



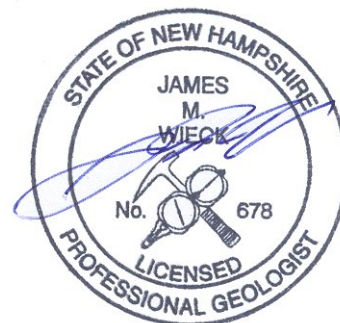
**NHDES Waste Management Division
29 Hazen Drive; PO Box 95
Concord, NH 03302-0095**



**DATA TRANSMITTAL
SUPPLEMENTAL PFAS ASSESSMENT
SPRING 2023 CONFIRMATORY GROUNDWATER AND
SURFACE WATER SAMPLING
Troy Mills Landfill Superfund Site
Troy, New Hampshire 03465**

**NHDES Site No.: 198405082
Project Type: Superfund
Project Number: 104
EPA ID No: NHD980520217**

Prepared For:
New Hampshire Department of Environmental Services
Waste Management Division
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Date of Report: October 2023

Jennifer Milbury Digitally signed by Jennifer Milbury
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October 3, 2023
File No. 04.0190987.33

Mr. Michael Summerlin, P.E.
New Hampshire Department of Environmental Services
Waste Management Division
29 Hazen Drive
P.O. Box 95
Concord, New Hampshire 03301-0095

Re: Data Transmittal
Supplemental PFAS Assessment –
Spring 2023 Confirmatory Groundwater and Surface Water Sampling
Troy Mills Landfill Superfund Site
Troy, New Hampshire
NHDES Site # 198405082

Dear Michael:

GZA GeoEnvironmental, Inc. (GZA) is pleased to submit to the New Hampshire Department of Environmental Services (NHDES) this data transmittal conveying results of the Spring 2023 supplemental per- and polyfluoroalkyl substances (PFAS) confirmatory water quality sampling activities performed at the Troy Mills Landfill Superfund Site (Site) in Troy, New Hampshire. The confirmatory sampling activities included the collection of water quality samples for PFAS analysis from the seven groundwater monitoring wells installed at the Site in September and October 2022, and a water quality sample from one surface water monitoring location. Refer to **Table 1** for the monitoring locations sampled.

This data transmittal includes a summary of field observations by GZA personnel, results of natural attenuation field screening measurements made by GZA personnel, and analytical laboratory data. The summaries included in this data transmittal are subject to modification based on additional information obtained by GZA or provided to GZA by other parties and the attached **Limitations**.

Authorization to proceed on this project was granted by NHDES in accordance with our proposed Scope of Work and Budget Estimate dated June 13, 2022, and NHDES' Work Scope Approval (WSA) dated August 11, 2022 (WSA #4) and Continuation of WSA dated July 21, 2023. The work was performed in accordance with the NHDES 2019 to 2023 Contract for Site Investigations, Remediation Design, and Implementation Oversight at Petroleum & Hazardous Waste Sites, and CERCLA and Brownfields Projects, as approved by the Governor and Council on June 5, 2019. GZA collected groundwater samples in accordance with the Hazardous Waste



Remediation Bureau (HWRB) Master Quality Assurance Project Plan (QAPP) EPA RFA #18008 at the time of sampling, and the EPA- and NHDES-approved April 2023 Sampling and Analysis Plan (SAP).

Data and information from the spring 2023 confirmatory groundwater and surface water sampling round are organized under the following sections: 1) Water Level Measurement; 2) Groundwater Sampling; and 3) Surface Water Sampling.

1.0 WATER LEVEL MEASUREMENT

On April 25, 2023, GZA performed a water level measurement round of the seven¹ groundwater monitoring wells planned for confirmatory sampling, and two additional groundwater monitoring wells within the TRY_MW-601 triplet, to monitor groundwater elevations within the wells and estimate the direction of groundwater flow relative to potential contaminant transport. Boring locations and monitoring well installations were assigned a tag label of "MW" combined with a numerical designation and a letter denoting overburden (S) or bedrock (B) as appropriate (e.g., MW-601B). The identification labels from these locations also include the prefix "TRY_" for database management purposes and for ease to the reader, will not be used for the remainder of this report.

Groundwater levels were measured as depth-to-water using a Solinst Model 101 electronic water level indicator probe. Groundwater surface elevations were calculated by subtracting the depth-to-water from the surveyed elevation of the well-specific reference measuring point (i.e., top of polyvinyl chloride riser). A completed **Water Level Worksheet** is attached. Refer to **Table 2** for specific well construction information, **Table 3** for tabulated groundwater elevation data, and **Table 4** for calculated estimates of the vertical component of the hydraulic gradients between the well screens within the monitoring well couplets.

Due to the limited spatial distribution/extent of groundwater monitoring wells included in this confirmatory sampling round, a surface water stage measurement was only collected on April 27, 2023 (following the collection of surface water at SW-100) from the permanently mounted stream gage at surface water quality monitoring station SW-4 as an indicator of the stage of the time of the sampling round.

2.0 GROUNDWATER SAMPLING

Between April 25 and 27, 2023, GZA personnel performed water quality sampling at the eight monitoring locations planned to be sampled during the confirmatory sampling round. Refer to **Table 1** for monitoring locations. Groundwater samples were collected from seven groundwater monitoring wells using low-flow sampling or modified methodologies. Groundwater sampling was conducted using a combination of non-dedicated bladder pumps and a bailer. Collection of groundwater samples within six of the seven wells using a non-dedicated bladder pump included: a QED SamplePro bladder pump (100-milliliter Teflon® bladder); compressed nitrogen, and an MP-10 controller; dedicated polyethylene tubing; an In-Situ AquaTroll multi-parameter sonde (AquaTroll) and flow-through cell (outfitted for specific conductance, oxidation-reduction potential [ORP], dissolved oxygen [DO], pH, and temperature measurement); and a Hach Model 2100Q turbidity meter (Hach).

The low-flow sampling methodology was not performed at MW-901S due to an insufficient volume of groundwater within the well screen. Instead, a grab sample was collected from this location using a dedicated polyethylene bailer. Equipment used in collecting the groundwater sample using a bailer also included: an AquaTroll (outfitted for specific conductance, ORP, DO, pH, and temperature measurements). Approximately

¹ MW-601B, MW-901S, MW-901B, MW-902S, MW-902B, MW-903S, and MW-903B.



500 mL of groundwater was collected from MW-901S to fill both laboratory provided PFAS bottles and approximately 200 mL of groundwater was used to collect field parameter readings. In order to collect field parameter readings with the AquaTroll, an approximately 200 mL aliquot of groundwater was collected into a dedicated, disposable, laboratory-cleaned container and the AquaTroll sonde was fully submerged into the aliquot for approximately 2 to 5 minutes.

Because the monitoring well MW-901S went dry and did not recharge sufficiently after collecting approximately 380 mL during the fall 2022 sampling round, after collecting the grab sample during the spring 2023 sampling round, GZA continued to purge MW-901S to assess how much groundwater was available during the spring season. GZA was able to successfully purge approximately 3-4 liters of groundwater prior to MW-901S going dry.

3.0 SURFACE WATER SAMPLING

A water quality sample for PFAS analysis was also collected from surface water location SW-100 during spring 2023. In-situ field parameters (temperature, specific conductivity, pH, ORP, DO, and turbidity) were collected using a Hach and an AquaTroll equipped with a probe guard. For a detailed description of the procedures followed for surface water sampling, refer to SOP #B-9 *Surface Water and Stream Sediments Sampling Procedure* included in the SAP. A completed *Surface Water/Sediment Worksheet* is attached associated with the sampling of SW-100.

4.0 DATA ORGANIZATION AND QUALITY

Refer to **Figure 1** for an illustration of the groundwater monitoring well and surface water locations and **Table 5**, **Table 6**, and **Table 7** for a summary of analytical and field parameter results for groundwater.

Refer to **Figure 2A** and **Figure 2B** for the interpreted groundwater migration in overburden and bedrock aquifers across the Site. Refer to **Figure 3** for the interpreted distribution of PFOA concentrations detected in the spring 2023 groundwater samples. PFOA was selected to represent the main PFAS contaminant of concern because it was the only PFAS contaminant to exceed its AGQS, EPA Regional Screening Level, and EPA Interim Drinking Water Health Advisory.

Except as specifically noted herein, GZA followed the procedures outlined in the SAP. Overall, the data collected during the April 2023 PFAS groundwater sampling event was found by GZA to be acceptable for its intended use. Of the analytical samples collected, no results were rejected. There were no sampling deviations from the SAP.

The laboratory Alpha Analytical Laboratories (Alpha) achieved the reporting limits for all media and test methods included in the SAP.

GZA notes the following quality assurance/quality control (QA/QC) issues observed during the spring 2023 sampling activities:

Several extracted internal standard recovery failures were associated with internal laboratory QC samples associated with groundwater samples collected during the spring 2023 sampling round; however, these internal QC failures did not affect the groundwater results reported in the laboratory data package. For more information refer to the laboratory report case narrative.

Where suspended solids were visible in groundwater sample collected from MW-901S, the sample was noted to be centrifuged and decanted prior to sample extraction for laboratory analysis.



The laboratory qualified the following data with an “F” flag: the perfluorooctanesulfonic acid (PFOS) concentrations detected in the groundwater sample collected from MW-901B; the 4,8-dioxa-3h-perfluorononanoic acid (ADONA) concentration in the groundwater sample collected from MW-902B; the perfluorohexanesulfonic acid (PFHxS) concentration in the groundwater sample collected from MW-902S; the n-methyl perfluorooctanesulfonamidoacetic acid (NMeFOSAA) concentration in the groundwater samples collected from MW-901B, MW-903S, and MW-903S DUP; and the 1H,1H,2H,2H-Perfluorooctanesulfonic Acid (6:2FTS) concentration in the groundwater sample collected from EQUIP BLANK.

Per the Department of Defense (DOD) Quality Systems Manual (QSM) for environmental laboratories, Table B-15 (Per- and Polyfluoroalkyl Substances [PFAS] Using Liquid Chromatography Tandem Mass Spectrometry [LC/MS/MS] With Isotope Dilution or Internal Standard Quantification in Matrices Other Than Drinking Water), page 216, indicates “PFAS identified with ion ratios that fail acceptance criteria must be flagged. Any quantitation ion peak that does not meet the maximization criteria shall be included in the summed integration and the resulting data flagged as ‘estimated, biased high.’” Accordingly, the laboratory qualified PFAS concentrations that did not meet this criterion with an “F” flag as listed above. GZA qualified the data with an “F” flag in **Table 7**.

Based on the laboratory data, one parameter exceeded the acceptance criteria for the calculated relative percent difference (RPD; 30 percent for aqueous samples). Results for 6:2FTS in the sample collected from well MW-903S (109.7%) has been qualified by GZA in **Table 7** for not meeting the acceptance criteria. Refer to **Table 8** for a summary of relative percent difference (RPD) values associated with the spring 2023 sampling round.

Calibration and associated checks of the Hach turbidity meters and AquaTroll units were successful, and no field screen data required qualification with the exception of the turbidity reading at MW-903S. The AquaTroll meter was stopped prior to the turbidity parameter reaching stabilization. Therefore, this parameter is qualified by GZA on **Table 5**.

The laboratory reports indicated a detection of perfluorobutanoic acid (PFBA), perfluoropentanoic acid (PFPeA), perfluorohexanoic acid (PFHxA), and perfluoroheptanoic acid (PFHpA) in the equipment blank associated with the QED SamplePro bladder pump (serial number: #11715) at concentrations of 13.4 ng/L, 15.7 ng/L, 2.34 ng/L, and 2.18 ng/L, respectively. Because these compounds were detected at a concentration an order of magnitude higher than the concentrations detected from the equipment blank sample in the wells where the SamplePro was used, GZA did not qualify this data at monitoring wells MW-902S and MW-903S. The equipment blank associated with the water level meter (serial number: R1228) was also reported to have a detection of 6:2FTS at a concentration of 2.17 ng/L. This water level was used at monitoring wells MW-902B, MW-903S, and MW-903B. The concentrations of 6:2FTS detected at these locations were twice as high or more at these locations and therefore the data was not qualified at these three monitoring wells. Refer to **Table 9** for a summary of the spring 2023 and historical equipment blank detections.

GZA has attached copies of our **Photographic Documentation, Field Notes, Water Level and Surface Water/Sediment Worksheets, Low-Flow Test Reports, Vendor Equipment Certifications, Instrument Calibration Logs, and Alpha's Analytical Laboratory Data Packages** associated with the April 2023 supplemental PFAS groundwater sampling.



October 3, 2023

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NHDES – Supplemental PFAS Assessment Activities – Spring 2023 Confirmatory Sampling

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GZA trusts that the information contained herein meets your needs. Please feel free to call should you have any questions or require additional information.

Very truly yours,

GZA GEOENVIRONMENTAL, INC.

A handwritten signature in black ink, appearing to read 'Megan E. Murphy'.

Megan E. Murphy
Project Manager

A handwritten signature in black ink, appearing to read 'James M. Wieck'.

James M. Wieck, P.G.
Consultant / Reviewer

A handwritten signature in black ink, appearing to read 'Steven R. Lamb'.

Steven R. Lamb, P.G., C.G.W.P
Principal

MEM/SRL/JMW:jljb

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Attachments: Tables
Figures
Limitations
Photolog
Field Notes
Water Level & Surface Water/Sediment Worksheets
Low-Flow Test Reports
Vendor Equipment Certifications
Instrument Calibration Logs
Analytical Laboratory Data Packages



Tables

TABLE 1
MULTIMEDIA SAMPLING - SUMMARY OF THE SPRING 2023 MONITORING ACTIVITIES
Troy Mills Landfill Superfund Site
Troy, New Hampshire

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Page 1 of 1

Monitoring Location	Date Collected	Sampling Method ¹	PFAS (537mod)	NA ² (Field)
Groundwater Sampling Locations				
TRY_MW-601B	4/26/2023	QED Sample Pro	x	x
TRY_MW-901S	4/27/2023	Bailer	x	<i>Grab</i>
TRY_MW-901B	4/26/2023	QED Sample Pro	x	x
TRY_MW-902S	4/25/2023	QED Sample Pro	x	x
TRY_MW-902B	4/25/2023	QED Sample Pro	x	x
TRY_MW-903S	4/26/2023	QED Sample Pro	x	x
TRY_MW-903S DUP	4/26/2023	QED Sample Pro	x	x
TRY_MW-903B	4/26/2023	QED Sample Pro	x	<i>Grab</i>
Surface Water Sampling Locations				
TRY_SW-100	4/27/2023	Glass Sample Container	x	x
TRY_SW-100 DUP			x	x

TABLE KEY:

ns = not sampled; *na* = not applicable

PFAS = Per- and Polyfluoroalkyl Substances

NA = Natural Attenuation

SPECIFIC NOTES:

1. A non-dedicated QED SamplePro bladder pump was used with a QED MP-10 controller to sample the SamplePro pump wells. A dedicated bailer was used at MW-901S.
2. Field NA parameters include water levels, specific conductance, oxidation-reduction potential (ORP), dissolved oxygen (DO), pH, temperature and turbidity using an In-Situ AquaTroll multi-parameter meter and a Hach 2100Q turbidity meter. Grab indicates field parameter readings that were collected prior to stabilization due to partially-saturated well screen conditions, or insufficient recharge.

TABLE 2
WELL CONSTRUCTION INFORMATION
Troy Mills Landfill Superfund Site
Troy, New Hampshire

Monitoring Well Designation	Reported Depth to Well Bottom ¹ (ft, referenced to measuring point)	Measured Depth to Well Bottom ¹ (ft, referenced to measuring point)	Screen Interval (ft, referenced to measuring point)	Screen Length (ft)	Reference Measuring Point	Height of Stickup of Measuring Point (ft)	Bladder Pump Model	Bladder Length in feet (L) / Diameter in inches (D) / & Capacity in mL (C)	Sampling Method	Historical Low Water Level ² (ft, referenced to measuring point)	Recommended Depth of Bladder Pump Intake (ft, referenced to measuring point)	Pump Intake Distance from Top of Screen (ft, referenced to measuring point)	Distance Between Pump Intake and Bottom of Well ³ (ft, referenced to measuring point)
TRY_M-1	67.3 ⁵	dedicated equip.	8.3-67.3 ⁵	59	PVC	0.64	QED T1300	3.8-ft L, 1-in D, 220-mL C	Low Flow	8.76	55.0	46.7	12.3
TRY_M-7	17.3	dedicated equip.	7.8-17.3	9.5	PVC	1.61	QED T1300	3.8-ft L, 1-in D, 220-mL C	LF/Mod	8.76	15.8	8.0	1.5
TRY_M-7D	81.4	81.4	50.8-80.8	30	PVC	1.49	N / A ⁷	N / A ⁷	Mod/IR	5.58	74.0 ⁷	23.2 ⁷	6.8 ⁷
TRY_MW-A28 ¹¹	13.0	13.2	8.03	5	PVC	3.03	N / A ⁷	N / A ⁷	LF/Mod	9.28	11.1 ⁷	3.1 ⁷	1.9 ⁷
TRY_MW-C6S	15.2	15.2	5.2-15.2	10	PVC	1.79	N / A ⁷	N / A ⁷	LF/Mod	6.67	11.0 ⁷	5.8 ⁷	4.2 ⁷
TRY_MW-C6D	38.0	dedicated equip.	28.0-38.0	10	PVC	2.50	QED T1250	1.2-ft L, 1.5-in D, 100-mL C	Low Flow	7.18	33.0	5.0	5.0
TRY_MW-101S	29.4	dedicated equip.	19.4-29.4	10	PVC	1.71	QED T1250	1.2-ft L, 1.5-in D, 100-mL C	LF/Mod	21.30	24.4	5.0	5.0
TRY_MW-101D	67.1	dedicated equip.	57.1-67.1	10	PVC	2.50	QED T1250	1.2-ft L, 1.5-in D, 100-mL C	Mod/IR	18.86	62.1	5.0	5.0
TRY_MW-102	36.2 ⁵	36.0	21.2-36.2 ⁵	15	Casing	2.89	QED Sample Pro	1.2-ft L, 1.75 in D, 100-mL C	Low Flow ¹⁰	25.31	34.0	13.0	2.2
TRY_MW-104S	17.7 ⁵	dedicated equip.	5-17 ⁵	12	PVC	2.17	QED T1250	1.2-ft L, 1.5-in D, 100-mL C	Low Flow	4.39	15.5	10.5	1.5
TRY_MW-104D	52.1 ⁵	dedicated equip.	37.1-52.1 ⁵	15	PVC	2.48	QED T1250	1.2-ft L, 1.5-in D, 100-mL C	Low Flow	4.24	48.0	10.9	4.1
TRY_MW-105S	21.1	dedicated equip.	6.5-19.5 ⁵	13	PVC	---	QED T1250	1.2-ft L, 1.75 in D, 100-mL C	LF/Mod	11.58	17.5	11.0	3.6
TRY_MW-105D	87.9	87.9	48.5-88.2 ⁵	39.7	PVC	1.89	QED Sample Pro	1.2-ft L, 1.75 in D, 100-mL C	Mod/IR	12.65	68.0	19.5	20.2
TRY_MW-201SX	17.2	dedicated equip.	7.2-17.2	10	PVC	1.69	QED T1250	1.2-ft L, 1.5-in D, 100-mL C	Low Flow	7.54	12.2	5.0	5.0
TRY_MW-202P ¹¹	61.6	61.4	4.9-59.9 ⁵	55	PVC	1.96	QED Sample Pro	1.2-ft L, 1.75 in D, 100-mL C	Low Flow	9.97	52.5	47.6	7.4
TRY_MW-204	32.8	dedicated equip.	22.8-32.8	10	PVC	2.6	QED T1250	1.2-ft L, 1.5-in D, 100-mL C	Low Flow	21.52	31.3	8.5	1.5
TRY_MW-205	39.1	dedicated equip.	29.1-39.1	10	PVC	2.07	QED T1250	1.2-ft L, 1.5-in D, 100-mL C	LF/Mod	33.42	37.6	8.5	1.5
TRY_MW-301X	52.5	52.7	42.5-52.5	10	PVC	2.42	QED Sample Pro	1.2-ft L, 1.75 in D, 100-mL C	Low Flow	35.55	47.5	5.0	5.0
TRY_MW-501X	14.0	13.8	4.0-14.0	10	PVC	2.02	QED Sample Pro	1.2-ft L, 1.75 in D, 100-mL C	LF/Mod	6.39	10.2	6.2	3.8
TRY_MW-501D	31.9	dedicated equip.	21.9-31.9	10	PVC	2.17	QED T1250	1.2-ft L, 1.5-in D, 100-mL C	Low Flow	6.22	26.9	5.0	5.0
TRY_MW-508X	9.7	9.95	4.7-9.7	5	PVC	2.9	QED Sample Pro	1.2-ft L, 1.75 in D, 100-mL C	LF/Mod	6.45	8.1	3.4	1.6
TRY_MW-601S	29.3	dedicated equip.	14.3-29.3	15	PVC	2.69	QED T1250	1.2-ft L, 1.5-in D, 100-mL C	LF/Mod	21.80	27.8	13.5	1.5
TRY_MW-601D	62.1	dedicated equip.	52.1-62.1	10	PVC	2.23	QED T1250	1.2-ft L, 1.5-in D, 100-mL C	Low Flow ⁸	23.10	57.1	5.0	5.0
TRY_MW-601B	86.1	86.1	76.1-86.1	10	PVC	3.21	QED Sample Pro	1.2-ft L, 1.75 in D, 100-mL C	Low Flow	26.08	81.1	5.0	5.0
TRY_MW-602B	47.5	dedicated equip.	37.5-47.5	10	PVC	2.12	QED T1250	1.2-ft L, 1.5-in D, 100-mL C	Low Flow	21.76	42.5	5.0	5.0
TRY_MW-701	78.3	dedicated equip.	18.3-78.3	60	PVC	3.18	QED T1250	1.2-ft L, 1.5-in D, 100-mL C	Low Flow	10.70	48.3	30.0	30.0
TRY_MW-702SX	15.4 ⁶	14.79	5.4-15.4 ⁶	10	PVC	3.9	QED Sample Pro	1.2-ft L, 1.75 in D, 100-mL C	LF/Mod ⁹	7.95	11.7	6.3	3.7
TRY_MW-702D	46.4 ^{5,6}	46.7	19.4-46.4 ^{5,6}	27	PVC	2.44	QED Sample Pro	1.2-ft L, 1.75 in D, 100-mL C	Low Flow	6.55	33.0	13.6	13.4
TRY_MW-801	46.4	46.7	36.4-46.4	10	PVC	2.25	QED Sample Pro	1.2-ft L, 1.75 in D, 100-mL C	Low Flow	33.46	41.4	5.0	5.0
TRY_MW-802	35.6	35.9	25.6-35.6	10	PVC	2.1	QED Sample Pro	1.2-ft L, 1.75 in D, 100-mL C	LF/Mod	29.18	32.4	6.8	3.2
TRY_MW-803	32.3	dedicated equip.	22.3-32.3	10	PVC	2.15	QED T1250	1.2-ft L, 1.5-in D, 100-mL C	LF/Mod	29.12	30.7	8.4	1.6
TRY_MW-804 ¹¹	36.0	dedicated equip.	26.0-36.0	10	PVC	2.32	QED T1250	1.2-ft L, 1.5-in D, 100-mL C	LF/Mod	31.71	33.9	7.9	2.1
TRY_MW-805	42.4	42.6	32.4-42.4	10	PVC	2.37	QED Sample Pro	1.2-ft L, 1.75 in D, 100-mL C	Low Flow	31.41	37.4	5.0	5.0
TRY_MW-901S	39.0	39.0	34.0-39.0	5	PVC	2.29	Bailer	3.0-ft L, 1.6 in D, 1,000-mL C	Grab ¹²	38.56	36.5	N/A ¹²	N/A ¹²
TRY_MW-901B	74.8	74.8	64.4-74.4	10	PVC	1.75	QED Sample Pro	1.2-ft L, 1.75 in D, 100-mL C	Low Flow	34.88	69.8	5.4	4.6
TRY_MW-902S	31.5	31.5	21.5-31.5	10	PVC	2.21	QED Sample Pro	1.2-ft L, 1.75 in D, 100-mL C	Low Flow	25.02	28.5	7.0	3.0
TRY_MW-902B	110.8	110.8	100.4-110.4	10	PVC	1.71	QED Sample Pro	1.2-ft L, 1.75 in D, 100-mL C	Low Flow	32.17	105.8	5.4	4.6
TRY_MW-903S	15.2	15.2	10.2-15.2	5	PVC	2.75	QED Sample Pro	1.2-ft L, 1.75 in D, 100-mL C	Low Flow	7.27	12.7	2.5	2.5
TRY_MW-903B	72.7	72.7	62.7-72.7	10	PVC	2.13	QED Sample Pro	1.2-ft L, 1.75 in D, 100-mL C	Low Flow	7.70	67.7	5.0	5.0

TABLE KEY:

in = Inch
ft = Feet
PVC = Polyvinyl chloride
LNAPL = Light Non-aqueous Phase Liquid
L = Length
D = Diameter
C = Capacity
mL = milliliters
"---" = No data available
N / A = Not applicable
LF/Mod = Low Flow or Modified Sampling Procedure depending upon water level (i.e., the screen is bisected by water table)
Mod/IR = Modified sampling method used due to historical insufficient recharge
Wells that require collecting additional information during future sampling event

SPECIFIC NOTES:

1. Reported Depth to Well Bottom depths are field measured unless otherwise noted.
2. Wells labeled "Mod/IR" had two or more consecutive sampling years during which stabilized drawdown could not be achieved. The wells are now sampled using the Modified Sampling Method described in SOP B-5 Groundwater Well Sampling - Low Flow using a Peristaltic Pump and SOP B-6 Groundwater Well Sampling - Low Flow using a Bladder Pump.
3. Historical low water levels are compiled from water level measurements taken from 2006 to the present. This data is checked yearly and updated as necessary. Refer to Table 3 - Groundwater Level Measurements and Elevation Data for historical groundwater levels and elevations. The historical low water level for well TRY_MW-C6S was taken from the 11/19/12 measurement included on Table 4 - Summary of LNAPL Well Observations of the June 2013 Monitoring Report.
4. The distance between pump intake and bottom of the well is calculated using the Depth to Well Bottom information.
5. Downhole information was not verified during the October 8, 2008 camera survey.
6. GZA notes that there appears to be a minor discrepancy between the historical information regarding the bottom of screen/well and that which was measured during 2014 by GZA in wells TRY_MW-702SX (14.9 feet) and TRY_MW-702D (46.7 feet).
7. Wells TRY_MW-A28 and TRY_M-7D have a 1.5-inch diameter, which is too small to accommodate a SamplePro Bladder pump; therefore, a peristaltic pump and dedicated poly tubing is used to sample these wells. The last three columns of the table (Recommended Depth of Bladder Pump Intake, etc.) refer to the intake depth of the poly tubing used for sampling. Well TRY_MW-C6S is also be sampled with a peristaltic pump due to bis(2-ethylhexyl)phthalate contamination concerns.
8. The water level and field parameters in TRY_MW-601D often stabilize at or near the two hour time limit.
9. For TRY_MW-702SX, the use of low flow or modified methodology for purging the well will depend on the water level in the screen and the turbidity of the water during purging.
10. The water level in this well did not stabilize prior to the two hour time limit during the fall 2022 sampling event.
11. For TRY_MW-202P, TRY_MW-804, and TRY_MW-A28 attempt full low flow
12. Well TRY_MW-901S was sampled using a bailer due to measured low groundwater level and depth of well, as approved by NHDES.

TABLE 3
GROUNDWATER LEVEL MEASUREMENTS AND ELEVATION DATA
Troy Mills Landfill Superfund Site
Troy, New Hampshire

Monitoring Well Designation	Screened Geologic Unit	Measuring Point	Measuring Point Elevation (ft)	November 2006		May 2007		June 2008		November 2008		June 2009		October 2009		June 2011	
				Depth to Water ¹ (ft bmp)	Elevation (ft)	Depth to Water ¹ (ft bmp)	Elevation (ft)	Depth to Water ¹ (ft bmp)	Elevation (ft)	Depth to Water ¹ (ft bmp)	Elevation (ft)	Depth to Water ¹ (ft bmp)	Elevation (ft)	Depth to Water ¹ (ft bmp)	Elevation (ft)	Depth to Water ¹ (ft bmp)	Elevation (ft)
				Wells Currently Sampled													
TRY_M-1	Overburden	PVC	1,062.24	---	---	---	---	8.34	1,053.9	7.57	1,054.7	8.14	1,054.1	8.76	1,053.5	7.71	1,054.5
TRY_M-7	Overburden	PVC	1,037.41	8.46	1,029.0	8.5	1,028.9	8.76	1,028.7	8.72	1,028.7	8.51	1,028.9	8.53	1,028.9	8.26	1,029.2
TRY_M-7D	Deep Bedrock	PVC	1,036.39	4.54	1031.9	4.39	1,032.0	5.58	1,030.8	4.31	1,032.1	2.89	1,033.5	4.65	1,031.7	4.12	1,032.3
TRY_MW-A28	Overburden	PVC	1,051.06	Monitoring Wells Not Yet Installed													
TRY_MW-C6S	Overburden	PVC	1,043.83														
TRY_MW-C6D	Overburden	PVC	1,044.54														
TRY_MW-101S	Overburden	PVC	1,072.69														
TRY_MW-101D	Overburden	PVC	1,067.53														
TRY_MW-102	Predominantly Overburden	Casing	1,093.89	24.99	1,068.9	---	---	22.07	1,071.8	23.93	1,070.0	21.95	1,071.9	23.65	1,070.2	20.56	1,073.3
TRY_MW-104S	Overburden	PVC	1,032.97	3.93	1,029.0	---	---	4.39	1,028.6	4.02	1,029.0	4.17	1,028.8	3.93	1,029.0	3.62	1,029.4
TRY_MW-104D	Overburden	PVC	1,033.08	3.93	1,029.2	---	---	4.24	1,028.8	3.89	1,029.2	4.18	1,028.9	3.94	1,029.1	3.60	1,029.5
TRY_MW-105S	Overburden	PVC	1,036.75	---	---	---	---	11.58	1,025.2	10.94	1,025.8	10.96	1,025.8	10.45	1,026.3	10.35	1,026.4
TRY_MW-105D	Deep Bedrock	PVC	1,036.62	---	---	11.45	1,025.0	12.65	1,023.8	---	---	11.52	1,025.0	10.21	1,026.3	9.99	1,026.6
TRY_MW-201SX	Overburden	PVC	1,047.33	Monitoring Well Not Yet Installed													
TRY_MW-202P	Overburden	PVC	1,053.36	---	---	---	---	9.79	1,043.6	7.98	1,045.4	9.49	1,043.9	9.97	1,043.4	9.35	1,044.0
TRY_MW-204	Overburden	PVC	1,081.80	20.38	1,061.4	18.85	1,063.0	19.53	1,062.3	20.39	1,061.4	18.93	1,062.9	20.69	1,061.1	17.67	1,064.1
TRY_MW-205	Overburden	PVC	1,087.97	33.42	1,054.6	29.94	1,058.0	29.68	1,058.3	31.74	1,056.2	29.71	1,058.3	31.06	1,056.9	28.12	1,059.9
TRY_MW-301X	Overburden	PVC	1,080.94	Monitoring Well Not Yet Installed												34.31	1,046.6
TRY_MW-501X	Overburden	PVC	1,039.98	Monitoring Well Not Yet Installed												6.38	1,033.6
TRY_MW-501D	Overburden	PVC	1,040.25	Monitoring Well Not Yet Installed													
TRY_MW-508X	Overburden	PVC	1,080.72	Monitoring Well Not Yet Installed												6.38	1,074.3
TRY_MW-601S	Overburden	PVC	1,077.45	21.66	1,055.8	20.53	1,056.9	21.29	1,056.2	21.67	1,055.8	20.85	1,056.6	21.57	1,055.9	20.56	1,056.9
TRY_MW-601D	Overburden	PVC	1,077.72	23.1	1,054.6	21.66	1,056.1	22.38	1,055.3	22.76	1,055.0	21.84	1,055.9	22.81	1,054.9	22.98	1,054.7
TRY_MW-601B	Bedrock	PVC	1,080.53	Monitoring Wells Not Yet Installed													
TRY_MW-602B	Bedrock	PVC	1,091.35	21.39	1,070.0	17.82	1,073.5	18.39	1,073.0	20.34	1,071.0	18.28	1,073.1	20.61	1,070.7	16.40	1,075.0
TRY_MW-701	Deep Bedrock	PVC	1,106.28	---	---	5.65	1,100.6	9.99	1,096.3	7.71	1,098.6	8.64	1,097.6	10.70	1,095.6	8.17	1,098.1
TRY_MW-702SX	Overburden	PVC	1,037.76	Monitoring Well Not Yet Installed												6.50	1,031.3
TRY_MW-702D	Deep Bedrock	PVC	1,036.34	---	---	3.96	1,032.4	6.2	1,030.1	5.71	1,030.6	5.30	1,031.0	6.51	1,029.8	5.08	1,031.3
TRY_MW_801	Overburden	PVC	1,088.01	Monitoring Wells Not Yet Installed												29.87	1,058.1
TRY_MW-802	Overburden	PVC	1,091.36													23.74	1,067.6
TRY_MW-803	Overburden	PVC	1,090.70													21.39	1,069.3
TRY_MW-804	Overburden	PVC	1,087.68													27.38	1,060.3
TRY_MW-805	Overburden	PVC	1,085.20													28.67	1,056.5
TRY_MW-901S	Overburden	PVC	1,102.75	Monitoring Wells Not Yet Installed													
TRY_MW-901B	Bedrock	PVC	1,102.02														
TRY_MW-902S	Overburden	PVC	1,065.97														
TRY_MW-902B	Bedrock	PVC	1,065.16														
TRY_MW-903S	Overburden	PVC	1,035.99														
TRY_MW-903B	Bedrock	PVC	1,035.49														
TRY_SW-4 ²	Staff Gauge	zero-foot marker on gauge	1,025.99	---	---	---	---	---	---	---	---	---	---	---	---	---	---

See last page for notes.

TABLE 3
GROUNDWATER LEVEL MEASUREMENTS AND ELEVATION DATA
Troy Mills Landfill Superfund Site
Troy, New Hampshire

Monitoring Well Designation	Screened Geologic Unit	Measuring Point	Measuring Point Elevation (ft)	July 2012		June 2013		October 2014		June 2015		May 2016		October 2018		April 2020			
				Depth to Water ¹ (ft bmp)	Elevation (ft)	Depth to Water ¹ (ft bmp)	Elevation (ft)	Depth to Water ¹ (ft bmp)	Elevation (ft)	Depth to Water ¹ (ft bmp)	Elevation (ft)	Depth to Water ¹ (ft bmp)	Elevation (ft)	Depth to Water ¹ (ft bmp)	Elevation (ft)	Depth to Water ¹ (ft bmp)	Elevation (ft)		
				Wells Currently Sampled															
TRY_M-1	Overburden	PVC	1,062.24	---	---	---	---	6.91	1,055.3	---	---	8.26	1,054.0	7.44	1,054.8	6.07	1,056.2		
TRY_M-7	Overburden	PVC	1,037.41	---	---	---	---	8.34	1,029.1	---	---	8.53	1,028.9	7.93	1,029.5	8.16	1,029.3		
TRY_M-7D	Deep Bedrock	PVC	1,036.39	---	---	---	---	4.49	1,031.9	---	---	4.76	1,031.6	3.93	1,032.5	3.63	1,032.8		
TRY_MW-A28	Overburden	PVC	1,051.06	Monitoring Wells Not Yet Installed				9.12	1,041.9	8.91	1,042.2	---	---	9.28	1,041.8	8.98	1,042.1	7.90	1,043.2
TRY_MW-C6S	Overburden	PVC	1,043.83					6.14	1,037.7	---	---	6.67	1,037.2	5.88	1,038.0	5.58	1,038.3		
TRY_MW-C6D	Overburden	PVC	1,044.54					7.18	1,037.4	7.18	1,037.4	6.34	1,038.2	5.89	1,038.7				
TRY_MW-101S	Overburden	PVC	1,072.69					21.30	1,051.4	20.88	1,051.8	20.04	1,052.7	18.82	1,053.9				
TRY_MW-101D	Overburden	PVC	1,067.53					18.86	1,048.7	18.53	1,049.0	17.77	1,049.8	17.03	1,050.5				
TRY_MW-102	Predominantly Overburden	Casing	1,093.89	---	---	---	---	25.31	1,068.6	---	---	22.32	1,071.6	21.45	1,072.4	19.40	1,074.5		
TRY_MW-104S	Overburden	PVC	1,032.97	---	---	3.68	1,029.3	3.73	1,029.2	---	---	3.57	1,029.4	3.26	1,029.7	3.57	1,029.4		
TRY_MW-104D	Overburden	PVC	1,033.08	---	---	3.61	1,029.5	3.73	1,029.4	---	---	3.69	1,029.4	3.38	1,029.7	3.56	1,029.5		
TRY_MW-105S	Overburden	PVC	1,036.75	---	---	---	---	10.30	1,026.5	---	---	11.50	1,025.3	8.17	1,028.6	9.89	1,026.9		
TRY_MW-105D	Deep Bedrock	PVC	1,036.62	---	---	---	---	10.86	1,025.8	---	---	11.46	1,025.2	11.91	1,024.7	10.17	1,026.5		
TRY_MW-201SX	Overburden	PVC	1,047.33	Monitoring Well Not Yet Installed						7.54	1,039.8	7.30	1,040.0	6.25	1,041.1	5.37	1,042.0		
TRY_MW-202P	Overburden	PVC	1,053.36	---	---	---	---	8.93	1,044.4	---	---	9.45	1,043.9	9.13	1,044.2	8.42	1,044.9		
TRY_MW-204	Overburden	PVC	1,081.80	---	---	---	---	21.52	1,060.3	---	---	20.33	1,061.5	18.67	1,063.1	16.76	1,065.0		
TRY_MW-205	Overburden	PVC	1,087.97	31.55	1,056.4	30.68	1,057.3	32.84	1,055.1	---	---	30.77	1,057.2	28.80	1,059.2	29.11	1,058.9		
TRY_MW-301X	Overburden	PVC	1,080.94	---	---	35.25	1,045.7	35.55	1,045.4	---	---	34.83	1,046.1	33.90	1,047.0	34.76	1,046.2		
TRY_MW-501X	Overburden	PVC	1,039.98	---	---	6.39	1,033.6	6.31	1,033.7	---	---	6.32	1,033.7	5.96	1,034.0	6.10	1,033.9		
TRY_MW-501D	Overburden	PVC	1,040.25	Monitoring Well Not Yet Installed						6.22	1,034.0	5.92	1,034.3	5.43	1,034.8	5.28	1,035.0		
TRY_MW-508X	Overburden	PVC	1,080.72	---	---	---	---	6.12	1,074.6	---	---	6.45	1,074.3	4.64	1,076.1	4.73	1,076.0		
TRY_MW-601S	Overburden	PVC	1,077.45	21.80	1,055.7	20.36	1,057.1	21.57	1,055.9	---	---	21.28	1,056.2	20.36	1,057.1	19.83	1,057.6		
TRY_MW-601D	Overburden	PVC	1,077.72	---	---	21.56	1,056.2	22.89	1,054.8	---	---	22.45	1,055.3	21.53	1,056.2	20.77	1,057.0		
TRY_MW-601B	Bedrock	PVC	1,080.53	'Monitoring Wells Not Yet Installed															
TRY_MW-602B	Bedrock	PVC	1,091.35	---	---	---	---	21.76	1,069.6	---	---	18.93	1,072.4	17.82	1,073.5	16.21	1,075.1		
TRY_MW-701	Deep Bedrock	PVC	1,106.28	---	---	6.11	1,100.2	8.85	1,097.4	---	---	7.94	1,098.3	6.55	1,099.7	5.42	1,100.9		
TRY_MW-702SX	Overburden	PVC	1,037.76	---	---	---	---	7.95	1,029.8	6.81	1,031.0	6.82	1,030.9	6.18	1,031.6	4.86	1,032.9		
TRY_MW-702D	Deep Bedrock	PVC	1,036.34	---	---	---	---	6.55	1,029.8	5.36	1,031.0	5.36	1,031.0	4.79	1,031.6	3.07	1,033.3		
TRY_MW_801	Overburden	PVC	1,088.01	32.45	1,055.6	31.94	1,056.1	33.46	1,054.6	---	---	31.83	1,056.2	30.21	1,057.8	30.45	1,057.6		
TRY_MW-802	Overburden	PVC	1,091.36	27.82	1,063.5	26.58	1,064.8	29.18	1,062.2	---	---	26.58	1,064.8	24.59	1,066.8	23.89	1,067.5		
TRY_MW-803	Overburden	PVC	1,090.70	27.46	1,063.2	25.45	1,065.3	29.12	1,061.6	26.92	1,063.8	26.02	1,064.7	22.99	1,067.7	22.51	1,068.2		
TRY_MW-804	Overburden	PVC	1,087.68	30.52	1,057.2	29.28	1,058.4	31.71	1,056.0	30.17	1,057.5	29.81	1,057.9	27.96	1,059.7	27.79	1,059.9		
TRY_MW-805	Overburden	PVC	1,085.20	30.68	1,054.5	29.91	1,055.3	31.41	1,053.8	---	---	30.20	1,055.0	28.86	1,056.3	26.68	1,058.5		
TRY_MW-901S	Overburden	PVC	1,102.75	Monitoring Wells Not Yet Installed															
TRY_MW-901B	Bedrock	PVC	1,102.02																
TRY_MW-902S	Overburden	PVC	1,065.97																
TRY_MW-902B	Bedrock	PVC	1,065.16																
TRY_MW-903S	Overburden	PVC	1,035.99																
TRY_MW-903B	Bedrock	PVC	1,035.49																
TRY_SW-4 ²	Staff Gauge	zero-foot marker on gauge	1,025.99	---	---	---	---	1.37	1,027.4	---	---	1.33	1,027.3	2.26	1,028.3	1.66	1,027.7		

See last page for notes.

TABLE 3
GROUNDWATER LEVEL MEASUREMENTS AND ELEVATION DATA
Troy Mills Landfill Superfund Site
Troy, New Hampshire

Monitoring Well Designation	Screened Geologic Unit	Measuring Point	Measuring Point Elevation (ft)	November 2022		April 2023	
				Depth to Water ¹ (ft bmp)	Elevation (ft)	Depth to Water ¹ (ft bmp)	Elevation (ft)
				Wells Currently Sampled			
TRY_M-1	Overburden	PVC	1,062.24	8.96	1,053.3	---	---
TRY_M-7	Overburden	PVC	1,037.41	9.38	1,028.0	---	---
TRY_M-7D	Deep Bedrock	PVC	1,036.39	5.99	1,030.4	---	---
TRY_MW-A28	Overburden	PVC	1,051.06	9.36	1,041.7	---	---
TRY_MW-C6S	Overburden	PVC	1,043.83	6.80	1,037.0	---	---
TRY_MW-C6D	Overburden	PVC	1,044.54	7.55	1,037.0	---	---
TRY_MW-101S	Overburden	PVC	1,072.69	---	---	---	---
TRY_MW-101D	Overburden	PVC	1,067.53	20.46	1,047.1	---	---
TRY_MW-102	Predominantly Overburden	Casing	1,093.89	25.48	1,068.4	---	---
TRY_MW-104S	Overburden	PVC	1,032.97	3.64	1,029.3	---	---
TRY_MW-104D	Overburden	PVC	1,033.08	3.72	1,029.4	---	---
TRY_MW-105S	Overburden	PVC	1,036.75	11.50	1,025.3	---	---
TRY_MW-105D	Deep Bedrock	PVC	1,036.62	12.09	1,024.5	---	---
TRY_MW-201SX	Overburden	PVC	1,047.33	8.34	1,039.0	---	---
TRY_MW-202P	Overburden	PVC	1,053.36	10.42	1,042.9	---	---
TRY_MW-204	Overburden	PVC	1,081.80	24.24	1,057.6	---	---
TRY_MW-205	Overburden	PVC	1,087.97	35.59	1,052.4	---	---
TRY_MW-301X	Overburden	PVC	1,080.94	38.68	1,042.3	---	---
TRY_MW-501X	Overburden	PVC	1,039.98	6.54	1,033.4	---	---
TRY_MW-501D	Overburden	PVC	1,040.25	6.51	1,033.7	---	---
TRY_MW-508X	Overburden	PVC	1,080.72	7.38	1,073.3	---	---
TRY_MW-601S	Overburden	PVC	1,077.45	24.06	1,053.4	20.13	1,057.3
TRY_MW-601D	Overburden	PVC	1,077.72	25.09	1,052.6	20.48	1,057.2
TRY_MW-601B	Bedrock	PVC	1,080.53	26.05	1,054.5	20.92	1,059.6
TRY_MW-602B	Bedrock	PVC	1,091.35	23.53	1,067.8	---	---
TRY_MW-701	Deep Bedrock	PVC	1,106.28	12.62	1,093.7	---	---
TRY_MW-702SX	Overburden	PVC	1,037.76	10.32	1,027.4	---	---
TRY_MW-702D	Deep Bedrock	PVC	1,036.34	8.76	1,027.6	---	---
TRY_MW_801	Overburden	PVC	1,088.01	35.87	1,052.1	---	---
TRY_MW-802	Overburden	PVC	1,091.36	31.18	1,060.2	---	---
TRY_MW-803	Overburden	PVC	1,090.70	---	---	---	---
TRY_MW-804	Overburden	PVC	1,087.68	---	---	---	---
TRY_MW-805	Overburden	PVC	1,085.20	33.84	1,051.4	---	---
TRY_MW-901S	Overburden	PVC	1,102.75	38.56	1,064.2	37.89	1,064.9
TRY_MW-901B	Bedrock	PVC	1,102.02	34.88	1,067.1	32.37	1,069.7
TRY_MW-902S	Overburden	PVC	1,065.97	25.02	1,041.0	19.92	1,046.1
TRY_MW-902B	Bedrock	PVC	1,065.16	32.17	1,033.0	29.25	1,035.9
TRY_MW-903S	Overburden	PVC	1,035.99	7.30	1,028.7	5.88	1,030.1
TRY_MW-903B	Bedrock	PVC	1,035.49	5.99	1,029.5	3.42	1,032.1
TRY_SW-4 ²	Staff Gauge	zero-foot marker on gauge	1,025.99	1.35	1,027.3	---	---

See last page for notes.

TABLE 3
GROUNDWATER LEVEL MEASUREMENTS AND ELEVATION DATA
Troy Mills Landfill Superfund Site
Troy, New Hampshire

TABLE KEY:
ft = feet ft
bmp = below measuring point
PVC = polyvinyl chloride riser
"---" = data is not readily available or groundwater level was not collected (e.g. well was dry or excluded from sampling program)

- SPECIFIC NOTES:
1. Depth to groundwater measurements are referenced to top of PVC risers or top of casing at groundwater monitoring wells as indicated. The measuring point for the surface water staff gauge is the 0-foot marker on the gauge; therefore, the gauge measures the height of the Rockwood Brook water column at the staff gauge rather than the depth of the water as indicated by the "depth to water" column heading.
 2. During the fall 2022 sampling event, the TRY_SW-4 Staff Gauge reading was collected on November 3, 2022, when MW-104 was sampled.

- GENERAL NOTES:
- * The horizontal datum used to identify Site monitoring wells is NAD83/96 per NHDOT Base Station, following the NH State Plane projection, in units of US Survey feet.
 - * Depth to groundwater measurements from 2006 through the present were collected by GZA field personnel.
 - * A survey of the site wells was conducted during February 2005 by Conklin & Soroka of Cheshire, Connecticut. The benchmark point used for this survey was monitoring well TRY_M-3; its elevation was established as 1037.65 (PVC) according to the plan titled "Topographic Survey Depicting Monitoring Well Locations, Land of Troy Mills Landfill."
 - * The 700-series wells were drilled in November 2006 by NH Boring; the x-series replacement wells were drilled during November 2010 by Expedition Drilling; the 800-series wells were drilled during May 2011 by Boart Longyear; TRY_MW-C6D, TRY_MW-101S/D, TRY_MW-201SX, and TRY_MW-501D wells were drilled during May 2015 by Cascade Drilling. The elevations of these wells were surveyed by GZA personnel using already existing on-Site wells as reference points.
 - * The 900-series wells and monitoring well TRY_MW-601B were installed between September and October 2022 by Drilex Environmental and Cascade Drilling. The elevations of these wells were surveyed by GZA personnel using the established benchmark on the eastern side of the culvert at TRY_SW-1 on November 17, 2022.
 - * A benchmark was established on the eastern side of the culvert at TRY_SW-1 on Rockwood Brook with an elevation of 1,060.98 feet.

TABLE 4
VERTICAL HYDRAULIC GRADIENTS
Troy Mills Landfill Superfund Site
Troy, New Hampshire

Monitoring Well ID	Lithologic Unit Screened Within	Measuring Point Elevation (ft)	Depth to Screen Top (ft bmp)	Depth to Screen Bottom (ft bmp)	Screen Midpoint Elevation (ft)	Difference in Screen Elevation (ft)	Groundwater Elevation (ft)	Change in Groundwater Elevation (ft)	Magnitude of Vertical Gradient ¹	Direction of Vertical Gradient (Upward/Downward)
TRY_MW-601S	Shallow Overburden	1077.45	14.3	29.3	1055.7	-35.0	1,057.3	-0.1	0.00	Downward
TRY_MW-601D	Deep Overburden	1077.72	52.1	62.1	1020.6		1,057.2			
TRY_MW-601D	Deep Overburden	1077.72	52.1	62.1	1020.6	-21.2	1,057.2	2.37	-0.11	Upward
TRY_MW-601B	Bedrock	1080.53	76.1	86.1	999.4		1,059.6			
TRY_MW-901S	Overburden	1102.75	34.0	39.0	1066.3	-33.6	1,064.9	4.8	-0.14	Upward
TRY_MW-901B	Bedrock	1102.02	64.4	74.4	1032.6		1,069.7			
TRY_MW-902S	Overburden	1065.97	21.5	31.5	1039.5	-79.7	1,046.1	-10.2	0.13	Downward
TRY_MW-902B	Bedrock	1065.16	100.4	110.4	959.8		1,035.9			
TRY_MW-903S	Overburden	1035.99	10.5	15.2	1023.1	-55.4	1,030.1	2.00	-0.04	Upward
TRY_MW-903B	Bedrock	1035.49	62.7	72.7	967.8		1,032.1			

TABLE KEY:

ft = feet
bmp = below measuring point
n/a = data not available

SPECIFIC NOTES:

1. Magnitude of vertical gradient calculated based on the difference in screen elevations and the difference in groundwater elevations. Data reported to the level of precision of the measuring method but calculations are performed without rounding. Groundwater elevations calculated based on depth to water level measurements collected during the most recent water level round (refer to **Table 3**).

TABLE 5
SUMMARY OF NATRUAL ATTENUATION PARAMETERS
Troy Mills Landfill Superfund Site
Troy, New Hampshire

Monitoring Well ID	Geological Unit of Well Screen	Sampling Event Date	MNA - Field Screening					
			pH (SU)	ORP (mV)	Specific Conductance (µS/cm)	Dissolved Oxygen (mg/L)	Turbidity (ntu)	Temperature (°C)
NHAGQS			na	na	na	na	na	na
ROD ICL			na	na	na	na	na	na
TRY_M-1	Overburden	Jun-11	5.8	97	212	0.6	<5	11
		Jun-13	ns	ns	ns	ns	ns	ns
		Nov-14	5.7	105	164	0.6	<5	10
		Jun-15	ns	ns	ns	ns	ns	ns
		May-16	5.9	123	170	<0.5	119	10
		Oct-18	5.9	108	145	<0.5	151	11
		Apr-20	5.9	59	140	<0.5	22	7
Nov-22	5.9	95	133	<0.5	12	10		
TRY_M-7	Overburden	Aug-04	ns	ns	ns	ns	ns	ns
		Oct-05	7.98	ns	188	1.2	0.1	---
		Jun-06	ns	ns	ns	ns	ns	ns
		Dec-06	5.71	279	214	0.1	0.0	---
		May-07	8.08	69	80	1.7	50.8	---
		Jun-08	5.76	278	206	0.55	1.11	11
		Dec-08	5.7	245	297	0.2	<1	9
		Jun-09	5.2	1.32 J*	290	0.4	<1	9
		Oct-09	5.9	116	292	0.3	<1	10
		Oct-09 DUP	ns	ns	ns	ns	ns	ns
		Jun-11	5.7	100	326	2.0	<5	9
		Jun-13	ns	ns	ns	ns	ns	ns
		Nov-14	5.8	82	350	<0.5	<5	9
		Jun-15	ns	ns	ns	ns	ns	ns
		May-16	5.9	197	326	<0.5	<5	9
		Oct-18	5.9 g	130 g	296 g	1.4 g	<5 g	9 g
		Apr-20	6.0 g	87 g	241 g	1.8 g	<5 g	6 g
Nov-22	5.8 g	180 g	241 g	0.9 g	<5 g	12 g		
TRY_M-7D	Bedrock	Nov-14	ns/ir	ns/ir	ns/ir	ns/ir	ns/ir	ns/ir
		Jun-15	ns	ns	ns	ns	ns	ns
		May-16	8.6	-117	117	1.0	<5	9
		Oct-18	8.2	31	117	0.8	<5	8
		Apr-20	7.3 g	-21 g	108	2.0 g	<5 g	5
		Nov-22	8.1	157 g	116 g	1.4 g	<5	12
TRY_MW-A28	Overburden	Jun-13	ns/ir	ns/ir	ns/ir	ns/ir	ns/ir	ns/ir
		Nov-14	ns/ir	ns/ir	ns/ir	ns/ir	ns/ir	ns/ir
		Nov-14 DUP	ns	ns	ns	ns	ns	ns
		Jun-15	ns	ns	ns	ns	ns	ns
		May-16	6.3	-35	189	0.9	<5	15
		Nov-18	6.5 g	10 g	201 g	1.5 g	<5 g	8 g
		Apr-20	6.5 g	-50 g	138 g	1.6 g	<5 g	5 g
Nov-22	6.0	-33	123	1.3	<5	12		
TRY_MW-C6S	Overburden	Nov-14	6.1	89	309	1.0	<5	10
		Jun-15	ns	ns	ns	ns	ns	ns
		May-16	6.2	117	363	1.1	12	13
		Oct-18	6.1 g	87 g	375 g	2.9 g	9 g	12 g
		Apr-20	6.4 g	64 g	341 g	1.9 g	<5 g	6 g
		Nov-22	6.1 g	132 g	302 g	2.4 g	<5 g	13 g
TRY_MW-C6D	Overburden	Jun-15	7.8	-204	240	0.7	70	12
		May-16	7.9	-152	303	<0.5	9	10
		Oct-18	8.0	-63	251	<0.5	<5	8
		Apr-20	7.7	-9	230	<0.5	19	7
		Nov-22	7.5	-118	225	<0.5	<5	11
TRY_MW-101S	Overburden	Jun-15	6.3	-50	379	<0.5	<5	12
		May-16	6.4	-54	542	<0.5	<5	12
		Oct-18	6.3 g	16 g	402 g	1.8 g	14 g	10 g
		Apr-20	6.5 g	-48 g	485 g	<0.5 g	<5 g	8 g
		Nov-22	dry	dry	dry	dry	dry	dry
TRY_MW-101D	Overburden	Jun-15	ns/ir	ns/ir	ns/ir	ns/ir	ns/ir	ns/ir
		May-16	7.2	-4.5	129	<0.5	26	13
		Nov-18	7.4	-10 J*	116	<0.5	16	10
		Apr-20	7.1	12	112	<0.5	6	8
		Nov-22	7.2 g	17 g	105 g	2.0 g	<5 g	11 g
TRY_MW-102	Predominantly Overburden	Aug-04	ns	ns	ns	ns	ns	ns
		Oct-05	5.54	134.8	310	0.7	1.4	---
		Jun-06	ns	ns	ns	ns	ns	ns
		Dec-06	5.75	64.8	287	0.5	8.1	---
		May-07	ns	ns	ns	ns	ns	ns
		Jun-08	ns	ns	ns	ns	ns	ns
		Dec-08	ns	ns	ns	ns	ns	ns
		Jun-09	ns	ns	ns	ns	ns	ns
		Oct-09	ns	ns	ns	ns	ns	ns
		Jun-10, 28.5	5.8	63	367	0.4	6	13
		Jun-10, 28.5 DUP	ns	ns	ns	ns	ns	ns
		Jun-11	ns/ir	ns/ir	ns/ir	ns/ir	ns/ir	ns/ir
		Jun-13	ns	ns	ns	ns	ns	ns
		Nov-14	5.8	46	470	1.0	82	11
		Jun-15	ns	ns	ns	ns	ns	ns
		May-16	6.1	60	432	0.7	40	11
		Nov-18	6.1	89	427	<0.5	96	10
		Apr-20	7.1	47	401	<0.5	33	7
Nov-22	6.0	-15	235	0.6	47	10		

TABLE 5
SUMMARY OF NATURAL ATTENUATION PARAMETERS
Troy Mills Landfill Superfund Site
Troy, New Hampshire

Monitoring Well ID	Geological Unit of Well Screen	Sampling Event Date	MNA - Field Screening					
			pH (SU)	ORP (mV)	Specific Conductance (µS/cm)	Dissolved Oxygen (mg/L)	Turbidity (ntu)	Temperature (°C)
NHAGQS			na	na	na	na	na	na
ROD ICL			na	na	na	na	na	na
TRY_MW-104S	Overburden	Aug-04	ns	ns	ns	ns	ns	ns
		Oct-05	6.3	161.8	416	0.2	0.7	---
		Jun-06	ns	ns	ns	ns	ns	ns
		Dec-06	6.54	-38.3	352	0.2	6.4	---
		May-07	ns	ns	ns	ns	ns	ns
		Jun-08	6.06	-97.8	378	0.18	13.2	15
		Dec-08	6.4	-39	377	0.1	1	6
		Jun-09	6.9	15	376	1.1	3	11
		Oct-09	6.4	18	405	0.2	<1	12
		Jun-11	6.2	-18	375	<0.5	<5	11
		Jun-13	6.3	-10	349	<0.5	<5	10
		Nov-14	6.4	-22	393	0.7	12	10
		Jun-15	ns	ns	ns	ns	ns	ns
		May-16	6.6	0	417	<0.5	4	8
		Oct-18	6.4	-12	466	<0.5	9	11
Apr-20	6.5	-35	421	<0.5	<5	5		
Nov-22	6.5	-70	392	<0.5	5	12		
TRY_MW-104D	Overburden	Aug-04	ns	ns	ns	ns	ns	ns
		Oct-05	7.1	90.4	181	0.6	1.2	---
		Jun-06	ns	ns	ns	ns	ns	ns
		Dec-06	7.86	221.2	103	0.8	4.7	---
		May-07	ns	ns	ns	ns	ns	ns
		Jun-08	ns	ns	ns	ns	ns	ns
		Dec-08	ns	ns	ns	ns	ns	ns
		Jun-09	ns	ns	ns	ns	ns	ns
		Oct-09	7.7	-64	107	0.4	8	12
		Jun-11	ns/ir	ns/ir	ns/ir	ns/ir	ns/ir	ns/ir
		Jun-13	ns/ir	ns/ir	ns/ir	ns/ir	ns/ir	ns/ir
		Nov-14	ns/ir	ns/ir	ns/ir	ns/ir	ns/ir	ns/ir
		Jun-15	ns	ns	ns	ns	ns	ns
		May-16	8.0	73	112	0.9	8	9
		Oct-18	7.8	31	109	<0.5	9	10
Apr-20	7.8	15	103	1	10	7		
Nov-22	8.0	-82	107	<0.5	10	11		
TRY_MW-105S	Overburden	Aug-04	ns	ns	ns	ns	ns	ns
		Oct-05	ns	ns	ns	ns	ns	ns
		Jun-06	ns	ns	ns	ns	ns	ns
		Dec-06	ns	ns	ns	ns	ns	ns
		May-07	ns	ns	ns	ns	ns	ns
		Jun-08	ns	ns	ns	ns	ns	ns
		Dec-08	ns	ns	ns	ns	ns	ns
		Jun-09	ns	ns	ns	ns	ns	ns
		Oct-09	6.1	161	366	0.7	<1	11
		Jun-11	5.8	233	259	<0.5	<5	11
		Jun-13	ns	ns	ns	ns	ns	ns
		Nov-14	5.9	94	338	<0.5	<5	10
		Jun-15	ns	ns	ns	ns	ns	ns
		May-16	6.0	286	160	4.7	<5	9
		Nov-18	5.9 g	45 g	161 g	1.7 g	<5 g	11 g
Apr-20	6.0	80	85 g	6.6	<5	7		
Nov-22	5.9 g	166 g	162 g	2.4 g	<5 g	11 g		
TRY_MW-105D	Bedrock	Aug-04	ns	ns	ns	ns	ns	ns
		Oct-05	ns	ns	ns	ns	ns	ns
		Jun-06	ns	ns	ns	ns	ns	ns
		Dec-06	ns	ns	ns	ns	ns	ns
		May-07	ns	ns	ns	ns	ns	ns
		Jun-08	ns	ns	ns	ns	ns	ns
		Dec-08	ns	ns	ns	ns	ns	ns
		Jun-09	ns	ns	ns	ns	ns	ns
		Oct-09	6.4	-24	193	1.8	7	9
		Jun-11	ns/ir	ns/ir	ns/ir	ns/ir	ns/ir	ns/ir
		Jun-13	ns	ns	ns	ns	ns	ns
		Nov-14	ns/ir	ns/ir	ns/ir	ns/ir	ns/ir	ns/ir
		Jun-15	ns	ns	ns	ns	ns	ns
		May-16	6.0	276	138	2.1 J*	<5	11
		Nov-18	5.9	53	117	1.1	6	10
Apr-20	6.0 g	93 g	84 g	7.3 g	<5 g	7 g		
Nov-22	6.0 g	124 g	118 g	4.9 g	8 g	10 g		
TRY_MW-201SX	Overburden	Jun-15	6.5	-55	399	0.4	6	12
		May-16	6.5	-71	509	<0.5	<5	11
		Nov-18	6.6	-42	551	<0.5	<5	11
		Apr-20	6.6	-63	434	<0.5	8	9
		Nov-22	6.5 g	-52 g	480	1.0 g	14 g	11

Monitoring Well ID	Geological Unit of Well Screen	Sampling Event Date	MNA - Field Screening					
			pH (SU)	ORP (mV)	Specific Conductance (µS/cm)	Dissolved Oxygen (mg/L)	Turbidity (ntu)	Temperature (°C)
NHAGQS			na	na	na	na	na	na
ROD ICL			na	na	na	na	na	na
TRY_MW-202P	Overburden	Jun-11	ns	ns	ns	ns	ns	ns
		Jun-13	ns	ns	ns	ns	ns	ns
		Nov-14	ns/ir	ns/ir	ns/ir	ns/ir	ns/ir	ns/ir
		Jun-15	ns	ns	ns	ns	ns	ns
		May-16	6.5	27	281	0.8	<5	11
		Nov-18	7.6 g	25 g	287 g	4 g	9 g	8 g
		Apr-20	6.5 g	-6 g	223 g	4.6 g	18 g	8 g
		Nov-22	6.1	9	244	<0.5	8	12
TRY_MW-204	Overburden	Aug-04	ns	ns	ns	ns	ns	ns
		Oct-05	5.97	350	234	0.2	0.7	---
		Jun-06	ns	ns	ns	ns	ns	ns
		Dec-06	5.74	119.1	316	0.2	2.0	---
		May-07	5.11	76.4	371	3.4	31.9	---
		Jun-08	5.70	172.1	291	2.3	1.4	12
		Dec-08	5.80	59	366	0.3	2	8
		Jun-09	6.3 J*	43 J*	279	0.3	3	10
		Oct-09	6.1	4	276	0.3	2	9
		Jun-11	5.8	56	243	0.5	<0.5	9
		Jun-13	ns	ns	ns	ns	ns	ns
		Nov-14	6.0	37	213	<0.5	<5	8
		Jun-15	ns	ns	ns	ns	ns	ns
		May-16	6.3	7	405	<0.5	<5	10
		Nov-18	6.2	54	232	<0.5	9	10
		Apr-20	6.3	2.7	279	0.9	<5	7
Nov-22	6.5	-14	286	<0.5	13	11		
TRY_MW-205	Overburden	Aug-04	ns	ns	ns	ns	ns	ns
		Oct-05	6.02	7.2	383	0.5	4.2	---
		Jun-06	ns	ns	ns	ns	ns	ns
		Dec-06	6.12	0.9	486	0.1	9.7	---
		Dec-06 DUP	ns	ns	ns	ns	ns	ns
		May-07	5.98	-51.1	613	2.1	501	---
		Jun-08	6.10	-55.8	765	4.36	5.9	14
		Dec-08	6.1	-11	787	0.4	5	9
		Dec-08 DUP	ns	ns	ns	ns	ns	ns
		Jun-09	6.3	-56	714	0.9	3	12
		Jun-09 DUP	ns	ns	ns	ns	ns	ns
		Oct-09	6.6	-94	619	0.3	2	11
		Oct-09 DUP	ns	ns	ns	ns	ns	ns
		Jun-11	6.1	-50	665	<0.5	<5	14
		Jun-11 DUP	ns	ns	ns	ns	ns	ns
		Jun-13	6.0	-39	474	0.8	6	12
		Jun-13 DUP	ns	ns	ns	ns	ns	ns
		Nov-14	6.3	-63	592	<0.5	7	10
		Jun-15	ns	ns	ns	ns	ns	ns
		May-16	6.0	-17	360	<0.5	<5	13
		Nov-18	7.4 g	-35 g	601 g	2.8 g	<5 g	13 g
		Apr-20	6.2 g	-68 g	483 g	0.9 g	11 g	9 g
Nov-22	6.5 g	-84 g	392 g J*	2.3 g	7 g	10 g		
TRY_MW-301	Overburden	Aug-04	ns	ns	ns	ns	ns	ns
		Oct-05	6.05	44.5	447	0.4	0.7	---
		Jun-06	ns	ns	ns	ns	ns	ns
		Dec-06	6.07	-10.7	310	0.9	ns	---
		May-07	ns	ns	ns	ns	ns	ns
		Jun-08	5.92	24.5	426	1.75	0.80	12
		Dec-08	6.0	-32	463	0.15	<1	10
		Jun-09	6.4 J*	21 J*	464	0.3	<1	12
Oct-09	6.2	-2	485	0.5	<1	11		
TRY_MW-301X	Overburden	Jun-11	5.7	33	232	0.5	9	11
		Jun-13	5.8	106	224	0.7	<5	12
		Nov-14	6.5	111	229	0.6	<5	11
		Jun-15	ns	ns	ns	ns	ns	ns
		May-16	5.9	91	240	0.7	<5	13
		Nov-18	5.8	129	255	0.8	<5	9
		Apr-20	7.1	27	237	0.6	<5	9
		Nov-22	5.8	211	211	0.7	<5	12
TRY_MW-501	Overburden	Aug-04	ns	ns	ns	ns	ns	ns
		Oct-05	7.18	-10.8	575	0.2	0.8	---
		Jun-06	ns	ns	ns	ns	ns	ns
		Dec-06	6.44	-40.4	487	0.3	9.7	---
		May-07	8.53	-36	528	8.0	503.0	---
		Jun-08	6.08	-29.7	479	0.44	0.92	17
		Jun-08 DUP	ns	ns	ns	ns	ns	ns
		Dec-08	ns	ns	ns	ns	ns	ns
		Dec-08 DUP	ns	ns	ns	ns	ns	ns
		Jun-09	ns	ns	ns	ns	ns	ns
		Jun-09 DUP	ns	ns	ns	ns	ns	ns
Oct-09	ns	ns	ns	ns	ns	ns		
Oct-09 DUP	ns	ns	ns	ns	ns	ns		

TABLE 5
SUMMARY OF NATURAL ATTENUATION PARAMETERS
Troy Mills Landfill Superfund Site
Troy, New Hampshire

Monitoring Well ID	Geological Unit of Well Screen	Sampling Event Date	MNA - Field Screening					
			pH (SU)	ORP (mV)	Specific Conductance (µS/cm)	Dissolved Oxygen (mg/L)	Turbidity (ntu)	Temperature (°C)
NHAGQS			na	na	na	na	na	na
ROD ICL			na	na	na	na	na	na
TRY_MW-501X	Overburden	Jun-11	ns/ir	ns/ir	ns/ir	ns/ir	ns/ir	ns/ir
		Jun-13	ns/ir	ns/ir	ns/ir	ns/ir	ns/ir	ns/ir
		Nov-14	ns/ir	ns/ir	ns/ir	ns/ir	ns/ir	ns/ir
		Jun-15	ns	ns	ns	ns	ns	ns
		May-16	ns/ir	ns/ir	ns/ir	ns/ir	ns/ir	ns/ir
		Nov-18	7.2 g	-37 g	348 g	3.3 g	538 g	11 g
		Apr-20	7.7 g	67 g	159 g	3.1 g	417 g	8 g
Nov-22	6.6 g J*	-43 g	214 g	1.8 g	249 g	10 g		
TRY_MW-501D	Overburden	Jun-15	8	-196	101	0.5	142	12
		May-16	8.3	-40	123	<0.5	7	9
		Nov-18	8.1	75	121	1.3	<5	11
		Apr-20	8.8	28	117	<0.5	<5	7
		Nov-22	8.2 J*	-88	109	2.1	<5	11
TRY_MW-508	Overburden	Aug-04	ns	ns	ns	ns	ns	ns
		Oct-05	ns	ns	ns	ns	ns	ns
		Jun-06	ns	ns	ns	ns	ns	ns
		Dec-06	ns	ns	ns	ns	ns	ns
		May-07	ns	ns	ns	ns	ns	ns
		Jun-08	ns	ns+T247:U248	ns	ns	ns	ns
		Dec-08	ns	ns	ns	ns	ns	ns
Jun-09	ns	ns	ns	ns	ns	ns		
Oct-09	ns	ns	ns	ns	ns	ns		
TRY_MW-508X	Overburden	Jun-11	5	197	28	7.3	11	14
		Jun-13	ns	ns	ns	ns	ns	ns
		Nov-14	4.9	192	24	9.2	<5	9
		Jun-15	ns	ns	ns	ns	ns	ns
		May-16	5.2	263	26	7.9	<5	10
		Oct-18	5.0 g	85 g	22 g	9 g	38 g	9 g
		Apr-20	7.5 g	203 g	18 g	8.5 g	307 g	7 g
Nov-22	4.9 g	184 g	13 g	9.8 g	<5 g	13 g		
TRY_MW-601S	Overburden	Aug-04	ns	ns	ns	ns	ns	ns
		Oct-05	5.61	336	224	0.2	0.2	---
		Jun-06	ns	ns	ns	ns	ns	ns
		Dec-06	5.5	208.8	190	0.5	0.3	---
		May-07	5.4	228	259	5.2	271.0	---
		Jun-08	5.60	321.6	255	2.72	16.9	14
		Dec-08	ns	ns	ns	ns	ns	ns
		Jun-09	5.8	203	283	0.9	1	10
		Jun-09 DUP	ns	ns	ns	ns	ns	ns
		Oct-09	6.0	108	279	0.3	<1	10
		Jun-11	5.6	203	224	<0.5	<5	12
		Jun-13	5.6	208	199	<0.5	<5	10
		Nov-14	5.5	116	163	<0.5	<5	10
		Jun-15	ns	ns	ns	ns	ns	ns
		May-16	6.0	132	197	<0.5	<5	11
Nov-18	6.5 g	98 g	205 g	0.9 g	7 g	11 g		
Apr-20	6.3 g	67 g	211 g	3.0 g	<5 g	12		
Nov-22	6.1 g	55 g	201 g	4.1 g	23 g	11 g		
TRY_MW-601D	Overburden	Aug-04	ns	ns	ns	ns	ns	ns
		Oct-05	6.56	-25.5	170	0.3	0.8	---
		Jun-06	ns	ns	ns	ns	ns	ns
		Dec-06	6.46	-1.7	113	0.2	4.4	---
		May-07	6.78	-24	106	4.0	35.6	---
		Jun-08	6.82	-58.6	122	0.77	23.6	20
		Dec-08	6.7	-13	163	0.60	67.0	7
		Jun-09	6.6	11	148	0.9	15	14
		Oct-09	6.8	-75	169	0.2	4	11
		Jun-11	ns/ir	ns/ir	ns/ir	ns/ir	ns/ir	ns/ir
		Jun-13	ns/ir	ns/ir	ns/ir	ns/ir	ns/ir	ns/ir
		Nov-14	ns/ir	ns/ir	ns/ir	ns/ir	ns/ir	ns/ir
		Jun-15	ns	ns	ns	ns	ns	ns
		May-16	6.9	-6	249	1.1	<5	13
		Nov-18	6.9	-12	244	0.6	12	11
Apr-20	6.9	-43	250	<0.5	<5	9		
Nov-22	6.9	-37	222	<0.5	8	10		
TRY_MW-601B	Bedrock	Nov-22	8.1	135	155	1.5	11	8
		Apr-23	8.0	54	191	1.2	5	11

TABLE 5
SUMMARY OF NATURAL ATTENUATION PARAMETERS
Troy Mills Landfill Superfund Site
Troy, New Hampshire

Monitoring Well ID	Geological Unit of Well Screen	Sampling Event Date	MNA - Field Screening					
			pH (SU)	ORP (mV)	Specific Conductance (µS/cm)	Dissolved Oxygen (mg/L)	Turbidity (ntu)	Temperature (°C)
NHAGQS			na	na	na	na	na	na
ROD ICL			na	na	na	na	na	na
TRY_MW-602B	Bedrock	Aug-04	ns	ns	ns	ns	ns	ns
		Oct-05	6.19	250.4	243	0.8	0.8	---
		Jun-06	ns	ns	ns	ns	ns	ns
		Dec-06	6.2	-2.6	236	0.2	0.5	---
		May-07	7.15	11.3	257	6.5	37.8	---
		Jun-08	5.73	25.2	261	0.50	27.8	12
		Dec-08	6.0	22	219	0.3	5.0	8
		Jun-09	6.1	-1	207	0.7	3.0	10
		Oct-09	6.3	2	211	0.6	<1	11
		Jun-11	6.0	29	221	1.9	<5	9
		Jun-13	ns	ns	ns	ns	ns	ns
		Nov-14	5.9	9	206	<0.5	<5	9
		Jun-15	ns	ns	ns	ns	ns	ns
		May-16	6.2	14	226	<0.5	<5	12
		Oct-18	6.2	26	229	<0.5	5	9
Apr-20	6.3	12	200	<0.5	<5	8		
Nov-22	5.8	34	184	0.5	<5	12		
TRY_MW-701	Bedrock	Aug-04	ns	ns	ns	ns	ns	ns
		Oct-05	ns	ns	ns	ns	ns	ns
		Jun-06	ns	ns	ns	ns	ns	ns
		Dec-06	5.84	180.1	32	10.0	0.6	---
		May-07	7.41	160	33	3.0	20.9	---
		Jun-08	5.22	345.7	32	12.71	0.47	12
		Dec-08	5.4	235	38	6.9	5.0	8
		Jun-09	6.2	71	36	6.8	5.0	8.0
		Oct-09	5.7	117	37	4.8	20	10
		Jun-11	5.5	156	32	8.5	<5	10
		Jun-13	5.4	222	32	9.2	<5	9
		Nov-14	5.4	85	34	7.6	<5	9
		Jun-15	ns	ns	ns	ns	ns	ns
		May-16	5.6	291	30	9.7	<5	9
		Oct-18	5.6	68	34	8.3	5	8
Apr-20	7.9	203	29	8.8	<5	8		
Nov-22	4.9	210	24	7.8	10	10		
TRY_MW-702S	Overburden	Aug-04	ns	ns	ns	ns	ns	ns
		Oct-05	ns	ns	ns	ns	ns	ns
		Jun-06	ns	ns	ns	ns	ns	ns
		Dec-06	6.15	50.5	47	1.3	2.3	---
		May-07	5.8	99.1	48	5.8	532.0	---
		Jun-08	4.76	306	28	5.36	8.6	15
		Dec-08	ns	ns	ns	ns	ns	ns
		Jun-09	ns	ns	ns	ns	ns	ns
TRY_MW-702SX	Overburden	Oct-09	ns	ns	ns	ns	ns	ns
		Jun-11	5.0	172	19	9.3	<5	12
		Jun-13	ns	ns	ns	ns	ns	ns
		Nov-14	4.9	220	25	8.2	<5	10
		Jun-15	5.1	272	17 J*	8.3	8	12
		May-16	5.3	208	20	9.7	<5	9.8
		Oct-18	5.1	152	22	4	5	10
TRY_MW-702D	Bedrock	Apr-20	7.6	202	19	11.4	<5	5
		Nov-22	5.3	168	20	7.5	8	13
		Aug-04	ns	ns	ns	ns	ns	ns
		Oct-05	ns	ns	ns	ns	ns	ns
		Jun-06	ns	ns	ns	ns	ns	ns
		Dec-06	6.69	146	38	3.9	2.6	---
		May-07	6.14	73	54	8.3	990.0	---
		Jun-08	6.58	312	43	5.75	7.3	16
		Dec-08	ns	ns	ns	ns	ns	ns
		Jun-09	ns	ns	ns	ns	ns	ns
		Oct-09, 25.9'	ns	ns	ns	ns	ns	ns
		Oct-09, 35.9'	ns	ns	ns	ns	ns	ns
		Oct-09, 44.4'	ns	ns	ns	ns	ns	ns
		Apr-10, 25.9'	ns	ns	ns	ns	ns	ns
		Apr-10, 25.9' DUP	ns	ns	ns	ns	ns	ns
TRY_MW-801	Overburden	Jun-11	6.6	96	52	5.7	50	10
		Jun-13	ns	ns	ns	ns	ns	ns
		Nov-14	6.6	180	52	6.0	11	11
		Jun-15	6.7	189	42	5.2	40	12
		May-16	6.8	145	55	5.5	11	9.1
		Oct-18	6.6	147	50	5.6	11	9
		Apr-20	8.4	129	49	5.8	10	6
		Nov-22	6.6	124	48	5.4	14	11

TABLE 5
SUMMARY OF NATURAL ATTENUATION PARAMETERS
Troy Mills Landfill Superfund Site
Troy, New Hampshire

Monitoring Well ID	Geological Unit of Well Screen	Sampling Event Date	MNA - Field Screening					
			pH (SU)	ORP (mV)	Specific Conductance (µS/cm)	Dissolved Oxygen (mg/L)	Turbidity (ntu)	Temperature (°C)
NHAGQS			na	na	na	na	na	na
ROD ICL			na	na	na	na	na	na
TRY_MW-802	Overburden	Jun-11	5.8	30	407	<0.5	<5	14
		Jun-13	5.8	51	444	0.8	9	12
		Nov-14	ns/ir	ns/ir	ns/ir	ns/ir	ns/ir	ns/ir
		Jun-15	ns	ns	ns	ns	ns	ns
		May-16	6.3	10	521	0.6	5	12
		Nov-18	6.2 g	-21 g	476 g	0.8 g	<5 g	14 g
		Apr-20	6.3	-33	444	<0.5	<5	11
Nov-22	6.2 g	-1 g	334 g	1.5 g	8 g	13 g		
TRY_MW-803	Overburden	Jun-11	6.2	-71	729	<0.5	<5	12
		Jun-13	6.2	-50	701	1.0	8	13
		Nov-14	ns	ns	ns	ns	ns	ns
		Jun-15	ns/ir	ns/ir	ns/ir	ns/ir	ns/ir	ns/ir
		May-16	6.6	-53	831	<0.5	82	12
		Nov-18	6.6 g	25 g, J*	773 g	1.1 g	15 g	10 g
		Apr-20	7.3 g	-73	677	0.6 g	21 g	11
Nov-22	dry	dry	dry	dry	dry	dry		
TRY_MW-804	Overburden	Jun-11	5.7	15	422	<0.5	<5	12
		Jun-11 DUP	ns	ns	ns	ns	ns	ns
		Jun-13	5.8	20	380	0.9	<5	11
		Jun-13 DUP	ns	ns	ns	ns	ns	ns
		Nov-14	6.0	-17	360	0.6	<5	10
		Nov-14 DUP	ns	ns	ns	ns	ns	ns
		Jun-15	6.1	-55	287 J*	0.6	<5	12
		May-16	6.3	-33	365	<0.5	<5	13
		Nov-18	6.2 g	84 g, J*	390 g	1.0 g	7 g	10 g
Apr-20	6.2 g	-12.9 g	382 g	1.8 g	11 g	12 g		
Nov-22	dry	dry	dry	dry	dry	dry		
TRY_MW-805	Overburden	Jun-11	6.3	-23	662	1.8	<5	12
		Jun-13	6.3	-28	550	<0.5	<5	11
		Nov-14	6.2	-25	555	3.9	7	9
		Jun-15	ns	ns	ns	ns	ns	ns
		May-16	6.5	-51	605	<0.5	<5	12
		Nov-18	6.3	-27	562	<0.5	22	12
		Apr-20	7	-141	534	<0.5	<5	10
		Nov-22	6.4 g	-58 g	420 g J*	1.1 g	19 g	14 g
TRY_MW-901S	Overburden	Nov-22	6.6 g	-83 g	461 g	4.2 g	ns	7 g
		Apr-23	6.6 g	-72 g	544 g	1.5 g	271 g	11 g
TRY_MW-901B	Bedrock	Nov-22	6.4	-72	456	1.2	<5	9
		Apr-23	6.6	-12	432	0.8	<5	10
TRY_MW-902S	Overburden	Nov-22	5.9 g	-11 g	351 g	1.3 g	<5 g	9 g
		Apr-23	6.2	-16	378	0.3	<5	10
TRY_MW-902B	Bedrock	Nov-22	9.5	-127	170	0.9	26	9
		Apr-23	8.7	140	141	1.0	20	11
TRY_MW-903S	Overburden	Nov-22	5.9	70	218	<0.5	6	10
		Apr-23	6.0	106	201	<0.5	16 g	7
TRY_MW-903B	Bedrock	Nov-22	9.1	-47	112 J*	1.8	51	9
		Apr-23	8.3	150	136	0.7	33 g	10

TABLE KEY:

- AGQS = Ambient Groundwater Quality Standards included in Env-Or 600 - Contaminated Site Management (Env-Or 603.3)
- ROD ICL = Record of Decision, Interim Cleanup Levels
- MNA = Monitored Natural Attenuation
- na = no standard applies
- ns = not sampled
- ns/ir = insufficient recharge well, field parameters were not collected
- dry = there was not enough water in the well to collect a sample
- < = analyte not detected above the laboratory or field reporting limit
- ORP = Oxidation Reduction Potential
- µg/L = micrograms per Liter
- mg/L = milligrams per Liter
- SU = Standard Units
- mV = milliVolts
- µS/cm = micro Siemens per centimeter
- ntu = Nephelometric Turbidity Units
- °C = degrees Celsius
- g = field measurement collected as a grab sample, no stabilization
- J = estimated concentration qualified by the laboratory (NHDPHS, EPA, or Microseeps) or by Environmental Data Services (third party data validation), see laboratory report for explanation
- J* = estimated field measurement qualified by GZA due to end of day calibration check issues or failure of parameter to stabilize, or estimated concentration qualified by GZA due to observed field conditions
- UJ = the compound was analyzed for, but not detected, the associated numerical value is the estimated sample quantitation limit. UJ is used for data qualified by Environmental Data Services.
- "---" = available historical data is unclear as to whether the parameter was not sampled, or sampled but not detected
- "*" = historical data for analyte will be identified and entered as part of the next monitoring round
- Bold** = parameter was detected above the laboratory reporting detection limit
- Grey shading = concentration exceeds the Ambient Groundwater Quality Standards
- Orange shading = most recent round of sample results

GENERAL NOTES:

- * Groundwater samples collected during spring 2023 were collected using bladder pumps and dedicated tubing, with the exception of the groundwater sample collected from TRY_MW-901S, where a bailer was used. Refer to **Table 2** for the sampling equipment used at each well.
- * The low-flow field screening parameter readings reported represent the last round of readings prior to sample collection.

