The analyte was not detected in the sample.
3. MCL (Maximum Contaminant Level, mg/l) is the maximum permissible level of a contaminant in water delivered by a public water system.
4. Guidance: USEPA Drinking Water Health Advisory guidance value is 70 ppt.
5. Effective August 2020 the NYS maximum contaminant levels (MCLs) are 10 ppt for PFOS and 10 ppt for PFOA.

How to Read Your Laboratory Reports

PFOA and PFOS Results:

- Analyte is the term used to describe what the laboratory was testing for, in this case PFOS and PFOA.
- Conc. (ng/l) is your result for PFOS and PFOA. In your case, no PFOS and PFOA were detected, thus ND or “non-detect” or <2.0 ng/l was reported. (ng/l = ppt)
- RL = reporting limit or RDL = reportable detection limit is the lowest level at which this specific testing protocol and laboratory has confidence in measuring the given analyte.
- Qualifiers are added information to help understand the quality of the data. Often, if something about the results or the calibration of the testing equipment was irregular, it would be reported here.

All other columns represent laboratory quality control information. The laboratory calibrates its equipment against a precise quantity of the chemical in order to ensure that the equipment is functioning properly. Some laboratory reports may not have all this information.

- Labeled Standard or Surrogate is the lab’s specific name for an individual control sample.
- %R is the percent of the control sample that was detected by the equipment. A 100% reading represents perfect equipment alignment.
- LCL-UCL is the lower concentration limit (LCL) and upper concentration limit (UCL). The LCL represents the lowest acceptable %R value and the UCL represent the highest acceptable %R value required to ensure your result is accurate.
- Qualifiers: If a result quality control variance is noted or if the %R value of any of the control samples were outside the allowable range that would have been noted in this last column. This gives the analyst less confidence in the measured value.

The analysis for PFOS and PFOA is performed using modified EPA Method 537. The laboratory may report a detection of PFOS and PFOA down to approximately 2.0 nanograms per liter (ng/l) or parts per trillion (ppt).

Inorganic Results:

- Parameter is the same as “analyte” above – it is the chemical being tested.
- Result is the concentration of that chemical detected.
- RL/PQL is the lowest level at which the specific laboratory test can reliably quantify the concentration. Below that number, the result is considered unreliable.
- DIL is the number of times the sample was diluted (necessary because the test has a certain range that it is accurate for).
- Units: mg/l is milligrams per liter or parts per million; ug/l is micrograms per liter or parts per billion.
- DW MCL stands for drinking water (DW) and “maximum contaminant level” (MCL). All chemicals that have a “maximum contaminant level” (MCL) established for drinking water (DW) have a level reported in this column.

- Sec Goal is the EPA nomenclature for all contaminants that have regulatory levels set based on aesthetics (for example, taste or color). DOH recognizes these EPA secondary goals as primary standards and enforces its drinking water quality program accordingly.
- Date/Time represents the date and time of the analysis at the lab.
- By refers to the technician who ran the test.
- Reference indicates the EPA method used in the test.

March 15, 2023

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

Project Location: Mount Airy Rd., New Windsor, NY
Client Job Number:
Project Number: 336089
Laboratory Work Order Number: 23B1419

Enclosed are results of analyses for samples as received by the laboratory on February 10, 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: Dave Chiusano

REPORT DATE: 3/15/2023

PURCHASE ORDER NUMBER: 141588

PROJECT NUMBER: 336089

ANALYTICAL SUMMARY

WORK ORDER NUMBER: 23B1419

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

PROJECT LOCATION: Mount Airy Rd., New Windsor, NY

FIELD SAMPLE #	LAB ID:	MATRIX	SAMPLE DESCRIPTION	TEST	SUB LAB
Influent	23B1419-01	Drinking Water		EPA 533	
A-25	23B1419-02	Drinking Water		EPA 533	
A-50	23B1419-03	Drinking Water		EPA 533	
A-75	23B1419-04	Drinking Water		EPA 533	
Mid	23B1419-05	Drinking Water		EPA 533	
B-25	23B1419-06	Drinking Water		EPA 533	
B-50	23B1419-07	Drinking Water		EPA 533	
B-75	23B1419-08	Drinking Water		EPA 533	
Effluent	23B1419-09	Drinking Water		EPA 533	
Duplicate	23B1419-10	Drinking Water		EPA 533	

CASE NARRATIVE SUMMARY

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

EPA 533**Qualifications:****L-01**

Laboratory fortified blank/laboratory control sample recovery outside of control limits. Data validation is not affected since all results are "not detected" for all samples in this batch for this compound and bias is on the high side.

Analyte & Samples(s) Qualified:**8:2 Fluorotelomersulfonic acid (8:2**

B331480-BS1

Perfluoroundecanoic acid (PFUnA)

B331480-BS1

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:**Perfluorooctanoic acid (PFOA)**

B331480-MS1

PF-18

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

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

23B1419-05[Mid], 23B1419-06RE1[B-25], 23B1419-07[B-50], 23B1419-10RE1[Duplicate], B331480-MS1, B331480-MSD1

S-29

Extracted Internal Standard is outside of control limits.

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

S084160-CCV2, S084510-CCV1

M2-6:2FTS

S084160-CCV1, S084160-CCV2, S084160-CCV3, S084510-CCV1, S084510-CCV2, S084510-CCV3

M2-8:2FTS

S084160-CCV2, S084510-CCV1, S084510-CCV2

M3HFPO-DA

B331480-MS1

M4PFHpA

B331480-MS1

M5PFHxA

B331480-MS1

M5PFPeA

B331480-MS1

M6PFDA

B331480-MS1

M8PFOA

B331480-MS1

M9PFNA

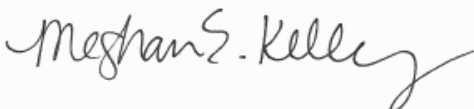
B331480-MS1

MPFBA

B331480-MS1

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: Mount Airy Rd., New Windsor, N

Sample Description:

Work Order: 23B1419

Date Received: 2/10/2023

Field Sample #: Influent

Sampled: 2/9/2023 12:25

Sample ID: 23B1419-01

Sample Matrix: Drinking Water

Semivolatile Organic Compounds by - LC/MS-MS

Analyte	Results	RL	MCL/SMCL		DF	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
			MA ORSG	Units						
Perfluorobutanoic acid (PFBA)	6.3	1.9		ng/L	1		EPA 533	2/15/23	3/2/23 20:17	RRB
Perfluorobutanesulfonic acid (PFBS)	9.1	1.9		ng/L	1		EPA 533	2/15/23	3/2/23 20:17	RRB
Perfluoropentanoic acid (PFPeA)	8.0	1.9		ng/L	1		EPA 533	2/15/23	3/2/23 20:17	RRB
Perfluorohexanoic acid (PFHxA)	7.0	1.9		ng/L	1		EPA 533	2/15/23	3/2/23 20:17	RRB
11Cl-PF3OUdS (F53B Major)	ND	1.9		ng/L	1		EPA 533	2/15/23	3/2/23 20:17	RRB
9Cl-PF3ONS (F53B Minor)	ND	1.9		ng/L	1		EPA 533	2/15/23	3/2/23 20:17	RRB
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	ND	1.9		ng/L	1		EPA 533	2/15/23	3/2/23 20:17	RRB
Hexafluoropropylene oxide dimer acid (HFPO-DA)	ND	1.9		ng/L	1		EPA 533	2/15/23	3/2/23 20:17	RRB
8:2 Fluorotelomersulfonic acid (8:2FTS A)	ND	1.9		ng/L	1		EPA 533	2/15/23	3/2/23 20:17	RRB
Perfluorodecanoic acid (PFDA)	ND	1.9		ng/L	1		EPA 533	2/15/23	3/2/23 20:17	RRB
Perfluorododecanoic acid (PFDoA)	ND	1.9		ng/L	1		EPA 533	2/15/23	3/2/23 20:17	RRB
Perfluoro(2-ethoxyethane)sulfonic acid (PFEEESA)	ND	1.9		ng/L	1		EPA 533	2/15/23	3/2/23 20:17	RRB
Perfluoroheptanesulfonic acid (PFHpS)	ND	1.9		ng/L	1		EPA 533	2/15/23	3/2/23 20:17	RRB
4:2 Fluorotelomersulfonic acid (4:2FTS A)	ND	1.9		ng/L	1		EPA 533	2/15/23	3/2/23 20:17	RRB
Perfluorohexanesulfonic acid (PFHxS)	2.2	1.9		ng/L	1		EPA 533	2/15/23	3/2/23 20:17	RRB
Perfluoro-4-oxapentanoic acid (PFMPA)	ND	1.9		ng/L	1		EPA 533	2/15/23	3/2/23 20:17	RRB
Perfluoro-5-oxahexanoic acid (PFMBA)	ND	1.9		ng/L	1		EPA 533	2/15/23	3/2/23 20:17	RRB
6:2 Fluorotelomersulfonic acid (6:2FTS A)	ND	1.9		ng/L	1		EPA 533	2/15/23	3/2/23 20:17	RRB
Perfluoropentanesulfonic acid (PFPeS)	ND	1.9		ng/L	1		EPA 533	2/15/23	3/2/23 20:17	RRB
Perfluoroundecanoic acid (PFUnA)	ND	1.9		ng/L	1		EPA 533	2/15/23	3/2/23 20:17	RRB
Nonfluoro-3,6-dioxaheptanoic acid (NFDHA)	ND	1.9		ng/L	1		EPA 533	2/15/23	3/2/23 20:17	RRB
Perfluoroheptanoic acid (PFHpA)	4.5	1.9		ng/L	1		EPA 533	2/15/23	3/2/23 20:17	RRB
Perfluorooctanoic acid (PFOA)	17	1.9		ng/L	1		EPA 533	2/15/23	3/2/23 20:17	RRB
Perfluorooctanesulfonic acid (PFOS)	12	1.9		ng/L	1		EPA 533	2/15/23	3/2/23 20:17	RRB
Perfluorononanoic acid (PFNA)	ND	1.9		ng/L	1		EPA 533	2/15/23	3/2/23 20:17	RRB

Surrogates	% Recovery	Recovery Limits	Flag/Qual
M2-4:2FTS	73.8	50-200	3/2/23 20:17
M2-8:2FTS	90.0	50-200	3/2/23 20:17
MPFBA	107	50-200	3/2/23 20:17
M3HFPO-DA	142	50-200	3/2/23 20:17
M6PFDA	115	50-200	3/2/23 20:17
M3PFBS	120	50-200	3/2/23 20:17
M7PFUnA	109	50-200	3/2/23 20:17
M2-6:2FTS	79.3	50-200	3/2/23 20:17
M5PFPeA	115	50-200	3/2/23 20:17
M5PFHxA	114	50-200	3/2/23 20:17
M3PFHxS	103	50-200	3/2/23 20:17
M4PFHpA	110	50-200	3/2/23 20:17
M8PFOA	102	50-200	3/2/23 20:17
M8PFOS	112	50-200	3/2/23 20:17
M9PFNA	112	50-200	3/2/23 20:17
MPFDoA	100	50-200	3/2/23 20:17

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

Project Location: Mount Airy Rd., New Windsor, N

Sample Description:

Work Order: 23B1419

Date Received: 2/10/2023

Field Sample #: A-25

Sampled: 2/9/2023 12:20

Sample ID: 23B1419-02

Sample Matrix: Drinking Water

Semivolatile Organic Compounds by - LC/MS-MS

Analyte	Results	RL	MCL/SMCL		DF	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
			MA ORSG	Units						
Perfluorobutanoic acid (PFBA)	ND	2.0		ng/L	1		EPA 533	3/8/23	3/12/23 14:30	DRL
Perfluorobutanesulfonic acid (PFBS)	ND	2.0		ng/L	1		EPA 533	3/8/23	3/12/23 14:30	DRL
Perfluoropentanoic acid (PFPeA)	ND	2.0		ng/L	1		EPA 533	3/8/23	3/12/23 14:30	DRL
Perfluorohexanoic acid (PFHxA)	ND	2.0		ng/L	1		EPA 533	3/8/23	3/12/23 14:30	DRL
11Cl-PF3OUdS (F53B Major)	ND	2.0		ng/L	1		EPA 533	3/8/23	3/12/23 14:30	DRL
9Cl-PF3ONS (F53B Minor)	ND	2.0		ng/L	1		EPA 533	3/8/23	3/12/23 14:30	DRL
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	ND	2.0		ng/L	1		EPA 533	3/8/23	3/12/23 14:30	DRL
Hexafluoropropylene oxide dimer acid (HFPO-DA)	ND	2.0		ng/L	1		EPA 533	3/8/23	3/12/23 14:30	DRL
8:2 Fluorotelomersulfonic acid (8:2FTS A)	ND	2.0		ng/L	1		EPA 533	3/8/23	3/12/23 14:30	DRL
Perfluorodecanoic acid (PFDA)	ND	2.0		ng/L	1		EPA 533	3/8/23	3/12/23 14:30	DRL
Perfluorododecanoic acid (PFDoA)	ND	2.0		ng/L	1		EPA 533	3/8/23	3/12/23 14:30	DRL
Perfluoro(2-ethoxyethane)sulfonic acid (PFEEESA)	ND	2.0		ng/L	1		EPA 533	3/8/23	3/12/23 14:30	DRL
Perfluoroheptanesulfonic acid (PFHpS)	ND	2.0		ng/L	1		EPA 533	3/8/23	3/12/23 14:30	DRL
4:2 Fluorotelomersulfonic acid (4:2FTS A)	ND	2.0		ng/L	1		EPA 533	3/8/23	3/12/23 14:30	DRL
Perfluorohexanesulfonic acid (PFHxS)	ND	2.0		ng/L	1		EPA 533	3/8/23	3/12/23 14:30	DRL
Perfluoro-4-oxapentanoic acid (PFMPA)	ND	2.0		ng/L	1		EPA 533	3/8/23	3/12/23 14:30	DRL
Perfluoro-5-oxahexanoic acid (PFMBA)	ND	2.0		ng/L	1		EPA 533	3/8/23	3/12/23 14:30	DRL
6:2 Fluorotelomersulfonic acid (6:2FTS A)	ND	2.0		ng/L	1		EPA 533	3/8/23	3/12/23 14:30	DRL
Perfluoropentanesulfonic acid (PFPeS)	ND	2.0		ng/L	1		EPA 533	3/8/23	3/12/23 14:30	DRL
Perfluoroundecanoic acid (PFUnA)	ND	2.0		ng/L	1		EPA 533	3/8/23	3/12/23 14:30	DRL
Nonfluoro-3,6-dioxaheptanoic acid (NFDHA)	ND	2.0		ng/L	1		EPA 533	3/8/23	3/12/23 14:30	DRL
Perfluoroheptanoic acid (PFHpA)	ND	2.0		ng/L	1		EPA 533	3/8/23	3/12/23 14:30	DRL
Perfluorooctanoic acid (PFOA)	ND	2.0		ng/L	1		EPA 533	3/8/23	3/12/23 14:30	DRL
Perfluorooctanesulfonic acid (PFOS)	ND	2.0		ng/L	1		EPA 533	3/8/23	3/12/23 14:30	DRL
Perfluorononanoic acid (PFNA)	ND	2.0		ng/L	1		EPA 533	3/8/23	3/12/23 14:30	DRL

Surrogates	% Recovery	Recovery Limits	Flag/Qual
M2-4:2FTS	54.9	50-200	3/12/23 14:30
M2-8:2FTS	76.2	50-200	3/12/23 14:30
MPFBA	117	50-200	3/12/23 14:30
M3HFPO-DA	155	50-200	3/12/23 14:30
M6PFDA	113	50-200	3/12/23 14:30
M3PFBS	120	50-200	3/12/23 14:30
M7PFUnA	112	50-200	3/12/23 14:30
M2-6:2FTS	64.2	50-200	3/12/23 14:30
M5PFPeA	117	50-200	3/12/23 14:30
M5PFHxA	116	50-200	3/12/23 14:30
M3PFHxS	120	50-200	3/12/23 14:30
M4PFHpA	114	50-200	3/12/23 14:30
M8PFOA	113	50-200	3/12/23 14:30
M8PFOS	122	50-200	3/12/23 14:30
M9PFNA	118	50-200	3/12/23 14:30
MPFDoA	104	50-200	3/12/23 14:30

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

Project Location: Mount Airy Rd., New Windsor, N

Sample Description:

Work Order: 23B1419

Date Received: 2/10/2023

Field Sample #: A-50

Sampled: 2/9/2023 12:15

Sample ID: 23B1419-03

Sample Matrix: Drinking Water

Semivolatile Organic Compounds by - LC/MS-MS

Analyte	Results	RL	MCL/SMCL		DF	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
			MA ORSG	Units						
Perfluorobutanoic acid (PFBA)	ND	1.8		ng/L	1		EPA 533	2/15/23	3/2/23 20:46	RRB
Perfluorobutanesulfonic acid (PFBS)	ND	1.8		ng/L	1		EPA 533	2/15/23	3/2/23 20:46	RRB
Perfluoropentanoic acid (PFPeA)	ND	1.8		ng/L	1		EPA 533	2/15/23	3/2/23 20:46	RRB
Perfluorohexanoic acid (PFHxA)	ND	1.8		ng/L	1		EPA 533	2/15/23	3/2/23 20:46	RRB
11Cl-PF3OUdS (F53B Major)	ND	1.8		ng/L	1		EPA 533	2/15/23	3/2/23 20:46	RRB
9Cl-PF3ONS (F53B Minor)	ND	1.8		ng/L	1		EPA 533	2/15/23	3/2/23 20:46	RRB
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	ND	1.8		ng/L	1		EPA 533	2/15/23	3/2/23 20:46	RRB
Hexafluoropropylene oxide dimer acid (HFPO-DA)	ND	1.8		ng/L	1		EPA 533	2/15/23	3/2/23 20:46	RRB
8:2 Fluorotelomersulfonic acid (8:2FTS A)	ND	1.8		ng/L	1		EPA 533	2/15/23	3/2/23 20:46	RRB
Perfluorodecanoic acid (PFDA)	ND	1.8		ng/L	1		EPA 533	2/15/23	3/2/23 20:46	RRB
Perfluorododecanoic acid (PFDoA)	ND	1.8		ng/L	1		EPA 533	2/15/23	3/2/23 20:46	RRB
Perfluoro(2-ethoxyethane)sulfonic acid (PFEEESA)	ND	1.8		ng/L	1		EPA 533	2/15/23	3/2/23 20:46	RRB
Perfluoroheptanesulfonic acid (PFHpS)	ND	1.8		ng/L	1		EPA 533	2/15/23	3/2/23 20:46	RRB
4:2 Fluorotelomersulfonic acid (4:2FTS A)	ND	1.8		ng/L	1		EPA 533	2/15/23	3/2/23 20:46	RRB
Perfluorohexanesulfonic acid (PFHxS)	ND	1.8		ng/L	1		EPA 533	2/15/23	3/2/23 20:46	RRB
Perfluoro-4-oxapentanoic acid (PFMPA)	ND	1.8		ng/L	1		EPA 533	2/15/23	3/2/23 20:46	RRB
Perfluoro-5-oxahexanoic acid (PFMBA)	ND	1.8		ng/L	1		EPA 533	2/15/23	3/2/23 20:46	RRB
6:2 Fluorotelomersulfonic acid (6:2FTS A)	ND	1.8		ng/L	1		EPA 533	2/15/23	3/2/23 20:46	RRB
Perfluoropentanesulfonic acid (PFPeS)	ND	1.8		ng/L	1		EPA 533	2/15/23	3/2/23 20:46	RRB
Perfluoroundecanoic acid (PFUnA)	ND	1.8		ng/L	1		EPA 533	2/15/23	3/2/23 20:46	RRB
Nonfluoro-3,6-dioxaheptanoic acid (NFDHA)	ND	1.8		ng/L	1		EPA 533	2/15/23	3/2/23 20:46	RRB
Perfluoroheptanoic acid (PFHpA)	ND	1.8		ng/L	1		EPA 533	2/15/23	3/2/23 20:46	RRB
Perfluorooctanoic acid (PFOA)	ND	1.8		ng/L	1		EPA 533	2/15/23	3/2/23 20:46	RRB
Perfluorooctanesulfonic acid (PFOS)	ND	1.8		ng/L	1		EPA 533	2/15/23	3/2/23 20:46	RRB
Perfluorononanoic acid (PFNA)	ND	1.8		ng/L	1		EPA 533	2/15/23	3/2/23 20:46	RRB

Surrogates	% Recovery	Recovery Limits	Flag/Qual
M2-4:2FTS	56.3	50-200	3/2/23 20:46
M2-8:2FTS	91.8	50-200	3/2/23 20:46
MPFBA	79.7	50-200	3/2/23 20:46
M3HFPO-DA	116	50-200	3/2/23 20:46
M6PFDA	96.1	50-200	3/2/23 20:46
M3PFBS	115	50-200	3/2/23 20:46
M7PFUnA	90.1	50-200	3/2/23 20:46
M2-6:2FTS	61.3	50-200	3/2/23 20:46
M5PFPeA	80.2	50-200	3/2/23 20:46
M5PFHxA	88.8	50-200	3/2/23 20:46
M3PFHxS	106	50-200	3/2/23 20:46
M4PFHpA	82.0	50-200	3/2/23 20:46
M8PFOA	85.2	50-200	3/2/23 20:46
M8PFOS	106	50-200	3/2/23 20:46
M9PFNA	88.2	50-200	3/2/23 20:46
MPFDoA	95.1	50-200	3/2/23 20:46

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

Project Location: Mount Airy Rd., New Windsor, N

Sample Description:

Work Order: 23B1419

Date Received: 2/10/2023

Field Sample #: A-75

Sampled: 2/9/2023 12:10

Sample ID: 23B1419-04

Sample Matrix: Drinking Water

Semivolatile Organic Compounds by - LC/MS-MS

Analyte	Results	RL	MCL/SMCL		DF	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
			MA ORSG	Units						
Perfluorobutanoic acid (PFBA)	ND	1.7		ng/L	1		EPA 533	3/8/23	3/12/23 14:38	DRL
Perfluorobutanesulfonic acid (PFBS)	ND	1.7		ng/L	1		EPA 533	3/8/23	3/12/23 14:38	DRL
Perfluoropentanoic acid (PFPeA)	ND	1.7		ng/L	1		EPA 533	3/8/23	3/12/23 14:38	DRL
Perfluorohexanoic acid (PFHxA)	ND	1.7		ng/L	1		EPA 533	3/8/23	3/12/23 14:38	DRL
11Cl-PF3OUdS (F53B Major)	ND	1.7		ng/L	1		EPA 533	3/8/23	3/12/23 14:38	DRL
9Cl-PF3ONS (F53B Minor)	ND	1.7		ng/L	1		EPA 533	3/8/23	3/12/23 14:38	DRL
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	ND	1.7		ng/L	1		EPA 533	3/8/23	3/12/23 14:38	DRL
Hexafluoropropylene oxide dimer acid (HFPO-DA)	ND	1.7		ng/L	1		EPA 533	3/8/23	3/12/23 14:38	DRL
8:2 Fluorotelomersulfonic acid (8:2FTS A)	ND	1.7		ng/L	1		EPA 533	3/8/23	3/12/23 14:38	DRL
Perfluorodecanoic acid (PFDA)	ND	1.7		ng/L	1		EPA 533	3/8/23	3/12/23 14:38	DRL
Perfluorododecanoic acid (PFDoA)	ND	1.7		ng/L	1		EPA 533	3/8/23	3/12/23 14:38	DRL
Perfluoro(2-ethoxyethane)sulfonic acid (PFEEESA)	ND	1.7		ng/L	1		EPA 533	3/8/23	3/12/23 14:38	DRL
Perfluoroheptanesulfonic acid (PFHpS)	ND	1.7		ng/L	1		EPA 533	3/8/23	3/12/23 14:38	DRL
4:2 Fluorotelomersulfonic acid (4:2FTS A)	ND	1.7		ng/L	1		EPA 533	3/8/23	3/12/23 14:38	DRL
Perfluorohexanesulfonic acid (PFHxS)	ND	1.7		ng/L	1		EPA 533	3/8/23	3/12/23 14:38	DRL
Perfluoro-4-oxapentanoic acid (PFMPA)	ND	1.7		ng/L	1		EPA 533	3/8/23	3/12/23 14:38	DRL
Perfluoro-5-oxahexanoic acid (PFMBA)	ND	1.7		ng/L	1		EPA 533	3/8/23	3/12/23 14:38	DRL
6:2 Fluorotelomersulfonic acid (6:2FTS A)	ND	1.7		ng/L	1		EPA 533	3/8/23	3/12/23 14:38	DRL
Perfluoropentanesulfonic acid (PFPeS)	ND	1.7		ng/L	1		EPA 533	3/8/23	3/12/23 14:38	DRL
Perfluoroundecanoic acid (PFUnA)	ND	1.7		ng/L	1		EPA 533	3/8/23	3/12/23 14:38	DRL
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	ND	1.7		ng/L	1		EPA 533	3/8/23	3/12/23 14:38	DRL
Perfluoroheptanoic acid (PFHpA)	ND	1.7		ng/L	1		EPA 533	3/8/23	3/12/23 14:38	DRL
Perfluorooctanoic acid (PFOA)	ND	1.7		ng/L	1		EPA 533	3/8/23	3/12/23 14:38	DRL
Perfluorooctanesulfonic acid (PFOS)	ND	1.7		ng/L	1		EPA 533	3/8/23	3/12/23 14:38	DRL
Perfluorononanoic acid (PFNA)	ND	1.7		ng/L	1		EPA 533	3/8/23	3/12/23 14:38	DRL

Surrogates	% Recovery	Recovery Limits	Flag/Qual
M2-4:2FTS	56.9	50-200	3/12/23 14:38
M2-8:2FTS	86.8	50-200	3/12/23 14:38
MPFBA	116	50-200	3/12/23 14:38
M3HFPO-DA	151	50-200	3/12/23 14:38
M6PFDA	116	50-200	3/12/23 14:38
M3PFBS	125	50-200	3/12/23 14:38
M7PFUnA	112	50-200	3/12/23 14:38
M2-6:2FTS	77.2	50-200	3/12/23 14:38
M5PFPeA	115	50-200	3/12/23 14:38
M5PFHxA	117	50-200	3/12/23 14:38
M3PFHxS	121	50-200	3/12/23 14:38
M4PFHpA	114	50-200	3/12/23 14:38
M8PFOA	116	50-200	3/12/23 14:38
M8PFOS	119	50-200	3/12/23 14:38
M9PFNA	116	50-200	3/12/23 14:38
MPFDoA	109	50-200	3/12/23 14:38

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

Project Location: Mount Airy Rd., New Windsor, N

Sample Description:

Work Order: 23B1419

Date Received: 2/10/2023

Field Sample #: Mid

Sampled: 2/9/2023 12:05

Sample ID: 23B1419-05

Sample Matrix: Drinking Water

Semivolatile Organic Compounds by - LC/MS-MS

Analyte	Results	RL	MCL/SMCL		DF	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
			MA ORSG	Units						
Perfluorobutanoic acid (PFBA)	ND	1.8		ng/L	1		EPA 533	2/15/23	3/2/23 21:01	RRB
Perfluorobutanesulfonic acid (PFBS)	ND	1.8		ng/L	1		EPA 533	2/15/23	3/2/23 21:01	RRB
Perfluoropentanoic acid (PFPeA)	ND	1.8		ng/L	1		EPA 533	2/15/23	3/2/23 21:01	RRB
Perfluorohexanoic acid (PFHxA)	ND	1.8		ng/L	1		EPA 533	2/15/23	3/2/23 21:01	RRB
11Cl-PF3OUdS (F53B Major)	ND	1.8		ng/L	1		EPA 533	2/15/23	3/2/23 21:01	RRB
9Cl-PF3ONS (F53B Minor)	ND	1.8		ng/L	1		EPA 533	2/15/23	3/2/23 21:01	RRB
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	ND	1.8		ng/L	1		EPA 533	2/15/23	3/2/23 21:01	RRB
Hexafluoropropylene oxide dimer acid (HFPO-DA)	ND	1.8		ng/L	1		EPA 533	2/15/23	3/2/23 21:01	RRB
8:2 Fluorotelomersulfonic acid (8:2FTS A)	ND	1.8		ng/L	1		EPA 533	2/15/23	3/2/23 21:01	RRB
Perfluorodecanoic acid (PFDA)	ND	1.8		ng/L	1		EPA 533	2/15/23	3/2/23 21:01	RRB
Perfluorododecanoic acid (PFDoA)	ND	1.8		ng/L	1		EPA 533	2/15/23	3/2/23 21:01	RRB
Perfluoro(2-ethoxyethane)sulfonic acid (PFEEESA)	ND	1.8		ng/L	1		EPA 533	2/15/23	3/2/23 21:01	RRB
Perfluoroheptanesulfonic acid (PFHpS)	ND	1.8		ng/L	1		EPA 533	2/15/23	3/2/23 21:01	RRB
4:2 Fluorotelomersulfonic acid (4:2FTS A)	ND	1.8		ng/L	1		EPA 533	2/15/23	3/2/23 21:01	RRB
Perfluorohexanesulfonic acid (PFHxS)	ND	1.8		ng/L	1		EPA 533	2/15/23	3/2/23 21:01	RRB
Perfluoro-4-oxapentanoic acid (PFMPA)	ND	1.8		ng/L	1		EPA 533	2/15/23	3/2/23 21:01	RRB
Perfluoro-5-oxahexanoic acid (PFMBA)	ND	1.8		ng/L	1		EPA 533	2/15/23	3/2/23 21:01	RRB
6:2 Fluorotelomersulfonic acid (6:2FTS A)	ND	1.8		ng/L	1		EPA 533	2/15/23	3/2/23 21:01	RRB
Perfluoropentanesulfonic acid (PFPeS)	ND	1.8		ng/L	1		EPA 533	2/15/23	3/2/23 21:01	RRB
Perfluoroundecanoic acid (PFUnA)	ND	1.8		ng/L	1		EPA 533	2/15/23	3/2/23 21:01	RRB
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	ND	1.8		ng/L	1		EPA 533	2/15/23	3/2/23 21:01	RRB
Perfluoroheptanoic acid (PFHpA)	ND	1.8		ng/L	1		EPA 533	2/15/23	3/2/23 21:01	RRB
Perfluorooctanoic acid (PFOA)	ND	1.8		ng/L	1		EPA 533	2/15/23	3/2/23 21:01	RRB
Perfluorooctanesulfonic acid (PFOS)	ND	1.8		ng/L	1		EPA 533	2/15/23	3/2/23 21:01	RRB
Perfluorononanoic acid (PFNA)	ND	1.8		ng/L	1		EPA 533	2/15/23	3/2/23 21:01	RRB

Surrogates	% Recovery	Recovery Limits	Flag/Qual
M2-4:2FTS	47.1 *	50-200	PF-18
M2-8:2FTS	77.1	50-200	
MPFBA	73.1	50-200	
M3HFPO-DA	112	50-200	
M6PFDA	106	50-200	
M3PFBS	121	50-200	
M7PFUnA	96.1	50-200	
M2-6:2FTS	59.5	50-200	
M5PFPeA	72.6	50-200	
M5PFHxA	83.8	50-200	
M3PFHxS	110	50-200	
M4PFHpA	81.2	50-200	
M8PFOA	83.9	50-200	
M8PFOS	105	50-200	
M9PFNA	95.8	50-200	
MPFDoA	101	50-200	

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

Project Location: Mount Airy Rd., New Windsor, N

Sample Description:

Work Order: 23B1419

Date Received: 2/10/2023

Field Sample #: B-25

Sampled: 2/9/2023 12:00

Sample ID: 23B1419-06

Sample Matrix: Drinking Water

Semivolatile Organic Compounds by - LC/MS-MS

Analyte	Results	RL	MCL/SMCL MA ORSG	Units	DF	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Perfluorobutanoic acid (PFBA)	ND	1.9		ng/L	1		EPA 533	3/8/23	3/12/23 14:45	DRL
Perfluorobutanesulfonic acid (PFBS)	ND	1.9		ng/L	1		EPA 533	3/8/23	3/12/23 14:45	DRL
Perfluoropentanoic acid (PFPeA)	ND	1.9		ng/L	1		EPA 533	3/8/23	3/12/23 14:45	DRL
Perfluorohexanoic acid (PFHxA)	ND	1.9		ng/L	1		EPA 533	3/8/23	3/12/23 14:45	DRL
11Cl-PF3OUdS (F53B Major)	ND	1.9		ng/L	1		EPA 533	3/8/23	3/12/23 14:45	DRL
9Cl-PF3ONS (F53B Minor)	ND	1.9		ng/L	1		EPA 533	3/8/23	3/12/23 14:45	DRL
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	ND	1.9		ng/L	1		EPA 533	3/8/23	3/12/23 14:45	DRL
Hexafluoropropylene oxide dimer acid (HFPO-DA)	ND	1.9		ng/L	1		EPA 533	3/8/23	3/12/23 14:45	DRL
8:2 Fluorotelomersulfonic acid (8:2FTS A)	ND	1.9		ng/L	1		EPA 533	3/8/23	3/12/23 14:45	DRL
Perfluorodecanoic acid (PFDA)	ND	1.9		ng/L	1		EPA 533	3/8/23	3/12/23 14:45	DRL
Perfluorododecanoic acid (PFDoA)	ND	1.9		ng/L	1		EPA 533	3/8/23	3/12/23 14:45	DRL
Perfluoro(2-ethoxyethane)sulfonic acid (PFEEESA)	ND	1.9		ng/L	1		EPA 533	3/8/23	3/12/23 14:45	DRL
Perfluoroheptanesulfonic acid (PFHpS)	ND	1.9		ng/L	1		EPA 533	3/8/23	3/12/23 14:45	DRL
4:2 Fluorotelomersulfonic acid (4:2FTS A)	ND	1.9		ng/L	1		EPA 533	3/8/23	3/12/23 14:45	DRL
Perfluorohexanesulfonic acid (PFHxS)	ND	1.9		ng/L	1		EPA 533	3/8/23	3/12/23 14:45	DRL
Perfluoro-4-oxapentanoic acid (PFMPA)	ND	1.9		ng/L	1		EPA 533	3/8/23	3/12/23 14:45	DRL
Perfluoro-5-oxahexanoic acid (PFMBA)	ND	1.9		ng/L	1		EPA 533	3/8/23	3/12/23 14:45	DRL
6:2 Fluorotelomersulfonic acid (6:2FTS A)	ND	1.9		ng/L	1		EPA 533	3/8/23	3/12/23 14:45	DRL
Perfluoropentanesulfonic acid (PFPeS)	ND	1.9		ng/L	1		EPA 533	3/8/23	3/12/23 14:45	DRL
Perfluoroundecanoic acid (PFUnA)	ND	1.9		ng/L	1		EPA 533	3/8/23	3/12/23 14:45	DRL
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	ND	1.9		ng/L	1		EPA 533	3/8/23	3/12/23 14:45	DRL
Perfluoroheptanoic acid (PFHpA)	ND	1.9		ng/L	1		EPA 533	3/8/23	3/12/23 14:45	DRL
Perfluorooctanoic acid (PFOA)	ND	1.9		ng/L	1		EPA 533	3/8/23	3/12/23 14:45	DRL
Perfluorooctanesulfonic acid (PFOS)	ND	1.9		ng/L	1		EPA 533	3/8/23	3/12/23 14:45	DRL
Perfluorononanoic acid (PFNA)	ND	1.9		ng/L	1		EPA 533	3/8/23	3/12/23 14:45	DRL

