

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

Division of Environmental Remediation, Office of the Director
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www.dec.ny.gov

June 4, 2024

Mr. Stephen A. Bedetti, 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 Stephen A. Bedetti:

The New York State Department of Environmental Conservation (DEC) is providing you with a copy of analytical results derived from the May 15, 2024 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.

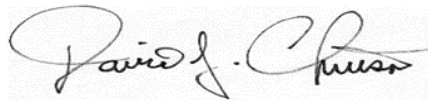
Specifically, the samples were analyzed for a total of twenty-five per- and polyfluoroalkyl substances (PFAS), including Perfluorooctanoic acid (PFOA) and Perfluorooctanesulfonic acid (PFOS). Data received for the 25 PFAS list analysis has been attached. During this event, sampling for the 25 PFAS list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

- pre-treatment (raw untreated water), which has a “INFLUENT” 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 August 2024. In addition, a GAC exchange is currently being scheduled, and is expected to occur before the August 2024 Delaware Aqueduct shutdown.

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 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
Project Director
Office of the Director
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
 - M. Miller, EAR
 - I. Hoffman, EAR
 - D. Harrington, NYSDEC
 - M. Cruden, NYSDEC
 - B. Rung, NYSDEC
 - D. Pollack, Region 3 DER

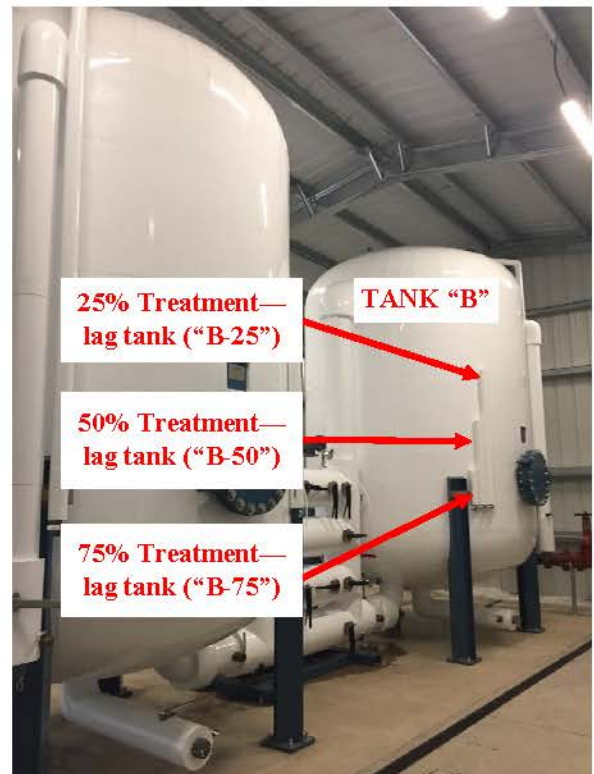
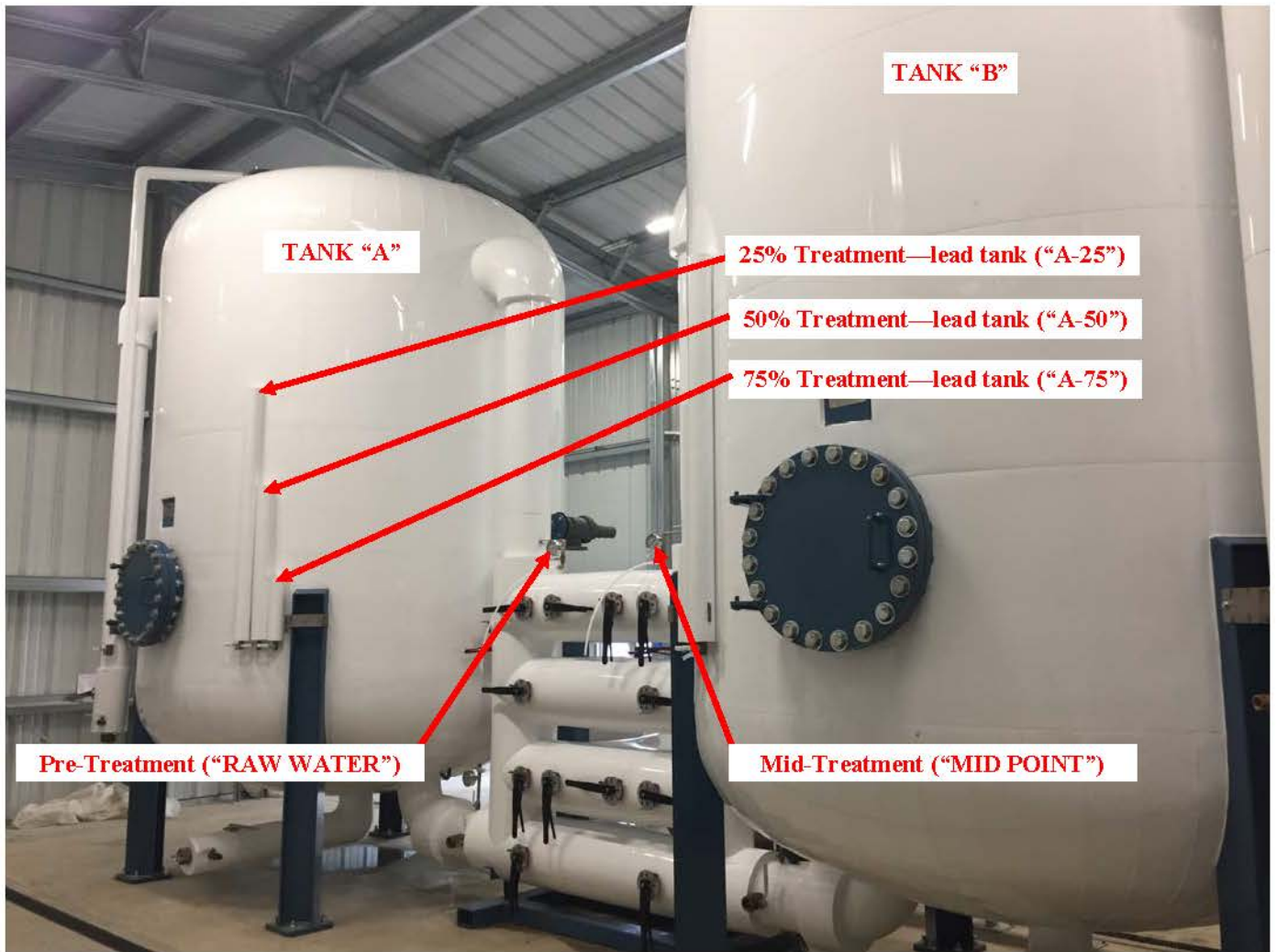


Figure 1—Kroll Well GAC Treatment System
Sampling Locations

June 3, 2024

Ian Hofmann
NYDEC_Environmental Assessment & Remediation
225 Atlantic Avenue
Patchogue, NY 11772

Project Location: 351 Mount Airy Road, New Windsor, NY
Client Job Number:
Project Number: 336089
Laboratory Work Order Number: 24E2345

Enclosed are results of analyses for samples as received by the laboratory on May 17, 2024. If you have any questions concerning this report, please feel free to contact me.

Sincerely,



Kyle K. Stuckey
Project Manager

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

 NYDEC_Environmental Assessment & Remediation
 225 Atlantic Avenue
 Patchogue, NY 11772
 ATTN: Ian Hofmann

REPORT DATE: 6/3/2024

PURCHASE ORDER NUMBER: 149239

PROJECT NUMBER: 336089

ANALYTICAL SUMMARY

WORK ORDER NUMBER: 24E2345

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

PROJECT LOCATION: 351 Mount Airy Road, New Windsor, NY

FIELD SAMPLE #	LAB ID:	MATRIX	SAMPLE DESCRIPTION	TEST	SUB LAB
Influent	24E2345-01	Drinking Water		EPA 533	
A-25	24E2345-02	Drinking Water		EPA 533	
A-50	24E2345-03	Drinking Water		EPA 533	
A-75	24E2345-04	Drinking Water		EPA 533	
MID	24E2345-05	Drinking Water		EPA 533	
B-25	24E2345-06	Drinking Water		EPA 533	
B-50	24E2345-07	Drinking Water		EPA 533	
B-75	24E2345-08	Drinking Water		EPA 533	
Effluent	24E2345-09	Drinking Water		EPA 533	
Duplicate	24E2345-10	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:

Perfluoro(2-ethoxyethane)sulfonic
B374693-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:

Perfluoro(2-ethoxyethane)sulfonic
B374693-MS1

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
24E2345-01[Influent], B374881-BLK1

PF-18

Re-analysis confirmed Extracted Internal Standard failure due to matrix effects.

Analyte & Samples(s) Qualified:

M2-4:2FTS
24E2345-04[A-75], 24E2345-05[MID], 24E2345-06[B-25], 24E2345-07RE1[B-50], 24E2345-08RE1[B-75], 24E2345-09[Effluent], 24E2345-10[Duplicate]

M4PFHpA

24E2345-09[Effluent]

M5PFHxA

24E2345-09[Effluent]

M6PFDA

24E2345-09[Effluent]

M8PFOA

24E2345-09[Effluent]

M9PFNA

24E2345-09[Effluent]

S-29

Extracted Internal Standard is outside of control limits.

Analyte & Samples(s) Qualified:

M2-4:2FTS
24E2345-03RE1[A-50], S105148-CCV2, S105148-CCV3

M2-6:2FTS
B374693-BS1, B374881-BS1, S105148-CCV2, S105148-CCV3

M2-8:2FTS
S105148-CCV2, S105148-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.



Lisa A. Worthington
Technical Representative

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

Project Location: 351 Mount Airy Road, New Wind

Sample Description:

Work Order: 24E2345

Date Received: 5/17/2024

Field Sample #: Influent

Sampled: 5/15/2024 10:01

Sample ID: 24E2345-01

Sample Matrix: Drinking Water

Semivolatile Organic Compounds by - LC/MS-MS

Analyte	Results	RL	MCL/SMCL			Units	DF	Flag/Qual	Method	Date	Date/Time	Analyst
			DL	MA	ORSG					Prepared	Analyzed	
Perfluorobutanoic acid (PFBA)	3.3	2.0	0.65			ng/L	1	EPA 533	5/21/24	5/28/24 22:39	QNW	
Perfluorobutanesulfonic acid (PFBS)	6.8	2.0	0.60			ng/L	1	EPA 533	5/21/24	5/28/24 22:39	QNW	
Perfluoropentanoic acid (PFPeA)	2.7	2.0	0.59			ng/L	1	EPA 533	5/21/24	5/28/24 22:39	QNW	
Perfluorohexanoic acid (PFHxA)	3.0	2.0	0.64			ng/L	1	EPA 533	5/21/24	5/28/24 22:39	QNW	
11Cl-PF3OUdS (F53B Major)	ND	2.0	0.75			ng/L	1	EPA 533	5/21/24	5/28/24 22:39	QNW	
9Cl-PF3ONS (F53B Minor)	ND	2.0	0.76			ng/L	1	EPA 533	5/21/24	5/28/24 22:39	QNW	
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	ND	2.0	0.55			ng/L	1	EPA 533	5/21/24	5/28/24 22:39	QNW	
Hexafluoropropylene oxide dimer acid (HFPO-DA)	ND	2.0	1.0			ng/L	1	EPA 533	5/21/24	5/28/24 22:39	QNW	
8:2 Fluorotelomersulfonic acid (8:2FTS A)	ND	2.0	0.65			ng/L	1	EPA 533	5/21/24	5/28/24 22:39	QNW	
Perfluorodecanoic acid (PFDA)	ND	2.0	0.68			ng/L	1	EPA 533	5/21/24	5/28/24 22:39	QNW	
Perfluorododecanoic acid (PFDoA)	ND	2.0	0.84			ng/L	1	EPA 533	5/21/24	5/28/24 22:39	QNW	
Perfluoro(2-ethoxyethane)sulfonic acid (PFEEESA)	ND	2.0	0.59			ng/L	1	EPA 533	5/21/24	5/28/24 22:39	QNW	
Perfluoroheptanesulfonic acid (PFHpS)	ND	2.0	0.69			ng/L	1	EPA 533	5/21/24	5/28/24 22:39	QNW	
4:2 Fluorotelomersulfonic acid (4:2FTS A)	ND	2.0	0.52			ng/L	1	EPA 533	5/21/24	5/28/24 22:39	QNW	
Perfluorohexanesulfonic acid (PFHxS)	1.8	2.0	0.69			ng/L	1	J EPA 533	5/21/24	5/28/24 22:39	QNW	
Perfluoro-4-oxapentanoic acid (PFMPA)	ND	2.0	0.57			ng/L	1	EPA 533	5/21/24	5/28/24 22:39	QNW	
Perfluoro-5-oxahexanoic acid (PFMBA)	ND	2.0	0.53			ng/L	1	EPA 533	5/21/24	5/28/24 22:39	QNW	
6:2 Fluorotelomersulfonic acid (6:2FTS A)	ND	2.0	1.5			ng/L	1	EPA 533	5/21/24	5/28/24 22:39	QNW	
Perfluoropentanesulfonic acid (PFPeS)	ND	2.0	0.67			ng/L	1	EPA 533	5/21/24	5/28/24 22:39	QNW	
Perfluoroundecanoic acid (PFUnA)	ND	2.0	0.71			ng/L	1	EPA 533	5/21/24	5/28/24 22:39	QNW	
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	ND	2.0	0.70			ng/L	1	EPA 533	5/21/24	5/28/24 22:39	QNW	
Perfluoroheptanoic acid (PFHpA)	2.2	2.0	0.56			ng/L	1	EPA 533	5/21/24	5/28/24 22:39	QNW	
Perfluorooctanoic acid (PFOA)	8.1	2.0	0.56			ng/L	1	EPA 533	5/21/24	5/28/24 22:39	QNW	
Perfluorooctanesulfonic acid (PFOS)	9.5	2.0	0.72			ng/L	1	EPA 533	5/21/24	5/28/24 22:39	QNW	
Perfluorononanoic acid (PFNA)	ND	2.0	1.0			ng/L	1	EPA 533	5/21/24	5/28/24 22:39	QNW	