TABLE 6
SUMMARY OF DETECTED COMPOUNDS IN SURFACE WATER SAMPLES
Troy Mills Landfill Superfund Site
Troy, New Hampshire

Surface Water Sample Location ID	Sampling Event Date	VOCs (µg/L)	SVOCs (µg/L)	Metals (mg/L)			MNA Parameters - Field					
				Arsenic	Manganese	Hardness	pH (SU)	ORP (mV)	Specific Conductance (µS/cm)	Dissolved Oxygen (mg/L)	Turbidity (ntu)	Temperature (°C)
NH WQCTS ¹				0.15	na	na	na	na	na	>5 ²	na	na
TRY_SW-1	Dec-06	ND	ND	<0.0010	0.019	5.42	ns	ns	ns	ns	ns	ns
	May-07	ND	ND	<0.0010	0.030	4.743	ns	ns	ns	ns	ns	ns
	Jun-08	ND	ND	<0.0010	0.023	5.309	ns	ns	ns	ns	ns	ns
	Jun-08 DUP	ND	ND	<0.0010	0.023	5.237	ns	ns	ns	ns	ns	ns
	Nov-08	ND	ND	ns	0.036	6.195	6.9	112	34	14	0.7	1
	Nov-08 DUP	ND	ND	ns	0.036	6.189	ns	ns	ns	ns	ns	ns
	Jun-09	ND	ND	ns	0.027	4.739	6.0	144	29	9.1	<1	20
	Oct-09	ND	ND	ns	0.019	4.677	6.8	98	29	8.9	<1	15
	Jun-11	ND	ND	ns	0.04	5.414	5.9	183	29	8.1	1	21
	Nov-14	ND	ND	<0.0010	0.022	4.79	5.0	229	28	9.1	1	8
	May-16	ND	ND	<0.0010	0.018	5.29	6.7	196	32	10.1	<5	19
	Nov-18	ND	ND	<0.005	0.02	4	6.9	126	28	11.3	<5	8
	Apr-20	ND	ND	<0.00050	0.02595	5.261	6.6	136	29	10.8	1	11
	Nov-22	ND	ND	ns	0.01824	5.30	6.2	100	33	10.9	1	12
TRY_SW-3	Dec-06	ND	ND	<0.0010	0.065	<3	ns	ns	ns	ns	ns	ns
	Dec-06 DUP	ND	ND	<0.0010	0.064	<3	ns	ns	ns	ns	ns	ns
	May-07	ND	ND	<0.0010	0.046	<3	ns	ns	ns	ns	ns	ns
	May-07 DUP	ND	ND	<0.0010	0.047	<3	ns	ns	ns	ns	ns	ns
	Jun-08	ND	ND	<0.0010	0.062	5.857	ns	ns	ns	ns	ns	ns
	Nov-08	ND	ND	ns	0.231	7.467	7.1	112	30	13	<1	2
	Jun-09	ND	ND	ns	0.061	5.576	5.9	93	28	8.8	<1	17
	Jun-09 DUP	ND	ND	ns	0.060	5.436	ns	ns	ns	ns	ns	ns
	Oct-09	ND	ND	ns	0.231	6.879	8.2	104	32	8	<1	11
	Oct-09 DUP	ND	ND	ns	0.232	6.922	ns	ns	ns	ns	ns	ns
	Jun-11	ND	ND	ns	0.11	7.527	6.2	126	29	9.1	2	27
	Jun-11 DUP	ND	ND	ns	0.112	7.376	ns	ns	ns	ns	ns	ns
	Nov-14	ND	ND	<0.0010	0.048	5.32	5.4	203	31	9.0	6	8
	Nov-14 DUP	ND	ND	<0.0010	0.043	5.09	ns	ns	ns	ns	ns	ns
	May-16	ND	ND	<0.0010	0.157	7.71	6.5	133	34	10.1	<5	17
	Nov-18	ND	ND	<0.005	0.06	5	7.4	119	24	11.1	<5	9
	Nov-18 DUP	ND	ND	<0.005	0.05	5	ns	ns	ns	ns	ns	ns
	Apr-20	ND	ND	<0.00050	0.04556	5.211	7.0	102	25	10.7	3	9
	Apr-20 DUP	ND	ND	<0.00050	0.04569	5.93	ns	ns	ns	ns	ns	ns
	Nov-22	ND	ND	ns	0.02543	5.57	6.2	59.5	33	11.1	2	11
	Nov-22 DUP	ND	ND	ns	0.02549	5.57	ns	ns	ns	ns	ns	ns
TRY_SW-4	Jun-08	ND	ND	<0.0010	0.034	5.227	ns	ns	ns	ns	ns	ns
	Nov-08	ND	ND	ns	0.026	6.76	7.0	111	35	13	1.1	1
	Jun-09	ND	ND	ns	0.028	4.683	6.1	110	29	10.1	<1	20
	Oct-09	ND	ND	ns	0.020	4.951	6.9	86	29	8.8	<1	13
	Jun-11	ND	ND	ns	0.041	5.532	5.9	183	29	8.1	1	20
	Nov-14	ND	ND	<0.0010	0.018	4.78	4.9	228	28	9.1	2	8
	May-16	ND	ND	<0.0010	0.028	5.53	6.6	190	30	10.1	<5	18
	May-16 DUP	ND	ND	<0.0010	0.028	5.59	6.6	190	30	10.1	<5	18
	Nov-18	ND	ND	<0.005	0.04	4	7.0	125	25	11.2	<5	9
	Apr-20	ND	ND	<0.00050	0.03409	4.65	6.9	126	24	10.8	1	10
	Nov-22	ND	ND	ns	0.01550	5.37	6.1	95.5	33	11.1	1	12
TRY_SW-100	May-16	ND	ND	<0.001	0.176	8.15	6.9	26	35	10	<5	16
	Nov-18	ND	ND	<0.005	0.05	4	8.0	106	23	11.0	<5	9
	Apr-20	ND	ND	<0.00050	0.04847	5.216	7.2	90	25	11.4	3	9
	Nov-22	ND	ND	ns	0.03277	6.07	6.7	28.9	34	11.5	2	10
	Apr-23	ns	ns	ns	ns	ns	5.9	180	29	11.1	1	10

TABLE 6
SUMMARY OF DETECTED COMPOUNDS IN SURFACE WATER SAMPLES
Troy Mills Landfill Superfund Site
Troy, New Hampshire

TABLE KEY:

- NH WQCTS = New Hampshire Water Quality Criteria for Toxic Substances
- VOCs = Volatile Organic Compounds
- SVOCs = Semi-Volatile Organic Compounds
- µg/L = micrograms per liter
- mg/L = milligrams per liter
- ND = no parameter within this category was detected above the laboratory reporting limit
- na = no current standard available
- ns = not sampled
- < = analyte not detected above the laboratory or field reporting limit
- MNA = Monitored Natural Attenuation
- SU = Standard Units
- ORP = Oxidation Reduction Potential
- mV = millivolts
- µS/cm = micro Siemens per centimeter
- ntu = Nephelometric Turbidity Units
- °C = degrees Celsius
- Bold** = parameter was detected above the laboratory reporting detection limit
- Gray shading = concentration exceeds the NH WQCTS
- Orange shading = most recent round of sample results

GENERAL NOTES:

- * There are no Site Contaminants of Concern or Record of Decision Interim Cleanup Goals for Surface Water.
- * The analytical test methods for each compound as follows: VOCs by 8260C; SVOCs by 8270D; Metals and Hardness by EPA Method 6020A.

SPECIFIC NOTES:

1. Water Quality Criteria for Toxic Substances (WQCTS) were obtained from the NHDES' Surface Water Quality Regulations (Env-Wq 1703.21 Water Quality Criteria for Toxic Substances) and assumes the Protection of Aquatic Life in Freshwaters with chronic criteria. If a chronic criteria standard has not been established, the Freshwater Acute Criteria was used.
2. The standard for dissolved oxygen in surface waters is from Env-Wq 1703.07 (b) Dissolved oxygen in class B waters included in the New Hampshire Code of Administrative Rules Env-Wq 1700 Surface Water Quality Regulations

TABLE 7
SUMMARY OF DETECTED PFAS COMPOUNDS IN GROUNDWATER AND SURFACE WATER SAMPLES
Troy Mills Landfill Superfund Site
Troy, New Hampshire

Monitoring Well ID	Geological Unit of Well Screen	Sample ID	Sampling Event Date	Perfluoroalkyl Carboxylic Acids												
				Perfluorobutanoic Acid (PFBA) [4]	Perfluoropentanoic Acid (PFPeA) [5]	Perfluorohexanoic Acid (PFHxA) [6]	Perfluoroheptanoic Acid (PFHpA) [7]	Perfluorooctanoic Acid (PFOA) [8]	Perfluorononanoic Acid (PFNA) [9]	Perfluorodecanoic Acid (PFDA) [10]	Perfluoroundecanoic Acid (PFUnA) [11]	Perfluorododecanoic Acid (PFDoA) [12]	Perfluorotridecanoic Acid (PFTriDA) [13]	Perfluorotetradecanoic Acid (PFTa) [14]	Perfluorooctadecanoic Acid (PFODA)	Perfluorohexadecanoic Acid (PFHxDA)
Cas No.				375-22-4	2706-90-3	307-24-4	375-85-9	335-67-1	375-95-1	335-76-2	2058-94-8	307-55-1	72629-94-8	376-06-7	16517-11-6	67905-19-5
NHDES AGQS (ng/L) ²				na	na	na	na	12	11	na	na	na	na	na	na	na
Established Site-Specific EPA Regional Screening Levels (RSLs) (ng/L) ³				na	na	na	na	6	5.89	na	na	na	na	na	na	na
EPA Lifetime Drinking Water Health Advisory (ng/L) ⁴				na	na	na	na	na	na	na	na	na	na	na	na	na
2022 EPA Interim Drinking Water Health Advisories (ng/L) ⁴				na	na	na	na	0.004	na	na	na	na	na	na	na	na
Groundwater Samples																
TRY_M-1	Overburden	TRY_M-1	4/24/2020	75.2	185	218	257	524	13.7	< 2.07	4.32	< 2.07	< 2.07	< 2.07	< 4.15	< 4.15
		TRY_M-1	11/9/2022	62.3	129	157	203	293	34.4	< 1.78	3.88	< 1.78	< 1.78	< 1.78	< 3.56	< 3.56
TRY_M-7	Overburden	TRY_M-7	10/31/2018	56	130	200	220	200	4.3	< 2	< 2	< 2	< 2	< 2	---	---
		TRY_M-7	4/22/2020	47.8	111	168	192	194	5.05	< 1.92	< 1.92	< 1.92	< 1.92	< 1.92	< 3.85	< 3.85
		TRY_M-7	11/1/2022	50	110	162	170	208	5.32	< 1.77	< 1.77	< 1.77	< 1.77	< 1.77	< 3.54	< 3.54
TRY_M-7D	Bedrock	TRY_M-7D	4/22/2020	< 1.97	< 1.97	< 1.97	< 1.97	< 1.97	< 1.97	< 1.97	< 1.97	< 1.97	< 1.97	< 1.97	< 3.94	< 3.94
		TRY_M-7D	11/1/2022	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8	< 3.61	< 3.61
TRY_MW-101D	Overburden	TRY_MW-101D	4/27/2020	3.47	8.5	6.14	3.99	6.4	< 1.83	2.65	< 1.83	< 1.83	< 1.83	< 1.83	< 3.66	< 3.66
		TRY_MW-101D	11/10/2022	7.82	13.3	12	7.45	7.42	5.21 F	4.26	< 1.84	< 1.84	< 1.84	< 1.84	< 3.67	< 3.67
TRY_MW-101S	Overburden	TRY_MW-101S	10/30/2018	82	160	210	260	480	5.6	< 2	< 2	< 2	< 2	< 2	---	---
		TRY_MW-101S	4/24/2020	70.2	143	184	242	370	33.7	< 2.14	< 2.14	< 2.14	< 2.14	< 2.14	< 4.29	< 4.29
		TRY_MW-101S	11/1/2022	Dry												
TRY_MW-102	Predominantly Overburden	TRY_MW-102	11/5/2018	120	270	440	570	610	< 20	< 20	< 20	< 20	< 20	< 20	---	---
		TRY_MW-102	4/27/2020	92.9 B*	174 B*	255 B*	540 B*	2,140 B*	4.38	< 1.99	2.21	< 1.99	< 1.99	< 1.99	< 3.98	< 3.98
		TRY_MW-102	11/9/2022	164	302	348	383	364	14.8	< 1.9	< 1.9	1.94	< 1.9	< 1.9	< 3.81	< 3.81
TRY_MW-104D	Overburden	TRY_MW-104D	4/21/2020	< 1.92	< 1.92	< 1.92	< 1.92	< 1.92	< 1.92	< 1.92	< 1.92	< 1.92	< 1.92	< 1.92	< 3.85	< 3.85
		TRY_MW-104D	11/3/2022	< 1.86	< 1.86	< 1.86	< 1.86	< 1.86	< 1.86	< 1.86	< 1.86	< 1.86	< 1.86	< 1.86	< 3.71	< 3.71
TRY_MW-104S	Overburden	TRY_MW-104S	4/22/2020	42.9	104	132	150	287	10.5	< 2.02	< 2.02	< 2.02	< 2.02	< 2.02	< 4.03	< 4.03
		TRY_MW-104S	11/3/2022	43.7	94.7	121	162	291	24.4	< 1.95	< 1.95	< 1.95	< 1.95	< 1.95	< 3.9	< 3.9
TRY_MW-105D	Bedrock	TRY_MW-105D	4/21/2020	16 B*	28.1 B*	45.5 B*	73.8 B*	159 B*	24.4	5.7	6.63	2.9	< 1.8	< 1.8	< 3.61	< 3.61
		TRY_MW-105D	11/4/2022	34.4	67.8	102	143	231	35.4	16.1	11.1	2.75	< 1.9	< 1.9	< 3.81	< 3.81
TRY_MW-105S	Overburden	TRY_MW-105S	11/1/2018	44	87	150	170	260	31	< 2	< 2	< 2	< 2	< 2	---	---
		TRY_MW-105S	4/21/2020	21.6	44.8	71.8	100	162	17.6	2.18	< 1.88	< 1.88	< 1.88	< 1.88	< 3.76	< 3.76
		TRY_MW-105S	11/4/2022	58.3	120	179	242	299	21.2	3.21	< 1.96	< 1.96	< 1.96	< 1.96	< 3.92	< 3.92
TRY_MW-201SX	Overburden	TRY_MW-201SX	4/28/2020	38.4	89.2	111	145	273	7.87	< 2	< 2	< 2	< 2	< 2	< 4	< 4
		TRY_MW-201SX	11/10/2022	53.8	114	152	206	238	9.67	< 1.87	< 1.87	< 1.87	< 1.87	< 1.87	< 3.75	< 3.75
TRY_MW-202P	Overburden	TRY_MW-202P	4/24/2020	32.3 B*	86.6 B*	90.6 B*	79.4 B*	118 B*	12.1	8.23	6.92	< 1.94	< 1.94	< 1.94	< 3.89	< 3.89
		TRY_MW-202P	11/7/2022	36.2	89.8	98.4	83.4	91.1	< 1.78	2.42	4.73	< 1.78	< 1.78	< 1.78	< 3.56	< 3.56
TRY_MW-204	Overburden	TRY_MW-204	4/27/2020	88.7	184	217	202	497	57.3	< 1.87	< 1.87	< 1.87	< 1.87	< 1.87	< 3.74	< 3.74
		TRY_MW-204	11/10/2022	60.7	109	127	159	244	74.1 F	< 1.84	< 1.84	< 1.84	< 1.84	< 1.84	< 3.69	< 3.69
		TRY_MW-204 DUP	11/10/2022	58	109	135	158	235	76.7	< 1.82	< 1.82	< 1.82	< 1.82	< 1.82	< 3.64	< 3.64
TRY_MW-205	Overburden	TRY_MW-205	11/7/2018	78	100	62	83	47	24	< 20	< 20	< 20	< 20	< 20	---	---
		TRY_MW-205	4/28/2020	< 16.7	55.7	57.5	54.5	45.2	< 16.7	< 16.7	< 16.7	< 16.7	< 16.7	< 16.7	< 33.3	< 33.3
		TRY_MW-205	11/15/2022	40	74.5	105	151	310	6.55	< 1.92	< 1.92	< 1.92	< 1.92	< 1.92	< 3.85	< 3.85
TRY_MW-301X	Overburden	TRY_MW-301X	4/24/2020	103 B*	238 B*	351 B*	357 B*	571 B*	4.1	2.01	12.9	< 1.8	< 1.8	< 1.8	< 3.6	< 3.6
		TRY_MW-301X	11/3/2022	101	222	310	338	590	6.99	5.83 F	6.66	< 1.86	< 1.86	< 1.86	< 3.73	< 3.73
TRY_MW-501D	Overburden	TRY_MW-501D	4/23/2020	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8	< 3.6	< 3.6
		TRY_MW-501D	11/8/2022	< 1.84	1.88	< 1.84	< 1.84	< 1.84	< 1.84	< 1.84	< 1.84	< 1.84	< 1.84	< 1.84	< 3.68	< 3.68
TRY_MW-501X	Overburden	TRY_MW-501X	4/23/2020	47.8 B*	90 B*	56.3 B*	62.1 B*	92.6 B*	4.46	2.23	2.23	< 1.98	< 1.98	< 1.98	< 3.97	< 3.97
		TRY_MW-501X	11/8/2022	52.2	91.9	90.8	120	157	7.97	< 1.83	2.19	< 1.83	< 1.83	< 1.83	< 3.65	< 3.65
TRY_MW-508X	Overburden	TRY_MW-508X	4/21/2020	4.32 B*	4.5 B*	< 2.03	< 2.03	< 2.03	< 2.03	< 2.03	< 2.03	< 2.03	< 2.03	< 2.03	< 4.06	< 4.06
		TRY_M-508X	11/1/2022	< 1.95	< 1.95	< 1.95	< 1.95	< 1.95	< 1.95	< 1.95	< 1.95	< 1.95	< 1.95	< 1.95	< 3.9	< 3.9
TRY_MW-601B	Bedrock	TRY_MW-601B	11/14/2022	38.8	8.8	4	2.39	20.7	< 1.9	< 1.9	< 1.9	< 1.9	< 1.9	< 1.9	< 3.8	< 3.8
		TRY_MW-601B	4/26/2023	35.6	51.7	5.94	10.8	24.3	5.09	< 1.79	< 1.79	< 1.79	< 1.79	< 1.79	< 3.58	< 3.58
TRY_MW-601D	Overburden	TRY_MW-601D	4/23/2020	11.8	28.9	25.5	7.96	5.99	< 1.92	1.93	< 1.92	< 1.92	< 1.92	< 1.92	< 3.85	< 3.85
		TRY_MW-601D	11/8/2022	9.18	23.6	23.3	7.66	3.72	< 1.81	2.31	< 1.81	< 1.81	< 1.81	< 1.81	< 3.62	< 3.62
TRY_MW-601S	Overburden	TRY_MW-601S	4/23/2020	79	163	186	221	506	61.8	2.89	< 1.8	< 1.8	< 1.8	< 1.8	< 3.61	< 3.61
		TRY_MW-601S	11/8/2022	55.6	104	132	188	280	141	3.72	1.84	< 1.81	< 1.81	< 1.81	< 1.81	< 3.61
TRY_MW-602B	Bedrock	TRY_MW-602B	10/30/2018	35	85	120	140	270	8.1	2.6	< 2	< 2	< 2	< 2	---	---
		TRY_MW-602B	4/24/2020	29.9	60	77.5	96.6	240	8.57	< 2.04	< 2.04	< 2.04	< 2.04	< 2.04	< 4.08	< 4.08
		TRY_MW-602B	11/7/2022	27.1	54	83.2	100	166	15.5	2.87	2.8	< 1.82	< 1.82	< 1.82	< 3.64	< 3.64
TRY_MW-701	Bedrock	TRY_MW-701	10/31/2018	< 2	< 2	< 2	< 2	< 2	3.7	< 2	< 2	< 2	< 2	< 2	---	---
		TRY_MW-701	4/21/2020	< 1.81	< 1.81	< 1.81	< 1.81	< 1.81	3.02	< 1.81	< 1.81	< 1.81	< 1.81	< 1.81	< 3.62	< 3.62
		TRY_MW-701	11/1/2022	< 1.85	< 1.85	< 1.85	< 1.85	< 1.85	5.49	< 1.85	< 1.85	< 1.85	< 1.85	< 1.85	< 3.7	< 3.7
TRY_MW-702D	Bedrock	TRY_MW-702D	4/22/2020	< 1.77	< 1.77	< 1.77	< 1.77	< 1.77	< 1.77	< 1.77	8.6	1.78	< 1.77	< 1.77	< 3.53	< 3.53
		TRY_MW-702D	11/2/2022	1.88	3.39	< 1.76	< 1.76	< 1.76	< 1.76	< 1.76	2.08 F	2.45	< 1.76	< 1.76	< 1.76	< 3.52
TRY_MW-702SX	Overburden	TRY_MW-702SX	4/22/2020	< 1.86	< 1.86	< 1.86	< 1.86	< 1.86	< 1.86	< 1.86	< 1.86	< 1.86	< 1.86	< 1.86	< 3.72	< 3.72
		TRY_MW-702SX	11/2/2022	< 1.83	< 1.83	< 1.83	< 1.83	< 1.83	< 1.83	< 1.83	< 1.83	< 1.83	< 1.83	< 1.83	< 3.67	< 3.67

TABLE 7
SUMMARY OF DETECTED PFAS COMPOUNDS IN GROUNDWATER AND SURFACE WATER SAMPLES
Troy Mills Landfill Superfund Site
Troy, New Hampshire

Monitoring Well ID	Geological Unit of Well Screen	Sample ID	Sampling Event Date	Perfluoroalkyl Sulfonic Acids								Fluorotelomers				Perfluoroalkane Sulfonamides (FASAs) and Sulfonamido Substances							
				Perfluorobutanesulfonic Acid (PFBS) [4S]	Perfluoropentanesulfonic Acid (PFPeS) [5S]	Perfluorohexanesulfonic Acid (PFHxS) [6S]	Perfluoroheptanesulfonic Acid (PFHpS) [7S]	Perfluorooctanesulfonic Acid (PFOS) [8S]	Perfluorononanesulfonic Acid (PFNS) [9S]	Perfluorodecanesulfonic Acid (PFDS) [10S]	Perfluorododecane sulfonate (PFDoS)	1H,1H,2H,2H-Perfluorododecanesulfonic Acid (10:2FTS)	1H,1H,2H,2H-Perfluorodecanesulfonic Acid (8:2FTS)	1H,1H,2H,2H-Perfluorooctanesulfonic Acid (6:2FTS)	1H,1H,2H,2H-Perfluorohexanesulfonic Acid (4:2FTS)	Perfluorooctanesulfonamide (PFOSA)	N-Ethyl Perfluorooctanesulfonamidoacetic Acid (NEFOSAA)	N-Methyl Perfluorooctanesulfonamidoacetic Acid (NMeFOSAA)	N-Ethyl Perfluorooctanesulfonamido Ethanol (NEFOSE)	N-Methyl Perfluorooctanesulfonamido Ethanol (NMeFOSE)	N-Methyl Perfluorooctane Sulfonamide (NMeFOSA)	N-Ethyl Perfluorooctane Sulfonamide (NEFOSA)	
Cas No.				375-73-5	2706-91-4	355-46-4	375-92-8	1763-23-1	68259-12-1	335-77-3	79780-39-5	120226-60-0	39108-34-4	27619-97-2	757124-72-4	754-91-6	2991-50-6	2355-31-9	1691-99-2	24448-09-7	31506-32-8	4151-50-2	
NHDES AGQS (ng/L) ²				na	na	18	na	15	na	na	na	na	na	na	na	na	na	na	na	na	na	na	
Established Site-Specific EPA Regional Screening Levels (RSLs) (ng/L) ³				600	na	39.4	na	4	na	na	na	na	na	na	na	na	na	na	na	na	na	na	
EPA Lifetime Drinking Water Health Advisory (ng/L) ⁴				2,000	na	na	na	na	na	na	na	na	na	na	na	na	na	na	na	na	na	na	
2022 EPA Interim Drinking Water Health Advisories (ng/L) ⁴				na	na	na	na	0.02	na	na	na	na	na	na	na	na	na	na	na	na	na	na	
Groundwater Samples																							
TRY_M-1	Overburden	TRY_M-1	4/24/2020	16.2	< 2.07	10.4	< 2.07	2.66	< 2.07	< 2.07	< 2.07	< 5.19	< 2.07	< 2.07	< 2.07	< 2.07	< 2.07	< 2.07	< 51.9	< 51.9	< 20.7	< 20.7	
		TRY_M-1	11/9/2022	14.2	2.24	10.1	2.45	6.33	< 1.78	< 1.78	< 1.78	< 4.45	< 1.78	< 1.78	< 1.78	< 1.78	< 1.78	< 1.78	< 44.5	< 44.5	< 17.8	< 17.8	
TRY_M-7	Overburden	TRY_M-7	10/31/2018	14	---	5.8	< 2	< 2	---	< 2	---	---	< 4	< 4	---	< 4	---	---	---	---	---	---	
		TRY_M-7	4/22/2020	13.3	4.41	10.2	< 1.92	< 1.92	< 1.92	< 1.92	< 1.92	< 4.81	< 1.92	< 1.92	< 1.92	< 1.92	< 1.92	< 1.92	< 48.1	< 48.1	< 19.2	< 19.2	
TRY_M-7D	Bedrock	TRY_M-7	11/1/2022	12.5	< 1.77	4.22	< 1.77	1.97 F	< 1.77	< 1.77	< 1.77	< 4.42	< 1.77	< 1.77	< 1.77	< 1.77	< 1.77	< 1.77	< 44.2	< 44.2	< 17.7	< 17.7	
		TRY_M-7D	4/22/2020	< 1.97	< 1.97	< 1.97	< 1.97	< 1.97	< 1.97	< 1.97	< 1.97	< 4.92	< 1.97	< 1.97	< 1.97	< 1.97	< 1.97	< 1.97	< 49.2	< 49.2	< 19.7	< 19.7	
TRY_MW-101D	Overburden	TRY_M-7D	11/1/2022	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8	< 4.51	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8	< 45.1	< 45.1	< 18	< 18	
		TRY_MW-101D	4/27/2020	< 1.83	< 1.83	< 1.83	< 1.83	< 1.83	< 1.83	< 1.83	< 1.83	< 4.58	< 1.83	< 1.83	< 1.83	< 1.83	< 1.83	< 1.83	< 45.8	< 45.8	< 18.3	< 18.3	
TRY_MW-101S	Overburden	TRY_MW-101D	11/10/2022	< 1.84	< 1.84	< 1.84	< 1.84	< 1.84	< 1.84	< 1.84	< 1.84	< 4.59	< 1.84	< 1.84	< 1.84	< 1.84	< 1.84	< 1.84	< 45.9	< 45.9	< 18.4	< 18.4	
		TRY_MW-101S	10/30/2018	17	---	10	< 2	3.7	---	< 2	---	---	< 4	< 4	---	< 4	---	---	---	---	---	---	
TRY_MW-101S	Overburden	TRY_MW-101S	4/24/2020	12.5	< 2.14	10.5	< 2.14	7.62	< 2.14	< 2.14	< 2.14	< 5.36	< 2.14	< 2.14	< 2.14	< 2.14	< 2.14	< 2.14	< 53.6	< 53.6	< 21.4	< 21.4	
		TRY_MW-101S	11/1/2022	Dry																			
TRY_MW-102	Predominantly Overburden	TRY_MW-102	11/5/2018	37	---	< 20	< 20	< 20	---	< 20	---	---	< 40	< 40	---	< 40	---	---	---	---	---	---	
		TRY_MW-102	4/27/2020	30.2	< 1.99	22.5	< 1.99	3.35 B*	< 1.99	< 1.99	< 1.99	< 4.98	< 1.99	< 1.99	< 1.99	< 1.99	< 1.99	< 1.99	< 49.8	< 49.8	< 19.9	< 19.9	
TRY_MW-104D	Overburden	TRY_MW-102	11/9/2022	35.6	3.96	10.3	< 1.9	7.12 F	< 1.9	< 1.9	< 1.9	< 4.76	< 1.9	< 1.9	< 1.9	< 1.9	< 1.9	< 1.9	< 47.6	< 47.6	< 19	< 19	
		TRY_MW-104D	4/21/2020	< 1.92	< 1.92	< 1.92	< 1.92	< 1.92	< 1.92	< 1.92	< 1.92	< 4.81	< 1.92	< 1.92	< 1.92	< 1.92	< 1.92	< 1.92	< 48.1	< 48.1	< 19.2	< 19.2	
TRY_MW-104S	Overburden	TRY_MW-104D	11/3/2022	< 1.86	< 1.86	< 1.86	< 1.86	< 1.86	< 1.86	< 1.86	< 1.86	< 4.64	< 1.86	< 1.86	< 1.86	< 1.86	< 1.86	< 1.86	< 46.4	< 46.4	< 18.6	< 18.6	
		TRY_MW-104S	4/22/2020	8.78	< 2.02	7.42	< 2.02	5.8	< 2.02	< 2.02	< 2.02	< 5.04	< 2.02	< 2.02	< 2.02	< 2.02	< 2.02	< 2.02	< 50.4	< 50.4	< 20.2	< 20.2	
TRY_MW-105D	Bedrock	TRY_MW-104S	11/3/2022	11.2	< 1.95	7.34	< 1.95	10.8	< 1.95	< 1.95	< 1.95	< 4.88	< 1.95	< 1.95	< 1.95	< 1.95	< 1.95	< 1.95	< 48.8	< 48.8	< 19.5	< 19.5	
		TRY_MW-105D	4/21/2020	7.33	< 1.8	3.94	< 1.8	4.84 B*	< 1.8	< 1.8	< 1.8	< 4.51	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8	< 45.1	< 45.1	< 18	< 18	
TRY_MW-105S	Overburden	TRY_MW-105D	11/4/2022	12	< 1.9	4.65	< 1.9	11.9	< 1.9	< 1.9	< 1.9	< 4.76	< 1.9	< 1.9	< 1.9	< 1.9	< 1.9	< 1.9	< 47.6	< 47.6	< 19	< 19	
		TRY_MW-105S	11/1/2018	20	---	5.7	5.3	10	---	< 2	---	---	< 4	< 4	---	< 4	---	---	---	---	---	---	
TRY_MW-105S	Overburden	TRY_MW-105S	4/21/2020	8.47	< 1.88	2.44	< 1.88	4.76	< 1.88	< 1.88	< 1.88	< 4.7	< 1.88	< 1.88	< 1.88	< 1.88	< 1.88	< 1.88	< 47	< 47	< 18.8	< 18.8	
		TRY_MW-105S	11/4/2022	21	2.17	5.68	< 1.96	8.98	< 1.96	< 1.96	< 1.96	< 4.9	< 1.96	< 1.96	< 1.96	< 1.96	< 1.96	< 1.96	< 49	< 49	< 19.6	< 19.6	
TRY_MW-201SX	Overburden	TRY_MW-201SX	4/28/2020	8.64	< 2	6.55	< 2	10.9	< 2	< 2	< 2	< 5	< 2	< 2	< 2	< 2	< 2	< 2	< 50	< 50	< 20	< 20	
		TRY_MW-201SX	11/10/2022	12.6	2.62	10.4	< 1.87	9.56	< 1.87	< 1.87	< 1.87	< 4.68	< 1.87	< 1.87	< 1.87	< 1.87	< 1.87	< 1.87	< 46.8	< 46.8	< 18.7	< 18.7	
TRY_MW-202P	Overburden	TRY_MW-202P	4/24/2020	2.04	< 1.94	3.04	< 1.94	< 1.94	< 1.94	< 1.94	< 1.94	< 4.86	< 1.94	< 1.94	< 1.94	< 1.94	< 1.94	< 1.94	< 48.6	< 48.6	< 19.4	< 19.4	
		TRY_MW-202P	11/7/2022	3.16	< 1.78	4.66	< 1.78	< 1.78	< 1.78	< 1.78	< 1.78	< 4.44	< 1.78	< 1.78	< 1.78	< 1.78	< 1.78	< 1.78	< 44.4	< 44.4	< 17.8	< 17.8	
TRY_MW-204	Overburden	TRY_MW-204	4/27/2020	18.6	< 1.87	12	3	4.91	< 1.87														

TABLE 7
SUMMARY OF DETECTED PFAS COMPOUNDS IN GROUNDWATER AND SURFACE WATER SAMPLES
Troy Mills Landfill Superfund Site
Troy, New Hampshire

Monitoring Well ID	Geological Unit of Well Screen	Sample ID	Sampling Event Date	Ether Carboxylic Acids		Additional Substances						Parameter Calculations				
				2,3,3,3-Tetrafluoro-2-[1,1,2,2,3,3,3-Heptafluoropropoxy]-Propanoic Acid (HFPO-DA)	4,8-Dioxa-3h-Perfluorononanoic Acid (ADONA)	9-Chlorohexadecafluoro-3-Oxanone-1-Sulfonic Acid (9Cl-PF3ONS)	11-Chloroeicosafluoro-3-Oxaundecane-1-Sulfonic Acid (11Cl-PF3OUdS)	Perfluoro-3-methoxypropanoic acid (PFMPA)	Perfluoro-4-Methoxybutanoic Acid (PFMBA)	Perfluoro-3-methoxyethane)Sulfonic Acid (PFESA)	Nonafluoro-3,6-Dioxaheptanoic Acid (NFDHA)	Total PFOA + PFOS ¹	Total Measured PFAS	% PFOA vs. Total PFOA+PFOS	% PFOA + PFOS vs. Total PFAS	
Cas No.				13252-13-6	919005-14-4	756426-58-1	763051-92-9	377-73-1	863090-89-5	113507-82-7	151772-58-6					
NHDES AGQS (ng/L) ²				na	na	na	na	na	na	na	na	na	na	na	na	na
Established Site-Specific EPA Regional Screening Levels (RSLs) (ng/L) ³				na	na	na	na	na	na	na	na	na	na	na	na	na
EPA Lifetime Drinking Water Health Advisory (ng/L) ⁴				10	na	na	na	na	na	na	na	na	na	na	na	na
2022 EPA Interim Drinking Water Health Advisories (ng/L) ⁴				na	na	na	na	na	na	na	na	na	na	na	na	na
Groundwater Samples																
TRY_M-1	Overburden	TRY_M-1	4/24/2020	< 51.9	< 2.07	< 2.07	< 2.07	---	---	---	---	526.66	1306.48	99%	40%	
		TRY_M-1	11/9/2022	< 44.5	< 1.78	< 1.78	< 1.78	< 1.78	< 1.78	< 1.78	< 1.78	299.33	917.90	98%	33%	
TRY_M-7	Overburden	TRY_M-7	10/31/2018	---	---	---	---	---	---	---	---	ND	830.10	N/A	N/A	
		TRY_M-7	4/22/2020	< 48.1	< 1.92	< 1.92	< 1.92	---	---	---	---	ND	745.76	N/A	N/A	
		TRY_M-7	11/1/2022	< 44.2	< 1.77	< 1.77	< 1.77	< 1.77	< 1.77	< 1.77	< 1.77	ND	722.04	N/A	N/A	
TRY_M-7D	Bedrock	TRY_M-7D	4/22/2020	< 49.2	< 1.97	< 1.97	< 1.97	---	---	---	---	ND	ND	N/A	N/A	
		TRY_M-7D	11/1/2022	< 45.1	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8	ND	ND	N/A	N/A	
TRY_MW-101D	Overburden	TRY_MW-101D	4/27/2020	< 45.8	< 1.83	< 1.83	< 1.83	---	---	---	---	ND	31.15	N/A	N/A	
		TRY_MW-101D	11/10/2022	< 45.9	< 1.84	< 1.84	< 1.84	< 1.84	< 1.84	< 1.84	< 1.84	ND	52.25	N/A	N/A	
TRY_MW-101S	Overburden	TRY_MW-101S	10/30/2018	---	---	---	---	---	---	---	---	483.7	1228.30	99%	39%	
		TRY_MW-101S	4/24/2020	< 53.6	< 2.14	< 2.14	< 2.14	---	---	---	---	377.62	1073.52	98%	35%	
		TRY_MW-101S	11/1/2022	Dry								ND	ND	N/A	N/A	
TRY_MW-102	Predominantly Overburden	TRY_MW-102	11/5/2018	---	---	---	---	---	---	---	---	ND	2047.00	N/A	N/A	
		TRY_MW-102	4/27/2020	< 49.8	< 1.99	< 1.99	< 1.99	---	---	---	---	ND	59.29	N/A	N/A	
		TRY_MW-102	11/9/2022	< 47.6	< 1.9	< 1.9	< 1.9	< 1.9	< 1.9	< 1.9	< 1.9	ND	1627.60	N/A	N/A	
TRY_MW-104D	Overburden	TRY_MW-104D	4/21/2020	< 48.1	< 1.92	< 1.92	< 1.92	---	---	---	---	ND	ND	N/A	N/A	
		TRY_MW-104D	11/3/2022	< 46.4	< 1.86	< 1.86	< 1.86	< 1.86	< 1.86	< 1.86	< 1.86	ND	ND	N/A	N/A	
TRY_MW-104S	Overburden	TRY_MW-104S	4/22/2020	< 50.4	< 2.02	< 2.02	< 2.02	---	---	---	---	292.8	748.40	98%	39%	
		TRY_MW-104S	11/3/2022	< 48.8	< 1.95	< 1.95	< 1.95	< 1.95	< 1.95	< 1.95	< 1.95	301.8	766.14	96%	39%	
TRY_MW-105D	Bedrock	TRY_MW-105D	4/21/2020	< 45.1	< 1.8	< 1.8	< 1.8	---	---	---	---	ND	50.90	N/A	N/A	
		TRY_MW-105D	11/4/2022	< 47.6	< 1.9	< 1.9	< 1.9	< 1.9	< 1.9	< 1.9	< 1.9	242.9	672.10	95%	36%	
TRY_MW-105S	Overburden	TRY_MW-105S	11/1/2018	---	---	---	---	---	---	---	---	270	783.00	96%	34%	
		TRY_MW-105S	4/21/2020	< 47	< 1.88	< 1.88	< 1.88	---	---	---	---	166.76	435.65	97%	38%	
		TRY_MW-105S	11/4/2022	< 49	< 1.96	< 1.96	< 1.96	< 1.96	< 1.96	< 1.96	< 1.96	307.98	960.54	97%	32%	
TRY_MW-201SX	Overburden	TRY_MW-201SX	4/28/2020	< 50	< 2	< 2	< 2	---	---	---	---	283.9	690.56	96%	41%	
		TRY_MW-201SX	11/10/2022	< 46.8	< 1.87	< 1.87	< 1.87	< 1.87	< 1.87	< 1.87	< 1.87	247.56	808.65	96%	31%	
TRY_MW-202P	Overburden	TRY_MW-202P	4/24/2020	< 48.6	< 1.94	< 1.94	< 1.94	---	---	---	---	ND	32.33	N/A	N/A	
		TRY_MW-202P	11/7/2022	< 44.4	< 1.78	< 1.78	< 1.78	< 1.78	< 1.78	< 1.78	< 1.78	ND	413.87	N/A	N/A	
TRY_MW-204	Overburden	TRY_MW-204	4/27/2020	< 46.8	< 1.87	< 1.87	< 1.87	---	---	---	---	501.91	1284.51	99%	39%	
		TRY_MW-204	11/10/2022	< 46.1	< 1.84	< 1.84	< 1.84	< 1.84	< 1.84	< 1.84	< 1.84	262	746.81	93%	35%	
		TRY_MW-204 DUP	11/10/2022	< 45.5	< 1.82	< 1.82	< 1.82	< 1.82	< 1.82	< 1.82	< 1.82	253.9	819.66	93%	31%	
TRY_MW-205	Overburden	TRY_MW-205	11/7/2018	---	---	---	---	---	---	---	---	ND	394.00	N/A	N/A	
		TRY_MW-205	4/28/2020	< 417	< 16.7	< 16.7	< 16.7	---	---	---	---	ND	212.90	N/A	N/A	
		TRY_MW-205	11/15/2022	< 48.1	< 1.92	< 1.92	< 1.92	< 1.92	< 1.92	< 1.92	< 1.92	314.12	710.59	99%	44%	
TRY_MW-301X	Overburden	TRY_MW-301X	4/24/2020	< 45	< 1.8	< 1.8	< 1.8	---	---	---	---	ND	50.41	N/A	N/A	
		TRY_MW-301X	11/3/2022	< 46.6	< 1.86	< 1.86	< 1.86	< 1.86	< 1.86	< 1.86	< 1.86	ND	1611.96	N/A	N/A	
TRY_MW-501D	Overburden	TRY_MW-501D	4/23/2020	< 45	< 1.8	< 1.8	< 1.8	---	---	---	---	ND	ND	N/A	N/A	
		TRY_MW-501D	11/8/2022	< 46.1	< 1.84	< 1.84	< 1.84	< 1.84	< 1.84	< 1.84	< 1.84	ND	1.88	N/A	N/A	
TRY_MW-501X	Overburden	TRY_MW-501X	4/23/2020	< 49.6	< 1.98	< 1.98	< 1.98	---	---	---	---	ND	12.62	N/A	N/A	
		TRY_MW-501X	11/8/2022	< 45.7	< 1.83	< 1.83	< 1.83	< 1.83	< 1.83	< 1.83	< 1.83	ND	536.75	N/A	N/A	
TRY_MW-508X	Overburden	TRY_MW-508X	4/21/2020	< 50.8	< 2.03	< 2.03	< 2.03	---	---	---	---	ND	ND	N/A	N/A	
		TRY_M-508X	11/1/2022	< 48.8	< 1.95	< 1.95	< 1.95	< 1.95	< 1.95	< 1.95	< 1.95	ND	ND	N/A	N/A	
TRY_MW-601B	Bedrock	TRY_MW-601B	11/14/2022	< 47.5	< 1.9	< 1.9	< 1.9	< 1.9	< 1.9	< 1.9	< 1.9	ND	89.93	N/A	N/A	
		TRY_MW-601B	4/26/2023	< 17.9	< 1.79	< 1.79	< 1.79	< 1.79	< 1.79	< 1.79	< 7.16	24.3	154.70	N/A	16%	
TRY_MW-601D	Overburden	TRY_MW-601D	4/23/2020	< 48.1	< 1.92	< 1.92	< 1.92	---	---	---	---	ND	82.08	N/A	N/A	
		TRY_MW-601D	11/8/2022	< 45.2	< 1.81	< 1.81	< 1.81	< 1.81	< 1.81	< 1.81	< 1.81	ND	69.77	N/A	N/A	
TRY_MW-601S	Overburden	TRY_MW-601S	4/23/2020	< 45.1	< 1.8	< 1.8	< 1.8	---	---	---	---	511.2	1255.83	99%	41%	
		TRY_MW-601S	11/8/2022	< 45.2	< 1.81	< 1.81	< 1.81	< 1.81	< 1.81	< 1.81	< 1.81	ND	934.31	N/A	N/A	
TRY_MW-602B	Bedrock	TRY_MW-602B	10/30/2018	---	---	---	---	---	---	---	---	ND	675.40	N/A	N/A	
		TRY_MW-602B	4/24/2020	< 51	< 2.04	< 2.04	< 2.04	---	---	---	---	ND	523.18	N/A	N/A	
		TRY_MW-602B	11/7/2022	< 45.5	< 1.82	< 1.82	< 1.82	< 1.82	< 1.82	< 1.82	< 1.82	170.11	468.64	98%	36%	
TRY_MW-701	Bedrock	TRY_MW-701	10/31/2018	---	---	---	---	---	---	---	---	ND	3.70	N/A	N/A	
		TRY_MW-701	4/21/2020	< 45.3	< 1.81	< 1.81	< 1.81	---	---	---	---	ND	3.02	N/A	N/A	
TRY_MW-701	Bedrock	TRY_MW-701	11/1/2022	< 46.3	< 1.85	< 1.85	< 1.85	< 1.85	< 1.85	< 1.85	< 1.85	ND	5.49	N/A	N/A	
		TRY_MW-702D	4/22/2020	< 44.2	< 1.77	< 1.77	< 1.77	---	---	---	---	ND	10.38	N/A	N/A	
TRY_MW-702D	Bedrock	TRY_MW-702D	11/2/2022	< 44	< 1.76	< 1.76	< 1.76	< 1.76	< 1.76	< 1.76	< 1.76	ND	7.72	N/A	N/A	
		TRY_MW-702SX	4/22/2020	< 46.5	< 1.86	< 1.86	< 1.86	---	---	---	---	ND	ND	N/A	N/A	
TRY_MW-702SX	Overburden	TRY_MW-702SX	11/2/2022	< 45.8	< 1.83	< 1.83	< 1.83	< 1.83	< 1.83	< 1.83	< 1.83	ND	ND	N/A	N/A	

TABLE 7
SUMMARY OF DETECTED PFAS COMPOUNDS IN GROUNDWATER AND SURFACE WATER SAMPLES
Troy Mills Landfill Superfund Site
Troy, New Hampshire

Monitoring Well ID	Geological Unit of Well Screen	Sample ID	Sampling Event Date	Perfluoroalkyl Carboxylic Acids												
				Perfluorobutanoic Acid (PFBA) [4]	Perfluoropentanoic Acid (PFPeA) [5]	Perfluorohexanoic Acid (PFHxA) [6]	Perfluoroheptanoic Acid (PFHpA) [7]	Perfluorooctanoic Acid (PFOA) [8]	Perfluorononanoic Acid (PFNA) [9]	Perfluorodecanoic Acid (PFDA) [10]	Perfluoroundecanoic Acid (PFUnA) [11]	Perfluorododecanoic Acid (PFDoA) [12]	Perfluorotridecanoic Acid (PFTrDA) [13]	Perfluorotetradecanoic Acid (PFTTA) [14]	Perfluorooctadecanoic Acid (PFODA)	Perfluorohexadecanoic Acid (PFHxDA)
Cas No.				375-22-4	2706-90-3	307-24-4	375-85-9	335-67-1	375-95-1	335-76-2	2058-94-8	307-55-1	72629-94-8	376-06-7	16517-11-6	67905-19-5
NHDES AGQS (ng/L) ²				na	na	na	na	12	11	na	na	na	na	na	na	na
Established Site-Specific EPA Regional Screening Levels (RSLs) (ng/L) ³				na	na	na	na	6	5.89	na	na	na	na	na	na	na
EPA Lifetime Drinking Water Health Advisory (ng/L) ⁴				na	na	na	na	na	na	na	na	na	na	na	na	na
2022 EPA Interim Drinking Water Health Advisories (ng/L) ⁴				na	na	na	na	0.004	na	na	na	na	na	na	na	na
Groundwater Samples																
TRY_MW-801	Overburden	TRY_MW-801	4/23/2020	66.1 B*	128 B*	177 B*	244 B*	552 B*	6.91	< 1.82	6.5	< 1.82	< 1.82	< 1.82	< 3.64	< 3.64
		TRY_MW-801	11/4/2022	82	155	199	321	602	16.4	2.21	4.17	< 1.78	< 1.78	< 1.78	< 3.55	< 3.55
TRY_MW-802	Overburden	TRY_MW-802	4/23/2020	77.8 B*	136 B*	172 B*	299 B*	739 B*	6.58	< 1.94	3.3	< 1.94	< 1.94	< 1.94	< 3.89	< 3.89
		TRY_MW-802	11/4/2022	82.2	158	209	233	300	7.35	< 1.88	< 1.88	< 1.88	< 1.88	< 1.88	< 3.77	< 3.77
TRY_MW-803	Overburden	TRY_MW-803	4/28/2020	94.5	201	256	403	587	< 2.67	< 2.67	< 2.67	< 2.67	< 2.67	< 2.67	< 5.35	< 5.35
		TRY_MW-803	11/1/2022	Dry												
TRY_MW-804	Overburden	TRY_MW-804	11/6/2018	110	220	280	400	790	< 20	< 20	< 20	< 20	< 20	< 20	---	---
		TRY_MW-804 DUP	11/6/2018	110	220	290	410	422	2.82	< 20	< 20	< 20	< 20	< 20	---	---
		TRY_MW-804	4/28/2020	110	197	248	410	770	< 20	< 1.76	< 1.76	< 1.76	< 1.76	< 1.76	< 3.52	< 3.52
		TRY_MW-804 DUP	4/28/2020	106	193	244	407	424	2.88	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8	< 3.6	< 3.6
		TRY_MW-804	11/1/2022	Dry												
TRY_MW-805	Overburden	TRY_MW-805	11/2/2018	55	110	150	170	130	< 20	< 20	< 20	< 20	< 20	< 20	---	---
		TRY_MW-805	4/24/2020	78.9 B*	176 B*	229 B*	291 B*	426 B*	7.82	< 2.1	< 2.1	< 2.1	< 2.1	< 2.1	< 4.2	< 4.2
		TRY_MW-805	11/3/2022	73.4	128	112	143	218	5.5	< 1.89	< 1.89	< 1.89	< 1.89	< 1.89	< 3.78	< 3.78
TRY_MW-901B	Bedrock	TRY_MW-901B	11/16/2022	70.4	158	233	253	426	26.1	< 1.87	< 1.87	< 1.87	< 1.87	< 1.87	< 3.74	< 3.74
		TRY_MW-901B	4/26/2023	64.2	152	215	243	417	32.3	< 1.76	< 1.76	< 1.76	< 1.76	< 1.76	< 3.52	< 3.52
TRY_MW-901S	Overburden	TRY_MW-901S	11/15/2022	98.6	218	369	436	822	35.8	< 1.91	< 1.91	< 1.91	< 1.91	< 1.91	< 3.83	< 3.83
		TRY_MW-901S	4/27/2023	107	230	359	440	796	57.8	< 2.02	< 2.02	< 2.02	< 2.02	< 2.02	< 4.03	< 4.03
TRY_MW-902B	Bedrock	TRY-MW-902B	11/15/2022	< 1.84	< 1.84	< 1.84	< 1.84	< 1.84	< 1.84	< 1.84	< 1.84	< 1.84	< 1.84	< 1.84	< 3.68	< 3.68
		TRY_MW-902B	4/25/2023	< 1.85	< 1.85	< 1.85	< 1.85	< 1.85	< 1.85	< 1.85	< 1.85	< 1.85	< 1.85	< 1.85	< 3.70	< 3.70
TRY_MW-902S	Overburden	TRY_MW-902S	11/15/2022	30.7	54.1	79.6	62.6	53	< 1.88	< 1.88	< 1.88	< 1.88	< 1.88	< 1.88	< 3.76	< 3.76
		TRY_MW-902S	4/25/2023	93.9	189	311	534	344	< 1.89	1.90	< 1.89	< 1.89	< 1.89	< 1.89	< 3.78	< 3.78
TRY_MW-903B	Bedrock	TRY_MW-903B	11/15/2022	13.5	4.01	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 3.99	< 3.99
		TRY_MW-903B	4/26/2023	< 1.83	< 1.83	< 1.83	< 1.83	< 1.83	< 1.83	< 1.83	< 1.83	< 1.83	< 1.83	< 1.83	< 3.67	< 3.67
TRY_MW-903S	Overburden	TRY_MW-903S	11/14/2022	106	210	328	485	894	14	< 1.82	< 1.82	< 1.82	< 1.82	< 1.82	< 3.64	< 3.64
		TRY_MW-903S	4/26/2023	82.8	172	252	388	797	19.9	< 1.89	< 1.89	< 1.89	< 1.89	< 1.89	< 3.77	< 3.77
		TRY_MW-903S DUP	4/26/2023	80.7	165	239	375	742	18.8	< 1.86	< 1.86	< 1.86	< 1.86	< 1.86	< 3.72	< 3.72
TRY_MW-A28	Overburden	TRY_MW-A28	11/5/2018	21	23	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	---	---
		TRY_MW-A28	4/27/2020	< 1.96	4.67	2.53	3.72	12.5	< 1.96	< 1.96	< 1.96	< 1.96	< 1.96	< 1.96	< 3.92	< 3.92
		TRY_MW-A28	11/10/2022	5.96	12.3	10.6	14.7	21.2	2.06	< 1.91	< 1.91	< 1.91	< 1.91	< 1.91	< 3.82	< 3.82
TRY_MW-C6D	Overburden	TRY_MW-C6D	4/22/2020	8.66	22.4	23.8	21.4	43.1	< 1.77	2.46	< 1.77	< 1.77	< 1.77	< 1.77	< 3.53	< 3.53
		TRY_MW-C6D	11/2/2022	10.4	29.3	32.3	28.8	40.5	2.1	2.45 F	< 1.95	< 1.95	< 1.95	< 1.95	< 3.9	< 3.9
TRY_MW-C6S	Overburden	TRY_MW-C6S	10/31/2018	47	150	160	190	420	12	< 2	< 2	< 2	< 2	< 2	---	---
		TRY_MW-C6S DUP	10/31/2018	53	140	170	190	440	9.6	< 2	< 2	< 2	< 2	< 2	---	---
		TRY_MW-C6S	4/22/2020	56.8	140	148	183	442	13.6	< 1.84	< 1.84	< 1.84	< 1.84	< 1.84	< 3.68	< 3.68
		TRY_MW-C6S DUP	4/22/2020	56.2	136 B*	153	176	446	12.7	< 1.82	< 1.82	< 1.82	< 1.82	< 1.82	< 3.64	< 3.64
		TRY_MW-C6S	11/2/2022	63.8	129	137	202	374	27.7	2.58 F	< 1.95	< 1.95	< 1.95	< 1.95	< 3.9	< 3.9
		TRY_MW-C6S DUP	11/2/2022	60.1	124	141	184	364	27.2	2.31	< 1.89	< 1.89	< 1.89	< 1.89	< 3.78	< 3.78
Surface Water Samples																
EPA Site-Specific Screening Level for Surface Water (ng/L) ⁵				na	na	na	na	713	na	na	na	na	na	na	na	na
TRY_SW-1	N/A	TRY_SW-1	5/24/2019	< 1.75	< 1.75	< 1.75	< 1.75	< 1.75	< 1.75	< 1.75	< 1.75	< 1.75	< 1.75	< 1.75	---	---
		TRY_SW-1	4/28/2020	< 1.77	< 1.77	< 1.77	< 1.77	< 1.77	< 1.77	< 1.77	< 1.77	< 1.77	< 1.77	< 1.77	< 3.53	< 3.53
TRY_SW-100	N/A	TRY_SW-100	5/24/2019	< 1.77	2.29	3.19	3.66	5.34	< 1.77	< 1.77	< 1.77	< 1.77	< 1.77	< 1.77	---	---
		TRY_SW-100	4/28/2020	< 1.86	< 1.86	2.08	2.45	4.15	< 1.86	< 1.86	< 1.86	< 1.86	< 1.86	< 1.86	< 3.72	< 3.72
		TRY_SW-100	4/27/2023	< 1.79	< 1.79	< 1.79	1.94	3.22	< 1.79	< 1.79	< 1.79	< 1.79	< 1.79	< 1.79	< 3.57	< 3.57
		TRY_SW-100 DUP	4/27/2023	< 1.81	< 1.81	< 1.81	1.85	3.48	< 1.81	< 1.81	< 1.81	< 1.81	< 1.81	< 1.81	< 3.61	< 3.61
TRY_SW-3	N/A	TRY_SW-3	5/24/2019	< 1.8	< 1.8	2.26	2.44	4.07	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8	---	---
		TRY_SW-3 DUP	5/24/2019	< 1.77	1.87	2.49	2.62	4.34	< 1.77	< 1.77	< 1.77	< 1.77	< 1.77	< 1.77	---	---
		TRY_SW-3	4/28/2020	< 1.77	< 1.77	< 1.77	< 1.77	3.35	< 1.77	< 1.77	< 1.77	< 1.77	< 1.77	< 1.77	< 3.55	< 3.55
TRY_SW-4	N/A	TRY_SW-3 DUP	4/28/2020	< 1.75	< 1.75	< 1.75	< 1.75	3.25	< 1.75	< 1.75	< 1.75	< 1.75	< 1.75	< 1.75	< 3.51	< 3.51
		TRY_SW-4	5/24/2019	< 1.85	< 1.85	< 1.85	< 1.85	< 1.85	< 1.85	< 1.85	< 1.85	< 1.85	< 1.85	< 1.85	---	---
TRY_SW-4		TRY_SW-4	4/28/2020	< 1.75	< 1.75	< 1.75	< 1.75	< 1.75	< 1.75	< 1.75	< 1.75	< 1.75	< 1.75	< 1.75	< 3.5	< 3.5
2023 Field Quality Control Samples																
EQUIP BLANK	Water Level/903S	EQUIP BLANK	4/26/2023	< 1.81	< 1.81	< 1.81	< 1.81	< 1.81	< 1.81	< 1.81	< 1.81	< 1.81	< 1.81	< 1.81	< 3.62	< 3.62
	Sample Pro/903S	EQUIP BLANK	4/26/2023	13.4	15.7	2.34	2.18	< 1.86	< 1.86	< 1.86	< 1.86	< 1.86	< 1.86	< 1.86	< 3.73	< 3.73
FIELD BLANK	N/A	FIELD BLANK- DRYNESS	4/25/2023	< 1.84	< 1.84	< 1.84	< 1.84	< 1.84	< 1.84	< 1.84	< 1.84	< 1.84	< 1.84	< 1.84		

TABLE 7
SUMMARY OF DETECTED PFAS COMPOUNDS IN GROUNDWATER AND SURFACE WATER SAMPLES
Troy Mills Landfill Superfund Site
Troy, New Hampshire

Monitoring Well ID	Geological Unit of Well Screen	Sample ID	Sampling Event Date	Perfluoroalkyl Sulfonic Acids								Fluorotelomers				Perfluoroalkane Sulfonamides (FASAs) and Sulfonamido Substances							
				Perfluorobutanesulfonic Acid (PFBS) [4S]	Perfluoropentanesulfonic Acid (PFPeS) [5S]	Perfluorohexanesulfonic Acid (PFHxS) [6S]	Perfluoroheptanesulfonic Acid (PFHpS) [7S]	Perfluorooctanesulfonic Acid (PFOS) [8S]	Perfluorononanesulfonic Acid (PFNS) [9S]	Perfluorodecanesulfonic Acid (PFDS) [10S]	Perfluorododecane sulfonate (PFDoDS)	1H,1H,2H,2H-Perfluorododecanesulfonic Acid (10:2FTS)	1H,1H,2H,2H-Perfluorodecanesulfonic Acid (8:2FTS)	1H,1H,2H,2H-Perfluorooctanesulfonic Acid (6:2FTS)	1H,1H,2H,2H-Perfluorohexanesulfonic Acid (4:2FTS)	Perfluorooctanesulfonamide (PFOSA)	N-Ethyl Perfluorooctanesulfonamidoacetic Acid (NEFOSAA)	N-Methyl Perfluorooctanesulfonamidoacetic Acid (NMeFOSAA)	N-Ethyl Perfluorooctanesulfonamido Ethanol (NEFOSE)	N-Methyl Perfluorooctanesulfonamido Ethanol (NMeFOSE)	N-Methyl Perfluorooctane Sulfonamide (NMeFOSA)	N-Ethyl Perfluorooctane Sulfonamide (NEFOSA)	
Cas No.				375-73-5	2706-91-4	355-46-4	375-92-8	1763-23-1	68259-12-1	335-77-3	79780-39-5	120226-60-0	39108-34-4	27619-97-2	757124-72-4	754-91-6	2991-50-6	2355-31-9	1691-99-2	24448-09-7	31506-32-8	4151-50-2	
NHDES AGQS (ng/L) ²				na	na	18	na	15	na	na	na	na	na	na	na	na	na	na	na	na	na	na	
Established Site-Specific EPA Regional Screening Levels (RSLs) (ng/L) ³				600	na	39.4	na	4	na	na	na	na	na	na	na	na	na	na	na	na	na	na	
EPA Lifetime Drinking Water Health Advisory (ng/L) ⁴				2,000	na	na	na	na	na	na	na	na	na	na	na	na	na	na	na	na	na	na	
2022 EPA Interim Drinking Water Health Advisories (ng/L) ⁴				na	na	na	na	0.02	na	na	na	na	na	na	na	na	na	na	na	na	na	na	
Groundwater Samples																							
TRY_MW-801	Overburden	TRY_MW-801	4/23/2020	18.1	< 1.82	7.96	< 1.82	3.93 B*	< 1.82	< 1.82	< 1.82	< 4.54	< 1.82	< 1.82	< 1.82	< 1.82	< 1.82	< 1.82	< 45.4	< 45.4	< 18.2	< 18.2	
		TRY_MW-801	11/4/2022	24.5	1.89	10.4	< 1.78	4.99	< 1.78	< 1.78	< 1.78	< 4.44	< 1.78	< 1.78	< 1.78	< 1.78	< 1.78	< 1.78	< 44.4	< 44.4	< 17.8	< 17.8	
TRY_MW-802	Overburden	TRY_MW-802	4/23/2020	20.5	< 1.94	10.6	< 1.94	4.32 B*	< 1.94	< 1.94	< 1.94	< 4.86	< 1.94	< 1.94	< 1.94	< 1.94	< 1.94	< 1.94	< 48.6	< 48.6	< 19.4	< 19.4	
		TRY_MW-802	11/4/2022	24.6	< 1.88	6.3	< 1.88	3.12	< 1.88	< 1.88	< 1.88	< 4.71	< 1.88	2.87	< 1.88	< 1.88	< 1.88	< 1.88	< 47.1	< 47.1	< 18.8	< 18.8	
TRY_MW-803	Overburden	TRY_MW-803	4/28/2020	17.4	3.19	13	< 2.67	4.68	< 2.67	< 2.67	< 2.67	< 6.68	< 2.67	< 2.67	< 2.67	< 2.67	< 2.67	< 2.67	< 66.8	< 66.8	< 26.7	< 26.7	
		TRY_MW-803	11/1/2022	Dry																			
TRY_MW-804	Overburden	TRY_MW-804	11/6/2018	< 20	---	< 20	< 20	< 20	---	< 20	---	---	< 40	< 40	---	< 40	---	---	---	---	---	---	
		TRY_MW-804 DUP	11/6/2018	20	---	< 20	< 20	3.52	---	< 20	---	---	< 40	< 40	---	< 40	---	---	---	---	---	---	
		TRY_MW-804	4/28/2020	22.8	2.99	8.63	< 1.76	< 20	< 1.76	< 1.76	< 1.76	< 4.4	< 1.76	< 1.76	< 1.76	< 1.76	< 1.76	< 1.76	< 44	< 44	< 17.6	< 17.6	
		TRY_MW-804 DUP	4/28/2020	21.9	2.88	7.52	< 1.8	3.96	< 1.8	< 1.8	< 1.8	< 4.5	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8	< 45	< 45	< 18	< 18	
		TRY_MW-804	11/1/2022	Dry																			
TRY_MW-805	Overburden	TRY_MW-805	11/2/2018	< 20	---	< 20	< 20	< 20	---	< 20	---	---	< 40	< 4	---	< 40	---	---	---	---	---	---	
		TRY_MW-805	4/24/2020	16.1	2.18	11	< 2.1	3.61 B*	< 2.1	< 2.1	< 2.1	< 5.25	< 2.1	< 2.1	< 2.1	< 2.1	< 2.1	< 2.1	< 52.5	< 52.5	< 21	< 21	
		TRY_MW-805	11/3/2022	11.5	< 1.89	4.89	< 1.89	2.88	< 1.89	< 1.89	< 1.89	< 4.73	< 1.89	3.45	< 1.89	< 1.89	< 1.89	< 1.89	< 47.3	< 47.3	< 18.9	< 18.9	
TRY_MW-901B	Bedrock	TRY_MW-901B	11/16/2022	21.9	4.39	13.5	< 1.87	11.9	< 1.87	< 1.87	< 1.87	< 4.67	< 1.87	2.42	< 1.87	< 1.87	< 1.87	6.92 F	< 46.7	< 46.7	< 18.7	< 18.7	
		TRY_MW-901B	4/26/2023	20.2	4.25	13.6	< 1.76	18.5 F	< 1.76	< 1.76	< 1.76	< 4.4	< 1.76	2.83	< 1.76	< 1.76	< 1.76	15.0 F	< 44.0	< 44.0	< 17.6	< 17.6	
TRY_MW-901S	Overburden	TRY_MW-901S	11/15/2022	35	4.18	17.4	< 1.91	3.84	< 1.91	< 1.91	< 1.91	< 4.79	< 1.91	3.36	< 1.91	< 1.91	< 1.91	< 1.91	< 47.9	< 47.9	< 19.1	< 19.1	
		TRY_MW-901S	4/27/2023	29.3	3.44	15.0	< 2.02	8.84	< 2.02	< 2.02	< 2.02	< 5.04	< 2.02	7.00	< 2.02	< 2.02	< 2.02	6.77	< 50.4	< 50.4	< 20.2	< 20.2	
TRY_MW-902B	Bedrock	TRY_MW-902B	11/15/2022	< 1.84	< 1.84	< 1.84	< 1.84	< 1.84	< 1.84	< 1.84	< 1.84	< 4.6	< 1.84	< 1.84	< 1.84	< 1.84	< 1.84	< 1.84	< 46	< 46	< 18.4	< 18.4	
		TRY_MW-902B	4/25/2023	< 1.85	< 1.85	< 1.85	< 1.85	< 1.85	< 1.85	< 1.85	< 1.85	< 4.63	< 1.85	91.0	< 1.85	< 1.85	< 1.85	< 1.85	< 46.3	< 46.3	< 18.5	< 18.5	
TRY_MW-902S	Overburden	TRY_MW-902S	11/15/2022	6.67	< 1.88	< 1.88	< 1.88	< 1.88	< 1.88	< 1.88	< 1.88	< 4.7	< 1.88	2.19	< 1.88	< 1.88	< 1.88	< 1.88	< 47	< 47	< 18.8	< 18.8	
		TRY_MW-902S	4/25/2023	23.1	< 1.89	2.00 F	< 1.89	2.87	< 1.89	< 1.89	< 1.89	< 4.72	< 1.89	< 1.89	< 1.89	< 1.89	< 1.89	< 1.89	< 47.2	< 47.2	< 18.9	< 18.9	
TRY_MW-903B	Bedrock	TRY_MW-903B	11/15/2022	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 4.99	< 2	5.48	< 2	< 2	< 2	< 2	< 49.9	< 49.9	< 20	< 20	
		TRY_MW-903B	4/26/2023	< 1.83	< 1.83	< 1.83	< 1.83	< 1.83	< 1.83	< 1.83	< 1.83	< 4.58	< 1.83	7.06	< 1.83	< 1.83	< 1.83	< 1.83	< 45.8	< 45.8	< 18.3	< 18.3	
TRY_MW-903S	Overburden	TRY_MW-903S	11/14/2022	33.3	3.19	11.6	< 1.82	10.1	< 1.82	< 1.82	< 1.82	< 4.55	< 1.82	< 1.82	< 1.82	< 1.82	< 1.82	< 1.82	< 45.5	< 45.5	< 18.2	< 18.2	
		TRY_MW-903S	4/26/2023	26.1	2.69	11.3	< 1.89	16.8	< 1.89	< 1.89	< 1.89	< 4.72	< 1.89	4.11 Z	< 1.89	< 1.89	< 1.89	4.17 F	< 47.2	< 47.2	< 18.9	< 18.9	
		TRY_MW-903S DUP	4/26/2023	25.6	2.56	9.86	< 1.86	16.3	< 1.86	< 1.86	< 1.86	< 4.65	< 1.86	14.1 Z	< 1.86	< 1.86	< 1.86	3.31 F	< 46.5	< 46.5	< 18.6	< 18.6	
TRY_MW-A28	Overburden	TRY_MW-A28	11/5/2018	< 20	---	< 20	< 20	< 20	---	< 20	---	---	< 40	< 4	---	< 40	---	---	---	---	---	---	
		TRY_MW-A28	4/27/2020	< 1.96	< 1.96	< 1.96	< 1.96	< 1.96	< 1.96	< 1.96	< 1.96	< 4.9	< 1.96	< 1.96	< 1.96	< 1.96	< 1.96	< 1.96	< 49	< 49	< 19.6	< 19.6	
		TRY_MW-A28	11/10/2022	< 1.91	< 1.91	< 1.91	< 1.91	2.33	< 1.91	< 1.91	< 1.91	< 4.77	< 1.91	< 1.91	< 1.91	< 1.91	< 1.91	< 1.91	< 47.7	< 47.7	< 19.1	< 19.1	
TRY_MW-C6D	Overburden	TRY_MW-C6D	4/22/2020	< 1.77	< 1.77	< 1.77	< 1.77	< 1.77	< 1.77	< 1.77	< 4.42	<											

Monitoring Well ID	Geological Unit of Well Screen	Sample ID	Sampling Event Date	Ether Carboxylic Acids		Additional Substances						Parameter Calculations				
				2,3,3,3-Tetrafluoro-2-[1,1,2,2,3,3,3-Heptafluoropropoxy]-Propanoic Acid (HFPO-DA)	4,8-Dioxa-3H-Perfluorononanoic Acid (ADONA)	9-Chlorohexadecafluoro-3-Oxanone-1-Sulfonic Acid (9Cl-PF3ONS)	11-Chloroeicosafluoro-3-Oxaundecane-1-Sulfonic Acid (11Cl-PF3OUdS)	Perfluoro-3-methoxypropanoic acid (PFMPA)	Perfluoro-4-Methoxybutanoic Acid (PFMBA)	Perfluoro-3-methoxyethane)Sulfonic Acid (PFESA)	Nonafluoro-3,6-Dioxaheptanoic Acid (NFDHA)	Total PFOA + PFOS ¹	Total Measured PFAS	% PFOA vs. Total PFOA+PFOS	% PFOA + PFOS vs. Total PFAS	
Cas No.				13252-13-6	919005-14-4	756426-58-1	763051-92-9	377-73-1	863090-89-5	113507-82-7	151772-58-6					
NHDES AGQS (ng/L) ²				na	na	na	na	na	na	na	na	na	na	na	na	na
Established Site-Specific EPA Regional Screening Levels (RSLs) (ng/L) ³				na	na	na	na	na	na	na	na	na	na	na	na	na
EPA Lifetime Drinking Water Health Advisory (ng/L) ⁴				10	na	na	na	na	na	na	na	na	na	na	na	na
2022 EPA Interim Drinking Water Health Advisories (ng/L) ⁴				na	na	na	na	na	na	na	na	na	na	na	na	na
Groundwater Samples																
TRY_MW-801	Overburden	TRY_MW-801	4/23/2020	< 45.4	< 1.82	< 1.82	< 1.82	---	---	---	---	ND	39.47	N/A	N/A	
		TRY_MW-801	11/4/2022	< 44.4	< 1.78	< 1.78	< 1.78	< 1.78	< 1.78	< 1.78	< 1.78	606.99	1423.56	99%	43%	
TRY_MW-802	Overburden	TRY_MW-802	4/23/2020	< 48.6	< 1.94	< 1.94	< 1.94	---	---	---	---	ND	40.98	N/A	N/A	
		TRY_MW-802	11/4/2022	< 47.1	< 1.88	< 1.88	< 1.88	< 1.88	< 1.88	< 1.88	< 1.88	303.12	1026.44	99%	30%	
TRY_MW-803	Overburden	TRY_MW-803	4/28/2020	< 66.8	< 2.67	< 2.67	< 2.67	---	---	---	---	591.68	1579.77	99%	37%	
		TRY_MW-803	11/1/2022	Dry								ND	ND	N/A	N/A	
TRY_MW-804	Overburden	TRY_MW-804	11/6/2018	---	---	---	---	---	---	---	---	ND	1800.00	N/A	N/A	
		TRY_MW-804 DUP	11/6/2018	---	---	---	---	---	---	---	---	425.52	1478.34	99%	29%	
		TRY_MW-804	4/28/2020	< 44	< 1.76	< 1.76	< 1.76	---	---	---	---	ND	1769.42	N/A	N/A	
		TRY_MW-804 DUP	4/28/2020	< 45	< 1.8	< 1.8	< 1.8	---	---	---	---	427.96	1413.14	99%	30%	
		TRY_MW-804	11/1/2022	Dry								ND	ND	N/A	N/A	
TRY_MW-805	Overburden	TRY_MW-805	11/2/2018	---	---	---	---	---	---	---	---	ND	615.00	N/A	N/A	
		TRY_MW-805	4/24/2020	< 52.5	< 2.1	< 2.1	< 2.1	---	---	---	---	ND	37.10	N/A	N/A	
		TRY_MW-805	11/3/2022	< 47.3	< 1.89	< 1.89	< 1.89	< 1.89	< 1.89	< 1.89	< 1.89	220.88	702.62	99%	31%	
TRY_MW-901B	Bedrock	TRY_MW-901B	11/16/2022	< 46.7	< 1.87	< 1.87	< 1.87	< 1.87	< 1.87	< 1.87	< 1.87	437.9	1220.61	97%	36%	
		TRY_MW-901B	4/26/2023	< 17.6	< 1.76	< 1.76	< 1.76	< 1.76	< 1.76	< 1.76	< 7.03	435.5	1197.88	96%	36%	
TRY_MW-901S	Overburden	TRY_MW-901S	11/15/2022	< 47.9	< 1.91	< 1.91	< 1.91	< 1.91	< 1.91	< 1.91	< 1.91	825.84	2043.18	100%	40%	
		TRY_MW-901S	4/27/2023	< 20.2	< 2.02	< 2.02	< 2.02	< 2.02	< 2.02	< 2.02	< 8.06	804.84	2060.15	99%	39%	
TRY_MW-902B	Bedrock	TRY-MW-902B	11/15/2022	< 46	< 1.84	< 1.84	< 1.84	< 1.84	< 1.84	< 1.84	< 1.84	N/A	N/A	N/A	N/A	
		TRY_MW-902B	4/25/2023	< 18.5	1.93 F	< 1.85	< 1.85	< 1.85	< 1.85	< 1.85	< 7.41	ND	92.93	N/A	N/A	
TRY_MW-902S	Overburden	TRY_MW-902S	11/15/2022	< 47	< 1.88	< 1.88	< 1.88	< 1.88	< 1.88	< 1.88	< 1.88	ND	288.86	N/A	N/A	
		TRY_MW-902S	4/25/2023	< 18.9	< 1.89	< 1.89	< 1.89	< 1.89	< 1.89	< 1.89	< 7.56	346.87	1501.77	99%	23%	
TRY_MW-903B	Bedrock	TRY_MW-903B	11/15/2022	< 49.9	< 2	< 2	< 2	< 2	< 2	< 2	< 2	ND	22.99	N/A	N/A	
		TRY_MW-903B	4/26/2023	< 18.3	< 1.83	< 1.83	< 1.83	< 1.83	< 1.83	< 1.83	< 7.34	ND	7.06	N/A	N/A	
TRY_MW-903S	Overburden	TRY_MW-903S	11/14/2022	< 45.5	< 1.82	< 1.82	< 1.82	< 1.82	< 1.82	< 1.82	< 1.82	904.1	2095.19	99%	43%	
		TRY_MW-903S	4/26/2023	< 18.9	< 1.89	< 1.89	< 1.89	< 1.89	< 1.89	< 1.89	< 7.55	813.8	1772.76	98%	46%	
		TRY_MW-903S DUP	4/26/2023	< 18.6	< 1.86	< 1.86	< 1.86	< 1.86	< 1.86	< 1.86	< 7.44	758.3	1678.13	98%	45%	
TRY_MW-A28	Overburden	TRY_MW-A28	11/5/2018	---	---	---	---	---	---	---	---	ND	44.00	N/A	N/A	
		TRY_MW-A28	4/27/2020	< 49	< 1.96	< 1.96	< 1.96	---	---	---	---	ND	23.42	N/A	N/A	
		TRY_MW-A28	11/10/2022	< 47.7	< 1.91	< 1.91	< 1.91	< 1.91	< 1.91	< 1.91	< 1.91	23.53	69.15	90%	34%	
TRY_MW-C6D	Overburden	TRY_MW-C6D	4/22/2020	< 44.2	< 1.77	< 1.77	< 1.77	---	---	---	---	ND	121.82	N/A	N/A	
		TRY_MW-C6D	11/2/2022	< 48.8	< 1.95	< 1.95	< 1.95	< 1.95	< 1.95	< 1.95	< 1.95	ND	143.40	N/A	N/A	
TRY_MW-C6S	Overburden	TRY_MW-C6S	10/31/2018	---	---	---	---	---	---	---	---	423.8	1001.70	99%	42%	
		TRY_MW-C6S DUP	10/31/2018	---	---	---	---	---	---	---	---	444.3	1026.00	99%	43%	
		TRY_MW-C6S	4/22/2020	< 46	< 1.84	< 1.84	< 1.84	---	---	---	---	447.15	1009.42	99%	44%	
		TRY_MW-C6S DUP	4/22/2020	< 45.4	< 1.82	< 1.82	< 1.82	---	---	---	---	450.36	867.05	99%	52%	
		TRY_MW-C6S	11/2/2022	< 48.7	< 1.95	< 1.95	< 1.95	< 1.95	< 1.95	< 1.95	< 1.95	382.42	964.43	98%	40%	
		TRY_MW-C6S DUP	11/2/2022	< 47.3	< 1.89	< 1.89	< 1.89	< 1.89	< 1.89	< 1.89	< 1.89	372.21	937.57	98%	40%	
Surface Water Samples																
EPA Site-Specific Screening Level for Surface Water (ng/L) ⁵				na	na	na	na	na	na	na	na	na	na	na	na	
TRY_SW-1	N/A	TRY_SW-1	5/24/2019	---	---	---	---	---	---	---	---	ND	ND	N/A	N/A	
		TRY_SW-1	4/28/2020	< 44.2	< 1.77	< 1.77	< 1.77	---	---	---	---	ND	ND	N/A	N/A	
TRY_SW-100	N/A	TRY_SW-100	5/24/2019	---	---	---	---	---	---	---	---	ND	14.48	N/A	N/A	
		TRY_SW-100	4/28/2020	< 46.5	< 1.86	< 1.86	< 1.86	---	---	---	---	ND	8.68	N/A	N/A	
		TRY_SW-100	4/27/2023	< 17.9	< 1.79	< 1.79	< 1.79	< 1.79	< 1.79	< 1.79	< 7.14	3.22	5.16	N/A	62%	
		TRY_SW-100 DUP	4/27/2023	< 18.1	< 1.81	< 1.81	< 1.81	< 1.81	< 1.81	< 1.81	< 7.22	3.48	5.33	N/A	65%	
TRY_SW-3	N/A	TRY_SW-3	5/24/2019	---	---	---	---	---	---	---	---	ND	8.77	N/A	N/A	
		TRY_SW-3 DUP	5/24/2019	---	---	---	---	---	---	---	---	ND	11.32	N/A	N/A	
		TRY_SW-3	4/28/2020	< 44.3	< 1.77	< 1.77	< 1.77	< 1.77	---	---	---	ND	3.35	N/A	N/A	
TRY_SW-3 DUP	4/28/2020	< 43.8	< 1.75	< 1.75	< 1.75	< 1.75	---	---	---	---	ND	3.25	N/A	N/A		
TRY_SW-4	N/A	TRY_SW-4	5/24/2019	---	---	---	---	---	---	---	---	ND	ND	N/A	N/A	
		TRY_SW-4	4/28/2020	< 43.7	< 1.75	< 1.75	< 1.75	< 1.75	---	---	---	---	ND	ND	N/A	N/A
2023 Field Quality Control Samples																
EQUIP BLANK	Water Level/903S	EQUIP BLANK	4/26/2023	< 18.1	< 1.81	< 1.81	< 1.81	< 1.81	< 1.81	< 1.81	< 7.24	ND	2.17	N/A	N/A	
	Sample Pro/903S	EQUIP BLANK	4/26/2023	< 18.6	< 1.86	< 1.86	< 1.86	< 1.86	< 1.86	< 1.86	< 7.45	ND	33.62	N/A	N/A	
FIELD BLANK	N/A	FIELD BLANK- DRYNESS	4/25/2023	< 18.4	< 1.84	< 1.84	< 1.84	< 1.84	< 1.84	< 1.84	< 7.38	ND	ND	N/A	N/A	
		FIELD BLANK- FULTON	4/25/2023	< 18.7	< 1.87	< 1.87	< 1.87	< 1.87	< 1.87	< 1.87	< 7.5	ND	ND	N/A	N/A	

TABLE KEY:

PFAS = per- and polyfluoroalkyl substances

[4] = Number of fluorinated carbon chains for perfluorinated carboxylic acids

[4S] = Number of fluorinated carbon chains for perfluorinated sulfonic acids

EPA SLs = Screening levels provided by the United States Environmental Protection Agency, refer to text for more information

NHDES = New Hampshire Department of Environmental Services

AGQS = Ambient Groundwater Quality Standards included in Env-Or 600 - Contaminated Site Management (Env-Or 603.03)

na = no current standard available

N/A = not applicable

ND = not detected above the laboratory reporting limit

B = indicates the analyte was detected above the reporting limit in the associated method blank, see laboratory report for further explanation

B* = data qualified by GZA because the analyte was detected in the associated trip blank, field blank, and/or equipment blank.