Surrogates	% Recovery	Recovery Limits	Flag/Qual
M2-4:2FTS	49.7 *	50-200	PF-18
M2-8:2FTS	76.4	50-200	
MPFBA	78.7	50-200	
M3HFPO-DA	109	50-200	
M6PFDA	102	50-200	
M3PFBS	113	50-200	
M7PFUnA	112	50-200	
M2-6:2FTS	62.6	50-200	
M5PFPeA	82.0	50-200	
M5PFHxA	88.1	50-200	
M3PFHxS	111	50-200	
M4PFHpA	85.6	50-200	
M8PFOA	80.9	50-200	
M8PFOS	99.3	50-200	
M9PFNA	82.8	50-200	
MPFDoA	103	50-200	

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

Project Location: Mount Airy Rd., New Windsor, N

Sample Description:

Work Order: 23B1419

Date Received: 2/10/2023

Field Sample #: B-50

Sampled: 2/9/2023 11:55

Sample ID: 23B1419-07

Sample Matrix: Drinking Water

Semivolatile Organic Compounds by - LC/MS-MS

Analyte	Results	RL	MCL/SMCL		DF	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
			MA ORSG	Units						
Perfluorobutanoic acid (PFBA)	ND	1.8		ng/L	1		EPA 533	2/15/23	3/2/23 21:15	RRB
Perfluorobutanesulfonic acid (PFBS)	ND	1.8		ng/L	1		EPA 533	2/15/23	3/2/23 21:15	RRB
Perfluoropentanoic acid (PFPeA)	ND	1.8		ng/L	1		EPA 533	2/15/23	3/2/23 21:15	RRB
Perfluorohexanoic acid (PFHxA)	ND	1.8		ng/L	1		EPA 533	2/15/23	3/2/23 21:15	RRB
11Cl-PF3OUdS (F53B Major)	ND	1.8		ng/L	1		EPA 533	2/15/23	3/2/23 21:15	RRB
9Cl-PF3ONS (F53B Minor)	ND	1.8		ng/L	1		EPA 533	2/15/23	3/2/23 21:15	RRB
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	ND	1.8		ng/L	1		EPA 533	2/15/23	3/2/23 21:15	RRB
Hexafluoropropylene oxide dimer acid (HFPO-DA)	ND	1.8		ng/L	1		EPA 533	2/15/23	3/2/23 21:15	RRB
8:2 Fluorotelomersulfonic acid (8:2FTS A)	ND	1.8		ng/L	1		EPA 533	2/15/23	3/2/23 21:15	RRB
Perfluorodecanoic acid (PFDA)	ND	1.8		ng/L	1		EPA 533	2/15/23	3/2/23 21:15	RRB
Perfluorododecanoic acid (PFDoA)	ND	1.8		ng/L	1		EPA 533	2/15/23	3/2/23 21:15	RRB
Perfluoro(2-ethoxyethane)sulfonic acid (PFEEESA)	ND	1.8		ng/L	1		EPA 533	2/15/23	3/2/23 21:15	RRB
Perfluoroheptanesulfonic acid (PFHpS)	ND	1.8		ng/L	1		EPA 533	2/15/23	3/2/23 21:15	RRB
4:2 Fluorotelomersulfonic acid (4:2FTS A)	ND	1.8		ng/L	1		EPA 533	2/15/23	3/2/23 21:15	RRB
Perfluorohexanesulfonic acid (PFHxS)	ND	1.8		ng/L	1		EPA 533	2/15/23	3/2/23 21:15	RRB
Perfluoro-4-oxapentanoic acid (PFMPA)	ND	1.8		ng/L	1		EPA 533	2/15/23	3/2/23 21:15	RRB
Perfluoro-5-oxahexanoic acid (PFMBA)	ND	1.8		ng/L	1		EPA 533	2/15/23	3/2/23 21:15	RRB
6:2 Fluorotelomersulfonic acid (6:2FTS A)	ND	1.8		ng/L	1		EPA 533	2/15/23	3/2/23 21:15	RRB
Perfluoropentanesulfonic acid (PFPeS)	ND	1.8		ng/L	1		EPA 533	2/15/23	3/2/23 21:15	RRB
Perfluoroundecanoic acid (PFUnA)	ND	1.8		ng/L	1		EPA 533	2/15/23	3/2/23 21:15	RRB
Nonfluoro-3,6-dioxaheptanoic acid (NFDHA)	ND	1.8		ng/L	1		EPA 533	2/15/23	3/2/23 21:15	RRB
Perfluoroheptanoic acid (PFHpA)	ND	1.8		ng/L	1		EPA 533	2/15/23	3/2/23 21:15	RRB
Perfluorooctanoic acid (PFOA)	ND	1.8		ng/L	1		EPA 533	2/15/23	3/2/23 21:15	RRB
Perfluorooctanesulfonic acid (PFOS)	ND	1.8		ng/L	1		EPA 533	2/15/23	3/2/23 21:15	RRB
Perfluorononanoic acid (PFNA)	ND	1.8		ng/L	1		EPA 533	2/15/23	3/2/23 21:15	RRB

Surrogates	% Recovery	Recovery Limits	Flag/Qual
M2-4:2FTS	46.6 *	50-200	PF-18
M2-8:2FTS	79.8	50-200	
MPFBA	81.1	50-200	
M3HFPO-DA	122	50-200	
M6PFDA	104	50-200	
M3PFBS	125	50-200	
M7PFUnA	89.1	50-200	
M2-6:2FTS	61.6	50-200	
M5PFPeA	85.2	50-200	
M5PFHxA	98.5	50-200	
M3PFHxS	112	50-200	
M4PFHpA	93.2	50-200	
M8PFOA	92.4	50-200	
M8PFOS	105	50-200	
M9PFNA	96.5	50-200	
MPFDoA	88.0	50-200	

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

Project Location: Mount Airy Rd., New Windsor, N

Sample Description:

Work Order: 23B1419

Date Received: 2/10/2023

Field Sample #: B-75

Sampled: 2/9/2023 11:50

Sample ID: 23B1419-08

Sample Matrix: Drinking Water

Semivolatile Organic Compounds by - LC/MS-MS

Analyte	Results	RL	MCL/SMCL MA ORSG	Units	DF	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Perfluorobutanoic acid (PFBA)	ND	1.8		ng/L	1		EPA 533	3/8/23	3/12/23 14:52	DRL
Perfluorobutanesulfonic acid (PFBS)	ND	1.8		ng/L	1		EPA 533	3/8/23	3/12/23 14:52	DRL
Perfluoropentanoic acid (PFPeA)	ND	1.8		ng/L	1		EPA 533	3/8/23	3/12/23 14:52	DRL
Perfluorohexanoic acid (PFHxA)	ND	1.8		ng/L	1		EPA 533	3/8/23	3/12/23 14:52	DRL
11Cl-PF3OUdS (F53B Major)	ND	1.8		ng/L	1		EPA 533	3/8/23	3/12/23 14:52	DRL
9Cl-PF3ONS (F53B Minor)	ND	1.8		ng/L	1		EPA 533	3/8/23	3/12/23 14:52	DRL
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	ND	1.8		ng/L	1		EPA 533	3/8/23	3/12/23 14:52	DRL
Hexafluoropropylene oxide dimer acid (HFPO-DA)	ND	1.8		ng/L	1		EPA 533	3/8/23	3/12/23 14:52	DRL
8:2 Fluorotelomersulfonic acid (8:2FTS A)	ND	1.8		ng/L	1		EPA 533	3/8/23	3/12/23 14:52	DRL
Perfluorodecanoic acid (PFDA)	ND	1.8		ng/L	1		EPA 533	3/8/23	3/12/23 14:52	DRL
Perfluorododecanoic acid (PFDoA)	ND	1.8		ng/L	1		EPA 533	3/8/23	3/12/23 14:52	DRL
Perfluoro(2-ethoxyethane)sulfonic acid (PFEEESA)	ND	1.8		ng/L	1		EPA 533	3/8/23	3/12/23 14:52	DRL
Perfluoroheptanesulfonic acid (PFHpS)	ND	1.8		ng/L	1		EPA 533	3/8/23	3/12/23 14:52	DRL
4:2 Fluorotelomersulfonic acid (4:2FTS A)	ND	1.8		ng/L	1		EPA 533	3/8/23	3/12/23 14:52	DRL
Perfluorohexanesulfonic acid (PFHxS)	ND	1.8		ng/L	1		EPA 533	3/8/23	3/12/23 14:52	DRL
Perfluoro-4-oxapentanoic acid (PFMPA)	ND	1.8		ng/L	1		EPA 533	3/8/23	3/12/23 14:52	DRL
Perfluoro-5-oxahexanoic acid (PFMBA)	ND	1.8		ng/L	1		EPA 533	3/8/23	3/12/23 14:52	DRL
6:2 Fluorotelomersulfonic acid (6:2FTS A)	ND	1.8		ng/L	1		EPA 533	3/8/23	3/12/23 14:52	DRL
Perfluoropentanesulfonic acid (PFPeS)	ND	1.8		ng/L	1		EPA 533	3/8/23	3/12/23 14:52	DRL
Perfluoroundecanoic acid (PFUnA)	ND	1.8		ng/L	1		EPA 533	3/8/23	3/12/23 14:52	DRL
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	ND	1.8		ng/L	1		EPA 533	3/8/23	3/12/23 14:52	DRL
Perfluoroheptanoic acid (PFHpA)	ND	1.8		ng/L	1		EPA 533	3/8/23	3/12/23 14:52	DRL
Perfluorooctanoic acid (PFOA)	ND	1.8		ng/L	1		EPA 533	3/8/23	3/12/23 14:52	DRL
Perfluorooctanesulfonic acid (PFOS)	ND	1.8		ng/L	1		EPA 533	3/8/23	3/12/23 14:52	DRL
Perfluorononanoic acid (PFNA)	ND	1.8		ng/L	1		EPA 533	3/8/23	3/12/23 14:52	DRL

Surrogates	% Recovery	Recovery Limits	Flag/Qual
M2-4:2FTS	53.1	50-200	3/12/23 14:52
M2-8:2FTS	73.2	50-200	3/12/23 14:52
MPFBA	115	50-200	3/12/23 14:52
M3HFPO-DA	145	50-200	3/12/23 14:52
M6PFDA	111	50-200	3/12/23 14:52
M3PFBS	109	50-200	3/12/23 14:52
M7PFUnA	103	50-200	3/12/23 14:52
M2-6:2FTS	63.9	50-200	3/12/23 14:52
M5PFPeA	114	50-200	3/12/23 14:52
M5PFHxA	119	50-200	3/12/23 14:52
M3PFHxS	111	50-200	3/12/23 14:52
M4PFHpA	111	50-200	3/12/23 14:52
M8PFOA	115	50-200	3/12/23 14:52
M8PFOS	98.5	50-200	3/12/23 14:52
M9PFNA	110	50-200	3/12/23 14:52
MPFDoA	99.6	50-200	3/12/23 14:52

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

Project Location: Mount Airy Rd., New Windsor, N

Sample Description:

Work Order: 23B1419

Date Received: 2/10/2023

Field Sample #: Effluent

Sampled: 2/9/2023 11:45

Sample ID: 23B1419-09

Sample Matrix: Drinking Water

Semivolatile Organic Compounds by - LC/MS-MS

Analyte	Results	RL	MCL/SMCL		DF	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
			MA ORSG	Units						
Perfluorobutanoic acid (PFBA)	ND	1.9		ng/L	1		EPA 533	3/8/23	3/12/23 14:59	DRL
Perfluorobutanesulfonic acid (PFBS)	ND	1.9		ng/L	1		EPA 533	3/8/23	3/12/23 14:59	DRL
Perfluoropentanoic acid (PFPeA)	ND	1.9		ng/L	1		EPA 533	3/8/23	3/12/23 14:59	DRL
Perfluorohexanoic acid (PFHxA)	ND	1.9		ng/L	1		EPA 533	3/8/23	3/12/23 14:59	DRL
11Cl-PF3OUdS (F53B Major)	ND	1.9		ng/L	1		EPA 533	3/8/23	3/12/23 14:59	DRL
9Cl-PF3ONS (F53B Minor)	ND	1.9		ng/L	1		EPA 533	3/8/23	3/12/23 14:59	DRL
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	ND	1.9		ng/L	1		EPA 533	3/8/23	3/12/23 14:59	DRL
Hexafluoropropylene oxide dimer acid (HFPO-DA)	ND	1.9		ng/L	1		EPA 533	3/8/23	3/12/23 14:59	DRL
8:2 Fluorotelomersulfonic acid (8:2FTS A)	ND	1.9		ng/L	1		EPA 533	3/8/23	3/12/23 14:59	DRL
Perfluorodecanoic acid (PFDA)	ND	1.9		ng/L	1		EPA 533	3/8/23	3/12/23 14:59	DRL
Perfluorododecanoic acid (PFDoA)	ND	1.9		ng/L	1		EPA 533	3/8/23	3/12/23 14:59	DRL
Perfluoro(2-ethoxyethane)sulfonic acid (PFEEESA)	ND	1.9		ng/L	1		EPA 533	3/8/23	3/12/23 14:59	DRL
Perfluoroheptanesulfonic acid (PFHpS)	ND	1.9		ng/L	1		EPA 533	3/8/23	3/12/23 14:59	DRL
4:2 Fluorotelomersulfonic acid (4:2FTS A)	ND	1.9		ng/L	1		EPA 533	3/8/23	3/12/23 14:59	DRL
Perfluorohexanesulfonic acid (PFHxS)	ND	1.9		ng/L	1		EPA 533	3/8/23	3/12/23 14:59	DRL
Perfluoro-4-oxapentanoic acid (PFMPA)	ND	1.9		ng/L	1		EPA 533	3/8/23	3/12/23 14:59	DRL
Perfluoro-5-oxahexanoic acid (PFMBA)	ND	1.9		ng/L	1		EPA 533	3/8/23	3/12/23 14:59	DRL
6:2 Fluorotelomersulfonic acid (6:2FTS A)	ND	1.9		ng/L	1		EPA 533	3/8/23	3/12/23 14:59	DRL
Perfluoropentanesulfonic acid (PFPeS)	ND	1.9		ng/L	1		EPA 533	3/8/23	3/12/23 14:59	DRL
Perfluoroundecanoic acid (PFUnA)	ND	1.9		ng/L	1		EPA 533	3/8/23	3/12/23 14:59	DRL
Nonfluoro-3,6-dioxaheptanoic acid (NFDHA)	ND	1.9		ng/L	1		EPA 533	3/8/23	3/12/23 14:59	DRL
Perfluoroheptanoic acid (PFHpA)	ND	1.9		ng/L	1		EPA 533	3/8/23	3/12/23 14:59	DRL
Perfluorooctanoic acid (PFOA)	ND	1.9		ng/L	1		EPA 533	3/8/23	3/12/23 14:59	DRL
Perfluorooctanesulfonic acid (PFOS)	ND	1.9		ng/L	1		EPA 533	3/8/23	3/12/23 14:59	DRL
Perfluorononanoic acid (PFNA)	ND	1.9		ng/L	1		EPA 533	3/8/23	3/12/23 14:59	DRL

Surrogates	% Recovery	Recovery Limits	Flag/Qual
M2-4:2FTS	52.9	50-200	3/12/23 14:59
M2-8:2FTS	64.8	50-200	3/12/23 14:59
MPFBA	113	50-200	3/12/23 14:59
M3HFPO-DA	145	50-200	3/12/23 14:59
M6PFDA	110	50-200	3/12/23 14:59
M3PFBS	115	50-200	3/12/23 14:59
M7PFUnA	105	50-200	3/12/23 14:59
M2-6:2FTS	65.5	50-200	3/12/23 14:59
M5PFPeA	111	50-200	3/12/23 14:59
M5PFHxA	118	50-200	3/12/23 14:59
M3PFHxS	116	50-200	3/12/23 14:59
M4PFHpA	115	50-200	3/12/23 14:59
M8PFOA	115	50-200	3/12/23 14:59
M8PFOS	112	50-200	3/12/23 14:59
M9PFNA	119	50-200	3/12/23 14:59
MPFDoA	108	50-200	3/12/23 14:59

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

Project Location: Mount Airy Rd., New Windsor, N

Sample Description:

Work Order: 23B1419

Date Received: 2/10/2023

Field Sample #: Duplicate

Sampled: 2/9/2023 00:00

Sample ID: 23B1419-10

Sample Matrix: Drinking Water

Semivolatile Organic Compounds by - LC/MS-MS

Analyte	Results	RL	MCL/SMCL		DF	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
			MA ORSG	Units						
Perfluorobutanoic acid (PFBA)	ND	1.9		ng/L	1		EPA 533	3/8/23	3/12/23 15:07	DRL
Perfluorobutanesulfonic acid (PFBS)	ND	1.9		ng/L	1		EPA 533	3/8/23	3/12/23 15:07	DRL
Perfluoropentanoic acid (PFPeA)	ND	1.9		ng/L	1		EPA 533	3/8/23	3/12/23 15:07	DRL
Perfluorohexanoic acid (PFHxA)	ND	1.9		ng/L	1		EPA 533	3/8/23	3/12/23 15:07	DRL
11Cl-PF3OUdS (F53B Major)	ND	1.9		ng/L	1		EPA 533	3/8/23	3/12/23 15:07	DRL
9Cl-PF3ONS (F53B Minor)	ND	1.9		ng/L	1		EPA 533	3/8/23	3/12/23 15:07	DRL
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	ND	1.9		ng/L	1		EPA 533	3/8/23	3/12/23 15:07	DRL
Hexafluoropropylene oxide dimer acid (HFPO-DA)	ND	1.9		ng/L	1		EPA 533	3/8/23	3/12/23 15:07	DRL
8:2 Fluorotelomersulfonic acid (8:2FTS A)	ND	1.9		ng/L	1		EPA 533	3/8/23	3/12/23 15:07	DRL
Perfluorodecanoic acid (PFDA)	ND	1.9		ng/L	1		EPA 533	3/8/23	3/12/23 15:07	DRL
Perfluorododecanoic acid (PFDoA)	ND	1.9		ng/L	1		EPA 533	3/8/23	3/12/23 15:07	DRL
Perfluoro(2-ethoxyethane)sulfonic acid (PFEEESA)	ND	1.9		ng/L	1		EPA 533	3/8/23	3/12/23 15:07	DRL
Perfluoroheptanesulfonic acid (PFHpS)	ND	1.9		ng/L	1		EPA 533	3/8/23	3/12/23 15:07	DRL
4:2 Fluorotelomersulfonic acid (4:2FTS A)	ND	1.9		ng/L	1		EPA 533	3/8/23	3/12/23 15:07	DRL
Perfluorohexanesulfonic acid (PFHxS)	ND	1.9		ng/L	1		EPA 533	3/8/23	3/12/23 15:07	DRL
Perfluoro-4-oxapentanoic acid (PFMPA)	ND	1.9		ng/L	1		EPA 533	3/8/23	3/12/23 15:07	DRL
Perfluoro-5-oxahexanoic acid (PFMBA)	ND	1.9		ng/L	1		EPA 533	3/8/23	3/12/23 15:07	DRL
6:2 Fluorotelomersulfonic acid (6:2FTS A)	ND	1.9		ng/L	1		EPA 533	3/8/23	3/12/23 15:07	DRL
Perfluoropentanesulfonic acid (PFPeS)	ND	1.9		ng/L	1		EPA 533	3/8/23	3/12/23 15:07	DRL
Perfluoroundecanoic acid (PFUnA)	ND	1.9		ng/L	1		EPA 533	3/8/23	3/12/23 15:07	DRL
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	ND	1.9		ng/L	1		EPA 533	3/8/23	3/12/23 15:07	DRL
Perfluoroheptanoic acid (PFHpA)	ND	1.9		ng/L	1		EPA 533	3/8/23	3/12/23 15:07	DRL
Perfluorooctanoic acid (PFOA)	ND	1.9		ng/L	1		EPA 533	3/8/23	3/12/23 15:07	DRL
Perfluorooctanesulfonic acid (PFOS)	ND	1.9		ng/L	1		EPA 533	3/8/23	3/12/23 15:07	DRL
Perfluorononanoic acid (PFNA)	ND	1.9		ng/L	1		EPA 533	3/8/23	3/12/23 15:07	DRL

Surrogates	% Recovery	Recovery Limits	Flag/Qual
M2-4:2FTS	45.4 *	50-200	PF-18
M2-8:2FTS	57.7	50-200	
MPFBA	97.4	50-200	
M3HFPO-DA	103	50-200	
M6PFDA	94.5	50-200	
M3PFBS	103	50-200	
M7PFUnA	93.7	50-200	
M2-6:2FTS	52.5	50-200	
M5PFPeA	96.1	50-200	
M5PFHxA	98.8	50-200	
M3PFHxS	102	50-200	
M4PFHpA	93.8	50-200	
M8PFOA	96.8	50-200	
M8PFOS	99.5	50-200	
M9PFNA	97.5	50-200	
MPFDoA	86.2	50-200	

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

Sample Extraction Data
Prep Method: EPA 533-EPA 533

Lab Number [Field ID]	Batch	Initial [mL]	Final [mL]	Date
23B1419-01 [Influent]	B331480	263	1.00	02/15/23
23B1419-03 [A-50]	B331480	283	1.00	02/15/23
23B1419-05 [Mid]	B331480	278	1.00	02/15/23
23B1419-07 [B-50]	B331480	274	1.00	02/15/23

Prep Method: EPA 533-EPA 533

Lab Number [Field ID]	Batch	Initial [mL]	Final [mL]	Date
23B1419-02RE1 [A-25]	B333034	255	1.00	03/08/23
23B1419-04RE1 [A-75]	B333034	286	1.00	03/08/23
23B1419-06RE1 [B-25]	B333034	268	1.00	03/08/23
23B1419-08RE1 [B-75]	B333034	275	1.00	03/08/23
23B1419-09RE1 [Effluent]	B333034	270	1.00	03/08/23
23B1419-10RE1 [Duplicate]	B333034	266	1.00	03/08/23

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	DL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch B331480 - EPA 533
Blank (B331480-BLK1)