Surrogates	% Recovery	Recovery Limits	Flag/Qual
M2-4:2FTS	90.2	50-200	
M2-8:2FTS	130	50-200	
MPFBA	105	50-200	
M3HFPO-DA	106	50-200	
M6PFDA	103	50-200	
M3PFBS	118	50-200	
M7PFUnA	102	50-200	
M2-6:2FTS	243	50-200	PF-17
M5PFPeA	116	50-200	
M5PFHxA	90.9	50-200	
M3PFHxS	127	50-200	
M4PFHpA	93.6	50-200	
M8PFOA	102	50-200	
M8PFOS	121	50-200	
M9PFNA	103	50-200	
MPFDoA	107	50-200	

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Project Location: 351 Mount Airy Road, New Wind

Sample Description:

Work Order: 24E2345

Date Received: 5/17/2024

Field Sample #: A-25

Sampled: 5/15/2024 09:49

Sample ID: 24E2345-02

Sample Matrix: Drinking Water

Semivolatile Organic Compounds by - LC/MS-MS

Analyte	Results	RL	MCL/SMCL			Units	DF	Flag/Qual	Method	Date	Date/Time	Analyst
			DL	MA	ORSG					Prepared	Analyzed	
Perfluorobutanoic acid (PFBA)	4.1	1.7	0.57			ng/L	1	EPA 533	5/21/24	5/28/24 22:46	QNW	
Perfluorobutanesulfonic acid (PFBS)	7.3	1.7	0.53			ng/L	1	EPA 533	5/21/24	5/28/24 22:46	QNW	
Perfluoropentanoic acid (PFPeA)	3.6	1.7	0.52			ng/L	1	EPA 533	5/21/24	5/28/24 22:46	QNW	
Perfluorohexanoic acid (PFHxA)	3.6	1.7	0.56			ng/L	1	EPA 533	5/21/24	5/28/24 22:46	QNW	
11Cl-PF3OUdS (F53B Major)	ND	1.7	0.66			ng/L	1	EPA 533	5/21/24	5/28/24 22:46	QNW	
9Cl-PF3ONS (F53B Minor)	ND	1.7	0.67			ng/L	1	EPA 533	5/21/24	5/28/24 22:46	QNW	
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	ND	1.7	0.48			ng/L	1	EPA 533	5/21/24	5/28/24 22:46	QNW	
Hexafluoropropylene oxide dimer acid (HFPO-DA)	ND	1.7	0.89			ng/L	1	EPA 533	5/21/24	5/28/24 22:46	QNW	
8:2 Fluorotelomersulfonic acid (8:2FTS A)	ND	1.7	0.57			ng/L	1	EPA 533	5/21/24	5/28/24 22:46	QNW	
Perfluorodecanoic acid (PFDA)	ND	1.7	0.60			ng/L	1	EPA 533	5/21/24	5/28/24 22:46	QNW	
Perfluorododecanoic acid (PFDoA)	ND	1.7	0.74			ng/L	1	EPA 533	5/21/24	5/28/24 22:46	QNW	
Perfluoro(2-ethoxyethane)sulfonic acid (PFEEESA)	ND	1.7	0.52			ng/L	1	EPA 533	5/21/24	5/28/24 22:46	QNW	
Perfluoroheptanesulfonic acid (PFHpS)	ND	1.7	0.61			ng/L	1	EPA 533	5/21/24	5/28/24 22:46	QNW	
4:2 Fluorotelomersulfonic acid (4:2FTS A)	ND	1.7	0.46			ng/L	1	EPA 533	5/21/24	5/28/24 22:46	QNW	
Perfluorohexanesulfonic acid (PFHxS)	1.6	1.7	0.61			ng/L	1	J EPA 533	5/21/24	5/28/24 22:46	QNW	
Perfluoro-4-oxapentanoic acid (PFMPA)	ND	1.7	0.51			ng/L	1	EPA 533	5/21/24	5/28/24 22:46	QNW	
Perfluoro-5-oxahexanoic acid (PFMBA)	ND	1.7	0.46			ng/L	1	EPA 533	5/21/24	5/28/24 22:46	QNW	
6:2 Fluorotelomersulfonic acid (6:2FTS A)	ND	1.7	1.3			ng/L	1	EPA 533	5/21/24	5/28/24 22:46	QNW	
Perfluoropentanesulfonic acid (PFPeS)	ND	1.7	0.59			ng/L	1	EPA 533	5/21/24	5/28/24 22:46	QNW	
Perfluoroundecanoic acid (PFUnA)	ND	1.7	0.62			ng/L	1	EPA 533	5/21/24	5/28/24 22:46	QNW	
Nonfluoro-3,6-dioxaheptanoic acid (NFDHA)	ND	1.7	0.62			ng/L	1	EPA 533	5/21/24	5/28/24 22:46	QNW	
Perfluoroheptanoic acid (PFHpA)	2.4	1.7	0.49			ng/L	1	EPA 533	5/21/24	5/28/24 22:46	QNW	
Perfluorooctanoic acid (PFOA)	7.9	1.7	0.50			ng/L	1	EPA 533	5/21/24	5/28/24 22:46	QNW	
Perfluorooctanesulfonic acid (PFOS)	4.6	1.7	0.64			ng/L	1	EPA 533	5/21/24	5/28/24 22:46	QNW	
Perfluorononanoic acid (PFNA)	ND	1.7	0.89			ng/L	1	EPA 533	5/21/24	5/28/24 22:46	QNW	

Surrogates	% Recovery	Recovery Limits	Flag/Qual
M2-4:2FTS	60.0	50-200	5/28/24 22:46
M2-8:2FTS	75.0	50-200	5/28/24 22:46
MPFBA	87.8	50-200	5/28/24 22:46
M3HFPO-DA	97.9	50-200	5/28/24 22:46
M6PFDA	92.9	50-200	5/28/24 22:46
M3PFBS	99.9	50-200	5/28/24 22:46
M7PFUnA	99.3	50-200	5/28/24 22:46
M2-6:2FTS	157	50-200	5/28/24 22:46
M5PFPeA	99.9	50-200	5/28/24 22:46
M5PFHxA	82.1	50-200	5/28/24 22:46
M3PFHxS	106	50-200	5/28/24 22:46
M4PFHpA	87.2	50-200	5/28/24 22:46
M8PFOA	91.9	50-200	5/28/24 22:46
M8PFOS	107	50-200	5/28/24 22:46
M9PFNA	91.6	50-200	5/28/24 22:46
MPFDoA	104	50-200	5/28/24 22:46

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Project Location: 351 Mount Airy Road, New Wind

Sample Description:

Work Order: 24E2345

Date Received: 5/17/2024

Field Sample #: A-50

Sampled: 5/15/2024 09:50

Sample ID: 24E2345-03

Sample Matrix: Drinking Water

Semivolatile Organic Compounds by - LC/MS-MS

Analyte	Results	RL	MCL/SMCL			Units	DF	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
			DL	MA	ORSG							
Perfluorobutanoic acid (PFBA)	4.6	1.8	0.58			ng/L	1		EPA 533	5/30/24	5/31/24 15:10	AMS
Perfluorobutanesulfonic acid (PFBS)	7.2	1.8	0.53			ng/L	1		EPA 533	5/30/24	5/31/24 15:10	AMS
Perfluoropentanoic acid (PFPeA)	3.9	1.8	0.52			ng/L	1		EPA 533	5/30/24	5/31/24 15:10	AMS
Perfluorohexanoic acid (PFHxA)	4.1	1.8	0.57			ng/L	1		EPA 533	5/30/24	5/31/24 15:10	AMS
11Cl-PF3OUdS (F53B Major)	ND	1.8	0.67			ng/L	1		EPA 533	5/30/24	5/31/24 15:10	AMS
9Cl-PF3ONS (F53B Minor)	ND	1.8	0.68			ng/L	1		EPA 533	5/30/24	5/31/24 15:10	AMS
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	ND	1.8	0.49			ng/L	1		EPA 533	5/30/24	5/31/24 15:10	AMS
Hexafluoropropylene oxide dimer acid (HFPO-DA)	ND	1.8	0.90			ng/L	1		EPA 533	5/30/24	5/31/24 15:10	AMS
8:2 Fluorotelomersulfonic acid (8:2FTS A)	ND	1.8	0.58			ng/L	1		EPA 533	5/30/24	5/31/24 15:10	AMS
Perfluorodecanoic acid (PFDA)	ND	1.8	0.60			ng/L	1		EPA 533	5/30/24	5/31/24 15:10	AMS
Perfluorododecanoic acid (PFDoA)	ND	1.8	0.75			ng/L	1		EPA 533	5/30/24	5/31/24 15:10	AMS
Perfluoro(2-ethoxyethane)sulfonic acid (PFEEESA)	ND	1.8	0.53			ng/L	1		EPA 533	5/30/24	5/31/24 15:10	AMS
Perfluoroheptanesulfonic acid (PFHpS)	ND	1.8	0.62			ng/L	1		EPA 533	5/30/24	5/31/24 15:10	AMS
4:2 Fluorotelomersulfonic acid (4:2FTS A)	ND	1.8	0.46			ng/L	1		EPA 533	5/30/24	5/31/24 15:10	AMS
Perfluorohexanesulfonic acid (PFHxS)	0.80	1.8	0.62			ng/L	1	J	EPA 533	5/30/24	5/31/24 15:10	AMS
Perfluoro-4-oxapentanoic acid (PFMPA)	ND	1.8	0.51			ng/L	1		EPA 533	5/30/24	5/31/24 15:10	AMS
Perfluoro-5-oxahexanoic acid (PFMBA)	ND	1.8	0.47			ng/L	1		EPA 533	5/30/24	5/31/24 15:10	AMS
6:2 Fluorotelomersulfonic acid (6:2FTS A)	ND	1.8	1.3			ng/L	1		EPA 533	5/30/24	5/31/24 15:10	AMS
Perfluoropentanesulfonic acid (PFPeS)	ND	1.8	0.59			ng/L	1		EPA 533	5/30/24	5/31/24 15:10	AMS
Perfluoroundecanoic acid (PFUnA)	ND	1.8	0.63			ng/L	1		EPA 533	5/30/24	5/31/24 15:10	AMS
Nonfluoro-3,6-dioxaheptanoic acid (NFDHA)	ND	1.8	0.62			ng/L	1		EPA 533	5/30/24	5/31/24 15:10	AMS
Perfluoroheptanoic acid (PFHpA)	2.0	1.8	0.50			ng/L	1		EPA 533	5/30/24	5/31/24 15:10	AMS
Perfluorooctanoic acid (PFOA)	4.6	1.8	0.50			ng/L	1		EPA 533	5/30/24	5/31/24 15:10	AMS
Perfluorooctanesulfonic acid (PFOS)	1.1	1.8	0.64			ng/L	1	J	EPA 533	5/30/24	5/31/24 15:10	AMS
Perfluorononanoic acid (PFNA)	ND	1.8	0.90			ng/L	1		EPA 533	5/30/24	5/31/24 15:10	AMS

Surrogates	% Recovery	Recovery Limits	Flag/Qual
M2-4:2FTS	27.2 *	50-200	S-29
M2-8:2FTS	52.0	50-200	
MPFBA	75.6	50-200	
M3HFPO-DA	75.6	50-200	
M6PFDA	76.3	50-200	
M3PFBS	67.3	50-200	
M7PFUnA	80.2	50-200	
M2-6:2FTS	60.2	50-200	
M5PFPeA	85.0	50-200	
M5PFHxA	68.5	50-200	
M3PFHxS	77.7	50-200	
M4PFHpA	68.1	50-200	
M8PFOA	72.9	50-200	
M8PFOS	82.1	50-200	
M9PFNA	73.7	50-200	
MPFDoA	76.5	50-200	

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

Project Location: 351 Mount Airy Road, New Wind

Sample Description:

Work Order: 24E2345

Date Received: 5/17/2024

Field Sample #: A-75

Sampled: 5/15/2024 09:52

Sample ID: 24E2345-04

Sample Matrix: Drinking Water

Semivolatile Organic Compounds by - LC/MS-MS

Analyte	Results	RL	MCL/SMCL			Units	DF	Flag/Qual	Method	Date	Date/Time	Analyst
			DL	MA	ORSG					Prepared	Analyzed	
Perfluorobutanoic acid (PFBA)	4.9	1.8	0.58			ng/L	1		EPA 533	5/20/24	5/28/24 19:38	QNW
Perfluorobutanesulfonic acid (PFBS)	5.5	1.8	0.53			ng/L	1		EPA 533	5/20/24	5/28/24 19:38	QNW
Perfluoropentanoic acid (PFPeA)	4.5	1.8	0.52			ng/L	1		EPA 533	5/20/24	5/28/24 19:38	QNW
Perfluorohexanoic acid (PFHxA)	4.6	1.8	0.57			ng/L	1		EPA 533	5/20/24	5/28/24 19:38	QNW
11Cl-PF3OUdS (F53B Major)	ND	1.8	0.67			ng/L	1		EPA 533	5/20/24	5/28/24 19:38	QNW
9Cl-PF3ONS (F53B Minor)	ND	1.8	0.68			ng/L	1		EPA 533	5/20/24	5/28/24 19:38	QNW
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	ND	1.8	0.49			ng/L	1		EPA 533	5/20/24	5/28/24 19:38	QNW
Hexafluoropropylene oxide dimer acid (HFPO-DA)	ND	1.8	0.90			ng/L	1		EPA 533	5/20/24	5/28/24 19:38	QNW
8:2 Fluorotelomersulfonic acid (8:2FTS A)	ND	1.8	0.58			ng/L	1		EPA 533	5/20/24	5/28/24 19:38	QNW
Perfluorodecanoic acid (PFDA)	ND	1.8	0.60			ng/L	1		EPA 533	5/20/24	5/28/24 19:38	QNW
Perfluorododecanoic acid (PFDoA)	ND	1.8	0.75			ng/L	1		EPA 533	5/20/24	5/28/24 19:38	QNW
Perfluoro(2-ethoxyethane)sulfonic acid (PFEEESA)	ND	1.8	0.53			ng/L	1		EPA 533	5/20/24	5/28/24 19:38	QNW
Perfluoroheptanesulfonic acid (PFHpS)	ND	1.8	0.62			ng/L	1		EPA 533	5/20/24	5/28/24 19:38	QNW
4:2 Fluorotelomersulfonic acid (4:2FTS A)	ND	1.8	0.46			ng/L	1		EPA 533	5/20/24	5/28/24 19:38	QNW
Perfluorohexanesulfonic acid (PFHxS)	ND	1.8	0.62			ng/L	1		EPA 533	5/20/24	5/28/24 19:38	QNW
Perfluoro-4-oxapentanoic acid (PFMPA)	ND	1.8	0.51			ng/L	1		EPA 533	5/20/24	5/28/24 19:38	QNW
Perfluoro-5-oxahexanoic acid (PFMBA)	ND	1.8	0.47			ng/L	1		EPA 533	5/20/24	5/28/24 19:38	QNW
6:2 Fluorotelomersulfonic acid (6:2FTS A)	ND	1.8	1.3			ng/L	1		EPA 533	5/20/24	5/28/24 19:38	QNW
Perfluoropentanesulfonic acid (PFPeS)	ND	1.8	0.59			ng/L	1		EPA 533	5/20/24	5/28/24 19:38	QNW
Perfluoroundecanoic acid (PFUnA)	ND	1.8	0.63			ng/L	1		EPA 533	5/20/24	5/28/24 19:38	QNW
Nonfluoro-3,6-dioxaheptanoic acid (NFDHA)	ND	1.8	0.62			ng/L	1		EPA 533	5/20/24	5/28/24 19:38	QNW
Perfluoroheptanoic acid (PFHpA)	1.3	1.8	0.50			ng/L	1	J	EPA 533	5/20/24	5/28/24 19:38	QNW
Perfluorooctanoic acid (PFOA)	1.0	1.8	0.50			ng/L	1	J	EPA 533	5/20/24	5/28/24 19:38	QNW
Perfluorooctanesulfonic acid (PFOS)	ND	1.8	0.64			ng/L	1		EPA 533	5/20/24	5/28/24 19:38	QNW
Perfluorononanoic acid (PFNA)	ND	1.8	0.90			ng/L	1		EPA 533	5/20/24	5/28/24 19:38	QNW

Surrogates	% Recovery	Recovery Limits	Flag/Qual
M2-4:2FTS	40.1 *	50-200	PF-18
M2-8:2FTS	65.8	50-200	
MPFBA	86.3	50-200	
M3HFPO-DA	78.5	50-200	
M6PFDA	86.1	50-200	
M3PFBS	94.1	50-200	
M7PFUnA	94.9	50-200	
M2-6:2FTS	137	50-200	
M5PFPeA	94.1	50-200	
M5PFHxA	70.3	50-200	
M3PFHxS	101	50-200	
M4PFHpA	78.1	50-200	
M8PFOA	82.8	50-200	
M8PFOS	106	50-200	
M9PFNA	82.5	50-200	
MPFDoA	98.3	50-200	

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

Project Location: 351 Mount Airy Road, New Wind

Sample Description:

Work Order: 24E2345

Date Received: 5/17/2024

Field Sample #: MID

Sampled: 5/15/2024 09:58

Sample ID: 24E2345-05

Sample Matrix: Drinking Water

Semivolatile Organic Compounds by - LC/MS-MS

Analyte	Results	RL	MCL/SMCL			Units	DF	Flag/Qual	Method	Date	Date/Time	Analyst
			DL	MA	ORSG					Prepared	Analyzed	
Perfluorobutanoic acid (PFBA)	7.6	1.9	0.62			ng/L	1	EPA 533	5/20/24	5/28/24 19:45	QNW	
Perfluorobutanesulfonic acid (PFBS)	2.6	1.9	0.57			ng/L	1	EPA 533	5/20/24	5/28/24 19:45	QNW	
Perfluoropentanoic acid (PFPeA)	6.3	1.9	0.56			ng/L	1	EPA 533	5/20/24	5/28/24 19:45	QNW	
Perfluorohexanoic acid (PFHxA)	3.0	1.9	0.61			ng/L	1	EPA 533	5/20/24	5/28/24 19:45	QNW	
11Cl-PF3OUdS (F53B Major)	ND	1.9	0.72			ng/L	1	EPA 533	5/20/24	5/28/24 19:45	QNW	
9Cl-PF3ONS (F53B Minor)	ND	1.9	0.73			ng/L	1	EPA 533	5/20/24	5/28/24 19:45	QNW	
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	ND	1.9	0.53			ng/L	1	EPA 533	5/20/24	5/28/24 19:45	QNW	
Hexafluoropropylene oxide dimer acid (HFPO-DA)	ND	1.9	0.97			ng/L	1	EPA 533	5/20/24	5/28/24 19:45	QNW	
8:2 Fluorotelomersulfonic acid (8:2FTS A)	ND	1.9	0.62			ng/L	1	EPA 533	5/20/24	5/28/24 19:45	QNW	
Perfluorodecanoic acid (PFDA)	ND	1.9	0.65			ng/L	1	EPA 533	5/20/24	5/28/24 19:45	QNW	
Perfluorododecanoic acid (PFDoA)	ND	1.9	0.81			ng/L	1	EPA 533	5/20/24	5/28/24 19:45	QNW	
Perfluoro(2-ethoxyethane)sulfonic acid (PFEEESA)	ND	1.9	0.57			ng/L	1	EPA 533	5/20/24	5/28/24 19:45	QNW	
Perfluoroheptanesulfonic acid (PFHpS)	ND	1.9	0.67			ng/L	1	EPA 533	5/20/24	5/28/24 19:45	QNW	
4:2 Fluorotelomersulfonic acid (4:2FTS A)	ND	1.9	0.50			ng/L	1	EPA 533	5/20/24	5/28/24 19:45	QNW	
Perfluorohexanesulfonic acid (PFHxS)	ND	1.9	0.66			ng/L	1	EPA 533	5/20/24	5/28/24 19:45	QNW	
Perfluoro-4-oxapentanoic acid (PFMPA)	ND	1.9	0.55			ng/L	1	EPA 533	5/20/24	5/28/24 19:45	QNW	
Perfluoro-5-oxahexanoic acid (PFMBA)	ND	1.9	0.50			ng/L	1	EPA 533	5/20/24	5/28/24 19:45	QNW	
6:2 Fluorotelomersulfonic acid (6:2FTS A)	ND	1.9	1.4			ng/L	1	EPA 533	5/20/24	5/28/24 19:45	QNW	
Perfluoropentanesulfonic acid (PFPeS)	ND	1.9	0.64			ng/L	1	EPA 533	5/20/24	5/28/24 19:45	QNW	
Perfluoroundecanoic acid (PFUnA)	ND	1.9	0.68			ng/L	1	EPA 533	5/20/24	5/28/24 19:45	QNW	
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	ND	1.9	0.67			ng/L	1	EPA 533	5/20/24	5/28/24 19:45	QNW	
Perfluoroheptanoic acid (PFHpA)	ND	1.9	0.54			ng/L	1	EPA 533	5/20/24	5/28/24 19:45	QNW	
Perfluorooctanoic acid (PFOA)	0.63	1.9	0.54			ng/L	1	J EPA 533	5/20/24	5/28/24 19:45	QNW	
Perfluorooctanesulfonic acid (PFOS)	ND	1.9	0.69			ng/L	1	EPA 533	5/20/24	5/28/24 19:45	QNW	
Perfluorononanoic acid (PFNA)	ND	1.9	0.97			ng/L	1	EPA 533	5/20/24	5/28/24 19:45	QNW	

Surrogates	% Recovery	Recovery Limits	Flag/Qual
M2-4:2FTS	25.9 *	50-200	PF-18
M2-8:2FTS	62.9	50-200	
MPFBA	76.9	50-200	
M3HFPO-DA	75.7	50-200	
M6PFDA	74.3	50-200	
M3PFBS	81.2	50-200	
M7PFUnA	84.4	50-200	
M2-6:2FTS	121	50-200	
M5PFPeA	87.2	50-200	
M5PFHxA	67.0	50-200	
M3PFHxS	91.6	50-200	
M4PFHpA	71.0	50-200	
M8PFOA	81.7	50-200	
M8PFOS	94.0	50-200	
M9PFNA	76.2	50-200	
MPFDoA	88.3	50-200	

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

Project Location: 351 Mount Airy Road, New Wind

Sample Description:

Work Order: 24E2345

Date Received: 5/17/2024

Field Sample #: B-25

Sampled: 5/15/2024 09:53

Sample ID: 24E2345-06

Sample Matrix: Drinking Water

Semivolatile Organic Compounds by - LC/MS-MS

Analyte	Results	RL	MCL/SMCL			Units	DF	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
			DL	MA	ORSG							
Perfluorobutanoic acid (PFBA)	6.6	1.8	0.59			ng/L	1		EPA 533	5/20/24	5/28/24 19:52	QNW
Perfluorobutanesulfonic acid (PFBS)	ND	1.8	0.55			ng/L	1		EPA 533	5/20/24	5/28/24 19:52	QNW
Perfluoropentanoic acid (PFPeA)	5.0	1.8	0.54			ng/L	1		EPA 533	5/20/24	5/28/24 19:52	QNW
Perfluorohexanoic acid (PFHxA)	ND	1.8	0.59			ng/L	1		EPA 533	5/20/24	5/28/24 19:52	QNW
11Cl-PF3OUdS (F53B Major)	ND	1.8	0.69			ng/L	1		EPA 533	5/20/24	5/28/24 19:52	QNW
9Cl-PF3ONS (F53B Minor)	ND	1.8	0.70			ng/L	1		EPA 533	5/20/24	5/28/24 19:52	QNW
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	ND	1.8	0.50			ng/L	1		EPA 533	5/20/24	5/28/24 19:52	QNW
Hexafluoropropylene oxide dimer acid (HFPO-DA)	ND	1.8	0.93			ng/L	1		EPA 533	5/20/24	5/28/24 19:52	QNW
8:2 Fluorotelomersulfonic acid (8:2FTS A)	ND	1.8	0.59			ng/L	1		EPA 533	5/20/24	5/28/24 19:52	QNW
Perfluorodecanoic acid (PFDA)	ND	1.8	0.62			ng/L	1		EPA 533	5/20/24	5/28/24 19:52	QNW
Perfluorododecanoic acid (PFDoA)	ND	1.8	0.77			ng/L	1		EPA 533	5/20/24	5/28/24 19:52	QNW
Perfluoro(2-ethoxyethane)sulfonic acid (PFEEESA)	ND	1.8	0.54			ng/L	1		EPA 533	5/20/24	5/28/24 19:52	QNW
Perfluoroheptanesulfonic acid (PFHpS)	ND	1.8	0.64			ng/L	1		EPA 533	5/20/24	5/28/24 19:52	QNW
4:2 Fluorotelomersulfonic acid (4:2FTS A)	ND	1.8	0.48			ng/L	1		EPA 533	5/20/24	5/28/24 19:52	QNW
Perfluorohexanesulfonic acid (PFHxS)	ND	1.8	0.64			ng/L	1		EPA 533	5/20/24	5/28/24 19:52	QNW
Perfluoro-4-oxapentanoic acid (PFMPA)	ND	1.8	0.53			ng/L	1		EPA 533	5/20/24	5/28/24 19:52	QNW
Perfluoro-5-oxahexanoic acid (PFMBA)	ND	1.8	0.48			ng/L	1		EPA 533	5/20/24	5/28/24 19:52	QNW
6:2 Fluorotelomersulfonic acid (6:2FTS A)	ND	1.8	1.3			ng/L	1		EPA 533	5/20/24	5/28/24 19:52	QNW
Perfluoropentanesulfonic acid (PFPeS)	ND	1.8	0.61			ng/L	1		EPA 533	5/20/24	5/28/24 19:52	QNW
Perfluoroundecanoic acid (PFUnA)	ND	1.8	0.65			ng/L	1		EPA 533	5/20/24	5/28/24 19:52	QNW
Nonfluoro-3,6-dioxaheptanoic acid (NFDHA)	ND	1.8	0.64			ng/L	1		EPA 533	5/20/24	5/28/24 19:52	QNW
Perfluoroheptanoic acid (PFHpA)	ND	1.8	0.51			ng/L	1		EPA 533	5/20/24	5/28/24 19:52	QNW
Perfluorooctanoic acid (PFOA)	ND	1.8	0.52			ng/L	1		EPA 533	5/20/24	5/28/24 19:52	QNW
Perfluorooctanesulfonic acid (PFOS)	ND	1.8	0.66			ng/L	1		EPA 533	5/20/24	5/28/24 19:52	QNW
Perfluorononanoic acid (PFNA)	ND	1.8	0.93			ng/L	1		EPA 533	5/20/24	5/28/24 19:52	QNW