F = The ratio of quantifier ion response to qualifier ion response falls outside of the laboratory criteria. Results are considered to be an estimated maximum concentration.

U = indicates that the concentration was not detected

Z = Concentration qualified by GZA, based on the relative percent difference (RPD) being outside the acceptance criteria.

< = analyte not detected above the laboratory reporting limit

ng/L = nanograms per liter

Bold indicates that the concentration was detected above the laboratory reporting detection limit

Blue shading indicates the concentration exceeds the 2022 EPA Interim Drinking Water Health Advisories

Grey shading indicates the concentration exceeds the New Hampshire MCL/AGQS and the 2022 EPA Regional Screening Level (if applicable) with the exception of PFHxS

Green shading indicates the concentration exceeds the 2022 EPA Regional Screening Level (if applicable)

Purple shading indicates the concentration exceeds the EPA Lifetime Drinking Water Health Advisories

Orange shading indicates the most recent round of sampling data

GENERAL NOTES:

- * GZA collected the April 2023 samples for PFAS analysis and submitted the samples to Alpha Analytical Inc., of Mansfield, Massachusetts for analysis by US EPA Method 537 (modified) with isotope dilution.
- * All concentrations reported in nanograms per liter (ng/L) which are roughly equivalent to parts per trillion (ppt).
- * A total of 40 PFAS compounds were measured by the analyses. The presence or absence of other additional compounds has not been confirmed.

SPECIFIC NOTES:

1. Total PFOA & PFOS indicates the sum of the detected concentrations of Perfluorooctanoic Acid (PFOA) and Perfluorooctanesulfonic Acid (PFOS).
2. Effective July 23, 2020, New Hampshire established AGQS for PFOA (12 ng/L), PFOS (15 ng/L), perfluorononanoic acid (PFNA, 11 ng/L), and perfluorohexane sulfonic acid (PFHxS, 18 ng/L).
3. In August 2022, EPA issued new Site-specific Regional Screening Levels for PFOA, PFOS, PFNA, Perfluorobutanesulfonic Acid (PFBS), PFHxS, and HFPO-DA for Tap Water based on a Noncancer Child Screening Level Hazard Index of 0.1.
4. On June 15, 2022, EPA issued new Interim Drinking Water Health Advisories for PFOA (0.004 ng/L) and PFOS (0.02 ng/L). Additionally, EPA issued final Lifetime Drinking Water Health Advisories for PFBS (2,000 ng/L) and HFPO-DA or "GenX Chemicals" (10 ng/L).
5. Site-specific screening levels of 713 ng/L for PFOA and PFOS and 713,000 ng/L for PFBS for surface water were established by EPA during June 2020 to determine if the compounds are present in Site surface water and may warrant further attention.

TABLE 8
RELATIVE PERCENT DIFFERENCE (RPD) CALCULATIONS FOR DUPLICATE SAMPLES
Troy Mills Landfill Superfund Site
Troy, New Hampshire

Stratigraphic Unit	Monitoring Well ID	Sample Name	Sample Date	Carboxylic Acids (ng/L)						Sulfonic Acids (ng/L)				Fluorotelomers (ng/L)	Perfluoroalkane Sulfonamides and Sulfonamido Substances (ng/L)
				Perfluorobutanoic Acid (PFBA) [4]	Perfluoropentanoic Acid (PFPeA) [5]	Perfluorohexanoic Acid (PFHxA) [6]	Perfluoroheptanoic Acid (PFHpA) [7]	Perfluorooctanoic Acid (PFOA) [8]	Perfluorononanoic Acid (PFNA) [9]	Perfluorobutanesulfonic Acid (PFBS) [4S]	Perfluoropentanesulfonic Acid (PFPeS) [5S]	Perfluorohexanesulfonic Acid (PFHxS) [6S]	Perfluorooctanesulfonic Acid (PFOS) [8S]	1H,1H,2H,2H-Perfluorooctanesulfonic Acid (6:2FTS)	N-Methyl Perfluorooctanesulfonamidoacetic Acid (NMeFOSAA)
Field Samples - Groundwater/Aqueous															
Overburden	TRY_MW-903S	TRY_MW-903S	4/26/2023	82.8	172	252	388	797	19.9	26.1	2.69	11.3	16.8	4.11	4.17 F
		TRY_MW-903S DUP		80.7	165	239	375	742	18.8	25.6	2.56	9.86	16.3	14.1	3.31 F
	RPD			2.6%	4.2%	5.3%	3.4%	7.1%	5.7%	1.9%	5.0%	13.6%	3.0%	109.7%	23.0%
Surface Water	TRY_SW-100	TRY_SW-100	4/27/2023	< 1.79	< 1.79	< 1.79	1.94	3.22	< 1.79	< 1.79	< 1.79	< 1.79	< 1.79	< 1.79	< 1.79
		TRY_SW-100 DUP		< 1.81	< 1.81	< 1.81	1.85	3.48	< 1.81	< 1.81	< 1.81	< 1.81	< 1.81	< 1.81	< 1.81
	RPD			N/A	N/A	N/A	4.7%	7.8%	N/A	N/A	N/A	N/A	N/A	N/A	N/A

TABLE KEY:
ng/L = nanograms per liter
N/A = not applicable
Bold indicates that the concentration was detected above the laboratory reporting detection limit
Green shading indicates the RPD exceeded the acceptance criteria of 30% for aqueous samples

TABLE 9
HISTORICAL EQUIPMENT BLANK SAMPLES AND RESULTS
Troy Mills Landfill Superfund Site
Troy, New Hampshire

Equipment	Sampling Event	Well Sampled Prior to Equipment Blank Collection	Results of Equipment Blank	Decon Method
QED SamplePro Bladder Pump	Spring 2023	TRY_MW-903S	Contaminants: Perfluorobutanoic Acid (PFBA), Perfluoropentanoic Acid (PFPeA), Perfluorohexanoic Acid (PFHxA), and Perfluoroheptanoic Acid (PFHpA)	Liquinox & water
Water Level Probe		TRY_MW-903S	1H,1H,2H,2H-Perfluorooctanesulfonic Acid (6:2FTS)	Liquinox & water
QED SamplePro Bladder Pump	Fall 2022	TRY_MW-805	ND	Liquinox & water
Water Level Probe		TRY_MW-205	ND	includes Hexane & 2-Propanol
QED SamplePro Bladder Pump	Spring 2020	TRY_MW-805	Contaminants: Perfluorobutanoic Acid (PFBA), Perfluoropentanoic Acid (PFPeA), Perfluorohexanoic Acid (PFHxA), Perfluoroheptanoic Acid (PFHpA), Perfluorooctanoic Acid (PFOA), and Perfluorooctanesulfonic Acid (PFOS)	Liquinox & water
Water Level Probe		TRY_MW-804	ND	includes Hexane & 2-Propanol
QED SamplePro Bladder Pump	Fall 2018	TRY_MW-805	ND (including PFAS)	Liquinox & water
Water Level Probe		TRY_MW-804	ND	includes Hexane & 2-Propanol
QED SamplePro Bladder Pump	Spring 2016	TRY_MW-202P	ND	Liquinox & water
Water Level Probe		TRY_MW-601D	ND	Liquinox & water
Water Level Probe		TRY_MW-804	Contaminants: DEHP	includes Hexane & 2-Propanol
Water Level Probe	Fall 2014	TRY_MW-601D	ND	Liquinox & water
QED SamplePro Bladder Pump		TRY_MW-804	Contaminants: DEHP, benzyl butyl phalate, and manganese	includes Hexane & 2-Propanol
QED SamplePro Bladder Pump	Spring 2013	End of program (801, 802, or 301x)	ND	includes Hexane & 2-Propanol
Oil-Water interface probe		TRY_MW-201S	ND	includes Hexane & 2-Propanol
Oil-Water interface probe	Spring 2011	TRY_MW-201S	ND	includes Hexane & 2-Propanol
DI-Water		Prior to Sampling	ND	N/A
QED SamplePro Bladder Pump		Prior to Sampling	ND	Liquinox & water
DI-Water	Fall 2009	Prior to Sampling	ND	N/A
Oil-Water interface probe		TRY_MW-201S	ND	includes Hexane & 2-Propanol
Hand Auger/ sampling equipment		After Sampling Wetland Soil	ND	includes Hexane & 2-Propanol
Stainless Steel Bailer		After Sampling	ND	includes Hexane & 2-Propanol
Kemmerer Sampler		Prior to Sampling Well TRY_MW-702D	Contaminants: DEHP	includes Hexane & 2-Propanol
DI-Water	Spring 2009	Prior to Sampling	ND	N/A
Oil-Water interface probe		TRY_MW-201S	ND	includes Hexane & 2-Propanol
Bailer		TRY_MW-202S	ND	includes Hexane & 2-Propanol
SW Leachate Container		Prior to Sampling Leachate	ND	N/A

TABLE KEY:

ND = No Detections

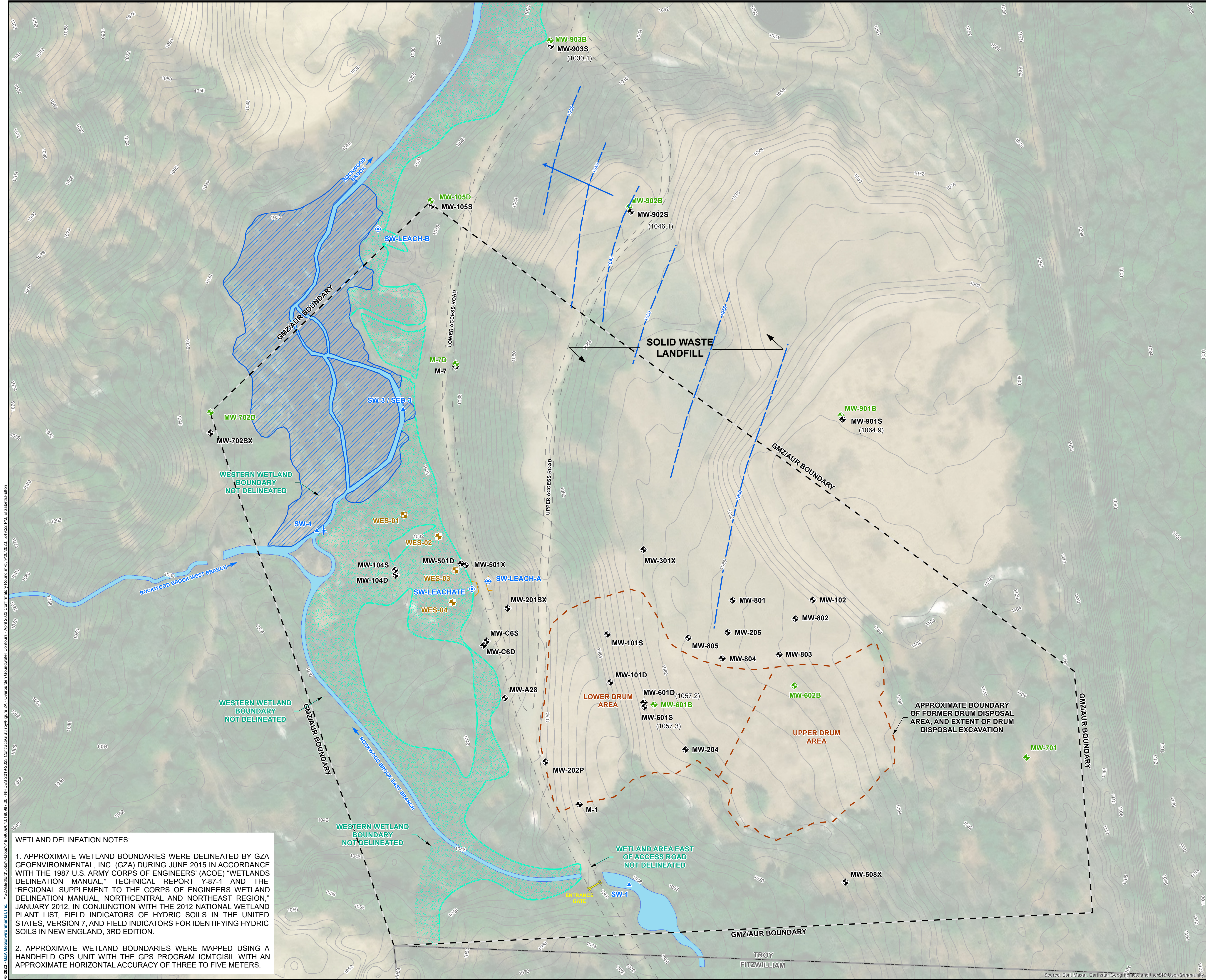
DI = Deionized water

DEHP = bis(2-ethylhexyl)phthalate

Green shaded entries indicate wells with consistent DEHP contamination.



Figures



- NOTES:
1. BASE PLAN IS FROM NHDES GPS DATA POINTS TAKEN ON SEPTEMBER 29, 2011.
 2. THE GROUNDWATER MANAGEMENT ZONE (GMZ)/ACTIVITY AND USE RESTRICTION (AUR) BOUNDARY IS FROM "GROUNDWATER MANAGEMENT ZONE & ACTIVITY AND USE RESTRICTION PLAN, TROY MILLS LANDFILL, TROY, NEW HAMPSHIRE", PREPARED BY TF MORAN, INC., DATED DECEMBER 18, 2006, REVISED JANUARY 17, 2007 AND MARCH 19, 2007.
 3. A SURVEY OF THE SITE WELLS WAS CONDUCTED DURING FEBRUARY 2005 BY CONKLIN & SOROKA OF CHESHIRE, CONNECTICUT. THE BENCHMARK POINT USED FOR THIS SURVEY WAS MONITORING WELL TRY_M-3; ITS ELEVATION WAS ESTABLISHED AS 1037.65 (PVC) ACCORDING TO THE PLAN TITLED "TOPOGRAPHIC SURVEY DEPICTING MONITORING WELL LOCATIONS, LAND OF TROY MILLS LANDFILL." THE HORIZONTAL DATUM USED TO IDENTIFY SITE MONITORING WELLS IS NAD 83/96 PER NHDOT BASE STATION, FOLLOWING THE NEW HAMPSHIRE STATE PLANE PROJECTION, IN UNITS OF U.S. SURVEY FEET.
 4. AN ADDITIONAL SURVEY OF MW-901S/B, MW-902S/B, AND MW-903S/B WAS CONDUCTED BY GZA DURING NOVEMBER 2022 USING THE ESTABLISHED BENCHMARK ON THE EASTERN SIDE OF THE CULVERT AT SW-1 (EL. 1,060.98 FT). THE HORIZONTAL DATUM USED TO IDENTIFY SITE MONITORING WELLS IS NAD 83/96 PER NHDOT BASE STATION, FOLLOWING THE NEW HAMPSHIRE STATE PLANE PROJECTION, IN UNITS OF U.S. SURVEY FEET.
 5. GROUNDWATER ELEVATIONS WERE CALCULATED FROM THE DATA COLLECTED DURING THE APRIL 2023 GROUNDWATER LEVEL MEASUREMENT ROUND.
 6. ESTIMATED OVERBURDEN GROUNDWATER ELEVATION CONTOURS ARE BASED ON WATER LEVEL DATA COLLECTED AT WIDELY SPACED MONITORING LOCATIONS AND ASSUME ISOTROPIC HOMOGENEOUS CONDITIONS. LOCAL VARIATIONS IN GROUNDWATER ELEVATION/HYDRAULIC HEAD AND GROUNDWATER FLOW ARE ANTICIPATED TO OCCUR DUE TO STRATIGRAPHY AND VARIATIONS WITHIN THE HYDRAULIC PROPERTIES OF THE OVERBURDEN DEPOSITS AND FILL.
 7. TOPOGRAPHIC CONTOURS (2-FOOT) WERE OBTAINED BY GZA FROM THE NEW HAMPSHIRE GEOTATA PORTAL IN FEBRUARY 2023.
 8. AERIAL IMAGERY SOURCE: ESRI, MAXAR, EARTHSTAR GEOGRAPHICS, IGN, AND THE GIS USER COMMUNITY.

- LEGEND:**
- MW-701 BEDROCK MONITORING WELL
 - MW-601 OVERBURDEN MONITORING WELL
 - WES-01 WETLAND SOIL SAMPLE LOCATION
 - SW-1 SURFACE WATER AND/OR SEDIMENT SAMPLE LOCATION
 - SW-LEACH-A LEACHATE SAMPLE LOCATION
 - PERMANENTLY INSTALLED STAFF GAUGE
 - STREAM FLOW DIRECTION
 - TOPOGRAPHIC CONTOUR (2-FOOT)
 - ESTIMATED OVERBURDEN GROUNDWATER ELEVATION CONTOUR
 - (1057.3) ESTIMATED BULK GROUNDWATER FLOW DIRECTION
 - APPROXIMATE LOCATION OF FORMER DRUM DISPOSAL AREA
 - APPROXIMATE WETLAND BOUNDARY
 - CULVERT
 - ENTRANCE GATE
 - GMZ/AUR
 - GRAVEL ACCESS
 - TOWN LINE
 - APPROXIMATE EXTENT OF FORMER PONDING
 - APPROXIMATE WETLAND
 - SURFACE WATER

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TROY MILLS LANDFILL
SUPERFUND SITE
TROY, NEW HAMPSHIRE

OVERBURDEN HYDRAULIC HEAD ELEVATIONS
AND POTENTIOMETRIC SURFACE (APRIL 2023)

PREPARED BY:
 GZA GeoEnvironmental, Inc.
Engineers and Scientists
www.gza.com

PREPARED FOR:
NHDES/EPA

PROJ MGR: MEM
DESIGNED BY: MEM
DATE: AUGUST 2023

REVIEWED BY: SRL
DRAWN BY: ADM
PROJECT NO. 04.0190987.33

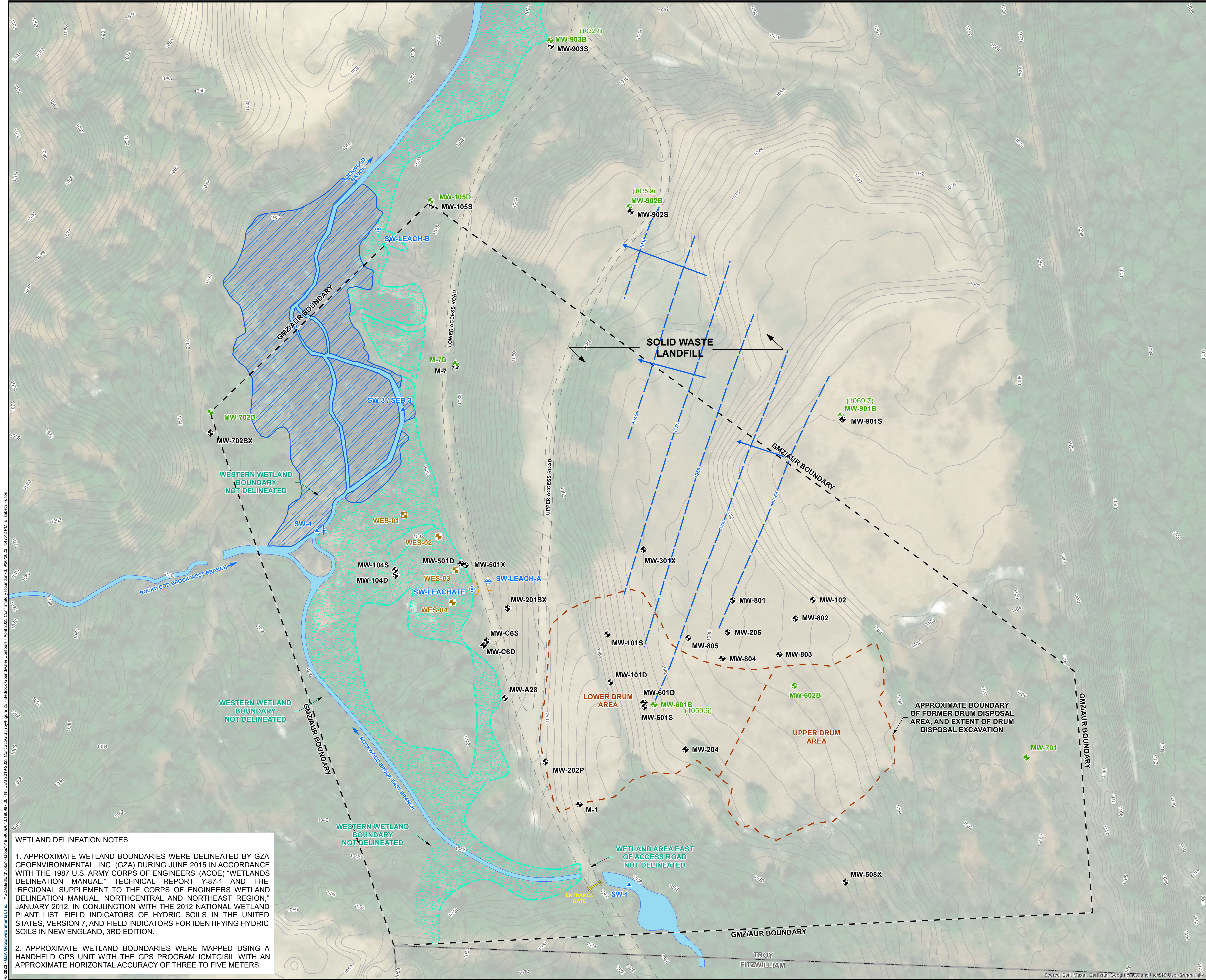
CHECKED BY: JMW
SCALE: 1 in = 60 ft
REVISION NO.

FIGURE
2A

WETLAND DELINEATION NOTES:

1. APPROXIMATE WETLAND BOUNDARIES WERE DELINEATED BY GZA GEOENVIRONMENTAL, INC. (GZA) DURING JUNE 2015 IN ACCORDANCE WITH THE 1987 U.S. ARMY CORPS OF ENGINEERS' (ACOE) "WETLANDS DELINEATION MANUAL," TECHNICAL REPORT Y-87-1 AND THE "REGIONAL SUPPLEMENT TO THE CORPS OF ENGINEERS WETLAND DELINEATION MANUAL, NORTHCENTRAL AND NORTHEAST REGION," JANUARY 2012, IN CONJUNCTION WITH THE 2012 NATIONAL WETLAND PLANT LIST, FIELD INDICATORS OF HYDRIC SOILS IN THE UNITED STATES, VERSION 7, AND FIELD INDICATORS FOR IDENTIFYING HYDRIC SOILS IN NEW ENGLAND, 3RD EDITION.

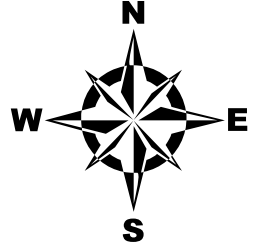
2. APPROXIMATE WETLAND BOUNDARIES WERE MAPPED USING A HANDHELD GPS UNIT WITH THE GPS PROGRAM ICMTGISII, WITH AN APPROXIMATE HORIZONTAL ACCURACY OF THREE TO FIVE METERS.



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 6. ESTIMATED GROUNDWATER ELEVATION CONTOURS AND INFERRED DIRECTIONS OF GROUNDWATER FLOW SHOWN ASSUME ISOTROPIC HOMOGENOUS CONDITIONS. THESE ASSUMPTIONS ARE NOT VALID FOR FRACTURED BEDROCK HYDROGEOLOGIC SYSTEMS AT SMALLER SPATIAL SCALES, AND LOCAL VARIATIONS IN GROUNDWATER FLOW ARE ANTICIPATED. BASED ON OUR UNDERSTANDING OF LOCAL HYDROGEOLOGY, THE ASSUMPTIONS OF ISOTROPIC HOMOGENOUS CONDITIONS AT THE SPATIAL SCALE ILLUSTRATED HEREON ARE CONSIDERED VALID BY GZA.
 7. TOPOGRAPHIC CONTOURS (2-FOOT) WERE OBTAINED BY GZA FROM THE NEW HAMPSHIRE GEOTATA PORTAL IN FEBRUARY 2023.
 8. AERIAL IMAGERY SOURCE: ESRI, MAXAR, EARTHSTAR GEOGRAPHICS, IGN, AND THE GIS USER COMMUNITY.

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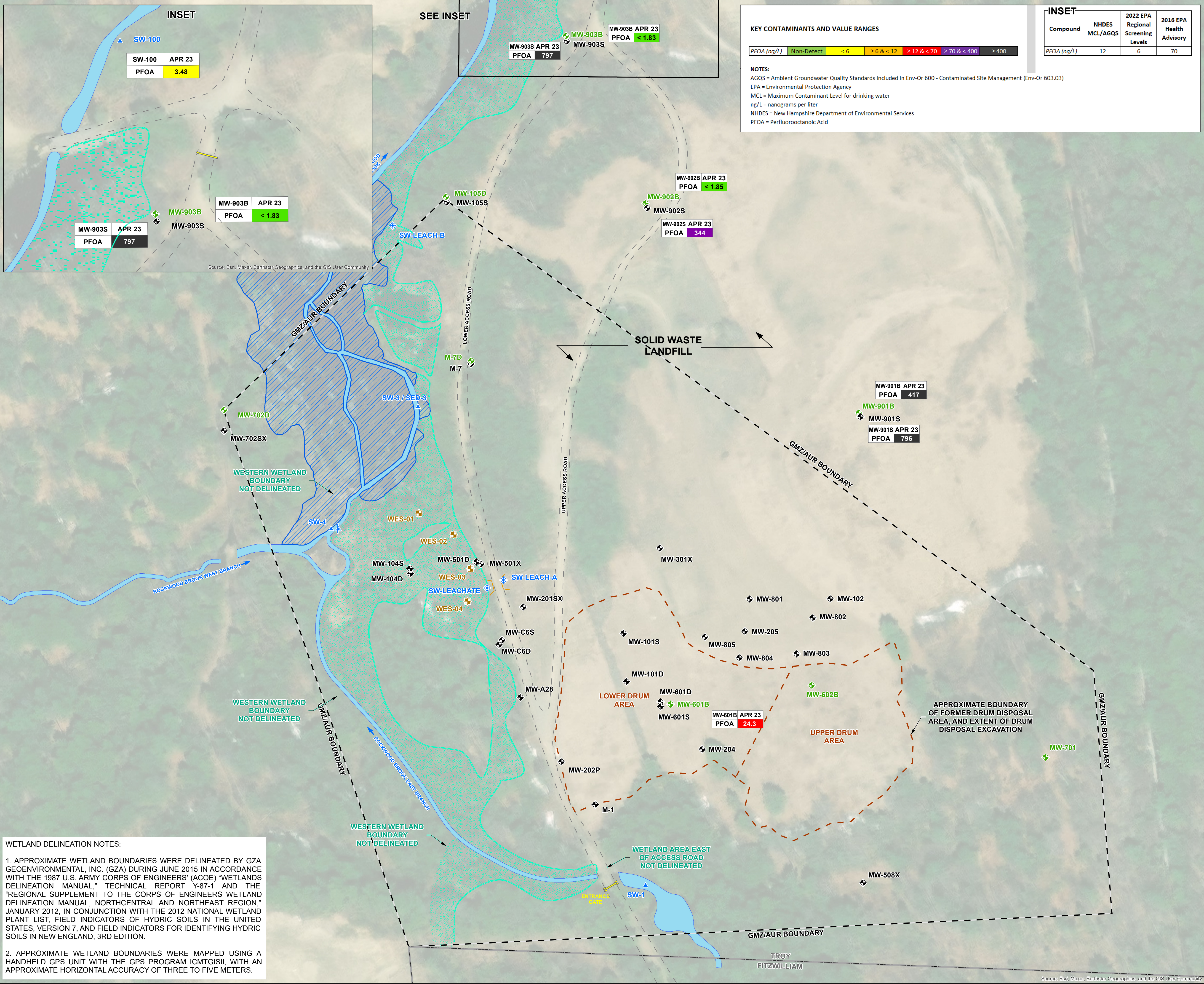


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TROY MILLS LANDFILL
SUPERFUND SITE
TROY, NEW HAMPSHIRE

BEDROCK HYDRAULIC HEAD
AND POTENTIOMETRIC SURFACE (APRIL 2023)

PREPARED BY: GZA GeoEnvironmental, Inc. Engineers and Scientists www.gza.com		PREPARED FOR: NHDES/EPA	
PROJ MGR: MEM	REVIEWED BY: SRL	CHECKED BY: JMW	FIGURE 2B
DESIGNED BY: MEM	DRAWN BY: EAF	SCALE: 1 in = 60 ft	
DATE: AUGUST 2023	PROJECT NO. 04.0190987.33	REVISION NO.	



- NOTES:
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 5. GZA CHOSE TO DEPICT PFOA CONCENTRATIONS ON THIS FIGURE BECAUSE IT WAS THE MOST WIDELY SPREAD PFAS CONTAMINANT THAT EXCEEDED BOTH ITS EPA SCREENING LEVEL AND NH AGQS.
 6. ANALYTICAL DATA DISPLAYED ON THIS FIGURE IS FROM THE APRIL 2023 SAMPLING EVENT.

- LEGEND:
- MW-701 BEDROCK MONITORING WELL
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 - WES-01 WETLAND SOIL SAMPLE LOCATION
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 - GRAVEL ACCESS ROAD
 - TOWN LINE
 - APPROXIMATE EXTENT OF FORMER PONDING
 - APPROXIMATE WETLAND AREA
 - SURFACE WATER

0 30 60 120 180

GRAPHIC SCALE IN FEET

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TROY MILLS LANDFILL
SUPERFUND SITE
TROY, NEW HAMPSHIRE

PFOA IN GROUNDWATER & SURFACE WATER
KEY CONTAMINANT RESULT SUMMARY (APRIL 2023)

PREPARED BY: GZA GeoEnvironmental, Inc. Engineers and Scientists www.gza.com

PREPARED FOR: NHDES/EPA

PROJ MGR: MEM REVIEWED BY: SRL CHECKED BY: JMW FIGURE

DESIGNED BY: MEM DRAWN BY: EAF SCALE: 1 in = 60 ft

DATE: AUGUST 2023 PROJECT NO. 04.0190987.33 REVISION NO. 3



Limitations



USE OF REPORT

1. GZA GeoEnvironmental, Inc. (GZA) prepared this report on behalf of, and for the exclusive use of our Client for the stated purpose(s) and location(s) identified in the Proposal for Services and/or Report. Use of this report, in whole or in part, at other locations, or for other purposes, may lead to inappropriate conclusions; and we do not accept any responsibility for the consequences of such use(s). Further, reliance by any party not expressly identified in the agreement, for any use, without our prior written permission, shall be at that party's sole risk, and without any liability to GZA.

STANDARD OF CARE

2. GZA's findings and conclusions are based on the work conducted as part of the Scope of Services set forth in the Proposal for Services and/or Report and reflect our professional judgment. These findings and conclusions must be considered not as scientific or engineering certainties, but rather as our professional opinions concerning the limited data gathered during the course of our work. Conditions other than described in this report may be found at the subject location(s).
3. GZA's services were performed using the degree of skill and care ordinarily exercised by qualified professionals performing the same type of services, at the same time, under similar conditions, at the same or a similar property. No warranty, expressed or implied, is made. Specifically, GZA does not and cannot represent that the Site contains no hazardous material, oil, or other latent condition beyond that observed by GZA during its study. Additionally, GZA makes no warranty that any response action or recommended action will achieve all of its objectives or that the findings of this study will be upheld by a local, state or federal agency.
4. In conducting our work, GZA relied upon certain information made available by public agencies, Client and/or others. GZA did not attempt to independently verify the accuracy or completeness of that information. Inconsistencies in this information which we have noted, if any, are discussed in the Report.

SUBSURFACE CONDITIONS

5. The generalized soil profile(s) provided in our Report are based on widely-spaced subsurface explorations and are intended only to convey trends in subsurface conditions. The boundaries between strata are approximate and idealized, and were based on our assessment of subsurface conditions. The composition of strata, and the transitions between strata, may be more variable and more complex than indicated. For more specific information on soil conditions at a specific location refer to the exploration logs. The nature and extent of variations between these explorations may not become evident until further exploration or construction. If variations or other latent conditions then become evident, it will be necessary to reevaluate the conclusions and recommendations of this report.
6. Water level readings have been made, as described in this Report, in and monitoring wells at the specified times and under the stated conditions. These data have been reviewed and interpretations have been made in this report. Fluctuations in the level of the groundwater however occur due to temporal or spatial variations in areal recharge rates, soil heterogeneities, the presence of subsurface utilities, and/or natural or artificially induced perturbations. The observed water table may be other than indicated in the Report.

COMPLIANCE WITH CODES AND REGULATIONS

7. We used reasonable care in identifying and interpreting applicable codes and regulations necessary to execute our scope of work. These codes and regulations are subject to various, and possibly contradictory, interpretations. Interpretations and compliance with codes and regulations by other parties is beyond our control.



SCREENING AND ANALYTICAL TESTING

8. GZA collected environmental samples at the locations identified in the Report. These samples were analyzed for the specific parameters identified in the report. Additional constituents, for which analyses were not conducted, may be present in soil, groundwater, surface water, sediment and/or air. Future Site activities and uses may result in a requirement for additional testing.
9. Our interpretation of field screening and laboratory data is presented in the Report. Unless otherwise noted, we relied upon the laboratory's QA/QC program to validate these data.
10. Variations in the types and concentrations of contaminants observed at a given location or time may occur due to release mechanisms, disposal practices, changes in flow paths, and/or the influence of various physical, chemical, biological or radiological processes. Subsequently observed concentrations may be other than indicated in the Report.

INTERPRETATION OF DATA

11. Our opinions are based on available information as described in the Report, and on our professional judgment. Additional observations made over time, and/or space, may not support the opinions provided in the Report.

ADDITIONAL INFORMATION

12. In the event that the Client or others authorized to use this report obtain additional information on environmental or hazardous waste issues at the Site not contained in this report, such information shall be brought to GZA's attention forthwith. GZA will evaluate such information and, on the basis of this evaluation, may modify the conclusions stated in this report.

ADDITIONAL SERVICES

13. GZA recommends that we be retained to provide services during any future investigations, design, implementation activities, construction, and/or property development/ redevelopment at the Site. This will allow us the opportunity to: i) observe conditions and compliance with our design concepts and opinions; ii) allow for changes in the event that conditions are other than anticipated; iii) provide modifications to our design; and iv) assess the consequences of changes in technologies and/or regulations.



Photograph log



Photo No. 1

View looking south at the north entrance gate for the Troy Mills Superfund Site



Photo No. 2

View looking north at a typical base camp setup



Photo No. 3

View looking east towards the solid waste capped landfill area



Photo No. 4

View looking west across the stream at sampling location SW-100



Photo No. 5

View looking west at the the permanently mounted stream gage at surface water quality monitoring station SW-4



Photo No. 6

View of significant flocculate observed at MW-903S



Photo No. 7

View of LEACHATE sampling location (not sampled during spring 2023)



Photo No. 8

View looking west immediately downgradient of LEACHATE sampling location



Photo No. 9

View looking east toward LEACH-B sampling location (not sampled during spring 2023)



Field Notes

04.0190987.33/35

4/25/23

On-Site 0845-1500

Weather: mostly Sunny, 40s-50s

Task: Complete confirmatory sample round of wells installed Fall 2022

Personnel: Beth Fulton (EAF) - note taker

Erik Dymess (EBD), Megan Murphy (MEM)

Equipment: Unit #2

AquaTROLL 1023340

Solinst Ultrameter 378980

Hach 2100Q 48627

MP-10 3585

0900 H&S Tailgate meeting

0915 Cal Check AquaTrolls and Hachs

0945 Assist in basecamp set up / mobilize to MW-902S.

1030 Assist EBD in QED sample Ad installation at MW-902B

1050 Set up on MW-902S

↳ Decon with PFAS Free DI water

* see low flow sheet for sampling details *

EAF 4/27/23

~~1230~~ 1225 collected PFAS Field Blank

1230 - Sample start, end at 1240 (pump off)

↳ PFAS

1340 - Return to basecamp

1345 - Cal Check - All units passed!

1500 - Locked Unaw, GZA off-site

(111) Troy Mills Landfill Superfund Site
Rockwood Pond Road, Troy/Fitzwilliams NH
04.0190987.33 11/26/23

On-site: 0830 - 1830

Weather: mostly sunny, 40s-50s

Task: complete confirmatory sample round of newly installed wells Fall 2022

Personel: Beth Fulton (EAF) - note taker
Erik Dymess (ERD), Megan Murphy (MEM)

Equipment: Unit #2 refer to page 110 (11/25/23)

0845 H&S Tailgate meeting

0900 Set up for the day

0930 Assist ERD in setting up at MW-903 couplet

1010 Mehdi Badel (MB) on-site to perform site reconnaissance of exposed landfill materials

1015 Set up on MW-901B

↳ Decon with PFAS Free DI water

• See low flow sheet for sampling details •

1245 Sample start, end at 1255

↳ PFAS

1320 Return to basecamp to Decon QED sample Pro and cut tubing with MEM



Troy Mills Landfill Superfund Site
04.0190987.33

(112)
11/26/23

1340 Tim Weick (JMW) on-site

↳ JMW off-site at 1630

1415 Set up on MW-601B

↳ Decon with PFAS free DI water

• See low flow sheet for sampling details •

1620 sample start, end at 1630

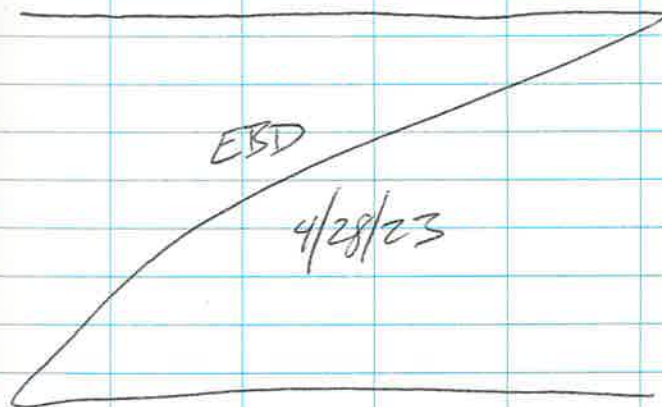
1700 Return to Basecamp

1715 Cal check → all units passed!

↳ MB off-site

1830 GZA off-site

* Due to late arrival of back up Hach 2100A, the BU Hach was calibrated today before cal-checking units 1 & 2



(13) Troy Mills Landfill Superfund Site
Rockwood Pond Road, Troy/Fitzwilliams, NH
04.0190987.33 11/27/23

C: On-site 0930 - 1215

W Weather: mostly Sunny, 40s

T Task: Complete confirmatory sample round
of wells installed Fall 2022 and collect
surface water sample at SW-100

Personel: Beth Fulton (EAF) - note taker

Erik Dymess (EBD), Megan Murphy (MEM)

Equipment: Unit #1 (refer to EBD notes 4/25/23)

0930 - on-site

- H+S Tailgate

- Prep for sampling

- MEM Breaks down basecamp

1015 - Assisted EBD in SW-100

collection (and DUP)

- refer to SW sampling worksheet

1045 Drop SW-100 samples off at
basecamp and then went to collect
staff gauge reading

1115 Assist EBD in sample collection at
MW-9015

1140 Return to basecamp

- complete COCs / check samples
with MEM



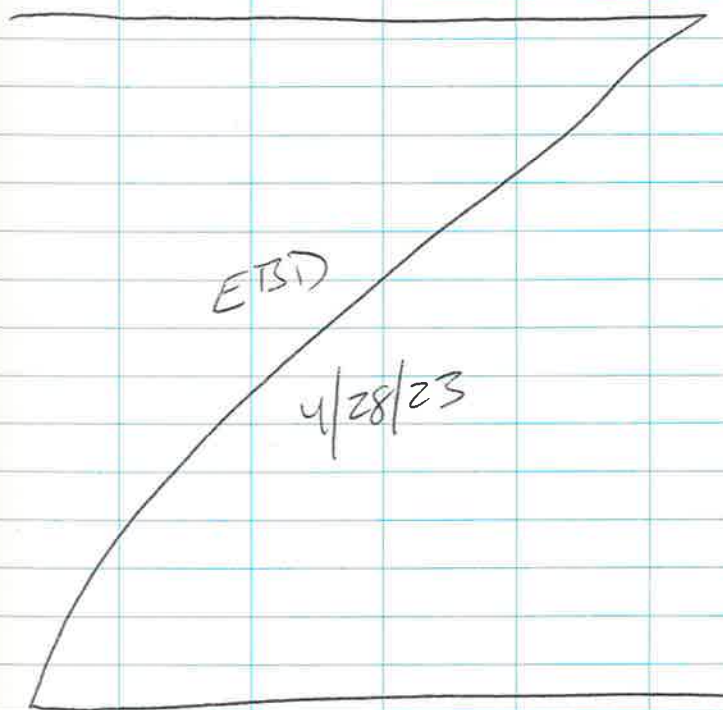
Troy Mills Landfill Superfund Site
04.0190987.33

(14)

- Broke down / loaded vehicles
1230 GZA off-site, locked gate

- Went to Sand Dam Pond to observe
water levels and take photos

- Brought sample coolers to Alpha
lab.



Location Troy, NH Date 4/25/23Project / Client 04.0190987.33Troy Mills Landfill Superfund Site

Onsite: 0845-1500

Weather: Mostly Sunny 40s-50s

Purpose: Confirmatory GW sampling

Personnel: E. Dyrness (EBD) (note taker)

E. Fulton (EAF)

M. Murphy (MEM)

Equipment: Kit #1

Aquatroll: 959853

Soinst WLM: R12280

Hach Z100Q: 77440

MPIO: 3584

0845 Arrive onsite w/ all gear/equipment

0900 Held H&S tailgate meeting

0910 EBD & MEM begin synoptic WL round at 900 series & 601 series wells

1015 Complete WL round

1030 Began setup on MW-902B and deploy QED Sande Pro See low flow sheet for additional details

→

Location Troy, NH Date 4/25/23Project / Client 04.0190987.33Troy Mills Landfill Superfund Site

1245 Collected field blank (PFAS)

1250 Began sample collection TRY-MW-902B, PFAS

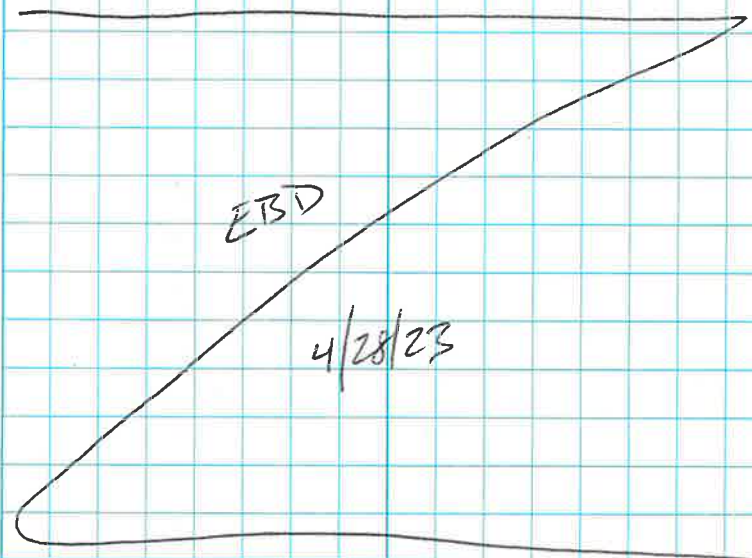
1255 completed sample collection

1300 Returned to base camp

Began decan on (Z)

QED Sande Pro pumps and packed up for day

1500 GZA offsite



Location Troy, NH Date 4/26/23Project / Client 04.0190987.33Troy Mills Landfill Superfund Site

Onsite: 0830 - 1830

Weather: Mostly Sunny 40s-50s

Purpose: Confirmatory GW Sampling

Personnel: E. Dyrness (EBD) (notetaker)

E. Fulton (EAF)

M. Murphy (MEM)

Equip: Kit #1, see 4/25/23

0830 Onsite

0845 Held H&S tailgate meeting

0900 Prepped + set up for day

0910 Set up at MW-903B/S
deployed sample pro pumps0910 Set up at MW-903B
See low flow sheet for
additional details1240 Began collecting TRY-MW-903B
(PFAS)

1255 Completed sample collection

1305 Set up on MW-903S
See low flow sheet for
additional detailsLocation Troy, NH Date 4/26/23Project / Client 04.0190987.33Troy Mills Landfill Superfund Site

1425 Began sample collection (PFAS)

TRY-MW-903S

TRY-MW-903S DUP

1435 Completed sample collection

1340 Tim Wicak (GZA) onsite

1630 → offsite

1010 Mehdi Bodel (GZA) onsite

1715 → offsite

1500 Returned to base camp

Water level meter used in
MW-903S was deconned
to prepare for Equip Blank1530 EQUIP BLANK (WLM/903S)
collected1545 Sample pro 11715 used in
MW-903S was deconned
to prepare for Equip Blank1600 EQUIP BLANK (SP/903S)
collected

Location Troy, NH Date 4/26/23Project / Client 04.0190987.33Troy Mills Landfill Superfund Site

1630 Arrived at MW-9015
Collected a grab sample
w/ HDPE bailer due to
limited water column
WL: 37.85

1700 TRY-MW-9015 collected (PFAS)
pH: 6.6 T: 11.3
Sc: 544 DO: 1.5
Orp: -72 Turb: 271

Remaing water was bailed out
to determine if the well
would recharge, ~3-4 L
removed from well

1740 Returned to base camp to
decon sample pro pumps and
pack up for day

1830 G2A offsite

EBD

4/28/23

Location Troy, NH Date 4/27/23Project / Client 04.0190987.33Troy Mills Landfill Superfund Site

Onsite: 0830 - 1215

Weather: Mostly Sunny, 40s

Purpose: Confirmatory GW + SW sampling

Personnel: E. Dyrness (EBD) (notetaker)

E. Fulton (EAF)

M. Murphy (MEM)

Equip: Unit/Kit #1 see 4/25/23

0930 Onsite

Held H&S tailgate meeting
Began prep for SW sampling
MEM to begin breakdown of
base camp

1015 Arrived at SW-100

1020 Collected TRY-SW-100 +
TRY-SW-100 DUP

SW field parameters collected
see SW sheet and
photos

1045 Return to base camp and
prepped equipment to go
to SW-4 staff gauge

→

12

Location

Troy, NH

Date

4/27/23

Project / Client

04.0190987.33

Troy Mills Landfill Superfund Site

1110

Arrived at MW-9015
to collect water level
and determine if well
recharge had occurred

WL:

1115

Collected TRY-MW-9015
(PFAS)

previous sample from 4/26/23
disposed

pH: 6.4 T: 9.8

Sc: 539 DO: 1.5

Orp: 33 Turb: 277

Baiter removed from well

1130

~~1140~~

C187

1130

Returned to base camp

Began end of day cal
check on Unit #1

Unit #1 passed cal check,
sec calibration form.

Completed base camp
break down



Location

Troy, NH

Date

4/27/23

13

Project / Client

04.0190987.33

Troy Mills Landfill Superfund Site

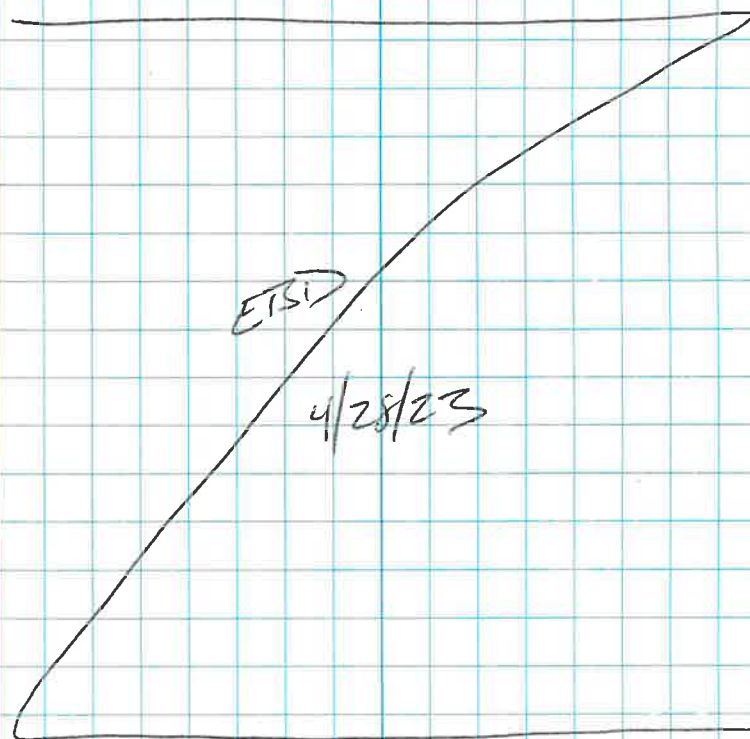
1230

GZA offsite

1245

Stopped at Sand Dam
Pond to observe conditions

Returned to office





Water Level and Surface Water/Sediment Worksheets

Surface Water / Sediment Worksheet
Troy Mills Landfill Superfund Site, Troy, New Hampshire

Date: 4/27/23

Time: 1020

Field Personnel: EAF, EBD

WEATHER CONDITIONS									
CURRENT		Weather Station Location Used For Historical data:							
Barometric Pressure (in mm/hg)		PAST 7 DAYS							
Storm (heavy rain): circle one	Yes or No	Date	4/20/23	4/21/23	4/22/23	4/23/23	4/24/23	4/25/23	4/26/23
Rain (Steady Rain): circle one	Yes or No	Barometric Pressure (in mm/hg)	754.96	759.96	754.96	754.38	754.38	754.96	762
Intermittent Showers: circle one	Yes or No	Estimated Rainfall (in)	0	0	0	0.8	1.9	0.5	0.13
Cloud Cover (%)	50%	Comments							
Clear/Sunny: circle one	Yes or No								
Comments									
STREAM / SAMPLING LOCATION CHARACTERIZATION									
Provide physical description of sampling locations at the time of sampling. Provide a physical description of sediment samples if collected.	Sample Location:	SW-100 Water flowing swiftly, clear, sandy bottom w/ cobble sized rocks, trace organics, leaf litter, ~16" deep							
	Photograph #, date & time	4/27/23, 1020, photos							
	Sample Location:								
	Photograph #, date & time								
	Sample Location:	EAF							
	Photograph #, date & time	4/28/23							
	Sample Location:								
	Photograph #, date & time								
	Sample Location:								
	Photograph #, date & time								
IN SITU SURFACE WATER QUALITY DATA									
Minimum 2 minute parameter stabilization period met (Y/N)?									
Sample Location ID	Temperature (°C)	Specific Conductivity (µS/cm)	pH units	ORP/Eh (mV)	DO (mg/L)	Turbidity (NTU)	Sample Time	Comments	
TRY_SW-1	NA	NA	NA	NA	NA	NA	NA	NA	
TRY_SW-3	NA	NA	NA	NA	NA	NA	NA	NA	
TRY_SW-4	NA	NA	NA	NA	NA	NA	NA	NA	
TRY_SW-100	10.2	29	5.9	180	11.1	0.6	1020	—	
TRY_SW-SDP	NA	NA	NA	NA	NA	NA	NA	NA	
TRY_SW-4 STREAM-STAGE MEASUREMENT (FT)									
Initial Synoptic Stream-Stage (from Water Level Measurement Form)	Date:	4/27/23	Depth of Water (ft):	1.05	Comments:	Stream flowing			
Stream-stage when sampling TRY MW-104S/D cluster	Date:	NA	Depth of Water (ft):	NA	Comments:	NA			
Stream-stage when sampling surface water TRY_SW-4	Date:	NA	Depth of Water (ft):	NA	Comments:	NA			

Notes: 1. Surface Water Quality Parameters are collected using the multiparameter meter and Hach 2100P/2100Q units. Both units are calibrated in accordance with the calibration SOP in the SAP.

Water Level Worksheet
Troy Mills Landfill Superfund Site, Troy, New Hampshire

Date: 4/25/23

Field Personnel: M. Murphy, E. Dyness

Monitoring Well Designation	Well Type (2-in, 1.5-in etc.)	Measuring Point	Reported Depth to Well Bottom (ft., referenced to measuring point)	Measured Depth To Water (ft., referenced to measuring point)	Measured Depth to Well Bottom (ft., referenced to measuring point) <u>Only</u> if specified in SAP & as noted below.	Comments
TRY_M-1	1 1/2-in PVC	PVC	67.3 ²	—	dedicated equip	Measure depth next time pump is removed
TRY_M-7	1 1/2-in PVC	PVC	17.3	—	dedicated equip	
TRY_M-7D	1 1/2-in PVC	PVC	81.36	—	—	
TRY_MW-A28	1 1/2-in PVC	PVC	13.03	—	—	
TRY_MW-C6S	2-in PVC	PVC	15.2	—	—	
TRY_MW-C6D	2-in PVC	PVC	38.0	—	dedicated equip	
TRY_MW-101S	2-in PVC	PVC	29.40	—	dedicated equip	
TRY_MW-101D	2-in PVC	PVC	67.12	—	dedicated equip	
TRY_MW-102	2-in PVC	Casing	36.2 ²	—	—	
TRY_MW-104S	2-in PVC	PVC	17.7 ^{2,3}	—	dedicated equip	
TRY_MW-104D	2-in PVC	PVC	52.1 ²	—	dedicated equip	
TRY_MW-105S	2-in PVC	PVC	21.08	—	dedicated equip	
TRY_MW-105D	2-in PVC	PVC	87.92	—	—	
TRY_MW-201SX	2-in PVC	PVC	17.23	—	dedicated equip	
TRY_MW-202P	4-in PVC	PVC	61.55	—	—	
TRY_MW-204	2-in PVC	PVC	32.8	—	dedicated equip	
TRY_MW-205	2-in PVC	PVC	39.1	—	dedicated equip	
TRY_MW-301X	2-in PVC	PVC	52.5	—	—	
TRY_MW-501D	2-in PVC	PVC	31.85	—	dedicated equip	
TRY_MW-501X	2-in PVC	PVC	14.04	—	—	
TRY_MW-508X	2-in PVC	PVC	9.7	—	—	
TRY_MW-601S	2-in PVC	PVC	29.3	20.13	dedicated equip	
TRY_MW-601D	2-in PVC	PVC	62.1	20.48	dedicated equip	
TRY_MW-601B	2-in PVC	PVC	86.1	20.92	86.1 ^{EBD}	

Water Level Worksheet
Troy Mills Landfill Superfund Site, Troy, New Hampshire

Date 4/25/23

Field Personnel: M. Murphy, E. Dyrness

Monitoring Well Designation	Well Type (2-in, 1.5-in etc.)	Measuring Point	Reported Depth to Well Bottom (ft., referenced to measuring point)	Measured Depth To Water (ft., referenced to measuring point)	Measured Depth to Well Bottom (ft., referenced to measuring point) <u>Only if</u> specified in SAP & as noted below.	Comments
TRY_MW-602B	2-in PVC	PVC	47.5	—	dedicated equip	
TRY_MW-701	2-in PVC	PVC	78.3	—	dedicated equip	
TRY_MW-702SX	2-in PVC	PVC	15.4	—	—	Measure depth in 2022
TRY_MW-702D	2-in PVC	PVC	46.4 ^{2,3}	—	—	
TRY_MW-801	2-in PVC	PVC	46.4	—	—	
TRY_MW-802	2-in PVC	PVC	35.6	—	—	
TRY_MW-803	2-in PVC	PVC	32.3	—	dedicated equip	
TRY_MW-804	2-in PVC	PVC	36.0	—	dedicated equip	
TRY_MW-805	2-in PVC	PVC	42.4	—	—	
TRY_MW-901S	2-in PVC	PVC	39.0	37.89	—	
TRY_MW-901B	2-in PVC	PVC	74.4	32.37	—	
TRY_MW-902S	2-in PVC	PVC	31.5	19.92	—	
TRY_MW-902B	2-in PVC	PVC	110.4	29.25	—	
TRY_MW-903S	2-in PVC	PVC	15.2	5.88	—	
TRY_MW-903B	2-in PVC	PVC	72.7	3.42	—	
Surface Water Location⁴						
TRY_SW-4	NA	NA	NA	—	NA	

Notes:

1. NA = not applicable
2. Downhole information was not verified during the October 8, 2008 camera survey.
3. GZA notes that there appears to be a minor discrepancy between the historical information regarding the bottom of screen/well and that which was measured in July 2008 by GZA in three wells (TRY_MW-702S, TRY_MW-702D, & TRY_MW-104S)
4. The depth of water measurement at TRY_SW-4 is referenced to the permanently installed stream gage at that location
5. LNAPL measurements should be noted in the comments if LNAPL is observed in any well.
6. Green-shaded wells require decontamination of equipment using hexane and 2-propanol due to high levels of DEHP. All other wells may be decontaminated with a soap and water wash only
7. Orange-shaded wells indicates monitoring wells installed/ proposed as part of September/ October 2022 PFAS Investigation



Low-Flow Test Reports

Low-Flow Test Report:

Test Date / Time: 4/26/2023 2:59:53 PM
Project: TRY_MW-601B Troy Mills Landfill (2)
Operator Name: Beth Fulton

Location Name: TRY_MW-601B Well Diameter: 2 in Casing Type: PVC Screen Length: 10 ft Top of Screen: 76.1 ft Total Depth: 86.1 ft Initial Depth to Water: 19.67 ft	Pump Type: PVC Tubing Type: Teflon Pump Intake From TOC: 81.1 ft Flow Cell Volume: 130 ml Final Flow Rate: 52 ml/min Final Draw Down: 3.63 ft Tubing Inner Diameter: 0.17 in (EAF 4/28/23)	Instrument Used: Aqua TROLL 600 Serial Number: 1023340
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Test Notes:
PRIOR TO SAMPLING:

Pump Information: QED Sample Pro 144321
MP-10 serial number: 3585
Turbidity meter model and serial number (or similar unique designation, i.e., last four digits): HACH 2100Q 48627
SOLINST WL: 378980

PVR (including calculations): $(81.1\text{ ft} + 5\text{ ft}) \times 4.5\text{ ml/ft} + 100\text{ml} = 487.5\text{ ml}$

Maximum allowable drawdown rate: 0.02 ft/5min

DURING/AFTER SAMPLING:

Pump start time: 1450

Parameters reached stabilization? Yes
If no, list parameters: NA
Total volume purged prior to sampling: 3.5L
Minimum PVR reached (compare purge amount to PVR)? Yes, 3.5L > 487.5mL
2 Hour time limit reached? No

Modified sampling required? (Clock time when modified sampling begins): No
Condition that triggered Modified Sampling: NA

Final pressure of bladder pump: 42 psi
Final refill rate: 49 seconds
Final discharge rate: 11 seconds

Any adjustments made (including flow rates, tubing, etc.): none

Notes (i.e. bubbles in tubing): None

Final water level: 23.59 ft

Total actual volume purged (Don t enter estimated purge volume): 4L

Measured Well Depth, if required: NA

Pump Off: 1630

Weather Conditions:

Overcast, 50s

Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth to Water	Flow
		+/- 0.1	+/- 1	+/- 3 %	+/- 10 %	+/- 10 %	+/- 10	+/- 50.06 (EAF 4/28/23)	
4/26/2023 2:59 PM	00:00	8.03 pH	14.87 °C	238.39 µS/cm	8.06 mg/L	32.00 NTU	108.6 mV	20.89 ft	58.00 ml/min
4/26/2023 3:04 PM	05:00	8.18 pH	12.55 °C	204.20 µS/cm	7.12 mg/L	20.00 NTU	98.2 mV	21.04 ft	54.00 ml/min
4/26/2023 3:09 PM	10:00	8.11 pH	11.81 °C	197.23 µS/cm	6.22 mg/L	17.00 NTU	87.7 mV	21.22 ft	52.00 ml/min
4/26/2023 3:14 PM	15:00	8.00 pH	10.36 °C	193.86 µS/cm	4.43 mg/L	20.00 NTU	83.2 mV	21.73 ft	52.00 ml/min
4/26/2023 3:19 PM	20:00	8.00 pH	10.15 °C	193.36 µS/cm	3.37 mg/L	28.00 NTU	80.0 mV	21.98 ft	52.00 ml/min
4/26/2023 3:24 PM	25:00	8.01 pH	10.53 °C	193.74 µS/cm	2.79 mg/L	21.00 NTU	78.6 mV	22.29 ft	52.00 ml/min
4/26/2023 3:29 PM	30:00	8.03 pH	10.54 °C	194.32 µS/cm	2.46 mg/L	18.00 NTU	75.6 mV	22.41 ft	52.00 ml/min
4/26/2023 3:34 PM	35:00	8.06 pH	10.44 °C	194.43 µS/cm	2.24 mg/L	16.00 NTU	71.6 mV	22.49 ft	52.00 ml/min
4/26/2023 3:39 PM	40:00	8.08 pH	10.47 °C	193.77 µS/cm	2.01 mg/L	16.00 NTU	67.2 mV	22.78 ft	52.00 ml/min
4/26/2023 3:44 PM	45:00	8.09 pH	10.55 °C	193.97 µS/cm	1.79 mg/L	14.00 NTU	64.6 mV	22.78 ft	52.00 ml/min
4/26/2023 3:49 PM	50:00	8.09 pH	10.53 °C	192.81 µS/cm	1.64 mg/L	12.00 NTU	60.5 mV	22.78 ft	52.00 ml/min
4/26/2023 3:54 PM	55:00	8.08 pH	10.95 °C	193.71 µS/cm	1.50 mg/L	9.00 NTU	60.0 mV	23.09 ft	52.00 ml/min
4/26/2023 3:59 PM	01:00:00	8.07 pH	10.86 °C	191.65 µS/cm	1.42 mg/L	8.00 NTU	57.6 mV	23.18 ft	52.00 ml/min
4/26/2023 4:04 PM	01:05:00	8.05 pH	10.93 °C	191.12 µS/cm	1.35 mg/L	6.00 NTU	57.1 mV	23.26 ft	52.00 ml/min
4/26/2023 4:09 PM	01:10:00	8.04 pH	10.53 °C	191.01 µS/cm	1.30 mg/L	5.00 NTU	55.0 mV	23.28 ft	52.00 ml/min
4/26/2023 4:14 PM	01:15:00	8.02 pH	10.57 °C	191.40 µS/cm	1.24 mg/L	5.00 NTU	53.9 mV	23.30 ft	52.00 ml/min

Samples

Sample ID:	Description:
TRY_MW-601B	Sample Time: 1620-1630 Parameters: PFAS

Low-Flow Test Report:

Test Date / Time: 4/26/2023 11:26:47 AM
Project: TRY_MW-901B Troy Mills Landfill (2)
Operator Name: Beth Fulton

Location Name: TRY_MW-901B Well Diameter: 2 in Casing Type: PVC Screen Length: 10 ft Top of Screen: 64.4 ft Total Depth: 74.4 ft Initial Depth to Water: 31.97 ft	Pump Type: QED Sample Pro Tubing Type: Teflon Tubing Inner Diameter: 0.25 in 0.17 in (EAF 4/28/23) Pump Intake From TOC: 69.8 ft Flow Cell Volume: 130 ml Final Flow Rate: 52 ml/min Final Draw Down: 0.86 ft	Instrument Used: Aqua TROLL 600 Serial Number: 1023340
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Test Notes:
PRIOR TO SAMPLING:

Pump Information: QED Sample Pro 144321
MP-10 serial number: 3585
Turbidity meter model and serial number (or similar unique designation, i.e., last four digits): HACH 2100Q 48627
SOLINST WL: 378980

PVR (including calculations): (69.8ft + 4 ft) x 4.5 ml/ft + 100ml = 433mL

Maximum allowable drawdown rate: 0.02 ft/5min

DURING/AFTER SAMPLING:

Pump start time: 1055

Parameters reached stabilization? Yes
If no, list parameters: NA
Total volume purged prior to sampling:4L
Minimum PVR reached (compare purge amount to PVR)? Yes, 4L > 433 mL
2 Hour time limit reached? No

Modified sampling required? (Clock time when modified sampling begins): No
Condition that triggered Modified Sampling: NA

Final pressure of bladder pump: 42 psi
Final refill rate: 52 seconds
Final discharge rate: 8 seconds

Any adjustments made (including flow rates, tubing, etc.): None

Notes (i.e. bubbles in tubing): ~~None~~ Water in tubing receded approximately 1 to 2 inches during refill time (EAF 4/28/23)

Final water level: 33.02 ft

Total actual volume purged (Don t enter estimated purge volume): 4.75L

Measured Well Depth, if required: NA

Pump Off: 1255

Weather Conditions:
Mostly sunny, 40s-50s (EAF 4/28/23)

Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth to Water	Flow
		+/- 0.1	+/- 1	+/- 3 %	+/- 10 %	+/- 10 %	+/- 10	+/- 5 0.06 (EAF 4/28/23)	
4/26/2023 11:26 AM	00:00	6.71 pH	11.83 °C	461.55 µS/cm	7.80 mg/L	15.00 NTU	112.2 mV	32.41 ft	68.00 ml/min
4/26/2023 11:31 AM	05:00	6.67 pH	10.25 °C	442.45 µS/cm	5.60 mg/L	2.20 NTU	111.2 mV	32.56 ft	58.00 ml/min
4/26/2023 11:36 AM	10:00	6.64 pH	10.17 °C	436.85 µS/cm	2.39 mg/L	2.30 NTU	101.3 mV	32.58 ft	54.00 ml/min
4/26/2023 11:41 AM	15:00	6.65 pH	9.93 °C	435.84 µS/cm	2.05 mg/L	2.60 NTU	87.9 mV	32.62 ft	60.00 ml/min
4/26/2023 11:46 AM	20:00	6.65 pH	9.88 °C	435.36 µS/cm	1.59 mg/L	1.20 NTU	57.2 mV	32.64 ft	60.00 ml/min
4/26/2023 11:51 AM	25:00	6.65 pH	11.05 °C	436.43 µS/cm	1.52 mg/L	1.60 NTU	76.5 mV	32.65 ft	58.00 ml/min
4/26/2023 11:56 AM	30:00	6.65 pH	10.44 °C	437.38 µS/cm	1.45 mg/L	1.50 NTU	39.3 mV	32.68 ft	54.00 ml/min
4/26/2023 12:01 PM	35:00	6.65 pH	10.37 °C	436.08 µS/cm	1.23 mg/L	1.50 NTU	16.9 mV	32.72 ft	54.00 ml/min
4/26/2023 12:06 PM	40:00	6.65 pH	10.75 °C	438.71 µS/cm	1.14 mg/L	1.50 NTU	14.9 mV	32.74 ft	54.00 ml/min
4/26/2023 12:11 PM	45:00	6.65 pH	10.35 °C	435.74 µS/cm	1.27 mg/L	1.70 NTU	10.0 mV	32.74 ft	52.00 ml/min
4/26/2023 12:16 PM	50:00	6.65 pH	10.24 °C	433.49 µS/cm	1.21 mg/L	1.80 NTU	0.3 mV	32.75 ft	52.00 ml/min
4/26/2023 12:21 PM	55:00	6.64 pH	11.02 °C	434.99 µS/cm	1.12 mg/L	1.10 NTU	-2.3 mV	32.75 ft	52.00 ml/min
4/26/2023 12:26 PM	01:00:00	6.64 pH	10.67 °C	433.82 µS/cm	1.00 mg/L	1.90 NTU	-5.3 mV	32.76 ft	52.00 ml/min
4/26/2023 12:31 PM	01:05:00	6.64 pH	10.26 °C	433.77 µS/cm	0.87 mg/L	1.70 NTU	-8.3 mV	32.80 ft	52.00 ml/min
4/26/2023 12:36 PM	01:10:00	6.64 pH	10.68 °C	432.86 µS/cm	0.76 mg/L	2.60 NTU	-10.6 mV	32.82 ft	52.00 ml/min
4/26/2023 12:41 PM	01:15:00	6.64 pH	10.19 °C	431.88 µS/cm	0.80 mg/L	2.10 NTU	-12.0 mV	32.83 ft	52.00 ml/min

Samples

Sample ID:	Description:
TRY_MW-901B	Sample Time: 1245-1255 Parameters: PFAS

Low-Flow Test Report:

Test Date / Time: 4/25/2023 11:41:56 AM
Project: TRY_MW-902S Troy Mills Landfill (2)
Operator Name: Beth Fulton

Location Name: TRY_MW-902S Well Diameter: 2 in Casing Type: PVC Screen Length: 10 ft Top of Screen: 21.5 ft Total Depth: 31.5 ft Initial Depth to Water: 19.83 ft	Pump Type: QED Sample Pro Tubing Type: Teflon (MEM 4/28/23) Tubing Inner Diameter: 0.25 0.17 in Pump Intake From TOC: 28.5 ft Flow Cell Volume: 130 ml Final Flow Rate: 100 ml/min Final Draw Down: 0 ft	Instrument Used: Aqua TROLL 600 Serial Number: 1023340
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Test Notes:
PRIOR TO SAMPLING:

Pump Information: QED Sample Pro 11715
MP-10 serial number: 3585
Turbidity meter model and serial number (or similar unique designation, i.e., last four digits): HACH 2100Q 48627
SOLINST WL: 378980

(MEM 4/28/23)
PVR (including calculations): [(28.5 ft + 0.5 ft) x 4.5 ml/ft] + 100 ml = 230.5 ml

Maximum allowable drawdown rate: 0.02 ft/5min
Is #14 tubing used at this location? No

DURING/AFTER SAMPLING:

Pump start time: 1135

Parameters reached stabilization? Yes
If no, list parameters: NA
Total volume purged prior to sampling: 3L
Minimum PVR reached (compare purge amount to PVR)? Yes, 3L > 230.5ml
2 Hour time limit reached? No

Modified sampling required? (Clock time when modified sampling begins): No
Condition that triggered Modified Sampling: NA

Final pressure of bladder pump: 22 psi
Final refill rate: 45 sec
Final discharge rate: 15 seconds

Any adjustments made (including flow rates, tubing, etc.): none

Notes (i.e. bubbles in tubing): None

Final water level: 19.84 ft
Total actual volume purged (Don t enter estimated purge volume): 3.8L
Measured Well Depth, if required: NA
Pump Off: 1240

Weather Conditions:
Mostly Sunny, 40s-50s

Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth to Water	Flow
		+/- 0.1	+/- 1	+/- 3 %	+/- 10 %	+/- 10 %	+/- 10	+/- 50.06	(MEM 4/28/23)
4/25/2023 11:41 AM	00:00	6.39 pH	11.36 °C	297.38 µS/cm	6.80 mg/L	19.00 NTU	100.3 mV	19.82 ft	100.00 ml/min
4/25/2023 11:46 AM	05:00	6.21 pH	10.42 °C	394.02 µS/cm	1.46 mg/L	13.00 NTU	48.4 mV	19.82 ft	100.00 ml/min
4/25/2023 11:51 AM	10:00	6.22 pH	10.13 °C	399.09 µS/cm	1.15 mg/L	9.10 NTU	39.8 mV	19.82 ft	100.00 ml/min
4/25/2023 11:56 AM	15:00	6.22 pH	10.53 °C	396.71 µS/cm	0.99 mg/L	8.90 NTU	33.6 mV	19.83 ft	100.00 ml/min
4/25/2023 12:01 PM	20:00	6.22 pH	10.41 °C	392.01 µS/cm	1.00 mg/L	6.30 NTU	11.5 mV	19.83 ft	102.00 ml/min
4/25/2023 12:06 PM	25:00	6.23 pH	10.17 °C	395.99 µS/cm	0.60 mg/L	5.40 NTU	-4.1 mV	19.83 ft	102.00 ml/min
4/25/2023 12:11 PM	30:00	6.23 pH	10.12 °C	388.49 µS/cm	0.44 mg/L	4.10 NTU	-9.0 mV	19.83 ft	102.00 ml/min
4/25/2023 12:16 PM	35:00	6.23 pH	10.18 °C	383.92 µS/cm	0.36 mg/L	3.10 NTU	-12.7 mV	19.83 ft	100.00 ml/min
4/25/2023 12:21 PM	40:00	6.23 pH	10.08 °C	377.85 µS/cm	0.32 mg/L	2.60 NTU	-16.1 mV	19.83 ft	100.00 ml/min

Samples

Sample ID:	Description:
FIELD BLANK-FULTON	Sample Time: 1225 Parameters: PFAS
TRY_MW-902S	Sample Time: 1230-1240 Parameters: PFAS

Low-Flow Test Report:

Test Date / Time: 4/25/2023 11:39:12 AM
Project: TRY_MW-902B Troy Mills Landfill (2)
Operator Name: E. Dyrness

Location Name: TRY_MW-902B Well Diameter: 2 in Casing Type: PVC Screen Length: 10 ft Top of Screen: 100.4 ft Total Depth: 110.4 ft Initial Depth to Water: 29.26 ft	Pump Type: QED Sample pro Tubing Type: Teflon Tubing Inner Diameter: 0.17 in Tubing Length: 111.3 ft Pump Intake From TOC: 105.8 ft Flow Cell Volume: 130 ml Final Flow Rate: 80 ml/min Final Draw Down: 0.25 ft	Instrument Used: Aqua TROLL 600 Serial Number: 959853
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Test Notes:
PRIOR TO SAMPLING:

Pump Information: QED Sample Pro 50191
MP-10 serial number: MP-10 3584
Turbidity meter model and serial number (or similar unique designation, i.e., last four digits): HACH 2100Q 77440
Solinst WL: R12280

PVR (including calculations): $((105.8 \text{ ft} + 5.5 \text{ ft}) \times 4.5 \text{ ml/ft}) + 100 \text{ ml} = 601 \text{ ml}$

Maximum allowable drawdown rate: 0.02 ft/5min

DURING/AFTER SAMPLING:

Pump start time: 1135
Parameters reached stabilization? Yes
If no, list parameters: n/a
Total volume purged prior to sampling: 5L
Minimum PVR reached (compare purge amount to PVR)? Yes, 5L > 601ml
2 Hour time limit reached? No

Modified sampling required? (Clock time when modified sampling begins): no
Condition that triggered Modified Sampling: n/a

Final pressure of bladder pump: 50psi
Final refill rate: 40 seconds (MEM 4/28/23)
Final discharge rate: 20 seconds (MEM 4/28/23)

Any adjustments made (including flow rates, tubing, etc.): no

Notes (i.e. bubbles in tubing): no

Final water level: 29.51 ft

Total actual volume purged (Don t enter estimated purge volume): 5.5L
Measured Well Depth, if required: n/a
Pump Off: 1255

Weather Conditions:
Mostly sunny, 40s-50s, slight breeze

Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth to Water	Flow
		+/- 0.1	+/- 1	+/- 3 %	+/- 10 %	+/- 10 %	+/- 10	+/- 0.026 (MEM 4/28/23)	
4/25/2023 11:39 AM	00:00	8.35 pH	11.57 °C	185.48 µS/cm	10.66 mg/L	8.00 NTU	197.7 mV	29.26 ft	78.00 ml/min
4/25/2023 11:44 AM	05:00	8.46 pH	10.69 °C	164.45 µS/cm	11.69 mg/L	22.00 NTU	199.6 mV	29.48 ft	78.00 ml/min
4/25/2023 11:49 AM	10:00	8.71 pH	10.32 °C	142.78 µS/cm	5.92 mg/L	20.00 NTU	200.2 mV	29.49 ft	80.00 ml/min
4/25/2023 11:54 AM	15:00	8.85 pH	10.10 °C	143.67 µS/cm	3.41 mg/L	18.00 NTU	196.2 mV	29.50 ft	80.00 ml/min
4/25/2023 11:59 AM	20:00	8.83 pH	10.38 °C	142.68 µS/cm	2.50 mg/L	15.00 NTU	191.7 mV	29.50 ft	78.00 ml/min
4/25/2023 12:04 PM	25:00	8.77 pH	10.32 °C	141.59 µS/cm	2.03 mg/L	16.00 NTU	185.9 mV	29.50 ft	78.00 ml/min
4/25/2023 12:09 PM	30:00	8.72 pH	10.10 °C	141.28 µS/cm	1.73 mg/L	18.00 NTU	180.8 mV	29.51 ft	78.00 ml/min
4/25/2023 12:14 PM	35:00	8.70 pH	10.40 °C	141.55 µS/cm	1.50 mg/L	19.00 NTU	176.9 mV	29.51 ft	78.00 ml/min
4/25/2023 12:19 PM	40:00	8.68 pH	10.37 °C	141.35 µS/cm	1.32 mg/L	20.00 NTU	171.4 mV	29.51 ft	78.00 ml/min
4/25/2023 12:24 PM	45:00	8.67 pH	10.31 °C	141.20 µS/cm	1.19 mg/L	20.00 NTU	160.5 mV	29.52 ft	80.00 ml/min
4/25/2023 12:29 PM	50:00	8.68 pH	10.29 °C	140.95 µS/cm	1.08 mg/L	20.00 NTU	149.9 mV	29.51 ft	80.00 ml/min
4/25/2023 12:34 PM	55:00	8.68 pH	10.42 °C	141.08 µS/cm	1.03 mg/L	20.00 NTU	146.5 mV	29.51 ft	80.00 ml/min
4/25/2023 12:39 PM	01:00:00	8.67 pH	10.52 °C	141.09 µS/cm	0.95 mg/L	20.00 NTU	140.2 mV	29.51 ft	80.00 ml/min

Samples

Sample ID:	Description:
FIELD BLANK - DYRNESS	Time: 1245 Parameters: PFAS
TRY_MW-902B	Time: 1250-1255 Parameters: PFAS

Low-Flow Test Report:

Test Date / Time: 4/26/2023 1:29:07 PM
Project: TRY_MW-903S Troy Mills Landfill (2)
Operator Name: E. Dyrness

Location Name: TRY_MW-903S Well Diameter: 2 in Casing Type: PVC Screen Length: 5 ft Top of Screen: 10.2 ft Total Depth: 15.2 ft Initial Depth to Water: 5.95 ft	Pump Type: QED Sample Pro Tubing Type: Teflon Tubing Inner Diameter: 0.17 in Tubing Length: 14.7 ft Pump Intake From TOC: 12.7 ft Flow Cell Volume: 130 ml Final Flow Rate: 88 ml/min Final Draw Down: 0.21 ft	Instrument Used: Aqua TROLL 600 Serial Number: 959853
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Test Notes:
PRIOR TO SAMPLING:

Pump Information: QED Sample Pro 11715
MP-10 serial number: MP-10 3584
Turbidity meter model and serial number (or similar unique designation, i.e., last four digits): HACH 2100Q 77440
Solinst WL: R12280

PVR (including calculations): ((12.7ft + 2 ft) x 4.5 ml/ft) + 100 ml = 167 ml

Maximum allowable drawdown rate: 0.02 ft/5min

DURING/AFTER SAMPLING:

Pump start time: 1320

Parameters reached stabilization? Yes*
If no, list parameters: n/a * Turbidity did not stabilize, values are greater than 10% apart (EAF 4/28/23)
Total volume purged prior to sampling: 5L
Minimum PVR reached (compare purge amount to PVR)? Yes, 5L > 167 ml
2 Hour time limit reached? No

Modified sampling required? (Clock time when modified sampling begins): no
Condition that triggered Modified Sampling: n/a

Final pressure of bladder pump: 15 psi
Final refill rate: 50 seconds (EAF 4/28/23)
Final discharge rate: 10 seconds (EAF 4/28/23)

Any adjustments made (including flow rates, tubing, etc.): no

Notes (i.e. bubbles in tubing): significant iron floculate pumped from well for first 5 cycles, bypassed meter to protect probes.