Prepared: 02/15/23 Analyzed: 03/02/23

Perfluorobutanoic acid (PFBA)	ND	1.9		ng/L							
Perfluorobutanesulfonic acid (PFBS)	ND	1.9		ng/L							
Perfluoropentanoic acid (PFPeA)	ND	1.9		ng/L							
Perfluorohexanoic acid (PFHxA)	ND	1.9		ng/L							
11Cl-PF3OUdS (F53B Major)	ND	1.9		ng/L							
9Cl-PF3ONS (F53B Minor)	ND	1.9		ng/L							
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	ND	1.9		ng/L							
Hexafluoropropylene oxide dimer acid (HFPO-DA)	ND	1.9		ng/L							
8:2 Fluorotelomersulfonic acid (8:2FTS A)	ND	1.9		ng/L							
Perfluorodecanoic acid (PFDA)	ND	1.9		ng/L							
Perfluorododecanoic acid (PFDoA)	ND	1.9		ng/L							
Perfluoro(2-ethoxyethane)sulfonic acid (PFEEESA)	ND	1.9		ng/L							
Perfluoroheptanesulfonic acid (PFHpS)	ND	1.9		ng/L							
4:2 Fluorotelomersulfonic acid (4:2FTS A)	ND	1.9		ng/L							
Perfluorohexanesulfonic acid (PFHxS)	ND	1.9		ng/L							
Perfluoro-4-oxapentanoic acid (PFMPA)	ND	1.9		ng/L							
Perfluoro-5-oxahexanoic acid (PFMBA)	ND	1.9		ng/L							
6:2 Fluorotelomersulfonic acid (6:2FTS A)	ND	1.9		ng/L							
Perfluoropetanesulfonic acid (PFPeS)	ND	1.9		ng/L							
Perfluoroundecanoic acid (PFUnA)	ND	1.9		ng/L							
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	ND	1.9		ng/L							
Perfluoroheptanoic acid (PFHpA)	ND	1.9		ng/L							
Perfluorooctanoic acid (PFOA)	ND	1.9		ng/L							
Perfluorooctanesulfonic acid (PFOS)	ND	1.9		ng/L							
Perfluorononanoic acid (PFNA)	ND	1.9		ng/L							
Surrogate: M2-4:2FTS	7010			ng/L	9380		74.7	50-200			
Surrogate: M2-8:2FTS	9710			ng/L	9600		101	50-200			
Surrogate: MPFBA	9740			ng/L	10000		97.4	50-200			
Surrogate: M3HFPO-DA	46.7			ng/L	37.6		124	50-200			
Surrogate: M6PFDA	9460			ng/L	10000		94.6	50-200			
Surrogate: M3PFBS	10400			ng/L	9320		112	50-200			
Surrogate: M7PFUnA	9360			ng/L	10000		93.6	50-200			
Surrogate: M2-6:2FTS	7240			ng/L	9510		76.1	50-200			
Surrogate: M5PFPeA	9480			ng/L	10000		94.8	50-200			
Surrogate: M5PFHxA	9960			ng/L	10000		99.6	50-200			
Surrogate: M3PFHxS	9120			ng/L	9480		96.2	50-200			
Surrogate: M4PFHpA	9480			ng/L	10000		94.8	50-200			
Surrogate: M8PFOA	9050			ng/L	10000		90.5	50-200			
Surrogate: M8PFOS	9980			ng/L	9590		104	50-200			
Surrogate: M9PFNA	10500			ng/L	10000		105	50-200			
Surrogate: MPFDoA	9210			ng/L	10000		92.1	50-200			

LCS (B331480-BS1)

Prepared: 02/15/23 Analyzed: 03/02/23

Perfluorobutanoic acid (PFBA)	20.3	2.0		ng/L	19.6		103	70-130			
Perfluorobutanesulfonic acid (PFBS)	21.2	2.0		ng/L	17.3		122	70-130			
Perfluoropentanoic acid (PFPeA)	22.8	2.0		ng/L	19.6		116	70-130			
Perfluorohexanoic acid (PFHxA)	24.0	2.0		ng/L	19.6		123	70-130			
11Cl-PF3OUdS (F53B Major)	20.0	2.0		ng/L	18.5		108	70-130			

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

Analyte	Result	Reporting Limit	DL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B331480 - EPA 533											
LCS (B331480-BS1)											
					Prepared: 02/15/23 Analyzed: 03/02/23						
9Cl-PF3ONS (F53B Minor)	18.2	2.0		ng/L	18.3		99.9	70-130			
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	17.5	2.0		ng/L	18.5		94.9	70-130			
Hexafluoropropylene oxide dimer acid (HFPO-DA)	16.4	2.0		ng/L	19.6		83.5	70-130			
8:2 Fluorotelomersulfonic acid (8:2FTS A)	27.0	2.0		ng/L	18.8		144 *	70-130			L-01
Perfluorodecanoic acid (PFDA)	23.1	2.0		ng/L	19.6		118	70-130			
Perfluorododecanoic acid (PFDoA)	23.9	2.0		ng/L	19.6		122	70-130			
Perfluoro(2-ethoxyethane)sulfonic acid (PFEEESA)	20.1	2.0		ng/L	17.4		115	70-130			
Perfluoroheptanesulfonic acid (PFHpS)	21.7	2.0		ng/L	18.7		116	70-130			
4:2 Fluorotelomersulfonic acid (4:2FTS A)	22.5	2.0		ng/L	18.3		123	70-130			
Perfluorohexanesulfonic acid (PFHxS)	21.2	2.0		ng/L	17.9		119	70-130			
Perfluoro-4-oxapentanoic acid (PFMPA)	20.0	2.0		ng/L	19.6		102	70-130			
Perfluoro-5-oxahexanoic acid (PFMBA)	21.8	2.0		ng/L	19.6		111	70-130			
6:2 Fluorotelomersulfonic acid (6:2FTS A)	21.1	2.0		ng/L	18.6		113	70-130			
Perfluoropentanesulfonic acid (PFPeS)	22.3	2.0		ng/L	18.4		121	70-130			
Perfluoroundecanoic acid (PFUnA)	25.8	2.0		ng/L	19.6		132 *	70-130			L-01
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	21.8	2.0		ng/L	19.6		111	70-130			
Perfluoroheptanoic acid (PFHpA)	23.3	2.0		ng/L	19.6		119	70-130			
Perfluorooctanoic acid (PFOA)	23.7	2.0		ng/L	19.6		121	70-130			
Perfluorooctanesulfonic acid (PFOS)	20.7	2.0		ng/L	18.1		114	70-130			
Perfluorononanoic acid (PFNA)	20.9	2.0		ng/L	19.6		107	70-130			
Surrogate: M2-4:2FTS	6830			ng/L	9380		72.8	50-200			
Surrogate: M2-8:2FTS	8010			ng/L	9600		83.4	50-200			
Surrogate: MPFBA	9990			ng/L	10000		99.9	50-200			
Surrogate: M3HFPO-DA	49.2			ng/L	39.2		126	50-200			
Surrogate: M6PFDA	10800			ng/L	10000		108	50-200			
Surrogate: M3PFBS	9960			ng/L	9320		107	50-200			
Surrogate: M7PFUnA	9450			ng/L	10000		94.5	50-200			
Surrogate: M2-6:2FTS	7170			ng/L	9510		75.4	50-200			
Surrogate: M5PFPeA	9800			ng/L	10000		98.0	50-200			
Surrogate: M5PFHxA	10100			ng/L	10000		101	50-200			
Surrogate: M3PFHxS	9190			ng/L	9480		97.0	50-200			
Surrogate: M4PFHpA	9540			ng/L	10000		95.4	50-200			
Surrogate: M8PFOA	9470			ng/L	10000		94.7	50-200			
Surrogate: M8PFOS	10700			ng/L	9590		112	50-200			
Surrogate: M9PFNA	10000			ng/L	10000		100	50-200			
Surrogate: MPFDoA	8960			ng/L	10000		89.6	50-200			
Matrix Spike (B331480-MS1)											
					Source: 23B1419-05 Prepared: 02/15/23 Analyzed: 03/02/23						
Perfluorobutanoic acid (PFBA)	17.7	1.8		ng/L	17.9	ND	98.5	70-130			
Perfluorobutanesulfonic acid (PFBS)	19.4	1.8		ng/L	15.9	ND	122	70-130			
Perfluoropentanoic acid (PFPeA)	20.8	1.8		ng/L	17.9	ND	116	70-130			
Perfluorohexanoic acid (PFHxA)	21.5	1.8		ng/L	17.9	ND	120	70-130			
11Cl-PF3OUdS (F53B Major)	17.6	1.8		ng/L	16.9	ND	104	70-130			
9Cl-PF3ONS (F53B Minor)	17.8	1.8		ng/L	16.7	ND	106	70-130			
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	14.7	1.8		ng/L	16.9	ND	87.3	70-130			
Hexafluoropropylene oxide dimer acid (HFPO-DA)	15.9	1.8		ng/L	17.9	ND	88.5	70-130			

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

Analyte	Result	Reporting Limit	DL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B331480 - EPA 533											
Matrix Spike (B331480-MS1)											
			Source: 23B1419-05			Prepared: 02/15/23 Analyzed: 03/02/23					
8:2 Fluorotelomersulfonic acid (8:2FTS A)	19.7	1.8		ng/L	17.2	ND	114	70-130			
Perfluorodecanoic acid (PFDA)	22.8	1.8		ng/L	17.9	ND	127	70-130			
Perfluorododecanoic acid (PFDoA)	22.1	1.8		ng/L	17.9	ND	123	70-130			
Perfluoro(2-ethoxyethane)sulfonic acid (PFEEESA)	18.5	1.8		ng/L	16.0	ND	116	70-130			
Perfluoroheptanesulfonic acid (PFHpS)	21.5	1.8		ng/L	17.1	ND	126	70-130			
4:2 Fluorotelomersulfonic acid (4:2FTS A)	20.8	1.8		ng/L	16.8	ND	124	70-130			
Perfluorohexanesulfonic acid (PFHxS)	19.3	1.8		ng/L	16.4	ND	118	70-130			
Perfluoro-4-oxapentanoic acid (PFMPA)	17.4	1.8		ng/L	17.9	ND	96.8	70-130			
Perfluoro-5-oxahexanoic acid (PFMBA)	20.0	1.8		ng/L	17.9	ND	111	70-130			
6:2 Fluorotelomersulfonic acid (6:2FTS A)	20.0	1.8		ng/L	17.0	ND	118	70-130			
Perfluoropetanesulfonic acid (PFPeS)	20.4	1.8		ng/L	16.9	ND	121	70-130			
Perfluoroundecanoic acid (PFUnA)	21.4	1.8		ng/L	17.9	ND	119	70-130			
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	17.2	1.8		ng/L	17.9	ND	96.2	70-130			
Perfluoroheptanoic acid (PFHpA)	21.5	1.8		ng/L	17.9	ND	120	70-130			
Perfluorooctanoic acid (PFOA)	24.0	1.8		ng/L	17.9	ND	134	* 70-130			MS-22
Perfluorooctanesulfonic acid (PFOS)	21.6	1.8		ng/L	16.6	ND	130	70-130			
Perfluorononanoic acid (PFNA)	21.2	1.8		ng/L	17.9	ND	118	70-130			
Surrogate: M2-4:2FTS	4350			ng/L	9380		46.4	* 50-200			PF-18
Surrogate: M2-8:2FTS	7860			ng/L	9600		81.9	50-200			
Surrogate: MPFBA	2170			ng/L	10000		21.7	* 50-200			S-29
Surrogate: M3HFPO-DA	16.6			ng/L	35.9		46.4	* 50-200			S-29
Surrogate: M6PFDA	4500			ng/L	10000		45.0	* 50-200			S-29
Surrogate: M3PFBS	9750			ng/L	9320		105	50-200			
Surrogate: M7PFUnA	5300			ng/L	10000		53.0	50-200			
Surrogate: M2-6:2FTS	5170			ng/L	9510		54.3	50-200			
Surrogate: M5PFPeA	2590			ng/L	10000		25.9	* 50-200			S-29
Surrogate: M5PFHxA	3320			ng/L	10000		33.2	* 50-200			S-29
Surrogate: M3PFHxS	8950			ng/L	9480		94.4	50-200			
Surrogate: M4PFHpA	3250			ng/L	10000		32.5	* 50-200			S-29
Surrogate: M8PFOA	3210			ng/L	10000		32.1	* 50-200			S-29
Surrogate: M8PFOS	8800			ng/L	9590		91.7	50-200			
Surrogate: M9PFNA	3980			ng/L	10000		39.8	* 50-200			S-29
Surrogate: MPFDoA	5170			ng/L	10000		51.7	50-200			
Matrix Spike Dup (B331480-MSD1)											
			Source: 23B1419-05			Prepared: 02/15/23 Analyzed: 03/02/23					
Perfluorobutanoic acid (PFBA)	17.5	1.8		ng/L	17.6	ND	99.4	70-130	0.798	30	
Perfluorobutanesulfonic acid (PFBS)	18.6	1.8		ng/L	15.6	ND	119	70-130	4.12	30	
Perfluoropentanoic acid (PFPeA)	20.1	1.8		ng/L	17.6	ND	114	70-130	3.48	30	
Perfluorohexanoic acid (PFHxA)	21.1	1.8		ng/L	17.6	ND	120	70-130	1.98	30	
11Cl-PF3OUdS (F53B Major)	17.1	1.8		ng/L	16.6	ND	103	70-130	2.39	30	
9Cl-PF3ONS (F53B Minor)	15.9	1.8		ng/L	16.4	ND	96.9	70-130	11.1	30	
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	13.7	1.8		ng/L	16.6	ND	82.3	70-130	7.57	30	
Hexafluoropropylene oxide dimer acid (HFPO-DA)	14.4	1.8		ng/L	17.6	ND	81.8	70-130	9.51	30	
8:2 Fluorotelomersulfonic acid (8:2FTS A)	19.9	1.8		ng/L	16.9	ND	117	70-130	0.876	30	
Perfluorodecanoic acid (PFDA)	21.1	1.8		ng/L	17.6	ND	120	70-130	7.83	30	
Perfluorododecanoic acid (PFDoA)	22.0	1.8		ng/L	17.6	ND	125	70-130	0.200	30	
Perfluoro(2-ethoxyethane)sulfonic acid (PFEEESA)	17.8	1.8		ng/L	15.7	ND	113	70-130	4.01	30	
Perfluoroheptanesulfonic acid (PFHpS)	19.9	1.8		ng/L	16.8	ND	118	70-130	7.63	30	