Surrogates	% Recovery	Recovery Limits	Flag/Qual
M2-4:2FTS	38.1 *	50-200	PF-18
M2-8:2FTS	66.8	50-200	
MPFBA	83.8	50-200	
M3HFPO-DA	80.5	50-200	
M6PFDA	85.0	50-200	
M3PFBS	98.9	50-200	
M7PFUnA	97.4	50-200	
M2-6:2FTS	121	50-200	
M5PFPeA	87.9	50-200	
M5PFHxA	71.1	50-200	
M3PFHxS	100	50-200	
M4PFHpA	73.4	50-200	
M8PFOA	77.4	50-200	
M8PFOS	106	50-200	
M9PFNA	82.7	50-200	
MPFDoA	105	50-200	

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

Project Location: 351 Mount Airy Road, New Wind

Sample Description:

Work Order: 24E2345

Date Received: 5/17/2024

Field Sample #: B-50

Sampled: 5/15/2024 09:55

Sample ID: 24E2345-07

Sample Matrix: Drinking Water

Semivolatile Organic Compounds by - LC/MS-MS

Analyte	Results	RL	MCL/SMCL			Units	DF	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
			DL	MA	ORSG							
Perfluorobutanoic acid (PFBA)	3.7	1.8	0.60			ng/L	1		EPA 533	5/30/24	5/31/24 15:18	AMS
Perfluorobutanesulfonic acid (PFBS)	ND	1.8	0.55			ng/L	1		EPA 533	5/30/24	5/31/24 15:18	AMS
Perfluoropentanoic acid (PFPeA)	ND	1.8	0.54			ng/L	1		EPA 533	5/30/24	5/31/24 15:18	AMS
Perfluorohexanoic acid (PFHxA)	ND	1.8	0.59			ng/L	1		EPA 533	5/30/24	5/31/24 15:18	AMS
11Cl-PF3OUdS (F53B Major)	ND	1.8	0.69			ng/L	1		EPA 533	5/30/24	5/31/24 15:18	AMS
9Cl-PF3ONS (F53B Minor)	ND	1.8	0.70			ng/L	1		EPA 533	5/30/24	5/31/24 15:18	AMS
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	ND	1.8	0.50			ng/L	1		EPA 533	5/30/24	5/31/24 15:18	AMS
Hexafluoropropylene oxide dimer acid (HFPO-DA)	ND	1.8	0.93			ng/L	1		EPA 533	5/30/24	5/31/24 15:18	AMS
8:2 Fluorotelomersulfonic acid (8:2FTS A)	ND	1.8	0.60			ng/L	1		EPA 533	5/30/24	5/31/24 15:18	AMS
Perfluorodecanoic acid (PFDA)	ND	1.8	0.62			ng/L	1		EPA 533	5/30/24	5/31/24 15:18	AMS
Perfluorododecanoic acid (PFDoA)	ND	1.8	0.77			ng/L	1		EPA 533	5/30/24	5/31/24 15:18	AMS
Perfluoro(2-ethoxyethane)sulfonic acid (PFEEESA)	ND	1.8	0.55			ng/L	1		EPA 533	5/30/24	5/31/24 15:18	AMS
Perfluoroheptanesulfonic acid (PFHpS)	ND	1.8	0.64			ng/L	1		EPA 533	5/30/24	5/31/24 15:18	AMS
4:2 Fluorotelomersulfonic acid (4:2FTS A)	ND	1.8	0.48			ng/L	1		EPA 533	5/30/24	5/31/24 15:18	AMS
Perfluorohexanesulfonic acid (PFHxS)	ND	1.8	0.64			ng/L	1		EPA 533	5/30/24	5/31/24 15:18	AMS
Perfluoro-4-oxapentanoic acid (PFMPA)	ND	1.8	0.53			ng/L	1		EPA 533	5/30/24	5/31/24 15:18	AMS
Perfluoro-5-oxahexanoic acid (PFMBA)	ND	1.8	0.48			ng/L	1		EPA 533	5/30/24	5/31/24 15:18	AMS
6:2 Fluorotelomersulfonic acid (6:2FTS A)	ND	1.8	1.4			ng/L	1		EPA 533	5/30/24	5/31/24 15:18	AMS
Perfluoropentanesulfonic acid (PFPeS)	ND	1.8	0.61			ng/L	1		EPA 533	5/30/24	5/31/24 15:18	AMS
Perfluoroundecanoic acid (PFUnA)	ND	1.8	0.65			ng/L	1		EPA 533	5/30/24	5/31/24 15:18	AMS
Nonfluoro-3,6-dioxaheptanoic acid (NFDHA)	ND	1.8	0.64			ng/L	1		EPA 533	5/30/24	5/31/24 15:18	AMS
Perfluoroheptanoic acid (PFHpA)	ND	1.8	0.51			ng/L	1		EPA 533	5/30/24	5/31/24 15:18	AMS
Perfluorooctanoic acid (PFOA)	ND	1.8	0.52			ng/L	1		EPA 533	5/30/24	5/31/24 15:18	AMS
Perfluorooctanesulfonic acid (PFOS)	ND	1.8	0.67			ng/L	1		EPA 533	5/30/24	5/31/24 15:18	AMS
Perfluorononanoic acid (PFNA)	ND	1.8	0.93			ng/L	1		EPA 533	5/30/24	5/31/24 15:18	AMS

Surrogates	% Recovery	Recovery Limits	Flag/Qual
M2-4:2FTS	24.4 *	50-200	PF-18
M2-8:2FTS	55.9	50-200	
MPFBA	56.3	50-200	
M3HFPO-DA	55.5	50-200	
M6PFDA	70.0	50-200	
M3PFBS	64.8	50-200	
M7PFUnA	72.5	50-200	
M2-6:2FTS	60.9	50-200	
M5PFPeA	57.7	50-200	
M5PFHxA	50.1	50-200	
M3PFHxS	69.1	50-200	
M4PFHpA	51.5	50-200	
M8PFOA	60.2	50-200	
M8PFOS	79.5	50-200	
M9PFNA	60.9	50-200	
MPFDoA	74.5	50-200	

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

Project Location: 351 Mount Airy Road, New Wind

Sample Description:

Work Order: 24E2345

Date Received: 5/17/2024

Field Sample #: B-75

Sampled: 5/15/2024 09:56

Sample ID: 24E2345-08

Sample Matrix: Drinking Water

Semivolatile Organic Compounds by - LC/MS-MS

Analyte	Results	RL	MCL/SMCL			Units	DF	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
			DL	MA	ORSG							
Perfluorobutanoic acid (PFBA)	ND	1.8	0.60			ng/L	1		EPA 533	5/30/24	5/31/24 15:25	AMS
Perfluorobutanesulfonic acid (PFBS)	ND	1.8	0.56			ng/L	1		EPA 533	5/30/24	5/31/24 15:25	AMS
Perfluoropentanoic acid (PFPeA)	ND	1.8	0.55			ng/L	1		EPA 533	5/30/24	5/31/24 15:25	AMS
Perfluorohexanoic acid (PFHxA)	ND	1.8	0.60			ng/L	1		EPA 533	5/30/24	5/31/24 15:25	AMS
11Cl-PF3OUdS (F53B Major)	ND	1.8	0.70			ng/L	1		EPA 533	5/30/24	5/31/24 15:25	AMS
9Cl-PF3ONS (F53B Minor)	ND	1.8	0.71			ng/L	1		EPA 533	5/30/24	5/31/24 15:25	AMS
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	ND	1.8	0.51			ng/L	1		EPA 533	5/30/24	5/31/24 15:25	AMS
Hexafluoropropylene oxide dimer acid (HFPO-DA)	ND	1.8	0.94			ng/L	1		EPA 533	5/30/24	5/31/24 15:25	AMS
8:2 Fluorotelomersulfonic acid (8:2FTS A)	ND	1.8	0.60			ng/L	1		EPA 533	5/30/24	5/31/24 15:25	AMS
Perfluorodecanoic acid (PFDA)	ND	1.8	0.63			ng/L	1		EPA 533	5/30/24	5/31/24 15:25	AMS
Perfluorododecanoic acid (PFDoA)	ND	1.8	0.78			ng/L	1		EPA 533	5/30/24	5/31/24 15:25	AMS
Perfluoro(2-ethoxyethane)sulfonic acid (PFEEESA)	ND	1.8	0.55			ng/L	1		EPA 533	5/30/24	5/31/24 15:25	AMS
Perfluoroheptanesulfonic acid (PFHpS)	ND	1.8	0.65			ng/L	1		EPA 533	5/30/24	5/31/24 15:25	AMS
4:2 Fluorotelomersulfonic acid (4:2FTS A)	ND	1.8	0.49			ng/L	1		EPA 533	5/30/24	5/31/24 15:25	AMS
Perfluorohexanesulfonic acid (PFHxS)	ND	1.8	0.65			ng/L	1		EPA 533	5/30/24	5/31/24 15:25	AMS
Perfluoro-4-oxapentanoic acid (PFMPA)	ND	1.8	0.53			ng/L	1		EPA 533	5/30/24	5/31/24 15:25	AMS
Perfluoro-5-oxahexanoic acid (PFMBA)	ND	1.8	0.49			ng/L	1		EPA 533	5/30/24	5/31/24 15:25	AMS
6:2 Fluorotelomersulfonic acid (6:2FTS A)	ND	1.8	1.4			ng/L	1		EPA 533	5/30/24	5/31/24 15:25	AMS
Perfluoropentanesulfonic acid (PFPeS)	ND	1.8	0.62			ng/L	1		EPA 533	5/30/24	5/31/24 15:25	AMS
Perfluoroundecanoic acid (PFUnA)	ND	1.8	0.66			ng/L	1		EPA 533	5/30/24	5/31/24 15:25	AMS
Nonfluoro-3,6-dioxaheptanoic acid (NFDHA)	ND	1.8	0.65			ng/L	1		EPA 533	5/30/24	5/31/24 15:25	AMS
Perfluoroheptanoic acid (PFHpA)	ND	1.8	0.52			ng/L	1		EPA 533	5/30/24	5/31/24 15:25	AMS
Perfluorooctanoic acid (PFOA)	ND	1.8	0.52			ng/L	1		EPA 533	5/30/24	5/31/24 15:25	AMS
Perfluorooctanesulfonic acid (PFOS)	ND	1.8	0.67			ng/L	1		EPA 533	5/30/24	5/31/24 15:25	AMS
Perfluorononanoic acid (PFNA)	ND	1.8	0.95			ng/L	1		EPA 533	5/30/24	5/31/24 15:25	AMS

Surrogates	% Recovery	Recovery Limits	Flag/Qual
M2-4:2FTS	26.0 *	50-200	PF-18
M2-8:2FTS	52.3	50-200	
MPFBA	64.5	50-200	
M3HFPO-DA	67.2	50-200	
M6PFDA	76.8	50-200	
M3PFBS	64.9	50-200	
M7PFUnA	81.7	50-200	
M2-6:2FTS	52.3	50-200	
M5PFPeA	67.1	50-200	
M5PFHxA	59.6	50-200	
M3PFHxS	68.3	50-200	
M4PFHpA	61.4	50-200	
M8PFOA	66.4	50-200	
M8PFOS	77.5	50-200	
M9PFNA	71.8	50-200	
MPFDoA	78.6	50-200	

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

Project Location: 351 Mount Airy Road, New Wind

Sample Description:

Work Order: 24E2345

Date Received: 5/17/2024

Field Sample #: Effluent

Sampled: 5/15/2024 09:37

Sample ID: 24E2345-09

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
			DL	MA ORSG	Units						
Perfluorobutanoic acid (PFBA)	ND	1.9	0.62		ng/L	1		EPA 533	5/20/24	5/28/24 20:14	QNW
Perfluorobutanesulfonic acid (PFBS)	ND	1.9	0.57		ng/L	1		EPA 533	5/20/24	5/28/24 20:14	QNW
Perfluoropentanoic acid (PFPeA)	ND	1.9	0.56		ng/L	1		EPA 533	5/20/24	5/28/24 20:14	QNW
Perfluorohexanoic acid (PFHxA)	ND	1.9	0.61		ng/L	1		EPA 533	5/20/24	5/28/24 20:14	QNW
11Cl-PF3OUdS (F53B Major)	ND	1.9	0.71		ng/L	1		EPA 533	5/20/24	5/28/24 20:14	QNW
9Cl-PF3ONS (F53B Minor)	ND	1.9	0.72		ng/L	1		EPA 533	5/20/24	5/28/24 20:14	QNW
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	ND	1.9	0.52		ng/L	1		EPA 533	5/20/24	5/28/24 20:14	QNW
Hexafluoropropylene oxide dimer acid (HFPO-DA)	ND	1.9	0.96		ng/L	1		EPA 533	5/20/24	5/28/24 20:14	QNW
8:2 Fluorotelomersulfonic acid (8:2FTS A)	ND	1.9	0.62		ng/L	1		EPA 533	5/20/24	5/28/24 20:14	QNW
Perfluorodecanoic acid (PFDA)	ND	1.9	0.65		ng/L	1		EPA 533	5/20/24	5/28/24 20:14	QNW
Perfluorododecanoic acid (PFDoA)	ND	1.9	0.80		ng/L	1		EPA 533	5/20/24	5/28/24 20:14	QNW
Perfluoro(2-ethoxyethane)sulfonic acid (PFEEESA)	ND	1.9	0.57		ng/L	1		EPA 533	5/20/24	5/28/24 20:14	QNW
Perfluoroheptanesulfonic acid (PFHpS)	ND	1.9	0.66		ng/L	1		EPA 533	5/20/24	5/28/24 20:14	QNW
4:2 Fluorotelomersulfonic acid (4:2FTS A)	ND	1.9	0.50		ng/L	1		EPA 533	5/20/24	5/28/24 20:14	QNW
Perfluorohexanesulfonic acid (PFHxS)	ND	1.9	0.66		ng/L	1		EPA 533	5/20/24	5/28/24 20:14	QNW
Perfluoro-4-oxapentanoic acid (PFMPA)	ND	1.9	0.55		ng/L	1		EPA 533	5/20/24	5/28/24 20:14	QNW
Perfluoro-5-oxahexanoic acid (PFMBA)	ND	1.9	0.50		ng/L	1		EPA 533	5/20/24	5/28/24 20:14	QNW
6:2 Fluorotelomersulfonic acid (6:2FTS A)	ND	1.9	1.4		ng/L	1		EPA 533	5/20/24	5/28/24 20:14	QNW
Perfluoropentanesulfonic acid (PFPeS)	ND	1.9	0.63		ng/L	1		EPA 533	5/20/24	5/28/24 20:14	QNW
Perfluoroundecanoic acid (PFUnA)	ND	1.9	0.67		ng/L	1		EPA 533	5/20/24	5/28/24 20:14	QNW
Nonfluoro-3,6-dioxaheptanoic acid (NFDHA)	ND	1.9	0.67		ng/L	1		EPA 533	5/20/24	5/28/24 20:14	QNW
Perfluoroheptanoic acid (PFHpA)	ND	1.9	0.53		ng/L	1		EPA 533	5/20/24	5/28/24 20:14	QNW
Perfluorooctanoic acid (PFOA)	ND	1.9	0.54		ng/L	1		EPA 533	5/20/24	5/28/24 20:14	QNW
Perfluorooctanesulfonic acid (PFOS)	ND	1.9	0.69		ng/L	1		EPA 533	5/20/24	5/28/24 20:14	QNW
Perfluorononanoic acid (PFNA)	ND	1.9	0.97		ng/L	1		EPA 533	5/20/24	5/28/24 20:14	QNW