Final water level: 6.16ft
Total actual volume purged (Don t enter estimated purge volume): 5.5L
Measured Well Depth, if required: n/a
Pump Off: 1435

Weather Conditions:
Mostly sunny, 40s-50s

Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth to Water	Flow
		+/- 0.1	+/- 1	+/- 3 %	+/- 10 %	+/- 10 %	+/- 10	+/- 0.02	
4/26/2023 1:29 PM	00:00	5.94 pH	9.38 °C	197.59 µS/cm	6.33 mg/L	338.00 NTU	137.5 mV	5.95 ft	86.00 ml/min
4/26/2023 1:35 PM	06:22	6.00 pH	7.60 °C	202.06 µS/cm	0.87 mg/L	112.00 NTU	118.3 mV	6.14 ft	86.00 ml/min
4/26/2023 1:40 PM	11:22	5.96 pH	7.40 °C	201.99 µS/cm	0.68 mg/L	71.00 NTU	118.1 mV	6.16 ft	88.00 ml/min
4/26/2023 1:45 PM	16:22	5.95 pH	7.24 °C	202.08 µS/cm	0.54 mg/L	62.00 NTU	116.8 mV	6.16 ft	88.00 ml/min
4/26/2023 1:50 PM	21:22	5.96 pH	7.21 °C	201.78 µS/cm	0.44 mg/L	38.00 NTU	114.9 mV	6.16 ft	88.00 ml/min
4/26/2023 1:55 PM	26:22	5.98 pH	7.15 °C	201.55 µS/cm	0.38 mg/L	29.00 NTU	113.3 mV	6.16 ft	88.00 ml/min
4/26/2023 2:00 PM	31:22	5.99 pH	7.04 °C	201.84 µS/cm	0.33 mg/L	33.00 NTU	110.9 mV	6.16 ft	88.00 ml/min
4/26/2023 2:05 PM	36:22	6.00 pH	7.00 °C	203.12 µS/cm	0.30 mg/L	22.00 NTU	109.3 mV	6.16 ft	88.00 ml/min
4/26/2023 2:10 PM	41:22	6.01 pH	7.00 °C	201.55 µS/cm	0.25 mg/L	17.00 NTU	108.2 mV	6.16 ft	88.00 ml/min
4/26/2023 2:15 PM	46:22	6.02 pH	6.93 °C	202.89 µS/cm	0.20 mg/L	15.00 NTU	106.8 mV	6.16 ft	88.00 ml/min
4/26/2023 2:20 PM	51:22	6.03 pH	6.96 °C	200.87 µS/cm	0.18 mg/L	16.00 NTU	105.8 mV	6.16 ft	88.00 ml/min

* Turbidity did not stabilize, values are greater than 10% apart (EAF 4/28/23)

Samples

Sample ID:	Description:
TRY_MW-903S	Time: 1425-1435 Parameters: PFAS
TRY_MW-903S DUP	Time: 1425-1435 Parameters: PFAS
EQUIP BLANK	Time: 1530 Parameters: PFAS Water Level Meter (EAF 4/28/23)
EQUIP BLANK	Time: 1600 Parameters: PFAS QED Sample Pro (EAF 4/28/23)

Low-Flow Test Report:

Test Date / Time: 4/26/2023 10:40:15 AM
Project: TRY_MW-903B Troy Mills Landfill (2)
Operator Name: E. Dyrness

Location Name: TRY_MW-903B Well Diameter: 2 in Casing Type: PVC Screen Length: 10 ft Top of Screen: 60 ft 62.7 ft (EAF 4/28/23) Total Depth: 71 ft 72.7 ft (EAF 4/28/23) Initial Depth to Water: 2.6 ft	Pump Type: QED Sample Pro Tubing Type: Teflon Tubing Inner Diameter: 0.17 in Tubing Length: 69.7 ft Pump Intake From TOC: 67.7 ft Flow Cell Volume: 130 ml Final Flow Rate: 52 ml/min Final Draw Down: 4.15 ft	Instrument Used: Aqua TROLL 600 Serial Number: 959853
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Test Notes:
PRIOR TO SAMPLING:

Pump Information: QED Sample Pro 50191
MP-10 serial number: MP-10 3584
Turbidity meter model and serial number (or similar unique designation, i.e., last four digits): HACH 2100Q 77440
Solinst WL: R12280

PVR (including calculations): $((67.7 \text{ ft} + 3 \text{ ft}) \times 4.5 \text{ ml/ft}) + 100 \text{ ml} = 419 \text{ ml}$

Maximum allowable drawdown rate: 0.02 ft/5min

DURING/AFTER SAMPLING:

Pump start time: 1030

Parameters reached stabilization? No
If no, list parameters: WL/drawdown, **Turbidity (MEM 4/28/23)**
Total volume purged prior to sampling: 5.5 L
Minimum PVR reached (compare purge amount to PVR)? Yes, 5.5L > 419 ml
2 Hour time limit reached? Yes

Modified sampling required? (Clock time when modified sampling begins): no
Condition that triggered Modified Sampling: n/a

Final pressure of bladder pump: 35psi
Final refill rate: 50
Final discharge rate: 10

Any adjustments made (including flow rates, tubing, etc.): flow reduced to compensate for drawdown rate.

Notes (i.e. bubbles in tubing): no

Final water level: 6.90ft
Total actual volume purged (Don t enter estimated purge volume): 6L
Measured Well Depth, if required: n/a
Pump Off: 1255

Weather Conditions:
Mostly sunny, 40s

Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth to Water	Flow
		+/- 0.1	+/- 1	+/- 3 %	+/- 10 %	+/- 10 %	+/- 10	+/- 0.2 0.06 (EAF 4/28/23)	
4/26/2023 10:40 AM	00:00	8.39 pH	12.16 °C	153.92 µS/cm	7.14 mg/L	16.00 NTU	186.0 mV	3.28 ft	52.00 ml/min
4/26/2023 10:45 AM	05:00	8.50 pH	9.80 °C	143.96 µS/cm	5.82 mg/L	29.00 NTU	185.7 mV	3.58 ft	52.00 ml/min
4/26/2023 10:50 AM	10:00	8.57 pH	8.52 °C	141.43 µS/cm	4.94 mg/L	31.00 NTU	189.7 mV	3.96 ft	56.00 ml/min
4/26/2023 10:55 AM	15:00	8.61 pH	8.34 °C	141.30 µS/cm	3.23 mg/L	25.00 NTU	190.2 mV	4.22 ft	54.00 ml/min
4/26/2023 11:00 AM	20:00	8.62 pH	8.48 °C	141.47 µS/cm	2.35 mg/L	21.00 NTU	188.1 mV	4.53 ft	52.00 ml/min
4/26/2023 11:05 AM	25:00	8.62 pH	8.63 °C	141.91 µS/cm	2.08 mg/L	23.00 NTU	186.9 mV	4.73 ft	52.00 ml/min
4/26/2023 11:10 AM	30:00	8.63 pH	8.78 °C	141.49 µS/cm	1.82 mg/L	23.00 NTU	183.0 mV	5.01 ft	52.00 ml/min
4/26/2023 11:15 AM	35:00	8.63 pH	8.89 °C	141.64 µS/cm	1.60 mg/L	26.00 NTU	180.7 mV	5.21 ft	52.00 ml/min
4/26/2023 11:20 AM	40:00	8.63 pH	8.66 °C	140.62 µS/cm	1.43 mg/L	33.00 NTU	182.4 mV	5.42 ft	52.00 ml/min
4/26/2023 11:25 AM	45:00	8.61 pH	8.94 °C	140.26 µS/cm	1.33 mg/L	33.00 NTU	183.1 mV	5.57 ft	52.00 ml/min
4/26/2023 11:30 AM	50:00	8.59 pH	9.21 °C	139.69 µS/cm	1.24 mg/L	34.00 NTU	183.1 mV	5.66 ft	52.00 ml/min
4/26/2023 11:35 AM	55:00	8.55 pH	9.18 °C	139.10 µS/cm	1.17 mg/L	36.00 NTU	184.1 mV	5.76 ft	52.00 ml/min
4/26/2023 11:40 AM	01:00:00	8.52 pH	9.14 °C	138.57 µS/cm	1.08 mg/L	37.00 NTU	183.4 mV	5.98 ft	52.00 ml/min
4/26/2023 11:45 AM	01:05:00	8.49 pH	9.53 °C	138.22 µS/cm	1.06 mg/L	38.00 NTU	183.2 mV	6.06 ft	52.00 ml/min
4/26/2023 11:50 AM	01:10:00	8.46 pH	9.70 °C	137.87 µS/cm	1.00 mg/L	39.00 NTU	182.1 mV	6.15 ft	50.00 ml/min
4/26/2023 11:55 AM	01:15:00	8.43 pH	10.07 °C	137.70 µS/cm	0.99 mg/L	39.00 NTU	181.1 mV	6.19 ft	50.00 ml/min
4/26/2023 12:00 PM	01:20:00	8.42 pH	10.00 °C	137.26 µS/cm	0.93 mg/L	37.00 NTU	178.1 mV	6.28 ft	50.00 ml/min
4/26/2023 12:05 PM	01:25:00	8.40 pH	10.03 °C	136.79 µS/cm	0.91 mg/L	36.00 NTU	176.5 mV	6.33 ft	52.00 ml/min
4/26/2023 12:10 PM	01:30:00	8.37 pH	9.97 °C	136.76 µS/cm	0.89 mg/L	35.00 NTU	174.0 mV	6.38 ft	52.00 ml/min
4/26/2023 12:15 PM	01:35:00	8.36 pH	10.00 °C	136.68 µS/cm	0.85 mg/L	36.00 NTU	171.0 mV	6.47 ft	52.00 ml/min
4/26/2023 12:20 PM	01:40:00	8.34 pH	9.98 °C	136.07 µS/cm	0.78 mg/L	37.00 NTU	167.3 mV	6.57 ft	52.00 ml/min

4/26/2023 12:25 PM	01:45:00	8.33 pH	10.03 °C	136.01 µS/cm	0.76 mg/L	36.00 NTU	163.2 mV	6.60 ft	52.00 ml/min
4/26/2023 12:30 PM	01:50:00	8.32 pH	10.08 °C	135.76 µS/cm	0.73 mg/L	37.00 NTU	158.7 mV	6.66 ft	52.00 ml/min
4/26/2023 12:35 PM	01:55:00	8.30 pH	10.61 °C	135.76 µS/cm	0.74 mg/L	35.00 NTU	154.5 mV	6.71 ft	52.00 ml/min
4/26/2023 12:40 PM	02:00:00	8.31 pH	10.31 °C	135.59 µS/cm	0.73 mg/L	33.00 NTU	150.3 mV	6.75 ft	52.00 ml/min

Samples

Sample ID:	Description:
TRY_MW-903B	Time: 1240-1255 Parameters: PFAS



Vendor Equipment Certifications

INSTRUMENT QC/ PACKING LIST

Description	In-Situ Aqua TROLL 600
Instrument ID	R 42111
Tablet ID	N/A
Date Calibrated	4-18-23



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Standard Items	Prepared	QC check	Received by customer	Returned to Pine
Aqua TROLL sonde and carry case	✓	✓		
(2) D alkaline cells installed	✓	✓		
Field cable _____	X	X		
Flow cell	✓	✓		
(2 each) Flow cell barbs 3/8", 1/4"	✓	✓		
Flow cell stand plate and screw	✓	✓		
Flow Cell ground spike	✓	✓		
Sensor guard	✓	✓		
Calibration cup w/ sponge, vented cap	✓	✓		
(2) spare D alkaline cells	✓	✓		
AquaTROLL probe accessory kit, includes:	✓	✓		
• O-ring grease				
• 0.050" 1.3mm Allen wrench				
• wiper brush and (2) wiper screws				
• Lens cloth (lens papers)				
• Small Phillips head screwdriver				
• Small flathead screwdriver				
• pH reference solution				
In-Situ software and manual on USB drive	✓	✓		
ProCal calibration report	✓	✓		
Tablet and accessories				
Android Tablet	X	X		
Tablet charger and cord	X	X		
Micro SD card, 8 GB	✓	✓		
Supporting Items				
In-Situ Quick Cal solution	✓	✓		
Calibration kit, pH (4, 7, 10), conductivity, & DO, 125 NTU (polystyrene bead), and ORP.	✓	✓		
Pine Water I Software				

Prepared by:

JR

QC checked by:

JTT

Date:

4-19-23

This packing list is to ensure that every item needed to operate the unit was sent and received. Upon receiving a shipment, please fill out the "Received by customer" column. Call Pine within 24 hours of receiving the equipment if any pieces are missing, damaged, or malfunctioning. Thank you for choosing Pine Environmental Services LLC.

Calibration Report

Instrument Aqua TROLL 600
Serial Number 959853
Created 4/18/2023

Sensor Conductivity

Serial Number 1020524
Last Calibrated 4/18/2023

Calibration Details

TDS Conversion Factor (ppm) 0.65
Cell Constant 0.979
Reference Temperature 25.00 °C

Pre Measurement

Actual Conductivity 1,319.0 µS/cm
Specific Conductivity 1,406.1 µS/cm

Post Measurement

Actual Conductivity 1,325.5 µS/cm
Specific Conductivity 1,413.0 µS/cm

Sensor RDO

Serial Number 1002663
Last Calibrated 4/18/2023

Calibration Details

Slope 1.114075
Offset -0.01 mg/L

Calibration point 100%

Concentration 7.74 mg/L
Pre Measurement 99.86 %Sat
Post Measurement 100.00 %Sat
Temperature 22.20 °C
Barometric Pressure 1,002.0 mbar

Calibration point 0%

Concentration 0.01 mg/L
Pre Measurement 0.19 %Sat
Post Measurement 0.00 %Sat
Temperature 21.90 °C

Sensor	pH/ORP
Serial Number	996836
Last Calibrated	4/18/2023

Calibration Details

Calibration Point 1

pH of Buffer	4.00 pH
pH mV	168.4 mV
Temperature	21.70 °C

Pre Measurement

pH	4.07 pH
pH mV	168.3 mV

Post Measurement

pH	4.00 pH
pH mV	166.5 mV

Calibration Point 2

pH of Buffer	7.02 pH
pH mV	1.8 mV
Temperature	21.66 °C

Pre Measurement

pH	7.05 pH
pH mV	1.7 mV

Post Measurement

pH	7.02 pH
pH mV	1.8 mV

Calibration Point 3

pH of Buffer	10.04 pH
pH mV	-170.9 mV
Temperature	21.62 °C

Pre Measurement

pH	10.04 pH
pH mV	-170.8 mV

Post Measurement

pH	10.04 pH
pH mV	-168.9 mV

Slope and Offset 1

Slope	-55.17 mV/pH
Offset	2.9 mV

Slope and Offset 2

Slope	-57.17 mV/pH
Offset	2.9 mV

ORP

ORP Solution	ZoBell's
Offset	-0.1 mV
Temperature	21.77 °C
Pre Measurement	238.8 mV
Post Measurement	233.3 mV

Sensor	Barometric Pressure
--------	----------------------------

Serial Number	959853
---------------	--------

Last Calibrated	Factory Defaults
-----------------	------------------

Calibrated Therm 19.50
UNIT 19.70

Calibration Certificate

TMDE Calibration Labs, Inc.
PO Box 8, 839 River Road
Richmond ME 04357
207-737-4493

R 42111
SN# 959853



Accreditation #: 75090
Certificate #: L22-110

Job #		Customer		Asset #	
36519		Pine Environmental			
Customer Address		29 Washington Ave., Unit A Scarborough, ME 04074			
Make	Model	Description		Serial #	
Thermoworks	222-555	Thermometer		D16110472	
Procedure		Temperature		Humidity	
MFG		70.0 °F		40.0%	
If testing is done at customer's facility, temperature and humidity are not controlled by TMDE Calibration Labs, Inc.					
Calibration Date		Calibration Due		Calibration Interval	
03/20/23		03/31/24		12 Months	
As Found Condition		As Left Condition		Adjustment	Technician
In tolerance		In tolerance		None	KWB
Location of Work Performed				Remarks	
839 River Road, Richmond ME 04357					
TMDE certifies that all calibration instrumentation used in these tests are traceable through N.I.S.T. to international SI units. Tests were performed in accordance with ANSI/NCSL Z450-1. If requested, the reported expanded uncertainty is based on a standard uncertainty multiplied by a coverage factor of approximately k = 2, providing a level of confidence of approximately 95%. The uncertainties relate only to the measured values and do not carry any implication regarding the long-term stability of the instrument.					
Standards Used					
Standard Serial #	Standard MFG	Standard Model	Standard Description	Std Due Date	
TMDE-127	East Tester	ET2501-150A	Dry Block Calibrator	02/28/24	
This report may not be reproduced, except in full, unless permission for publication of an approved abstract is obtained in writing from TMDE. Calibration certificates without signatures are invalid.					
Approved By:				Date:	3/20/2023
Name & Title:	Allen W. Tripp Sr. Technical/Quality Manager				

TMDE Calibration Labs, Inc.

Calibration Measurement Data Sheet

Serial #: D16110472

Certificate Number: 36519

#	Function	Range	Standard	As Found	As Left	Min	Max	Tolerance
1	Temperature	0-5C	0.0 C	-0.30	-0.30	-2.0	2.0	+/-2.0 C
		40-45C	50.0 C	49.84	49.84	48.0	52.0	+/-2.0 C
		100-110C	100.0 C	99.23	99.23	98.0	102.0	+/-2.0 C

INSTRUMENT QC/ PACKING LIST

Description	In-Situ Aqua TROLL 600
Instrument ID	R 43547
Tablet ID	
Date Calibrated	4-18-2023



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Standard Items	Prepared	QC check	Received by customer	Returned to Pine
Aqua TROLL sonde and carry case	✓	✓		
(2) D alkaline cells installed	✓	✓		
Field cable _____	X	X		
Flow cell	✓	✓		
(2 each) Flow cell barbs 3/8", 1/4"	✓	✓		
Flow cell stand plate and screw	✓	✓		
Flow Cell ground spike	✓	✓		
Sensor guard	✓	✓		
Calibration cup w/ sponge, vented cap	✓	✓		
(2) spare D alkaline cells	✓	✓		
AquaTROLL probe accessory kit, includes:	✓	✓		
• O-ring grease				
• 0.050" 1.3mm Allen wrench				
• wiper brush and (2) wiper screws				
• Lens cloth (lens papers)				
• Small Phillips head screwdriver				
• Small flathead screwdriver				
• pH reference solution				
In-Situ software and manual on USB drive	✓	✓		
ProCal calibration report				
Tablet and accessories				
Android Tablet	X	X		
Tablet charger and cord	X	X		
Micro SD card, 8 GB	✓	✓		
Supporting Items				
In-Situ Quick Cal solution	✓	✓		
Calibration kit, pH (4, 7, 10), conductivity, DO, ORP, 125 NTU (polystyrene bead), and ORP.	✓	✓		
Pine WATER4 SOFTWARE				

Prepared by:

JR

QC checked by:

JTT

Date:

4-20-23

This packing list is to ensure that every item needed to operate the unit was sent and received. Upon receiving a shipment, please fill out the "Received by customer" column. Call Pine within 24 hours of receiving the equipment if any pieces are missing, damaged, or malfunctioning. Thank you for choosing Pine Environmental Services LLC.

Calibration Report

Instrument Aqua TROLL 600
Serial Number 959853
Created 4/18/2023

Sensor Conductivity

Serial Number 1020524
Last Calibrated 4/18/2023

Calibration Details

TDS Conversion Factor (ppm) 0.65
Cell Constant 0.979
Reference Temperature 25.00 °C

Pre Measurement

Actual Conductivity 1,319.0 µS/cm
Specific Conductivity 1,406.1 µS/cm

Post Measurement

Actual Conductivity 1,325.5 µS/cm
Specific Conductivity 1,413.0 µS/cm

Sensor RDO

Serial Number 1002663
Last Calibrated 4/18/2023

Calibration Details

Slope 1.114075
Offset -0.01 mg/L

Calibration point 100%

Concentration 7.74 mg/L
Pre Measurement 99.86 %Sat
Post Measurement 100.00 %Sat
Temperature 22.20 °C
Barometric Pressure 1,002.0 mbar

Calibration point 0%

Concentration 0.01 mg/L
Pre Measurement 0.19 %Sat
Post Measurement 0.00 %Sat
Temperature 21.90 °C

Sensor	pH/ORP
Serial Number	996836
Last Calibrated	4/18/2023

Calibration Details

Calibration Point 1

pH of Buffer	4.00 pH
pH mV	168.4 mV
Temperature	21.70 °C

Pre Measurement

pH	4.07 pH
pH mV	168.3 mV

Post Measurement

pH	4.00 pH
pH mV	166.5 mV

Calibration Point 2

pH of Buffer	7.02 pH
pH mV	1.8 mV
Temperature	21.66 °C

Pre Measurement

pH	7.05 pH
pH mV	1.7 mV

Post Measurement

pH	7.02 pH
pH mV	1.8 mV

Calibration Point 3

pH of Buffer	10.04 pH
pH mV	-170.9 mV
Temperature	21.62 °C

Pre Measurement

pH	10.04 pH
pH mV	-170.8 mV

Post Measurement

pH	10.04 pH
pH mV	-168.9 mV

Slope and Offset 1

Slope	-55.17 mV/pH
Offset	2.9 mV

Slope and Offset 2

Slope	-57.17 mV/pH
Offset	2.9 mV

ORP

2

ORP Solution	ZoBell's
Offset	-0.1 mV
Temperature	21.77 °C
Pre Measurement	238.8 mV
Post Measurement	233.3 mV

Sensor	Barometric Pressure
--------	----------------------------

Serial Number	959853
Last Calibrated	Factory Defaults

Calibrated Therm 19.79
Unit 19.99

R43547
Ser# 1023340

2

Calibration Certificate

TMDE Calibration Labs, Inc.
PO Box 8, 839 River Road
Richmond ME 04357
207-737-4493



Accreditation #: 75090
Certificate #: L22-110

Job #		Customer		Asset #	
36519		Pine Environmental			
Customer Address		29 Washington Ave., Unit A Scarborough, ME 04074			
Make	Model	Description		Serial #	
Thermoworks	222-555	Thermometer		D16110472	
Procedure		Temperature		Humidity	
MFG		70.0 °F		40.0%	
If testing is done at customer's facility, temperature and humidity are not controlled by TMDE Calibration Labs, Inc.					
Calibration Date		Calibration Due		Calibration Interval	
03/20/23		03/31/24		12 Months	
As Found Condition		As Left Condition		Adjustment	Technician
In tolerance		In tolerance		None	KWB
Location of Work Performed				Remarks	
839 River Road, Richmond ME 04357					
TMDE certifies that all calibration instrumentation used in these tests are traceable through N.I.S.T. to international SI units. Tests were performed in accordance with ANSI/NCSL Z450-1. If requested, the reported expanded uncertainty is based on a standard uncertainty multiplied by a coverage factor of approximately k = 2, providing a level of confidence of approximately 95%. The uncertainties relate only to the measured values and do not carry any implication regarding the long-term stability of the instrument.					
Standards Used					
Standard Serial #	Standard MFG	Standard Model	Standard Description	Std Due Date	
TMDE-127	East Tester	ET2501-150A	Dry Block Calibrator	02/28/24	
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Approved By:				Date:	3/20/2023
Name & Title:	Allen W. Tripp Sr. Technical/Quality Manager				

TMDE Calibration Labs, Inc.

Calibration Measurement Data Sheet

Serial #: D16110472

Certificate Number: 36519

#	Function	Range	Standard	As Found	As Left	Min	Max	Tolerance
1	Temperature	0-5C	0.0 C	-0.30	-0.30	-2.0	2.0	+/-2.0 C
		40-45C	50.0 C	49.84	49.84	48.0	52.0	+/-2.0 C
		100-110C	100.0 C	99.23	99.23	98.0	102.0	+/-2.0 C

BU

INSTRUMENT QC/ PACKING LIST

Description	In-Situ Aqua TROLL 600
Instrument ID	R 43550
Tablet ID	N/A
Date Calibrated	4-20-2023



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Standard Items	Prepared	QC check	Received by customer	Returned to Pine
Aqua TROLL sonde and carry case	✓	✓	_____	_____
(2) D alkaline cells installed	✓	✓	_____	_____
Field cable _____	✗	✗	_____	_____
Flow cell	✓	✓	_____	_____
(2 each) Flow cell barbs 3/8", 1/4"	✓	✓	_____	_____
Flow cell stand plate and screw	✓	✓	_____	_____
Flow Cell ground spike	✓	✓	_____	_____
Sensor guard	✓	✓	_____	_____
Calibration cup w/ sponge, vented cap	✓	✓	_____	_____
(2) spare D alkaline cells	✓	✓	_____	_____
AquaTROLL probe accessory kit, includes:	✓	✓	_____	_____
- O-ring grease 0.050"/ 1.3mm Allen wrench - wiper brush and (2) wiper screws - Lens cloth (lens papers) - Small Phillips head screwdriver - Small flathead screwdriver - pH reference solution	✓	✓	_____	_____
In-Situ software and manual on USB drive	✓	✓	_____	_____
ProCal calibration report	_____	_____	_____	_____
Tablet and accessories				
Android Tablet	✗	✗	_____	_____
Tablet charger and cord	✗	✗	_____	_____
Micro SD card, 8 GB	✓	✓	_____	_____
Supporting Items				
In-Situ Quick Cal solution	✓	✓	_____	_____
Calibration kit, pH (4, 7, 10), conductivity, DO, 126 NTU (polystyrene bead), and ORP.	✓	✓	_____	_____
Pine WATER I SOFTWARE	✓	✓	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____

Prepared by:

QC checked by:

Date:

JR
JIT
4-20-23

This packing list is to ensure that every item needed to operate the unit was sent and received. Upon receiving a shipment, please fill out the "Received by customer" column. Call Pine within 24 hours of receiving the equipment if any pieces are missing, damaged, or malfunctioning. Thank you for choosing Pine Environmental Services LLC.

Sensor	pH/ORP
Serial Number	997064
Last Calibrated	4/20/2023

Calibration DetailsCalibration Point 1

pH of Buffer	4.00 pH
pH mV	160.8 mV
Temperature	21.77 °C

Pre Measurement

pH	4.18 pH
pH mV	160.7 mV

Post Measurement

pH	4.00 pH
pH mV	159.1 mV

Calibration Point 2

pH of Buffer	7.02 pH
pH mV	-1.8 mV
Temperature	21.75 °C

Pre Measurement

pH	7.13 pH
pH mV	-1.9 mV

Post Measurement

pH	7.02 pH
pH mV	-1.8 mV

Calibration Point 3

pH of Buffer	10.04 pH
pH mV	-170.9 mV
Temperature	21.83 °C

Pre Measurement

pH	10.03 pH
pH mV	-170.8 mV

Post Measurement

pH	10.04 pH
pH mV	-169.1 mV

Slope and Offset 1

Slope	-53.84 mV/pH
Offset	-0.7 mV

Slope and Offset 2

Slope	-55.99 mV/pH
Offset	-0.7 mV

ORP

Calibration Report

Instrument Aqua TROLL 600
Serial Number 1023326
Created 4/20/2023

Sensor Conductivity

Serial Number 1001619
Last Calibrated 4/20/2023

Calibration Details

TDS Conversion Factor (ppm) 0.65
Cell Constant 0.919
Reference Temperature 25.00 °C

Pre Measurement

Actual Conductivity 1,343.7 µS/cm
Specific Conductivity 1,434.2 µS/cm

Post Measurement

Actual Conductivity 1,323.9 µS/cm
Specific Conductivity 1,413.0 µS/cm

Sensor RDO

Serial Number 1014359
Last Calibrated 4/20/2023

Calibration Details

Slope 1.125176
Offset -0.04 mg/L

Calibration point 100%

Concentration 7.83 mg/L
Pre Measurement 99.81 %Sat
Post Measurement 100.00 %Sat
Temperature 22.35 °C
Barometric Pressure 1,022.3 mbar

Calibration point 0%

Concentration 0.04 mg/L
Pre Measurement 0.56 %Sat
Post Measurement 0.00 %Sat
Temperature 22.15 °C

ORP Solution	ORP Standard
Offset	5.8 mV
Temperature	21.74 °C
Pre Measurement	240.8 mV
Post Measurement	240.0 mV

Sensor	Barometric Pressure
--------	----------------------------

Serial Number	1023326
---------------	---------

Last Calibrated	Factory Defaults
-----------------	------------------

Calibrated Therm 19.32

UNIT 19.49

R43550

BU

Calibration Certificate

TMDE Calibration Labs, Inc.

PO Box 8, 839 River Road

Richmond ME 04357

207-737-4493

SN# 1023326



Accreditation #: 75090

Certificate #: L22-110

Job #		Customer		Asset #	
36519		Pine Environmental			
Customer Address		29 Washington Ave., Unit A Scarborough, ME 04074			
Make	Model	Description		Serial #	
Thermoworks	222-555	Thermometer		D16110472	
Procedure		Temperature		Humidity	
MFG		70.0 °F		40.0%	
If testing is done at customer's facility, temperature and humidity are not controlled by TMDE Calibration Labs, Inc.					
Calibration Date		Calibration Due		Calibration Interval	
03/20/23		03/31/24		12 Months	
As Found Condition		As Left Condition		Adjustment	Technician
In tolerance		In tolerance		None	KWB
Location of Work Performed				Remarks	
839 River Road, Richmond ME 04357					
TMDE certifies that all calibration instrumentation used in these tests are traceable through N.I.S.T. to international SI units. Tests were performed in accordance with ANSI/NCSL 2450-1. If requested, the reported expanded uncertainty is based on a standard uncertainty multiplied by a coverage factor of approximately k = 2, providing a level of confidence of approximately 95%. The uncertainties relate only to the measured values and do not carry any implication regarding the long-term stability of the instrument.					
Standards Used					
Standard Serial #	Standard MFG	Standard Model	Standard Description	Std Due Date	
TMDE-127	East Tester	ET2501-150A	Dry Block Calibrator	02/28/24	
This report may not be reproduced, except in full, unless permission for publication of an approved abstract is obtained in writing from TMDE. Calibration certificates without signatures are invalid.					
Approved By:				Date:	3/20/2023
Name & Title:	Allen W. Tripp Sr. Technical/Quality Manager				

TMDE Calibration Labs, Inc.

Calibration Measurement Data Sheet

Serial #: D16110472

Certificate Number: 36519

#	Function	Range	Standard	As Found	As Left	Min	Max	Tolerance
1	Temperature	0-5C	0.0 C	-0.30	-0.30	-2.0	2.0	+/-2.0 C
		40-45C	50.0 C	49.84	49.84	48.0	52.0	+/-2.0 C
		100-110C	100.0 C	99.23	99.23	98.0	102.0	+/-2.0 C

INSTRUMENT QC/ PACKING LIST

Description	Hach 2100Q Turbidimeter
Instrument ID	42932
Date Calibrated	17 APR 23



Standard Items

Prepared

QC check

Received by customer

Returned to Pine

Hach 2100Q w/ hard case

Manual

Quick reference card

Lint-free lens papers (KimWipes)

10 NTU vial, expiration date 4-24

20 NTU vial, expiration date 4-24

100 NTU vial, expiration date 4-24

800 NTU vial, expiration date 4-24

Silicone Oil

(2) sample vials

(4) Extra AA batteries

ProCal calibration sheet

Optional Items

Extra sample vials

Additional Certifications

Prepared by:

QC checked by:

Date:

JIT

MJR

18 APR 23

This packing list is to ensure that every item needed to operate the unit was sent and received. Upon receiving a shipment, please fill out the "Received by customer" column. Call Pine within 24 hours of receiving the equipment if any pieces are missing, damaged, or malfunctioning. Thank you for choosing Pine Environmental Services LLC.

INSTRUMENT CALIBRATION REPORT



Pine Environmental Services LLC

29 Washington Avenue, Unit A
Scarborough, ME 04074
Toll-free: (888) 779-PINE (7463)

Pine Environmental Services, Inc.

Instrument ID 42932
Description HACH 2100Q Turbidimeter
Calibrated 4/17/2023 12:24:20PM

Manufacturer HACH
Model Number 2100Q
Serial Number/ Lot 19070C077440
Number
Location Maine
Department

State Certified NJ Cert#: 11034
Status Pass
Temp °C 21
Humidity % 39

Calibration Specifications

Group # 1
Group Name Turbidity
Stated Accy Pct of Reading

Range Acc % 0.0000
Reading Acc % 10.0000
Plus/Minus 0.00

<u>Nom In Val / In Val</u>	<u>In Type</u>	<u>Out Val</u>	<u>Out Type</u>	<u>Fnd As</u>	<u>Lft As</u>	<u>Dev%</u>	<u>Pass/Fail</u>
10.00 / 10.00	NTU	10.00	NTU	9.57	9.77	-2.30%	Pass
20.00 / 20.00	NTU	20.00	NTU	20.10	20.10	0.50%	Pass
100.00 / 100.00	NTU	100.00	NTU	101.00	99.30	-0.70%	Pass
800.00 / 800.00	NTU	800.00	NTU	801.00	786.00	-1.75%	Pass

Test Instruments Used During the Calibration

(As Of Cal Entry Date)

<u>Test Standard ID</u>	<u>Description</u>	<u>Manufacturer</u>	<u>Model Number</u>	<u>Serial Number / Lot Number</u>	<u>Last Cal Date / Opened Date</u>	<u>Next Cal Date / Expiration Date</u>
ME 2100Q HACH STANDARDS	10/20/100/800 NTU	HACH	16248	A2269		2/1/2024

Notes about this calibration

Calibration Result Calibration Successful
Who Calibrated J Tucker

All instruments are calibrated by Pine Environmental Services LLC according to the manufacturer's specifications, but it is the customer's responsibility to calibrate and maintain this unit in accordance with the manufacturer's specifications and/or the customer's own specific needs.

Notify Pine Environmental Services LLC of any defect within 24 hours of receipt of equipment
Please call 800-301-9663 for Technical Assistance

INSTRUMENT QC/ PACKING LIST

2

Description	Hach 2100Q Turbidimeter
Instrument ID	48627
Date Calibrated	17 APR 23



Standard Items	Prepared	QC check	Received by customer	Returned to Pine
Hach 2100Q w/ hard case	✓	✓	_____	_____
Manual	✓	✓	_____	_____
Quick reference card	✓	✓	_____	_____
Lint-free lens papers (KimWipes)	✓	✓	_____	_____
10 NTU vial, expiration date 7-23	✓	✓	_____	_____
20 NTU vial, expiration date 6-23	✓	✓	_____	_____
100 NTU vial, expiration date 5-23	✓	✓	_____	_____
800 NTU vial, expiration date 1-24	✓	✓	_____	_____
Silicone Oil	✓	✓	_____	_____
(2) sample vials	✓	✓	_____	_____
(4) Extra AA batteries	✓	✓	_____	_____
ProCal calibration sheet	✓	✓	_____	_____
Optional Items				
Extra sample vials _____	_____	_____	_____	_____
Additional Certifications _____	_____	_____	_____	_____

Prepared by: JTT
 QC checked by: LJR
 Date: 18 APR 23

This packing list is to ensure that every item needed to operate the unit was sent and received. Upon receiving a shipment, please fill out the "Received by customer" column. Call Pine within 24 hours of receiving the equipment if any pieces are missing, damaged, or malfunctioning. Thank you for choosing Pine Environmental Services LLC.



INSTRUMENT CALIBRATION REPORT

Pine Environmental Services LLC

29 Washington Avenue, Unit A
Scarborough, ME 04074
Toll-free: (888) 779-PINE (7463)

Pine Environmental Services, Inc.

Instrument ID 48627
Description HACH 2100Q Turbidity meter
Calibrated 4/17/2023 12:22:54PM

Manufacturer HACH
Model Number 2100Q
Serial Number/ Lot Number 20080D000211
Location Maine
Department

State Certified NJ Cert#: 11034
Status Pass
Temp °C 21
Humidity % 39

Calibration Specifications

Group # 1
Group Name Turbidity
Stated Accy Pct of Reading

Range Acc % 0.0000
Reading Acc % 10.0000
Plus/Minus 0.00

<u>Nom In Val / In Val</u>	<u>In Type</u>	<u>Out Val</u>	<u>Out Type</u>	<u>Fnd As</u>	<u>Lft As</u>	<u>Dev%</u>	<u>Pass/Fail</u>
10.00 / 10.00	NTU	10.00	NTU	9.80	9.85	-1.50%	Pass
20.00 / 20.00	NTU	20.00	NTU	21.80	20.00	0.00%	Pass
100.00 / 100.00	NTU	100.00	NTU	106.00	99.50	-0.50%	Pass
800.00 / 800.00	NTU	800.00	NTU	851.00	786.00	-1.75%	Pass

Test Instruments Used During the Calibration

(As Of Cal Entry Date)

<u>Test Standard ID</u>	<u>Description</u>	<u>Manufacturer</u>	<u>Model Number</u>	<u>Serial Number / Lot Number</u>	<u>Next Cal Date / Expiration Date</u>
ME 2100Q HACH STANDARDS	10/20/100/800 NTU	HACH	16248	A2269	<u>Last Cal Date/</u> <u>Opened Date</u> 2/1/2024

Notes about this calibration

Calibration Result Calibration Successful
Who Calibrated J Tucker

All instruments are calibrated by Pine Environmental Services LLC according to the manufacturer's specifications, but it is the customer's responsibility to calibrate and maintain this unit in accordance with the manufacturer's specifications and/or the customer's own specific needs.

Notify Pine Environmental Services LLC of any defect within 24 hours of receipt of equipment
Please call 800-301-9663 for Technical Assistance

INSTRUMENT QC/ PACKING LIST

BU

Description	Hach 2100Q Turbidimeter
Instrument ID	46464
Date Calibrated	4-21-23



www.pine-environmental.com

Standard Items

Prepared

QC check

Received by customer

Returned to Pine

Hach 2100Q w/ hard case

✓

✓

Manual

✓

✓

Quick reference card

✓

✓

Lint-free lens papers (KimWipes)

✓

✓

10 NTU vial, expiration date 7-23

✓

✓

20 NTU vial, expiration date 8-23

✓

✓

100 NTU vial, expiration date 8-23

✓

✓

800 NTU vial, expiration date 8-23

✓

✓

Silicone Oil

✓

✓

(2) sample vials

✓

✓

(4) Extra AA batteries

✓

✓

ProCal calibration sheet

✓

✓

Optional Items

Extra sample vials

Additional Certifications

Prepared by:

JTT

QC checked by:

MM

Date:

4/24/23

This packing list is to ensure that every item needed to operate the unit was sent and received. Upon receiving a shipment, please fill out the "Received by customer" column. Call Pine within 24 hours of receiving the equipment if any pieces are missing, damaged, or malfunctioning. Thank you for choosing Pine Environmental Services LLC.



INSTRUMENT CALIBRATION REPORT

Pine Environmental Services LLC

92 North Main St, Building 20

Windsor, NJ 08561

Toll-free: (800) 301-9663

Pine Environmental Services, Inc.

Instrument ID 46464
Description HACH 2100Q Turbidity meter
Calibrated 4/21/2023 9:15:46AM

Manufacturer HACH
Model Number 2100Q
Serial Number/ Lot Number 19010C073390
Location New Jersey
Department

State Certified
Status Pass
Temp °C 23.4
Humidity % 30

Calibration Specifications

Group # 1
Group Name Turbidity
Stated Accy Pct of Reading

Range Acc % 0.0000
Reading Acc % 10.0000
Plus/Minus 0.00

<u>Nom In Val / In Val</u>	<u>In Type</u>	<u>Out Val</u>	<u>Out Type</u>	<u>Fnd As</u>	<u>Lft As</u>	<u>Dev%</u>	<u>Pass/Fail</u>
10.00 / 10.00	NTU	10.00	NTU	9.48	9.48	-5.20%	Pass
20.00 / 20.00	NTU	20.00	NTU	18.60	20.50	2.50%	Pass
100.00 / 100.00	NTU	100.00	NTU	95.20	101.00	1.00%	Pass
800.00 / 800.00	NTU	800.00	NTU	752.00	776.00	-3.00%	Pass

Test Instruments Used During the Calibration

<u>Test Standard ID</u>	<u>Description</u>	<u>Manufacturer</u>	<u>Model Number</u>	<u>Serial Number / Lot Number</u>	<u>(As Of Cal Entry Date)</u>	
					<u>Last Cal Date/Opened Date</u>	<u>Next Cal Date / Expiration Date</u>
NJ HACH 10 NTU LOT: A2091	10 NTU STNDARD	HACH	10 NTU	A2091	7/29/2022	7/31/2023
NJ HACH 100 NTU LOT: A2130	100 NTU STANDARD	HACH	100 NTU	A2130	6/16/2022	8/31/2023
NJ HACH 20 NTU LOT: A2129	20 NTU STANDARD	HACH	20 NTU	A2129	6/16/2022	8/31/2023
NJ HACH 800 NTU LOT: A2123	800 NTU STANDARD	HACH	800 NTU	A2123	6/16/2022	8/31/2023

Notes about this calibration

Calibration Result Calibration Successful
Who Calibrated John O'Loughlin



Instrument Calibration Logs

Unit-1

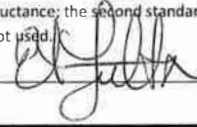
TROY MILLS LANDFILL INSTRUMENT CALIBRATION / MAINTENANCE LOG

Date: 4/24/23 Time: 0845	Field Personnel: Beth Fulton
Meter: (circle one) YSI: Model 600XL or 600XLM In-Situ: AquaTroll 600	Rental Company: Pine
Multimeter Serial Numbers (Sonde & Meter): 959853	
Probe Pre-cleaned Certification Provided By (Personnel): JR	Date: 4/18/23
Temperature Calibration: Personnel: JR	Date: 4/18/23
Manufacturer's Accuracy Range of Sensor: +/- 0.2°C	Vendor's check results Unit: 19.50 NIST: 19.70 Difference: 0.2
* When performing calibration checks, wait for temperature and parameter readings to stabilize before recording the results. *	

BEGINNING CALIBRATION CHECK

Date: 4/24/23 Time: 0950	Personnel: Beth Fulton						
Calibration Check	Value of Standard	Check Results	Acceptable Range	Within Range (yes/no)	Lot #	Expiration Date	Comments
Zero DO check (mg/l)	0	0.0	0 to 0.5 mg/L	Y	758229	7/23	
pH 7 check	7	7.03	+/- 5%	Y	6079	1/26	Range 6.65 - 7.35 pH
Specific Conductance (µS/cm) Second standard used for check	1413	1435	+/- 5%	Y	7776	5/27	Range 682 - 754 µS/cm (718) or Range 1342 - 1484 µS/cm (1413)
ORP check - Zobell (mV) Zobell Solution 21 °C	236	233	+/- 5%	Y	261027	6/23	See Chart on Page 2 for ORP Zobell Solution mV Value Based on Temperature
Turbidity Standard (NTU) 2100Q	10	9.97	+/- 10%	Y	A3012	4/24	Range 9.0 - 11.0 NTU (2100Q)

- Notes:
- 1) If the post calibration check is not within the acceptable range the meter must be recalibrated.
 - 2) All calibration checks must be made in the run mode (on a run/measurement screen) or on the live readings screen, not the calibration mode.
 - 3) If the lot numbers and expiration dates are the same as the initial calibration, place a check mark ✓ in the appropriate box.
 - 4) Either standard (718 or 1413 µS/cm) may be used to calibrate specific conductance; the second standard is used to check it.
 - 5) Record N/A (Not Applicable) in the boxes for the turbidity meter that was not used.

Calibration Check Performed by: Beth Fulton (Print)  (Sign)

END OF DAY INSTRUMENT CALIBRATION CHECK

Calibration Check	Value of Standard	Check Results	Acceptable Range	Within Range (yes/no)	Lot #	Expiration Date	Comments
Date: Time: Personnel:							
Zero DO check (mg/l)	0		0 to 0.5 mg/L				
pH 7 check	7		+/- 5%				Range 6.65 - 7.35 pH
Specific Conductance (µS/cm) Second standard used for check			+/- 5%				Range 682 - 754 µS/cm (718) or Range 1342 - 1484 µS/cm (1413)
ORP check - Zobell (mV) Zobell Solution °C			+/- 5%				See Chart on Page 2 for ORP Zobell Solution mV Value Based on Temperature
Turbidity Standard (NTU) 2100Q ⁵	10		+/- 10%				Range 9.0 - 11.0 NTU (2100Q)

- Notes:
- 1) If the end of the day calibration check is not within the acceptable range, the data collected that day for that parameter shall be qualified in it's use.
 - 2) All calibration checks must be made in the run mode (on a run/measurement screen), not the calibration mode.
 - 3) If the lot numbers and expiration dates are the same as the initial calibration, place a check mark ✓ in the appropriate box.
 - 4) Either standard (718 or 1413 µS/cm) may be used to calibrate specific conductance; the second standard is used to check it.
 - 5) Record N/A (Not Applicable) in the boxes for the turbidity meter that was not used.

Calibration Check Performed by: NA (Print) NA (Sign)

List wells sampled using this equipment on this day ONLY IF DATA NEEDS TO BE QUALIFIED.

NA
↓

NA
↓

Unit-1

INSTRUMENT CALIBRATION

Date: 4/14/23 Time: 0845

Multimeter Calibration	Value of Standard	Check as Completed	Lot #	Expiration Date	Comments
DO (% saturation)	100%	✓			Allow time for stabilization per manufacturer
DO mg/l reading	0.0	✓			Record these values immediately after calibration
DO Temp. (°C) reading	19	✓			Recorded 0% DO readings
DO (0% Saturation)-AquaTROLL	0%	✓	753229	7/23	2 point DO Calibration for AquaTROLL only (100 & 0%)
pH 1st Standard	4	✓	7726501	5/25	BAF 4/24/23
2nd Standard	7	✓	6079	1/26	
3rd Standard	10	✓	6333	4/23	
Specific Conductance (µS/cm)	718	✓	3631074	2/24	One standard is used to calibrate, second one to check (1415 and 718 standards) Using one standard for both is unacceptable.
Zobell Solution 20 °C		✓			See Chart below for ORP Zobell Solution mV Value Based on Temperature
ORP using Zobell Solution	238	✓	2611207	6/23	

Additional Information for Dissolved Oxygen Calibration

Barometric Pressure of Meter: 751.6 mm Hg [BP inches NA x 25.4 + BP NA mm Hg]

Dissolved Oxygen Charge (YSI Meters): NA (Acceptable Range: 25 to 75) You MUST change the membrane if charge is out of range.

Inspected DO membrane/RDO CAP for nicks or bubbles (check as completed) ✓ Personnel: JB Fulton
BAF 4/24/23

Changed YSI Dissolved Oxygen Membrane and Electrolyte Solution (circle one) YES / NO / (NA)

Replaced SmartTROLL Rugged Dissolved Oxygen CAP (circle one) YES / NO (NA)

HACH 2100Q *	Value of Standard	Check as Completed	Lot #	Expiration Date	Comments
Turbidimeter Calibration					
Turbidity 1st Standard	20 NTU	✓	A3017	8/24	
2nd Standard	100 NTU	✓	A3020	4/24	
3rd Standard	800 NTU	✓	A3010	4/24	

HACH Model 2100Q Serial Number: 4293

Rental Company: Pine

Calibration Performed by

Beth Fulton

Print Name

Signature

Zobell Solution mV Value Based on Temperature for ORP Calibration

Calibration Check Range Values (+/- 5%)
Round off temperature to whole number (e.g., 23.5 °C rounds up to 24 °C)

Temp. °C	ORP Zobell Solution mV Value	Calibration Check Range Values +/- 5%	Temp. °C	ORP Zobell Solution mV Value	Calibration Check Range Values +/- 5%	Temp. °C	ORP Zobell Solution mV Value	Calibration Check Range Values +/- 5%
-3	267	254-280	10	251	238-264	23	234	222-246
-2	266	253-279	11	249	237-261	24	232	220-244
-1	265	252-278	12	248	236-260	25	231	219-243
0	264	251-277	13	247	235-259	26	230	219-242
1	262	249-275	14	245	233-257	27	228	217-239
2	261	248-274	15	244	232-256	28	227	216-238
3	260	247-273	16	243	231-255	29	226	215-237
4	258	245-271	17	241	229-253	30	225	214-236
5	257	244-270	18	240	228-252	31	223	212-234
6	256	243-269	19	239	227-251	32	222	211-233
7	254	241-267	20	238	226-250	33	221	210-232
8	253	240-266	21	236	224-248	34	219	208-230
9	252	239-265	22	235	223-247	35	218	207-229

TROY MILLS LANDFILL INSTRUMENT CALIBRATION / MAINTENANCE LOG

Date: 4/14/23 Time: 0900	Field Personnel: Beth Fulton
Meter: (circle one) YSI: Model 600XL or 600XLM In-Situ AquaTroll 600	Rental Company: Pree
Multimeter Serial Numbers (Sonde & Meter): 1023340	
Probe Pre-cleaned Certification Provided By (Personnel): JR	Date: 4/18/23
Temperature Calibration: Personnel: JR	Date: 4/18/23
Manufacturer's Accuracy Range of Sensor: +/- 0.2°C	Vendor's check results Unit: 19.91 NIST: 19.79 Difference: 0.2

*** When performing calibration checks, wait for temperature and parameter readings to stabilize before recording the results.***

BEGINNING CALIBRATION CHECK

Date: 4/24/23 Time: 1000	Personnel: Beth Fulton
--------------------------	------------------------

Calibration Check	Value of Standard	Check Results	Acceptable Range	Within Range (yes/no)	Lot #	Expiration Date	Comments
Zero DO check (mg/l)	0	0.0	0 to 0.5 mg/L	Y	758229	7/23	
pH 7 check	7	7.01	+/- 5%	Y	5607	5/25	Range 6.65 - 7.35 pH
Specific Conductance (µS/cm) Second standard used for check	1413	1443	+/- 5%	Y	3631074	2/24	Range 682 - 754 µS/cm (718) or Range 1342 - 1484 µS/cm (1413)
ORP check - Zobell (mV) Zobell Solution 21 °C	236	231	+/- 5%	Y	261207	6/23	See Chart on Page 2 for ORP Zobell Solution mV Value Based on Temperature
Turbidity Standard (NTU) 2100Q	10	9.90	+/- 10%	Y	A3012	4/24	Range 9.0 - 11.0 NTU (2100Q)

- Notes:
- 1) If the post calibration check is not within the acceptable range the meter must be recalibrated.
 - 2) All calibration checks must be made in the run mode (on a run/measurement screen) or on the live readings screen, not the calibration mode.
 - 3) If the lot numbers and expiration dates are the same as the initial calibration, place a check mark ☒ in the appropriate box.
 - 4) Either standard (718 or 1413 µS/cm) may be used to calibrate specific conductance; the second standard is used to check it.
 - 5) Record N/A (Not Applicable) in the boxes for the turbidity meter that was not used.

Calibration Check Performed by: Beth Fulton (Print) [Signature] (Sign)

END OF DAY INSTRUMENT CALIBRATION CHECK

Calibration Check	Value of Standard	Check Results	Acceptable Range	Within Range (yes/no)	Lot #	Expiration Date	Comments
Date: Time: Personnel:							
Zero DO check (mg/l)	0		0 to 0.5 mg/L				
pH 7 check	7		+/- 5%				Range 6.65 - 7.35 pH
Specific Conductance (µS/cm) Second standard used for check			+/- 5%				Range 682 - 754 µS/cm (718) or Range 1342 - 1484 µS/cm (1413)
ORP check - Zobell (mV) Zobell Solution °C			+/- 5%				See Chart on Page 2 for ORP Zobell Solution mV Value Based on Temperature
Turbidity Standard (NTU) 2100Q ⁵	10		+/- 10%				Range 9.0 - 11.0 NTU (2100Q)

- Notes:
- 1) If the end of the day calibration check is not within the acceptable range, the data collected that day for that parameter shall be qualified in it's use.
 - 2) All calibration checks must be made in the run mode (on a run/measurement screen), not the calibration mode.
 - 3) If the lot numbers and expiration dates are the same as the initial calibration, place a check mark ☒ in the appropriate box.
 - 4) Either standard (718 or 1413 µS/cm) may be used to calibrate specific conductance; the second standard is used to check it.
 - 5) Record N/A (Not Applicable) in the boxes for the turbidity meter that was not used.

Calibration Check Performed by: NA (Print) NA (Sign)

List wells sampled using this equipment on this day **ONLY IF DATA NEEDS TO BE QUALIFIED.**

NA
↓

NA
↓

unit-2

INSTRUMENT CALIBRATION					
Date: <u>4/24/23</u> Time: <u>0900</u>					
Multimeter Calibration	Value of Standard	Check as Completed	Lot #	Expiration Date	Comments
DO (% saturation)	100%	✓			Allow time for stabilization per manufacturer
DO mg/l reading	0.01	✓			Record these values immediately after calibration
DO Temp. (°C) reading	69	✓			Recorded 0% DO Reading
DO (0% Saturation)-AquaTROLL	0%	✓	758229	7/23	2 point DO Calibration for AquaTROLL only (100 & 0%)
pH 1st Standard	4	✓	6079	1/26	BAF 4/24/23
2nd Standard	7	✓	6079	1/26	
3rd Standard	10	✓	6333	4/23	
Specific Conductance (µS/cm)	713	✓	8431074	2/24	One standard is used to calibrate, second one to check (1413 and 713 standards) Using one standard for both is unacceptable.
Zobell Solution <u>20</u> °C		✓			See Chart below for ORP Zobell Solution mV Value Based on Temperature
ORP using Zobell Solution	238	✓	261027	6/23	
Additional Information for Dissolved Oxygen Calibration					
Barometric Pressure of Meter: <u>751.6</u> mm Hg [BP inches <u>NA</u> x 25.4 + BP <u>NA</u> mm Hg]					
Dissolved Oxygen Charge (YSI Meters): <u>NA</u> (Acceptable Range: 25 to 75) You MUST change the membrane if charge is out of range.					
Inspected DO membrane/RDO CAP for nicks or bubbles (check as completed) ☒ Personnel: <u>JB Fulton</u> BAF 4/24/23					
Changed YSI Dissolved Oxygen Membrane and Electrolyte Solution (circle one) YES / NO / <u>NA</u>					
Replaced SmartTROLL Rugged Dissolved Oxygen CAP (circle one) YES / NO / <u>NA</u>					
HACH 2100Q *					
Turbidimeter Calibration	Value of Standard	Check as Completed	Lot #	Expiration Date	Comments
Turbidity 1st Standard	20 NTU	✓	A3017	8/24	
2nd Standard	100 NTU	✓	A3020	4/24	
3rd Standard	800 NTU	✓	A3010	4/24	
HACH Model 2100Q Serial Number: <u>48627</u> Rental Company: <u>Pine</u>					

Calibration Performed by Beth Fulton
Print Name

Beth Fulton
Signature

Zobell Solution mV Value Based on Temperature for ORP Calibration								
Calibration Check Range Values (+/- 5%)								
Round off temperature to whole number (e.g., 23.5 °C rounds up to 24 °C)								
Temp. °C	ORP Zobell Solution mV Value	Calibration Check Range Values +/- 5%	Temp. °C	ORP Zobell Solution mV Value	Calibration Check Range Values +/- 5%	Temp. °C	ORP Zobell Solution mV Value	Calibration Check Range Values +/- 5%
-3	267	254-280	10	251	238-264	23	234	222-246
-2	266	253-279	11	249	237-261	24	232	220-244
-1	265	252-278	12	248	236-260	25	231	219-243
0	264	251-277	13	247	235-259	26	230	219-242
1	262	249-275	14	245	233-257	27	228	217-239
2	261	248-274	15	244	232-256	28	227	216-238
3	260	247-273	16	243	231-255	29	226	215-237
4	258	245-271	17	241	229-253	30	225	214-236
5	257	244-270	18	240	228-252	31	223	212-234
6	256	243-269	19	239	227-251	32	222	211-233
7	254	241-267	20	238	226-250	33	221	210-232
8	253	240-266	21	236	224-248	34	219	208-230
9	252	239-265	22	235	223-247	35	218	207-229

BU

TROY MILLS LANDFILL INSTRUMENT CALIBRATION / MAINTENANCE LOG

Date: <u>4/24/23</u> Time: <u>0915</u>		Field Personnel: <u>Beth Fulton</u>	
Meter: (circle one) YSI: Model 600XL or 600XLM In-Situ: <u>AquaTroll 600</u>		Rental Company: <u>Pine</u>	
Multimeter Serial Numbers (Sonde & Meter): <u>1023326</u>			
Probe Pre-cleaned Certification Provided By (Personnel): <u>JR</u>		Date: <u>4/20/23</u>	
Temperature Calibration: Personnel: <u>JR</u>		Date: <u>4/20/23</u>	
Manufacturer's Accuracy Range of Sensor: $\pm 0.2^{\circ}\text{C}$		Vendor's check results Unit: <u>19.80</u> NIST: <u>19.50</u> Difference: <u>0.2</u>	

* When performing calibration checks, wait for temperature and parameter readings to stabilize before recording the results. *

BEGINNING CALIBRATION CHECK

Date: <u>4/24/23</u> Time: <u>1015</u>		Personnel: <u>Beth Fulton</u>					
Calibration Check	Value of Standard	Check Results	Acceptable Range	Within Range (yes/no)	Lot #	Expiration Date	Comments
Zero DO check (mg/l)	0	0.0	0 to 0.5 mg/L	Y	758224	7/23	
pH 7 check	7	7.07	$\pm 5\%$	Y	5607	5/25	Range 6.65 - 7.35 pH
Specific Conductance ($\mu\text{S}/\text{cm}$) Second standard used for check	1413	1427	$\pm 5\%$	Y	3681074	2/24	Range 682 - 754 $\mu\text{S}/\text{cm}$ (718) or Range 1342 - 1484 $\mu\text{S}/\text{cm}$ (1413)
ORP check - Zobell (mV) Zobell Solution <u>21</u> $^{\circ}\text{C}$	236	231	$\pm 5\%$	Y	261207	6/23	See Chart on Page 2 for ORP Zobell Solution mV Value Based on Temperature
Turbidity Standard (NTU) 2100Q	10	9.8	$\pm 10\%$	Y	43012	4/24	Range 9.0 - 11.0 NTU (2100Q)

- Notes:
- 1) If the post calibration check is not within the acceptable range the meter must be recalibrated.
 - 2) All calibration checks must be made in the run mode (on a run/measurement screen) or on the live readings screen, not the calibration mode.
 - 3) If the lot numbers and expiration dates are the same as the initial calibration, place a check mark $\checkmark$ in the appropriate box.
 - 4) Either standard (718 or 1413 $\mu\text{S}/\text{cm}$) may be used to calibrate specific conductance; the second standard is used to check it.
 - 5) Record N/A (Not Applicable) in the boxes for the turbidity meter that was not used.

Calibration Check Performed by: Beth Fulton (Print) Beth Fulton (Sign)

END OF DAY INSTRUMENT CALIBRATION CHECK

Calibration Check	Value of Standard	Check Results	Acceptable Range	Within Range (yes/no)	Lot #	Expiration Date	Comments
Date: _____ Time: _____		Personnel: _____					
Zero DO check (mg/l)	0		0 to 0.5 mg/L				
pH 7 check	7		$\pm 5\%$				Range 6.65 - 7.35 pH
Specific Conductance ($\mu\text{S}/\text{cm}$) Second standard used for check			$\pm 5\%$				Range 682 - 754 $\mu\text{S}/\text{cm}$ (718) or Range 1342 - 1484 $\mu\text{S}/\text{cm}$ (1413)
ORP check - Zobell (mV) Zobell Solution _____ $^{\circ}\text{C}$			$\pm 5\%$				See Chart on Page 2 for ORP Zobell Solution mV Value Based on Temperature
Turbidity Standard (NTU) 2100Q ⁵	10		$\pm 10\%$				Range 9.0 - 11.0 NTU (2100Q)

- Notes:
- 1) If the end of the day calibration check is not within the acceptable range, the data collected that day for that parameter shall be qualified in it's use.
 - 2) All calibration checks must be made in the run mode (on a run/measurement screen), not the calibration mode.
 - 3) If the lot numbers and expiration dates are the same as the initial calibration, place a check mark $\checkmark$ in the appropriate box.
 - 4) Either standard (718 or 1413 $\mu\text{S}/\text{cm}$) may be used to calibrate specific conductance; the second standard is used to check it.
 - 5) Record N/A (Not Applicable) in the boxes for the turbidity meter that was not used.

Calibration Check Performed by: NA (Print) NA (Sign)

List wells sampled using this equipment on this day **ONLY IF DATA NEEDS TO BE QUALIFIED.**

NA
↓

NA
↓

BU

INSTRUMENT CALIBRATION					
Date: <u>4/24/23</u> Time: <u>0915</u>					
Multimeter Calibration	Value of Standard	Check as Completed	Lot #	Expiration Date	Comments
DO (% saturation)	100%	✓			Allow time for stabilization per manufacturer
DO mg/l reading	0.01	✓			Record these values immediately after calibration
DO Temp. (°C) reading	19	✓			<u>Recorded 07. DO read. 03</u>
DO (0% Saturation)-AquaTROLL	0%	✓	758229	7/23	2 point DO Calibration for AquaTROLL only (100 & 0%)
pH 1st Standard	4	✓	7776507	5/25	<u>BAF 4/24/23</u>
2nd Standard	7	✓	6079	1/26	
3rd Standard	10	✓	6333	4/23	
Specific Conductance (µS/cm)	718	✓	3681074	2/24	One standard is used to calibrate, second one to check (2415 and 718 standards) Using one standard for both is unacceptable.
Zobell Solution <u>20</u> °C		✓			See Chart below for ORP Zobell Solution mV Value Based on Temperature
ORP using Zobell Solution	238	✓	241207	6/23	
Additional Information for Dissolved Oxygen Calibration					
Barometric Pressure of Meter: <u>751.6</u> mm Hg [BP inches <u>NA</u> x 25.4 + BP <u>NA</u> mm Hg]					
Dissolved Oxygen Charge (YSI Meters): <u>NA</u> (Acceptable Range: 25 to 75) You MUST change the membrane if charge is out of range.					
Inspected DO membrane/RDO CAP for nicks or bubbles (check as completed) <u>✓</u> Personnel: <u>B. Fulton</u>					
Changed YSI Dissolved Oxygen Membrane and Electrolyte Solution (circle one) YES / NO / <u>(NA)</u>					
Replaced SmartROLL Rugged Dissolved Oxygen CAP (circle one) YES / NO / <u>NA</u>					
HACH 2100Q *	Value of Standard	Check as Completed	Lot #	Expiration Date	Comments
Turbidimeter Calibration					
Turbidity 1st Standard	20 NTU	✓	A3017	4/24	Hach received 4/25/23 at
2nd Standard	100 NTU	✓	A3020	4/24	end of day, calibrated 4/24/23
3rd Standard	800 NTU	✓	A3010	4/24	at 1715
HACH Model 2100Q Serial Number:			Rental Company:		

Calibration Performed by Beth Fulton
 Print Name

Beth Fulton
 Signature

Zobell Solution mV Value Based on Temperature for ORP Calibration								
Calibration Check Range Values (+/- 5%)								
Round off temperature to whole number (e.g., 23.5 °C rounds up to 24 °C)								
Temp. °C	ORP Zobell Solution mV Value	Calibration Check Range Values +/- 5%	Temp. °C	ORP Zobell Solution mV Value	Calibration Check Range Values +/- 5%	Temp. °C	ORP Zobell Solution mV Value	Calibration Check Range Values +/- 5%
-3	267	254-280	10	251	238-264	23	234	222-246
-2	266	253-279	11	249	237-261	24	232	220-244
-1	265	252-278	12	248	236-260	25	231	219-243
0	264	251-277	13	247	235-259	26	230	219-242
1	262	249-275	14	245	233-257	27	228	217-239
2	261	248-274	15	244	232-256	28	227	216-238
3	260	247-273	16	243	231-255	29	226	215-237
4	258	245-271	17	241	229-253	30	225	214-236
5	257	244-270	18	240	228-252	31	223	212-234
6	256	243-269	19	239	227-251	32	222	211-233
7	254	241-267	20	238	226-250	33	221	210-232
8	253	240-266	21	236	224-248	34	219	208-230
9	252	239-265	22	235	223-247	35	218	207-229

Unit - 1

TROY MILLS LANDFILL INSTRUMENT CALIBRATION / MAINTENANCE LOG

Date: 4/25/23 Time: 0915 Field Personnel: Beth Fulton
 Meter: (circle one) YSI: Model 600XL or 600XLM In Situ: AquaTroll 600 Rental Company: Pine
 Multimeter Serial Numbers (Sonde & Meter): 959353
 Probe Pre-cleaned Certification Provided By (Personnel): JR Date: 4/13/23
 Temperature Calibration: Personnel: JR Date: 4/13/23
 Manufacturer's Accuracy Range of Sensor: $\pm 0.2^{\circ}\text{C}$ Vendor's check results Unit: 19.50 NIST: 19.70 Difference: 0.2
 * When performing calibration checks, wait for temperature and parameter readings to stabilize before recording the results.*

BEGINNING CALIBRATION CHECK

Date: <u>4/25/23</u> Time: <u>0915</u>	Personnel: <u>Beth Fulton</u>						
Calibration Check	Value of Standard	Check Results	Acceptable Range	Within Range (yes/no)	Lot #	Expiration Date	Comments
Zero DO check (mg/l)	0	0.0	0 to 0.5 mg/L	Y	758229	7/23	
pH 7 check	7	7.13	$\pm 5\%$	Y	6079	1/26	Range 6.65 - 7.35 pH
Specific Conductance ($\mu\text{S}/\text{cm}$) Second standard used for check	1413	1449	$\pm 5\%$	Y	7776	5/27	Range 682 - 754 $\mu\text{S}/\text{cm}$ (718) or Range 1342 - 1484 $\mu\text{S}/\text{cm}$ (1413)
ORP check - Zobell (mV) Zobell Solution <u>13</u> $^{\circ}\text{C}$	247	247	$\pm 5\%$	Y	261027	6/23	See Chart on Page 2 for ORP Zobell Solution mV Value Based on Temperature
Turbidity Standard (NTU) 2100Q	10	9.6	$\pm 10\%$	Y	A3012	4/24	Range 9.0 - 11.0 NTU (2100Q)

- Notes:
- 1) If the post calibration check is not within the acceptable range the meter must be recalibrated.
 - 2) All calibration checks must be made in the run mode (on a run/measurement screen) or on the live readings screen, not the calibration mode.
 - 3) If the lot numbers and expiration dates are the same as the initial calibration, place a check mark $\checkmark$ in the appropriate box.
 - 4) Either standard (718 or 1413 $\mu\text{S}/\text{cm}$) may be used to calibrate specific conductance; the second standard is used to check it.
 - 5) Record N/A (Not Applicable) in the boxes for the turbidity meter that was not used.