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

Analyte	Result	Reporting Limit	DL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch B331480 - EPA 533
Matrix Spike Dup (B331480-MSD1)
Source: 23B1419-05

Prepared: 02/15/23 Analyzed: 03/02/23

4:2 Fluorotelomersulfonic acid (4:2FTS A)	19.6	1.8		ng/L	16.5	ND	119	70-130	5.62	30	
Perfluorohexanesulfonic acid (PFHxS)	19.1	1.8		ng/L	16.1	ND	119	70-130	1.20	30	
Perfluoro-4-oxapentanoic acid (PFMPA)	17.2	1.8		ng/L	17.6	ND	97.4	70-130	1.13	30	
Perfluoro-5-oxahexanoic acid (PFMBA)	18.7	1.8		ng/L	17.6	ND	106	70-130	6.35	30	
6:2 Fluorotelomersulfonic acid (6:2FTS A)	16.7	1.8		ng/L	16.7	ND	99.7	70-130	18.2	30	
Perfluoropentanesulfonic acid (PFPeS)	20.3	1.8		ng/L	16.6	ND	123	70-130	0.432	30	
Perfluoroundecanoic acid (PFUnA)	21.0	1.8		ng/L	17.6	ND	119	70-130	1.99	30	
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	18.3	1.8		ng/L	17.6	ND	104	70-130	5.87	30	
Perfluoroheptanoic acid (PFHpA)	20.4	1.8		ng/L	17.6	ND	116	70-130	5.05	30	
Perfluorooctanoic acid (PFOA)	21.4	1.8		ng/L	17.6	ND	122	70-130	11.3	30	
Perfluorooctanesulfonic acid (PFOS)	20.5	1.8		ng/L	16.3	ND	126	70-130	5.14	30	
Perfluorononanoic acid (PFNA)	19.3	1.8		ng/L	17.6	ND	110	70-130	9.23	30	
Surrogate: M2-4:2FTS	<i>4450</i>			ng/L	9380		47.5	* 50-200			PF-18
Surrogate: M2-8:2FTS	<i>7640</i>			ng/L	9600		79.5	50-200			
Surrogate: MPFBA	<i>7490</i>			ng/L	10000		74.9	50-200			
Surrogate: M3HFPO-DA	<i>34.6</i>			ng/L	35.2		98.2	50-200			
Surrogate: M6PFDA	<i>7850</i>			ng/L	10000		78.5	50-200			
Surrogate: M3PFBS	<i>10700</i>			ng/L	9320		115	50-200			
Surrogate: M7PFUnA	<i>7680</i>			ng/L	10000		76.8	50-200			
Surrogate: M2-6:2FTS	<i>5500</i>			ng/L	9510		57.8	50-200			
Surrogate: M5PFPeA	<i>7540</i>			ng/L	10000		75.4	50-200			
Surrogate: M5PFHxA	<i>8220</i>			ng/L	10000		82.2	50-200			
Surrogate: M3PFHxS	<i>9650</i>			ng/L	9480		102	50-200			
Surrogate: M4PFHpA	<i>7380</i>			ng/L	10000		73.8	50-200			
Surrogate: M8PFOA	<i>6700</i>			ng/L	10000		67.0	50-200			
Surrogate: M8PFOS	<i>9940</i>			ng/L	9590		104	50-200			
Surrogate: M9PFNA	<i>7220</i>			ng/L	10000		72.2	50-200			
Surrogate: MPFDoA	<i>7410</i>			ng/L	10000		74.1	50-200			

Batch B333034 - EPA 533
Blank (B333034-BLK1)

Prepared: 03/08/23 Analyzed: 03/12/23

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							
4:2 Fluorotelomersulfonic acid (4:2FTS A)	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							

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

Analyte	Result	Reporting Limit	DL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch B333034 - EPA 533
Blank (B333034-BLK1)

Prepared: 03/08/23 Analyzed: 03/12/23

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							
Surrogate: M2-4:2FTS	9700			ng/L	9380		103	50-200			
Surrogate: M2-8:2FTS	10300			ng/L	9600		107	50-200			
Surrogate: MPFBA	14400			ng/L	10000		144	50-200			
Surrogate: M3HFPO-DA	52.4			ng/L	35.7		147	50-200			
Surrogate: M6PFDA	13600			ng/L	10000		136	50-200			
Surrogate: M3PFBS	12800			ng/L	9320		138	50-200			
Surrogate: M7PFUnA	13300			ng/L	10000		133	50-200			
Surrogate: M2-6:2FTS	10500			ng/L	9510		110	50-200			
Surrogate: M5PFPeA	14100			ng/L	10000		141	50-200			
Surrogate: M5PFHxA	13800			ng/L	10000		138	50-200			
Surrogate: M3PFHxS	12800			ng/L	9480		135	50-200			
Surrogate: M4PFHpA	14100			ng/L	10000		141	50-200			
Surrogate: M8PFOA	14000			ng/L	10000		140	50-200			
Surrogate: M8PFOS	13100			ng/L	9590		136	50-200			
Surrogate: M9PFNA	13700			ng/L	10000		137	50-200			
Surrogate: MPFDoA	11800			ng/L	10000		118	50-200			

LCS (B333034-BS1)

Prepared: 03/08/23 Analyzed: 03/12/23

Perfluorobutanoic acid (PFBA)	1.53	1.9		ng/L	1.91		79.7	50-150			
Perfluorobutanesulfonic acid (PFBS)	1.27	1.9		ng/L	1.69		74.8	50-150			
Perfluoropentanoic acid (PFPeA)	1.34	1.9		ng/L	1.91		70.2	50-150			
Perfluorohexanoic acid (PFHxA)	1.49	1.9		ng/L	1.91		77.9	50-150			
11Cl-PF3OUdS (F53B Major)	1.13	1.9		ng/L	1.80		62.8	50-150			
9Cl-PF3ONS (F53B Minor)	1.41	1.9		ng/L	1.78		79.0	50-150			
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	1.31	1.9		ng/L	1.80		72.7	50-150			
Hexafluoropropylene oxide dimer acid (HFPO-DA)	1.46	1.9		ng/L	1.91		76.3	50-150			
8:2 Fluorotelomersulfonic acid (8:2FTS A)	1.31	1.9		ng/L	1.84		71.4	50-150			
Perfluorodecanoic acid (PFDA)	1.47	1.9		ng/L	1.91		76.9	50-150			
Perfluorododecanoic acid (PFDoA)	1.35	1.9		ng/L	1.91		70.4	50-150			
Perfluoro(2-ethoxyethane)sulfonic acid (PFEESA)	1.45	1.9		ng/L	1.70		85.1	50-150			
Perfluoroheptanesulfonic acid (PFHpS)	1.44	1.9		ng/L	1.83		78.8	50-150			
4:2 Fluorotelomersulfonic acid (4:2FTS A)	1.31	1.9		ng/L	1.79		73.2	50-150			
Perfluorohexanesulfonic acid (PFHxS)	1.42	1.9		ng/L	1.75		81.1	50-150			
Perfluoro-4-oxapentanoic acid (PFMPA)	1.36	1.9		ng/L	1.91		71.3	50-150			
Perfluoro-5-oxahexanoic acid (PFMBA)	1.33	1.9		ng/L	1.91		69.3	50-150			
6:2 Fluorotelomersulfonic acid (6:2FTS A)	1.53	1.9		ng/L	1.82		84.1	50-150			
Perfluoropentanesulfonic acid (PFPeS)	1.41	1.9		ng/L	1.80		78.4	50-150			
Perfluoroundecanoic acid (PFUnA)	1.48	1.9		ng/L	1.91		77.5	50-150			
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	1.41	1.9		ng/L	1.91		73.4	50-150			
Perfluoroheptanoic acid (PFHpA)	1.63	1.9		ng/L	1.91		85.4	50-150			

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	DL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B333034 - EPA 533											
LCS (B333034-BS1)											
					Prepared: 03/08/23 Analyzed: 03/12/23						
Perfluorooctanoic acid (PFOA)	1.50	1.9		ng/L	1.91		78.5	50-150			
Perfluorooctanesulfonic acid (PFOS)	1.47	1.9		ng/L	1.77		83.0	50-150			
Perfluorononanoic acid (PFNA)	1.70	1.9		ng/L	1.91		89.0	50-150			
Surrogate: M2-4:2FTS	7960			ng/L	9380		84.8	50-200			
Surrogate: M2-8:2FTS	8620			ng/L	9600		89.8	50-200			
Surrogate: MPFBA	13400			ng/L	10000		134	50-200			
Surrogate: M3HFPO-DA	55.7			ng/L	38.3		145	50-200			
Surrogate: M6PFDA	12300			ng/L	10000		123	50-200			
Surrogate: M3PFBS	11800			ng/L	9320		126	50-200			
Surrogate: M7PFUnA	12300			ng/L	10000		123	50-200			
Surrogate: M2-6:2FTS	8640			ng/L	9510		90.9	50-200			
Surrogate: M5PFPeA	13200			ng/L	10000		132	50-200			
Surrogate: M5PFHxA	13300			ng/L	10000		133	50-200			
Surrogate: M3PFHxS	11800			ng/L	9480		125	50-200			
Surrogate: M4PFHpA	12900			ng/L	10000		129	50-200			
Surrogate: M8PFOA	13300			ng/L	10000		133	50-200			
Surrogate: M8PFOS	12000			ng/L	9590		125	50-200			
Surrogate: M9PFNA	12600			ng/L	10000		126	50-200			
Surrogate: MPFDoA	12900			ng/L	10000		129	50-200			
LCS Dup (B333034-BS1)											
					Prepared: 03/08/23 Analyzed: 03/12/23						
Perfluorobutanoic acid (PFBA)	1.47	1.8		ng/L	1.84		79.8	50-150	3.80	50	
Perfluorobutanesulfonic acid (PFBS)	1.39	1.8		ng/L	1.63		85.2	50-150	9.11	50	
Perfluoropentanoic acid (PFPeA)	1.42	1.8		ng/L	1.84		77.3	50-150	5.66	50	
Perfluorohexanoic acid (PFHxA)	1.56	1.8		ng/L	1.84		84.5	50-150	4.19	50	
11Cl-PF3OUdS (F53B Major)	1.28	1.8		ng/L	1.73		73.5	50-150	11.8	50	
9Cl-PF3ONS (F53B Minor)	1.45	1.8		ng/L	1.72		84.3	50-150	2.48	50	
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	1.38	1.8		ng/L	1.73		79.8	50-150	5.45	50	
Hexafluoropropylene oxide dimer acid (HFPO-DA)	1.14	1.8		ng/L	1.84		61.9	50-150	24.8	50	
8:2 Fluorotelomersulfonic acid (8:2FTS A)	1.34	1.8		ng/L	1.77		76.1	50-150	2.37	50	
Perfluorodecanoic acid (PFDA)	1.43	1.8		ng/L	1.84		77.6	50-150	3.04	50	
Perfluorododecanoic acid (PFDoA)	1.46	1.8		ng/L	1.84		79.5	50-150	8.24	50	
Perfluoro(2-ethoxyethane)sulfonic acid (PFEEESA)	1.49	1.8		ng/L	1.64		90.9	50-150	2.66	50	
Perfluoroheptanesulfonic acid (PFHpS)	1.63	1.8		ng/L	1.76		92.5	50-150	12.1	50	
4:2 Fluorotelomersulfonic acid (4:2FTS A)	1.35	1.8		ng/L	1.72		78.2	50-150	2.73	50	
Perfluorohexanesulfonic acid (PFHxS)	1.33	1.8		ng/L	1.68		79.0	50-150	6.47	50	
Perfluoro-4-oxapentanoic acid (PFMPA)	1.41	1.8		ng/L	1.84		76.5	50-150	3.13	50	
Perfluoro-5-oxahexanoic acid (PFMBA)	1.39	1.8		ng/L	1.84		75.8	50-150	4.97	50	
6:2 Fluorotelomersulfonic acid (6:2FTS A)	1.59	1.8		ng/L	1.75		91.0	50-150	3.93	50	
Perfluoropentanesulfonic acid (PFPeS)	1.47	1.8		ng/L	1.73		85.2	50-150	4.42	50	
Perfluoroundecanoic acid (PFUnA)	1.42	1.8		ng/L	1.84		77.2	50-150	4.37	50	
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	1.52	1.8		ng/L	1.84		82.7	50-150	7.91	50	
Perfluoroheptanoic acid (PFHpA)	1.53	1.8		ng/L	1.84		82.9	50-150	6.85	50	
Perfluorooctanoic acid (PFOA)	1.45	1.8		ng/L	1.84		78.8	50-150	3.62	50	
Perfluorooctanesulfonic acid (PFOS)	1.45	1.8		ng/L	1.70		85.4	50-150	1.03	50	
Perfluorononanoic acid (PFNA)	1.57	1.8		ng/L	1.84		85.5	50-150	7.90	50	
Surrogate: M2-4:2FTS	8050			ng/L	9380		85.8	50-200			
Surrogate: M2-8:2FTS	8510			ng/L	9600		88.6	50-200			