Surrogates	% Recovery	Recovery Limits	Flag/Qual
M2-4:2FTS	35.1 *	50-200	PF-18
M2-8:2FTS	63.0	50-200	
MPFBA	54.9	50-200	
M3HFPO-DA	53.6	50-200	
M6PFDA	44.4 *	50-200	PF-18
M3PFBS	85.6	50-200	
M7PFUnA	60.6	50-200	
M2-6:2FTS	124	50-200	
M5PFPeA	54.4	50-200	
M5PFHxA	45.3 *	50-200	PF-18
M3PFHxS	89.1	50-200	
M4PFHpA	45.7 *	50-200	PF-18
M8PFOA	45.6 *	50-200	PF-18
M8PFOS	95.2	50-200	
M9PFNA	41.5 *	50-200	PF-18
MPFDoA	64.8	50-200	

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

Project Location: 351 Mount Airy Road, New Wind

Sample Description:

Work Order: 24E2345

Date Received: 5/17/2024

Field Sample #: Duplicate

Sampled: 5/15/2024 00:00

Sample ID: 24E2345-10

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
			DL	MA	ORSG						
Perfluorobutanoic acid (PFBA)	ND	1.9	0.61		ng/L	1		EPA 533	5/20/24	5/28/24 20:28	QNW
Perfluorobutanesulfonic acid (PFBS)	ND	1.9	0.56		ng/L	1		EPA 533	5/20/24	5/28/24 20:28	QNW
Perfluoropentanoic acid (PFPeA)	ND	1.9	0.55		ng/L	1		EPA 533	5/20/24	5/28/24 20:28	QNW
Perfluorohexanoic acid (PFHxA)	ND	1.9	0.60		ng/L	1		EPA 533	5/20/24	5/28/24 20:28	QNW
11Cl-PF3OUdS (F53B Major)	ND	1.9	0.70		ng/L	1		EPA 533	5/20/24	5/28/24 20:28	QNW
9Cl-PF3ONS (F53B Minor)	ND	1.9	0.71		ng/L	1		EPA 533	5/20/24	5/28/24 20:28	QNW
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	ND	1.9	0.51		ng/L	1		EPA 533	5/20/24	5/28/24 20:28	QNW
Hexafluoropropylene oxide dimer acid (HFPO-DA)	ND	1.9	0.95		ng/L	1		EPA 533	5/20/24	5/28/24 20:28	QNW
8:2 Fluorotelomersulfonic acid (8:2FTS A)	ND	1.9	0.61		ng/L	1		EPA 533	5/20/24	5/28/24 20:28	QNW
Perfluorodecanoic acid (PFDA)	ND	1.9	0.64		ng/L	1		EPA 533	5/20/24	5/28/24 20:28	QNW
Perfluorododecanoic acid (PFDoA)	ND	1.9	0.79		ng/L	1		EPA 533	5/20/24	5/28/24 20:28	QNW
Perfluoro(2-ethoxyethane)sulfonic acid (PFEEESA)	ND	1.9	0.56		ng/L	1		EPA 533	5/20/24	5/28/24 20:28	QNW
Perfluoroheptanesulfonic acid (PFHpS)	ND	1.9	0.65		ng/L	1		EPA 533	5/20/24	5/28/24 20:28	QNW
4:2 Fluorotelomersulfonic acid (4:2FTS A)	ND	1.9	0.49		ng/L	1		EPA 533	5/20/24	5/28/24 20:28	QNW
Perfluorohexanesulfonic acid (PFHxS)	ND	1.9	0.65		ng/L	1		EPA 533	5/20/24	5/28/24 20:28	QNW
Perfluoro-4-oxapentanoic acid (PFMPA)	ND	1.9	0.54		ng/L	1		EPA 533	5/20/24	5/28/24 20:28	QNW
Perfluoro-5-oxahexanoic acid (PFMBA)	ND	1.9	0.49		ng/L	1		EPA 533	5/20/24	5/28/24 20:28	QNW
6:2 Fluorotelomersulfonic acid (6:2FTS A)	ND	1.9	1.4		ng/L	1		EPA 533	5/20/24	5/28/24 20:28	QNW
Perfluoropentanesulfonic acid (PFPeS)	ND	1.9	0.62		ng/L	1		EPA 533	5/20/24	5/28/24 20:28	QNW
Perfluoroundecanoic acid (PFUnA)	ND	1.9	0.66		ng/L	1		EPA 533	5/20/24	5/28/24 20:28	QNW
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	ND	1.9	0.66		ng/L	1		EPA 533	5/20/24	5/28/24 20:28	QNW
Perfluoroheptanoic acid (PFHpA)	ND	1.9	0.52		ng/L	1		EPA 533	5/20/24	5/28/24 20:28	QNW
Perfluorooctanoic acid (PFOA)	ND	1.9	0.53		ng/L	1		EPA 533	5/20/24	5/28/24 20:28	QNW
Perfluorooctanesulfonic acid (PFOS)	ND	1.9	0.68		ng/L	1		EPA 533	5/20/24	5/28/24 20:28	QNW
Perfluorononanoic acid (PFNA)	ND	1.9	0.95		ng/L	1		EPA 533	5/20/24	5/28/24 20:28	QNW

Surrogates	% Recovery	Recovery Limits	Flag/Qual
M2-4:2FTS	34.1 *	50-200	PF-18
M2-8:2FTS	58.1	50-200	
MPFBA	84.3	50-200	
M3HFPO-DA	87.7	50-200	
M6PFDA	64.2	50-200	
M3PFBS	99.7	50-200	
M7PFUnA	81.4	50-200	
M2-6:2FTS	107	50-200	
M5PFPeA	86.8	50-200	
M5PFHxA	72.3	50-200	
M3PFHxS	105	50-200	
M4PFHpA	74.7	50-200	
M8PFOA	76.2	50-200	
M8PFOS	110	50-200	
M9PFNA	66.5	50-200	
MPFDoA	94.8	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
24E2345-04 [A-75]	B374693	284	1.00	05/20/24
24E2345-05 [MID]	B374693	263	1.00	05/20/24
24E2345-06 [B-25]	B374693	275	1.00	05/20/24
24E2345-09 [Effluent]	B374693	265	1.00	05/20/24
24E2345-10 [Duplicate]	B374693	270	1.00	05/20/24

Prep Method: EPA 533-EPA 533

Lab Number [Field ID]	Batch	Initial [mL]	Final [mL]	Date
24E2345-01 [Influent]	B374881	252	1.00	05/21/24
24E2345-02 [A-25]	B374881	287	1.00	05/21/24

Prep Method: EPA 533-EPA 533

Lab Number [Field ID]	Batch	Initial [mL]	Final [mL]	Date
24E2345-03RE1 [A-50]	B375686	284	1.00	05/30/24
24E2345-07RE1 [B-50]	B375686	274	1.00	05/30/24
24E2345-08RE1 [B-75]	B375686	271	1.00	05/30/24

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 B374693 - EPA 533
Blank (B374693-BLK1)

Prepared: 05/20/24 Analyzed: 05/28/24

Perfluorobutanoic acid (PFBA)	ND	1.9	0.61	ng/L							
Perfluorobutanesulfonic acid (PFBS)	ND	1.9	0.56	ng/L							
Perfluoropentanoic acid (PFPeA)	ND	1.9	0.55	ng/L							
Perfluorohexanoic acid (PFHxA)	ND	1.9	0.60	ng/L							
11Cl-PF3OUdS (F53B Major)	ND	1.9	0.70	ng/L							
9Cl-PF3ONS (F53B Minor)	ND	1.9	0.72	ng/L							
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	ND	1.9	0.51	ng/L							
Hexafluoropropylene oxide dimer acid (HFPO-DA)	ND	1.9	0.95	ng/L							
8:2 Fluorotelomersulfonic acid (8:2FTS A)	ND	1.9	0.61	ng/L							
Perfluorodecanoic acid (PFDA)	ND	1.9	0.64	ng/L							
Perfluorododecanoic acid (PFDoA)	ND	1.9	0.79	ng/L							
Perfluoro(2-ethoxyethane)sulfonic acid (PFEEESA)	ND	1.9	0.56	ng/L							
Perfluoroheptanesulfonic acid (PFHpS)	ND	1.9	0.65	ng/L							
4:2 Fluorotelomersulfonic acid (4:2FTS A)	ND	1.9	0.49	ng/L							
Perfluorohexanesulfonic acid (PFHxS)	ND	1.9	0.65	ng/L							
Perfluoro-4-oxapentanoic acid (PFMPA)	ND	1.9	0.54	ng/L							
Perfluoro-5-oxahexanoic acid (PFMBA)	ND	1.9	0.49	ng/L							
6:2 Fluorotelomersulfonic acid (6:2FTS A)	ND	1.9	1.4	ng/L							
Perfluoropentanesulfonic acid (PFPeS)	ND	1.9	0.63	ng/L							
Perfluoroundecanoic acid (PFUnA)	ND	1.9	0.67	ng/L							
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	ND	1.9	0.66	ng/L							
Perfluoroheptanoic acid (PFHpA)	ND	1.9	0.52	ng/L							
Perfluorooctanoic acid (PFOA)	ND	1.9	0.53	ng/L							
Perfluorooctanesulfonic acid (PFOS)	ND	1.9	0.68	ng/L							
Perfluorononanoic acid (PFNA)	ND	1.9	0.95	ng/L							
Surrogate: M2-4:2FTS	33.7			ng/L	34.9		96.4	50-200			
Surrogate: M2-8:2FTS	36.9			ng/L	35.7		103	50-200			
Surrogate: MPFBA	38.1			ng/L	37.2		102	50-200			
Surrogate: M3HFPO-DA	40.3			ng/L	37.2		108	50-200			
Surrogate: M6PFDA	40.0			ng/L	37.2		107	50-200			
Surrogate: M3PFBS	38.3			ng/L	34.7		111	50-200			
Surrogate: M7PFUnA	43.7			ng/L	37.2		117	50-200			
Surrogate: M2-6:2FTS	63.2			ng/L	35.4		178	50-200			
Surrogate: M5PFPeA	38.4			ng/L	37.2		103	50-200			
Surrogate: M5PFHxA	36.3			ng/L	37.2		97.5	50-200			
Surrogate: M3PFHxS	38.9			ng/L	35.3		110	50-200			
Surrogate: M4PFHpA	38.0			ng/L	37.2		102	50-200			
Surrogate: M8PFOA	41.3			ng/L	37.2		111	50-200			
Surrogate: M8PFOS	40.3			ng/L	35.7		113	50-200			
Surrogate: M9PFNA	40.4			ng/L	37.2		109	50-200			
Surrogate: MPFDoA	43.5			ng/L	37.2		117	50-200			

LCS (B374693-BS1)

Prepared: 05/20/24 Analyzed: 05/28/24

Perfluorobutanoic acid (PFBA)	11.0	1.9	0.61	ng/L	9.32		118	70-130			
Perfluorobutanesulfonic acid (PFBS)	9.71	1.9	0.56	ng/L	8.25		118	70-130			
Perfluoropentanoic acid (PFPeA)	10.7	1.9	0.55	ng/L	9.32		115	70-130			
Perfluorohexanoic acid (PFHxA)	10.5	1.9	0.60	ng/L	9.32		113	70-130			
11Cl-PF3OUdS (F53B Major)	9.25	1.9	0.71	ng/L	8.78		105	70-130			