Calibration Check Performed by: Beth Fulton (Print) Beth Fulton (Sign)

END OF DAY INSTRUMENT CALIBRATION CHECK

Calibration Check	Value of Standard	Check Results	Acceptable Range	Within Range (yes/no)	Lot #	Expiration Date	Comments
Date: <u>4/25/23</u> Time: <u>1345</u>	Personnel: <u>Beth Fulton</u>						
Zero DO check (mg/l)	0	0.0	0 to 0.5 mg/L	Y	758229	7/23	
pH 7 check	7	7.15	$\pm 5\%$	Y	6079	1/26	Range 6.65 - 7.35 pH
Specific Conductance ($\mu\text{S}/\text{cm}$) Second standard used for check	1413	1473	$\pm 5\%$	Y	7776	5/27	Range 682 - 754 $\mu\text{S}/\text{cm}$ (718) or Range 1342 - 1484 $\mu\text{S}/\text{cm}$ (1413)
ORP check - Zobell (mV) Zobell Solution <u>13</u> $^{\circ}\text{C}$	247	243	$\pm 5\%$	Y	261027	6/23	See Chart on Page 2 for ORP Zobell Solution mV Value Based on Temperature
Turbidity Standard (NTU) 2100Q ⁵	10	9.7	$\pm 10\%$	Y	A3012	4/25	Range 9.0 - 11.0 NTU (2100Q)

- Notes:
- 1) If the end of the day calibration check is not within the acceptable range, the data collected that day for that parameter shall be qualified in it's use.
 - 2) All calibration checks must be made in the run mode (on a run/measurement screen), not the calibration mode.
 - 3) If the lot numbers and expiration dates are the same as the initial calibration, place a check mark $\checkmark$ in the appropriate box.
 - 4) Either standard (718 or 1413 $\mu\text{S}/\text{cm}$) may be used to calibrate specific conductance; the second standard is used to check it.
 - 5) Record N/A (Not Applicable) in the boxes for the turbidity meter that was not used.

Calibration Check Performed by: Beth Fulton (Print) Beth Fulton (Sign)

List wells sampled using this equipment on this day ONLY IF DATA NEEDS TO BE QUALIFIED

NA
↓

NA
↓

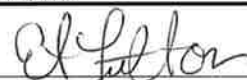
Unit-1

INSTRUMENT CALIBRATION					
Date: _____ Time: _____					
Multimeter Calibration	Value of Standard	Check as Completed	Lot #	Expiration Date	Comments
DO (% saturation)	100%				Allow time for stabilization per manufacturer
DO mg/l reading					Record these values immediately after calibration
DO Temp. (°C) reading					
DO (0% Saturation)-AquaTROLL	0%				2 point DO Calibration for AquaTROLL only (100 & 0%)
pH 1st Standard	4				
2nd Standard	7				
3rd Standard	10				
Specific Conductance (µS/cm)					One standard is used to calibrate, second one to check (2915 and 718 standards). Using one standard for both is unacceptable.
Zobell Solution _____ °C					See Chart below for ORP Zobell Solution mV Value Based on Temperature
ORP using Zobell Solution					
Additional Information for Dissolved Oxygen Calibration					
Barometric Pressure of Meter: <u>751.6</u> mm Hg [BP inches <u>NA</u> x 25.4 + BP <u>NA</u> mm Hg]					
Dissolved Oxygen Charge (YSI Meters): <u>NA</u> (Acceptable Range: 25 to 75) You MUST change the membrane if charge is out of range.					
Inspected DO membrane/RDO CAP for nicks or bubbles (check as completed) ☒ Personnel: <u>B. Fulton</u>					
Changed YSI Dissolved Oxygen Membrane and Electrolyte Solution (circle one) YES / NO / <u>(NA)</u>					
Replaced SmartROLL Rugged Dissolved Oxygen CAP (circle one) YES / NO / <u>(NA)</u>					
HACH Z100Q *	Value of Standard	Check as Completed	Lot #	Expiration Date	Comments
Turbidimeter Calibration					
Turbidity 1st Standard	20 NTU				
2nd Standard	100 NTU				
3rd Standard	800 NTU				
HACH Model Z100Q Serial Number: _____			Rental Company: _____		

Calibration Performed by

Beth Fulton

Print Name


 Signature

Zobell Solution mV Value Based on Temperature for ORP Calibration								
Calibration Check Range Values (+/- 5%)								
Round off temperature to whole number (e.g., 23.5 °C rounds up to 24 °C)								
Temp. °C	ORP Zobell Solution mV Value	Calibration Check Range Values +/- 5%	Temp. °C	ORP Zobell Solution mV Value	Calibration Check Range Values +/- 5%	Temp. °C	ORP Zobell Solution mV Value	Calibration Check Range Values +/- 5%
-3	267	254-280	10	251	238-264	23	234	222-246
-2	266	253-279	11	249	237-261	24	232	220-244
-1	265	252-278	12	248	236-260	25	231	219-243
0	264	251-277	13	247	235-259	26	230	219-242
1	262	249-275	14	245	233-257	27	228	217-239
2	261	248-274	15	244	232-256	28	227	216-238
3	260	247-273	16	243	231-255	29	226	215-237
4	258	245-271	17	241	229-253	30	225	214-236
5	257	244-270	18	240	228-252	31	223	212-234
6	256	243-269	19	239	227-251	32	222	211-233
7	254	241-267	20	238	226-250	33	221	210-232
8	253	240-266	21	236	224-248	34	219	208-230
9	252	239-265	22	235	223-247	35	218	207-229

TROY MILLS LANDFILL INSTRUMENT CALIBRATION / MAINTENANCE LOG

Date: 4/25/13 Time: 0920 Field Personnel: Beth Fulton
 Meter: (circle one) YSI: Model 600XL or 600XLM In-Situ: AquaTroll 600 Rental Company: Pine
 Multimeter Serial Numbers (Sonde & Meter): 1023340
 Probe Pre-cleaned Certification Provided By (Personnel): JR Date: 4/18/13
 Temperature Calibration: Personnel: JR Date: 4/18/13
 Manufacturer's Accuracy Range of Sensor: $\pm 0.2^{\circ}\text{C}$ Vendor's check results Unit: 1989 NIST: 1979 Difference: 0.2

* When performing calibration checks, wait for temperature and parameter readings to stabilize before recording the results. *

BEGINNING CALIBRATION CHECK

Date: 4/25/13 Time: 0920	Personnel: Beth Fulton						
Calibration Check	Value of Standard	Check Results	Acceptable Range	Within Range (yes/no)	Lot #	Expiration Date	Comments
Zero DO check (mg/l)	0	0.0	0 to 0.5 mg/L	Y	758229	7/13	
pH 7 check	7	7.13	$\pm 5\%$	Y	6079	1/16	Range 6.65 - 7.35 pH
Specific Conductance ($\mu\text{S}/\text{cm}$) Second standard used for check	1413	1459	$\pm 5\%$	Y	7776	5/12	Range 682 - 754 $\mu\text{S}/\text{cm}$ (718) or Range 1342 - 1484 $\mu\text{S}/\text{cm}$ (1413)
ORP check - Zobell (mV) Zobell Solution 13 $^{\circ}\text{C}$	247	244	$\pm 5\%$	Y	261027	6/23	See Chart on Page 2 for ORP Zobell Solution mV Value Based on Temperature
Turbidity Standard (NTU) 2100Q	10	10.2	$\pm 10\%$	Y	A3012	4/24	Range 9.0 - 11.0 NTU (2100Q)

- Notes:
- 1) If the post calibration check is not within the acceptable range the meter must be recalibrated.
 - 2) All calibration checks must be made in the run mode (on a run/measurement screen) or on the live readings screen, not the calibration mode.
 - 3) If the lot numbers and expiration dates are the same as the initial calibration, place a check mark ☒ in the appropriate box.
 - 4) Either standard (718 or 1413 $\mu\text{S}/\text{cm}$) may be used to calibrate specific conductance; the second standard is used to check it.
 - 5) Record N/A (Not Applicable) in the boxes for the turbidity meter that was not used.

Calibration Check Performed by: Beth Fulton (Print) *Beth Fulton* (Sign)

END OF DAY INSTRUMENT CALIBRATION CHECK

Calibration Check	Value of Standard	Check Results	Acceptable Range	Within Range (yes/no)	Lot #	Expiration Date	Comments
Date: 4/25/13 Time: 1350	Personnel: Beth Fulton						
Zero DO check (mg/l)	0	0.0	0 to 0.5 mg/L	Y	758229	7/13	
pH 7 check	7	7.10	$\pm 5\%$	Y	6079	1/16	Range 6.65 - 7.35 pH
Specific Conductance ($\mu\text{S}/\text{cm}$) Second standard used for check	1413	1463	$\pm 5\%$	Y			Range 682 - 754 $\mu\text{S}/\text{cm}$ (718) or Range 1342 - 1484 $\mu\text{S}/\text{cm}$ (1413)
ORP check - Zobell (mV) Zobell Solution 13 $^{\circ}\text{C}$	247	244	$\pm 5\%$				See Chart on Page 2 for ORP Zobell Solution mV Value Based on Temperature
Turbidity Standard (NTU) 2100Q ⁵	10	9.9	$\pm 10\%$	Y	A3012	4/24	Range 9.0 - 11.0 NTU (2100Q)

- Notes:
- 1) If the end of the day calibration check is not within the acceptable range, the data collected that day for that parameter shall be qualified in it's use.
 - 2) All calibration checks must be made in the run mode (on a run/measurement screen), not the calibration mode.
 - 3) If the lot numbers and expiration dates are the same as the initial calibration, place a check mark ☒ in the appropriate box.
 - 4) Either standard (718 or 1413 $\mu\text{S}/\text{cm}$) may be used to calibrate specific conductance; the second standard is used to check it.
 - 5) Record N/A (Not Applicable) in the boxes for the turbidity meter that was not used.

Calibration Check Performed by: Beth Fulton (Print) *Beth Fulton* (Sign)

List wells sampled using this equipment on this day ONLY IF DATA NEEDS TO BE QUALIFIED.

N/A
↓

N/A
↓

INSTRUMENT CALIBRATION					
Date:	Time:	Value of Standard	Check as Completed	Lot #	Expiration Date
Multimeter Calibration					
DO (% saturation)		100%			Allow time for stabilization per manufacturer
DO mg/l reading					Record these values immediately after calibration
DO Temp. (°C) reading					
DO (0% Saturation)-AquaTROLL		0%			2 point DO Calibration for AquaTROLL only (100 & 0%)
pH 1st Standard		4			
2nd Standard		7			
3rd Standard		10			
Specific Conductance (µS/cm)					One standard is used to calibrate, second one to check (1415 and 718 standards) Using one standard for both is unacceptable.
Zobell Solution _____ °C					See Chart below for ORP Zobell Solution mV Value Based on Temperature
ORP using Zobell Solution					
Additional Information for Dissolved Oxygen Calibration					
Barometric Pressure of Meter: <u>751.6</u> mm Hg [BP inches <u>NA</u> x 25.4 + BP <u>NA</u> mm Hg]					
Dissolved Oxygen Charge (YSI Meters): <u>NA</u> (Acceptable Range: 25 to 75) You MUST change the membrane if charge is out of range.					
Inspected DO membrane/RDO CAP for nicks or bubbles (check as completed) ☒ Personnel: <u>Beth Fulton</u>					
Changed YSI Dissolved Oxygen Membrane and Electrolyte Solution (circle one) YES / NO <u>NA</u>					
Replaced SmartROLL Rugged Dissolved Oxygen CAP (circle one) YES / NO <u>NA</u>					
HACH 2100Q *					
Turbidimeter Calibration					
Turbidity 1st Standard		20 NTU			
2nd Standard		100 NTU			
3rd Standard		800 NTU			
HACH Model 2100Q Serial Number:		Rental Company:			

Calibration Performed by

Beth Fulton
Print Name

Signature

Beth Fulton

Zobell Solution mV Value Based on Temperature for ORP Calibration								
Calibration Check Range Values (+/- 5%)								
Round off temperature to whole number (e.g., 23.5 °C rounds up to 24 °C)								
Temp. °C	ORP Zobell Solution mV Value	Calibration Check Range Values +/- 5%	Temp. °C	ORP Zobell Solution mV Value	Calibration Check Range Values +/- 5%	Temp. °C	ORP Zobell Solution mV Value	Calibration Check Range Values +/- 5%
-3	267	254-280	10	251	238-264	23	234	222-246
-2	266	253-279	11	249	237-261	24	232	220-244
-1	265	252-278	12	248	236-260	25	231	219-243
0	264	251-277	13	247	235-259	26	230	219-242
1	262	249-275	14	245	233-257	27	228	217-239
2	261	248-274	15	244	232-256	28	227	216-238
3	260	247-273	16	243	231-255	29	226	215-237
4	258	245-271	17	241	229-253	30	225	214-236
5	257	244-270	18	240	228-252	31	223	212-234
6	256	243-269	19	239	227-251	32	222	211-233
7	254	241-267	20	238	226-250	33	221	210-232
8	253	240-266	21	236	224-248	34	219	208-230
9	252	239-265	22	235	223-247	35	218	207-229

Unit-1

TROY MILLS LANDFILL INSTRUMENT CALIBRATION / MAINTENANCE LOG

Date: 4/18/23	Time: 1715	Field Personnel: Beth Fulton					
Meter: (circle one) YSI: Model 600XL or 600XLM	In-Situ: AquaTroll 600	Rental Company: Pine					
Multimeter Serial Numbers (Sonde & Meter): 959853							
Probe Pre-cleaned Certification Provided By (Personnel): JR		Date: 4/18/23					
Temperature Calibration: Personnel: JR		Date: 4/18/23					
Manufacturer's Accuracy Range of Sensor: +/- 0.2°C		Vendor's check results Unit: 19.50 NIST: 19.70 Difference: 0.2					
* When performing calibration checks, wait for temperature and parameter readings to stabilize before recording the results. *							
BEGINNING CALIBRATION CHECK							
Date:	Time:	Personnel:					
Calibration Check	Value of Standard	Check Results	Acceptable Range	Within Range (yes/no)	Lot #	Expiration Date	Comments
Zero DO check (mg/l)	0		0 to 0.5 mg/L				
pH 7 check	7		+/- 5%				Range 6.65 - 7.35 pH
Specific Conductance (µS/cm)			+/- 5%				Range 682 - 754 µS/cm (718) or Range 1342 - 1484 µS/cm (1413)
Second standard used for check							
ORP check - Zobell (mV)			+/- 5%				See Chart on Page 2 for ORP Zobell Solution mV Value Based on Temperature
Zobell Solution _____ °C							
Turbidity Standard (NTU) 2100Q	10		+/- 10%				Range 9.0 - 11.0 NTU (2100Q)

- Notes:
- 1) If the post calibration check is not within the acceptable range the meter must be recalibrated.
 - 2) All calibration checks must be made in the run mode (on a run/measurement screen) or on the live readings screen, not the calibration mode.
 - 3) If the lot numbers and expiration dates are the same as the initial calibration, place a check mark ✓ in the appropriate box.
 - 4) Either standard (718 or 1413 µS/cm) may be used to calibrate specific conductance; the second standard is used to check it.
 - 5) Record N/A (Not Applicable) in the boxes for the turbidity meter that was not used.

Calibration Check Performed by: NA (Print) NA (Sign)

END OF DAY INSTRUMENT CALIBRATION CHECK

Calibration Check	Value of Standard	Check Results	Acceptable Range	Within Range (yes/no)	Lot #	Expiration Date	Comments
Date: 4/18/23	Time: 1715	Personnel: Beth Fulton					
Zero DO check (mg/l)	0	0.0	0 to 0.5 mg/L	Y	758229	7/23	
pH 7 check	7	7.11	+/- 5%	Y	6079	11/26	Range 6.65 - 7.35 pH
Specific Conductance (µS/cm)			+/- 5%	Y	261662	12/23	Range 682 - 754 µS/cm (718) or Range 1342 - 1484 µS/cm (1413)
Second standard used for check	1413	1436					
ORP check - Zobell (mV)			+/- 5%	Y	261027	6/23	See Chart on Page 2 for ORP Zobell Solution mV Value Based on Temperature
Zobell Solution 16 °C							
Turbidity Standard (NTU) 2100Q ⁵	10	10.8	+/- 10%	Y	A3012	4/25	Range 9.0 - 11.0 NTU (2100Q)

- Notes:
- 1) If the end of the day calibration check is not within the acceptable range, the data collected that day for that parameter shall be qualified in it's use.
 - 2) All calibration checks must be made in the run mode (on a run/measurement screen), not the calibration mode.
 - 3) If the lot numbers and expiration dates are the same as the initial calibration, place a check mark ✓ in the appropriate box.
 - 4) Either standard (718 or 1413 µS/cm) may be used to calibrate specific conductance; the second standard is used to check it.
 - 5) Record N/A (Not Applicable) in the boxes for the turbidity meter that was not used.

Calibration Check Performed by: Beth Fulton (Print) Beth Fulton (Sign)

List wells sampled using this equipment on this day ONLY IF DATA NEEDS TO BE QUALIFIED.

NA

NA

Unit-1

INSTRUMENT CALIBRATION						
Date: _____ Time: _____		Value of Standard	Check as Completed	Lot #	Expiration Date	Comments
Multimeter Calibration						
DO (% saturation)		100%				Allow time for stabilization per manufacturer
DO mg/l reading						Record these values immediately after calibration
DO Temp. (°C) reading						
DO (0% Saturation)-AquaTROLL		0%				2 point DO Calibration for AquaTROLL only (100 & 0%)
pH 1st Standard		4				
2nd Standard		7				
3rd Standard		10				
Specific Conductance (µS/cm)						One standard is used to calibrate, second one to check (1415 and 710 standards) Using one standard for both is unacceptable.
Zobell Solution _____ °C						See Chart below for ORP Zobell Solution mV Value Based on Temperature
ORP using Zobell Solution						
Additional Information for Dissolved Oxygen Calibration						
Barometric Pressure of Meter: <u>751.6</u> mm Hg [BP inches <u>NA</u> x 25.4 + BP <u>NA</u> mm Hg]						
Dissolved Oxygen Charge (YSI Meters): <u>NA</u> (Acceptable Range: 25 to 75) You MUST change the membrane if charge is out of range.						
Inspected DO membrane/RDO CAP for nicks or bubbles (check as completed) ☒ Personnel: <u>B Fulton</u>						
Changed YSI Dissolved Oxygen Membrane and Electrolyte Solution (circle one) YES / NO <u>(NA)</u>						
Replaced SmartROLL Rugged Dissolved Oxygen CAP (circle one) YES / NO <u>(NA)</u>						
HACH 2100Q		Value of Standard	Check as Completed	Lot #	Expiration Date	Comments
Turbidimeter Calibration						
Turbidity 1st Standard		20 NTU				
2nd Standard		100 NTU				
3rd Standard		800 NTU				
HACH Model 2100Q Serial Number: _____						Rental Company: _____

Calibration Performed by Beth Fulton
 Print Name

Beth Fulton
 Signature

Zobell Solution mV Value Based on Temperature for ORP Calibration								
Calibration Check Range Values (+/- 5%)								
Round off temperature to whole number (e.g., 23.5 °C rounds up to 24 °C)								
Temp. °C	ORP Zobell Solution mV Value	Calibration Check Range Values +/- 5%	Temp. °C	ORP Zobell Solution mV Value	Calibration Check Range Values +/- 5%	Temp. °C	ORP Zobell Solution mV Value	Calibration Check Range Values +/- 5%
-3	267	254-280	10	251	238-264	23	234	222-246
-2	266	253-279	11	249	237-261	24	232	220-244
-1	265	252-278	12	248	236-260	25	231	219-243
0	264	251-277	13	247	235-259	26	230	219-242
1	262	249-275	14	245	233-257	27	228	217-239
2	261	248-274	15	244	232-256	28	227	216-238
3	260	247-273	16	243	231-255	29	226	215-237
4	258	245-271	17	241	229-253	30	225	214-236
5	257	244-270	18	240	228-252	31	223	212-234
6	256	243-269	19	239	227-251	32	222	211-233
7	254	241-267	20	238	226-250	33	221	210-232
8	253	240-266	21	236	224-248	34	219	208-230
9	252	239-265	22	235	223-247	35	218	207-229

Unit-2

TROY MILLS LANDFILL INSTRUMENT CALIBRATION / MAINTENANCE LOG

Date: 4/26/23	Time: 1720	Field Personnel: Beth Fulton					
Meter: (circle one) YSI: Model 600XL or 600XLM	In-Situ: AquaTroll 600	Rental Company: Pine					
Multimeter Serial Numbers (Sonde & Meter): 1023340							
Probe Pre-cleaned Certification Provided By (Personnel): JR		Date: 4/18/23					
Temperature Calibration: Personnel: JR		Date: 4/18/23					
Manufacturer's Accuracy Range of Sensor: +/- 0.2°C		Vendor's check results Unit: 19.89 NIST: 19.79 Difference: 0.2					
* When performing calibration checks, wait for temperature and parameter readings to stabilize before recording the results. *							
BEGINNING CALIBRATION CHECK							
Date:	Time:	Personnel:					
Calibration Check	Value of Standard	Check Results	Acceptable Range	Within Range (yes/no)	Lot #	Expiration Date	Comments
Zero DO check (mg/l)	0		0 to 0.5 mg/L				
pH 7 check	7		+/- 5%				Range 6.65 - 7.35 pH
Specific Conductance (µS/cm)			+/- 5%				Range 682 - 754 µS/cm (718) or
Second standard used for check			+/- 5%				Range 1342 - 1484 µS/cm (1413)
ORP check - Zobell (mV)			+/- 5%				See Chart on Page 2 for ORP Zobell
Zobell Solution °C							Solution mV Value Based on Temperature
Turbidity Standard (NTU) 2100Q	10		+/- 10%				Range 9.0 - 11.0 NTU (2100Q)

- Notes:
- 1) If the post calibration check is not within the acceptable range the meter must be recalibrated.
 - 2) All calibration checks must be made in the run mode (on a run/measurement screen) or on the live readings screen, not the calibration mode.
 - 3) If the lot numbers and expiration dates are the same as the initial calibration, place a check mark ✓ in the appropriate box.
 - 4) Either standard (718 or 1413 µS/cm) may be used to calibrate specific conductance; the second standard is used to check it.
 - 5) Record N/A (Not Applicable) in the boxes for the turbidity meter that was not used.

Calibration Check Performed by: NA (Print) NA (Sign)

END OF DAY INSTRUMENT CALIBRATION CHECK

Calibration Check	Value of Standard	Check Results	Acceptable Range	Within Range (yes/no)	Lot #	Expiration Date	Comments
Date: 4/26/23	Time: 1720	Personnel: Beth Fulton					
Zero DO check (mg/l)	0	0.02	0 to 0.5 mg/L	Y	758229	7/23	
pH 7 check	7	7.08	+/- 5%	Y	6079	7/24	Range 6.65 - 7.35 pH
Specific Conductance (µS/cm)			+/- 5%	Y	261662	12/23	Range 682 - 754 µS/cm (718) or
Second standard used for check	1413	1437	+/- 5%	Y	261662	12/23	Range 1342 - 1484 µS/cm (1413)
ORP check - Zobell (mV)			+/- 5%	Y	261027	6/23	See Chart on Page 2 for ORP Zobell
Zobell Solution 17 °C				Y			Solution mV Value Based on Temperature
Turbidity Standard (NTU) 2100Q ⁵	10	103	+/- 10%	Y	A3082	4/25	Range 9.0 - 11.0 NTU (2100Q)

- Notes:
- 1) If the end of the day calibration check is not within the acceptable range, the data collected that day for that parameter shall be qualified in it's use.
 - 2) All calibration checks must be made in the run mode (on a run/measurement screen), not the calibration mode.
 - 3) If the lot numbers and expiration dates are the same as the initial calibration, place a check mark ✓ in the appropriate box.
 - 4) Either standard (718 or 1413 µS/cm) may be used to calibrate specific conductance; the second standard is used to check it.
 - 5) Record N/A (Not Applicable) in the boxes for the turbidity meter that was not used.

Calibration Check Performed by: Beth Fulton (Print) Beth Fulton (Sign)

List wells sampled using this equipment on this day ONLY IF DATA NEEDS TO BE QUALIFIED.

NA
↓

NA
↓

INSTRUMENT CALIBRATION						
Date: _____ Time: _____		Value of Standard	Check as Completed	Lot #	Expiration Date	Comments
Multimeter Calibration						
DO (% saturation)		100%				Allow time for stabilization per manufacturer
DO mg/l reading						Record these values immediately after calibration
DO Temp. (°C) reading						
DO (0% Saturation)-AquaTROLL		0%				2 point DO Calibration for AquaTROLL only (100 & 0%)
pH 1st Standard		4				
2nd Standard		7				
3rd Standard		10				
Specific Conductance (µS/cm)						One standard is used to calibrate, second one to check (1413 and 718 standards) Using one standard for both is unacceptable.
Zobell Solution _____ °C						See Chart below for ORP Zobell Solution mV Value Based on Temperature
ORP using Zobell Solution						
Additional Information for Dissolved Oxygen Calibration Barometric Pressure of Meter: <u>751.6</u> mm Hg [BP inches <u>NA</u> x 25.4 + BP <u>NA</u> mm Hg] Dissolved Oxygen Charge (YSI Meters): <u>NA</u> (Acceptable Range: 25 to 75) You MUST change the membrane if charge is out of range. Inspected DO membrane/RDO CAP for nicks or bubbles (check as completed) ☒ Personnel: <u>B. Fulton</u> Changed YSI Dissolved Oxygen Membrane and Electrolyte Solution (circle one) YES / NO / <u>NA</u> Replaced SmartROLL Rugged Dissolved Oxygen CAP (circle one) YES / NO / <u>NA</u>						
HACH-2100Q		Value of Standard	Check as Completed	Lot #	Expiration Date	Comments
Turbidimeter Calibration						
Turbidity 1st Standard		20 NTU				
2nd Standard		100 NTU				
3rd Standard		800 NTU				
HACH Model 2100Q Serial Number: _____				Rental Company: _____		

Calibration Performed by

Beth Fulton
Print Name

Signature

Zobell Solution mV Value Based on Temperature for ORP Calibration								
Calibration Check Range Values (+/- 5%)								
Round off temperature to whole number (e.g., 23.5 °C rounds up to 24 °C)								
Temp. °C	ORP Zobell Solution mV Value	Calibration Check Range Values +/- 5%	Temp. °C	ORP Zobell Solution mV Value	Calibration Check Range Values +/- 5%	Temp. °C	ORP Zobell Solution mV Value	Calibration Check Range Values +/- 5%
-3	267	254-280	10	251	238-264	23	234	222-246
-2	266	253-279	11	249	237-261	24	232	220-244
-1	265	252-278	12	248	236-260	25	231	219-243
0	264	251-277	13	247	235-259	26	230	219-242
1	262	249-275	14	245	233-257	27	228	217-239
2	261	248-274	15	244	232-256	28	227	216-238
3	260	247-273	16	243	231-255	29	226	215-237
4	258	245-271	17	241	229-253	30	225	214-236
5	257	244-270	18	240	228-252	31	223	212-234
6	256	243-269	19	239	227-251	32	222	211-233
7	254	241-267	20	238	226-250	33	221	210-232
8	253	240-266	21	236	224-248	34	219	208-230
9	252	239-265	22	235	223-247	35	218	207-229

UNIT #1

TROY MILLS LANDFILL INSTRUMENT CALIBRATION / MAINTENANCE LOG

Date: 4/27/23	Time: 1130	Field Personnel: E. Dyrness					
Meter: (circle one) YSI: Model 600XL or 600XLM	In-Situ: AquaTroll 600	Rental Company: PINE					
Multimeter Serial Numbers (Sonde & Meter): 959853							
Probe Pre-cleaned Certification Provided By (Personnel): JR		Date: 4/18/23					
Temperature Calibration: Personnel: JR		Date: 4/18/23					
Manufacturer's Accuracy Range of Sensor: +/- 0.2°C		Vendor's check results Unit: 19.50 NIST: 19.70 Difference: 0.2					
* When performing calibration checks, wait for temperature and parameter readings to stabilize before recording the results.*							
BEGINNING CALIBRATION CHECK							
Date: _____	Time: _____	Personnel: _____					
Calibration Check	Value of Standard	Check Results	Acceptable Range	Within Range (yes/no)	Lot #	Expiration Date	Comments
Zero DO check (mg/l)			0 to 0.5 mg/L				
pH 7 check			+/- 5%				Range 6.65 - 7.35 pH
Specific Conductance (µS/cm)			+/- 5%				Range 682 - 754 µS/cm (718) or Range 1342 - 1484 µS/cm (1413)
Second standard used for check							
ORP check - Zobell (mV)			+/- 5%				See Chart on Page 2 for ORP Zobell Solution mV Value Based on Temperature
Zobell Solution _____ °C							
Turbidity Standard (NTU) 2100Q	10	9.6	+/- 10%	Y	180		Range 9.0 - 11.0 NTU (2100Q)

- Notes:
- 1) If the post calibration check is not within the acceptable range the meter must be recalibrated.
 - 2) All calibration checks must be made in the run mode (on a run/measurement screen) or on the live readings screen, not the calibration mode.
 - 3) If the lot numbers and expiration dates are the same as the initial calibration, place a check mark ✓ in the appropriate box.
 - 4) Either standard (718 or 1413 µS/cm) may be used to calibrate specific conductance; the second standard is used to check it.
 - 5) Record N/A (Not Applicable) in the boxes for the turbidity meter that was not used.

Calibration Check Performed by: NA (Print) NA (Sign)

END OF DAY INSTRUMENT CALIBRATION CHECK

Calibration Check	Value of Standard	Check Results	Acceptable Range	Within Range (yes/no)	Lot #	Expiration Date	Comments
Date: 4/27/23	Time: 1130	Personnel: E. Dyrness					
Zero DO check (mg/l)	0	0.01	0 to 0.5 mg/L	Y	758229	7/23	
pH 7 check	7	7.22	+/- 5%	Y	6079	1/26	Range 6.65 - 7.35 pH
Specific Conductance (µS/cm)			+/- 5%	Y	261662	12/23	Range 682 - 754 µS/cm (718) or Range 1342 - 1484 µS/cm (1413)
Second standard used for check	1413	1445					
ORP check - Zobell (mV)	240	233	+/- 5%	Y	261207	6/23	See Chart on Page 2 for ORP Zobell Solution mV Value Based on Temperature
Zobell Solution 18 °C							
Turbidity Standard (NTU) 2100Q ⁵	10	9.6	+/- 10%	Y	A3012	4/25	Range 9.0 - 11.0 NTU (2100Q)

- Notes:
- 1) If the end of the day calibration check is not within the acceptable range, the data collected that day for that parameter shall be qualified in it's use.
 - 2) All calibration checks must be made in the run mode (on a run/measurement screen), not the calibration mode.
 - 3) If the lot numbers and expiration dates are the same as the initial calibration, place a check mark ✓ in the appropriate box.
 - 4) Either standard (718 or 1413 µS/cm) may be used to calibrate specific conductance; the second standard is used to check it.
 - 5) Record N/A (Not Applicable) in the boxes for the turbidity meter that was not used.

Calibration Check Performed by: E. Dyrness (Print) E. Dyrness (Sign)

List wells sampled using this equipment on this day ONLY IF DATA NEEDS TO BE QUALIFIED.

NA
I

NA
I

UNIT #1

INSTRUMENT CALIBRATION					
Date: _____ Time: _____					
Multimeter Calibration	Value of Standard	Check as Completed	Lot #	Expiration Date	Comments
DO (% saturation)	100%				Allow time for stabilization per manufacturer
DO mg/l reading					Record these values immediately after calibration
DO Temp. (°C) reading					
DO (0% Saturation)-AquaTROLL	0%	EBD			2 point DO Calibration for AquaTROLL only (100 & 0%)
pH 1st Standard	4				
2nd Standard	7				
3rd Standard	10				
Specific Conductance (µS/cm)					One standard is used to calibrate, second one to check (1413 and 718 standards) Using one standard for both is unacceptable.
Zobell Solution °C					See Chart below for ORP Zobell Solution mV Value Based on Temperature
ORP using Zobell Solution					
738.6 EBD Additional Information for Dissolved Oxygen Calibration Barometric Pressure of Meter: <u>775</u> mm Hg [BP inches <u>NA</u> x 25.4 + BP <u>NA</u> mm Hg] Dissolved Oxygen Charge (YSI Meters): <u>NA</u> (Acceptable Range: 25 to 75) You MUST change the membrane if charge is out of range. Inspected DO membrane/RDO CAP for nicks or bubbles (check as completed) <u>X</u> Personnel: <u>E. Dyrness</u> Changed YSI Dissolved Oxygen Membrane and Electrolyte Solution (circle one) YES / NO / <u>NA</u> Replaced SmarTROLL Rugged Dissolved Oxygen CAP (circle one) YES / <u>NO</u> / NA					
HACH 2100Q *	Value of Standard	Check as Completed	Lot #	Expiration Date	Comments
Turbidimeter Calibration					
Turbidity 1st Standard	20 NTU	EBD			
2nd Standard	100 NTU				
3rd Standard	800 NTU				
HACH Model 2100Q Serial Number: _____ Rental Company: _____					

 Calibration Performed by E. Dyrness
 Print Name

Erik Dyrness
 Signature

Zobell Solution mV Value Based on Temperature for ORP Calibration								
Calibration Check Range Values (+/- 5%)								
Round off temperature to whole number (e.g., 23.5 °C rounds up to 24 °C)								
Temp. °C	ORP Zobell Solution mV Value	Calibration Check Range Values +/- 5%	Temp. °C	ORP Zobell Solution mV Value	Calibration Check Range Values +/- 5%	Temp. °C	ORP Zobell Solution mV Value	Calibration Check Range Values +/- 5%
-3	267	254-280	10	251	238-264	23	234	222-246
-2	266	253-279	11	249	237-261	24	232	220-244
-1	265	252-278	12	248	236-260	25	231	219-243
0	264	251-277	13	247	235-259	26	230	219-242
1	262	249-275	14	245	233-257	27	228	217-239
2	261	248-274	15	244	232-256	28	227	216-238
3	260	247-273	16	243	231-255	29	226	215-237
4	258	245-271	17	241	229-253	30	225	214-236
5	257	244-270	18	240	228-252	31	223	212-234
6	256	243-269	19	239	227-251	32	222	211-233
7	254	241-267	20	238	226-250	33	221	210-232
8	253	240-266	21	236	224-248	34	219	208-230
9	252	239-265	22	235	223-247	35	218	207-229



Analytical Laboratory Data Packages



ANALYTICAL REPORT

Lab Number:	L2323076
Client:	GZA GeoEnvironmental, Inc. / NHDES PO Box 95 29 Hazen Drive Concord, NH 03302-0095
ATTN:	Michael Summerlin
Phone:	(603) 271-3649
Project Name:	TROY MILLS LANDFILL SUPERFUND
Project Number:	04.0190987.33
Report Date:	05/23/23

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Certifications & Approvals: MA (M-MA030), NH NELAP (2062), CT (PH-0825), DoD (L2474), FL (E87814), IL (200081), IN (C-MA-04), KY (KY98046), LA (85084), ME (MA00030), MD (350), MI (99110), NJ (MA015), NY (11627), NC (685), OH (CL106), OR (MA-0262), PA (68-02089), RI (LAO00299), TX (T104704419), VT (VT-0015), VA (460194), WA (C954), US Army Corps of Engineers, USDA (Permit #525-23-107-88708), USFWS (Permit #206964).

320 Forbes Boulevard, Mansfield, MA 02048-1806
508-822-9300 (Fax) 508-822-3288 800-624-9220 - www.alphalab.com



Project Name: TROY MILLS LANDFILL SUPERFUND
Project Number: 04.0190987.33

Lab Number: L2323076
Report Date: 05/23/23

Alpha Sample ID	Client ID	Matrix	Sample Location	Collection Date/Time	Receive Date
L2323076-01	FIELD BLANK- DRYNESS	WATER	TROY, NH	04/25/23 12:45	04/27/23
L2323076-02	FIELD BLANK- FULTON	WATER	TROY, NH	04/25/23 12:25	04/27/23
L2323076-03	TRY_MW-902B	WATER	TROY, NH	04/25/23 12:50	04/27/23
L2323076-04	TRY_MW-902S	WATER	TROY, NH	04/25/23 12:30	04/27/23
L2323076-05	TRY_MW-901B	WATER	TROY, NH	04/26/23 12:45	04/27/23
L2323076-06	TRY_MW-903B	WATER	TROY, NH	04/26/23 12:40	04/27/23
L2323076-07	TRY_MW-903S	WATER	TROY, NH	04/26/23 14:25	04/27/23
L2323076-08	TRY_MW-903S DUP	WATER	TROY, NH	04/26/23 14:25	04/27/23
L2323076-09	TRY_MW-901S	WATER	TROY, NH	04/27/23 11:15	04/27/23
L2323076-10	EQUIP BLANK	WATER	TROY, NH	04/26/23 15:30	04/27/23
L2323076-11	EQUIP BLANK	WATER	TROY, NH	04/26/23 16:00	04/27/23
L2323076-12	TRY_MW-601B	WATER	TROY, NH	04/26/23 16:20	04/27/23

Project Name: TROY MILLS LANDFILL SUPERFUND
Project Number: 04.0190987.33

Lab Number: L2323076
Report Date: 05/23/23

Case Narrative

The samples were received in accordance with the Chain of Custody and no significant deviations were encountered during the preparation or analysis unless otherwise noted. Sample Receipt, Container Information, and the Chain of Custody are located at the back of the report.

Results contained within this report relate only to the samples submitted under this Alpha Lab Number and meet NELAP requirements for all NELAP accredited parameters unless otherwise noted in the following narrative. The data presented in this report is organized by parameter (i.e. VOC, SVOC, etc.). Sample specific Quality Control data (i.e. Surrogate Spike Recovery) is reported at the end of the target analyte list for each individual sample, followed by the Laboratory Batch Quality Control at the end of each parameter. Tentatively Identified Compounds (TICs), if requested, are reported for compounds identified to be present and are not part of the method/program Target Compound List, even if only a subset of the TCL are being reported. If a sample was re-analyzed or re-extracted due to a required quality control corrective action and if both sets of data are reported, the Laboratory ID of the re-analysis or re-extraction is designated with an "R" or "RE", respectively.

When multiple Batch Quality Control elements are reported (e.g. more than one LCS), the associated samples for each element are noted in the grey shaded header line of each data table. Any Laboratory Batch, Sample Specific % recovery or RPD value that is outside the listed Acceptance Criteria is bolded in the report. In reference to questions H (CAM) or 4 (RCP) when "NO" is checked, the performance criteria for CAM and RCP methods allow for some quality control failures to occur and still be within method compliance. In these instances, the specific failure is not narrated but noted in the associated QC Outlier Summary Report, located directly after the Case Narrative. QC information is also incorporated in the Data Usability Assessment table (Format 11) of our Data Merger tool, where it can be reviewed in conjunction with the sample result, associated regulatory criteria and any associated data usability implications.

Soil/sediments, solids and tissues are reported on a dry weight basis unless otherwise noted. Definitions of all data qualifiers and acronyms used in this report are provided in the Glossary located at the back of the report.

HOLD POLICY - For samples submitted on hold, Alpha's policy is to hold samples (with the exception of Air canisters) free of charge for 21 calendar days from the date the project is completed. After 21 calendar days, we will dispose of all samples submitted including those put on hold unless you have contacted your Alpha Project Manager and made arrangements for Alpha to continue to hold the samples. Air canisters will be disposed after 3 business days from the date the project is completed.

Please contact Project Management at 800-624-9220 with any questions.

Project Name: TROY MILLS LANDFILL SUPERFUND
Project Number: 04.0190987.33

Lab Number: L2323076
Report Date: 05/23/23

Case Narrative (continued)

Perfluorinated Alkyl Acids by Isotope Dilution

L2323076-01 through -12: The MeOH fraction of the extraction is reported for the following compounds:

Perfluorooctanesulfonamide (FOSA), N-Methyl Perfluorooctane Sulfonamide (NMeFOSA), N-Ethyl Perfluorooctane Sulfonamide (NEtFOSA), N-Methyl Perfluorooctanesulfonamido Ethanol (NMeFOSE), and N-Ethyl Perfluorooctanesulfonamido Ethanol (NEtFOSE) due to better extraction efficiency of the Surrogates (Extracted Internal Standards).

L2323076-01, -03 through -12, WG1779273-1, WG1779273-2, WG1779273-3 and WG1779273-4:

Extracted Internal Standard recoveries were outside the acceptance criteria for individual analytes. Please refer to the surrogate section of the report for details.

L2323076-09: The sample was centrifuged and decanted prior to extraction due to sample matrix.

The WG1779273-2 LCS recovery, associated with L2323076-01 through -12, is above the acceptance criteria for perfluorodecanesulfonic acid (pfdS) (157%); however, the associated samples are non-detect to the RL for this target analyte. The results of the original analysis are reported.

The WG1779273-3 MS recoveries, performed on L2323076-03, are outside the acceptance criteria for 1h,1h,2h,2h-perfluorooctanesulfonic acid (6:2fts) (0%). The unacceptable percent recoveries are attributed to the elevated concentrations of target compounds present in the native sample.

I, the undersigned, attest under the pains and penalties of perjury that, to the best of my knowledge and belief and based upon my personal inquiry of those responsible for providing the information contained in this analytical report, such information is accurate and complete. This certificate of analysis is not complete unless this page accompanies any and all pages of this report.

Authorized Signature:



Alycia Mogayzel

Title: Technical Director/Representative

Date: 05/23/23

ORGANICS

SEMIVOLATILES

Project Name: TROY MILLS LANDFILL SUPERFUND
Project Number: 04.0190987.33

Lab Number: L2323076
Report Date: 05/23/23

SAMPLE RESULTS

Lab ID: L2323076-01
Client ID: FIELD BLANK- DRYNESS
Sample Location: TROY, NH

Date Collected: 04/25/23 12:45
Date Received: 04/27/23
Field Prep: Not Specified

Sample Depth:

Matrix: Water
Analytical Method: 134,LCMSMS-ID
Analytical Date: 05/18/23 23:04
Analyst: RS

Extraction Method: ALPHA 23528
Extraction Date: 05/16/23 05:14

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Perfluorinated Alkyl Acids by Isotope Dilution - Mansfield Lab						
Nonafluoro-3,6-Dioxaheptanoic Acid (NFDHA)	ND		ng/l	7.38	--	1
Surrogate (Extracted Internal Standard)	% Recovery		Qualifier	Acceptance Criteria		
Perfluoro[1,2,3,4,6-13C5]Hexanoic Acid (M5PFHxA)	122			57-129		

Project Name: TROY MILLS LANDFILL SUPERFUND
Project Number: 04.0190987.33

Lab Number: L2323076
Report Date: 05/23/23

SAMPLE RESULTS

Lab ID: L2323076-01
Client ID: FIELD BLANK- DRYNESS
Sample Location: TROY, NH

Date Collected: 04/25/23 12:45
Date Received: 04/27/23
Field Prep: Not Specified

Sample Depth:

Matrix: Water
Analytical Method: 134,LCMSMS-ID
Analytical Date: 05/19/23 20:16
Analyst: RS

Extraction Method: ALPHA 23528
Extraction Date: 05/16/23 05:14

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Perfluorinated Alkyl Acids by Isotope Dilution - Mansfield Lab						
Perfluorooctanesulfonamide (FOSA)	ND		ng/l	1.84	--	1
N-Methyl Perfluorooctane Sulfonamide (NMeFOSA)	ND		ng/l	18.4	--	1
N-Ethyl Perfluorooctane Sulfonamide (NEtFOSA)	ND		ng/l	18.4	--	1
N-Methyl Perfluorooctanesulfonamido Ethanol (NMeFOSE)	ND		ng/l	46.1	--	1
N-Ethyl Perfluorooctanesulfonamido Ethanol (NEtFOSE)	ND		ng/l	46.1	--	1

Surrogate (Extracted Internal Standard)	% Recovery	Qualifier	Acceptance Criteria
Perfluoro[13C8]Octanesulfonamide (M8FOSA)	65		5-112
N-Methyl-d3-Perfluoro-1-Octanesulfonamide (d3-NMeFOSA)	67		10-161
N-Ethyl-d5-Perfluoro-1-Octanesulfonamide (d5-NEtFOSA)	58		10-160
2-(N-Methyl-d3-Perfluoro-1-Octanesulfonamido)ethan-d4-ol (d7-NMeFOSE)	59		10-189
2-(N-Ethyl-d5-Perfluoro-1-Octanesulfonamido)ethan-d4-ol (d9-NEtFOSE)	56		10-187

Project Name: TROY MILLS LANDFILL SUPERFUND
Project Number: 04.0190987.33

Lab Number: L2323076
Report Date: 05/23/23

SAMPLE RESULTS

Lab ID: L2323076-01
Client ID: FIELD BLANK- DRYNESS
Sample Location: TROY, NH

Date Collected: 04/25/23 12:45
Date Received: 04/27/23
Field Prep: Not Specified

Sample Depth:

Matrix: Water
Analytical Method: 134,LCMSMS-ID
Analytical Date: 05/20/23 19:04
Analyst: SG

Extraction Method: ALPHA 23528
Extraction Date: 05/16/23 05:14

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Perfluorinated Alkyl Acids by Isotope Dilution - Mansfield Lab						
Perfluorobutanoic Acid (PFBA)	ND		ng/l	1.84	--	1
Perfluoropentanoic Acid (PFPeA)	ND		ng/l	1.84	--	1
Perfluorobutanesulfonic Acid (PFBS)	ND		ng/l	1.84	--	1
1H,1H,2H,2H-Perfluorohexanesulfonic Acid (4:2FTS)	ND		ng/l	1.84	--	1
Perfluorohexanoic Acid (PFHxA)	ND		ng/l	1.84	--	1
Perfluoropentanesulfonic Acid (PFPeS)	ND		ng/l	1.84	--	1
Perfluoroheptanoic Acid (PFHpA)	ND		ng/l	1.84	--	1
Perfluorohexanesulfonic Acid (PFHxS)	ND		ng/l	1.84	--	1
Perfluorooctanoic Acid (PFOA)	ND		ng/l	1.84	--	1
1H,1H,2H,2H-Perfluorooctanesulfonic Acid (6:2FTS)	ND		ng/l	1.84	--	1
Perfluoroheptanesulfonic Acid (PFHpS)	ND		ng/l	1.84	--	1
Perfluorononanoic Acid (PFNA)	ND		ng/l	1.84	--	1
Perfluorooctanesulfonic Acid (PFOS)	ND		ng/l	1.84	--	1
Perfluorodecanoic Acid (PFDA)	ND		ng/l	1.84	--	1
1H,1H,2H,2H-Perfluorodecanesulfonic Acid (8:2FTS)	ND		ng/l	1.84	--	1
Perfluorononanesulfonic Acid (PFNS)	ND		ng/l	1.84	--	1
N-Methyl Perfluorooctanesulfonamidoacetic Acid (NMeFOSAA)	ND		ng/l	1.84	--	1
Perfluoroundecanoic Acid (PFUnA)	ND		ng/l	1.84	--	1
Perfluorodecanesulfonic Acid (PFDS)	ND		ng/l	1.84	--	1
N-Ethyl Perfluorooctanesulfonamidoacetic Acid (NEtFOSAA)	ND		ng/l	1.84	--	1
Perfluorododecanoic Acid (PFDoA)	ND		ng/l	1.84	--	1
Perfluorotridecanoic Acid (PFTrDA)	ND		ng/l	1.84	--	1
Perfluorotetradecanoic Acid (PFTA)	ND		ng/l	1.84	--	1
2,3,3,3-Tetrafluoro-2-[1,1,2,2,3,3,3-Heptafluoropropoxy]-Propanoic Acid (HFPO-DA)	ND		ng/l	18.4	--	1
4,8-Dioxo-3h-Perfluorononanoic Acid (ADONA)	ND		ng/l	1.84	--	1
Perfluorohexadecanoic Acid (PFHxDA)	ND		ng/l	3.69	--	1
Perfluorooctadecanoic Acid (PFODA)	ND		ng/l	3.69	--	1

Project Name: TROY MILLS LANDFILL SUPERFUND
Project Number: 04.0190987.33

Lab Number: L2323076
Report Date: 05/23/23

SAMPLE RESULTS

Lab ID: L2323076-01
Client ID: FIELD BLANK- DRYNESS
Sample Location: TROY, NH

Date Collected: 04/25/23 12:45
Date Received: 04/27/23
Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Perfluorinated Alkyl Acids by Isotope Dilution - Mansfield Lab						
Perfluorododecane Sulfonic Acid (PFDoDS)	ND		ng/l	1.84	--	1
1H,1H,2H,2H-Perfluorododecanesulfonic Acid (10:2FTS)	ND		ng/l	4.61	--	1
9-Chlorohexadecafluoro-3-Oxanone-1-Sulfonic Acid (9Cl-PF3ONS)	ND		ng/l	1.84	--	1
11-Chloroeicosafluoro-3-Oxaundecane-1-Sulfonic Acid (11Cl-PF3OUdS)	ND		ng/l	1.84	--	1
Perfluoro-3-Methoxypropanoic Acid (PFMPA)	ND		ng/l	1.84	--	1
Perfluoro-4-Methoxybutanoic Acid (PFMBA)	ND		ng/l	1.84	--	1
Perfluoro(2-Ethoxyethane)Sulfonic Acid (PFEEESA)	ND		ng/l	1.84	--	1

Surrogate (Extracted Internal Standard)	% Recovery	Qualifier	Acceptance Criteria
Perfluoro[13C4]Butanoic Acid (MPFBA)	101		58-132
Perfluoro[13C5]Pentanoic Acid (M5PFPEA)	103		62-163
Perfluoro[2,3,4-13C3]Butanesulfonic Acid (M3PFBS)	107		70-131
1H,1H,2H,2H-Perfluoro[1,2-13C2]Hexanesulfonic Acid (M2-4:2FTS)	107		12-142
Perfluoro[1,2,3,4,6-13C5]Hexanoic Acid (M5PFHxA)	103		57-129
Perfluoro[1,2,3,4-13C4]Heptanoic Acid (M4PFHpA)	104		60-129
Perfluoro[1,2,3-13C3]Hexanesulfonic Acid (M3PFHxS)	106		71-134
Perfluoro[13C8]Octanoic Acid (M8PFOA)	100		62-129
1H,1H,2H,2H-Perfluoro[1,2-13C2]Octanesulfonic Acid (M2-6:2FTS)	114		14-147
Perfluoro[13C9]Nonanoic Acid (M9PFNA)	96		59-139
Perfluoro[13C8]Octanesulfonic Acid (M8PFOS)	93		69-131
Perfluoro[1,2,3,4,5,6-13C6]Decanoic Acid (M6PFDA)	98		62-124
1H,1H,2H,2H-Perfluoro[1,2-13C2]Decanesulfonic Acid (M2-8:2FTS)	99		10-162
N-Deuteriomethylperfluoro-1-octanesulfonamidoacetic Acid (d3-NMeFOSAA)	110		24-116
Perfluoro[1,2,3,4,5,6,7-13C7]Undecanoic Acid (M7-PFUDA)	119		55-137
N-Deuterioethylperfluoro-1-octanesulfonamidoacetic Acid (d5-NEtFOSAA)	126		27-126
Perfluoro[1,2-13C2]Dodecanoic Acid (MPFDOA)	120		48-131
Perfluoro[1,2-13C2]Tetradecanoic Acid (M2PFTEDA)	83		22-136
2,3,3,3-Tetrafluoro-2-[1,1,2,2,3,3,3-Heptafluoropropoxy]-13C3-Propanoic Acid (M3HFPO-DA)	122		10-165
Perfluoro[13C2]Hexadecanoic Acid (M2PFHxDA)	114		10-206
1H,1H,2H,2H-Perfluorododecane Sulfonate (M2D4-10:2FTS)	155	Q	50-150

Project Name: TROY MILLS LANDFILL SUPERFUND
Project Number: 04.0190987.33

Lab Number: L2323076
Report Date: 05/23/23

SAMPLE RESULTS

Lab ID: L2323076-02
Client ID: FIELD BLANK- FULTON
Sample Location: TROY, NH

Date Collected: 04/25/23 12:25
Date Received: 04/27/23
Field Prep: Not Specified

Sample Depth:
Matrix: Water
Analytical Method: 134,LCMSMS-ID
Analytical Date: 05/18/23 23:20
Analyst: RS

Extraction Method: ALPHA 23528
Extraction Date: 05/16/23 05:14

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Perfluorinated Alkyl Acids by Isotope Dilution - Mansfield Lab						
Nonafluoro-3,6-Dioxaheptanoic Acid (NFDHA)	ND		ng/l	7.50	--	1

Project Name: TROY MILLS LANDFILL SUPERFUND
Project Number: 04.0190987.33

Lab Number: L2323076
Report Date: 05/23/23

SAMPLE RESULTS

Lab ID: L2323076-02
Client ID: FIELD BLANK- FULTON
Sample Location: TROY, NH

Date Collected: 04/25/23 12:25
Date Received: 04/27/23
Field Prep: Not Specified

Sample Depth:

Matrix: Water
Analytical Method: 134,LCMSMS-ID
Analytical Date: 05/19/23 20:22
Analyst: RS

Extraction Method: ALPHA 23528
Extraction Date: 05/16/23 05:14

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Perfluorinated Alkyl Acids by Isotope Dilution - Mansfield Lab						
Perfluorooctanesulfonamide (FOSA)	ND		ng/l	1.87	--	1
N-Methyl Perfluorooctane Sulfonamide (NMeFOSA)	ND		ng/l	18.7	--	1
N-Ethyl Perfluorooctane Sulfonamide (NEtFOSA)	ND		ng/l	18.7	--	1
N-Methyl Perfluorooctanesulfonamido Ethanol (NMeFOSE)	ND		ng/l	46.9	--	1
N-Ethyl Perfluorooctanesulfonamido Ethanol (NEtFOSE)	ND		ng/l	46.9	--	1

Surrogate (Extracted Internal Standard)	% Recovery	Qualifier	Acceptance Criteria
Perfluoro[13C8]Octanesulfonamide (M8FOSA)	59		5-112
N-Methyl-d3-Perfluoro-1-Octanesulfonamide (d3-NMeFOSA)	61		10-161
N-Ethyl-d5-Perfluoro-1-Octanesulfonamide (d5-NEtFOSA)	59		10-160
2-(N-Methyl-d3-Perfluoro-1-Octanesulfonamido)ethan-d4-ol (d7-NMeFOSE)	54		10-189
2-(N-Ethyl-d5-Perfluoro-1-Octanesulfonamido)ethan-d4-ol (d9-NEtFOSE)	55		10-187

Project Name: TROY MILLS LANDFILL SUPERFUND
Project Number: 04.0190987.33

Lab Number: L2323076
Report Date: 05/23/23

SAMPLE RESULTS

Lab ID: L2323076-02
Client ID: FIELD BLANK- FULTON
Sample Location: TROY, NH

Date Collected: 04/25/23 12:25
Date Received: 04/27/23
Field Prep: Not Specified

Sample Depth:

Matrix: Water
Analytical Method: 134,LCMSMS-ID
Analytical Date: 05/20/23 19:20
Analyst: SG

Extraction Method: ALPHA 23528
Extraction Date: 05/16/23 05:14

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Perfluorinated Alkyl Acids by Isotope Dilution - Mansfield Lab						
Perfluorobutanoic Acid (PFBA)	ND		ng/l	1.87	--	1
Perfluoropentanoic Acid (PFPeA)	ND		ng/l	1.87	--	1
Perfluorobutanesulfonic Acid (PFBS)	ND		ng/l	1.87	--	1
1H,1H,2H,2H-Perfluorohexanesulfonic Acid (4:2FTS)	ND		ng/l	1.87	--	1
Perfluorohexanoic Acid (PFHxA)	ND		ng/l	1.87	--	1
Perfluoropentanesulfonic Acid (PFPeS)	ND		ng/l	1.87	--	1
Perfluoroheptanoic Acid (PFHpA)	ND		ng/l	1.87	--	1
Perfluorohexanesulfonic Acid (PFHxS)	ND		ng/l	1.87	--	1
Perfluorooctanoic Acid (PFOA)	ND		ng/l	1.87	--	1
1H,1H,2H,2H-Perfluorooctanesulfonic Acid (6:2FTS)	ND		ng/l	1.87	--	1
Perfluoroheptanesulfonic Acid (PFHpS)	ND		ng/l	1.87	--	1
Perfluorononanoic Acid (PFNA)	ND		ng/l	1.87	--	1
Perfluorooctanesulfonic Acid (PFOS)	ND		ng/l	1.87	--	1
Perfluorodecanoic Acid (PFDA)	ND		ng/l	1.87	--	1
1H,1H,2H,2H-Perfluorodecanesulfonic Acid (8:2FTS)	ND		ng/l	1.87	--	1
Perfluorononanesulfonic Acid (PFNS)	ND		ng/l	1.87	--	1
N-Methyl Perfluorooctanesulfonamidoacetic Acid (NMeFOSAA)	ND		ng/l	1.87	--	1
Perfluoroundecanoic Acid (PFUnA)	ND		ng/l	1.87	--	1
Perfluorodecanesulfonic Acid (PFDS)	ND		ng/l	1.87	--	1
N-Ethyl Perfluorooctanesulfonamidoacetic Acid (NEtFOSAA)	ND		ng/l	1.87	--	1
Perfluorododecanoic Acid (PFDoA)	ND		ng/l	1.87	--	1
Perfluorotridecanoic Acid (PFTrDA)	ND		ng/l	1.87	--	1
Perfluorotetradecanoic Acid (PFTA)	ND		ng/l	1.87	--	1
2,3,3,3-Tetrafluoro-2-[1,1,2,2,3,3,3-Heptafluoropropoxy]-Propanoic Acid (HFPO-DA)	ND		ng/l	18.7	--	1
4,8-Dioxo-3h-Perfluorononanoic Acid (ADONA)	ND		ng/l	1.87	--	1
Perfluorohexadecanoic Acid (PFHxDA)	ND		ng/l	3.75	--	1
Perfluorooctadecanoic Acid (PFODA)	ND		ng/l	3.75	--	1

Project Name: TROY MILLS LANDFILL SUPERFUND**Lab Number:** L2323076**Project Number:** 04.0190987.33**Report Date:** 05/23/23**SAMPLE RESULTS**

Lab ID: L2323076-02
Client ID: FIELD BLANK- FULTON
Sample Location: TROY, NH

Date Collected: 04/25/23 12:25
Date Received: 04/27/23
Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Perfluorinated Alkyl Acids by Isotope Dilution - Mansfield Lab						
Perfluorododecane Sulfonic Acid (PFDoDS)	ND		ng/l	1.87	--	1
1H,1H,2H,2H-Perfluorododecanesulfonic Acid (10:2FTS)	ND		ng/l	4.69	--	1
9-Chlorohexadecafluoro-3-Oxanone-1-Sulfonic Acid (9Cl-PF3ONS)	ND		ng/l	1.87	--	1
11-Chloroeicosafluoro-3-Oxaundecane-1-Sulfonic Acid (11Cl-PF3OUdS)	ND		ng/l	1.87	--	1
Perfluoro-3-Methoxypropanoic Acid (PFMPA)	ND		ng/l	1.87	--	1
Perfluoro-4-Methoxybutanoic Acid (PFMBA)	ND		ng/l	1.87	--	1
Perfluoro(2-Ethoxyethane)Sulfonic Acid (PFEEESA)	ND		ng/l	1.87	--	1

Surrogate (Extracted Internal Standard)	% Recovery	Qualifier	Acceptance Criteria
Perfluoro[13C4]Butanoic Acid (MPFBA)	98		58-132
Perfluoro[13C5]Pentanoic Acid (M5PFPEA)	99		62-163
Perfluoro[2,3,4-13C3]Butanesulfonic Acid (M3PFBS)	99		70-131
1H,1H,2H,2H-Perfluoro[1,2-13C2]Hexanesulfonic Acid (M2-4:2FTS)	97		12-142
Perfluoro[1,2,3,4,6-13C5]Hexanoic Acid (M5PFHxA)	99		57-129
Perfluoro[1,2,3,4-13C4]Heptanoic Acid (M4PFHpA)	103		60-129
Perfluoro[1,2,3-13C3]Hexanesulfonic Acid (M3PFHxS)	99		71-134
Perfluoro[13C8]Octanoic Acid (M8PFOA)	93		62-129
1H,1H,2H,2H-Perfluoro[1,2-13C2]Octanesulfonic Acid (M2-6:2FTS)	100		14-147
Perfluoro[13C9]Nonanoic Acid (M9PFNA)	95		59-139
Perfluoro[13C8]Octanesulfonic Acid (M8PFOS)	87		69-131
Perfluoro[1,2,3,4,5,6-13C6]Decanoic Acid (M6PFDA)	85		62-124
1H,1H,2H,2H-Perfluoro[1,2-13C2]Decanesulfonic Acid (M2-8:2FTS)	91		10-162
N-Deuteriomethylperfluoro-1-octanesulfonamidoacetic Acid (d3-NMeFOSAA)	108		24-116
Perfluoro[1,2,3,4,5,6,7-13C7]Undecanoic Acid (M7-PFUDA)	112		55-137
N-Deuterioethylperfluoro-1-octanesulfonamidoacetic Acid (d5-NEtFOSAA)	120		27-126
Perfluoro[1,2-13C2]Dodecanoic Acid (MPFDOA)	110		48-131
Perfluoro[1,2-13C2]Tetradecanoic Acid (M2PFTEDA)	82		22-136
2,3,3,3-Tetrafluoro-2-[1,1,2,2,3,3,3-Heptafluoropropoxy]-13C3-Propanoic Acid (M3HFPO-DA)	98		10-165
Perfluoro[13C2]Hexadecanoic Acid (M2PFHxDA)	125		10-206
1H,1H,2H,2H-Perfluorododecane Sulfonate (M2D4-10:2FTS)	131		50-150

Project Name: TROY MILLS LANDFILL SUPERFUND
Project Number: 04.0190987.33

Lab Number: L2323076
Report Date: 05/23/23

SAMPLE RESULTS

Lab ID: L2323076-03
Client ID: TRY_MW-902B
Sample Location: TROY, NH

Date Collected: 04/25/23 12:50
Date Received: 04/27/23
Field Prep: Not Specified

Sample Depth:
Matrix: Water
Analytical Method: 134,LCMSMS-ID
Analytical Date: 05/18/23 23:37
Analyst: RS

Extraction Method: ALPHA 23528
Extraction Date: 05/16/23 05:14

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Perfluorinated Alkyl Acids by Isotope Dilution - Mansfield Lab						
Nonafluoro-3,6-Dioxaheptanoic Acid (NFDHA)	ND		ng/l	7.41	--	1
Surrogate (Extracted Internal Standard)			% Recovery	Qualifier	Acceptance Criteria	
Perfluoro[1,2,3,4,6-13C5]Hexanoic Acid (M5PFHxA)			131	Q	57-129	

Project Name: TROY MILLS LANDFILL SUPERFUND
Project Number: 04.0190987.33

Lab Number: L2323076
Report Date: 05/23/23

SAMPLE RESULTS

Lab ID: L2323076-03
Client ID: TRY_MW-902B
Sample Location: TROY, NH

Date Collected: 04/25/23 12:50
Date Received: 04/27/23
Field Prep: Not Specified

Sample Depth:

Matrix: Water
Analytical Method: 134,LCMSMS-ID
Analytical Date: 05/19/23 20:28
Analyst: RS

Extraction Method: ALPHA 23528
Extraction Date: 05/16/23 05:14

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Perfluorinated Alkyl Acids by Isotope Dilution - Mansfield Lab						
Perfluorooctanesulfonamide (FOSA)	ND		ng/l	1.85	--	1
N-Methyl Perfluorooctane Sulfonamide (NMeFOSA)	ND		ng/l	18.5	--	1
N-Ethyl Perfluorooctane Sulfonamide (NEtFOSA)	ND		ng/l	18.5	--	1
N-Methyl Perfluorooctanesulfonamido Ethanol (NMeFOSE)	ND		ng/l	46.3	--	1
N-Ethyl Perfluorooctanesulfonamido Ethanol (NEtFOSE)	ND		ng/l	46.3	--	1

Surrogate (Extracted Internal Standard)	% Recovery	Qualifier	Acceptance Criteria
Perfluoro[13C8]Octanesulfonamide (M8FOSA)	64		5-112
N-Methyl-d3-Perfluoro-1-Octanesulfonamide (d3-NMeFOSA)	67		10-161
N-Ethyl-d5-Perfluoro-1-Octanesulfonamide (d5-NEtFOSA)	61		10-160
2-(N-Methyl-d3-Perfluoro-1-Octanesulfonamido)ethan-d4-ol (d7-NMeFOSE)	58		10-189
2-(N-Ethyl-d5-Perfluoro-1-Octanesulfonamido)ethan-d4-ol (d9-NEtFOSE)	55		10-187

Project Name: TROY MILLS LANDFILL SUPERFUND**Lab Number:** L2323076**Project Number:** 04.0190987.33**Report Date:** 05/23/23**SAMPLE RESULTS**

Lab ID: L2323076-03
 Client ID: TRY_MW-902B
 Sample Location: TROY, NH

Date Collected: 04/25/23 12:50
 Date Received: 04/27/23
 Field Prep: Not Specified

Sample Depth:

Matrix: Water
 Analytical Method: 134,LCMSMS-ID
 Analytical Date: 05/20/23 19:37
 Analyst: SG

Extraction Method: ALPHA 23528
 Extraction Date: 05/16/23 05:14

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Perfluorinated Alkyl Acids by Isotope Dilution - Mansfield Lab						
Perfluorobutanoic Acid (PFBA)	ND		ng/l	1.85	--	1
Perfluoropentanoic Acid (PFPeA)	ND		ng/l	1.85	--	1
Perfluorobutanesulfonic Acid (PFBS)	ND		ng/l	1.85	--	1
1H,1H,2H,2H-Perfluorohexanesulfonic Acid (4:2FTS)	ND		ng/l	1.85	--	1
Perfluorohexanoic Acid (PFHxA)	ND		ng/l	1.85	--	1
Perfluoropentanesulfonic Acid (PFPeS)	ND		ng/l	1.85	--	1
Perfluoroheptanoic Acid (PFHpA)	ND		ng/l	1.85	--	1
Perfluorohexanesulfonic Acid (PFHxS)	ND		ng/l	1.85	--	1
Perfluorooctanoic Acid (PFOA)	ND		ng/l	1.85	--	1
1H,1H,2H,2H-Perfluorooctanesulfonic Acid (6:2FTS)	91.0		ng/l	1.85	--	1
Perfluoroheptanesulfonic Acid (PFHpS)	ND		ng/l	1.85	--	1
Perfluorononanoic Acid (PFNA)	ND		ng/l	1.85	--	1
Perfluorooctanesulfonic Acid (PFOS)	ND		ng/l	1.85	--	1
Perfluorodecanoic Acid (PFDA)	ND		ng/l	1.85	--	1
1H,1H,2H,2H-Perfluorodecanesulfonic Acid (8:2FTS)	ND		ng/l	1.85	--	1
Perfluorononanesulfonic Acid (PFNS)	ND		ng/l	1.85	--	1
N-Methyl Perfluorooctanesulfonamidoacetic Acid (NMeFOSAA)	ND		ng/l	1.85	--	1
Perfluoroundecanoic Acid (PFUnA)	ND		ng/l	1.85	--	1
Perfluorodecanesulfonic Acid (PFDS)	ND		ng/l	1.85	--	1
N-Ethyl Perfluorooctanesulfonamidoacetic Acid (NEtFOSAA)	ND		ng/l	1.85	--	1
Perfluorododecanoic Acid (PFDoA)	ND		ng/l	1.85	--	1
Perfluorotridecanoic Acid (PFTrDA)	ND		ng/l	1.85	--	1
Perfluorotetradecanoic Acid (PFTA)	ND		ng/l	1.85	--	1
2,3,3,3-Tetrafluoro-2-[1,1,2,2,3,3,3-Heptafluoropropoxy]-Propanoic Acid (HFPO-DA)	ND		ng/l	18.5	--	1
4,8-Dioxo-3h-Perfluorononanoic Acid (ADONA)	1.93	F	ng/l	1.85	--	1
Perfluorohexadecanoic Acid (PFHxDA)	ND		ng/l	3.70	--	1
Perfluorooctadecanoic Acid (PFODA)	ND		ng/l	3.70	--	1

Project Name: TROY MILLS LANDFILL SUPERFUND**Lab Number:** L2323076**Project Number:** 04.0190987.33**Report Date:** 05/23/23**SAMPLE RESULTS**

Lab ID: L2323076-03
Client ID: TRY_MW-902B
Sample Location: TROY, NH

Date Collected: 04/25/23 12:50
Date Received: 04/27/23
Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Perfluorinated Alkyl Acids by Isotope Dilution - Mansfield Lab						
Perfluorododecane Sulfonic Acid (PFDoDS)	ND		ng/l	1.85	--	1
1H,1H,2H,2H-Perfluorododecanesulfonic Acid (10:2FTS)	ND		ng/l	4.63	--	1
9-Chlorohexadecafluoro-3-Oxanone-1-Sulfonic Acid (9Cl-PF3ONS)	ND		ng/l	1.85	--	1
11-Chloroeicosafluoro-3-Oxaundecane-1-Sulfonic Acid (11Cl-PF3OUdS)	ND		ng/l	1.85	--	1
Perfluoro-3-Methoxypropanoic Acid (PFMPA)	ND		ng/l	1.85	--	1
Perfluoro-4-Methoxybutanoic Acid (PFMBA)	ND		ng/l	1.85	--	1
Perfluoro(2-Ethoxyethane)Sulfonic Acid (PFEESA)	ND		ng/l	1.85	--	1

Surrogate (Extracted Internal Standard)	% Recovery	Qualifier	Acceptance Criteria
Perfluoro[13C4]Butanoic Acid (MPFBA)	97		58-132
Perfluoro[13C5]Pentanoic Acid (M5PFPEA)	109		62-163
Perfluoro[2,3,4-13C3]Butanesulfonic Acid (M3PFBS)	106		70-131
1H,1H,2H,2H-Perfluoro[1,2-13C2]Hexanesulfonic Acid (M2-4:2FTS)	151	Q	12-142
Perfluoro[1,2,3,4,6-13C5]Hexanoic Acid (M5PFHxA)	100		57-129
Perfluoro[1,2,3,4-13C4]Heptanoic Acid (M4PFHpA)	104		60-129
Perfluoro[1,2,3-13C3]Hexanesulfonic Acid (M3PFHxS)	105		71-134
Perfluoro[13C8]Octanoic Acid (M8PFOA)	97		62-129
1H,1H,2H,2H-Perfluoro[1,2-13C2]Octanesulfonic Acid (M2-6:2FTS)	129		14-147
Perfluoro[13C9]Nonanoic Acid (M9PFNA)	95		59-139
Perfluoro[13C8]Octanesulfonic Acid (M8PFOS)	89		69-131
Perfluoro[1,2,3,4,5,6-13C6]Decanoic Acid (M6PFDA)	89		62-124
1H,1H,2H,2H-Perfluoro[1,2-13C2]Decanesulfonic Acid (M2-8:2FTS)	101		10-162
N-Deuteriomethylperfluoro-1-octanesulfonamidoacetic Acid (d3-NMeFOSAA)	106		24-116
Perfluoro[1,2,3,4,5,6,7-13C7]Undecanoic Acid (M7-PFUDA)	114		55-137
N-Deuterioethylperfluoro-1-octanesulfonamidoacetic Acid (d5-NEtFOSAA)	121		27-126
Perfluoro[1,2-13C2]Dodecanoic Acid (MPFDOA)	107		48-131
Perfluoro[1,2-13C2]Tetradecanoic Acid (M2PFTEDA)	80		22-136
2,3,3,3-Tetrafluoro-2-[1,1,2,2,3,3,3-Heptafluoropropoxy]-13C3-Propanoic Acid (M3HFPO-DA)	109		10-165
Perfluoro[13C2]Hexadecanoic Acid (M2PFHxDA)	101		10-206
1H,1H,2H,2H-Perfluorododecane Sulfonate (M2D4-10:2FTS)	136		50-150

Project Name: TROY MILLS LANDFILL SUPERFUND
Project Number: 04.0190987.33

Lab Number: L2323076
Report Date: 05/23/23

SAMPLE RESULTS

Lab ID: L2323076-04
Client ID: TRY_MW-902S
Sample Location: TROY, NH

Date Collected: 04/25/23 12:30
Date Received: 04/27/23
Field Prep: Not Specified

Sample Depth:
Matrix: Water
Analytical Method: 134,LCMSMS-ID
Analytical Date: 05/19/23 00:10
Analyst: RS

Extraction Method: ALPHA 23528
Extraction Date: 05/16/23 05:14

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Perfluorinated Alkyl Acids by Isotope Dilution - Mansfield Lab						
Nonafluoro-3,6-Dioxaheptanoic Acid (NFDHA)	ND		ng/l	7.56	--	1
Surrogate (Extracted Internal Standard)			% Recovery	Qualifier	Acceptance Criteria	
Perfluoro[1,2,3,4,6-13C5]Hexanoic Acid (M5PFHxA)			108		57-129	

Project Name: TROY MILLS LANDFILL SUPERFUND
Project Number: 04.0190987.33

Lab Number: L2323076
Report Date: 05/23/23

SAMPLE RESULTS

Lab ID: L2323076-04
Client ID: TRY_MW-902S
Sample Location: TROY, NH

Date Collected: 04/25/23 12:30
Date Received: 04/27/23
Field Prep: Not Specified

Sample Depth:

Matrix: Water
Analytical Method: 134,LCMSMS-ID
Analytical Date: 05/19/23 20:40
Analyst: RS

Extraction Method: ALPHA 23528
Extraction Date: 05/16/23 05:14

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Perfluorinated Alkyl Acids by Isotope Dilution - Mansfield Lab						
Perfluorooctanesulfonamide (FOSA)	ND		ng/l	1.89	--	1
N-Methyl Perfluorooctane Sulfonamide (NMeFOSA)	ND		ng/l	18.9	--	1
N-Ethyl Perfluorooctane Sulfonamide (NEtFOSA)	ND		ng/l	18.9	--	1
N-Methyl Perfluorooctanesulfonamido Ethanol (NMeFOSE)	ND		ng/l	47.2	--	1
N-Ethyl Perfluorooctanesulfonamido Ethanol (NEtFOSE)	ND		ng/l	47.2	--	1

Surrogate (Extracted Internal Standard)	% Recovery	Qualifier	Acceptance Criteria
Perfluoro[13C8]Octanesulfonamide (M8FOSA)	60		5-112
N-Methyl-d3-Perfluoro-1-Octanesulfonamide (d3-NMeFOSA)	65		10-161
N-Ethyl-d5-Perfluoro-1-Octanesulfonamide (d5-NEtFOSA)	55		10-160
2-(N-Methyl-d3-Perfluoro-1-Octanesulfonamido)ethan-d4-ol (d7-NMeFOSE)	48		10-189
2-(N-Ethyl-d5-Perfluoro-1-Octanesulfonamido)ethan-d4-ol (d9-NEtFOSE)	48		10-187

Project Name: TROY MILLS LANDFILL SUPERFUND
Project Number: 04.0190987.33

Lab Number: L2323076
Report Date: 05/23/23

SAMPLE RESULTS

Lab ID: L2323076-04
Client ID: TRY_MW-902S
Sample Location: TROY, NH

Date Collected: 04/25/23 12:30
Date Received: 04/27/23
Field Prep: Not Specified

Sample Depth:

Matrix: Water
Analytical Method: 134,LCMSMS-ID
Analytical Date: 05/20/23 20:10
Analyst: SG

Extraction Method: ALPHA 23528
Extraction Date: 05/16/23 05:14

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Perfluorinated Alkyl Acids by Isotope Dilution - Mansfield Lab						
Perfluorobutanoic Acid (PFBA)	93.9		ng/l	1.89	--	1
Perfluoropentanoic Acid (PFPeA)	189		ng/l	1.89	--	1
Perfluorobutanesulfonic Acid (PFBS)	23.1		ng/l	1.89	--	1
1H,1H,2H,2H-Perfluorohexanesulfonic Acid (4:2FTS)	ND		ng/l	1.89	--	1
Perfluorohexanoic Acid (PFHxA)	311		ng/l	1.89	--	1
Perfluoropentanesulfonic Acid (PFPeS)	ND		ng/l	1.89	--	1
Perfluoroheptanoic Acid (PFHpA)	534		ng/l	1.89	--	1
Perfluorohexanesulfonic Acid (PFHxS)	2.00	F	ng/l	1.89	--	1
Perfluorooctanoic Acid (PFOA)	344		ng/l	1.89	--	1
1H,1H,2H,2H-Perfluorooctanesulfonic Acid (6:2FTS)	ND		ng/l	1.89	--	1
Perfluoroheptanesulfonic Acid (PFHpS)	ND		ng/l	1.89	--	1
Perfluorononanoic Acid (PFNA)	ND		ng/l	1.89	--	1
Perfluorooctanesulfonic Acid (PFOS)	2.87		ng/l	1.89	--	1
Perfluorodecanoic Acid (PFDA)	1.90		ng/l	1.89	--	1
1H,1H,2H,2H-Perfluorodecanesulfonic Acid (8:2FTS)	ND		ng/l	1.89	--	1
Perfluorononanesulfonic Acid (PFNS)	ND		ng/l	1.89	--	1
N-Methyl Perfluorooctanesulfonamidoacetic Acid (NMeFOSAA)	ND		ng/l	1.89	--	1
Perfluoroundecanoic Acid (PFUnA)	ND		ng/l	1.89	--	1
Perfluorodecanesulfonic Acid (PFDS)	ND		ng/l	1.89	--	1
N-Ethyl Perfluorooctanesulfonamidoacetic Acid (NEtFOSAA)	ND		ng/l	1.89	--	1
Perfluorododecanoic Acid (PFDoA)	ND		ng/l	1.89	--	1
Perfluorotridecanoic Acid (PFTrDA)	ND		ng/l	1.89	--	1
Perfluorotetradecanoic Acid (PFTA)	ND		ng/l	1.89	--	1
2,3,3,3-Tetrafluoro-2-[1,1,2,2,3,3,3-Heptafluoropropoxy]-Propanoic Acid (HFPO-DA)	ND		ng/l	18.9	--	1
4,8-Dioxo-3h-Perfluorononanoic Acid (ADONA)	ND		ng/l	1.89	--	1
Perfluorohexadecanoic Acid (PFHxDA)	ND		ng/l	3.78	--	1
Perfluorooctadecanoic Acid (PFODA)	ND		ng/l	3.78	--	1