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	DL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch B333034 - EPA 533
LCS Dup (B333034-BSD1)

Prepared: 03/08/23 Analyzed: 03/12/23

Surrogate: MPFBA	12800			ng/L	10000		128	50-200			
Surrogate: M3HFPO-DA	58.4			ng/L	36.8		159	50-200			
Surrogate: M6PFDA	12900			ng/L	10000		129	50-200			
Surrogate: M3PFBS	11000			ng/L	9320		118	50-200			
Surrogate: M7PFUnA	12000			ng/L	10000		120	50-200			
Surrogate: M2-6:2FTS	9160			ng/L	9510		96.4	50-200			
Surrogate: M5PFPeA	12800			ng/L	10000		128	50-200			
Surrogate: M5PFHxA	12300			ng/L	10000		123	50-200			
Surrogate: M3PFHxS	11300			ng/L	9480		119	50-200			
Surrogate: M4PFHpA	12700			ng/L	10000		127	50-200			
Surrogate: M8PFOA	12400			ng/L	10000		124	50-200			
Surrogate: M8PFOS	10600			ng/L	9590		111	50-200			
Surrogate: M9PFNA	12600			ng/L	10000		126	50-200			
Surrogate: MPFDoA	12100			ng/L	10000		121	50-200			

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
DL	Method Detection Limit
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.
L-01	Laboratory fortified blank/laboratory control sample recovery outside of control limits. Data validation is not affected since all results are "not detected" for all samples in this batch for this compound and bias is on the high side.
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-18	Duplicate analysis confirmed Extracted Internal Standard failure due to matrix effects.
S-29	Extracted Internal Standard is outside of control limits.

CERTIFICATIONS
Certified Analyses included in this Report

Analyte	Certifications
EPA 533 in Drinking Water	
Perfluorobutanoic acid (PFBA)	NH,NY,VT-DW,ME,NJ,PA
Perfluorobutanesulfonic acid (PFBS)	NH,NY,VT-DW,ME,NJ,PA
Perfluoropentanoic acid (PFPeA)	NH,NY,VT-DW,ME,NJ,PA
Perfluorohexanoic acid (PFHxA)	NH,NY,VT-DW,ME,NJ,PA
11Cl-PF3OUdS (F53B Major)	NH,NY,VT-DW,ME,NJ,PA
9Cl-PF3ONS (F53B Minor)	NH,NY,VT-DW,ME,NJ,PA
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	NH,NY,VT-DW,ME,NJ,PA
Hexafluoropropylene oxide dimer acid (HFPO-DA)	NH,NY,VT-DW,ME,NJ,PA
8:2 Fluorotelomersulfonic acid (8:2FTS A)	NH,NY,VT-DW,ME,NJ,PA
Perfluorodecanoic acid (PFDA)	NH,NY,VT-DW,ME,NJ,PA
Perfluorododecanoic acid (PFDoA)	NH,NY,VT-DW,ME,NJ,PA
Perfluoro(2-ethoxyethane)sulfonic acid (PFEEESA)	NH,NY,VT-DW,ME,NJ,PA
Perfluoroheptanesulfonic acid (PFHpS)	NH,NY,VT-DW,ME,NJ,PA
4:2 Fluorotelomersulfonic acid (4:2FTS A)	NH,NY,VT-DW,ME,NJ,PA
Perfluorohexanesulfonic acid (PFHxS)	NH,NY,VT-DW,ME,NJ,PA
Perfluoro-4-oxapentanoic acid (PFMPA)	NH,NY,VT-DW,ME,NJ,PA
Perfluoro-5-oxahexanoic acid (PFMBA)	NH,NY,VT-DW,ME,NJ,PA
6:2 Fluorotelomersulfonic acid (6:2FTS A)	NH,NY,VT-DW,ME,NJ,PA
Perfluoropetanesulfonic acid (PFPeS)	NH,NY,VT-DW,ME,NJ,PA
Perfluoroundecanoic acid (PFUnA)	NH,NY,VT-DW,ME,NJ,PA
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	NH,NY,VT-DW,ME,NJ,PA
Perfluoroheptanoic acid (PFHpA)	NH,NY,VT-DW,ME,NJ,PA
Perfluorooctanoic acid (PFOA)	NH,NY,VT-DW,ME,NJ,PA
Perfluorooctanesulfonic acid (PFOS)	NH,NY,VT-DW,ME,NJ,PA
Perfluorononanoic acid (PFNA)	NH,NY,VT-DW,ME,NJ,PA

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	04/1/2023
NH	New Hampshire Environmental Lab	2516 NELAP	02/5/2024
NJ	New Jersey DEP	MA007 NELAP	06/30/2023
VT-DW	Vermont Department of Health Drinking Water	VT-255716	06/12/2023
ME	State of Maine	MA00100	06/9/2023
PA	Commonwealth of Pennsylvania DEP	68-05812	06/30/2023

CHAIN-OF-CUSTODY Analytical Request Document

LAB USE ONLY - Affix Workorder/Login Label Here or List/Pace Workorder Number or
MTJL Log-in Number Here

23B1419
RJM
ALL SHADED AREAS are for LAB USE ONLY

Container Preservative Type **
 Lab Project Manager:
 ** Preservative Types: (1) nitric acid, (2) sulfuric acid, (3) hydrochloric acid, (4) sodium hydroxide, (5) zinc acetate, (6) methanol, (7) sodium bisulfate, (8) sodium thiosulfate, (9) hexane, (10) ascorbic acid, (B) ammonium sulfate, (C) ammonium hydroxide, (D) TSP, (U) Unpreserved (O) Other ammonium acetate

Analyses

Lab Sample Receipt Checklist:	Y	N	NA
Custody Seals Present/Intact	Y	N	NA
Custody Signatures Present	Y	N	NA
Collector Signatures Present	Y	N	NA
Bottles Intact	Y	N	NA
Correct Bottles	Y	N	NA
Sufficient Volume	Y	N	NA
Samples Received on Ice	Y	N	NA
VOA - Headspace Acceptable	Y	N	NA
USDA Regulated Soils	Y	N	NA
Samples in Holding Time	Y	N	NA
Residual Chlorine Present	Y	N	NA
Cl Strips:	Y	N	NA
Sample pH Acceptable	Y	N	NA
pH Strips:	Y	N	NA
Sulfide Present	Y	N	NA
Lead Acetate Strips:	Y	N	NA
LAB USE ONLY:			
Lab Sample # / Comments:			

PFAS Method 533

Customer Sample ID	Matrix *	Comp / Grab	Collected (or Composite Start) Date	Time	Composite End Date	Time	Res Cl	# of Ctns
Influent	DW	G	2-9-23	1225				2
A-25				1220				
A-50				1215				
A-25				1210				
Mid				1205				
B-25				1200				
B-50				1155				
B-25				1150				
Effluent				1145				
Duplicate								

Customer Remarks / Special Conditions / Possible Hazards:
 Perform MS/MSD on Mid Sample
 CAT B Deliverables

Wet Blue Dry None
 Type of Ice Used: Packing Material Used:

SHOOTS HOLDS PRESENT (<22 hours): Y N N/A

Lab Tracking #:

Samples received via:
 FEDEX UPS Client Courier Pace Courier

LAB Sample Temperature Info:
 Temp Blank Received: Y N NA
 Therm ID#:
 Cooler 1 Temp Upon Receipt: °C
 Cooler 1 Therm Corr. Factor: °C
 Cooler 1 Corrected Temp: °C
 Comments:

Received by/Company: (Signature)
 T. K... PACE

Received by/Company: (Signature)
 PACE

Received by/Company: (Signature)
 Dan Bell... PACE

Received by/Company: (Signature)
 Dan Bell... PACE

Date/Time: 2-9-23 1456
 Date/Time: 2-10-23 1730
 Date/Time: 2-10-23 1520
 Date/Time: 2-10-23 1635

Account: 1456
 Template: 1730
 Prelogin: 1520
 PM: 1635
 PB: 1635

Trip Blank Received: Y N NA
 HCL MeOH TSP Other

Non Conformance(s): YES / NO
 Page: of:

39 Spruce St.
 East Longmeadow, MA. 01028
 P: 413-525-2332
 F: 413-525-6405
 www.pacelabs.com

Log In Back-Sheet

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



Client PES (DEC)
 Project Spill # 336089 (Kroll)
 MCP/RCP Required no
 Deliverable Package Req. none
 Location Mount Airy Rd, New Windsor NY
 PWSID# (When Applicable) nb
 Arrival Method:
 Courier Fed Ex Walk In Other
 Received By / Date / Time CH 2/10/23 1635
 Back-Sheet By / Date / Time MCM 2/13/23 1935
 Temperature Method Gun # 3
 Temp < 6° C Actual Temperature 58
 Rush Samples: Yes / No Notify No
 Short Hold: Yes / No Notify No

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

Notes regarding Samples/COC outside of SOP:

Container (Circle when applicable)	UnP	HCl	HNO3	H2SO4	NaOH	Trizma	Na2S2O3	Other Preservative	
1L Amber Plastic									
500 mL Amber Plastic									
250 mL Amber <u>Plastic</u>								24 (ammonia acetate)	
Other Amber Clear Plastic									
16oz Amber Clear									
8oz Amber Clear									
4oz Amber Clear									
2oz Amber Clear									
Col/Bacteria									
Flashpoint									
Plastic Bag									
SOC Kit									
Perchlorate									
Encore									
Frozen									
	Proper Headspace	UnP	HCl	MeOH	Bisulfate	DI	Thiosulfate	Sulfuric	Other
Vials									