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 B374693 - EPA 533											
LCS (B374693-BS1)											
					Prepared: 05/20/24 Analyzed: 05/28/24						
9Cl-PF3ONS (F53B Minor)	8.75	1.9	0.72	ng/L	8.69		101	70-130			
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	9.27	1.9	0.52	ng/L	8.78		106	70-130			
Hexafluoropropylene oxide dimer acid (HFPO-DA)	10.2	1.9	0.95	ng/L	9.32		109	70-130			
8:2 Fluorotelomersulfonic acid (8:2FTS A)	10.2	1.9	0.61	ng/L	8.95		113	70-130			
Perfluorodecanoic acid (PFDA)	10.7	1.9	0.64	ng/L	9.32		115	70-130			
Perfluorododecanoic acid (PFDoA)	11.2	1.9	0.79	ng/L	9.32		121	70-130			
Perfluoro(2-ethoxyethane)sulfonic acid (PFEESA)	10.9	1.9	0.56	ng/L	8.30		131	*	70-130		L-01
Perfluoroheptanesulfonic acid (PFHpS)	9.94	1.9	0.65	ng/L	8.90		112	70-130			
4:2 Fluorotelomersulfonic acid (4:2FTS A)	10.1	1.9	0.49	ng/L	8.72		116	70-130			
Perfluorohexanesulfonic acid (PFHxS)	9.64	1.9	0.65	ng/L	8.53		113	70-130			
Perfluoro-4-oxapentanoic acid (PFMPA)	11.6	1.9	0.54	ng/L	9.32		125	70-130			
Perfluoro-5-oxahexanoic acid (PFMBA)	11.9	1.9	0.49	ng/L	9.32		127	70-130			
6:2 Fluorotelomersulfonic acid (6:2FTS A)	10.8	1.9	1.4	ng/L	8.86		122	70-130			
Perfluoropentanesulfonic acid (PFPeS)	10.4	1.9	0.63	ng/L	8.76		119	70-130			
Perfluoroundecanoic acid (PFUnA)	11.1	1.9	0.67	ng/L	9.32		119	70-130			
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	11.0	1.9	0.66	ng/L	9.32		117	70-130			
Perfluoroheptanoic acid (PFHpA)	10.3	1.9	0.53	ng/L	9.32		110	70-130			
Perfluorooctanoic acid (PFOA)	10.4	1.9	0.53	ng/L	9.32		111	70-130			
Perfluorooctanesulfonic acid (PFOS)	9.93	1.9	0.68	ng/L	8.62		115	70-130			
Perfluorononanoic acid (PFNA)	11.0	1.9	0.96	ng/L	9.32		118	70-130			
Surrogate: M2-4:2FTS	34.7			ng/L	35.0		99.1	50-200			
Surrogate: M2-8:2FTS	45.5			ng/L	35.8		127	50-200			
Surrogate: MPFBA	40.4			ng/L	37.3		108	50-200			
Surrogate: M3HFPO-DA	42.0			ng/L	37.3		113	50-200			
Surrogate: M6PFDA	43.8			ng/L	37.3		117	50-200			
Surrogate: M3PFBS	39.5			ng/L	34.8		114	50-200			
Surrogate: M7PFUnA	44.9			ng/L	37.3		120	50-200			
Surrogate: M2-6:2FTS	73.2			ng/L	35.5		206	*	50-200		S-29
Surrogate: M5PFPeA	41.1			ng/L	37.3		110	50-200			
Surrogate: M5PFHxA	39.1			ng/L	37.3		105	50-200			
Surrogate: M3PFHxS	41.9			ng/L	35.4		118	50-200			
Surrogate: M4PFHpA	40.0			ng/L	37.3		107	50-200			
Surrogate: M8PFOA	42.8			ng/L	37.3		115	50-200			
Surrogate: M8PFOS	45.2			ng/L	35.8		126	50-200			
Surrogate: M9PFNA	42.6			ng/L	37.3		114	50-200			
Surrogate: MPFDoA	45.6			ng/L	37.3		122	50-200			
Matrix Spike (B374693-MS1)											
					Source: 24E2345-09 Prepared: 05/20/24 Analyzed: 05/28/24						
Perfluorobutanoic acid (PFBA)	10.8	1.8	0.59	ng/L	9.07	ND	119	70-130			
Perfluorobutanesulfonic acid (PFBS)	9.27	1.8	0.55	ng/L	8.02	ND	116	70-130			
Perfluoropentanoic acid (PFPeA)	10.5	1.8	0.54	ng/L	9.07	ND	116	70-130			
Perfluorohexanoic acid (PFHxA)	10.6	1.8	0.59	ng/L	9.07	ND	117	70-130			
11Cl-PF3OUdS (F53B Major)	9.42	1.8	0.69	ng/L	8.54	ND	110	70-130			
9Cl-PF3ONS (F53B Minor)	8.56	1.8	0.70	ng/L	8.45	ND	101	70-130			
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	7.84	1.8	0.50	ng/L	8.54	ND	91.8	70-130			
Hexafluoropropylene oxide dimer acid (HFPO-DA)	9.57	1.8	0.93	ng/L	9.07	ND	106	70-130			
8:2 Fluorotelomersulfonic acid (8:2FTS A)	10.9	1.8	0.59	ng/L	8.70	ND	126	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
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Batch B374693 - EPA 533
Matrix Spike (B374693-MS1)
Source: 24E2345-09

Prepared: 05/20/24 Analyzed: 05/28/24

Perfluorodecanoic acid (PFDA)	10.3	1.8	0.62	ng/L	9.07	ND	113	70-130			
Perfluorododecanoic acid (PFDoA)	10.2	1.8	0.77	ng/L	9.07	ND	112	70-130			
Perfluoro(2-ethoxyethane)sulfonic acid (PFEESA)	10.7	1.8	0.54	ng/L	8.07	ND	132	*	70-130		MS-22
Perfluoroheptanesulfonic acid (PFHpS)	10.5	1.8	0.64	ng/L	8.66	ND	121	70-130			
4:2 Fluorotelomersulfonic acid (4:2FTS A)	9.42	1.8	0.48	ng/L	8.48	ND	111	70-130			
Perfluorohexanesulfonic acid (PFHxS)	9.44	1.8	0.63	ng/L	8.29	ND	114	70-130			
Perfluoro-4-oxapentanoic acid (PFMPA)	10.7	1.8	0.53	ng/L	9.07	ND	118	70-130			
Perfluoro-5-oxahexanoic acid (PFMBA)	10.9	1.8	0.48	ng/L	9.07	ND	121	70-130			
6:2 Fluorotelomersulfonic acid (6:2FTS A)	10.3	1.8	1.3	ng/L	8.61	ND	119	70-130			
Perfluoropentanesulfonic acid (PFPeS)	10.1	1.8	0.61	ng/L	8.52	ND	118	70-130			
Perfluoroundecanoic acid (PFUnA)	10.0	1.8	0.65	ng/L	9.07	ND	110	70-130			
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	9.28	1.8	0.64	ng/L	9.07	ND	102	70-130			
Perfluoroheptanoic acid (PFHpA)	9.70	1.8	0.51	ng/L	9.07	ND	107	70-130			
Perfluorooctanoic acid (PFOA)	9.88	1.8	0.52	ng/L	9.07	ND	109	70-130			
Perfluorooctanesulfonic acid (PFOS)	10.1	1.8	0.66	ng/L	8.39	ND	120	70-130			
Perfluorononanoic acid (PFNA)	10.4	1.8	0.93	ng/L	9.07	ND	115	70-130			

Surrogate: M2-4:2FTS	17.1			ng/L	34.0			50.3		50-200	
Surrogate: M2-8:2FTS	37.8			ng/L	34.8			109		50-200	
Surrogate: MPFBA	25.2			ng/L	36.3			69.5		50-200	
Surrogate: M3HFPO-DA	26.5			ng/L	36.3			73.2		50-200	
Surrogate: M6PFDA	34.8			ng/L	36.3			96.0		50-200	
Surrogate: M3PFBS	31.1			ng/L	33.8			92.1		50-200	
Surrogate: M7PFUnA	39.2			ng/L	36.3			108		50-200	
Surrogate: M2-6:2FTS	54.3			ng/L	34.5			157		50-200	
Surrogate: M5PFPeA	26.8			ng/L	36.3			73.8		50-200	
Surrogate: M5PFHxA	26.5			ng/L	36.3			73.1		50-200	
Surrogate: M3PFHxS	33.7			ng/L	34.4			98.0		50-200	
Surrogate: M4PFHpA	30.2			ng/L	36.3			83.2		50-200	
Surrogate: M8PFOA	32.8			ng/L	36.3			90.6		50-200	
Surrogate: M8PFOS	35.6			ng/L	34.8			102		50-200	
Surrogate: M9PFNA	33.7			ng/L	36.3			92.9		50-200	
Surrogate: MPFDoA	33.1			ng/L	36.3			91.3		50-200	

Matrix Spike Dup (B374693-MSD1)
Source: 24E2345-09

Prepared: 05/20/24 Analyzed: 05/28/24

Perfluorobutanoic acid (PFBA)	11.1	2.0	0.65	ng/L	10.0	ND	111	70-130	2.88	30	
Perfluorobutanesulfonic acid (PFBS)	9.48	2.0	0.61	ng/L	8.85	ND	107	70-130	2.28	30	
Perfluoropentanoic acid (PFPeA)	10.9	2.0	0.59	ng/L	10.0	ND	109	70-130	3.26	30	
Perfluorohexanoic acid (PFHxA)	10.9	2.0	0.65	ng/L	10.0	ND	109	70-130	2.85	30	
11Cl-PF3OUdS (F53B Major)	9.62	2.0	0.76	ng/L	9.42	ND	102	70-130	2.16	30	
9Cl-PF3ONS (F53B Minor)	9.74	2.0	0.77	ng/L	9.32	ND	104	70-130	12.8	30	
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	8.38	2.0	0.55	ng/L	9.42	ND	89.0	70-130	6.71	30	
Hexafluoropropylene oxide dimer acid (HFPO-DA)	9.99	2.0	1.0	ng/L	10.0	ND	99.9	70-130	4.31	30	
8:2 Fluorotelomersulfonic acid (8:2FTS A)	11.3	2.0	0.65	ng/L	9.60	ND	117	70-130	2.85	30	
Perfluorodecanoic acid (PFDA)	11.0	2.0	0.69	ng/L	10.0	ND	110	70-130	6.25	30	
Perfluorododecanoic acid (PFDoA)	11.3	2.0	0.85	ng/L	10.0	ND	113	70-130	10.1	30	
Perfluoro(2-ethoxyethane)sulfonic acid (PFEESA)	10.9	2.0	0.60	ng/L	8.90	ND	123	70-130	2.31	30	
Perfluoroheptanesulfonic acid (PFHpS)	10.7	2.0	0.70	ng/L	9.55	ND	112	70-130	1.73	30	
4:2 Fluorotelomersulfonic acid (4:2FTS A)	9.66	2.0	0.53	ng/L	9.35	ND	103	70-130	2.51	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 B374693 - EPA 533
Matrix Spike Dup (B374693-MSD1)
Source: 24E2345-09

Prepared: 05/20/24 Analyzed: 05/28/24

Perfluorohexanesulfonic acid (PFHxS)	9.62	2.0	0.70	ng/L	9.15	ND	105	70-130	1.87	30	
Perfluoro-4-oxapentanoic acid (PFMPA)	11.8	2.0	0.58	ng/L	10.0	ND	118	70-130	9.57	30	
Perfluoro-5-oxahexanoic acid (PFMBA)	11.8	2.0	0.53	ng/L	10.0	ND	118	70-130	7.69	30	
6:2 Fluorotelomersulfonic acid (6:2FTS A)	10.6	2.0	1.5	ng/L	9.50	ND	111	70-130	2.75	30	
Perfluoropentanesulfonic acid (PFPeS)	10.4	2.0	0.67	ng/L	9.40	ND	111	70-130	3.41	30	
Perfluoroundecanoic acid (PFUnA)	11.0	2.0	0.72	ng/L	10.0	ND	110	70-130	9.69	30	
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	10.3	2.0	0.71	ng/L	10.0	ND	103	70-130	10.6	30	
Perfluoroheptanoic acid (PFHpA)	10.3	2.0	0.56	ng/L	10.0	ND	103	70-130	6.24	30	
Perfluorooctanoic acid (PFOA)	10.4	2.0	0.57	ng/L	10.0	ND	104	70-130	5.54	30	
Perfluorooctanesulfonic acid (PFOS)	10.1	2.0	0.73	ng/L	9.25	ND	109	70-130	0.680	30	
Perfluorononanoic acid (PFNA)	11.4	2.0	1.0	ng/L	10.0	ND	114	70-130	9.35	30	
Surrogate: M2-4:2FTS	21.2			ng/L	37.5		56.5	50-200			
Surrogate: M2-8:2FTS	33.3			ng/L	38.4		86.6	50-200			
Surrogate: MPFBA	37.2			ng/L	40.0		93.0	50-200			
Surrogate: M3HFPO-DA	36.5			ng/L	40.0		91.3	50-200			
Surrogate: M6PFDA	41.2			ng/L	40.0		103	50-200			
Surrogate: M3PFBS	39.9			ng/L	37.3		107	50-200			
Surrogate: M7PFUnA	45.4			ng/L	40.0		114	50-200			
Surrogate: M2-6:2FTS	55.5			ng/L	38.1		146	50-200			
Surrogate: M5PFPeA	38.9			ng/L	40.0		97.3	50-200			
Surrogate: M5PFHxA	35.6			ng/L	40.0		88.9	50-200			
Surrogate: M3PFHxS	42.7			ng/L	37.9		113	50-200			
Surrogate: M4PFHpA	36.2			ng/L	40.0		90.4	50-200			
Surrogate: M8PFOA	37.9			ng/L	40.0		94.6	50-200			
Surrogate: M8PFOS	45.2			ng/L	38.4		118	50-200			
Surrogate: M9PFNA	39.7			ng/L	40.0		99.3	50-200			
Surrogate: MPFDoA	43.6			ng/L	40.0		109	50-200			