Project Name: TROY MILLS LANDFILL SUPERFUND**Lab Number:** L2323076**Project Number:** 04.0190987.33**Report Date:** 05/23/23**SAMPLE RESULTS****Lab ID:** L2323076-04**Date Collected:** 04/25/23 12:30**Client ID:** TRY_MW-902S**Date Received:** 04/27/23**Sample Location:** TROY, NH**Field Prep:** Not Specified**Sample Depth:**

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Perfluorinated Alkyl Acids by Isotope Dilution - Mansfield Lab						
Perfluorododecane Sulfonic Acid (PFDoDS)	ND		ng/l	1.89	--	1
1H,1H,2H,2H-Perfluorododecanesulfonic Acid (10:2FTS)	ND		ng/l	4.72	--	1
9-Chlorohexadecafluoro-3-Oxanone-1-Sulfonic Acid (9Cl-PF3ONS)	ND		ng/l	1.89	--	1
11-Chloroeicosafluoro-3-Oxaundecane-1-Sulfonic Acid (11Cl-PF3OUdS)	ND		ng/l	1.89	--	1
Perfluoro-3-Methoxypropanoic Acid (PFMPA)	ND		ng/l	1.89	--	1
Perfluoro-4-Methoxybutanoic Acid (PFMBA)	ND		ng/l	1.89	--	1
Perfluoro(2-Ethoxyethane)Sulfonic Acid (PFEEESA)	ND		ng/l	1.89	--	1

Surrogate (Extracted Internal Standard)	% Recovery	Qualifier	Acceptance Criteria
Perfluoro[13C4]Butanoic Acid (MPFBA)	86		58-132
Perfluoro[13C5]Pentanoic Acid (M5PFPEA)	78		62-163
Perfluoro[2,3,4-13C3]Butanesulfonic Acid (M3PFBS)	99		70-131
1H,1H,2H,2H-Perfluoro[1,2-13C2]Hexanesulfonic Acid (M2-4:2FTS)	209	Q	12-142
Perfluoro[1,2,3,4,6-13C5]Hexanoic Acid (M5PFHxA)	74		57-129
Perfluoro[1,2,3,4-13C4]Heptanoic Acid (M4PFHpA)	82		60-129
Perfluoro[1,2,3-13C3]Hexanesulfonic Acid (M3PFHxS)	107		71-134
Perfluoro[13C8]Octanoic Acid (M8PFOA)	84		62-129
1H,1H,2H,2H-Perfluoro[1,2-13C2]Octanesulfonic Acid (M2-6:2FTS)	279	Q	14-147
Perfluoro[13C9]Nonanoic Acid (M9PFNA)	87		59-139
Perfluoro[13C8]Octanesulfonic Acid (M8PFOS)	87		69-131
Perfluoro[1,2,3,4,5,6-13C6]Decanoic Acid (M6PFDA)	81		62-124
1H,1H,2H,2H-Perfluoro[1,2-13C2]Decanesulfonic Acid (M2-8:2FTS)	166	Q	10-162
N-Deuteriomethylperfluoro-1-octanesulfonamidoacetic Acid (d3-NMeFOSAA)	117	Q	24-116
Perfluoro[1,2,3,4,5,6,7-13C7]Undecanoic Acid (M7-PFUDA)	111		55-137
N-Deuterioethylperfluoro-1-octanesulfonamidoacetic Acid (d5-NEtFOSAA)	171	Q	27-126
Perfluoro[1,2-13C2]Dodecanoic Acid (MPFDOA)	101		48-131
Perfluoro[1,2-13C2]Tetradecanoic Acid (M2PFTEDA)	73		22-136
2,3,3,3-Tetrafluoro-2-[1,1,2,2,3,3,3-Heptafluoropropoxy]-13C3-Propanoic Acid (M3HFPO-DA)	99		10-165
Perfluoro[13C2]Hexadecanoic Acid (M2PFHxDA)	66		10-206
1H,1H,2H,2H-Perfluorododecane Sulfonate (M2D4-10:2FTS)	282	Q	50-150

Project Name: TROY MILLS LANDFILL SUPERFUND
Project Number: 04.0190987.33

Lab Number: L2323076
Report Date: 05/23/23

SAMPLE RESULTS

Lab ID: L2323076-05
Client ID: TRY_MW-901B
Sample Location: TROY, NH

Date Collected: 04/26/23 12:45
Date Received: 04/27/23
Field Prep: Not Specified

Sample Depth:
Matrix: Water
Analytical Method: 134,LCMSMS-ID
Analytical Date: 05/19/23 00:26
Analyst: RS

Extraction Method: ALPHA 23528
Extraction Date: 05/16/23 05:14

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Perfluorinated Alkyl Acids by Isotope Dilution - Mansfield Lab						
Nonafluoro-3,6-Dioxaheptanoic Acid (NFDHA)	ND		ng/l	7.03	--	1
Surrogate (Extracted Internal Standard)	% Recovery		Qualifier	Acceptance Criteria		
Perfluoro[1,2,3,4,6-13C5]Hexanoic Acid (M5PFHxA)	120			57-129		

Project Name: TROY MILLS LANDFILL SUPERFUND
Project Number: 04.0190987.33

Lab Number: L2323076
Report Date: 05/23/23

SAMPLE RESULTS

Lab ID: L2323076-05
Client ID: TRY_MW-901B
Sample Location: TROY, NH

Date Collected: 04/26/23 12:45
Date Received: 04/27/23
Field Prep: Not Specified

Sample Depth:
Matrix: Water
Analytical Method: 134,LCMSMS-ID
Analytical Date: 05/19/23 20:47
Analyst: RS

Extraction Method: ALPHA 23528
Extraction Date: 05/16/23 05:14

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Perfluorinated Alkyl Acids by Isotope Dilution - Mansfield Lab						
Perfluorooctanesulfonamide (FOSA)	ND		ng/l	1.76	--	1
N-Methyl Perfluorooctane Sulfonamide (NMeFOSA)	ND		ng/l	17.6	--	1
N-Ethyl Perfluorooctane Sulfonamide (NEtFOSA)	ND		ng/l	17.6	--	1
N-Methyl Perfluorooctanesulfonamido Ethanol (NMeFOSE)	ND		ng/l	44.0	--	1
N-Ethyl Perfluorooctanesulfonamido Ethanol (NEtFOSE)	ND		ng/l	44.0	--	1

Surrogate (Extracted Internal Standard)	% Recovery	Qualifier	Acceptance Criteria
Perfluoro[13C8]Octanesulfonamide (M8FOSA)	61		5-112
N-Methyl-d3-Perfluoro-1-Octanesulfonamide (d3-NMeFOSA)	62		10-161
N-Ethyl-d5-Perfluoro-1-Octanesulfonamide (d5-NEtFOSA)	59		10-160
2-(N-Methyl-d3-Perfluoro-1-Octanesulfonamido)ethan-d4-ol (d7-NMeFOSE)	47		10-189
2-(N-Ethyl-d5-Perfluoro-1-Octanesulfonamido)ethan-d4-ol (d9-NEtFOSE)	51		10-187

Project Name: TROY MILLS LANDFILL SUPERFUND
Project Number: 04.0190987.33

Lab Number: L2323076
Report Date: 05/23/23

SAMPLE RESULTS

Lab ID: L2323076-05
Client ID: TRY_MW-901B
Sample Location: TROY, NH

Date Collected: 04/26/23 12:45
Date Received: 04/27/23
Field Prep: Not Specified

Sample Depth:

Matrix: Water
Analytical Method: 134,LCMSMS-ID
Analytical Date: 05/20/23 20:26
Analyst: SG

Extraction Method: ALPHA 23528
Extraction Date: 05/16/23 05:14

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Perfluorinated Alkyl Acids by Isotope Dilution - Mansfield Lab						
Perfluorobutanoic Acid (PFBA)	64.2		ng/l	1.76	--	1
Perfluoropentanoic Acid (PFPeA)	152		ng/l	1.76	--	1
Perfluorobutanesulfonic Acid (PFBS)	20.2		ng/l	1.76	--	1
1H,1H,2H,2H-Perfluorohexanesulfonic Acid (4:2FTS)	ND		ng/l	1.76	--	1
Perfluorohexanoic Acid (PFHxA)	215		ng/l	1.76	--	1
Perfluoropentanesulfonic Acid (PFPeS)	4.25		ng/l	1.76	--	1
Perfluoroheptanoic Acid (PFHpA)	243		ng/l	1.76	--	1
Perfluorohexanesulfonic Acid (PFHxS)	13.6		ng/l	1.76	--	1
Perfluorooctanoic Acid (PFOA)	417		ng/l	1.76	--	1
1H,1H,2H,2H-Perfluorooctanesulfonic Acid (6:2FTS)	2.83		ng/l	1.76	--	1
Perfluoroheptanesulfonic Acid (PFHpS)	ND		ng/l	1.76	--	1
Perfluorononanoic Acid (PFNA)	32.3		ng/l	1.76	--	1
Perfluorooctanesulfonic Acid (PFOS)	18.5	F	ng/l	1.76	--	1
Perfluorodecanoic Acid (PFDA)	ND		ng/l	1.76	--	1
1H,1H,2H,2H-Perfluorodecanesulfonic Acid (8:2FTS)	ND		ng/l	1.76	--	1
Perfluorononanesulfonic Acid (PFNS)	ND		ng/l	1.76	--	1
N-Methyl Perfluorooctanesulfonamidoacetic Acid (NMeFOSAA)	15.0	F	ng/l	1.76	--	1
Perfluoroundecanoic Acid (PFUnA)	ND		ng/l	1.76	--	1
Perfluorodecanesulfonic Acid (PFDS)	ND		ng/l	1.76	--	1
N-Ethyl Perfluorooctanesulfonamidoacetic Acid (NEtFOSAA)	ND		ng/l	1.76	--	1
Perfluorododecanoic Acid (PFDoA)	ND		ng/l	1.76	--	1
Perfluorotridecanoic Acid (PFTrDA)	ND		ng/l	1.76	--	1
Perfluorotetradecanoic Acid (PFTA)	ND		ng/l	1.76	--	1
2,3,3,3-Tetrafluoro-2-[1,1,2,2,3,3,3-Heptafluoropropoxy]-Propanoic Acid (HFPO-DA)	ND		ng/l	17.6	--	1
4,8-Dioxo-3h-Perfluorononanoic Acid (ADONA)	ND		ng/l	1.76	--	1
Perfluorohexadecanoic Acid (PFHxDA)	ND		ng/l	3.52	--	1
Perfluorooctadecanoic Acid (PFODA)	ND		ng/l	3.52	--	1

Project Name: TROY MILLS LANDFILL SUPERFUND**Lab Number:** L2323076**Project Number:** 04.0190987.33**Report Date:** 05/23/23**SAMPLE RESULTS**

Lab ID: L2323076-05
Client ID: TRY_MW-901B
Sample Location: TROY, NH

Date Collected: 04/26/23 12:45
Date Received: 04/27/23
Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Perfluorinated Alkyl Acids by Isotope Dilution - Mansfield Lab						
Perfluorododecane Sulfonic Acid (PFDoDS)	ND		ng/l	1.76	--	1
1H,1H,2H,2H-Perfluorododecanesulfonic Acid (10:2FTS)	ND		ng/l	4.40	--	1
9-Chlorohexadecafluoro-3-Oxanone-1-Sulfonic Acid (9Cl-PF3ONS)	ND		ng/l	1.76	--	1
11-Chloroeicosafluoro-3-Oxaundecane-1-Sulfonic Acid (11Cl-PF3OUdS)	ND		ng/l	1.76	--	1
Perfluoro-3-Methoxypropanoic Acid (PFMPA)	ND		ng/l	1.76	--	1
Perfluoro-4-Methoxybutanoic Acid (PFMBA)	ND		ng/l	1.76	--	1
Perfluoro(2-Ethoxyethane)Sulfonic Acid (PFEEESA)	ND		ng/l	1.76	--	1

Surrogate (Extracted Internal Standard)	% Recovery	Qualifier	Acceptance Criteria
Perfluoro[13C4]Butanoic Acid (MPFBA)	93		58-132
Perfluoro[13C5]Pentanoic Acid (M5PFPEA)	88		62-163
Perfluoro[2,3,4-13C3]Butanesulfonic Acid (M3PFBS)	99		70-131
1H,1H,2H,2H-Perfluoro[1,2-13C2]Hexanesulfonic Acid (M2-4:2FTS)	213	Q	12-142
Perfluoro[1,2,3,4,6-13C5]Hexanoic Acid (M5PFHxA)	87		57-129
Perfluoro[1,2,3,4-13C4]Heptanoic Acid (M4PFHpA)	103		60-129
Perfluoro[1,2,3-13C3]Hexanesulfonic Acid (M3PFHxS)	104		71-134
Perfluoro[13C8]Octanoic Acid (M8PFOA)	94		62-129
1H,1H,2H,2H-Perfluoro[1,2-13C2]Octanesulfonic Acid (M2-6:2FTS)	259	Q	14-147
Perfluoro[13C9]Nonanoic Acid (M9PFNA)	101		59-139
Perfluoro[13C8]Octanesulfonic Acid (M8PFOS)	84		69-131
Perfluoro[1,2,3,4,5,6-13C6]Decanoic Acid (M6PFDA)	85		62-124
1H,1H,2H,2H-Perfluoro[1,2-13C2]Decanesulfonic Acid (M2-8:2FTS)	175	Q	10-162
N-Deuteriomethylperfluoro-1-octanesulfonamidoacetic Acid (d3-NMeFOSAA)	126	Q	24-116
Perfluoro[1,2,3,4,5,6,7-13C7]Undecanoic Acid (M7-PFUDA)	97		55-137
N-Deuterioethylperfluoro-1-octanesulfonamidoacetic Acid (d5-NEtFOSAA)	135	Q	27-126
Perfluoro[1,2-13C2]Dodecanoic Acid (MPFDOA)	111		48-131
Perfluoro[1,2-13C2]Tetradecanoic Acid (M2PFTEDA)	68		22-136
2,3,3,3-Tetrafluoro-2-[1,1,2,2,3,3,3-Heptafluoropropoxy]-13C3-Propanoic Acid (M3HFPO-DA)	102		10-165
Perfluoro[13C2]Hexadecanoic Acid (M2PFHxDA)	95		10-206
1H,1H,2H,2H-Perfluorododecane Sulfonate (M2D4-10:2FTS)	275	Q	50-150

Project Name: TROY MILLS LANDFILL SUPERFUND
Project Number: 04.0190987.33

Lab Number: L2323076
Report Date: 05/23/23

SAMPLE RESULTS

Lab ID: L2323076-06
Client ID: TRY_MW-903B
Sample Location: TROY, NH

Date Collected: 04/26/23 12:40
Date Received: 04/27/23
Field Prep: Not Specified

Sample Depth:
Matrix: Water
Analytical Method: 134,LCMSMS-ID
Analytical Date: 05/19/23 00:42
Analyst: RS

Extraction Method: ALPHA 23528
Extraction Date: 05/16/23 05:14

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Perfluorinated Alkyl Acids by Isotope Dilution - Mansfield Lab						
Nonafluoro-3,6-Dioxaheptanoic Acid (NFDHA)	ND		ng/l	7.34	--	1
Surrogate (Extracted Internal Standard)	% Recovery		Qualifier	Acceptance Criteria		
Perfluoro[1,2,3,4,6-13C5]Hexanoic Acid (M5PFHxA)	125			57-129		

Project Name: TROY MILLS LANDFILL SUPERFUND
Project Number: 04.0190987.33

Lab Number: L2323076
Report Date: 05/23/23

SAMPLE RESULTS

Lab ID: L2323076-06
Client ID: TRY_MW-903B
Sample Location: TROY, NH

Date Collected: 04/26/23 12:40
Date Received: 04/27/23
Field Prep: Not Specified

Sample Depth:

Matrix: Water
Analytical Method: 134,LCMSMS-ID
Analytical Date: 05/19/23 20:53
Analyst: RS

Extraction Method: ALPHA 23528
Extraction Date: 05/16/23 05:14

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Perfluorinated Alkyl Acids by Isotope Dilution - Mansfield Lab						
Perfluorooctanesulfonamide (FOSA)	ND		ng/l	1.83	--	1
N-Methyl Perfluorooctane Sulfonamide (NMeFOSA)	ND		ng/l	18.3	--	1
N-Ethyl Perfluorooctane Sulfonamide (NEtFOSA)	ND		ng/l	18.3	--	1
N-Methyl Perfluorooctanesulfonamido Ethanol (NMeFOSE)	ND		ng/l	45.8	--	1
N-Ethyl Perfluorooctanesulfonamido Ethanol (NEtFOSE)	ND		ng/l	45.8	--	1

Surrogate (Extracted Internal Standard)	% Recovery	Qualifier	Acceptance Criteria
Perfluoro[13C8]Octanesulfonamide (M8FOSA)	61		5-112
N-Methyl-d3-Perfluoro-1-Octanesulfonamide (d3-NMeFOSA)	62		10-161
N-Ethyl-d5-Perfluoro-1-Octanesulfonamide (d5-NEtFOSA)	62		10-160
2-(N-Methyl-d3-Perfluoro-1-Octanesulfonamido)ethan-d4-ol (d7-NMeFOSE)	54		10-189
2-(N-Ethyl-d5-Perfluoro-1-Octanesulfonamido)ethan-d4-ol (d9-NEtFOSE)	55		10-187

Project Name: TROY MILLS LANDFILL SUPERFUND
Project Number: 04.0190987.33

Lab Number: L2323076
Report Date: 05/23/23

SAMPLE RESULTS

Lab ID: L2323076-06
Client ID: TRY_MW-903B
Sample Location: TROY, NH

Date Collected: 04/26/23 12:40
Date Received: 04/27/23
Field Prep: Not Specified

Sample Depth:

Matrix: Water
Analytical Method: 134,LCMSMS-ID
Analytical Date: 05/20/23 20:43
Analyst: SG

Extraction Method: ALPHA 23528
Extraction Date: 05/16/23 05:14

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Perfluorinated Alkyl Acids by Isotope Dilution - Mansfield Lab						
Perfluorobutanoic Acid (PFBA)	ND		ng/l	1.83	--	1
Perfluoropentanoic Acid (PFPeA)	ND		ng/l	1.83	--	1
Perfluorobutanesulfonic Acid (PFBS)	ND		ng/l	1.83	--	1
1H,1H,2H,2H-Perfluorohexanesulfonic Acid (4:2FTS)	ND		ng/l	1.83	--	1
Perfluorohexanoic Acid (PFHxA)	ND		ng/l	1.83	--	1
Perfluoropentanesulfonic Acid (PFPeS)	ND		ng/l	1.83	--	1
Perfluoroheptanoic Acid (PFHpA)	ND		ng/l	1.83	--	1
Perfluorohexanesulfonic Acid (PFHxS)	ND		ng/l	1.83	--	1
Perfluorooctanoic Acid (PFOA)	ND		ng/l	1.83	--	1
1H,1H,2H,2H-Perfluorooctanesulfonic Acid (6:2FTS)	7.06		ng/l	1.83	--	1
Perfluoroheptanesulfonic Acid (PFHpS)	ND		ng/l	1.83	--	1
Perfluorononanoic Acid (PFNA)	ND		ng/l	1.83	--	1
Perfluorooctanesulfonic Acid (PFOS)	ND		ng/l	1.83	--	1
Perfluorodecanoic Acid (PFDA)	ND		ng/l	1.83	--	1
1H,1H,2H,2H-Perfluorodecanesulfonic Acid (8:2FTS)	ND		ng/l	1.83	--	1
Perfluorononanesulfonic Acid (PFNS)	ND		ng/l	1.83	--	1
N-Methyl Perfluorooctanesulfonamidoacetic Acid (NMeFOSAA)	ND		ng/l	1.83	--	1
Perfluoroundecanoic Acid (PFUnA)	ND		ng/l	1.83	--	1
Perfluorodecanesulfonic Acid (PFDS)	ND		ng/l	1.83	--	1
N-Ethyl Perfluorooctanesulfonamidoacetic Acid (NEtFOSAA)	ND		ng/l	1.83	--	1
Perfluorododecanoic Acid (PFDoA)	ND		ng/l	1.83	--	1
Perfluorotridecanoic Acid (PFTrDA)	ND		ng/l	1.83	--	1
Perfluorotetradecanoic Acid (PFTA)	ND		ng/l	1.83	--	1
2,3,3,3-Tetrafluoro-2-[1,1,2,2,3,3,3-Heptafluoropropoxy]-Propanoic Acid (HFPO-DA)	ND		ng/l	18.3	--	1
4,8-Dioxo-3h-Perfluorononanoic Acid (ADONA)	ND		ng/l	1.83	--	1
Perfluorohexadecanoic Acid (PFHxDA)	ND		ng/l	3.67	--	1
Perfluorooctadecanoic Acid (PFODA)	ND		ng/l	3.67	--	1

Project Name: TROY MILLS LANDFILL SUPERFUND**Lab Number:** L2323076**Project Number:** 04.0190987.33**Report Date:** 05/23/23**SAMPLE RESULTS**

Lab ID: L2323076-06
 Client ID: TRY_MW-903B
 Sample Location: TROY, NH

Date Collected: 04/26/23 12:40
 Date Received: 04/27/23
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Perfluorinated Alkyl Acids by Isotope Dilution - Mansfield Lab						
Perfluorododecane Sulfonic Acid (PFDoDS)	ND		ng/l	1.83	--	1
1H,1H,2H,2H-Perfluorododecanesulfonic Acid (10:2FTS)	ND		ng/l	4.58	--	1
9-Chlorohexadecafluoro-3-Oxanone-1-Sulfonic Acid (9Cl-PF3ONS)	ND		ng/l	1.83	--	1
11-Chloroeicosafluoro-3-Oxaundecane-1-Sulfonic Acid (11Cl-PF3OUdS)	ND		ng/l	1.83	--	1
Perfluoro-3-Methoxypropanoic Acid (PFMPA)	ND		ng/l	1.83	--	1
Perfluoro-4-Methoxybutanoic Acid (PFMBA)	ND		ng/l	1.83	--	1
Perfluoro(2-Ethoxyethane)Sulfonic Acid (PFEEESA)	ND		ng/l	1.83	--	1

Surrogate (Extracted Internal Standard)	% Recovery	Qualifier	Acceptance Criteria
Perfluoro[13C4]Butanoic Acid (MPFBA)	94		58-132
Perfluoro[13C5]Pentanoic Acid (M5PFPEA)	102		62-163
Perfluoro[2,3,4-13C3]Butanesulfonic Acid (M3PFBS)	100		70-131
1H,1H,2H,2H-Perfluoro[1,2-13C2]Hexanesulfonic Acid (M2-4:2FTS)	131		12-142
Perfluoro[1,2,3,4,6-13C5]Hexanoic Acid (M5PFHxA)	97		57-129
Perfluoro[1,2,3,4-13C4]Heptanoic Acid (M4PFHpA)	107		60-129
Perfluoro[1,2,3-13C3]Hexanesulfonic Acid (M3PFHxS)	102		71-134
Perfluoro[13C8]Octanoic Acid (M8PFOA)	95		62-129
1H,1H,2H,2H-Perfluoro[1,2-13C2]Octanesulfonic Acid (M2-6:2FTS)	120		14-147
Perfluoro[13C9]Nonanoic Acid (M9PFNA)	96		59-139
Perfluoro[13C8]Octanesulfonic Acid (M8PFOS)	90		69-131
Perfluoro[1,2,3,4,5,6-13C6]Decanoic Acid (M6PFDA)	92		62-124
1H,1H,2H,2H-Perfluoro[1,2-13C2]Decanesulfonic Acid (M2-8:2FTS)	86		10-162
N-Deuteriomethylperfluoro-1-octanesulfonamidoacetic Acid (d3-NMeFOSAA)	109		24-116
Perfluoro[1,2,3,4,5,6,7-13C7]Undecanoic Acid (M7-PFUDA)	115		55-137
N-Deuterioethylperfluoro-1-octanesulfonamidoacetic Acid (d5-NEtFOSAA)	136	Q	27-126
Perfluoro[1,2-13C2]Dodecanoic Acid (MPFDOA)	119		48-131
Perfluoro[1,2-13C2]Tetradecanoic Acid (M2PFTEDA)	81		22-136
2,3,3,3-Tetrafluoro-2-[1,1,2,2,3,3,3-Heptafluoropropoxy]-13C3-Propanoic Acid (M3HFPO-DA)	101		10-165
Perfluoro[13C2]Hexadecanoic Acid (M2PFHxDA)	106		10-206
1H,1H,2H,2H-Perfluorododecane Sulfonate (M2D4-10:2FTS)	300	Q	50-150

Project Name: TROY MILLS LANDFILL SUPERFUND
Project Number: 04.0190987.33

Lab Number: L2323076
Report Date: 05/23/23

SAMPLE RESULTS

Lab ID: L2323076-07
Client ID: TRY_MW-903S
Sample Location: TROY, NH

Date Collected: 04/26/23 14:25
Date Received: 04/27/23
Field Prep: Not Specified

Sample Depth:
Matrix: Water
Analytical Method: 134,LCMSMS-ID
Analytical Date: 05/19/23 01:31
Analyst: RS

Extraction Method: ALPHA 23528
Extraction Date: 05/16/23 05:14

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Perfluorinated Alkyl Acids by Isotope Dilution - Mansfield Lab						
Nonafluoro-3,6-Dioxaheptanoic Acid (NFDHA)	ND		ng/l	7.55	--	1
Surrogate (Extracted Internal Standard)			% Recovery	Qualifier	Acceptance Criteria	
Perfluoro[1,2,3,4,6-13C5]Hexanoic Acid (M5PFHxA)			111		57-129	

Project Name: TROY MILLS LANDFILL SUPERFUND
Project Number: 04.0190987.33

Lab Number: L2323076
Report Date: 05/23/23

SAMPLE RESULTS

Lab ID: L2323076-07
Client ID: TRY_MW-903S
Sample Location: TROY, NH

Date Collected: 04/26/23 14:25
Date Received: 04/27/23
Field Prep: Not Specified

Sample Depth:
Matrix: Water
Analytical Method: 134,LCMSMS-ID
Analytical Date: 05/19/23 21:05
Analyst: RS

Extraction Method: ALPHA 23528
Extraction Date: 05/16/23 05:14

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Perfluorinated Alkyl Acids by Isotope Dilution - Mansfield Lab						
Perfluorooctanesulfonamide (FOSA)	ND		ng/l	1.89	--	1
N-Methyl Perfluorooctane Sulfonamide (NMeFOSA)	ND		ng/l	18.9	--	1
N-Ethyl Perfluorooctane Sulfonamide (NEtFOSA)	ND		ng/l	18.9	--	1
N-Methyl Perfluorooctanesulfonamido Ethanol (NMeFOSE)	ND		ng/l	47.2	--	1
N-Ethyl Perfluorooctanesulfonamido Ethanol (NEtFOSE)	ND		ng/l	47.2	--	1

Surrogate (Extracted Internal Standard)	% Recovery	Qualifier	Acceptance Criteria
Perfluoro[13C8]Octanesulfonamide (M8FOSA)	61		5-112
N-Methyl-d3-Perfluoro-1-Octanesulfonamide (d3-NMeFOSA)	58		10-161
N-Ethyl-d5-Perfluoro-1-Octanesulfonamide (d5-NEtFOSA)	54		10-160
2-(N-Methyl-d3-Perfluoro-1-Octanesulfonamido)ethan-d4-ol (d7-NMeFOSE)	49		10-189
2-(N-Ethyl-d5-Perfluoro-1-Octanesulfonamido)ethan-d4-ol (d9-NEtFOSE)	46		10-187

Project Name: TROY MILLS LANDFILL SUPERFUND
Project Number: 04.0190987.33

Lab Number: L2323076
Report Date: 05/23/23

SAMPLE RESULTS

Lab ID: L2323076-07
Client ID: TRY_MW-903S
Sample Location: TROY, NH

Date Collected: 04/26/23 14:25
Date Received: 04/27/23
Field Prep: Not Specified

Sample Depth:

Matrix: Water
Analytical Method: 134,LCMSMS-ID
Analytical Date: 05/20/23 21:16
Analyst: SG

Extraction Method: ALPHA 23528
Extraction Date: 05/16/23 05:14

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Perfluorinated Alkyl Acids by Isotope Dilution - Mansfield Lab						
Perfluorobutanoic Acid (PFBA)	82.8		ng/l	1.89	--	1
Perfluoropentanoic Acid (PFPeA)	172		ng/l	1.89	--	1
Perfluorobutanesulfonic Acid (PFBS)	26.1		ng/l	1.89	--	1
1H,1H,2H,2H-Perfluorohexanesulfonic Acid (4:2FTS)	ND		ng/l	1.89	--	1
Perfluorohexanoic Acid (PFHxA)	252		ng/l	1.89	--	1
Perfluoropentanesulfonic Acid (PFPeS)	2.69		ng/l	1.89	--	1
Perfluoroheptanoic Acid (PFHpA)	388		ng/l	1.89	--	1
Perfluorohexanesulfonic Acid (PFHxS)	11.3		ng/l	1.89	--	1
Perfluorooctanoic Acid (PFOA)	797		ng/l	1.89	--	1
1H,1H,2H,2H-Perfluorooctanesulfonic Acid (6:2FTS)	4.11		ng/l	1.89	--	1
Perfluoroheptanesulfonic Acid (PFHpS)	ND		ng/l	1.89	--	1
Perfluorononanoic Acid (PFNA)	19.9		ng/l	1.89	--	1
Perfluorooctanesulfonic Acid (PFOS)	16.8		ng/l	1.89	--	1
Perfluorodecanoic Acid (PFDA)	ND		ng/l	1.89	--	1
1H,1H,2H,2H-Perfluorodecanesulfonic Acid (8:2FTS)	ND		ng/l	1.89	--	1
Perfluorononanesulfonic Acid (PFNS)	ND		ng/l	1.89	--	1
N-Methyl Perfluorooctanesulfonamidoacetic Acid (NMeFOSAA)	4.17	F	ng/l	1.89	--	1
Perfluoroundecanoic Acid (PFUnA)	ND		ng/l	1.89	--	1
Perfluorodecanesulfonic Acid (PFDS)	ND		ng/l	1.89	--	1
N-Ethyl Perfluorooctanesulfonamidoacetic Acid (NEtFOSAA)	ND		ng/l	1.89	--	1
Perfluorododecanoic Acid (PFDoA)	ND		ng/l	1.89	--	1
Perfluorotridecanoic Acid (PFTrDA)	ND		ng/l	1.89	--	1
Perfluorotetradecanoic Acid (PFTA)	ND		ng/l	1.89	--	1
2,3,3,3-Tetrafluoro-2-[1,1,2,2,3,3,3-Heptafluoropropoxy]-Propanoic Acid (HFPO-DA)	ND		ng/l	18.9	--	1
4,8-Dioxo-3h-Perfluorononanoic Acid (ADONA)	ND		ng/l	1.89	--	1
Perfluorohexadecanoic Acid (PFHxDA)	ND		ng/l	3.77	--	1
Perfluorooctadecanoic Acid (PFODA)	ND		ng/l	3.77	--	1

Project Name: TROY MILLS LANDFILL SUPERFUND**Lab Number:** L2323076**Project Number:** 04.0190987.33**Report Date:** 05/23/23**SAMPLE RESULTS****Lab ID:** L2323076-07**Date Collected:** 04/26/23 14:25**Client ID:** TRY_MW-903S**Date Received:** 04/27/23**Sample Location:** TROY, NH**Field Prep:** Not Specified**Sample Depth:**

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Perfluorinated Alkyl Acids by Isotope Dilution - Mansfield Lab						
Perfluorododecane Sulfonic Acid (PFDoDS)	ND		ng/l	1.89	--	1
1H,1H,2H,2H-Perfluorododecanesulfonic Acid (10:2FTS)	ND		ng/l	4.72	--	1
9-Chlorohexadecafluoro-3-Oxanone-1-Sulfonic Acid (9Cl-PF3ONS)	ND		ng/l	1.89	--	1
11-Chloroeicosafluoro-3-Oxaundecane-1-Sulfonic Acid (11Cl-PF3OUdS)	ND		ng/l	1.89	--	1
Perfluoro-3-Methoxypropanoic Acid (PFMPA)	ND		ng/l	1.89	--	1
Perfluoro-4-Methoxybutanoic Acid (PFMBA)	ND		ng/l	1.89	--	1
Perfluoro(2-Ethoxyethane)Sulfonic Acid (PFEEESA)	ND		ng/l	1.89	--	1

Surrogate (Extracted Internal Standard)	% Recovery	Qualifier	Acceptance Criteria
Perfluoro[13C4]Butanoic Acid (MPFBA)	95		58-132
Perfluoro[13C5]Pentanoic Acid (M5PFPEA)	89		62-163
Perfluoro[2,3,4-13C3]Butanesulfonic Acid (M3PFBS)	94		70-131
1H,1H,2H,2H-Perfluoro[1,2-13C2]Hexanesulfonic Acid (M2-4:2FTS)	197	Q	12-142
Perfluoro[1,2,3,4,6-13C5]Hexanoic Acid (M5PFHxA)	97		57-129
Perfluoro[1,2,3,4-13C4]Heptanoic Acid (M4PFHpA)	107		60-129
Perfluoro[1,2,3-13C3]Hexanesulfonic Acid (M3PFHxS)	99		71-134
Perfluoro[13C8]Octanoic Acid (M8PFOA)	92		62-129
1H,1H,2H,2H-Perfluoro[1,2-13C2]Octanesulfonic Acid (M2-6:2FTS)	197	Q	14-147
Perfluoro[13C9]Nonanoic Acid (M9PFNA)	110		59-139
Perfluoro[13C8]Octanesulfonic Acid (M8PFOS)	83		69-131
Perfluoro[1,2,3,4,5,6-13C6]Decanoic Acid (M6PFDA)	87		62-124
1H,1H,2H,2H-Perfluoro[1,2-13C2]Decanesulfonic Acid (M2-8:2FTS)	115		10-162
N-Deuteriomethylperfluoro-1-octanesulfonamidoacetic Acid (d3-NMeFOSAA)	107		24-116
Perfluoro[1,2,3,4,5,6,7-13C7]Undecanoic Acid (M7-PFUDA)	112		55-137
N-Deuterioethylperfluoro-1-octanesulfonamidoacetic Acid (d5-NEtFOSAA)	150	Q	27-126
Perfluoro[1,2-13C2]Dodecanoic Acid (MPFDOA)	100		48-131
Perfluoro[1,2-13C2]Tetradecanoic Acid (M2PFTEDA)	67		22-136
2,3,3,3-Tetrafluoro-2-[1,1,2,2,3,3,3-Heptafluoropropoxy]-13C3-Propanoic Acid (M3HFPO-DA)	124		10-165
Perfluoro[13C2]Hexadecanoic Acid (M2PFHxDA)	76		10-206
1H,1H,2H,2H-Perfluorododecane Sulfonate (M2D4-10:2FTS)	173	Q	50-150

Project Name: TROY MILLS LANDFILL SUPERFUND
Project Number: 04.0190987.33

Lab Number: L2323076
Report Date: 05/23/23

SAMPLE RESULTS

Lab ID: L2323076-08
Client ID: TRY_MW-903S DUP
Sample Location: TROY, NH

Date Collected: 04/26/23 14:25
Date Received: 04/27/23
Field Prep: Not Specified

Sample Depth:

Matrix: Water
Analytical Method: 134,LCMSMS-ID
Analytical Date: 05/19/23 01:48
Analyst: RS

Extraction Method: ALPHA 23528
Extraction Date: 05/16/23 05:14

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Perfluorinated Alkyl Acids by Isotope Dilution - Mansfield Lab						
Nonafluoro-3,6-Dioxaheptanoic Acid (NFDHA)	ND		ng/l	7.44	--	1
Surrogate (Extracted Internal Standard)	% Recovery		Qualifier	Acceptance Criteria		
Perfluoro[1,2,3,4,6-13C5]Hexanoic Acid (M5PFHxA)	122			57-129		

Project Name: TROY MILLS LANDFILL SUPERFUND
Project Number: 04.0190987.33

Lab Number: L2323076
Report Date: 05/23/23

SAMPLE RESULTS

Lab ID: L2323076-08
Client ID: TRY_MW-903S DUP
Sample Location: TROY, NH

Date Collected: 04/26/23 14:25
Date Received: 04/27/23
Field Prep: Not Specified

Sample Depth:

Matrix: Water
Analytical Method: 134,LCMSMS-ID
Analytical Date: 05/19/23 21:17
Analyst: RS

Extraction Method: ALPHA 23528
Extraction Date: 05/16/23 05:14

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Perfluorinated Alkyl Acids by Isotope Dilution - Mansfield Lab						
Perfluorooctanesulfonamide (FOSA)	ND		ng/l	1.86	--	1
N-Methyl Perfluorooctane Sulfonamide (NMeFOSA)	ND		ng/l	18.6	--	1
N-Ethyl Perfluorooctane Sulfonamide (NEtFOSA)	ND		ng/l	18.6	--	1
N-Methyl Perfluorooctanesulfonamido Ethanol (NMeFOSE)	ND		ng/l	46.5	--	1
N-Ethyl Perfluorooctanesulfonamido Ethanol (NEtFOSE)	ND		ng/l	46.5	--	1

Surrogate (Extracted Internal Standard)	% Recovery	Qualifier	Acceptance Criteria
Perfluoro[13C8]Octanesulfonamide (M8FOSA)	67		5-112
N-Methyl-d3-Perfluoro-1-Octanesulfonamide (d3-NMeFOSA)	62		10-161
N-Ethyl-d5-Perfluoro-1-Octanesulfonamide (d5-NEtFOSA)	59		10-160
2-(N-Methyl-d3-Perfluoro-1-Octanesulfonamido)ethan-d4-ol (d7-NMeFOSE)	43		10-189
2-(N-Ethyl-d5-Perfluoro-1-Octanesulfonamido)ethan-d4-ol (d9-NEtFOSE)	46		10-187

Project Name: TROY MILLS LANDFILL SUPERFUND
Project Number: 04.0190987.33

Lab Number: L2323076
Report Date: 05/23/23

SAMPLE RESULTS

Lab ID: L2323076-08
Client ID: TRY_MW-903S DUP
Sample Location: TROY, NH

Date Collected: 04/26/23 14:25
Date Received: 04/27/23
Field Prep: Not Specified

Sample Depth:

Matrix: Water
Analytical Method: 134,LCMSMS-ID
Analytical Date: 05/20/23 21:33
Analyst: SG

Extraction Method: ALPHA 23528
Extraction Date: 05/16/23 05:14

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Perfluorinated Alkyl Acids by Isotope Dilution - Mansfield Lab						
Perfluorobutanoic Acid (PFBA)	80.7		ng/l	1.86	--	1
Perfluoropentanoic Acid (PFPeA)	165		ng/l	1.86	--	1
Perfluorobutanesulfonic Acid (PFBS)	25.6		ng/l	1.86	--	1
1H,1H,2H,2H-Perfluorohexanesulfonic Acid (4:2FTS)	ND		ng/l	1.86	--	1
Perfluorohexanoic Acid (PFHxA)	239		ng/l	1.86	--	1
Perfluoropentanesulfonic Acid (PFPeS)	2.56		ng/l	1.86	--	1
Perfluoroheptanoic Acid (PFHpA)	375		ng/l	1.86	--	1
Perfluorohexanesulfonic Acid (PFHxS)	9.86		ng/l	1.86	--	1
Perfluorooctanoic Acid (PFOA)	742		ng/l	1.86	--	1
1H,1H,2H,2H-Perfluorooctanesulfonic Acid (6:2FTS)	14.1		ng/l	1.86	--	1
Perfluoroheptanesulfonic Acid (PFHpS)	ND		ng/l	1.86	--	1
Perfluorononanoic Acid (PFNA)	18.8		ng/l	1.86	--	1
Perfluorooctanesulfonic Acid (PFOS)	16.3		ng/l	1.86	--	1
Perfluorodecanoic Acid (PFDA)	ND		ng/l	1.86	--	1
1H,1H,2H,2H-Perfluorodecanesulfonic Acid (8:2FTS)	ND		ng/l	1.86	--	1
Perfluorononanesulfonic Acid (PFNS)	ND		ng/l	1.86	--	1
N-Methyl Perfluorooctanesulfonamidoacetic Acid (NMeFOSAA)	3.31	F	ng/l	1.86	--	1
Perfluoroundecanoic Acid (PFUnA)	ND		ng/l	1.86	--	1
Perfluorodecanesulfonic Acid (PFDS)	ND		ng/l	1.86	--	1
N-Ethyl Perfluorooctanesulfonamidoacetic Acid (NEtFOSAA)	ND		ng/l	1.86	--	1
Perfluorododecanoic Acid (PFDoA)	ND		ng/l	1.86	--	1
Perfluorotridecanoic Acid (PFTrDA)	ND		ng/l	1.86	--	1
Perfluorotetradecanoic Acid (PFTA)	ND		ng/l	1.86	--	1
2,3,3,3-Tetrafluoro-2-[1,1,2,2,3,3,3-Heptafluoropropoxy]-Propanoic Acid (HFPO-DA)	ND		ng/l	18.6	--	1
4,8-Dioxo-3h-Perfluorononanoic Acid (ADONA)	ND		ng/l	1.86	--	1
Perfluorohexadecanoic Acid (PFHxDA)	ND		ng/l	3.72	--	1
Perfluorooctadecanoic Acid (PFODA)	ND		ng/l	3.72	--	1

Project Name: TROY MILLS LANDFILL SUPERFUND**Lab Number:** L2323076**Project Number:** 04.0190987.33**Report Date:** 05/23/23**SAMPLE RESULTS**

Lab ID: L2323076-08
 Client ID: TRY_MW-903S DUP
 Sample Location: TROY, NH

Date Collected: 04/26/23 14:25
 Date Received: 04/27/23
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Perfluorinated Alkyl Acids by Isotope Dilution - Mansfield Lab						
Perfluorododecane Sulfonic Acid (PFDoDS)	ND		ng/l	1.86	--	1
1H,1H,2H,2H-Perfluorododecanesulfonic Acid (10:2FTS)	ND		ng/l	4.65	--	1
9-Chlorohexadecafluoro-3-Oxanone-1-Sulfonic Acid (9Cl-PF3ONS)	ND		ng/l	1.86	--	1
11-Chloroeicosafluoro-3-Oxaundecane-1-Sulfonic Acid (11Cl-PF3OUdS)	ND		ng/l	1.86	--	1
Perfluoro-3-Methoxypropanoic Acid (PFMPA)	ND		ng/l	1.86	--	1
Perfluoro-4-Methoxybutanoic Acid (PFMBA)	ND		ng/l	1.86	--	1
Perfluoro(2-Ethoxyethane)Sulfonic Acid (PFEESA)	ND		ng/l	1.86	--	1

Surrogate (Extracted Internal Standard)	% Recovery	Qualifier	Acceptance Criteria
Perfluoro[13C4]Butanoic Acid (MPFBA)	98		58-132
Perfluoro[13C5]Pentanoic Acid (M5PFPEA)	92		62-163
Perfluoro[2,3,4-13C3]Butanesulfonic Acid (M3PFBS)	101		70-131
1H,1H,2H,2H-Perfluoro[1,2-13C2]Hexanesulfonic Acid (M2-4:2FTS)	206	Q	12-142
Perfluoro[1,2,3,4,6-13C5]Hexanoic Acid (M5PFHxA)	103		57-129
Perfluoro[1,2,3,4-13C4]Heptanoic Acid (M4PFHpA)	110		60-129
Perfluoro[1,2,3-13C3]Hexanesulfonic Acid (M3PFHxS)	108		71-134
Perfluoro[13C8]Octanoic Acid (M8PFOA)	96		62-129
1H,1H,2H,2H-Perfluoro[1,2-13C2]Octanesulfonic Acid (M2-6:2FTS)	202	Q	14-147
Perfluoro[13C9]Nonanoic Acid (M9PFNA)	111		59-139
Perfluoro[13C8]Octanesulfonic Acid (M8PFOS)	86		69-131
Perfluoro[1,2,3,4,5,6-13C6]Decanoic Acid (M6PFDA)	93		62-124
1H,1H,2H,2H-Perfluoro[1,2-13C2]Decanesulfonic Acid (M2-8:2FTS)	125		10-162
N-Deuteriomethylperfluoro-1-octanesulfonamidoacetic Acid (d3-NMeFOSAA)	123	Q	24-116
Perfluoro[1,2,3,4,5,6,7-13C7]Undecanoic Acid (M7-PFUDA)	111		55-137
N-Deuterioethylperfluoro-1-octanesulfonamidoacetic Acid (d5-NEtFOSAA)	166	Q	27-126
Perfluoro[1,2-13C2]Dodecanoic Acid (MPFDOA)	109		48-131
Perfluoro[1,2-13C2]Tetradecanoic Acid (M2PFTEDA)	70		22-136
2,3,3,3-Tetrafluoro-2-[1,1,2,2,3,3,3-Heptafluoropropoxy]-13C3-Propanoic Acid (M3HFPO-DA)	124		10-165
Perfluoro[13C2]Hexadecanoic Acid (M2PFHxDA)	78		10-206
1H,1H,2H,2H-Perfluorododecane Sulfonate (M2D4-10:2FTS)	174	Q	50-150

Project Name: TROY MILLS LANDFILL SUPERFUND
Project Number: 04.0190987.33

Lab Number: L2323076
Report Date: 05/23/23

SAMPLE RESULTS

Lab ID: L2323076-09
Client ID: TRY_MW-901S
Sample Location: TROY, NH

Date Collected: 04/27/23 11:15
Date Received: 04/27/23
Field Prep: Not Specified

Sample Depth:
Matrix: Water
Analytical Method: 134,LCMSMS-ID
Analytical Date: 05/19/23 02:04
Analyst: RS

Extraction Method: ALPHA 23528
Extraction Date: 05/16/23 05:14

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Perfluorinated Alkyl Acids by Isotope Dilution - Mansfield Lab						
Nonafluoro-3,6-Dioxaheptanoic Acid (NFDHA)	ND		ng/l	8.06	--	1
Surrogate (Extracted Internal Standard)	% Recovery		Qualifier	Acceptance Criteria		
Perfluoro[1,2,3,4,6-13C5]Hexanoic Acid (M5PFHxA)	127			57-129		

Project Name: TROY MILLS LANDFILL SUPERFUND
Project Number: 04.0190987.33

Lab Number: L2323076
Report Date: 05/23/23

SAMPLE RESULTS

Lab ID: L2323076-09
Client ID: TRY_MW-901S
Sample Location: TROY, NH

Date Collected: 04/27/23 11:15
Date Received: 04/27/23
Field Prep: Not Specified

Sample Depth:
Matrix: Water
Analytical Method: 134,LCMSMS-ID
Analytical Date: 05/19/23 21:24
Analyst: RS

Extraction Method: ALPHA 23528
Extraction Date: 05/16/23 05:14

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Perfluorinated Alkyl Acids by Isotope Dilution - Mansfield Lab						
Perfluorooctanesulfonamide (FOSA)	ND		ng/l	2.02	--	1
N-Methyl Perfluorooctane Sulfonamide (NMeFOSA)	ND		ng/l	20.2	--	1
N-Ethyl Perfluorooctane Sulfonamide (NEtFOSA)	ND		ng/l	20.2	--	1
N-Methyl Perfluorooctanesulfonamido Ethanol (NMeFOSE)	ND		ng/l	50.4	--	1
N-Ethyl Perfluorooctanesulfonamido Ethanol (NEtFOSE)	ND		ng/l	50.4	--	1

Surrogate (Extracted Internal Standard)	% Recovery	Qualifier	Acceptance Criteria
Perfluoro[13C8]Octanesulfonamide (M8FOSA)	59		5-112
N-Methyl-d3-Perfluoro-1-Octanesulfonamide (d3-NMeFOSA)	59		10-161
N-Ethyl-d5-Perfluoro-1-Octanesulfonamide (d5-NEtFOSA)	57		10-160
2-(N-Methyl-d3-Perfluoro-1-Octanesulfonamido)ethan-d4-ol (d7-NMeFOSE)	46		10-189
2-(N-Ethyl-d5-Perfluoro-1-Octanesulfonamido)ethan-d4-ol (d9-NEtFOSE)	48		10-187

Project Name: TROY MILLS LANDFILL SUPERFUND
Project Number: 04.0190987.33

Lab Number: L2323076
Report Date: 05/23/23

SAMPLE RESULTS

Lab ID: L2323076-09
Client ID: TRY_MW-901S
Sample Location: TROY, NH

Date Collected: 04/27/23 11:15
Date Received: 04/27/23
Field Prep: Not Specified

Sample Depth:

Matrix: Water
Analytical Method: 134,LCMSMS-ID
Analytical Date: 05/20/23 21:49
Analyst: SG

Extraction Method: ALPHA 23528
Extraction Date: 05/16/23 05:14

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Perfluorinated Alkyl Acids by Isotope Dilution - Mansfield Lab						
Perfluorobutanoic Acid (PFBA)	107		ng/l	2.02	--	1
Perfluoropentanoic Acid (PFPeA)	230		ng/l	2.02	--	1
Perfluorobutanesulfonic Acid (PFBS)	29.3		ng/l	2.02	--	1
1H,1H,2H,2H-Perfluorohexanesulfonic Acid (4:2FTS)	ND		ng/l	2.02	--	1
Perfluorohexanoic Acid (PFHxA)	359		ng/l	2.02	--	1
Perfluoropentanesulfonic Acid (PFPeS)	3.44		ng/l	2.02	--	1
Perfluoroheptanoic Acid (PFHpA)	440		ng/l	2.02	--	1
Perfluorohexanesulfonic Acid (PFHxS)	15.0		ng/l	2.02	--	1
Perfluorooctanoic Acid (PFOA)	796		ng/l	2.02	--	1
1H,1H,2H,2H-Perfluorooctanesulfonic Acid (6:2FTS)	7.00		ng/l	2.02	--	1
Perfluoroheptanesulfonic Acid (PFHpS)	ND		ng/l	2.02	--	1
Perfluorononanoic Acid (PFNA)	57.8		ng/l	2.02	--	1
Perfluorooctanesulfonic Acid (PFOS)	8.84		ng/l	2.02	--	1
Perfluorodecanoic Acid (PFDA)	ND		ng/l	2.02	--	1
1H,1H,2H,2H-Perfluorodecanesulfonic Acid (8:2FTS)	ND		ng/l	2.02	--	1
Perfluorononanesulfonic Acid (PFNS)	ND		ng/l	2.02	--	1
N-Methyl Perfluorooctanesulfonamidoacetic Acid (NMeFOSAA)	6.77		ng/l	2.02	--	1
Perfluoroundecanoic Acid (PFUnA)	ND		ng/l	2.02	--	1
Perfluorodecanesulfonic Acid (PFDS)	ND		ng/l	2.02	--	1
N-Ethyl Perfluorooctanesulfonamidoacetic Acid (NEtFOSAA)	ND		ng/l	2.02	--	1
Perfluorododecanoic Acid (PFDoA)	ND		ng/l	2.02	--	1
Perfluorotridecanoic Acid (PFTrDA)	ND		ng/l	2.02	--	1
Perfluorotetradecanoic Acid (PFTA)	ND		ng/l	2.02	--	1
2,3,3,3-Tetrafluoro-2-[1,1,2,2,3,3,3-Heptafluoropropoxy]-Propanoic Acid (HFPO-DA)	ND		ng/l	20.2	--	1
4,8-Dioxo-3h-Perfluorononanoic Acid (ADONA)	ND		ng/l	2.02	--	1
Perfluorohexadecanoic Acid (PFHxDA)	ND		ng/l	4.03	--	1
Perfluorooctadecanoic Acid (PFODA)	ND		ng/l	4.03	--	1

Project Name: TROY MILLS LANDFILL SUPERFUND**Lab Number:** L2323076**Project Number:** 04.0190987.33**Report Date:** 05/23/23**SAMPLE RESULTS**

Lab ID: L2323076-09
 Client ID: TRY_MW-901S
 Sample Location: TROY, NH

Date Collected: 04/27/23 11:15
 Date Received: 04/27/23
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Perfluorinated Alkyl Acids by Isotope Dilution - Mansfield Lab						
Perfluorododecane Sulfonic Acid (PFDoDS)	ND		ng/l	2.02	--	1
1H,1H,2H,2H-Perfluorododecanesulfonic Acid (10:2FTS)	ND		ng/l	5.04	--	1
9-Chlorohexadecafluoro-3-Oxanone-1-Sulfonic Acid (9Cl-PF3ONS)	ND		ng/l	2.02	--	1
11-Chloroeicosafluoro-3-Oxaundecane-1-Sulfonic Acid (11Cl-PF3OUdS)	ND		ng/l	2.02	--	1
Perfluoro-3-Methoxypropanoic Acid (PFMPA)	ND		ng/l	2.02	--	1
Perfluoro-4-Methoxybutanoic Acid (PFMBA)	ND		ng/l	2.02	--	1
Perfluoro(2-Ethoxyethane)Sulfonic Acid (PFEEESA)	ND		ng/l	2.02	--	1

Surrogate (Extracted Internal Standard)	% Recovery	Qualifier	Acceptance Criteria
Perfluoro[13C4]Butanoic Acid (MPFBA)	97		58-132
Perfluoro[13C5]Pentanoic Acid (M5PFPEA)	92		62-163
Perfluoro[2,3,4-13C3]Butanesulfonic Acid (M3PFBS)	100		70-131
1H,1H,2H,2H-Perfluoro[1,2-13C2]Hexanesulfonic Acid (M2-4:2FTS)	218	Q	12-142
Perfluoro[1,2,3,4,6-13C5]Hexanoic Acid (M5PFHxA)	85		57-129
Perfluoro[1,2,3,4-13C4]Heptanoic Acid (M4PFHpA)	101		60-129
Perfluoro[1,2,3-13C3]Hexanesulfonic Acid (M3PFHxS)	104		71-134
Perfluoro[13C8]Octanoic Acid (M8PFOA)	92		62-129
1H,1H,2H,2H-Perfluoro[1,2-13C2]Octanesulfonic Acid (M2-6:2FTS)	270	Q	14-147
Perfluoro[13C9]Nonanoic Acid (M9PFNA)	104		59-139
Perfluoro[13C8]Octanesulfonic Acid (M8PFOS)	85		69-131
Perfluoro[1,2,3,4,5,6-13C6]Decanoic Acid (M6PFDA)	92		62-124
1H,1H,2H,2H-Perfluoro[1,2-13C2]Decanesulfonic Acid (M2-8:2FTS)	206	Q	10-162
N-Deuteriomethylperfluoro-1-octanesulfonamidoacetic Acid (d3-NMeFOSAA)	150	Q	24-116
Perfluoro[1,2,3,4,5,6,7-13C7]Undecanoic Acid (M7-PFUDA)	102		55-137
N-Deuterioethylperfluoro-1-octanesulfonamidoacetic Acid (d5-NEtFOSAA)	155	Q	27-126
Perfluoro[1,2-13C2]Dodecanoic Acid (MPFDOA)	116		48-131
Perfluoro[1,2-13C2]Tetradecanoic Acid (M2PFTEDA)	74		22-136
2,3,3,3-Tetrafluoro-2-[1,1,2,2,3,3,3-Heptafluoropropoxy]-13C3-Propanoic Acid (M3HFPO-DA)	115		10-165
Perfluoro[13C2]Hexadecanoic Acid (M2PFHxDA)	93		10-206
1H,1H,2H,2H-Perfluorododecane Sulfonate (M2D4-10:2FTS)	237	Q	50-150

Project Name: TROY MILLS LANDFILL SUPERFUND
Project Number: 04.0190987.33

Lab Number: L2323076
Report Date: 05/23/23

SAMPLE RESULTS

Lab ID: L2323076-10
Client ID: EQUIP BLANK
Sample Location: TROY, NH

Date Collected: 04/26/23 15:30
Date Received: 04/27/23
Field Prep: Not Specified

Sample Depth:

Matrix: Water
Analytical Method: 134,LCMSMS-ID
Analytical Date: 05/19/23 02:21
Analyst: RS

Extraction Method: ALPHA 23528
Extraction Date: 05/16/23 05:14

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Perfluorinated Alkyl Acids by Isotope Dilution - Mansfield Lab						
Nonafluoro-3,6-Dioxaheptanoic Acid (NFDHA)	ND		ng/l	7.24	--	1
Surrogate (Extracted Internal Standard)	% Recovery		Qualifier	Acceptance Criteria		
Perfluoro[1,2,3,4,6-13C5]Hexanoic Acid (M5PFHxA)	122			57-129		

Project Name: TROY MILLS LANDFILL SUPERFUND
Project Number: 04.0190987.33

Lab Number: L2323076
Report Date: 05/23/23

SAMPLE RESULTS

Lab ID: L2323076-10
Client ID: EQUIP BLANK
Sample Location: TROY, NH

Date Collected: 04/26/23 15:30
Date Received: 04/27/23
Field Prep: Not Specified

Sample Depth:

Matrix: Water
Analytical Method: 134,LCMSMS-ID
Analytical Date: 05/19/23 21:30
Analyst: RS

Extraction Method: ALPHA 23528
Extraction Date: 05/16/23 05:14

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Perfluorinated Alkyl Acids by Isotope Dilution - Mansfield Lab						
Perfluorooctanesulfonamide (FOSA)	ND		ng/l	1.81	--	1
N-Methyl Perfluorooctane Sulfonamide (NMeFOSA)	ND		ng/l	18.1	--	1
N-Ethyl Perfluorooctane Sulfonamide (NEtFOSA)	ND		ng/l	18.1	--	1
N-Methyl Perfluorooctanesulfonamido Ethanol (NMeFOSE)	ND		ng/l	45.2	--	1
N-Ethyl Perfluorooctanesulfonamido Ethanol (NEtFOSE)	ND		ng/l	45.2	--	1

Surrogate (Extracted Internal Standard)	% Recovery	Qualifier	Acceptance Criteria
Perfluoro[13C8]Octanesulfonamide (M8FOSA)	72		5-112
N-Methyl-d3-Perfluoro-1-Octanesulfonamide (d3-NMeFOSA)	59		10-161
N-Ethyl-d5-Perfluoro-1-Octanesulfonamide (d5-NEtFOSA)	59		10-160
2-(N-Methyl-d3-Perfluoro-1-Octanesulfonamido)ethan-d4-ol (d7-NMeFOSE)	61		10-189
2-(N-Ethyl-d5-Perfluoro-1-Octanesulfonamido)ethan-d4-ol (d9-NEtFOSE)	60		10-187

Project Name: TROY MILLS LANDFILL SUPERFUND
Project Number: 04.0190987.33

Lab Number: L2323076
Report Date: 05/23/23

SAMPLE RESULTS

Lab ID: L2323076-10
Client ID: EQUIP BLANK
Sample Location: TROY, NH

Date Collected: 04/26/23 15:30
Date Received: 04/27/23
Field Prep: Not Specified

Sample Depth:

Matrix: Water
Analytical Method: 134,LCMSMS-ID
Analytical Date: 05/20/23 22:06
Analyst: SG

Extraction Method: ALPHA 23528
Extraction Date: 05/16/23 05:14

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Perfluorinated Alkyl Acids by Isotope Dilution - Mansfield Lab						
Perfluorobutanoic Acid (PFBA)	ND		ng/l	1.81	--	1
Perfluoropentanoic Acid (PFPeA)	ND		ng/l	1.81	--	1
Perfluorobutanesulfonic Acid (PFBS)	ND		ng/l	1.81	--	1
1H,1H,2H,2H-Perfluorohexanesulfonic Acid (4:2FTS)	ND		ng/l	1.81	--	1
Perfluorohexanoic Acid (PFHxA)	ND		ng/l	1.81	--	1
Perfluoropentanesulfonic Acid (PFPeS)	ND		ng/l	1.81	--	1
Perfluoroheptanoic Acid (PFHpA)	ND		ng/l	1.81	--	1
Perfluorohexanesulfonic Acid (PFHxS)	ND		ng/l	1.81	--	1
Perfluorooctanoic Acid (PFOA)	ND		ng/l	1.81	--	1
1H,1H,2H,2H-Perfluorooctanesulfonic Acid (6:2FTS)	2.17	F	ng/l	1.81	--	1
Perfluoroheptanesulfonic Acid (PFHpS)	ND		ng/l	1.81	--	1
Perfluorononanoic Acid (PFNA)	ND		ng/l	1.81	--	1
Perfluorooctanesulfonic Acid (PFOS)	ND		ng/l	1.81	--	1
Perfluorodecanoic Acid (PFDA)	ND		ng/l	1.81	--	1
1H,1H,2H,2H-Perfluorodecanesulfonic Acid (8:2FTS)	ND		ng/l	1.81	--	1
Perfluorononanesulfonic Acid (PFNS)	ND		ng/l	1.81	--	1
N-Methyl Perfluorooctanesulfonamidoacetic Acid (NMeFOSAA)	ND		ng/l	1.81	--	1
Perfluoroundecanoic Acid (PFUnA)	ND		ng/l	1.81	--	1
Perfluorodecanesulfonic Acid (PFDS)	ND		ng/l	1.81	--	1
N-Ethyl Perfluorooctanesulfonamidoacetic Acid (NEtFOSAA)	ND		ng/l	1.81	--	1
Perfluorododecanoic Acid (PFDoA)	ND		ng/l	1.81	--	1
Perfluorotridecanoic Acid (PFTrDA)	ND		ng/l	1.81	--	1
Perfluorotetradecanoic Acid (PFTA)	ND		ng/l	1.81	--	1
2,3,3,3-Tetrafluoro-2-[1,1,2,2,3,3,3-Heptafluoropropoxy]-Propanoic Acid (HFPO-DA)	ND		ng/l	18.1	--	1
4,8-Dioxo-3h-Perfluorononanoic Acid (ADONA)	ND		ng/l	1.81	--	1
Perfluorohexadecanoic Acid (PFHxDA)	ND		ng/l	3.62	--	1
Perfluorooctadecanoic Acid (PFODA)	ND		ng/l	3.62	--	1

Project Name: TROY MILLS LANDFILL SUPERFUND**Lab Number:** L2323076**Project Number:** 04.0190987.33**Report Date:** 05/23/23**SAMPLE RESULTS**

Lab ID: L2323076-10
 Client ID: EQUIP BLANK
 Sample Location: TROY, NH

Date Collected: 04/26/23 15:30
 Date Received: 04/27/23
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Perfluorinated Alkyl Acids by Isotope Dilution - Mansfield Lab						
Perfluorododecane Sulfonic Acid (PFDoDS)	ND		ng/l	1.81	--	1
1H,1H,2H,2H-Perfluorododecanesulfonic Acid (10:2FTS)	ND		ng/l	4.52	--	1
9-Chlorohexadecafluoro-3-Oxanone-1-Sulfonic Acid (9Cl-PF3ONS)	ND		ng/l	1.81	--	1
11-Chloroeicosafluoro-3-Oxaundecane-1-Sulfonic Acid (11Cl-PF3OUdS)	ND		ng/l	1.81	--	1
Perfluoro-3-Methoxypropanoic Acid (PFMPA)	ND		ng/l	1.81	--	1
Perfluoro-4-Methoxybutanoic Acid (PFMBA)	ND		ng/l	1.81	--	1
Perfluoro(2-Ethoxyethane)Sulfonic Acid (PFEEESA)	ND		ng/l	1.81	--	1

Surrogate (Extracted Internal Standard)	% Recovery	Qualifier	Acceptance Criteria
Perfluoro[13C4]Butanoic Acid (MPFBA)	99		58-132
Perfluoro[13C5]Pentanoic Acid (M5PFPEA)	101		62-163
Perfluoro[2,3,4-13C3]Butanesulfonic Acid (M3PFBS)	106		70-131
1H,1H,2H,2H-Perfluoro[1,2-13C2]Hexanesulfonic Acid (M2-4:2FTS)	100		12-142
Perfluoro[1,2,3,4,6-13C5]Hexanoic Acid (M5PFHxA)	100		57-129
Perfluoro[1,2,3,4-13C4]Heptanoic Acid (M4PFHpA)	102		60-129
Perfluoro[1,2,3-13C3]Hexanesulfonic Acid (M3PFHxS)	104		71-134
Perfluoro[13C8]Octanoic Acid (M8PFOA)	97		62-129
1H,1H,2H,2H-Perfluoro[1,2-13C2]Octanesulfonic Acid (M2-6:2FTS)	127		14-147
Perfluoro[13C9]Nonanoic Acid (M9PFNA)	95		59-139
Perfluoro[13C8]Octanesulfonic Acid (M8PFOS)	93		69-131
Perfluoro[1,2,3,4,5,6-13C6]Decanoic Acid (M6PFDA)	97		62-124
1H,1H,2H,2H-Perfluoro[1,2-13C2]Decanesulfonic Acid (M2-8:2FTS)	96		10-162
N-Deuteriomethylperfluoro-1-octanesulfonamidoacetic Acid (d3-NMeFOSAA)	117	Q	24-116
Perfluoro[1,2,3,4,5,6,7-13C7]Undecanoic Acid (M7-PFUDA)	128		55-137
N-Deuterioethylperfluoro-1-octanesulfonamidoacetic Acid (d5-NEtFOSAA)	177	Q	27-126
Perfluoro[1,2-13C2]Dodecanoic Acid (MPFDOA)	121		48-131
Perfluoro[1,2-13C2]Tetradecanoic Acid (M2PFTEDA)	84		22-136
2,3,3,3-Tetrafluoro-2-[1,1,2,2,3,3,3-Heptafluoropropoxy]-13C3-Propanoic Acid (M3HFPO-DA)	112		10-165
Perfluoro[13C2]Hexadecanoic Acid (M2PFHxDA)	115		10-206
1H,1H,2H,2H-Perfluorododecane Sulfonate (M2D4-10:2FTS)	172	Q	50-150

Project Name: TROY MILLS LANDFILL SUPERFUND
Project Number: 04.0190987.33

Lab Number: L2323076
Report Date: 05/23/23

SAMPLE RESULTS

Lab ID: L2323076-11
Client ID: EQUIP BLANK
Sample Location: TROY, NH

Date Collected: 04/26/23 16:00
Date Received: 04/27/23
Field Prep: Not Specified

Sample Depth:
Matrix: Water
Analytical Method: 134,LCMSMS-ID
Analytical Date: 05/19/23 02:37
Analyst: RS

Extraction Method: ALPHA 23528
Extraction Date: 05/16/23 05:14

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Perfluorinated Alkyl Acids by Isotope Dilution - Mansfield Lab						
Nonafluoro-3,6-Dioxaheptanoic Acid (NFDHA)	ND		ng/l	7.45	--	1
Surrogate (Extracted Internal Standard)	% Recovery		Qualifier	Acceptance Criteria		
Perfluoro[1,2,3,4,6-13C5]Hexanoic Acid (M5PFHxA)	118			57-129		

Project Name: TROY MILLS LANDFILL SUPERFUND
Project Number: 04.0190987.33

Lab Number: L2323076
Report Date: 05/23/23

SAMPLE RESULTS

Lab ID: L2323076-11
Client ID: EQUIP BLANK
Sample Location: TROY, NH

Date Collected: 04/26/23 16:00
Date Received: 04/27/23
Field Prep: Not Specified

Sample Depth:

Matrix: Water
Analytical Method: 134,LCMSMS-ID
Analytical Date: 05/19/23 21:36
Analyst: RS

Extraction Method: ALPHA 23528
Extraction Date: 05/16/23 05:14

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Perfluorinated Alkyl Acids by Isotope Dilution - Mansfield Lab						
Perfluorooctanesulfonamide (FOSA)	ND		ng/l	1.86	--	1
N-Methyl Perfluorooctane Sulfonamide (NMeFOSA)	ND		ng/l	18.6	--	1
N-Ethyl Perfluorooctane Sulfonamide (NEtFOSA)	ND		ng/l	18.6	--	1
N-Methyl Perfluorooctanesulfonamido Ethanol (NMeFOSE)	ND		ng/l	46.6	--	1
N-Ethyl Perfluorooctanesulfonamido Ethanol (NEtFOSE)	ND		ng/l	46.6	--	1

Surrogate (Extracted Internal Standard)	% Recovery	Qualifier	Acceptance Criteria
Perfluoro[13C8]Octanesulfonamide (M8FOSA)	68		5-112
N-Methyl-d3-Perfluoro-1-Octanesulfonamide (d3-NMeFOSA)	60		10-161
N-Ethyl-d5-Perfluoro-1-Octanesulfonamide (d5-NEtFOSA)	59		10-160
2-(N-Methyl-d3-Perfluoro-1-Octanesulfonamido)ethan-d4-ol (d7-NMeFOSE)	56		10-189
2-(N-Ethyl-d5-Perfluoro-1-Octanesulfonamido)ethan-d4-ol (d9-NEtFOSE)	54		10-187

Project Name: TROY MILLS LANDFILL SUPERFUND
Project Number: 04.0190987.33

Lab Number: L2323076
Report Date: 05/23/23

SAMPLE RESULTS

Lab ID: L2323076-11
Client ID: EQUIP BLANK
Sample Location: TROY, NH

Date Collected: 04/26/23 16:00
Date Received: 04/27/23
Field Prep: Not Specified

Sample Depth:

Matrix: Water
Analytical Method: 134,LCMSMS-ID
Analytical Date: 05/20/23 22:39
Analyst: SG

Extraction Method: ALPHA 23528
Extraction Date: 05/16/23 05:14

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Perfluorinated Alkyl Acids by Isotope Dilution - Mansfield Lab						
Perfluorobutanoic Acid (PFBA)	13.4		ng/l	1.86	--	1
Perfluoropentanoic Acid (PFPeA)	15.7		ng/l	1.86	--	1
Perfluorobutanesulfonic Acid (PFBS)	ND		ng/l	1.86	--	1
1H,1H,2H,2H-Perfluorohexanesulfonic Acid (4:2FTS)	ND		ng/l	1.86	--	1
Perfluorohexanoic Acid (PFHxA)	2.34		ng/l	1.86	--	1
Perfluoropentanesulfonic Acid (PFPeS)	ND		ng/l	1.86	--	1
Perfluoroheptanoic Acid (PFHpA)	2.18		ng/l	1.86	--	1
Perfluorohexanesulfonic Acid (PFHxS)	ND		ng/l	1.86	--	1
Perfluorooctanoic Acid (PFOA)	ND		ng/l	1.86	--	1
1H,1H,2H,2H-Perfluorooctanesulfonic Acid (6:2FTS)	ND		ng/l	1.86	--	1
Perfluoroheptanesulfonic Acid (PFHpS)	ND		ng/l	1.86	--	1
Perfluorononanoic Acid (PFNA)	ND		ng/l	1.86	--	1
Perfluorooctanesulfonic Acid (PFOS)	ND		ng/l	1.86	--	1
Perfluorodecanoic Acid (PFDA)	ND		ng/l	1.86	--	1
1H,1H,2H,2H-Perfluorodecanesulfonic Acid (8:2FTS)	ND		ng/l	1.86	--	1
Perfluorononanesulfonic Acid (PFNS)	ND		ng/l	1.86	--	1
N-Methyl Perfluorooctanesulfonamidoacetic Acid (NMeFOSAA)	ND		ng/l	1.86	--	1
Perfluoroundecanoic Acid (PFUnA)	ND		ng/l	1.86	--	1
Perfluorodecanesulfonic Acid (PFDS)	ND		ng/l	1.86	--	1
N-Ethyl Perfluorooctanesulfonamidoacetic Acid (NEtFOSAA)	ND		ng/l	1.86	--	1
Perfluorododecanoic Acid (PFDoA)	ND		ng/l	1.86	--	1
Perfluorotridecanoic Acid (PFTrDA)	ND		ng/l	1.86	--	1
Perfluorotetradecanoic Acid (PFTaA)	ND		ng/l	1.86	--	1
2,3,3,3-Tetrafluoro-2-[1,1,2,2,3,3,3-Heptafluoropropoxy]-Propanoic Acid (HFPO-DA)	ND		ng/l	18.6	--	1
4,8-Dioxo-3h-Perfluorononanoic Acid (ADONA)	ND		ng/l	1.86	--	1
Perfluorohexadecanoic Acid (PFHxDA)	ND		ng/l	3.73	--	1
Perfluorooctadecanoic Acid (PFODA)	ND		ng/l	3.73	--	1

Project Name: TROY MILLS LANDFILL SUPERFUND**Lab Number:** L2323076**Project Number:** 04.0190987.33**Report Date:** 05/23/23**SAMPLE RESULTS**

Lab ID: L2323076-11
 Client ID: EQUIP BLANK
 Sample Location: TROY, NH

Date Collected: 04/26/23 16:00
 Date Received: 04/27/23
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Perfluorinated Alkyl Acids by Isotope Dilution - Mansfield Lab						
Perfluorododecane Sulfonic Acid (PFDoDS)	ND		ng/l	1.86	--	1
1H,1H,2H,2H-Perfluorododecanesulfonic Acid (10:2FTS)	ND		ng/l	4.66	--	1
9-Chlorohexadecafluoro-3-Oxanone-1-Sulfonic Acid (9Cl-PF3ONS)	ND		ng/l	1.86	--	1
11-Chloroeicosafluoro-3-Oxaundecane-1-Sulfonic Acid (11Cl-PF3OUdS)	ND		ng/l	1.86	--	1
Perfluoro-3-Methoxypropanoic Acid (PFMPA)	ND		ng/l	1.86	--	1
Perfluoro-4-Methoxybutanoic Acid (PFMBA)	ND		ng/l	1.86	--	1
Perfluoro(2-Ethoxyethane)Sulfonic Acid (PFEEESA)	ND		ng/l	1.86	--	1

Surrogate (Extracted Internal Standard)	% Recovery	Qualifier	Acceptance Criteria
Perfluoro[13C4]Butanoic Acid (MPFBA)	98		58-132
Perfluoro[13C5]Pentanoic Acid (M5PFPEA)	100		62-163
Perfluoro[2,3,4-13C3]Butanesulfonic Acid (M3PFBS)	100		70-131
1H,1H,2H,2H-Perfluoro[1,2-13C2]Hexanesulfonic Acid (M2-4:2FTS)	101		12-142
Perfluoro[1,2,3,4,6-13C5]Hexanoic Acid (M5PFHxA)	100		57-129
Perfluoro[1,2,3,4-13C4]Heptanoic Acid (M4PFHpA)	100		60-129
Perfluoro[1,2,3-13C3]Hexanesulfonic Acid (M3PFHxS)	99		71-134
Perfluoro[13C8]Octanoic Acid (M8PFOA)	95		62-129
1H,1H,2H,2H-Perfluoro[1,2-13C2]Octanesulfonic Acid (M2-6:2FTS)	112		14-147
Perfluoro[13C9]Nonanoic Acid (M9PFNA)	95		59-139
Perfluoro[13C8]Octanesulfonic Acid (M8PFOS)	88		69-131
Perfluoro[1,2,3,4,5,6-13C6]Decanoic Acid (M6PFDA)	97		62-124
1H,1H,2H,2H-Perfluoro[1,2-13C2]Decanesulfonic Acid (M2-8:2FTS)	95		10-162
N-Deuteriomethylperfluoro-1-octanesulfonamidoacetic Acid (d3-NMeFOSAA)	122	Q	24-116
Perfluoro[1,2,3,4,5,6,7-13C7]Undecanoic Acid (M7-PFUDA)	115		55-137
N-Deuterioethylperfluoro-1-octanesulfonamidoacetic Acid (d5-NEtFOSAA)	186	Q	27-126
Perfluoro[1,2-13C2]Dodecanoic Acid (MPFDOA)	113		48-131
Perfluoro[1,2-13C2]Tetradecanoic Acid (M2PFTEDA)	81		22-136
2,3,3,3-Tetrafluoro-2-[1,1,2,2,3,3,3-Heptafluoropropoxy]-13C3-Propanoic Acid (M3HFPO-DA)	105		10-165
Perfluoro[13C2]Hexadecanoic Acid (M2PFHxDA)	104		10-206
1H,1H,2H,2H-Perfluorododecane Sulfonate (M2D4-10:2FTS)	155	Q	50-150

Project Name: TROY MILLS LANDFILL SUPERFUND
Project Number: 04.0190987.33

Lab Number: L2323076
Report Date: 05/23/23

SAMPLE RESULTS

Lab ID: L2323076-12
Client ID: TRY_MW-601B
Sample Location: TROY, NH

Date Collected: 04/26/23 16:20
Date Received: 04/27/23
Field Prep: Not Specified

Sample Depth:
Matrix: Water
Analytical Method: 134,LCMSMS-ID
Analytical Date: 05/19/23 02:53
Analyst: RS

Extraction Method: ALPHA 23528
Extraction Date: 05/16/23 06:08

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Perfluorinated Alkyl Acids by Isotope Dilution - Mansfield Lab						
Nonafluoro-3,6-Dioxaheptanoic Acid (NFDHA)	ND		ng/l	7.16	--	1
Surrogate (Extracted Internal Standard)	% Recovery		Qualifier	Acceptance Criteria		
Perfluoro[1,2,3,4,6-13C5]Hexanoic Acid (M5PFHxA)	115			57-129		

Project Name: TROY MILLS LANDFILL SUPERFUND
Project Number: 04.0190987.33

Lab Number: L2323076
Report Date: 05/23/23

SAMPLE RESULTS

Lab ID: L2323076-12
Client ID: TRY_MW-601B
Sample Location: TROY, NH

Date Collected: 04/26/23 16:20
Date Received: 04/27/23
Field Prep: Not Specified

Sample Depth:

Matrix: Water
Analytical Method: 134,LCMSMS-ID
Analytical Date: 05/19/23 21:42
Analyst: RS