Batch B374881 - EPA 533
Blank (B374881-BLK1)

Prepared: 05/21/24 Analyzed: 05/28/24

Perfluorobutanoic acid (PFBA)	ND	1.8	0.57	ng/L							
Perfluorobutanesulfonic acid (PFBS)	ND	1.8	0.53	ng/L							
Perfluoropentanoic acid (PFPeA)	ND	1.8	0.52	ng/L							
Perfluorohexanoic acid (PFHxA)	ND	1.8	0.57	ng/L							
11Cl-PF3OUdS (F53B Major)	ND	1.8	0.66	ng/L							
9Cl-PF3ONS (F53B Minor)	ND	1.8	0.67	ng/L							
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	ND	1.8	0.49	ng/L							
Hexafluoropropylene oxide dimer acid (HFPO-DA)	ND	1.8	0.90	ng/L							
8:2 Fluorotelomersulfonic acid (8:2FTS A)	ND	1.8	0.57	ng/L							
Perfluorodecanoic acid (PFDA)	ND	1.8	0.60	ng/L							
Perfluorododecanoic acid (PFDoA)	ND	1.8	0.74	ng/L							
Perfluoro(2-ethoxyethane)sulfonic acid (PFEEESA)	ND	1.8	0.53	ng/L							
Perfluoroheptanesulfonic acid (PFHpS)	ND	1.8	0.61	ng/L							
4:2 Fluorotelomersulfonic acid (4:2FTS A)	ND	1.8	0.46	ng/L							
Perfluorohexanesulfonic acid (PFHxS)	ND	1.8	0.61	ng/L							
Perfluoro-4-oxapentanoic acid (PFMPA)	ND	1.8	0.51	ng/L							
Perfluoro-5-oxahexanoic acid (PFMBA)	ND	1.8	0.47	ng/L							
6:2 Fluorotelomersulfonic acid (6:2FTS A)	ND	1.8	1.3	ng/L							

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QUALITY CONTROL
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Analyte	Result	Reporting Limit	DL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B374881 - EPA 533											
Blank (B374881-BLK1)											
					Prepared: 05/21/24 Analyzed: 05/28/24						
Perfluoropentanesulfonic acid (PFPeS)	ND	1.8	0.59	ng/L							
Perfluoroundecanoic acid (PFUnA)	ND	1.8	0.63	ng/L							
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	ND	1.8	0.62	ng/L							
Perfluoroheptanoic acid (PFHpA)	ND	1.8	0.49	ng/L							
Perfluorooctanoic acid (PFOA)	ND	1.8	0.50	ng/L							
Perfluorooctanesulfonic acid (PFOS)	ND	1.8	0.64	ng/L							
Perfluorononanoic acid (PFNA)	ND	1.8	0.90	ng/L							
Surrogate: M2-4:2FTS	27.9			ng/L	32.9		84.8	50-200			
Surrogate: M2-8:2FTS	35.8			ng/L	33.7		106	50-200			
Surrogate: MPFBA	37.8			ng/L	35.1		108	50-200			
Surrogate: M3HFPO-DA	40.4			ng/L	35.1		115	50-200			
Surrogate: M6PFDA	37.9			ng/L	35.1		108	50-200			
Surrogate: M3PFBS	37.5			ng/L	32.7		115	50-200			
Surrogate: M7PFUnA	40.8			ng/L	35.1		116	50-200			
Surrogate: M2-6:2FTS	88.6			ng/L	33.4		265	* 50-200			PF-17
Surrogate: M5PFPeA	37.5			ng/L	35.1		107	50-200			
Surrogate: M5PFHxA	34.1			ng/L	35.1		97.2	50-200			
Surrogate: M3PFHxS	39.3			ng/L	33.3		118	50-200			
Surrogate: M4PFHpA	37.1			ng/L	35.1		106	50-200			
Surrogate: M8PFOA	39.1			ng/L	35.1		111	50-200			
Surrogate: M8PFOS	40.1			ng/L	33.7		119	50-200			
Surrogate: M9PFNA	39.7			ng/L	35.1		113	50-200			
Surrogate: MPFDoA	42.9			ng/L	35.1		122	50-200			
LCS (B374881-BS1)											
					Prepared: 05/21/24 Analyzed: 05/28/24						
Perfluorobutanoic acid (PFBA)	19.5	1.7	0.57	ng/L	17.4		112	70-130			
Perfluorobutanesulfonic acid (PFBS)	17.7	1.7	0.53	ng/L	15.4		115	70-130			
Perfluoropentanoic acid (PFPeA)	20.1	1.7	0.52	ng/L	17.4		115	70-130			
Perfluorohexanoic acid (PFHxA)	19.9	1.7	0.56	ng/L	17.4		114	70-130			
11Cl-PF3OUdS (F53B Major)	19.0	1.7	0.66	ng/L	16.4		116	70-130			
9Cl-PF3ONS (F53B Minor)	17.6	1.7	0.67	ng/L	16.3		108	70-130			
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	16.6	1.7	0.48	ng/L	16.4		101	70-130			
Hexafluoropropylene oxide dimer acid (HFPO-DA)	19.8	1.7	0.89	ng/L	17.4		113	70-130			
8:2 Fluorotelomersulfonic acid (8:2FTS A)	19.3	1.7	0.57	ng/L	16.7		115	70-130			
Perfluorodecanoic acid (PFDA)	20.9	1.7	0.60	ng/L	17.4		120	70-130			
Perfluorododecanoic acid (PFDoA)	20.0	1.7	0.74	ng/L	17.4		115	70-130			
Perfluoro(2-ethoxyethane)sulfonic acid (PFEEESA)	18.7	1.7	0.52	ng/L	15.5		120	70-130			
Perfluoroheptanesulfonic acid (PFHpS)	19.3	1.7	0.61	ng/L	16.7		116	70-130			
4:2 Fluorotelomersulfonic acid (4:2FTS A)	18.7	1.7	0.46	ng/L	16.3		114	70-130			
Perfluorohexanesulfonic acid (PFHxS)	17.9	1.7	0.61	ng/L	16.0		112	70-130			
Perfluoro-4-oxapentanoic acid (PFMPA)	20.0	1.7	0.51	ng/L	17.4		114	70-130			
Perfluoro-5-oxahexanoic acid (PFMBA)	22.1	1.7	0.46	ng/L	17.4		127	70-130			
6:2 Fluorotelomersulfonic acid (6:2FTS A)	17.6	1.7	1.3	ng/L	16.6		106	70-130			
Perfluoropentanesulfonic acid (PFPeS)	18.4	1.7	0.59	ng/L	16.4		112	70-130			
Perfluoroundecanoic acid (PFUnA)	20.0	1.7	0.62	ng/L	17.4		114	70-130			
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	20.8	1.7	0.62	ng/L	17.4		119	70-130			
Perfluoroheptanoic acid (PFHpA)	18.7	1.7	0.49	ng/L	17.4		107	70-130			
Perfluorooctanoic acid (PFOA)	20.1	1.7	0.50	ng/L	17.4		115	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
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Batch B374881 - EPA 533
LCS (B374881-BS1)

Prepared: 05/21/24 Analyzed: 05/28/24

Perfluorooctanesulfonic acid (PFOS)	18.7	1.7	0.64	ng/L	16.1		116	70-130			
Perfluorononanoic acid (PFNA)	19.1	1.7	0.89	ng/L	17.4		110	70-130			
Surrogate: M2-4:2FTS	29.3			ng/L	32.7		89.7	50-200			
Surrogate: M2-8:2FTS	36.9			ng/L	33.5		110	50-200			
Surrogate: MPFBA	43.1			ng/L	34.9		124	50-200			
Surrogate: M3HFPO-DA	48.1			ng/L	34.9		138	50-200			
Surrogate: M6PFDA	42.3			ng/L	34.9		121	50-200			
Surrogate: M3PFBS	41.6			ng/L	32.5		128	50-200			
Surrogate: M7PFUnA	43.2			ng/L	34.9		124	50-200			
Surrogate: M2-6:2FTS	81.0			ng/L	33.2		244 *	50-200			S-29
Surrogate: M5PFPeA	42.2			ng/L	34.9		121	50-200			
Surrogate: M5PFHxA	40.1			ng/L	34.9		115	50-200			
Surrogate: M3PFHxS	42.4			ng/L	33.1		128	50-200			
Surrogate: M4PFHpA	42.1			ng/L	34.9		121	50-200			
Surrogate: M8PFOA	42.7			ng/L	34.9		122	50-200			
Surrogate: M8PFOS	42.2			ng/L	33.5		126	50-200			
Surrogate: M9PFNA	44.7			ng/L	34.9		128	50-200			
Surrogate: MPFDoA	45.0			ng/L	34.9		129	50-200			

Batch B375686 - EPA 533
Blank (B375686-BLK1)

Prepared: 05/30/24 Analyzed: 05/31/24

Perfluorobutanoic acid (PFBA)	ND	1.9	0.63	ng/L							
Perfluorobutanesulfonic acid (PFBS)	ND	1.9	0.59	ng/L							
Perfluoropentanoic acid (PFPeA)	ND	1.9	0.57	ng/L							
Perfluorohexanoic acid (PFHxA)	ND	1.9	0.63	ng/L							
11Cl-PF3OUdS (F53B Major)	ND	1.9	0.73	ng/L							
9Cl-PF3ONS (F53B Minor)	ND	1.9	0.75	ng/L							
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	ND	1.9	0.54	ng/L							
Hexafluoropropylene oxide dimer acid (HFPO-DA)	ND	1.9	0.99	ng/L							
8:2 Fluorotelomersulfonic acid (8:2FTS A)	ND	1.9	0.63	ng/L							
Perfluorodecanoic acid (PFDA)	ND	1.9	0.66	ng/L							
Perfluorododecanoic acid (PFDoA)	ND	1.9	0.82	ng/L							
Perfluoro(2-ethoxyethane)sulfonic acid (PFEEESA)	ND	1.9	0.58	ng/L							
Perfluoroheptanesulfonic acid (PFHpS)	ND	1.9	0.68	ng/L							
4:2 Fluorotelomersulfonic acid (4:2FTS A)	ND	1.9	0.51	ng/L							
Perfluorohexanesulfonic acid (PFHxS)	ND	1.9	0.68	ng/L							
Perfluoro-4-oxapentanoic acid (PFMPA)	ND	1.9	0.56	ng/L							
Perfluoro-5-oxahexanoic acid (PFMBA)	ND	1.9	0.51	ng/L							
6:2 Fluorotelomersulfonic acid (6:2FTS A)	ND	1.9	1.4	ng/L							
Perfluoropentanesulfonic acid (PFPeS)	ND	1.9	0.65	ng/L							
Perfluoroundecanoic acid (PFUnA)	ND	1.9	0.69	ng/L							
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	ND	1.9	0.69	ng/L							
Perfluoroheptanoic acid (PFHpA)	ND	1.9	0.55	ng/L							
Perfluorooctanoic acid (PFOA)	ND	1.9	0.55	ng/L							
Perfluorooctanesulfonic acid (PFOS)	ND	1.9	0.71	ng/L							
Perfluorononanoic acid (PFNA)	ND	1.9	0.99	ng/L							
Surrogate: M2-4:2FTS	25.8			ng/L	36.4		70.8	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
Batch B375686 - EPA 533											
Blank (B375686-BLK1)											
						Prepared: 05/30/24 Analyzed: 05/31/24					
Surrogate: M2-8:2FTS	32.2			ng/L	37.2		86.7	50-200			
Surrogate: MPFBA	27.5			ng/L	38.8		71.0	50-200			
Surrogate: M3HFPO-DA	26.6			ng/L	38.8		68.5	50-200			
Surrogate: M6PFDA	30.3			ng/L	38.8		78.2	50-200			
Surrogate: M3PFBS	27.4			ng/L	36.1		75.9	50-200			
Surrogate: M7PFUnA	31.8			ng/L	38.8		82.2	50-200			
Surrogate: M2-6:2FTS	37.7			ng/L	36.9		102	50-200			
Surrogate: M5PFPeA	27.4			ng/L	38.8		70.7	50-200			
Surrogate: M5PFHxA	24.6			ng/L	38.8		63.6	50-200			
Surrogate: M3PFHxS	28.9			ng/L	36.7		78.7	50-200			
Surrogate: M4PFHpA	25.1			ng/L	38.8		64.8	50-200			
Surrogate: M8PFOA	27.3			ng/L	38.8		70.5	50-200			
Surrogate: M8PFOS	31.4			ng/L	37.2		84.5	50-200			
Surrogate: M9PFNA	28.2			ng/L	38.8		72.9	50-200			
Surrogate: MPFDoA	30.1			ng/L	38.8		77.7	50-200			
LCS (B375686-BS1)											
						Prepared: 05/30/24 Analyzed: 05/31/24					
Perfluorobutanoic acid (PFBA)	11.7	1.9	0.62	ng/L	9.54		122	70-130			
Perfluorobutanesulfonic acid (PFBS)	9.82	1.9	0.58	ng/L	8.44		116	70-130			
Perfluoropentanoic acid (PFPeA)	11.5	1.9	0.57	ng/L	9.54		121	70-130			
Perfluorohexanoic acid (PFHxA)	11.5	1.9	0.62	ng/L	9.54		120	70-130			
11Cl-PF3OUdS (F53B Major)	10.3	1.9	0.72	ng/L	8.99		114	70-130			
9Cl-PF3ONS (F53B Minor)	9.31	1.9	0.73	ng/L	8.89		105	70-130			
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	8.89	1.9	0.53	ng/L	8.99		98.9	70-130			
Hexafluoropropylene oxide dimer acid (HFPO-DA)	12.4	1.9	0.97	ng/L	9.54		130	70-130			
8:2 Fluorotelomersulfonic acid (8:2FTS A)	11.3	1.9	0.62	ng/L	9.16		123	70-130			
Perfluorodecanoic acid (PFDA)	10.4	1.9	0.65	ng/L	9.54		109	70-130			
Perfluorododecanoic acid (PFDoA)	10.7	1.9	0.81	ng/L	9.54		112	70-130			
Perfluoro(2-ethoxyethane)sulfonic acid (PFEEESA)	9.30	1.9	0.57	ng/L	8.49		110	70-130			
Perfluoroheptanesulfonic acid (PFHpS)	10.4	1.9	0.67	ng/L	9.11		114	70-130			
4:2 Fluorotelomersulfonic acid (4:2FTS A)	10.2	1.9	0.50	ng/L	8.92		115	70-130			
Perfluorohexanesulfonic acid (PFHxS)	10.2	1.9	0.67	ng/L	8.73		116	70-130			
Perfluoro-4-oxapentanoic acid (PFMPA)	10.8	1.9	0.55	ng/L	9.54		113	70-130			
Perfluoro-5-oxahexanoic acid (PFMBA)	10.8	1.9	0.51	ng/L	9.54		114	70-130			
6:2 Fluorotelomersulfonic acid (6:2FTS A)	10.4	1.9	1.4	ng/L	9.06		115	70-130			
Perfluoropentanesulfonic acid (PFPeS)	10.9	1.9	0.64	ng/L	8.97		122	70-130			
Perfluoroundecanoic acid (PFUnA)	11.0	1.9	0.68	ng/L	9.54		115	70-130			
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	11.1	1.9	0.67	ng/L	9.54		116	70-130			
Perfluoroheptanoic acid (PFHpA)	9.46	1.9	0.54	ng/L	9.54		99.1	70-130			
Perfluorooctanoic acid (PFOA)	11.1	1.9	0.54	ng/L	9.54		117	70-130			
Perfluorooctanesulfonic acid (PFOS)	10.6	1.9	0.70	ng/L	8.82		121	70-130			
Perfluorononanoic acid (PFNA)	9.93	1.9	0.98	ng/L	9.54		104	70-130			
Surrogate: M2-4:2FTS	23.4			ng/L	35.8		65.3	50-200			
Surrogate: M2-8:2FTS	29.3			ng/L	36.6		80.1	50-200			
Surrogate: MPFBA	29.9			ng/L	38.2		78.3	50-200			
Surrogate: M3HFPO-DA	28.8			ng/L	38.2		75.6	50-200			
Surrogate: M6PFDA	33.0			ng/L	38.2		86.4	50-200			
Surrogate: M3PFBS	28.8			ng/L	35.6		81.1	50-200			