Extraction Method: ALPHA 23528
Extraction Date: 05/16/23 06:08

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Perfluorinated Alkyl Acids by Isotope Dilution - Mansfield Lab						
Perfluorooctanesulfonamide (FOSA)	ND		ng/l	1.79	--	1
N-Methyl Perfluorooctane Sulfonamide (NMeFOSA)	ND		ng/l	17.9	--	1
N-Ethyl Perfluorooctane Sulfonamide (NEtFOSA)	ND		ng/l	17.9	--	1
N-Methyl Perfluorooctanesulfonamido Ethanol (NMeFOSE)	ND		ng/l	44.7	--	1
N-Ethyl Perfluorooctanesulfonamido Ethanol (NEtFOSE)	ND		ng/l	44.7	--	1

Surrogate (Extracted Internal Standard)	% Recovery	Qualifier	Acceptance Criteria
Perfluoro[13C8]Octanesulfonamide (M8FOSA)	61		5-112
N-Methyl-d3-Perfluoro-1-Octanesulfonamide (d3-NMeFOSA)	64		10-161
N-Ethyl-d5-Perfluoro-1-Octanesulfonamide (d5-NEtFOSA)	65		10-160
2-(N-Methyl-d3-Perfluoro-1-Octanesulfonamido)ethan-d4-ol (d7-NMeFOSE)	55		10-189
2-(N-Ethyl-d5-Perfluoro-1-Octanesulfonamido)ethan-d4-ol (d9-NEtFOSE)	60		10-187

Project Name: TROY MILLS LANDFILL SUPERFUND
Project Number: 04.0190987.33

Lab Number: L2323076
Report Date: 05/23/23

SAMPLE RESULTS

Lab ID: L2323076-12
Client ID: TRY_MW-601B
Sample Location: TROY, NH

Date Collected: 04/26/23 16:20
Date Received: 04/27/23
Field Prep: Not Specified

Sample Depth:

Matrix: Water
Analytical Method: 134,LCMSMS-ID
Analytical Date: 05/20/23 22:56
Analyst: SG

Extraction Method: ALPHA 23528
Extraction Date: 05/16/23 06:08

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Perfluorinated Alkyl Acids by Isotope Dilution - Mansfield Lab						
Perfluorobutanoic Acid (PFBA)	35.6		ng/l	1.79	--	1
Perfluoropentanoic Acid (PFPeA)	51.7		ng/l	1.79	--	1
Perfluorobutanesulfonic Acid (PFBS)	2.17		ng/l	1.79	--	1
1H,1H,2H,2H-Perfluorohexanesulfonic Acid (4:2FTS)	ND		ng/l	1.79	--	1
Perfluorohexanoic Acid (PFHxA)	5.94		ng/l	1.79	--	1
Perfluoropentanesulfonic Acid (PFPeS)	ND		ng/l	1.79	--	1
Perfluoroheptanoic Acid (PFHpA)	10.8		ng/l	1.79	--	1
Perfluorohexanesulfonic Acid (PFHxS)	ND		ng/l	1.79	--	1
Perfluorooctanoic Acid (PFOA)	24.3		ng/l	1.79	--	1
1H,1H,2H,2H-Perfluorooctanesulfonic Acid (6:2FTS)	19.1		ng/l	1.79	--	1
Perfluoroheptanesulfonic Acid (PFHpS)	ND		ng/l	1.79	--	1
Perfluorononanoic Acid (PFNA)	5.09		ng/l	1.79	--	1
Perfluorooctanesulfonic Acid (PFOS)	ND		ng/l	1.79	--	1
Perfluorodecanoic Acid (PFDA)	ND		ng/l	1.79	--	1
1H,1H,2H,2H-Perfluorodecanesulfonic Acid (8:2FTS)	ND		ng/l	1.79	--	1
Perfluorononanesulfonic Acid (PFNS)	ND		ng/l	1.79	--	1
N-Methyl Perfluorooctanesulfonamidoacetic Acid (NMeFOSAA)	ND		ng/l	1.79	--	1
Perfluoroundecanoic Acid (PFUnA)	ND		ng/l	1.79	--	1
Perfluorodecanesulfonic Acid (PFDS)	ND		ng/l	1.79	--	1
N-Ethyl Perfluorooctanesulfonamidoacetic Acid (NEtFOSAA)	ND		ng/l	1.79	--	1
Perfluorododecanoic Acid (PFDoA)	ND		ng/l	1.79	--	1
Perfluorotridecanoic Acid (PFTrDA)	ND		ng/l	1.79	--	1
Perfluorotetradecanoic Acid (PFTA)	ND		ng/l	1.79	--	1
2,3,3,3-Tetrafluoro-2-[1,1,2,2,3,3,3-Heptafluoropropoxy]-Propanoic Acid (HFPO-DA)	ND		ng/l	17.9	--	1
4,8-Dioxo-3h-Perfluorononanoic Acid (ADONA)	ND		ng/l	1.79	--	1
Perfluorohexadecanoic Acid (PFHxDA)	ND		ng/l	3.58	--	1
Perfluorooctadecanoic Acid (PFODA)	ND		ng/l	3.58	--	1

Project Name: TROY MILLS LANDFILL SUPERFUND**Lab Number:** L2323076**Project Number:** 04.0190987.33**Report Date:** 05/23/23**SAMPLE RESULTS**

Lab ID: L2323076-12
 Client ID: TRY_MW-601B
 Sample Location: TROY, NH

Date Collected: 04/26/23 16:20
 Date Received: 04/27/23
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Perfluorinated Alkyl Acids by Isotope Dilution - Mansfield Lab						
Perfluorododecane Sulfonic Acid (PFDoDS)	ND		ng/l	1.79	--	1
1H,1H,2H,2H-Perfluorododecanesulfonic Acid (10:2FTS)	ND		ng/l	4.47	--	1
9-Chlorohexadecafluoro-3-Oxanone-1-Sulfonic Acid (9Cl-PF3ONS)	ND		ng/l	1.79	--	1
11-Chloroeicosafluoro-3-Oxaundecane-1-Sulfonic Acid (11Cl-PF3OUdS)	ND		ng/l	1.79	--	1
Perfluoro-3-Methoxypropanoic Acid (PFMPA)	ND		ng/l	1.79	--	1
Perfluoro-4-Methoxybutanoic Acid (PFMBA)	ND		ng/l	1.79	--	1
Perfluoro(2-Ethoxyethane)Sulfonic Acid (PFEEESA)	ND		ng/l	1.79	--	1

Surrogate (Extracted Internal Standard)	% Recovery	Qualifier	Acceptance Criteria
Perfluoro[13C4]Butanoic Acid (MPFBA)	90		58-132
Perfluoro[13C5]Pentanoic Acid (M5PFPEA)	96		62-163
Perfluoro[2,3,4-13C3]Butanesulfonic Acid (M3PFBS)	103		70-131
1H,1H,2H,2H-Perfluoro[1,2-13C2]Hexanesulfonic Acid (M2-4:2FTS)	152	Q	12-142
Perfluoro[1,2,3,4,6-13C5]Hexanoic Acid (M5PFHxA)	93		57-129
Perfluoro[1,2,3,4-13C4]Heptanoic Acid (M4PFHpA)	97		60-129
Perfluoro[1,2,3-13C3]Hexanesulfonic Acid (M3PFHxS)	103		71-134
Perfluoro[13C8]Octanoic Acid (M8PFOA)	93		62-129
1H,1H,2H,2H-Perfluoro[1,2-13C2]Octanesulfonic Acid (M2-6:2FTS)	143		14-147
Perfluoro[13C9]Nonanoic Acid (M9PFNA)	93		59-139
Perfluoro[13C8]Octanesulfonic Acid (M8PFOS)	90		69-131
Perfluoro[1,2,3,4,5,6-13C6]Decanoic Acid (M6PFDA)	91		62-124
1H,1H,2H,2H-Perfluoro[1,2-13C2]Decanesulfonic Acid (M2-8:2FTS)	104		10-162
N-Deuteriomethylperfluoro-1-octanesulfonamidoacetic Acid (d3-NMeFOSAA)	112		24-116
Perfluoro[1,2,3,4,5,6,7-13C7]Undecanoic Acid (M7-PFUDA)	121		55-137
N-Deuterioethylperfluoro-1-octanesulfonamidoacetic Acid (d5-NEtFOSAA)	170	Q	27-126
Perfluoro[1,2-13C2]Dodecanoic Acid (MPFDOA)	112		48-131
Perfluoro[1,2-13C2]Tetradecanoic Acid (M2PFTEDA)	83		22-136
2,3,3,3-Tetrafluoro-2-[1,1,2,2,3,3,3-Heptafluoropropoxy]-13C3-Propanoic Acid (M3HFPO-DA)	98		10-165
Perfluoro[13C2]Hexadecanoic Acid (M2PFHxDA)	95		10-206
1H,1H,2H,2H-Perfluorododecane Sulfonate (M2D4-10:2FTS)	157	Q	50-150

Project Name: TROY MILLS LANDFILL SUPERFUND
Project Number: 04.0190987.33

Lab Number: L2323076
Report Date: 05/23/23

Method Blank Analysis
Batch Quality Control

Analytical Method: 134,LCMSMS-ID
Analytical Date: 05/18/23 22:31
Analyst: RS

Extraction Method: ALPHA 23528
Extraction Date: 05/16/23 05:14

Parameter	Result	Qualifier	Units	RL	MDL
Perfluorinated Alkyl Acids by Isotope Dilution - Mansfield Lab for sample(s): 01-12 Batch: WG1779273-1					
Nonafluoro-3,6-Dioxaheptanoic Acid (NFDHA)	ND		ng/l	8.00	--

Surrogate (Extracted Internal Standard)	%Recovery	Qualifier	Acceptance Criteria
Perfluoro[1,2,3,4,6-13C5]Hexanoic Acid (M5PFHxA)	121		57-129

Project Name: TROY MILLS LANDFILL SUPERFUND
Project Number: 04.0190987.33

Lab Number: L2323076
Report Date: 05/23/23

Method Blank Analysis Batch Quality Control

Analytical Method: 134,LCMSMS-ID
Analytical Date: 05/19/23 20:03
Analyst: RS

Extraction Method: ALPHA 23528
Extraction Date: 05/16/23 05:14

Parameter	Result	Qualifier	Units	RL	MDL
Perfluorinated Alkyl Acids by Isotope Dilution - Mansfield Lab for sample(s): 01-12 Batch: WG1779273-1					
Perfluorooctanesulfonamide (FOSA)	ND		ng/l	2.00	--
N-Methyl Perfluorooctane Sulfonamide (NMeFOSA)	ND		ng/l	20.0	--
N-Ethyl Perfluorooctane Sulfonamide (NEtFOSA)	ND		ng/l	20.0	--
N-Methyl Perfluorooctanesulfonamido Ethanol (NMeFOSE)	ND		ng/l	50.0	--
N-Ethyl Perfluorooctanesulfonamido Ethanol (NEtFOSE)	ND		ng/l	50.0	--

Surrogate (Extracted Internal Standard)	%Recovery	Qualifier	Acceptance Criteria
Perfluoro[13C8]Octanesulfonamide (M8FOSA)	66		5-112
N-Methyl-d3-Perfluoro-1-Octanesulfonamide (d3-NMeFOSA)	61		10-161
N-Ethyl-d5-Perfluoro-1-Octanesulfonamide (d5-NEtFOSA)	58		10-160
2-(N-Methyl-d3-Perfluoro-1-Octanesulfonamido)ethan-d4-ol (d7-NMeFOSE)	53		10-189
2-(N-Ethyl-d5-Perfluoro-1-Octanesulfonamido)ethan-d4-ol (d9-NEtFOSE)	61		10-187

Project Name: TROY MILLS LANDFILL SUPERFUND
Project Number: 04.0190987.33

Lab Number: L2323076
Report Date: 05/23/23

Method Blank Analysis Batch Quality Control

Analytical Method: 134,LCMSMS-ID
Analytical Date: 05/20/23 18:30
Analyst: SG

Extraction Method: ALPHA 23528
Extraction Date: 05/16/23 05:14

Parameter	Result	Qualifier	Units	RL	MDL
Perfluorinated Alkyl Acids by Isotope Dilution - Mansfield Lab for sample(s): 01-12 Batch: WG1779273-1					
Perfluorobutanoic Acid (PFBA)	ND		ng/l	2.00	--
Perfluoropentanoic Acid (PFPeA)	ND		ng/l	2.00	--
Perfluorobutanesulfonic Acid (PFBS)	ND		ng/l	2.00	--
1H,1H,2H,2H-Perfluorohexanesulfonic Acid (4:2FTS)	ND		ng/l	2.00	--
Perfluorohexanoic Acid (PFHxA)	ND		ng/l	2.00	--
Perfluoropentanesulfonic Acid (PFPeS)	ND		ng/l	2.00	--
Perfluoroheptanoic Acid (PFHpA)	ND		ng/l	2.00	--
Perfluorohexanesulfonic Acid (PFHxS)	ND		ng/l	2.00	--
Perfluorooctanoic Acid (PFOA)	ND		ng/l	2.00	--
1H,1H,2H,2H-Perfluorooctanesulfonic Acid (6:2FTS)	ND		ng/l	2.00	--
Perfluoroheptanesulfonic Acid (PFHpS)	ND		ng/l	2.00	--
Perfluorononanoic Acid (PFNA)	ND		ng/l	2.00	--
Perfluorooctanesulfonic Acid (PFOS)	ND		ng/l	2.00	--
Perfluorodecanoic Acid (PFDA)	ND		ng/l	2.00	--
1H,1H,2H,2H-Perfluorodecanesulfonic Acid (8:2FTS)	ND		ng/l	2.00	--
Perfluorononanesulfonic Acid (PFNS)	ND		ng/l	2.00	--
N-Methyl Perfluorooctanesulfonamidoacetic Acid (NMeFOSAA)	ND		ng/l	2.00	--
Perfluoroundecanoic Acid (PFUnA)	ND		ng/l	2.00	--
Perfluorodecanesulfonic Acid (PFDS)	ND		ng/l	2.00	--
Perfluorooctanesulfonamide (FOSA)	ND		ng/l	2.00	--
N-Ethyl Perfluorooctanesulfonamidoacetic Acid (NEtFOSAA)	ND		ng/l	2.00	--
Perfluorododecanoic Acid (PFDoA)	ND		ng/l	2.00	--
Perfluorotridecanoic Acid (PFTrDA)	ND		ng/l	2.00	--
Perfluorotetradecanoic Acid (PFTA)	ND		ng/l	2.00	--
2,3,3,3-Tetrafluoro-2-[1,1,2,2,3,3,3-Heptafluoropropoxy]-Propanoic Acid (HFPO-DA)	ND		ng/l	20.0	--
4,8-Dioxa-3h-Perfluorononanoic Acid (ADONA)	ND		ng/l	2.00	--

Project Name: TROY MILLS LANDFILL SUPERFUND
Project Number: 04.0190987.33

Lab Number: L2323076
Report Date: 05/23/23

Method Blank Analysis Batch Quality Control

Analytical Method: 134,LCMSMS-ID
Analytical Date: 05/20/23 18:30
Analyst: SG

Extraction Method: ALPHA 23528
Extraction Date: 05/16/23 05:14

Parameter	Result	Qualifier	Units	RL	MDL
Perfluorinated Alkyl Acids by Isotope Dilution - Mansfield Lab for sample(s): 01-12 Batch: WG1779273-1					
Perfluorohexadecanoic Acid (PFHxDA)	ND		ng/l	4.00	--
Perfluorooctadecanoic Acid (PFODA)	ND		ng/l	4.00	--
Perfluorododecane Sulfonic Acid (PFDoDS)	ND		ng/l	2.00	--
1H,1H,2H,2H-Perfluorododecanesulfonic Acid (10:2FTS)	ND		ng/l	5.00	--
9-Chlorohexadecafluoro-3-Oxanone-1-Sulfonic Acid (9Cl-PF3ONS)	ND		ng/l	2.00	--
11-Chloroeicosafluoro-3-Oxaundecane-1-Sulfonic Acid (11Cl-PF3OUdS)	ND		ng/l	2.00	--
Perfluoro-3-Methoxypropanoic Acid (PFMPA)	ND		ng/l	2.00	--
Perfluoro-4-Methoxybutanoic Acid (PFMBA)	ND		ng/l	2.00	--
Perfluoro(2-Ethoxyethane)Sulfonic Acid (PFEESA)	ND		ng/l	2.00	--

Project Name: TROY MILLS LANDFILL SUPERFUND
Project Number: 04.0190987.33

Lab Number: L2323076
Report Date: 05/23/23

Method Blank Analysis Batch Quality Control

Analytical Method: 134,LCMSMS-ID
Analytical Date: 05/20/23 18:30
Analyst: SG

Extraction Method: ALPHA 23528
Extraction Date: 05/16/23 05:14

Parameter	Result	Qualifier	Units	RL	MDL
Perfluorinated Alkyl Acids by Isotope Dilution - Mansfield Lab for sample(s): 01-12 Batch: WG1779273-1					

Surrogate (Extracted Internal Standard)	%Recovery	Qualifier	Acceptance Criteria
Perfluoro[13C4]Butanoic Acid (MPFBA)	98		58-132
Perfluoro[13C5]Pentanoic Acid (M5PFPEA)	99		62-163
Perfluoro[2,3,4-13C3]Butanesulfonic Acid (M3PFBS)	103		70-131
1H,1H,2H,2H-Perfluoro[1,2-13C2]Hexanesulfonic Acid (M2-4:2FTS)	100		12-142
Perfluoro[1,2,3,4,6-13C5]Hexanoic Acid (M5PFHxA)	101		57-129
Perfluoro[1,2,3,4-13C4]Heptanoic Acid (M4PFHpA)	103		60-129
Perfluoro[1,2,3-13C3]Hexanesulfonic Acid (M3PFHxS)	100		71-134
Perfluoro[13C8]Octanoic Acid (M8PFOA)	97		62-129
1H,1H,2H,2H-Perfluoro[1,2-13C2]Octanesulfonic Acid (M2-6:2FTS)	109		14-147
Perfluoro[13C9]Nonanoic Acid (M9PFNA)	91		59-139
Perfluoro[13C8]Octanesulfonic Acid (M8PFOS)	88		69-131
Perfluoro[1,2,3,4,5,6-13C6]Decanoic Acid (M6PFDA)	93		62-124
1H,1H,2H,2H-Perfluoro[1,2-13C2]Decanesulfonic Acid (M2-8:2FTS)	94		10-162
N-Deuteriomethylperfluoro-1-octanesulfonamidoacetic Acid (d3-NMeFOSAA)	110		24-116
Perfluoro[1,2,3,4,5,6,7-13C7]Undecanoic Acid (M7-PFUDA)	118		55-137
Perfluoro[13C8]Octanesulfonamide (M8FOSA)	47		5-112
N-Deuterioethylperfluoro-1-octanesulfonamidoacetic Acid (d5-NEtFOSAA)	143	Q	27-126
Perfluoro[1,2-13C2]Dodecanoic Acid (MPFDOA)	119		48-131
Perfluoro[1,2-13C2]Tetradecanoic Acid (M2PFTEDA)	83		22-136
2,3,3,3-Tetrafluoro-2-[1,1,2,2,3,3,3-Heptafluoropropoxy]-13C3-Propanoic Acid (M3HFPO-DA)	98		10-165
Perfluoro[13C2]Hexadecanoic Acid (M2PFHxDA)	119		10-206
1H,1H,2H,2H-Perfluorododecane Sulfonate (M2D4-10:2FTS)	138		50-150

Lab Control Sample Analysis **Batch Quality Control**

Project Name: TROY MILLS LANDFILL SUPERFUND
Project Number: 04.0190987.33

Lab Number: L2323076
Report Date: 05/23/23

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Perfluorinated Alkyl Acids by Isotope Dilution - Mansfield Lab Associated sample(s): 01-12 Batch: WG1779273-2								
Perfluorobutanoic Acid (PFBA)	122		-		67-148	-		30
Perfluoropentanoic Acid (PFPeA)	126		-		63-161	-		30
Perfluorobutanesulfonic Acid (PFBS)	119		-		65-157	-		30
1H,1H,2H,2H-Perfluorohexanesulfonic Acid (4:2FTS)	124		-		37-219	-		30
Perfluorohexanoic Acid (PFHxA)	121		-		69-168	-		30
Perfluoropentanesulfonic Acid (PFPeS)	127		-		52-156	-		30
Perfluoroheptanoic Acid (PFHpA)	118		-		58-159	-		30
Perfluorohexanesulfonic Acid (PFHxS)	130		-		69-177	-		30
Perfluorooctanoic Acid (PFOA)	124		-		63-159	-		30
1H,1H,2H,2H-Perfluorooctanesulfonic Acid (6:2FTS)	114		-		49-187	-		30
Perfluoroheptanesulfonic Acid (PFHpS)	128		-		61-179	-		30
Perfluorononanoic Acid (PFNA)	132		-		68-171	-		30
Perfluorooctanesulfonic Acid (PFOS)	130		-		52-151	-		30
Perfluorodecanoic Acid (PFDA)	132		-		63-171	-		30
1H,1H,2H,2H-Perfluorodecanesulfonic Acid (8:2FTS)	112		-		56-173	-		30
Perfluorononanesulfonic Acid (PFNS)	145		-		48-150	-		30
N-Methyl Perfluorooctanesulfonamidoacetic Acid (NMeFOSAA)	113		-		60-166	-		30
Perfluoroundecanoic Acid (PFUnA)	97		-		60-153	-		30
Perfluorodecanesulfonic Acid (PFDS)	157	Q	-		38-156	-		30
Perfluorooctanesulfonamide (FOSA)	111		-		46-170	-		30
N-Ethyl Perfluorooctanesulfonamidoacetic Acid (NEtFOSAA)	112		-		45-170	-		30
Perfluorododecanoic Acid (PFDoA)	113		-		67-153	-		30

Lab Control Sample Analysis **Batch Quality Control**

Project Name: TROY MILLS LANDFILL SUPERFUND
Project Number: 04.0190987.33

Lab Number: L2323076
Report Date: 05/23/23

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Perfluorinated Alkyl Acids by Isotope Dilution - Mansfield Lab Associated sample(s): 01-12 Batch: WG1779273-2								
Perfluorotridecanoic Acid (PFTrDA)	135		-		48-158	-		30
Perfluorotetradecanoic Acid (PFTA)	130		-		59-182	-		30
2,3,3,3-Tetrafluoro-2-[1,1,2,2,3,3,3-Heptafluoropropoxy]-Propanoic Acid (HFPO-DA)	96		-		57-162	-		30
4,8-Dioxa-3h-Perfluorononanoic Acid (ADONA)	139		-		69-143	-		30
Perfluorohexadecanoic Acid (PFHxDA)	117		-		40-167	-		30
Perfluorooctadecanoic Acid (PFODA)	20		-		10-119	-		30
Perfluorododecane Sulfonic Acid (PFDoDS)	140		-		69-141	-		30
1H,1H,2H,2H-Perfluorododecanesulfonic Acid (10:2FTS)	112		-		53-167	-		30
9-Chlorohexadecafluoro-3-Oxanone-1-Sulfonic Acid (9Cl-PF3ONS)	106		-		55-158	-		30
11-Chloroeicosafluoro-3-Oxaundecane-1-Sulfonic Acid (11Cl-PF3OUdS)	115		-		52-156	-		30
Perfluoro-3-Methoxypropanoic Acid (PFMPA)	126		-		50-150	-		30
Perfluoro-4-Methoxybutanoic Acid (PFMBA)	117		-		50-150	-		30
Perfluoro(2-Ethoxyethane)Sulfonic Acid (PFEESA)	118		-		50-150	-		30

Lab Control Sample Analysis

Batch Quality Control

Project Name: TROY MILLS LANDFILL SUPERFUND
Project Number: 04.0190987.33

Lab Number: L2323076
Report Date: 05/23/23

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Perfluorinated Alkyl Acids by Isotope Dilution - Mansfield Lab Associated sample(s): 01-12 Batch: WG1779273-2								

Surrogate (Extracted Internal Standard)	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
Perfluoro[13C4]Butanoic Acid (MPFBA)	96				58-132
Perfluoro[13C5]Pentanoic Acid (M5PFPEA)	97				62-163
Perfluoro[2,3,4-13C3]Butanesulfonic Acid (M3PFBS)	98				70-131
1H,1H,2H,2H-Perfluoro[1,2-13C2]Hexanesulfonic Acid (M2-4:2FTS)	100				12-142
Perfluoro[1,2,3,4,6-13C5]Hexanoic Acid (M5PFHxA)	100				57-129
Perfluoro[1,2,3,4-13C4]Heptanoic Acid (M4PFHpA)	103				60-129
Perfluoro[1,2,3-13C3]Hexanesulfonic Acid (M3PFHxS)	99				71-134
Perfluoro[13C8]Octanoic Acid (M8PFOA)	96				62-129
1H,1H,2H,2H-Perfluoro[1,2-13C2]Octanesulfonic Acid (M2-6:2FTS)	115				14-147
Perfluoro[13C9]Nonanoic Acid (M9PFNA)	91				59-139
Perfluoro[13C8]Octanesulfonic Acid (M8PFOS)	89				69-131
Perfluoro[1,2,3,4,5,6-13C6]Decanoic Acid (M6PFDA)	92				62-124
1H,1H,2H,2H-Perfluoro[1,2-13C2]Decanesulfonic Acid (M2-8:2FTS)	93				10-162
N-Deuteriomethylperfluoro-1-octanesulfonamidoacetic Acid (d3-NMeFOSAA)	115				24-116
Perfluoro[1,2,3,4,5,6,7-13C7]Undecanoic Acid (M7-PFUDA)	113				55-137
Perfluoro[13C8]Octanesulfonamide (M8FOSA)	69				5-112
N-Deuterioethylperfluoro-1-octanesulfonamidoacetic Acid (d5-NEtFOSAA)	128	Q			27-126
Perfluoro[1,2-13C2]Dodecanoic Acid (MPFDOA)	113				48-131
Perfluoro[1,2-13C2]Tetradecanoic Acid (M2PFTEDA)	84				22-136
2,3,3,3-Tetrafluoro-2-[1,1,2,2,3,3,3-Heptafluoropropoxy]-13C3-Propanoic Acid (M3HFPO-DA)	95				10-165
Perfluoro[13C2]Hexadecanoic Acid (M2PFHxDA)	107				10-206
1H,1H,2H,2H-Perfluorododecane Sulfonate (M2D4-10:2FTS)	126				50-150

Lab Control Sample Analysis

Batch Quality Control

Project Name: TROY MILLS LANDFILL SUPERFUND
Project Number: 04.0190987.33

Lab Number: L2323076
Report Date: 05/23/23

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Perfluorinated Alkyl Acids by Isotope Dilution - Mansfield Lab Associated sample(s): 01-12 Batch: WG1779273-2								
Perfluorooctanesulfonamide (FOSA)	104		-		46-170	-		30
N-Methyl Perfluorooctane Sulfonamide (NMeFOSA)	94		-		10-185	-		30
N-Ethyl Perfluorooctane Sulfonamide (NEtFOSA)	97		-		10-202	-		30
N-Methyl Perfluorooctanesulfonamido Ethanol (NMeFOSE)	91		-		10-209	-		30
N-Ethyl Perfluorooctanesulfonamido Ethanol (NEtFOSE)	106		-		66-176	-		30

Surrogate (Extracted Internal Standard)	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
Perfluoro[13C8]Octanesulfonamide (M8FOSA)	59				5-112
N-Methyl-d3-Perfluoro-1-Octanesulfonamide (d3-NMeFOSA)	60				10-161
N-Ethyl-d5-Perfluoro-1-Octanesulfonamide (d5-NEtFOSA)	56				10-160
2-(N-Methyl-d3-Perfluoro-1-Octanesulfonamido)ethan-d4-ol (d7-NMeFOSE)	57				10-189
2-(N-Ethyl-d5-Perfluoro-1-Octanesulfonamido)ethan-d4-ol (d9-NEtFOSE)	54				10-187

Lab Control Sample Analysis

Batch Quality Control

Project Name: TROY MILLS LANDFILL SUPERFUND
Project Number: 04.0190987.33

Lab Number: L2323076
Report Date: 05/23/23

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Perfluorinated Alkyl Acids by Isotope Dilution - Mansfield Lab Associated sample(s): 01-12 Batch: WG1779273-2								
Nonafluoro-3,6-Dioxaheptanoic Acid (NFDHA)	111		-		50-150	-		30

Matrix Spike Analysis

Batch Quality Control

Project Name: TROY MILLS LANDFILL SUPERFUND
Project Number: 04.0190987.33

Lab Number: L2323076
Report Date: 05/23/23

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	Qual	MSD Found	MSD %Recovery	Qual	Recovery Limits	RPD	Qual	RPD Limits
Perfluorinated Alkyl Acids by Isotope Dilution - Mansfield Lab Associated sample(s): 01-12 QC Batch ID: WG1779273-3 QC Sample: L2323076-03 Client ID: TRY_MW-902B												
Nonafluoro-3,6-Dioxaheptanoic Acid (NFDHA)	ND	38.1	41.2	108		-	-		50-150	-		30

Surrogate (Extracted Internal Standard)	MS % Recovery	Qualifier	MSD % Recovery	Qualifier	Acceptance Criteria
Perfluoro[1,2,3,4,6-13C5]Hexanoic Acid (M5PFHxA)	121				57-129

Matrix Spike Analysis

Batch Quality Control

Project Name: TROY MILLS LANDFILL SUPERFUND
Project Number: 04.0190987.33

Lab Number: L2323076
Report Date: 05/23/23

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	Qual	MSD Found	MSD %Recovery	Qual	Recovery Limits	RPD	Qual	RPD Limits
Perfluorinated Alkyl Acids by Isotope Dilution - Mansfield Lab Associated sample(s): 01-12 QC Batch ID: WG1779273-3 QC Sample: L2323076-03 Client ID: TRY_MW-902B												
Perfluorooctanesulfonamide (FOSA)	ND	38.1	37.1	97		-	-		46-170	-		30
N-Methyl Perfluorooctane Sulfonamide (NMeFOSA)	ND	191	176	92		-	-		10-185	-		30
N-Ethyl Perfluorooctane Sulfonamide (NEtFOSA)	ND	191	190	100		-	-		10-202	-		30
N-Methyl Perfluorooctanesulfonamido Ethanol (NMeFOSE)	ND	95.4	82.1	86		-	-		10-209	-		30
N-Ethyl Perfluorooctanesulfonamido Ethanol (NEtFOSE)	ND	95.4	97.0	102		-	-		66-176	-		30

Surrogate (Extracted Internal Standard)	MS % Recovery	MS Qualifier	MSD % Recovery	MSD Qualifier	Acceptance Criteria
2-(N-Ethyl-d5-Perfluoro-1-Octanesulfonamido)ethan-d4-ol (d9-NEtFOSE)	61				10-187
2-(N-Methyl-d3-Perfluoro-1-Octanesulfonamido)ethan-d4-ol (d7-NMeFOSE)	58				10-189
N-Ethyl-d5-Perfluoro-1-Octanesulfonamide (d5-NEtFOSA)	67				10-160
N-Methyl-d3-Perfluoro-1-Octanesulfonamide (d3-NMeFOSA)	73				10-161
Perfluoro[13C8]Octanesulfonamide (M8FOSA)	66				5-112

Matrix Spike Analysis

Batch Quality Control

Project Name: TROY MILLS LANDFILL SUPERFUND

Project Number: 04.0190987.33

Lab Number: L2323076

Report Date: 05/23/23

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	Qual	MSD Found	MSD %Recovery	Qual	Recovery Limits	RPD	Qual	RPD Limits
Perfluorinated Alkyl Acids by Isotope Dilution - Mansfield Lab Associated sample(s): 01-12 QC Batch ID: WG1779273-3 QC Sample: L2323076-03 Client ID: TRY_MW-902B												
Perfluorobutanoic Acid (PFBA)	ND	38.1	45.4	119		-	-		67-148	-		30
Perfluoropentanoic Acid (PFPeA)	ND	38.1	47.3	124		-	-		63-161	-		30
Perfluorobutanesulfonic Acid (PFBS)	ND	33.9	39.6	117		-	-		65-157	-		30
1H,1H,2H,2H-Perfluorohexanesulfonic Acid (4:2FTS)	ND	35.8	43.7	122		-	-		37-219	-		30
Perfluorohexanoic Acid (PFHxA)	ND	38.1	45.6	120		-	-		69-168	-		30
Perfluoropentanesulfonic Acid (PFPeS)	ND	35.9	44.2	123		-	-		52-156	-		30
Perfluoroheptanoic Acid (PFHpA)	ND	38.1	45.0	118		-	-		58-159	-		30
Perfluorohexanesulfonic Acid (PFHxS)	ND	34.9	44.1	126		-	-		69-177	-		30
Perfluorooctanoic Acid (PFOA)	ND	38.1	48.5	127		-	-		63-159	-		30
1H,1H,2H,2H-Perfluorooctanesulfonic Acid (6:2FTS)	91.0	36.3	58.6	0	Q	-	-		49-187	-		30
Perfluoroheptanesulfonic Acid (PFHpS)	ND	36.4	49.0	135		-	-		61-179	-		30
Perfluorononanoic Acid (PFNA)	ND	38.1	47.8	125		-	-		68-171	-		30
Perfluorooctanesulfonic Acid (PFOS)	ND	35.4	44.5	124		-	-		52-151	-		30
Perfluorodecanoic Acid (PFDA)	ND	38.1	51.0	131		-	-		63-171	-		30
1H,1H,2H,2H-Perfluorodecanesulfonic Acid (8:2FTS)	ND	36.6	43.0	117		-	-		56-173	-		30
Perfluorononanesulfonic Acid (PFNS)	ND	36.7	51.8	141		-	-		48-150	-		30
N-Methyl Perfluorooctanesulfonamidoacetic Acid (NMeFOSAA)	ND	38.1	42.3	111		-	-		60-166	-		30
Perfluoroundecanoic Acid (PFUnA)	ND	38.1	37.3	98		-	-		60-153	-		30
Perfluorodecanesulfonic Acid (PFDS)	ND	36.8	55.0	149		-	-		38-156	-		30
N-Ethyl Perfluorooctanesulfonamidoacetic Acid (NEtFOSAA)	ND	38.1	40.2	105		-	-		45-170	-		30
Perfluorododecanoic Acid (PFDoA)	ND	38.1	41.5	109		-	-		67-153	-		30
Perfluorotridecanoic Acid (PFTrDA)	ND	38.1	52.7	138		-	-		48-158	-		30

Matrix Spike Analysis

Batch Quality Control

Project Name: TROY MILLS LANDFILL SUPERFUND
Project Number: 04.0190987.33

Lab Number: L2323076
Report Date: 05/23/23

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	Qual	MSD Found	MSD %Recovery	Qual	Recovery Limits	RPD	Qual	RPD Limits
Perfluorinated Alkyl Acids by Isotope Dilution - Mansfield Lab Associated sample(s): 01-12 QC Batch ID: WG1779273-3 QC Sample: L2323076-03 Client ID: TRY_MW-902B												
Perfluorotetradecanoic Acid (PFTA)	ND	38.1	51.4	135		-	-		59-182	-		30
2,3,3,3-Tetrafluoro-2-[1,1,2,2,3,3,3-Heptafluoropropoxy]-Propanoic Acid (HFPO-DA)	ND	372	386	104		-	-		57-162	-		30
4,8-Dioxa-3h-Perfluorononanoic Acid (ADONA)	1.93F	36.1	49.0	130		-	-		69-143	-		30
Perfluorohexadecanoic Acid (PFHxDA)	ND	38.1	41.2	108		-	-		40-167	-		30
Perfluorooctadecanoic Acid (PFODA)	ND	38.1	10.4F	27		-	-		10-119	-		30
Perfluorododecane Sulfonic Acid (PFDoDS)	ND	36.9	51.5	139		-	-		69-141	-		30
1H,1H,2H,2H-Perfluorododecanesulfonic Acid (10:2FTS)	ND	36.8	36.7	100		-	-		53-167	-		30
9-Chlorohexadecafluoro-3-Oxanone-1-Sulfonic Acid (9Cl-PF3ONS)	ND	35.6	36.6	103		-	-		55-158	-		30
11-Chloroeicosafluoro-3-Oxaundecane-1-Sulfonic Acid (11Cl-PF3OUdS)	ND	36	38.5	107		-	-		52-156	-		30
Perfluoro-3-Methoxypropanoic Acid (PFMPA)	ND	38.1	50.0	131		-	-		50-150	-		30
Perfluoro-4-Methoxybutanoic Acid (PFMBA)	ND	38.1	44.2	116		-	-		50-150	-		30
Perfluoro(2-Ethoxyethane)Sulfonic Acid (PFEEA)	ND	34	40.6	120		-	-		50-150	-		30

Surrogate (Extracted Internal Standard)	MS % Recovery	MS Qualifier	MSD % Recovery	MSD Qualifier	Acceptance Criteria
1H,1H,2H,2H-Perfluoro[1,2-13C2]Decanesulfonic Acid (M2-8:2FTS)	94				10-162
1H,1H,2H,2H-Perfluoro[1,2-13C2]Hexanesulfonic Acid (M2-4:2FTS)	152	Q			12-142
1H,1H,2H,2H-Perfluoro[1,2-13C2]Octanesulfonic Acid (M2-6:2FTS)	119				14-147
1H,1H,2H,2H-Perfluorododecane Sulfonate (M2D4-10:2FTS)	133				50-150
2,3,3,3-Tetrafluoro-2-[1,1,2,2,3,3,3-Heptafluoropropoxy]-13C3-Propanoic Acid (M3HFPO-DA)	87				10-165

Matrix Spike Analysis

Batch Quality Control

Project Name: TROY MILLS LANDFILL SUPERFUND
Project Number: 04.0190987.33

Lab Number: L2323076
Report Date: 05/23/23

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	Qual	MSD Found	MSD %Recovery	Qual	Recovery Limits	RPD	Qual	RPD Limits
Perfluorinated Alkyl Acids by Isotope Dilution - Mansfield Lab Associated sample(s): 01-12 QC Batch ID: WG1779273-3 QC Sample: L2323076-03 Client ID: TRY_MW-902B												

Surrogate (Extracted Internal Standard)	MS		MSD		Acceptance Criteria
	% Recovery	Qualifier	% Recovery	Qualifier	
N-Deuterioethylperfluoro-1-octanesulfonamidoacetic Acid (d5-NEtFOSAA)	131	Q			27-126
N-Deuteriomethylperfluoro-1-octanesulfonamidoacetic Acid (d3-NMeFOSAA)	116				24-116
Perfluoro[1,2,3,4,5,6,7-13C7]Undecanoic Acid (M7-PFUDA)	116				55-137
Perfluoro[1,2,3,4,5,6-13C6]Decanoic Acid (M6PFDA)	95				62-124
Perfluoro[1,2,3,4,6-13C5]Hexanoic Acid (M5PFHxA)	99				57-129
Perfluoro[1,2,3,4-13C4]Heptanoic Acid (M4PFHpA)	99				60-129
Perfluoro[1,2,3-13C3]Hexanesulfonic Acid (M3PFHxS)	103				71-134
Perfluoro[1,2-13C2]Dodecanoic Acid (MPFDOA)	114				48-131
Perfluoro[1,2-13C2]Tetradecanoic Acid (M2PFTEDA)	82				22-136
Perfluoro[13C2]Hexadecanoic Acid (M2PFHxDA)	113				10-206
Perfluoro[13C4]Butanoic Acid (MPFBA)	94				58-132
Perfluoro[13C5]Pentanoic Acid (M5PFPEA)	105				62-163
Perfluoro[13C8]Octanesulfonic Acid (M8PFOS)	88				69-131
Perfluoro[13C8]Octanoic Acid (M8PFOA)	92				62-129
Perfluoro[13C9]Nonanoic Acid (M9PFNA)	93				59-139
Perfluoro[2,3,4-13C3]Butanesulfonic Acid (M3PFBS)	104				70-131

Lab Duplicate Analysis Batch Quality Control

Project Name: TROY MILLS LANDFILL SUPERFUND
Project Number: 04.0190987.33

Lab Number: L2323076
Report Date: 05/23/23

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
Perfluorinated Alkyl Acids by Isotope Dilution - Mansfield Lab Associated sample(s): 01-12 QC Batch ID: WG1779273-4 QC Sample: L2323076-06 Client ID: TRY_MW-903B						

Perfluorooctanesulfonamide (FOSA)	ND	ND	ng/l	NC		30
N-Methyl Perfluorooctane Sulfonamide (NMeFOSA)	ND	ND	ng/l	NC		30
N-Ethyl Perfluorooctane Sulfonamide (NEtFOSA)	ND	ND	ng/l	NC		30
N-Methyl Perfluorooctanesulfonamido Ethanol (NMeFOSE)	ND	ND	ng/l	NC		30
N-Ethyl Perfluorooctanesulfonamido Ethanol (NEtFOSE)	ND	ND	ng/l	NC		30

Surrogate (Extracted Internal Standard)	%Recovery	Qualifier	%Recovery	Qualifier	Acceptance Criteria
Perfluoro[13C8]Octanesulfonamide (M8FOSA)	61		60		5-112
N-Methyl-d3-Perfluoro-1-Octanesulfonamide (d3-NMeFOSA)	62		64		10-161
N-Ethyl-d5-Perfluoro-1-Octanesulfonamide (d5-NEtFOSA)	62		60		10-160
2-(N-Methyl-d3-Perfluoro-1-Octanesulfonamido)ethan-d4-ol (d7-NMeFOSE)	54		50		10-189
2-(N-Ethyl-d5-Perfluoro-1-Octanesulfonamido)ethan-d4-ol (d9-NEtFOSE)	55		58		10-187

Perfluorinated Alkyl Acids by Isotope Dilution - Mansfield Lab Associated sample(s): 01-12 QC Batch ID: WG1779273-4 QC Sample: L2323076-06 Client ID: TRY_MW-903B

Nonafluoro-3,6-Dioxaheptanoic Acid (NFDHA)	ND	ND	ng/l	NC		30
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Surrogate (Extracted Internal Standard)	%Recovery	Qualifier	%Recovery	Qualifier	Acceptance Criteria
Perfluoro[1,2,3,4,6-13C5]Hexanoic Acid (M5PFHxA)	125		120		57-129

Project Name: TROY MILLS LANDFILL SUPERFUND
Project Number: 04.0190987.33

Lab Duplicate Analysis

Batch Quality Control

Lab Number: L2323076
Report Date: 05/23/23

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
Perfluorinated Alkyl Acids by Isotope Dilution - Mansfield Lab Associated sample(s): 01-12 QC Batch ID: WG1779273-4 QC Sample: L2323076-06 Client ID: TRY_MW-903B						
Perfluorobutanoic Acid (PFBA)	ND	ND	ng/l	NC		30
Perfluoropentanoic Acid (PFPeA)	ND	ND	ng/l	NC		30
Perfluorobutanesulfonic Acid (PFBS)	ND	ND	ng/l	NC		30
1H,1H,2H,2H-Perfluorohexanesulfonic Acid (4:2FTS)	ND	ND	ng/l	NC		30
Perfluorohexanoic Acid (PFHxA)	ND	ND	ng/l	NC		30
Perfluoropentanesulfonic Acid (PFPeS)	ND	ND	ng/l	NC		30
Perfluoroheptanoic Acid (PFHpA)	ND	ND	ng/l	NC		30
Perfluorohexanesulfonic Acid (PFHxS)	ND	ND	ng/l	NC		30
Perfluorooctanoic Acid (PFOA)	ND	ND	ng/l	NC		30
1H,1H,2H,2H-Perfluorooctanesulfonic Acid (6:2FTS)	7.06	6.32	ng/l	11		30
Perfluoroheptanesulfonic Acid (PFHpS)	ND	ND	ng/l	NC		30
Perfluorononanoic Acid (PFNA)	ND	ND	ng/l	NC		30
Perfluorooctanesulfonic Acid (PFOS)	ND	ND	ng/l	NC		30
Perfluorodecanoic Acid (PFDA)	ND	ND	ng/l	NC		30
1H,1H,2H,2H-Perfluorodecanesulfonic Acid (8:2FTS)	ND	ND	ng/l	NC		30
Perfluorononanesulfonic Acid (PFNS)	ND	ND	ng/l	NC		30
N-Methyl Perfluorooctanesulfonamidoacetic Acid (NMeFOSAA)	ND	ND	ng/l	NC		30
Perfluoroundecanoic Acid (PFUnA)	ND	ND	ng/l	NC		30
Perfluorodecanesulfonic Acid (PFDS)	ND	ND	ng/l	NC		30
N-Ethyl Perfluorooctanesulfonamidoacetic Acid (NEtFOSAA)	ND	ND	ng/l	NC		30

Project Name: TROY MILLS LANDFILL SUPERFUND
Project Number: 04.0190987.33

Lab Duplicate Analysis
Batch Quality Control

Lab Number: L2323076
Report Date: 05/23/23

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
Perfluorinated Alkyl Acids by Isotope Dilution - Mansfield Lab Associated sample(s): 01-12 QC Batch ID: WG1779273-4 QC Sample: L2323076-06 Client ID: TRY_MW-903B						
Perfluorododecanoic Acid (PFDoA)	ND	ND	ng/l	NC		30
Perfluorotridecanoic Acid (PFTrDA)	ND	ND	ng/l	NC		30
Perfluorotetradecanoic Acid (PFTA)	ND	ND	ng/l	NC		30
2,3,3,3-Tetrafluoro-2-[1,1,2,2,3,3,3-Heptafluoropropoxy]-Propanoic Acid (HFPO-DA)	ND	ND	ng/l	NC		30
4,8-Dioxa-3h-Perfluorononanoic Acid (ADONA)	ND	ND	ng/l	NC		30
Perfluorohexadecanoic Acid (PFHxDA)	ND	ND	ng/l	NC		30
Perfluorooctadecanoic Acid (PFODA)	ND	ND	ng/l	NC		30
Perfluorododecane Sulfonic Acid (PFDoDS)	ND	ND	ng/l	NC		30
1H,1H,2H,2H-Perfluorododecanesulfonic Acid (10:2FTS)	ND	ND	ng/l	NC		30
9-Chlorohexadecafluoro-3-Oxanone-1-Sulfonic Acid (9Cl-PF3ONS)	ND	ND	ng/l	NC		30
11-Chloroeicosafluoro-3-Oxaundecane-1-Sulfonic Acid (11Cl-PF3OUdS)	ND	ND	ng/l	NC		30
Perfluoro-3-Methoxypropanoic Acid (PFMPA)	ND	ND	ng/l	NC		30
Perfluoro-4-Methoxybutanoic Acid (PFMBA)	ND	ND	ng/l	NC		30
Perfluoro(2-Ethoxyethane)Sulfonic Acid (PFEEA)	ND	ND	ng/l	NC		30

Surrogate (Extracted Internal Standard)	%Recovery	Qualifier	%Recovery	Qualifier	Acceptance Criteria
Perfluoro[13C4]Butanoic Acid (MPFBA)	94		91		58-132
Perfluoro[13C5]Pentanoic Acid (M5PFPEA)	102		102		62-163
Perfluoro[2,3,4-13C3]Butanesulfonic Acid (M3PFBS)	100		102		70-131
1H,1H,2H,2H-Perfluoro[1,2-13C2]Hexanesulfonic Acid (M2-4:2FTS)	131		133		12-142

Project Name: TROY MILLS LANDFILL SUPERFUND
Project Number: 04.0190987.33

Lab Duplicate Analysis
Batch Quality Control

Lab Number: L2323076
Report Date: 05/23/23

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
Perfluorinated Alkyl Acids by Isotope Dilution - Mansfield Lab Associated sample(s): 01-12 QC Batch ID: WG1779273-4 QC Sample: L2323076-06 Client ID: TRY_MW-903B						

Surrogate (Extracted Internal Standard)	%Recovery	Qualifier	%Recovery	Qualifier	Acceptance Criteria
Perfluoro[1,2,3,4,6-13C5]Hexanoic Acid (M5PFHxA)	97		95		57-129
Perfluoro[1,2,3,4-13C4]Heptanoic Acid (M4PFHpA)	107		102		60-129
Perfluoro[1,2,3-13C3]Hexanesulfonic Acid (M3PFHxS)	102		103		71-134
Perfluoro[13C8]Octanoic Acid (M8PFOA)	95		90		62-129
1H,1H,2H,2H-Perfluoro[1,2-13C2]Octanesulfonic Acid (M2-6:2FTS)	120		118		14-147
Perfluoro[13C9]Nonanoic Acid (M9PFNA)	96		93		59-139
Perfluoro[13C8]Octanesulfonic Acid (M8PFOS)	90		88		69-131
Perfluoro[1,2,3,4,5,6-13C6]Decanoic Acid (M6PFDA)	92		94		62-124
1H,1H,2H,2H-Perfluoro[1,2-13C2]Decanesulfonic Acid (M2-8:2FTS)	86		90		10-162
N-Deuteriomethylperfluoro-1-octanesulfonamidoacetic Acid (d3-NMeFOSAA)	109		112		24-116
Perfluoro[1,2,3,4,5,6,7-13C7]Undecanoic Acid (M7-PFUDA)	115		112		55-137
N-Deuterioethylperfluoro-1-octanesulfonamidoacetic Acid (d5-NEtFOSAA)	136	Q	134	Q	27-126
Perfluoro[1,2-13C2]Dodecanoic Acid (MPFDOA)	119		125		48-131
Perfluoro[1,2-13C2]Tetradecanoic Acid (M2PFTEDA)	81		80		22-136
2,3,3,3-Tetrafluoro-2-[1,1,2,2,3,3,3-Heptafluoropropoxy]-13C3-Propanoic Acid (M3HFPO-DA)	101		97		10-165
Perfluoro[13C2]Hexadecanoic Acid (M2PFHxDA)	106		97		10-206
1H,1H,2H,2H-Perfluorododecane Sulfonate (M2D4-10:2FTS)	300	Q	271	Q	50-150

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Sample Receipt and Container Information

Were project specific reporting limits specified? YES

Cooler Information

Cooler **Custody Seal**
A Absent

Container Information

Container ID	Container Type	Cooler	Initial pH	Final pH	Temp deg C	Pres	Seal	Frozen Date/Time	Analysis(*)
L2323076-01A	Plastic 250ml unpreserved	A	NA		3.3	Y	Absent		A2-537-ISOTOPE-FULL(28)
L2323076-02A	Plastic 250ml unpreserved	A	NA		3.3	Y	Absent		A2-537-ISOTOPE-FULL(28)
L2323076-03A	Plastic 250ml unpreserved	A	NA		3.3	Y	Absent		A2-537-ISOTOPE-FULL(28)
L2323076-03B	Plastic 250ml unpreserved	A	NA		3.3	Y	Absent		A2-537-ISOTOPE-FULL(28)
L2323076-04A	Plastic 250ml unpreserved	A	NA		3.3	Y	Absent		A2-537-ISOTOPE-FULL(28)
L2323076-04B	Plastic 250ml unpreserved	A	NA		3.3	Y	Absent		A2-537-ISOTOPE-FULL(28)
L2323076-05A	Plastic 250ml unpreserved	A	NA		3.3	Y	Absent		A2-537-ISOTOPE-FULL(28)
L2323076-05B	Plastic 250ml unpreserved	A	NA		3.3	Y	Absent		A2-537-ISOTOPE-FULL(28)
L2323076-06A	Plastic 250ml unpreserved	A	NA		3.3	Y	Absent		A2-537-ISOTOPE-FULL(28)
L2323076-06B	Plastic 250ml unpreserved	A	NA		3.3	Y	Absent		A2-537-ISOTOPE-FULL(28)
L2323076-07A	Plastic 250ml unpreserved	A	NA		3.3	Y	Absent		A2-537-ISOTOPE-FULL(28)
L2323076-07B	Plastic 250ml unpreserved	A	NA		3.3	Y	Absent		A2-537-ISOTOPE-FULL(28)
L2323076-08A	Plastic 250ml unpreserved	A	NA		3.3	Y	Absent		A2-537-ISOTOPE-FULL(28)
L2323076-08B	Plastic 250ml unpreserved	A	NA		3.3	Y	Absent		A2-537-ISOTOPE-FULL(28)
L2323076-09A	Plastic 250ml unpreserved	A	NA		3.3	Y	Absent		A2-537-ISOTOPE-FULL(28)
L2323076-09B	Plastic 250ml unpreserved	A	NA		3.3	Y	Absent		A2-537-ISOTOPE-FULL(28)
L2323076-10A	Plastic 250ml unpreserved	A	NA		3.3	Y	Absent		A2-537-ISOTOPE-FULL(28)
L2323076-10B	Plastic 250ml unpreserved	A	NA		3.3	Y	Absent		A2-537-ISOTOPE-FULL(28)
L2323076-11A	Plastic 250ml unpreserved	A	NA		3.3	Y	Absent		A2-537-ISOTOPE-FULL(28)
L2323076-11B	Plastic 250ml unpreserved	A	NA		3.3	Y	Absent		A2-537-ISOTOPE-FULL(28)
L2323076-12A	Plastic 250ml unpreserved	A	NA		3.3	Y	Absent		A2-537-ISOTOPE-FULL(28)
L2323076-12B	Plastic 250ml unpreserved	A	NA		3.3	Y	Absent		A2-537-ISOTOPE-FULL(28)

Project Name: TROY MILLS LANDFILL SUPERFUND
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PFAS PARAMETER SUMMARY

Parameter	Acronym	CAS Number
PERFLUOROALKYL CARBOXYLIC ACIDS (PFCAs)		
Perfluorooctadecanoic Acid	PFODA	16517-11-6
Perfluorohexadecanoic Acid	PFHxDA	67905-19-5
Perfluorotetradecanoic Acid	PFTA/PFTeDA	376-06-7
Perfluorotridecanoic Acid	PFTrDA	72629-94-8
Perfluorododecanoic Acid	PFDoA	307-55-1
Perfluoroundecanoic Acid	PFUnA	2058-94-8
Perfluorodecanoic Acid	PFDA	335-76-2
Perfluorononanoic Acid	PFNA	375-95-1
Perfluorooctanoic Acid	PFOA	335-67-1
Perfluoroheptanoic Acid	PFHpA	375-85-9
Perfluorohexanoic Acid	PFHxA	307-24-4
Perfluoropentanoic Acid	PFPeA	2706-90-3
Perfluorobutanoic Acid	PFBA	375-22-4
PERFLUOROALKYL SULFONIC ACIDS (PFSAs)		
Perfluorododecanesulfonic Acid	PFDoDS/PFDoS	79780-39-5
Perfluorodecanesulfonic Acid	PFDS	335-77-3
Perfluorononanesulfonic Acid	PFNS	68259-12-1
Perfluorooctanesulfonic Acid	PFOS	1763-23-1
Perfluoroheptanesulfonic Acid	PFHpS	375-92-8
Perfluorohexanesulfonic Acid	PFHxS	355-46-4
Perfluoropentanesulfonic Acid	PFPeS	2706-91-4
Perfluorobutanesulfonic Acid	PFBS	375-73-5
Perfluoropropanesulfonic Acid	PFPrS	423-41-6
FLUOROTELOMERS		
1H,1H,2H,2H-Perfluorododecanesulfonic Acid	10:2FTS	120226-60-0
1H,1H,2H,2H-Perfluorodecanesulfonic Acid	8:2FTS	39108-34-4
1H,1H,2H,2H-Perfluorooctanesulfonic Acid	6:2FTS	27619-97-2
1H,1H,2H,2H-Perfluorohexanesulfonic Acid	4:2FTS	757124-72-4
PERFLUOROALKANE SULFONAMIDES (FASAs)		
Perfluorooctanesulfonamide	FOSA/PFOSA	754-91-6
N-Ethyl Perfluorooctane Sulfonamide	NEtFOSA	4151-50-2
N-Methyl Perfluorooctane Sulfonamide	NMeFOSA	31506-32-8
PERFLUOROALKANE SULFONYL SUBSTANCES		
N-Ethyl Perfluorooctanesulfonamido Ethanol	NEtFOSE	1691-99-2
N-Methyl Perfluorooctanesulfonamido Ethanol	NMeFOSE	24448-09-7
N-Ethyl Perfluorooctanesulfonamidoacetic Acid	NEtFOSAA	2991-50-6
N-Methyl Perfluorooctanesulfonamidoacetic Acid	NMeFOSAA	2355-31-9
PER- and POLYFLUOROALKYL ETHER CARBOXYLIC ACIDS		
2,3,3,3-Tetrafluoro-2-[1,1,2,2,3,3,3-Heptafluoropropoxy]-Propanoic Acid	HFPO-DA	13252-13-6
4,8-Dioxa-3h-Perfluorononanoic Acid	ADONA	919005-14-4
CHLORO-PERFLUOROALKYL SULFONIC ACIDS		
11-Chloroeicosafuoro-3-Oxaundecane-1-Sulfonic Acid	11Cl-PF3OUdS	763051-92-9
9-Chlorohexadecafluoro-3-Oxanone-1-Sulfonic Acid	9Cl-PF3ONS	756426-58-1
PERFLUOROETHER SULFONIC ACIDS (PFESAs)		
Perfluoro(2-Ethoxyethane)Sulfonic Acid	PFEESA	113507-82-7
PERFLUOROETHER/POLYETHER CARBOXYLIC ACIDS (PFPCAs)		
Perfluoro-3-Methoxypropanoic Acid	PFMPA	377-73-1
Perfluoro-4-Methoxybutanoic Acid	PFMBA	863090-89-5
Nonafuoro-3,6-Dioxaheptanoic Acid	NFDHA	151772-58-6

Project Name: TROY MILLS LANDFILL SUPERFUND
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PFAS PARAMETER SUMMARY

Parameter	Acronym	CAS Number
FLUOROTELOMER CARBOXYLIC ACIDS (FTCAs)		
3-Perfluoroheptyl Propanoic Acid	7:3FTCA	812-70-4
2H,2H,3H,3H-Perfluorooctanoic Acid	5:3FTCA	914637-49-3
3-Perfluoropropyl Propanoic Acid	3:3FTCA	356-02-5

Project Name: TROY MILLS LANDFILL SUPERFUND
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GLOSSARY

Acronyms

DL	- Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the limit of quantitation (LOQ). The DL includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)
EDL	- Estimated Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The EDL includes any adjustments from dilutions, concentrations or moisture content, where applicable. The use of EDLs is specific to the analysis of PAHs using Solid-Phase Microextraction (SPME).
EMPC	- Estimated Maximum Possible Concentration: The concentration that results from the signal present at the retention time of an analyte when the ions meet all of the identification criteria except the ion abundance ratio criteria. An EMPC is a worst-case estimate of the concentration.
EPA	- Environmental Protection Agency.
LCS	- Laboratory Control Sample: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.
LCSD	- Laboratory Control Sample Duplicate: Refer to LCS.
LFB	- Laboratory Fortified Blank: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.
LOD	- Limit of Detection: This value represents the level to which a target analyte can reliably be detected for a specific analyte in a specific matrix by a specific method. The LOD includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)
LOQ	- Limit of Quantitation: The value at which an instrument can accurately measure an analyte at a specific concentration. The LOQ includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.) Limit of Quantitation: The value at which an instrument can accurately measure an analyte at a specific concentration. The LOQ includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)
MDL	- Method Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The MDL includes any adjustments from dilutions, concentrations or moisture content, where applicable.
MS	- Matrix Spike Sample: A sample prepared by adding a known mass of target analyte to a specified amount of matrix sample for which an independent estimate of target analyte concentration is available. For Method 332.0, the spike recovery is calculated using the native concentration, including estimated values.
MSD	- Matrix Spike Sample Duplicate: Refer to MS.
NA	- Not Applicable.
NC	- Not Calculated: Term is utilized when one or more of the results utilized in the calculation are non-detect at the parameter's reporting unit.
NDPA/DPA	- N-Nitrosodiphenylamine/Diphenylamine.
NI	- Not Ignitable.
NP	- Non-Plastic: Term is utilized for the analysis of Atterberg Limits in soil.
NR	- No Results: Term is utilized when 'No Target Compounds Requested' is reported for the analysis of Volatile or Semivolatile Organic TIC only requests.
RL	- Reporting Limit: The value at which an instrument can accurately measure an analyte at a specific concentration. The RL includes any adjustments from dilutions, concentrations or moisture content, where applicable.
RPD	- Relative Percent Difference: The results from matrix and/or matrix spike duplicates are primarily designed to assess the precision of analytical results in a given matrix and are expressed as relative percent difference (RPD). Values which are less than five times the reporting limit for any individual parameter are evaluated by utilizing the absolute difference between the values; although the RPD value will be provided in the report.
SRM	- Standard Reference Material: A reference sample of a known or certified value that is of the same or similar matrix as the associated field samples.
STLP	- Semi-dynamic Tank Leaching Procedure per EPA Method 1315.
TEF	- Toxic Equivalency Factors: The values assigned to each dioxin and furan to evaluate their toxicity relative to 2,3,7,8-TCDD.
TEQ	- Toxic Equivalent: The measure of a sample's toxicity derived by multiplying each dioxin and furan by its corresponding TEF and then summing the resulting values.
TIC	- Tentatively Identified Compound: A compound that has been identified to be present and is not part of the target compound list (TCL) for the method and/or program. All TICs are qualitatively identified and reported as estimated concentrations.

Report Format: Data Usability Report



Project Name: TROY MILLS LANDFILL SUPERFUND
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Footnotes

- 1 - The reference for this analyte should be considered modified since this analyte is absent from the target analyte list of the original method.

Terms

Analytical Method: Both the document from which the method originates and the analytical reference method. (Example: EPA 8260B is shown as 1,8260B.) The codes for the reference method documents are provided in the References section of the Addendum.

Chlordane: The target compound Chlordane (CAS No. 57-74-9) is reported for GC ECD analyses. Per EPA, this compound "refers to a mixture of chlordane isomers, other chlorinated hydrocarbons and numerous other components." (Reference: USEPA Toxicological Review of Chlordane, In Support of Summary Information on the Integrated Risk Information System (IRIS), December 1997.)

Difference: With respect to Total Oxidizable Precursor (TOP) Assay analysis, the difference is defined as the Post-Treatment value minus the Pre-Treatment value.

Final pH: As it pertains to Sample Receipt & Container Information section of the report, Final pH reflects pH of container determined after adjustment at the laboratory, if applicable. If no adjustment required, value reflects Initial pH.

Frozen Date/Time: With respect to Volatile Organics in soil, Frozen Date/Time reflects the date/time at which associated Reagent Water-preserved vials were initially frozen. Note: If frozen date/time is beyond 48 hours from sample collection, value will be reflected in 'bold'.

Gasoline Range Organics (GRO): Gasoline Range Organics (GRO) results include all chromatographic peaks eluting from Methyl tert butyl ether through Naphthalene, with the exception of GRO analysis in support of State of Ohio programs, which includes all chromatographic peaks eluting from Hexane through Dodecane.

Initial pH: As it pertains to Sample Receipt & Container Information section of the report, Initial pH reflects pH of container determined upon receipt, if applicable.

PAH Total: With respect to Alkylated PAH analyses, the 'PAHs, Total' result is defined as the summation of results for all or a subset of the following compounds: Naphthalene, C1-C4 Naphthalenes, 2-Methylnaphthalene, 1-Methylnaphthalene, Biphenyl, Acenaphthylene, Acenaphthene, Fluorene, C1-C3 Fluorenes, Phenanthrene, C1-C4 Phenanthrenes/Anthracenes, Anthracene, Fluoranthene, Pyrene, C1-C4 Fluoranthenes/Pyrenes, Benz(a)anthracene, Chrysene, C1-C4 Chrysenes, Benzo(b)fluoranthene, Benzo(j)+(k)fluoranthene, Benzo(e)pyrene, Benzo(a)pyrene, Perylene, Indeno(1,2,3-cd)pyrene, Dibenz(ah)+(ac)anthracene, Benzo(g,h,i)perylene. If a 'Total' result is requested, the results of its individual components will also be reported.

PFAS Total: With respect to PFAS analyses, the 'PFAS, Total (5)' result is defined as the summation of results for: PFHpA, PFHxS, PFOA, PFNA and PFOS. In addition, the 'PFAS, Total (6)' result is defined as the summation of results for: PFHpA, PFHxS, PFOA, PFNA, PFDA and PFOS. For MassDEP DW compliance analysis only, the 'PFAS, Total (6)' result is defined as the summation of results at or above the RL. Note: If a 'Total' result is requested, the results of its individual components will also be reported.

Total: With respect to Organic analyses, a 'Total' result is defined as the summation of results for individual isomers or Aroclors. If a 'Total' result is requested, the results of its individual components will also be reported. This is applicable to 'Total' results for methods 8260, 8081 and 8082.

Data Qualifiers

- A** - Spectra identified as "Aldol Condensates" are byproducts of the extraction/concentration procedures when acetone is introduced in the process.
- B** - The analyte was detected above the reporting limit in the associated method blank. Flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For MCP-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For DOD-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank AND the analyte was detected above one-half the reporting limit (or above the reporting limit for common lab contaminants) in the associated method blank. For NJ-Air-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte above the reporting limit. For NJ-related projects (excluding Air), flag only applies to associated field samples that have detectable concentrations of the analyte, which was detected above the reporting limit in the associated method blank or above five times the reporting limit for common lab contaminants (Phthalates, Acetone, Methylene Chloride, 2-Butanone).
- C** - Co-elution: The target analyte co-elutes with a known lab standard (i.e. surrogate, internal standards, etc.) for co-extracted analyses.
- D** - Concentration of analyte was quantified from diluted analysis. Flag only applies to field samples that have detectable concentrations of the analyte.
- E** - Concentration of analyte exceeds the range of the calibration curve and/or linear range of the instrument.
- F** - The ratio of quantifier ion response to qualifier ion response falls outside of the laboratory criteria. Results are considered to be an estimated maximum concentration.
- G** - The concentration may be biased high due to matrix interferences (i.e. co-elution) with non-target compound(s). The result should be considered estimated.
- H** - The analysis of pH was performed beyond the regulatory-required holding time of 15 minutes from the time of sample collection.
- I** - The lower value for the two columns has been reported due to obvious interference.
- J** - Estimated value. This represents an estimated concentration for Tentatively Identified Compounds (TICs).
- M** - Reporting Limit (RL) exceeds the MCP CAM Reporting Limit for this analyte.

Report Format: Data Usability Report



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Data Qualifiers

- ND** - Not detected at the reporting limit (RL) for the sample.
- NJ** - Presumptive evidence of compound. This represents an estimated concentration for Tentatively Identified Compounds (TICs), where the identification is based on a mass spectral library search.
- P** - The RPD between the results for the two columns exceeds the method-specified criteria.
- Q** - The quality control sample exceeds the associated acceptance criteria. For DOD-related projects, LCS and/or Continuing Calibration Standard exceedences are also qualified on all associated sample results. Note: This flag is not applicable for matrix spike recoveries when the sample concentration is greater than 4x the spike added or for batch duplicate RPD when the sample concentrations are less than 5x the RL. (Metals only.)
- R** - Analytical results are from sample re-analysis.
- RE** - Analytical results are from sample re-extraction.
- S** - Analytical results are from modified screening analysis.
- V** - The surrogate associated with this target analyte has a recovery outside the QC acceptance limits. (Applicable to MassDEP DW Compliance samples only.)
- Z** - The batch matrix spike and/or duplicate associated with this target analyte has a recovery/RPD outside the QC acceptance limits. (Applicable to MassDEP DW Compliance samples only.)

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REFERENCES

- 134 Determination of Selected Perfluorinated Alkyl Acids in Drinking Water by Solid Phase Extraction and Liquid Chromatography/Tandem Mass Spectrometry (LC/MS/MS) using Isotope Dilution. Alpha SOP 23528.

LIMITATION OF LIABILITIES

Alpha Analytical performs services with reasonable care and diligence normal to the analytical testing laboratory industry. In the event of an error, the sole and exclusive responsibility of Alpha Analytical shall be to re-perform the work at it's own expense. In no event shall Alpha Analytical be held liable for any incidental, consequential or special damages, including but not limited to, damages in any way connected with the use of, interpretation of, information or analysis provided by Alpha Analytical.

We strongly urge our clients to comply with EPA protocol regarding sample volume, preservation, cooling, containers, sampling procedures, holding time and splitting of samples in the field.



Alpha Analytical, Inc.Facility: **Company-wide**Department: **Quality Assurance**Title: **Certificate/Approval Program Summary**ID No.: **17873**

Revision 19

Published Date: 4/2/2021 1:14:23 PM

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Certification Information

The following analytes are not included in our Primary NELAP Scope of Accreditation:

Westborough Facility**EPA 624/624.1:** m/p-xylene, o-xylene, Naphthalene**EPA 625/625.1:** alpha-Terpineol**EPA 8260C/8260D:** NPW: 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene, Azobenzene; SCM: Iodomethane (methyl iodide), 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene.**EPA 8270D/8270E:** NPW: Dimethylnaphthalene, 1,4-Diphenylhydrazine, alpha-Terpineol; SCM: Dimethylnaphthalene, 1,4-Diphenylhydrazine.**SM4500:** NPW: Amenable Cyanide; SCM: Total Phosphorus, TKN, NO₂, NO₃.**Mansfield Facility****SM 2540D:** TSS**EPA 8082A:** NPW: PCB: 1, 5, 31, 87, 101, 110, 141, 151, 153, 180, 183, 187.**EPA TO-15:** Halothane, 2,4,4-Trimethyl-2-pentene, 2,4,4-Trimethyl-1-pentene, Thiophene, 2-Methylthiophene,

3-Methylthiophene, 2-Ethylthiophene, 1,2,3-Trimethylbenzene, Indan, Indene, 1,2,4,5-Tetramethylbenzene, Benzothiophene, 1-Methylnaphthalene.

Biological Tissue Matrix: EPA 3050B

The following analytes are included in our Massachusetts DEP Scope of Accreditation

Westborough Facility:**Drinking Water****EPA 300.0:** Chloride, Nitrate-N, Fluoride, Sulfate; **EPA 353.2:** Nitrate-N, Nitrite-N; **SM4500NO3-F:** Nitrate-N, Nitrite-N; **SM4500F-C, SM4500CN-CE,****EPA 180.1, SM2130B, SM4500CI-D, SM2320B, SM2540C, SM4500H-B, SM4500NO2-B****EPA 332:** Perchlorate; **EPA 524.2:** THMs and VOCs; **EPA 504.1:** EDB, DBCP.**Microbiology:** **SM9215B; SM9223-P/A, SM9223B-Colilert-QT, SM9222D.****Non-Potable Water****SM4500H,B, EPA 120.1, SM2510B, SM2540C, SM2320B, SM4500CL-E, SM4500F-BC, SM4500NH3-BH:** Ammonia-N and Kjeldahl-N, **EPA 350.1:** Ammonia-N, **LACHAT 10-107-06-1-B:** Ammonia-N, **EPA 351.1, SM4500NO3-F, EPA 353.2:** Nitrate-N, **SM4500P-E, SM4500P-B, E, SM4500SO4-E, SM5220D, EPA 410.4, SM5210B, SM5310C, SM4500CL-D, EPA 1664, EPA 420.1, SM4500-CN-CE, SM2540D, EPA 300:** Chloride, Sulfate, Nitrate.**EPA 624.1:** Volatile Halocarbons & Aromatics,**EPA 608.3:** Chlordane, Toxaphene, Aldrin, alpha-BHC, beta-BHC, gamma-BHC, delta-BHC, Dieldrin, DDD, DDE, DDT, Endosulfan I, Endosulfan II, Endosulfan sulfate, Endrin, Endrin Aldehyde, Heptachlor, Heptachlor Epoxide, PCBs**EPA 625.1:** SVOC (Acid/Base/Neutral Extractables), **EPA 600/4-81-045:** PCB-Oil.**Microbiology:** **SM9223B-Colilert-QT; Enterolert-QT, SM9221E, EPA 1600, EPA 1603, SM9222D.****Mansfield Facility:****Drinking Water****EPA 200.7:** Al, Ba, Cd, Cr, Cu, Fe, Mn, Ni, Na, Ag, Ca, Zn. **EPA 200.8:** Al, Sb, As, Ba, Be, Cd, Cr, Cu, Pb, Mn, Ni, Se, Ag, TL, Zn. **EPA 245.1 Hg.****EPA 522, EPA 537.1.****Non-Potable Water****EPA 200.7:** Al, Sb, As, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Mg, Mn, Mo, Ni, K, Se, Ag, Na, Sr, TL, Ti, V, Zn.**EPA 200.8:** Al, Sb, As, Be, Cd, Cr, Cu, Fe, Pb, Mn, Ni, K, Se, Ag, Na, TL, Zn.**EPA 245.1 Hg.****SM2340B**

For a complete listing of analytes and methods, please contact your Alpha Project Manager.

PAGE 1 OF 2

ALPHA Job #: L2323074

PO #: 2590-03 "T"

☐ Add 1 Deliverables

Sampling and Analysis Plan limits

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CHAIN OF CUSTODY

PAGE 2 OF 2

Project Information

Westborough, MA Mansfield, MA
 TEL: 508-898-9220 TEL: 508-822-9300
 FAX: 508-898-9193 FAX: 508-822-3288

Client Information

Client: NHDES
 Address: 29 Hazen Drive
 Concord, NH 03302
 Phone: 603-271-3649

Project Name: Troy Mills Landfill Superfund

Project Location: Troy, NH

Project #: 04.0190987.33

Project Manager: Michael Summerlin

ALPHA Quote #: Contract #1081921

Turn-Around Time

☒ Standard ☐ Rush (ONLY IF PRE-APPROVED)

Due Date: Time:

Fax: Email: see comments

☐ These samples have been Previously analyzed by Alpha

Other Project Specific Requirements/Comments/Detection Limits:

michael.d.summerlinjr@des.nh.gov. Please also email login receipts and lab reports to megan.murphy@gza.com and katherine.mcdonald@gza.com. Please provide excel files formatted for upload to the NHDES EMD and for GZA EQUIS upload.

Temperature Blank included in cooler.

ALPHA Lab ID
 (Lab Use Only)

Sample ID

Collection

Date

Time

Sample Matrix

Sampler's Initials

Please check appropriate boxes below

PFAS (NHDES Contract 40-compound List)

SAMPLE HANDLING

Filtration

☐ Done
☒ Not Needed
☐ Lab to do
☐ Lab to do
 (Please specify below)

Sample Specific Comments

TOTAL # BOTTLES

Please print clearly, legibly and completely. Samples can not be logged in and turnaround time clock will not start until any ambiguities are resolved. All samples submitted are subject to Alpha's Payment Terms.

R. Meadows 4/28/23 0650

Rob Meadows 4/28/23 500

Sam Aldeid 4/28/23 06:50

Container Type	- P	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Preservative	- A	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Relinquished By:	Date/Time	Received By:	Date/Time
<i>et Jutta</i>	4/27/23 1715	NHDES Storage Locker	4/27/23 1715
<i>Rob Meadows</i>	4/27/23 1820	<i>Rob Meadows</i>	4/27/23 1820
<i>Rob Meadows</i>	4/27/23 2050	<i>Rob Meadows</i>	4/27/23 2050
<i>R. Meadows</i>	4/28/23 0150	<i>R. Meadows</i>	4/28/23 0150



ANALYTICAL REPORT

Lab Number:	L2323078
Client:	GZA GeoEnvironmental, Inc. / NHDES PO Box 95 29 Hazen Drive Concord, NH 03302-0095
ATTN:	Michael Summerlin
Phone:	(603) 271-3649
Project Name:	TROY MILLS LANDFILL SUPERFUND
Project Number:	04.0190987.35
Report Date:	06/02/23

The original project report/data package is held by Alpha Analytical. This report/data package is paginated and should be reproduced only in its entirety. Alpha Analytical holds no responsibility for results and/or data that are not consistent with the original.

Certifications & Approvals: MA (M-MA030), NH NELAP (2062), CT (PH-0825), DoD (L2474), FL (E87814), IL (200081), IN (C-MA-04), KY (KY98046), LA (85084), ME (MA00030), MD (350), MI (99110), NJ (MA015), NY (11627), NC (685), OH (CL106), OR (MA-0262), PA (68-02089), RI (LAO00299), TX (T104704419), VT (VT-0015), VA (460194), WA (C954), US Army Corps of Engineers, USDA (Permit #525-23-107-88708), USFWS (Permit #206964).

320 Forbes Boulevard, Mansfield, MA 02048-1806
508-822-9300 (Fax) 508-822-3288 800-624-9220 - www.alphalab.com



Project Name: TROY MILLS LANDFILL SUPERFUND
Project Number: 04.0190987.35

Lab Number: L2323078
Report Date: 06/02/23

Alpha Sample ID	Client ID	Matrix	Sample Location	Collection Date/Time	Receive Date
L2323078-01	TRY_SW-100	WATER	TROY, NH	04/27/23 10:15	04/27/23
L2323078-02	TRY_SW-100 DUP	WATER	TROY, NH	04/27/23 10:15	04/27/23

Project Name: TROY MILLS LANDFILL SUPERFUND
Project Number: 04.0190987.35

Lab Number: L2323078
Report Date: 06/02/23

Case Narrative

The samples were received in accordance with the Chain of Custody and no significant deviations were encountered during the preparation or analysis unless otherwise noted. Sample Receipt, Container Information, and the Chain of Custody are located at the back of the report.

Results contained within this report relate only to the samples submitted under this Alpha Lab Number and meet NELAP requirements for all NELAP accredited parameters unless otherwise noted in the following narrative. The data presented in this report is organized by parameter (i.e. VOC, SVOC, etc.). Sample specific Quality Control data (i.e. Surrogate Spike Recovery) is reported at the end of the target analyte list for each individual sample, followed by the Laboratory Batch Quality Control at the end of each parameter. Tentatively Identified Compounds (TICs), if requested, are reported for compounds identified to be present and are not part of the method/program Target Compound List, even if only a subset of the TCL are being reported. If a sample was re-analyzed or re-extracted due to a required quality control corrective action and if both sets of data are reported, the Laboratory ID of the re-analysis or re-extraction is designated with an "R" or "RE", respectively.