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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 B375686 - EPA 533
LCS (B375686-BS1)

Prepared: 05/30/24 Analyzed: 05/31/24

Surrogate: M7PFUnA	32.7			ng/L	38.2		85.7	50-200			
Surrogate: M2-6:2FTS	34.2			ng/L	36.3		94.2	50-200			
Surrogate: M5PFPeA	29.7			ng/L	38.2		77.9	50-200			
Surrogate: M5PFHxA	27.0			ng/L	38.2		70.7	50-200			
Surrogate: M3PFHxS	30.0			ng/L	36.2		82.9	50-200			
Surrogate: M4PFHpA	27.9			ng/L	38.2		73.2	50-200			
Surrogate: M8PFOA	30.0			ng/L	38.2		78.7	50-200			
Surrogate: M8PFOS	30.9			ng/L	36.6		84.5	50-200			
Surrogate: M9PFNA	31.7			ng/L	38.2		83.1	50-200			
Surrogate: MPFDoA	31.6			ng/L	38.2		82.8	50-200			

LCS Dup (B375686-BSD1)

Prepared: 05/30/24 Analyzed: 05/31/24

Perfluorobutanoic acid (PFBA)	11.5	1.9	0.63	ng/L	9.63		119	70-130	1.73	30	
Perfluorobutanesulfonic acid (PFBS)	9.73	1.9	0.58	ng/L	8.52		114	70-130	0.920	30	
Perfluoropentanoic acid (PFPeA)	11.3	1.9	0.57	ng/L	9.63		118	70-130	1.47	30	
Perfluorohexanoic acid (PFHxA)	11.3	1.9	0.62	ng/L	9.63		117	70-130	1.52	30	
11Cl-PF3OUdS (F53B Major)	9.70	1.9	0.73	ng/L	9.07		107	70-130	5.82	30	
9Cl-PF3ONS (F53B Minor)	9.20	1.9	0.74	ng/L	8.97		103	70-130	1.26	30	
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	9.32	1.9	0.53	ng/L	9.07		103	70-130	4.77	30	
Hexafluoropropylene oxide dimer acid (HFPO-DA)	11.7	1.9	0.98	ng/L	9.63		122	70-130	5.81	30	
8:2 Fluorotelomersulfonic acid (8:2FTS A)	11.5	1.9	0.63	ng/L	9.24		125	70-130	2.02	30	
Perfluorodecanoic acid (PFDA)	11.2	1.9	0.66	ng/L	9.63		117	70-130	7.23	30	
Perfluorododecanoic acid (PFDoA)	10.9	1.9	0.82	ng/L	9.63		113	70-130	1.82	30	
Perfluoro(2-ethoxyethane)sulfonic acid (PFEEESA)	9.57	1.9	0.58	ng/L	8.57		112	70-130	2.81	30	
Perfluoroheptanesulfonic acid (PFHpS)	10.8	1.9	0.67	ng/L	9.19		117	70-130	3.37	30	
4:2 Fluorotelomersulfonic acid (4:2FTS A)	9.82	1.9	0.51	ng/L	9.00		109	70-130	4.02	30	
Perfluorohexanesulfonic acid (PFHxS)	10.3	1.9	0.67	ng/L	8.81		117	70-130	1.21	30	
Perfluoro-4-oxapentanoic acid (PFMPA)	11.2	1.9	0.56	ng/L	9.63		116	70-130	3.28	30	
Perfluoro-5-oxahexanoic acid (PFMBA)	11.3	1.9	0.51	ng/L	9.63		117	70-130	4.08	30	
6:2 Fluorotelomersulfonic acid (6:2FTS A)	9.79	1.9	1.4	ng/L	9.15		107	70-130	6.33	30	
Perfluoropentanesulfonic acid (PFPeS)	10.5	1.9	0.65	ng/L	9.05		116	70-130	3.79	30	
Perfluoroundecanoic acid (PFUnA)	12.1	1.9	0.69	ng/L	9.63		125	70-130	9.25	30	
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	11.2	1.9	0.68	ng/L	9.63		116	70-130	0.640	30	
Perfluoroheptanoic acid (PFHpA)	9.46	1.9	0.54	ng/L	9.63		98.3	70-130	0.0543	30	
Perfluorooctanoic acid (PFOA)	10.8	1.9	0.55	ng/L	9.63		112	70-130	3.02	30	
Perfluorooctanesulfonic acid (PFOS)	9.96	1.9	0.70	ng/L	8.90		112	70-130	6.62	30	
Perfluorononanoic acid (PFNA)	10.3	1.9	0.99	ng/L	9.63		107	70-130	3.67	30	
Surrogate: M2-4:2FTS	24.2			ng/L	36.1		67.0	50-200			
Surrogate: M2-8:2FTS	29.6			ng/L	37.0		80.0	50-200			
Surrogate: MPFBA	29.9			ng/L	38.5		77.7	50-200			
Surrogate: M3HFPO-DA	30.4			ng/L	38.5		78.9	50-200			
Surrogate: M6PFDA	33.3			ng/L	38.5		86.6	50-200			
Surrogate: M3PFBS	26.9			ng/L	35.9		75.0	50-200			
Surrogate: M7PFUnA	33.8			ng/L	38.5		87.8	50-200			
Surrogate: M2-6:2FTS	35.2			ng/L	36.6		96.1	50-200			
Surrogate: M5PFPeA	29.9			ng/L	38.5		77.7	50-200			
Surrogate: M5PFHxA	28.9			ng/L	38.5		75.1	50-200			
Surrogate: M3PFHxS	28.5			ng/L	36.5		78.2	50-200			

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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 B375686 - EPA 533
LCS Dup (B375686-BSD1)

Prepared: 05/30/24 Analyzed: 05/31/24

Surrogate: M4PFHpA	29.2			ng/L	38.5		75.8	50-200			
Surrogate: M8PFOA	31.5			ng/L	38.5		81.7	50-200			
Surrogate: M8PFOS	30.4			ng/L	36.9		82.3	50-200			
Surrogate: M9PFNA	33.2			ng/L	38.5		86.1	50-200			
Surrogate: MPFDoA	32.5			ng/L	38.5		84.4	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.
J	Detected but below the Reporting Limit (lowest calibration standard); therefore, result is an estimated concentration (CLP J-Flag).
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-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	Re-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)	CT,NH,NY,VT-DW,ME,NJ,PA,OH
Perfluorobutanesulfonic acid (PFBS)	CT,NH,NY,VT-DW,ME,NJ,PA,OH,VA
Perfluoropentanoic acid (PFPeA)	CT,NH,NY,VT-DW,ME,NJ,PA,OH
Perfluorohexanoic acid (PFHxA)	CT,NH,NY,VT-DW,ME,NJ,PA,OH
11Cl-PF3OUdS (F53B Major)	CT,NH,NY,VT-DW,ME,NJ,PA,OH
9Cl-PF3ONS (F53B Minor)	CT,NH,NY,VT-DW,ME,NJ,PA,OH
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	CT,NH,NY,VT-DW,ME,NJ,PA,OH
Hexafluoropropylene oxide dimer acid (HFPO-DA)	CT,NH,NY,VT-DW,ME,NJ,PA,OH,VA
8:2 Fluorotelomersulfonic acid (8:2FTS A)	CT,NH,NY,VT-DW,ME,NJ,PA,OH
Perfluorodecanoic acid (PFDA)	CT,NH,NY,VT-DW,ME,NJ,PA,OH
Perfluorododecanoic acid (PFDoA)	CT,NH,NY,VT-DW,ME,NJ,PA,OH
Perfluoro(2-ethoxyethane)sulfonic acid (PFEEESA)	CT,NH,NY,VT-DW,ME,NJ,PA,OH
Perfluoroheptanesulfonic acid (PFHpS)	CT,NH,NY,VT-DW,ME,NJ,PA,OH
4:2 Fluorotelomersulfonic acid (4:2FTS A)	CT,NH,NY,VT-DW,ME,NJ,PA,OH
Perfluorohexanesulfonic acid (PFHxS)	CT,NH,NY,VT-DW,ME,NJ,PA,OH,VA
Perfluoro-4-oxapentanoic acid (PFMPA)	CT,NH,NY,VT-DW,ME,NJ,PA,OH
Perfluoro-5-oxahexanoic acid (PFMBA)	CT,NH,NY,VT-DW,ME,NJ,PA,OH
6:2 Fluorotelomersulfonic acid (6:2FTS A)	CT,NH,NY,VT-DW,ME,NJ,PA,OH
Perfluoropentanesulfonic acid (PFPeS)	CT,NH,NY,VT-DW,ME,NJ,PA,OH
Perfluoroundecanoic acid (PFUnA)	CT,NH,NY,VT-DW,ME,NJ,PA,OH
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	CT,NH,NY,VT-DW,ME,NJ,PA,OH
Perfluoroheptanoic acid (PFHpA)	CT,NH,NY,VT-DW,ME,NJ,PA,OH
Perfluorooctanoic acid (PFOA)	CT,NH,NY,VT-DW,ME,NJ,PA,OH,VA
Perfluorooctanesulfonic acid (PFOS)	CT,NH,NY,VT-DW,ME,NJ,PA,OH,VA
Perfluorononanoic acid (PFNA)	CT,NH,NY,VT-DW,ME,NJ,PA,OH,VA

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

Code	Description	Number	Expires
CT	Connecticut Department of Public Health	PH-0821	12/31/2024
NY	New York State Department of Health	10899 NELAP	04/1/2025
NH	New Hampshire Environmental Lab	2516 NELAP	02/5/2025
NJ	New Jersey DEP	MA007 NELAP	06/30/2024
VT-DW	Vermont Department of Health Drinking Water	VT-255716	06/12/2025
ME	State of Maine	MA00100	06/9/2025
VA	Commonwealth of Virginia	460217	12/14/2024
PA	Commonwealth of Pennsylvania DEP	68-05812	06/30/2025
OH	Ohio Environmental Protection Agency	87781	04/1/2025



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			
	(Circle Amb/Clear)				1 Liter	250ml	100ml	1 Liter	500ml	250ml										
1	16oz Amb/Clear				Unpreserved				Unpreserved											
2	8oz Amb/Clear				HCL				Sulfuric											
3	4oz Amb/Clear				Sulfuric				Unpreserved											
4	2oz Amb/Clear				Sulfuric				Sulfuric											
5					Phosphoric				HCL											
6					HCL				Unpreserved											
7					Unpreserved				Unpreserved											
8					Sulfuric				Sulfuric											
9					Unpreserved				Unpreserved											
10					Sulfuric				Sulfuric											
11					Unpreserved				Unpreserved											
12					Trizma				Trizma											
13					Sulfuric				Sulfuric											
14					Nitric				Nitric											
15					NaOH				NaOH											
16					Ammonium Acetate				Ammonium Acetate											
17					NaOH/Zinc				NaOH/Zinc											
18					Unpreserved				Unpreserved											
19					HCL				HCL											
20					MeOH				MeOH											
					D.I. Water				D.I. Water											
					BiSulfate				BiSulfate											
					Col/Bact				Col/Bact											