When multiple Batch Quality Control elements are reported (e.g. more than one LCS), the associated samples for each element are noted in the grey shaded header line of each data table. Any Laboratory Batch, Sample Specific % recovery or RPD value that is outside the listed Acceptance Criteria is bolded in the report. In reference to questions H (CAM) or 4 (RCP) when "NO" is checked, the performance criteria for CAM and RCP methods allow for some quality control failures to occur and still be within method compliance. In these instances, the specific failure is not narrated but noted in the associated QC Outlier Summary Report, located directly after the Case Narrative. QC information is also incorporated in the Data Usability Assessment table (Format 11) of our Data Merger tool, where it can be reviewed in conjunction with the sample result, associated regulatory criteria and any associated data usability implications.

Soil/sediments, solids and tissues are reported on a dry weight basis unless otherwise noted. Definitions of all data qualifiers and acronyms used in this report are provided in the Glossary located at the back of the report.

HOLD POLICY - For samples submitted on hold, Alpha's policy is to hold samples (with the exception of Air canisters) free of charge for 21 calendar days from the date the project is completed. After 21 calendar days, we will dispose of all samples submitted including those put on hold unless you have contacted your Alpha Project Manager and made arrangements for Alpha to continue to hold the samples. Air canisters will be disposed after 3 business days from the date the project is completed.

Please contact Project Management at 800-624-9220 with any questions.

Project Name: TROY MILLS LANDFILL SUPERFUND
Project Number: 04.0190987.35

Lab Number: L2323078
Report Date: 06/02/23

Case Narrative (continued)

Perfluorinated Alkyl Acids by Isotope Dilution

L2323078-01RE and -02RE: The sample was re-extracted within holding time due to QC failures in the original extraction. The results of the re-extraction are reported.

L2323078-01 and -02: The MeOH fraction of the extraction is reported for the following compounds:

Perfluorooctanesulfonamide (FOSA), N-Methyl Perfluorooctane Sulfonamide (NMeFOSA), N-Ethyl Perfluorooctane Sulfonamide (NEtFOSA), N-Methyl Perfluorooctanesulfonamido Ethanol (NMeFOSE), and N-Ethyl Perfluorooctanesulfonamido Ethanol (NEtFOSE) due to better extraction efficiency of the Surrogates (Extracted Internal Standards).

WG1778877-2: Extracted Internal Standard recoveries were outside the acceptance criteria for individual analytes. Please refer to the surrogate section of the report for details.

The WG1782978-2 LCS recovery, associated with L2323078-01RE and -02RE, are below the acceptance criteria for nonafluoro-3,6-dioxaheptanoic acid (nfdha) (40%); however, it has been identified as a "difficult" analyte. The results of the associated samples are reported.

I, the undersigned, attest under the pains and penalties of perjury that, to the best of my knowledge and belief and based upon my personal inquiry of those responsible for providing the information contained in this analytical report, such information is accurate and complete. This certificate of analysis is not complete unless this page accompanies any and all pages of this report.

Authorized Signature:



Ashley Boucher

Title: Technical Director/Representative

Date: 06/02/23

ORGANICS

SEMIVOLATILES

Project Name: TROY MILLS LANDFILL SUPERFUND
Project Number: 04.0190987.35

Lab Number: L2323078
Report Date: 06/02/23

SAMPLE RESULTS

Lab ID: L2323078-01
Client ID: TRY_SW-100
Sample Location: TROY, NH

Date Collected: 04/27/23 10:15
Date Received: 04/27/23
Field Prep: Not Specified

Sample Depth:

Matrix: Water
Analytical Method: 134,LCMSMS-ID
Analytical Date: 05/16/23 11:29
Analyst: AC

Extraction Method: ALPHA 23528
Extraction Date: 05/15/23 07:10

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Perfluorinated Alkyl Acids by Isotope Dilution - Mansfield Lab						
Perfluorooctanesulfonamide (FOSA)	ND		ng/l	1.81	--	1
N-Methyl Perfluorooctane Sulfonamide (NMeFOSA)	ND		ng/l	18.1	--	1
N-Ethyl Perfluorooctane Sulfonamide (NEtFOSA)	ND		ng/l	18.1	--	1
N-Methyl Perfluorooctanesulfonamido Ethanol (NMeFOSE)	ND		ng/l	45.2	--	1
N-Ethyl Perfluorooctanesulfonamido Ethanol (NEtFOSE)	ND		ng/l	45.2	--	1

Surrogate (Extracted Internal Standard)	% Recovery	Qualifier	Acceptance Criteria
Perfluoro[13C8]Octanesulfonamide (M8FOSA)	53		5-112
N-Methyl-d3-Perfluoro-1-Octanesulfonamide (d3-NMeFOSA)	62		10-161
N-Ethyl-d5-Perfluoro-1-Octanesulfonamide (d5-NEtFOSA)	56		10-160
2-(N-Methyl-d3-Perfluoro-1-Octanesulfonamido)ethan-d4-ol (d7-NMeFOSE)	55		10-189
2-(N-Ethyl-d5-Perfluoro-1-Octanesulfonamido)ethan-d4-ol (d9-NEtFOSE)	55		10-187

Project Name: TROY MILLS LANDFILL SUPERFUND
Project Number: 04.0190987.35

Lab Number: L2323078
Report Date: 06/02/23

SAMPLE RESULTS

Lab ID: L2323078-01 **RE**
Client ID: TRY_SW-100
Sample Location: TROY, NH

Date Collected: 04/27/23 10:15
Date Received: 04/27/23
Field Prep: Not Specified

Sample Depth:

Matrix: Water
Analytical Method: 134,LCMSMS-ID
Analytical Date: 05/29/23 00:52
Analyst: SG

Extraction Method: ALPHA 23528
Extraction Date: 05/24/23 20:05

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Perfluorinated Alkyl Acids by Isotope Dilution - Mansfield Lab						
Perfluorobutanoic Acid (PFBA)	ND		ng/l	1.79	--	1
Perfluoropentanoic Acid (PFPeA)	ND		ng/l	1.79	--	1
Perfluorobutanesulfonic Acid (PFBS)	ND		ng/l	1.79	--	1
1H,1H,2H,2H-Perfluorohexanesulfonic Acid (4:2FTS)	ND		ng/l	1.79	--	1
Perfluorohexanoic Acid (PFHxA)	ND		ng/l	1.79	--	1
Perfluoropentanesulfonic Acid (PFPeS)	ND		ng/l	1.79	--	1
Perfluoroheptanoic Acid (PFHpA)	1.94		ng/l	1.79	--	1
Perfluorohexanesulfonic Acid (PFHxS)	ND		ng/l	1.79	--	1
Perfluorooctanoic Acid (PFOA)	3.22		ng/l	1.79	--	1
1H,1H,2H,2H-Perfluorooctanesulfonic Acid (6:2FTS)	ND		ng/l	1.79	--	1
Perfluoroheptanesulfonic Acid (PFHpS)	ND		ng/l	1.79	--	1
Perfluorononanoic Acid (PFNA)	ND		ng/l	1.79	--	1
Perfluorooctanesulfonic Acid (PFOS)	ND		ng/l	1.79	--	1
Perfluorodecanoic Acid (PFDA)	ND		ng/l	1.79	--	1
1H,1H,2H,2H-Perfluorodecanesulfonic Acid (8:2FTS)	ND		ng/l	1.79	--	1
Perfluorononanesulfonic Acid (PFNS)	ND		ng/l	1.79	--	1
N-Methyl Perfluorooctanesulfonamidoacetic Acid (NMeFOSAA)	ND		ng/l	1.79	--	1
Perfluoroundecanoic Acid (PFUnA)	ND		ng/l	1.79	--	1
Perfluorodecanesulfonic Acid (PFDS)	ND		ng/l	1.79	--	1
N-Ethyl Perfluorooctanesulfonamidoacetic Acid (NEtFOSAA)	ND		ng/l	1.79	--	1
Perfluorododecanoic Acid (PFDoA)	ND		ng/l	1.79	--	1
Perfluorotridecanoic Acid (PFTrDA)	ND		ng/l	1.79	--	1
Perfluorotetradecanoic Acid (PFTA)	ND		ng/l	1.79	--	1
2,3,3,3-Tetrafluoro-2-[1,1,2,2,3,3,3-Heptafluoropropoxy]-Propanoic Acid (HFPO-DA)	ND		ng/l	17.9	--	1
4,8-Dioxo-3h-Perfluorononanoic Acid (ADONA)	ND		ng/l	1.79	--	1
Perfluorohexadecanoic Acid (PFHxDA)	ND		ng/l	3.57	--	1
Perfluorooctadecanoic Acid (PFODA)	ND		ng/l	3.57	--	1

Project Name: TROY MILLS LANDFILL SUPERFUND**Lab Number:** L2323078**Project Number:** 04.0190987.35**Report Date:** 06/02/23**SAMPLE RESULTS****Lab ID:** L2323078-01 RE**Date Collected:** 04/27/23 10:15**Client ID:** TRY_SW-100**Date Received:** 04/27/23**Sample Location:** TROY, NH**Field Prep:** Not Specified**Sample Depth:**

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Perfluorinated Alkyl Acids by Isotope Dilution - Mansfield Lab						
Perfluorododecane Sulfonic Acid (PFDoDS)	ND		ng/l	1.79	--	1
1H,1H,2H,2H-Perfluorododecanesulfonic Acid (10:2FTS)	ND		ng/l	4.46	--	1
9-Chlorohexadecafluoro-3-Oxanone-1-Sulfonic Acid (9Cl-PF3ONS)	ND		ng/l	1.79	--	1
11-Chloroeicosafluoro-3-Oxaundecane-1-Sulfonic Acid (11Cl-PF3OUdS)	ND		ng/l	1.79	--	1
Perfluoro-3-Methoxypropanoic Acid (PFMPA)	ND		ng/l	1.79	--	1
Perfluoro-4-Methoxybutanoic Acid (PFMBA)	ND		ng/l	1.79	--	1
Perfluoro(2-Ethoxyethane)Sulfonic Acid (PFEEESA)	ND		ng/l	1.79	--	1
Nonafluoro-3,6-Dioxaheptanoic Acid (NFDHA)	ND		ng/l	7.14	--	1

Surrogate (Extracted Internal Standard)	% Recovery	Qualifier	Acceptance Criteria
Perfluoro[13C4]Butanoic Acid (MPFBA)	95		58-132
Perfluoro[13C5]Pentanoic Acid (M5PFPEA)	94		62-163
Perfluoro[2,3,4-13C3]Butanesulfonic Acid (M3PFBS)	90		70-131
1H,1H,2H,2H-Perfluoro[1,2-13C2]Hexanesulfonic Acid (M2-4:2FTS)	137		12-142
Perfluoro[1,2,3,4,6-13C5]Hexanoic Acid (M5PFHxA)	89		57-129
Perfluoro[1,2,3,4-13C4]Heptanoic Acid (M4PFHpA)	94		60-129
Perfluoro[1,2,3-13C3]Hexanesulfonic Acid (M3PFHxS)	100		71-134
Perfluoro[13C8]Octanoic Acid (M8PFOA)	93		62-129
1H,1H,2H,2H-Perfluoro[1,2-13C2]Octanesulfonic Acid (M2-6:2FTS)	106		14-147
Perfluoro[13C9]Nonanoic Acid (M9PFNA)	87		59-139
Perfluoro[13C8]Octanesulfonic Acid (M8PFOS)	89		69-131
Perfluoro[1,2,3,4,5,6-13C6]Decanoic Acid (M6PFDA)	74		62-124
1H,1H,2H,2H-Perfluoro[1,2-13C2]Decanesulfonic Acid (M2-8:2FTS)	75		10-162
N-Deuteriomethylperfluoro-1-octanesulfonamidoacetic Acid (d3-NMeFOSAA)	60		24-116
Perfluoro[1,2,3,4,5,6,7-13C7]Undecanoic Acid (M7-PFUDA)	90		55-137
N-Deuterioethylperfluoro-1-octanesulfonamidoacetic Acid (d5-NEtFOSAA)	64		27-126
Perfluoro[1,2-13C2]Dodecanoic Acid (MPFDOA)	74		48-131
Perfluoro[1,2-13C2]Tetradecanoic Acid (M2PFTEDA)	69		22-136
2,3,3,3-Tetrafluoro-2-[1,1,2,2,3,3,3-Heptafluoropropoxy]-13C3-Propanoic Acid (M3HFPO-DA)	101		10-165
Perfluoro[13C2]Hexadecanoic Acid (M2PFHxDA)	96		10-206
1H,1H,2H,2H-Perfluorododecane Sulfonate (M2D4-10:2FTS)	95		50-150

Project Name: TROY MILLS LANDFILL SUPERFUND
Project Number: 04.0190987.35

Lab Number: L2323078
Report Date: 06/02/23

SAMPLE RESULTS

Lab ID: L2323078-02
Client ID: TRY_SW-100 DUP
Sample Location: TROY, NH

Date Collected: 04/27/23 10:15
Date Received: 04/27/23
Field Prep: Not Specified

Sample Depth:

Matrix: Water
Analytical Method: 134,LCMSMS-ID
Analytical Date: 05/16/23 11:35
Analyst: AC

Extraction Method: ALPHA 23528
Extraction Date: 05/15/23 07:10

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Perfluorinated Alkyl Acids by Isotope Dilution - Mansfield Lab						
Perfluorooctanesulfonamide (FOSA)	ND		ng/l	1.80	--	1
N-Methyl Perfluorooctane Sulfonamide (NMeFOSA)	ND		ng/l	18.0	--	1
N-Ethyl Perfluorooctane Sulfonamide (NEtFOSA)	ND		ng/l	18.0	--	1
N-Methyl Perfluorooctanesulfonamido Ethanol (NMeFOSE)	ND		ng/l	45.0	--	1
N-Ethyl Perfluorooctanesulfonamido Ethanol (NEtFOSE)	ND		ng/l	45.0	--	1

Surrogate (Extracted Internal Standard)	% Recovery	Qualifier	Acceptance Criteria
Perfluoro[13C8]Octanesulfonamide (M8FOSA)	51		5-112
N-Methyl-d3-Perfluoro-1-Octanesulfonamide (d3-NMeFOSA)	60		10-161
N-Ethyl-d5-Perfluoro-1-Octanesulfonamide (d5-NEtFOSA)	54		10-160
2-(N-Methyl-d3-Perfluoro-1-Octanesulfonamido)ethan-d4-ol (d7-NMeFOSE)	49		10-189
2-(N-Ethyl-d5-Perfluoro-1-Octanesulfonamido)ethan-d4-ol (d9-NEtFOSE)	51		10-187

Project Name: TROY MILLS LANDFILL SUPERFUND
Project Number: 04.0190987.35

Lab Number: L2323078
Report Date: 06/02/23

SAMPLE RESULTS

Lab ID: L2323078-02 RE
Client ID: TRY_SW-100 DUP
Sample Location: TROY, NH

Date Collected: 04/27/23 10:15
Date Received: 04/27/23
Field Prep: Not Specified

Sample Depth:

Matrix: Water
Analytical Method: 134,LCMSMS-ID
Analytical Date: 05/29/23 01:09
Analyst: SG

Extraction Method: ALPHA 23528
Extraction Date: 05/24/23 20:05

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Perfluorinated Alkyl Acids by Isotope Dilution - Mansfield Lab						
Perfluorobutanoic Acid (PFBA)	ND		ng/l	1.81	--	1
Perfluoropentanoic Acid (PFPeA)	ND		ng/l	1.81	--	1
Perfluorobutanesulfonic Acid (PFBS)	ND		ng/l	1.81	--	1
1H,1H,2H,2H-Perfluorohexanesulfonic Acid (4:2FTS)	ND		ng/l	1.81	--	1
Perfluorohexanoic Acid (PFHxA)	ND		ng/l	1.81	--	1
Perfluoropentanesulfonic Acid (PFPeS)	ND		ng/l	1.81	--	1
Perfluoroheptanoic Acid (PFHpA)	1.85		ng/l	1.81	--	1
Perfluorohexanesulfonic Acid (PFHxS)	ND		ng/l	1.81	--	1
Perfluorooctanoic Acid (PFOA)	3.48		ng/l	1.81	--	1
1H,1H,2H,2H-Perfluorooctanesulfonic Acid (6:2FTS)	ND		ng/l	1.81	--	1
Perfluoroheptanesulfonic Acid (PFHpS)	ND		ng/l	1.81	--	1
Perfluorononanoic Acid (PFNA)	ND		ng/l	1.81	--	1
Perfluorooctanesulfonic Acid (PFOS)	ND		ng/l	1.81	--	1
Perfluorodecanoic Acid (PFDA)	ND		ng/l	1.81	--	1
1H,1H,2H,2H-Perfluorodecanesulfonic Acid (8:2FTS)	ND		ng/l	1.81	--	1
Perfluorononanesulfonic Acid (PFNS)	ND		ng/l	1.81	--	1
N-Methyl Perfluorooctanesulfonamidoacetic Acid (NMeFOSAA)	ND		ng/l	1.81	--	1
Perfluoroundecanoic Acid (PFUnA)	ND		ng/l	1.81	--	1
Perfluorodecanesulfonic Acid (PFDS)	ND		ng/l	1.81	--	1
N-Ethyl Perfluorooctanesulfonamidoacetic Acid (NEtFOSAA)	ND		ng/l	1.81	--	1
Perfluorododecanoic Acid (PFDoA)	ND		ng/l	1.81	--	1
Perfluorotridecanoic Acid (PFTrDA)	ND		ng/l	1.81	--	1
Perfluorotetradecanoic Acid (PFTA)	ND		ng/l	1.81	--	1
2,3,3,3-Tetrafluoro-2-[1,1,2,2,3,3,3-Heptafluoropropoxy]-Propanoic Acid (HFPO-DA)	ND		ng/l	18.1	--	1
4,8-Dioxo-3h-Perfluorononanoic Acid (ADONA)	ND		ng/l	1.81	--	1
Perfluorohexadecanoic Acid (PFHxDA)	ND		ng/l	3.61	--	1
Perfluorooctadecanoic Acid (PFODA)	ND		ng/l	3.61	--	1

Project Name: TROY MILLS LANDFILL SUPERFUND**Lab Number:** L2323078**Project Number:** 04.0190987.35**Report Date:** 06/02/23**SAMPLE RESULTS****Lab ID:** L2323078-02 RE**Date Collected:** 04/27/23 10:15**Client ID:** TRY_SW-100 DUP**Date Received:** 04/27/23**Sample Location:** TROY, NH**Field Prep:** Not Specified**Sample Depth:**

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Perfluorinated Alkyl Acids by Isotope Dilution - Mansfield Lab						
Perfluorododecane Sulfonic Acid (PFDoDS)	ND		ng/l	1.81	--	1
1H,1H,2H,2H-Perfluorododecanesulfonic Acid (10:2FTS)	ND		ng/l	4.52	--	1
9-Chlorohexadecafluoro-3-Oxanone-1-Sulfonic Acid (9Cl-PF3ONS)	ND		ng/l	1.81	--	1
11-Chloroeicosafluoro-3-Oxaundecane-1-Sulfonic Acid (11Cl-PF3OUdS)	ND		ng/l	1.81	--	1
Perfluoro-3-Methoxypropanoic Acid (PFMPA)	ND		ng/l	1.81	--	1
Perfluoro-4-Methoxybutanoic Acid (PFMBA)	ND		ng/l	1.81	--	1
Perfluoro(2-Ethoxyethane)Sulfonic Acid (PFEEESA)	ND		ng/l	1.81	--	1
Nonafluoro-3,6-Dioxaheptanoic Acid (NFDHA)	ND		ng/l	7.22	--	1

Surrogate (Extracted Internal Standard)	% Recovery	Qualifier	Acceptance Criteria
Perfluoro[13C4]Butanoic Acid (MPFBA)	92		58-132
Perfluoro[13C5]Pentanoic Acid (M5PFPEA)	89		62-163
Perfluoro[2,3,4-13C3]Butanesulfonic Acid (M3PFBS)	87		70-131
1H,1H,2H,2H-Perfluoro[1,2-13C2]Hexanesulfonic Acid (M2-4:2FTS)	130		12-142
Perfluoro[1,2,3,4,6-13C5]Hexanoic Acid (M5PFHxA)	87		57-129
Perfluoro[1,2,3,4-13C4]Heptanoic Acid (M4PFHpA)	90		60-129
Perfluoro[1,2,3-13C3]Hexanesulfonic Acid (M3PFHxS)	98		71-134
Perfluoro[13C8]Octanoic Acid (M8PFOA)	92		62-129
1H,1H,2H,2H-Perfluoro[1,2-13C2]Octanesulfonic Acid (M2-6:2FTS)	98		14-147
Perfluoro[13C9]Nonanoic Acid (M9PFNA)	82		59-139
Perfluoro[13C8]Octanesulfonic Acid (M8PFOS)	83		69-131
Perfluoro[1,2,3,4,5,6-13C6]Decanoic Acid (M6PFDA)	78		62-124
1H,1H,2H,2H-Perfluoro[1,2-13C2]Decanesulfonic Acid (M2-8:2FTS)	64		10-162
N-Deuteriomethylperfluoro-1-octanesulfonamidoacetic Acid (d3-NMeFOSAA)	57		24-116
Perfluoro[1,2,3,4,5,6,7-13C7]Undecanoic Acid (M7-PFUDA)	89		55-137
N-Deuterioethylperfluoro-1-octanesulfonamidoacetic Acid (d5-NEtFOSAA)	56		27-126
Perfluoro[1,2-13C2]Dodecanoic Acid (MPFDOA)	78		48-131
Perfluoro[1,2-13C2]Tetradecanoic Acid (M2PFTEDA)	79		22-136
2,3,3,3-Tetrafluoro-2-[1,1,2,2,3,3,3-Heptafluoropropoxy]-13C3-Propanoic Acid (M3HFPO-DA)	102		10-165
Perfluoro[13C2]Hexadecanoic Acid (M2PFHxDA)	99		10-206
1H,1H,2H,2H-Perfluorododecane Sulfonate (M2D4-10:2FTS)	85		50-150

Project Name: TROY MILLS LANDFILL SUPERFUND
Project Number: 04.0190987.35

Lab Number: L2323078
Report Date: 06/02/23

Method Blank Analysis Batch Quality Control

Analytical Method: 134,LCMSMS-ID
Analytical Date: 05/16/23 11:17
Analyst: AC

Extraction Method: ALPHA 23528
Extraction Date: 05/15/23 07:10

Parameter	Result	Qualifier	Units	RL	MDL
Perfluorinated Alkyl Acids by Isotope Dilution - Mansfield Lab for sample(s): 01-02 Batch: WG1778877-1					
Perfluorooctanesulfonamide (FOSA)	ND		ng/l	2.00	--
N-Methyl Perfluorooctane Sulfonamide (NMeFOSA)	ND		ng/l	20.0	--
N-Ethyl Perfluorooctane Sulfonamide (NEtFOSA)	ND		ng/l	20.0	--
N-Methyl Perfluorooctanesulfonamido Ethanol (NMeFOSE)	ND		ng/l	50.0	--
N-Ethyl Perfluorooctanesulfonamido Ethanol (NEtFOSE)	ND		ng/l	50.0	--

Surrogate (Extracted Internal Standard)	%Recovery	Qualifier	Acceptance Criteria
Perfluoro[13C8]Octanesulfonamide (M8FOSA)	67		5-112
N-Methyl-d3-Perfluoro-1-Octanesulfonamide (d3-NMeFOSA)	56		10-161
N-Ethyl-d5-Perfluoro-1-Octanesulfonamide (d5-NEtFOSA)	52		10-160
2-(N-Methyl-d3-Perfluoro-1-Octanesulfonamido)ethan-d4-ol (d7-NMeFOSE)	64		10-189
2-(N-Ethyl-d5-Perfluoro-1-Octanesulfonamido)ethan-d4-ol (d9-NEtFOSE)	57		10-187

Project Name: TROY MILLS LANDFILL SUPERFUND
Project Number: 04.0190987.35

Lab Number: L2323078
Report Date: 06/02/23

Method Blank Analysis Batch Quality Control

Analytical Method: 134,LCMSMS-ID
Analytical Date: 05/16/23 15:50
Analyst: PS

Extraction Method: ALPHA 23528
Extraction Date: 05/15/23 07:10

Parameter	Result	Qualifier	Units	RL	MDL
Perfluorinated Alkyl Acids by Isotope Dilution - Mansfield Lab for sample(s): 01-02 Batch: WG1778877-1					
Perfluorobutanoic Acid (PFBA)	ND		ng/l	2.00	--
Perfluoropentanoic Acid (PFPeA)	ND		ng/l	2.00	--
Perfluorobutanesulfonic Acid (PFBS)	ND		ng/l	2.00	--
1H,1H,2H,2H-Perfluorohexanesulfonic Acid (4:2FTS)	ND		ng/l	2.00	--
Perfluorohexanoic Acid (PFHxA)	ND		ng/l	2.00	--
Perfluoropentanesulfonic Acid (PFPeS)	ND		ng/l	2.00	--
Perfluoroheptanoic Acid (PFHpA)	ND		ng/l	2.00	--
Perfluorohexanesulfonic Acid (PFHxS)	ND		ng/l	2.00	--
Perfluorooctanoic Acid (PFOA)	ND		ng/l	2.00	--
1H,1H,2H,2H-Perfluorooctanesulfonic Acid (6:2FTS)	ND		ng/l	2.00	--
Perfluoroheptanesulfonic Acid (PFHpS)	ND		ng/l	2.00	--
Perfluorononanoic Acid (PFNA)	ND		ng/l	2.00	--
Perfluorooctanesulfonic Acid (PFOS)	ND		ng/l	2.00	--
Perfluorodecanoic Acid (PFDA)	ND		ng/l	2.00	--
1H,1H,2H,2H-Perfluorodecanesulfonic Acid (8:2FTS)	ND		ng/l	2.00	--
Perfluorononanesulfonic Acid (PFNS)	ND		ng/l	2.00	--
N-Methyl Perfluorooctanesulfonamidoacetic Acid (NMeFOSAA)	ND		ng/l	2.00	--
Perfluoroundecanoic Acid (PFUnA)	ND		ng/l	2.00	--
Perfluorodecanesulfonic Acid (PFDS)	ND		ng/l	2.00	--
Perfluorooctanesulfonamide (FOSA)	ND		ng/l	2.00	--
N-Ethyl Perfluorooctanesulfonamidoacetic Acid (NEtFOSAA)	ND		ng/l	2.00	--
Perfluorododecanoic Acid (PFDoA)	ND		ng/l	2.00	--
Perfluorotridecanoic Acid (PFTrDA)	ND		ng/l	2.00	--
Perfluorotetradecanoic Acid (PFTA)	ND		ng/l	2.00	--
2,3,3,3-Tetrafluoro-2-[1,1,2,2,3,3,3-Heptafluoropropoxy]-Propanoic Acid (HFPO-DA)	ND		ng/l	20.0	--
4,8-Dioxa-3h-Perfluorononanoic Acid (ADONA)	ND		ng/l	2.00	--

Project Name: TROY MILLS LANDFILL SUPERFUND
Project Number: 04.0190987.35

Lab Number: L2323078
Report Date: 06/02/23

Method Blank Analysis
Batch Quality Control

Analytical Method: 134,LCMSMS-ID
Analytical Date: 05/16/23 15:50
Analyst: PS

Extraction Method: ALPHA 23528
Extraction Date: 05/15/23 07:10

Parameter	Result	Qualifier	Units	RL	MDL
Perfluorinated Alkyl Acids by Isotope Dilution - Mansfield Lab for sample(s): 01-02 Batch: WG1778877-1					
Perfluorohexadecanoic Acid (PFHxDA)	ND		ng/l	4.00	--
Perfluorooctadecanoic Acid (PFODA)	ND		ng/l	4.00	--
Perfluorododecane Sulfonic Acid (PFDoDS)	ND		ng/l	2.00	--
9-Chlorohexadecafluoro-3-Oxanone-1-Sulfonic Acid (9Cl-PF3ONS)	ND		ng/l	2.00	--
11-Chloroeicosafluoro-3-Oxaundecane-1-Sulfonic Acid (11Cl-PF3OUdS)	ND		ng/l	2.00	--
Perfluoro-3-Methoxypropanoic Acid (PFMPA)	ND		ng/l	2.00	--
Perfluoro-4-Methoxybutanoic Acid (PFMBA)	ND		ng/l	2.00	--
Perfluoro(2-Ethoxyethane)Sulfonic Acid (PFEESA)	ND		ng/l	2.00	--

Project Name: TROY MILLS LANDFILL SUPERFUND
Project Number: 04.0190987.35

Lab Number: L2323078
Report Date: 06/02/23

Method Blank Analysis Batch Quality Control

Analytical Method: 134,LCMSMS-ID
Analytical Date: 05/16/23 15:50
Analyst: PS

Extraction Method: ALPHA 23528
Extraction Date: 05/15/23 07:10

Parameter	Result	Qualifier	Units	RL	MDL
Perfluorinated Alkyl Acids by Isotope Dilution - Mansfield Lab for sample(s): 01-02 Batch: WG1778877-1					

Surrogate (Extracted Internal Standard)	%Recovery	Qualifier	Acceptance Criteria
Perfluoro[13C4]Butanoic Acid (MPFBA)	109		58-132
Perfluoro[13C5]Pentanoic Acid (M5PFPEA)	121		62-163
Perfluoro[2,3,4-13C3]Butanesulfonic Acid (M3PFBS)	104		70-131
1H,1H,2H,2H-Perfluoro[1,2-13C2]Hexanesulfonic Acid (M2-4:2FTS)	79		12-142
Perfluoro[1,2,3,4,6-13C5]Hexanoic Acid (M5PFHxA)	112		57-129
Perfluoro[1,2,3,4-13C4]Heptanoic Acid (M4PFHpA)	112		60-129
Perfluoro[1,2,3-13C3]Hexanesulfonic Acid (M3PFHxS)	106		71-134
Perfluoro[13C8]Octanoic Acid (M8PFOA)	115		62-129
1H,1H,2H,2H-Perfluoro[1,2-13C2]Octanesulfonic Acid (M2-6:2FTS)	84		14-147
Perfluoro[13C9]Nonanoic Acid (M9PFNA)	120		59-139
Perfluoro[13C8]Octanesulfonic Acid (M8PFOS)	107		69-131
Perfluoro[1,2,3,4,5,6-13C6]Decanoic Acid (M6PFDA)	120		62-124
1H,1H,2H,2H-Perfluoro[1,2-13C2]Decanesulfonic Acid (M2-8:2FTS)	94		10-162
N-Deuteriomethylperfluoro-1-octanesulfonamidoacetic Acid (d3-NMeFOSAA)	77		24-116
Perfluoro[1,2,3,4,5,6,7-13C7]Undecanoic Acid (M7-PFUDA)	117		55-137
Perfluoro[13C8]Octanesulfonamide (M8FOSA)	64		5-112
N-Deuterioethylperfluoro-1-octanesulfonamidoacetic Acid (d5-NEtFOSAA)	88		27-126
Perfluoro[1,2-13C2]Dodecanoic Acid (MPFDOA)	103		48-131
Perfluoro[1,2-13C2]Tetradecanoic Acid (M2PFTEDA)	89		22-136
2,3,3,3-Tetrafluoro-2-[1,1,2,2,3,3,3-Heptafluoropropoxy]-13C3-Propanoic Acid (M3HFPO-DA)	139		10-165
Perfluoro[13C2]Hexadecanoic Acid (M2PFHxDA)	113		10-206

Project Name: TROY MILLS LANDFILL SUPERFUND
Project Number: 04.0190987.35

Lab Number: L2323078
Report Date: 06/02/23

Method Blank Analysis Batch Quality Control

Analytical Method: 134,LCMSMS-ID
Analytical Date: 05/29/23 00:19
Analyst: SG

Extraction Method: ALPHA 23528
Extraction Date: 05/24/23 20:05

Parameter	Result	Qualifier	Units	RL	MDL
Perfluorinated Alkyl Acids by Isotope Dilution - Mansfield Lab for sample(s): 01-02 Batch: WG1782978-1					
Perfluorobutanoic Acid (PFBA)	ND		ng/l	2.00	--
Perfluoropentanoic Acid (PFPeA)	ND		ng/l	2.00	--
Perfluorobutanesulfonic Acid (PFBS)	ND		ng/l	2.00	--
1H,1H,2H,2H-Perfluorohexanesulfonic Acid (4:2FTS)	ND		ng/l	2.00	--
Perfluorohexanoic Acid (PFHxA)	ND		ng/l	2.00	--
Perfluoropentanesulfonic Acid (PFPeS)	ND		ng/l	2.00	--
Perfluoroheptanoic Acid (PFHpA)	ND		ng/l	2.00	--
Perfluorohexanesulfonic Acid (PFHxS)	ND		ng/l	2.00	--
Perfluorooctanoic Acid (PFOA)	ND		ng/l	2.00	--
1H,1H,2H,2H-Perfluorooctanesulfonic Acid (6:2FTS)	ND		ng/l	2.00	--
Perfluoroheptanesulfonic Acid (PFHpS)	ND		ng/l	2.00	--
Perfluorononanoic Acid (PFNA)	ND		ng/l	2.00	--
Perfluorooctanesulfonic Acid (PFOS)	ND		ng/l	2.00	--
Perfluorodecanoic Acid (PFDA)	ND		ng/l	2.00	--
1H,1H,2H,2H-Perfluorodecanesulfonic Acid (8:2FTS)	ND		ng/l	2.00	--
Perfluorononanesulfonic Acid (PFNS)	ND		ng/l	2.00	--
N-Methyl Perfluorooctanesulfonamidoacetic Acid (NMeFOSAA)	ND		ng/l	2.00	--
Perfluoroundecanoic Acid (PFUnA)	ND		ng/l	2.00	--
Perfluorodecanesulfonic Acid (PFDS)	ND		ng/l	2.00	--
Perfluorooctanesulfonamide (FOSA)	ND		ng/l	2.00	--
N-Ethyl Perfluorooctanesulfonamidoacetic Acid (NEtFOSAA)	ND		ng/l	2.00	--
Perfluorododecanoic Acid (PFDoA)	ND		ng/l	2.00	--
Perfluorotridecanoic Acid (PFTrDA)	ND		ng/l	2.00	--
Perfluorotetradecanoic Acid (PFTA)	ND		ng/l	2.00	--
2,3,3,3-Tetrafluoro-2-[1,1,2,2,3,3,3-Heptafluoropropoxy]-Propanoic Acid (HFPO-DA)	ND		ng/l	20.0	--
4,8-Dioxa-3h-Perfluorononanoic Acid (ADONA)	ND		ng/l	2.00	--

Project Name: TROY MILLS LANDFILL SUPERFUND
Project Number: 04.0190987.35

Lab Number: L2323078
Report Date: 06/02/23

Method Blank Analysis
Batch Quality Control

Analytical Method: 134,LCMSMS-ID
Analytical Date: 05/29/23 00:19
Analyst: SG

Extraction Method: ALPHA 23528
Extraction Date: 05/24/23 20:05

Parameter	Result	Qualifier	Units	RL	MDL
Perfluorinated Alkyl Acids by Isotope Dilution - Mansfield Lab for sample(s): 01-02 Batch: WG1782978-1					
Perfluorohexadecanoic Acid (PFHxDA)	ND		ng/l	4.00	--
Perfluorooctadecanoic Acid (PFODA)	ND		ng/l	4.00	--
Perfluorododecane Sulfonic Acid (PFDoDS)	ND		ng/l	2.00	--
1H,1H,2H,2H-Perfluorododecanesulfonic Acid (10:2FTS)	ND		ng/l	5.00	--
9-Chlorohexadecafluoro-3-Oxanone-1-Sulfonic Acid (9Cl-PF3ONS)	ND		ng/l	2.00	--
11-Chloroeicosafluoro-3-Oxaundecane-1-Sulfonic Acid (11Cl-PF3OUdS)	ND		ng/l	2.00	--
Perfluoro-3-Methoxypropanoic Acid (PFMPA)	ND		ng/l	2.00	--
Perfluoro-4-Methoxybutanoic Acid (PFMBA)	ND		ng/l	2.00	--
Perfluoro(2-Ethoxyethane)Sulfonic Acid (PFEESA)	ND		ng/l	2.00	--
Nonafluoro-3,6-Dioxaheptanoic Acid (NFDHA)	ND		ng/l	8.00	--

Project Name: TROY MILLS LANDFILL SUPERFUND
Project Number: 04.0190987.35

Lab Number: L2323078
Report Date: 06/02/23

Method Blank Analysis Batch Quality Control

Analytical Method: 134,LCMSMS-ID
Analytical Date: 05/29/23 00:19
Analyst: SG

Extraction Method: ALPHA 23528
Extraction Date: 05/24/23 20:05

Parameter	Result	Qualifier	Units	RL	MDL
Perfluorinated Alkyl Acids by Isotope Dilution - Mansfield Lab for sample(s): 01-02 Batch: WG1782978-1					

Surrogate (Extracted Internal Standard)	%Recovery	Qualifier	Acceptance Criteria
Perfluoro[13C4]Butanoic Acid (MPFBA)	94		58-132
Perfluoro[13C5]Pentanoic Acid (M5PFPEA)	107		62-163
Perfluoro[2,3,4-13C3]Butanesulfonic Acid (M3PFBS)	90		70-131
1H,1H,2H,2H-Perfluoro[1,2-13C2]Hexanesulfonic Acid (M2-4:2FTS)	78		12-142
Perfluoro[1,2,3,4,6-13C5]Hexanoic Acid (M5PFHxA)	94		57-129
Perfluoro[1,2,3,4-13C4]Heptanoic Acid (M4PFHpA)	95		60-129
Perfluoro[1,2,3-13C3]Hexanesulfonic Acid (M3PFHxS)	92		71-134
Perfluoro[13C8]Octanoic Acid (M8PFOA)	96		62-129
1H,1H,2H,2H-Perfluoro[1,2-13C2]Octanesulfonic Acid (M2-6:2FTS)	82		14-147
Perfluoro[13C9]Nonanoic Acid (M9PFNA)	99		59-139
Perfluoro[13C8]Octanesulfonic Acid (M8PFOS)	86		69-131
Perfluoro[1,2,3,4,5,6-13C6]Decanoic Acid (M6PFDA)	88		62-124
1H,1H,2H,2H-Perfluoro[1,2-13C2]Decanesulfonic Acid (M2-8:2FTS)	85		10-162
N-Deuteriomethylperfluoro-1-octanesulfonamidoacetic Acid (d3-NMeFOSAA)	72		24-116
Perfluoro[1,2,3,4,5,6,7-13C7]Undecanoic Acid (M7-PFUDA)	90		55-137
Perfluoro[13C8]Octanesulfonamide (M8FOSA)	63		5-112
N-Deuterioethylperfluoro-1-octanesulfonamidoacetic Acid (d5-NEtFOSAA)	73		27-126
Perfluoro[1,2-13C2]Dodecanoic Acid (MPFDOA)	87		48-131
Perfluoro[1,2-13C2]Tetradecanoic Acid (M2PFTEDA)	87		22-136
2,3,3,3-Tetrafluoro-2-[1,1,2,2,3,3,3-Heptafluoropropoxy]-13C3-Propanoic Acid (M3HFPO-DA)	119		10-165
Perfluoro[13C2]Hexadecanoic Acid (M2PFHxDA)	98		10-206
1H,1H,2H,2H-Perfluorododecane Sulfonate (M2D4-10:2FTS)	95		50-150

Lab Control Sample Analysis

Batch Quality Control

Project Name: TROY MILLS LANDFILL SUPERFUND
Project Number: 04.0190987.35

Lab Number: L2323078
Report Date: 06/02/23

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Perfluorinated Alkyl Acids by Isotope Dilution - Mansfield Lab Associated sample(s): 01-02 Batch: WG1778877-2								
Perfluorooctanesulfonamide (FOSA)	81		-		46-170	-		30
N-Methyl Perfluorooctane Sulfonamide (NMeFOSA)	75		-		10-185	-		30
N-Ethyl Perfluorooctane Sulfonamide (NEtFOSA)	88		-		10-202	-		30
N-Methyl Perfluorooctanesulfonamido Ethanol (NMeFOSE)	96		-		10-209	-		30
N-Ethyl Perfluorooctanesulfonamido Ethanol (NEtFOSE)	105		-		66-176	-		30

Surrogate (Extracted Internal Standard)	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
Perfluoro[13C8]Octanesulfonamide (M8FOSA)	66				5-112
N-Methyl-d3-Perfluoro-1-Octanesulfonamide (d3-NMeFOSA)	57				10-161
N-Ethyl-d5-Perfluoro-1-Octanesulfonamide (d5-NEtFOSA)	54				10-160
2-(N-Methyl-d3-Perfluoro-1-Octanesulfonamido)ethan-d4-ol (d7-NMeFOSE)	55				10-189
2-(N-Ethyl-d5-Perfluoro-1-Octanesulfonamido)ethan-d4-ol (d9-NEtFOSE)	58				10-187

Lab Control Sample Analysis **Batch Quality Control**

Project Name: TROY MILLS LANDFILL SUPERFUND
Project Number: 04.0190987.35

Lab Number: L2323078
Report Date: 06/02/23

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Perfluorinated Alkyl Acids by Isotope Dilution - Mansfield Lab Associated sample(s): 01-02 Batch: WG1778877-2								
Perfluorobutanoic Acid (PFBA)	80		-		67-148	-		30
Perfluoropentanoic Acid (PFPeA)	78		-		63-161	-		30
Perfluorobutanesulfonic Acid (PFBS)	80		-		65-157	-		30
1H,1H,2H,2H-Perfluorohexanesulfonic Acid (4:2FTS)	77		-		37-219	-		30
Perfluorohexanoic Acid (PFHxA)	80		-		69-168	-		30
Perfluoropentanesulfonic Acid (PFPeS)	79		-		52-156	-		30
Perfluoroheptanoic Acid (PFHpA)	80		-		58-159	-		30
Perfluorohexanesulfonic Acid (PFHxS)	79		-		69-177	-		30
Perfluorooctanoic Acid (PFOA)	81		-		63-159	-		30
1H,1H,2H,2H-Perfluorooctanesulfonic Acid (6:2FTS)	79		-		49-187	-		30
Perfluoroheptanesulfonic Acid (PFHpS)	74		-		61-179	-		30
Perfluorononanoic Acid (PFNA)	75		-		68-171	-		30
Perfluorooctanesulfonic Acid (PFOS)	76		-		52-151	-		30
Perfluorodecanoic Acid (PFDA)	78		-		63-171	-		30
1H,1H,2H,2H-Perfluorodecanesulfonic Acid (8:2FTS)	74		-		56-173	-		30
Perfluorononanesulfonic Acid (PFNS)	72		-		48-150	-		30
N-Methyl Perfluorooctanesulfonamidoacetic Acid (NMeFOSAA)	90		-		60-166	-		30
Perfluoroundecanoic Acid (PFUnA)	90		-		60-153	-		30
Perfluorodecanesulfonic Acid (PFDS)	78		-		38-156	-		30
Perfluorooctanesulfonamide (FOSA)	74		-		46-170	-		30
N-Ethyl Perfluorooctanesulfonamidoacetic Acid (NEtFOSAA)	72		-		45-170	-		30
Perfluorododecanoic Acid (PFDoA)	73		-		67-153	-		30

Lab Control Sample Analysis **Batch Quality Control**

Project Name: TROY MILLS LANDFILL SUPERFUND
Project Number: 04.0190987.35

Lab Number: L2323078
Report Date: 06/02/23

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Perfluorinated Alkyl Acids by Isotope Dilution - Mansfield Lab Associated sample(s): 01-02 Batch: WG1778877-2								
Perfluorotridecanoic Acid (PFTrDA)	81		-		48-158	-		30
Perfluorotetradecanoic Acid (PFTA)	82		-		59-182	-		30
2,3,3,3-Tetrafluoro-2-[1,1,2,2,3,3,3-Heptafluoropropoxy]-Propanoic Acid (HFPO-DA)	76		-		57-162	-		30
4,8-Dioxa-3h-Perfluorononanoic Acid (ADONA)	84		-		69-143	-		30
Perfluorohexadecanoic Acid (PFHxDA)	80		-		40-167	-		30
Perfluorooctadecanoic Acid (PFODA)	14		-		10-119	-		30
Perfluorododecane Sulfonic Acid (PFDoDS)	73		-		69-141	-		30
9-Chlorohexadecafluoro-3-Oxanone-1-Sulfonic Acid (9Cl-PF3ONS)	71		-		55-158	-		30
11-Chloroeicosafluoro-3-Oxaundecane-1-Sulfonic Acid (11Cl-PF3OUdS)	69		-		52-156	-		30
Perfluoro-3-Methoxypropanoic Acid (PFMPA)	92		-		50-150	-		30
Perfluoro-4-Methoxybutanoic Acid (PFMBA)	80		-		50-150	-		30
Perfluoro(2-Ethoxyethane)Sulfonic Acid (PFEESA)	79		-		50-150	-		30

Lab Control Sample Analysis

Batch Quality Control

Project Name: TROY MILLS LANDFILL SUPERFUND
Project Number: 04.0190987.35

Lab Number: L2323078
Report Date: 06/02/23

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Perfluorinated Alkyl Acids by Isotope Dilution - Mansfield Lab Associated sample(s): 01-02 Batch: WG1778877-2								

Surrogate (Extracted Internal Standard)	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
Perfluoro[13C4]Butanoic Acid (MPFBA)	113				58-132
Perfluoro[13C5]Pentanoic Acid (M5PFPEA)	118				62-163
Perfluoro[2,3,4-13C3]Butanesulfonic Acid (M3PFBS)	107				70-131
1H,1H,2H,2H-Perfluoro[1,2-13C2]Hexanesulfonic Acid (M2-4:2FTS)	88				12-142
Perfluoro[1,2,3,4,6-13C5]Hexanoic Acid (M5PFHxA)	120				57-129
Perfluoro[1,2,3,4-13C4]Heptanoic Acid (M4PFHpA)	115				60-129
Perfluoro[1,2,3-13C3]Hexanesulfonic Acid (M3PFHxS)	107				71-134
Perfluoro[13C8]Octanoic Acid (M8PFOA)	116				62-129
1H,1H,2H,2H-Perfluoro[1,2-13C2]Octanesulfonic Acid (M2-6:2FTS)	93				14-147
Perfluoro[13C9]Nonanoic Acid (M9PFNA)	111				59-139
Perfluoro[13C8]Octanesulfonic Acid (M8PFOS)	110				69-131
Perfluoro[1,2,3,4,5,6-13C6]Decanoic Acid (M6PFDA)	129	Q			62-124
1H,1H,2H,2H-Perfluoro[1,2-13C2]Decanesulfonic Acid (M2-8:2FTS)	103				10-162
N-Deuteriomethylperfluoro-1-octanesulfonamidoacetic Acid (d3-NMeFOSAA)	74				24-116
Perfluoro[1,2,3,4,5,6,7-13C7]Undecanoic Acid (M7-PFUDA)	120				55-137
Perfluoro[13C8]Octanesulfonamide (M8FOSA)	74				5-112
N-Deuterioethylperfluoro-1-octanesulfonamidoacetic Acid (d5-NEtFOSAA)	107				27-126
Perfluoro[1,2-13C2]Dodecanoic Acid (MPFDOA)	117				48-131
Perfluoro[1,2-13C2]Tetradecanoic Acid (M2PFTEDA)	104				22-136
2,3,3,3-Tetrafluoro-2-[1,1,2,2,3,3,3-Heptafluoropropoxy]-13C3-Propanoic Acid (M3HFPO-DA)	133				10-165
Perfluoro[13C2]Hexadecanoic Acid (M2PFHxDA)	122				10-206

Lab Control Sample Analysis **Batch Quality Control**

Project Name: TROY MILLS LANDFILL SUPERFUND
Project Number: 04.0190987.35

Lab Number: L2323078
Report Date: 06/02/23

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Perfluorinated Alkyl Acids by Isotope Dilution - Mansfield Lab Associated sample(s): 01-02 Batch: WG1782978-2								
Perfluorobutanoic Acid (PFBA)	90		-		67-148	-		30
Perfluoropentanoic Acid (PFPeA)	85		-		63-161	-		30
Perfluorobutanesulfonic Acid (PFBS)	91		-		65-157	-		30
1H,1H,2H,2H-Perfluorohexanesulfonic Acid (4:2FTS)	85		-		37-219	-		30
Perfluorohexanoic Acid (PFHxA)	92		-		69-168	-		30
Perfluoropentanesulfonic Acid (PFPeS)	86		-		52-156	-		30
Perfluoroheptanoic Acid (PFHpA)	89		-		58-159	-		30
Perfluorohexanesulfonic Acid (PFHxS)	90		-		69-177	-		30
Perfluorooctanoic Acid (PFOA)	95		-		63-159	-		30
1H,1H,2H,2H-Perfluorooctanesulfonic Acid (6:2FTS)	92		-		49-187	-		30
Perfluoroheptanesulfonic Acid (PFHpS)	89		-		61-179	-		30
Perfluorononanoic Acid (PFNA)	97		-		68-171	-		30
Perfluorooctanesulfonic Acid (PFOS)	92		-		52-151	-		30
Perfluorodecanoic Acid (PFDA)	91		-		63-171	-		30
1H,1H,2H,2H-Perfluorodecanesulfonic Acid (8:2FTS)	89		-		56-173	-		30
Perfluorononanesulfonic Acid (PFNS)	91		-		48-150	-		30
N-Methyl Perfluorooctanesulfonamidoacetic Acid (NMeFOSAA)	97		-		60-166	-		30
Perfluoroundecanoic Acid (PFUnA)	92		-		60-153	-		30
Perfluorodecanesulfonic Acid (PFDS)	90		-		38-156	-		30
Perfluorooctanesulfonamide (FOSA)	94		-		46-170	-		30
N-Ethyl Perfluorooctanesulfonamidoacetic Acid (NEtFOSAA)	91		-		45-170	-		30
Perfluorododecanoic Acid (PFDoA)	105		-		67-153	-		30

Lab Control Sample Analysis **Batch Quality Control**

Project Name: TROY MILLS LANDFILL SUPERFUND
Project Number: 04.0190987.35

Lab Number: L2323078
Report Date: 06/02/23

Parameter	LCS %Recovery	Qual	LCS %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Perfluorinated Alkyl Acids by Isotope Dilution - Mansfield Lab Associated sample(s): 01-02 Batch: WG1782978-2								
Perfluorotridecanoic Acid (PFTrDA)	96		-		48-158	-		30
Perfluorotetradecanoic Acid (PFTA)	83		-		59-182	-		30
2,3,3,3-Tetrafluoro-2-[1,1,2,2,3,3,3-Heptafluoropropoxy]-Propanoic Acid (HFPO-DA)	86		-		57-162	-		30
4,8-Dioxa-3h-Perfluorononanoic Acid (ADONA)	96		-		69-143	-		30
Perfluorohexadecanoic Acid (PFHxDA)	89		-		40-167	-		30
Perfluorooctadecanoic Acid (PFODA)	12		-		10-119	-		30
Perfluorododecane Sulfonic Acid (PFDoDS)	89		-		69-141	-		30
1H,1H,2H,2H-Perfluorododecanesulfonic Acid (10:2FTS)	97		-		53-167	-		30
9-Chlorohexadecafluoro-3-Oxanone-1-Sulfonic Acid (9Cl-PF3ONS)	86		-		55-158	-		30
11-Chloroeicosafluoro-3-Oxaundecane-1-Sulfonic Acid (11Cl-PF3OUdS)	90		-		52-156	-		30
Perfluoro-3-Methoxypropanoic Acid (PFMPA)	113		-		50-150	-		30
Perfluoro-4-Methoxybutanoic Acid (PFMBA)	79		-		50-150	-		30
Perfluoro(2-Ethoxyethane)Sulfonic Acid (PFEEESA)	89		-		50-150	-		30
Nonafluoro-3,6-Dioxaheptanoic Acid (NFDHA)	40	Q	-		50-150	-		30

Lab Control Sample Analysis **Batch Quality Control**

Project Name: TROY MILLS LANDFILL SUPERFUND
Project Number: 04.0190987.35

Lab Number: L2323078
Report Date: 06/02/23

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Perfluorinated Alkyl Acids by Isotope Dilution - Mansfield Lab Associated sample(s): 01-02 Batch: WG1782978-2								

Surrogate (Extracted Internal Standard)	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
Perfluoro[13C4]Butanoic Acid (MPFBA)	96				58-132
Perfluoro[13C5]Pentanoic Acid (M5PFPEA)	111				62-163
Perfluoro[2,3,4-13C3]Butanesulfonic Acid (M3PFBS)	97				70-131
1H,1H,2H,2H-Perfluoro[1,2-13C2]Hexanesulfonic Acid (M2-4:2FTS)	88				12-142
Perfluoro[1,2,3,4,6-13C5]Hexanoic Acid (M5PFHxA)	97				57-129
Perfluoro[1,2,3,4-13C4]Heptanoic Acid (M4PFHpA)	96				60-129
Perfluoro[1,2,3-13C3]Hexanesulfonic Acid (M3PFHxS)	100				71-134
Perfluoro[13C8]Octanoic Acid (M8PFOA)	93				62-129
1H,1H,2H,2H-Perfluoro[1,2-13C2]Octanesulfonic Acid (M2-6:2FTS)	91				14-147
Perfluoro[13C9]Nonanoic Acid (M9PFNA)	94				59-139
Perfluoro[13C8]Octanesulfonic Acid (M8PFOS)	96				69-131
Perfluoro[1,2,3,4,5,6-13C6]Decanoic Acid (M6PFDA)	90				62-124
1H,1H,2H,2H-Perfluoro[1,2-13C2]Decanesulfonic Acid (M2-8:2FTS)	95				10-162
N-Deuteriomethylperfluoro-1-octanesulfonamidoacetic Acid (d3-NMeFOSAA)	74				24-116
Perfluoro[1,2,3,4,5,6,7-13C7]Undecanoic Acid (M7-PFUDA)	94				55-137
Perfluoro[13C8]Octanesulfonamide (M8FOSA)	54				5-112
N-Deuterioethylperfluoro-1-octanesulfonamidoacetic Acid (d5-NEtFOSAA)	77				27-126
Perfluoro[1,2-13C2]Dodecanoic Acid (MPFDOA)	85				48-131
Perfluoro[1,2-13C2]Tetradecanoic Acid (M2PFTEDA)	91				22-136
2,3,3,3-Tetrafluoro-2-[1,1,2,2,3,3,3-Heptafluoropropoxy]-13C3-Propanoic Acid (M3HFPO-DA)	111				10-165
Perfluoro[13C2]Hexadecanoic Acid (M2PFHxDA)	107				10-206
1H,1H,2H,2H-Perfluorododecane Sulfonate (M2D4-10:2FTS)	104				50-150

Matrix Spike Analysis

Batch Quality Control

Project Name: TROY MILLS LANDFILL SUPERFUND
Project Number: 04.0190987.35

Lab Number: L2323078
Report Date: 06/02/23

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	Qual	MSD Found	MSD %Recovery	Qual	Recovery Limits	RPD	Qual	RPD Limits
Perfluorinated Alkyl Acids by Isotope Dilution - Mansfield Lab Associated sample(s): 01-02 QC Batch ID: WG1778877-3 QC Sample: L2322325-05 Client ID: MS Sample												
Perfluorooctanoic Acid (PFOA)	45.5	36.8	72.5	73		-	-		63-159	-		30
1H,1H,2H,2H-Perfluorooctanesulfonic Acid (6:2FTS)	ND	35	28.8	82		-	-		49-187	-		30
Perfluorononanoic Acid (PFNA)	2.77	36.8	31.9	79		-	-		68-171	-		30
Perfluorooctanesulfonic Acid (PFOS)	12.3	34.1	38.3	76		-	-		52-151	-		30

Surrogate (Extracted Internal Standard)	MS		MSD		Acceptance Criteria
	% Recovery	Qualifier	% Recovery	Qualifier	
1H,1H,2H,2H-Perfluoro[1,2-13C2]Octanesulfonic Acid (M2-6:2FTS)	126				14-147
Perfluoro[13C8]Octanesulfonic Acid (M8PFOS)	111				69-131
Perfluoro[13C8]Octanoic Acid (M8PFOA)	109				62-129
Perfluoro[13C9]Nonanoic Acid (M9PFNA)	109				59-139

Matrix Spike Analysis

Batch Quality Control

Project Name: TROY MILLS LANDFILL SUPERFUND
Project Number: 04.0190987.35

Lab Number: L2323078
Report Date: 06/02/23

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	Qual	MSD Found	MSD %Recovery	Qual	Recovery Limits	RPD	Qual	RPD Limits
Perfluorinated Alkyl Acids by Isotope Dilution - Mansfield Lab Associated sample(s): 01-02 QC Batch ID: WG1782978-3 QC Sample: L2325391-11 Client ID: MS Sample												
Perfluorobutanoic Acid (PFBA)	ND	37.3	35.2	91		-	-		67-148	-		30
Perfluoropentanoic Acid (PFPeA)	ND	37.3	33.3	87		-	-		63-161	-		30
Perfluorobutanesulfonic Acid (PFBS)	ND	33.1	31.9	93		-	-		65-157	-		30
1H,1H,2H,2H-Perfluorohexanesulfonic Acid (4:2FTS)	ND	35	31.0	89		-	-		37-219	-		30
Perfluorohexanoic Acid (PFHxA)	ND	37.3	35.9	94		-	-		69-168	-		30
Perfluoropentanesulfonic Acid (PFPeS)	ND	35.1	31.9	91		-	-		52-156	-		30
Perfluoroheptanoic Acid (PFHpA)	ND	37.3	34.3	90		-	-		58-159	-		30
Perfluorohexanesulfonic Acid (PFHxS)	ND	34.1	31.9	92		-	-		69-177	-		30
Perfluorooctanoic Acid (PFOA)	2.04	37.3	36.4	92		-	-		63-159	-		30
1H,1H,2H,2H-Perfluorooctanesulfonic Acid (6:2FTS)	ND	35.5	32.7	92		-	-		49-187	-		30
Perfluoroheptanesulfonic Acid (PFHpS)	ND	35.6	35.0	98		-	-		61-179	-		30
Perfluorononanoic Acid (PFNA)	ND	37.3	34.6	93		-	-		68-171	-		30
Perfluorooctanesulfonic Acid (PFOS)	ND	34.6	35.8	99		-	-		52-151	-		30
Perfluorodecanoic Acid (PFDA)	ND	37.3	34.8	92		-	-		63-171	-		30
1H,1H,2H,2H-Perfluorodecanesulfonic Acid (8:2FTS)	ND	35.8	34.8	97		-	-		56-173	-		30
Perfluorononanesulfonic Acid (PFNS)	ND	35.9	32.8	91		-	-		48-150	-		30
N-Methyl Perfluorooctanesulfonamidoacetic Acid (NMeFOSAA)	ND	37.3	35.2	94		-	-		60-166	-		30
Perfluoroundecanoic Acid (PFUnA)	ND	37.3	39.1	103		-	-		60-153	-		30
Perfluorodecanesulfonic Acid (PFDS)	ND	36	29.8	83		-	-		38-156	-		30
Perfluorooctanesulfonamide (FOSA)	ND	37.3	34.4F	92		-	-		46-170	-		30
N-Ethyl Perfluorooctanesulfonamidoacetic Acid (NEtFOSAA)	ND	37.3	32.5	87		-	-		45-170	-		30
Perfluorododecanoic Acid (PFDoA)	ND	37.3	36.4	98		-	-		67-153	-		30

Matrix Spike Analysis

Batch Quality Control

Project Name: TROY MILLS LANDFILL SUPERFUND
Project Number: 04.0190987.35

Lab Number: L2323078
Report Date: 06/02/23

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	Qual	MSD Found	MSD %Recovery	Qual	Recovery Limits	RPD	Qual	RPD Limits
Perfluorinated Alkyl Acids by Isotope Dilution - Mansfield Lab Associated sample(s): 01-02 QC Batch ID: WG1782978-3 QC Sample: L2325391-11 Client ID: MS Sample												
Perfluorotridecanoic Acid (PFTrDA)	ND	37.3	36.1	97		-	-		48-158	-		30
Perfluorotetradecanoic Acid (PFTA)	ND	37.3	35.1	94		-	-		59-182	-		30

Surrogate (Extracted Internal Standard)	MS % Recovery	MS Qualifier	MSD % Recovery	MSD Qualifier	Acceptance Criteria
1H,1H,2H,2H-Perfluoro[1,2-13C2]Decanesulfonic Acid (M2-8:2FTS)	86				10-162
1H,1H,2H,2H-Perfluoro[1,2-13C2]Hexanesulfonic Acid (M2-4:2FTS)	126				12-142
1H,1H,2H,2H-Perfluoro[1,2-13C2]Octanesulfonic Acid (M2-6:2FTS)	118				14-147
N-Deuterioethylperfluoro-1-octanesulfonamidoacetic Acid (d5-NEtFOSAA)	67				27-126
N-Deuteriomethylperfluoro-1-octanesulfonamidoacetic Acid (d3-NMeFOSAA)	54				24-116
Perfluoro[1,2,3,4,5,6,7-13C7]Undecanoic Acid (M7-PFUDA)	81				55-137
Perfluoro[1,2,3,4,5,6-13C6]Decanoic Acid (M6PFDA)	80				62-124
Perfluoro[1,2,3,4,6-13C5]Hexanoic Acid (M5PFHxA)	75				57-129
Perfluoro[1,2,3,4-13C4]Heptanoic Acid (M4PFHpA)	77				60-129
Perfluoro[1,2,3-13C3]Hexanesulfonic Acid (M3PFHxS)	96				71-134
Perfluoro[1,2-13C2]Dodecanoic Acid (MPFDOA)	80				48-131
Perfluoro[1,2-13C2]Tetradecanoic Acid (M2PFTEDA)	68				22-136
Perfluoro[13C4]Butanoic Acid (MPFBA)	76				58-132
Perfluoro[13C5]Pentanoic Acid (M5PFPEA)	93				62-163
Perfluoro[13C8]Octanesulfonamide (M8FOSA)	26				5-112
Perfluoro[13C8]Octanesulfonic Acid (M8PFOS)	84				69-131
Perfluoro[13C8]Octanoic Acid (M8PFOA)	80				62-129
Perfluoro[13C9]Nonanoic Acid (M9PFNA)	77				59-139
Perfluoro[2,3,4-13C3]Butanesulfonic Acid (M3PFBS)	93				70-131

Project Name: TROY MILLS LANDFILL SUPERFUND
Project Number: 04.0190987.35

Lab Duplicate Analysis
Batch Quality Control

Lab Number: L2323078
Report Date: 06/02/23

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
Perfluorinated Alkyl Acids by Isotope Dilution - Mansfield Lab Associated sample(s): 01-02 QC Batch ID: WG1778877-4 QC Sample: L2322325-10 Client ID: DUP Sample						
Perfluorooctanoic Acid (PFOA)	20.9	20.8	ng/l	0		30
1H,1H,2H,2H-Perfluorooctanesulfonic Acid (6:2FTS)	ND	ND	ng/l	NC		30
Perfluorononanoic Acid (PFNA)	ND	ND	ng/l	NC		30
Perfluorooctanesulfonic Acid (PFOS)	8.97	8.95	ng/l	0		30

Surrogate (Extracted Internal Standard)	%Recovery	Qualifier	%Recovery	Qualifier	Acceptance Criteria
Perfluoro[13C8]Octanoic Acid (M8PFOA)	96		92		62-129
1H,1H,2H,2H-Perfluoro[1,2-13C2]Octanesulfonic Acid (M2-6:2FTS)	80		75		14-147
Perfluoro[13C9]Nonanoic Acid (M9PFNA)	107		104		59-139
Perfluoro[13C8]Octanesulfonic Acid (M8PFOS)	93		88		69-131

Project Name: TROY MILLS LANDFILL SUPERFUND
Project Number: 04.0190987.35

Lab Duplicate Analysis

Batch Quality Control

Lab Number: L2323078
Report Date: 06/02/23

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
Perfluorinated Alkyl Acids by Isotope Dilution - Mansfield Lab Associated sample(s): 01-02 QC Batch ID: WG1782978-4 QC Sample: L2325391-14 Client ID: DUP Sample						
Perfluorobutanoic Acid (PFBA)	4.31	3.92	ng/l	9		30
Perfluoropentanoic Acid (PFPeA)	4.00	3.59	ng/l	11		30
Perfluorobutanesulfonic Acid (PFBS)	ND	ND	ng/l	NC		30
1H,1H,2H,2H-Perfluorohexanesulfonic Acid (4:2FTS)	ND	ND	ng/l	NC		30
Perfluorohexanoic Acid (PFHxA)	2.61	2.45	ng/l	6		30
Perfluoropentanesulfonic Acid (PFPeS)	ND	ND	ng/l	NC		30
Perfluoroheptanoic Acid (PFHpA)	ND	ND	ng/l	NC		30
Perfluorohexanesulfonic Acid (PFHxS)	ND	ND	ng/l	NC		30
Perfluorooctanoic Acid (PFOA)	2.69	2.28	ng/l	16		30
1H,1H,2H,2H-Perfluorooctanesulfonic Acid (6:2FTS)	ND	ND	ng/l	NC		30
Perfluoroheptanesulfonic Acid (PFHpS)	ND	ND	ng/l	NC		30
Perfluorononanoic Acid (PFNA)	ND	ND	ng/l	NC		30
Perfluorooctanesulfonic Acid (PFOS)	ND	ND	ng/l	NC		30
Perfluorodecanoic Acid (PFDA)	ND	ND	ng/l	NC		30
1H,1H,2H,2H-Perfluorodecanesulfonic Acid (8:2FTS)	ND	ND	ng/l	NC		30
Perfluorononanesulfonic Acid (PFNS)	ND	ND	ng/l	NC		30
N-Methyl Perfluorooctanesulfonamidoacetic Acid (NMeFOSAA)	ND	ND	ng/l	NC		30
Perfluoroundecanoic Acid (PFUnA)	ND	ND	ng/l	NC		30
Perfluorodecanesulfonic Acid (PFDS)	ND	ND	ng/l	NC		30
Perfluorooctanesulfonamide (FOSA)	ND	ND	ng/l	NC		30

Project Name: TROY MILLS LANDFILL SUPERFUND
Project Number: 04.0190987.35

Lab Duplicate Analysis
Batch Quality Control

Lab Number: L2323078
Report Date: 06/02/23

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
Perfluorinated Alkyl Acids by Isotope Dilution - Mansfield Lab Associated sample(s): 01-02 QC Batch ID: WG1782978-4 QC Sample: L2325391-14 Client ID: DUP Sample						

N-Ethyl Perfluorooctanesulfonamidoacetic Acid (NEtFOSAA)	ND	ND	ng/l	NC		30
Perfluorododecanoic Acid (PFDoA)	ND	ND	ng/l	NC		30
Perfluorotridecanoic Acid (PFTrDA)	ND	ND	ng/l	NC		30
Perfluorotetradecanoic Acid (PFTA)	ND	ND	ng/l	NC		30

Surrogate (Extracted Internal Standard)	%Recovery	Qualifier	%Recovery	Qualifier	Acceptance Criteria
Perfluoro[13C4]Butanoic Acid (MPFBA)	88		92		58-132
Perfluoro[13C5]Pentanoic Acid (M5PFPEA)	109		118		62-163
Perfluoro[2,3,4-13C3]Butanesulfonic Acid (M3PFBS)	94		96		70-131
1H,1H,2H,2H-Perfluoro[1,2-13C2]Hexanesulfonic Acid (M2-4:2FTS)	80		83		12-142
Perfluoro[1,2,3,4,6-13C5]Hexanoic Acid (M5PFHxA)	88		89		57-129
Perfluoro[1,2,3,4-13C4]Heptanoic Acid (M4PFHpA)	89		93		60-129
Perfluoro[1,2,3-13C3]Hexanesulfonic Acid (M3PFHxS)	93		99		71-134
Perfluoro[13C8]Octanoic Acid (M8PFOA)	88		93		62-129
1H,1H,2H,2H-Perfluoro[1,2-13C2]Octanesulfonic Acid (M2-6:2FTS)	80		82		14-147
Perfluoro[13C9]Nonanoic Acid (M9PFNA)	84		87		59-139
Perfluoro[13C8]Octanesulfonic Acid (M8PFOS)	79		75		69-131
Perfluoro[1,2,3,4,5,6-13C6]Decanoic Acid (M6PFDA)	79		71		62-124
1H,1H,2H,2H-Perfluoro[1,2-13C2]Decanesulfonic Acid (M2-8:2FTS)	57		60		10-162
N-Deuteriomethylperfluoro-1-octanesulfonamidoacetic Acid (d3-NMeFOSAA)	63		62		24-116
Perfluoro[1,2,3,4,5,6,7-13C7]Undecanoic Acid (M7-PFUDA)	75		78		55-137
Perfluoro[13C8]Octanesulfonamide (M8FOSA)	22		22		5-112
N-Deuterioethylperfluoro-1-octanesulfonamidoacetic Acid (d5-NEtFOSAA)	72		71		27-126
Perfluoro[1,2-13C2]Dodecanoic Acid (MPFDOA)	70		69		48-131

Lab Duplicate Analysis

Batch Quality Control

Project Name: TROY MILLS LANDFILL SUPERFUND

Project Number: 04.0190987.35

Lab Number: L2323078

Report Date: 06/02/23

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
Perfluorinated Alkyl Acids by Isotope Dilution - Mansfield Lab Associated sample(s): 01-02 QC Batch ID: WG1782978-4 QC Sample: L2325391-14 Client ID: DUP Sample						

Surrogate (Extracted Internal Standard)	%Recovery	Qualifier	%Recovery	Qualifier	Acceptance Criteria
Perfluoro[1,2-13C2]Tetradecanoic Acid (M2PFTEDA)	77		79		22-136

Project Name: TROY MILLS LANDFILL SUPERFUND**Lab Number:** L2323078**Project Number:** 04.0190987.35**Report Date:** 06/02/23**Sample Receipt and Container Information**

Were project specific reporting limits specified?

YES

Cooler Information**Cooler** **Custody Seal**

A Absent

Container Information

Container ID	Container Type	Cooler	Initial pH	Final pH	Temp deg C	Pres	Seal	Frozen Date/Time	Analysis(*)
L2323078-01A	Plastic 250ml unpreserved	A	NA		3.3	Y	Absent		A2-537-ISOTOPE-FULL(28)
L2323078-01B	Plastic 250ml unpreserved	A	NA		3.3	Y	Absent		A2-537-ISOTOPE-FULL(28)
L2323078-02A	Plastic 250ml unpreserved	A	NA		3.3	Y	Absent		A2-537-ISOTOPE-FULL(28)
L2323078-02B	Plastic 250ml unpreserved	A	NA		3.3	Y	Absent		A2-537-ISOTOPE-FULL(28)

Project Name: TROY MILLS LANDFILL SUPERFUND
Project Number: 04.0190987.35

Serial_No:06022311:17
Lab Number: L2323078
Report Date: 06/02/23

PFAS PARAMETER SUMMARY

Parameter	Acronym	CAS Number
PERFLUOROALKYL CARBOXYLIC ACIDS (PFCAs)		
Perfluorooctadecanoic Acid	PFODA	16517-11-6
Perfluorohexadecanoic Acid	PFHxDA	67905-19-5
Perfluorotetradecanoic Acid	PFTA/PFTeDA	376-06-7
Perfluorotridecanoic Acid	PFTrDA	72629-94-8
Perfluorododecanoic Acid	PFDoA	307-55-1
Perfluoroundecanoic Acid	PFUnA	2058-94-8
Perfluorodecanoic Acid	PFDA	335-76-2
Perfluorononanoic Acid	PFNA	375-95-1
Perfluorooctanoic Acid	PFOA	335-67-1
Perfluoroheptanoic Acid	PFHpA	375-85-9
Perfluorohexanoic Acid	PFHxA	307-24-4
Perfluoropentanoic Acid	PFPeA	2706-90-3
Perfluorobutanoic Acid	PFBA	375-22-4
PERFLUOROALKYL SULFONIC ACIDS (PFSAs)		
Perfluorododecanesulfonic Acid	PFDoDS/PFDoS	79780-39-5
Perfluorodecanesulfonic Acid	PFDS	335-77-3
Perfluorononanesulfonic Acid	PFNS	68259-12-1
Perfluorooctanesulfonic Acid	PFOS	1763-23-1
Perfluoroheptanesulfonic Acid	PFHpS	375-92-8
Perfluorohexanesulfonic Acid	PFHxS	355-46-4
Perfluoropentanesulfonic Acid	PFPeS	2706-91-4
Perfluorobutanesulfonic Acid	PFBS	375-73-5
Perfluoropropanesulfonic Acid	PFPrS	423-41-6
FLUOROTELOMERS		
1H,1H,2H,2H-Perfluorododecanesulfonic Acid	10:2FTS	120226-60-0
1H,1H,2H,2H-Perfluorodecanesulfonic Acid	8:2FTS	39108-34-4
1H,1H,2H,2H-Perfluorooctanesulfonic Acid	6:2FTS	27619-97-2
1H,1H,2H,2H-Perfluorohexanesulfonic Acid	4:2FTS	757124-72-4
PERFLUOROALKANE SULFONAMIDES (FASAs)		
Perfluorooctanesulfonamide	FOSA/PFOSA	754-91-6
N-Ethyl Perfluorooctane Sulfonamide	NEtFOSA	4151-50-2
N-Methyl Perfluorooctane Sulfonamide	NMeFOSA	31506-32-8
PERFLUOROALKANE SULFONYL SUBSTANCES		
N-Ethyl Perfluorooctanesulfonamido Ethanol	NEtFOSE	1691-99-2
N-Methyl Perfluorooctanesulfonamido Ethanol	NMeFOSE	24448-09-7
N-Ethyl Perfluorooctanesulfonamidoacetic Acid	NEtFOSAA	2991-50-6
N-Methyl Perfluorooctanesulfonamidoacetic Acid	NMeFOSAA	2355-31-9
PER- and POLYFLUOROALKYL ETHER CARBOXYLIC ACIDS		
2,3,3,3-Tetrafluoro-2-[1,1,2,2,3,3,3-Heptafluoropropoxy]-Propanoic Acid	HFPO-DA	13252-13-6
4,8-Dioxa-3h-Perfluorononanoic Acid	ADONA	919005-14-4
CHLORO-PERFLUOROALKYL SULFONIC ACIDS		
11-Chloroeicosafluoro-3-Oxaundecane-1-Sulfonic Acid	11Cl-PF3OUdS	763051-92-9
9-Chlorohexadecafluoro-3-Oxanone-1-Sulfonic Acid	9Cl-PF3ONS	756426-58-1
PERFLUOROETHER SULFONIC ACIDS (PFESAs)		
Perfluoro(2-Ethoxyethane)Sulfonic Acid	PFEESA	113507-82-7
PERFLUOROETHER/POLYETHER CARBOXYLIC ACIDS (PFPCAs)		
Perfluoro-3-Methoxypropanoic Acid	PFMPA	377-73-1
Perfluoro-4-Methoxybutanoic Acid	PFMBA	863090-89-5
Nonafluoro-3,6-Dioxaheptanoic Acid	NFDHA	151772-58-6

Project Name: TROY MILLS LANDFILL SUPERFUND
Project Number: 04.0190987.35

Serial_No:06022311:17
Lab Number: L2323078
Report Date: 06/02/23

PFAS PARAMETER SUMMARY

Parameter	Acronym	CAS Number
FLUOROTELOMER CARBOXYLIC ACIDS (FTCAs)		
3-Perfluoroheptyl Propanoic Acid	7:3FTCA	812-70-4
2H,2H,3H,3H-Perfluorooctanoic Acid	5:3FTCA	914637-49-3
3-Perfluoropropyl Propanoic Acid	3:3FTCA	356-02-5

Project Name: TROY MILLS LANDFILL SUPERFUND
Project Number: 04.0190987.35

Lab Number: L2323078
Report Date: 06/02/23

GLOSSARY

Acronyms

DL	- Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the limit of quantitation (LOQ). The DL includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)
EDL	- Estimated Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The EDL includes any adjustments from dilutions, concentrations or moisture content, where applicable. The use of EDLs is specific to the analysis of PAHs using Solid-Phase Microextraction (SPME).
EMPC	- Estimated Maximum Possible Concentration: The concentration that results from the signal present at the retention time of an analyte when the ions meet all of the identification criteria except the ion abundance ratio criteria. An EMPC is a worst-case estimate of the concentration.
EPA	- Environmental Protection Agency.
LCS	- Laboratory Control Sample: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.
LCSD	- Laboratory Control Sample Duplicate: Refer to LCS.
LFB	- Laboratory Fortified Blank: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.
LOD	- Limit of Detection: This value represents the level to which a target analyte can reliably be detected for a specific analyte in a specific matrix by a specific method. The LOD includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)
LOQ	- Limit of Quantitation: The value at which an instrument can accurately measure an analyte at a specific concentration. The LOQ includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.) Limit of Quantitation: The value at which an instrument can accurately measure an analyte at a specific concentration. The LOQ includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)
MDL	- Method Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The MDL includes any adjustments from dilutions, concentrations or moisture content, where applicable.
MS	- Matrix Spike Sample: A sample prepared by adding a known mass of target analyte to a specified amount of matrix sample for which an independent estimate of target analyte concentration is available. For Method 332.0, the spike recovery is calculated using the native concentration, including estimated values.
MSD	- Matrix Spike Sample Duplicate: Refer to MS.
NA	- Not Applicable.
NC	- Not Calculated: Term is utilized when one or more of the results utilized in the calculation are non-detect at the parameter's reporting unit.
NDPA/DPA	- N-Nitrosodiphenylamine/Diphenylamine.
NI	- Not Ignitable.
NP	- Non-Plastic: Term is utilized for the analysis of Atterberg Limits in soil.
NR	- No Results: Term is utilized when 'No Target Compounds Requested' is reported for the analysis of Volatile or Semivolatile Organic TIC only requests.
RL	- Reporting Limit: The value at which an instrument can accurately measure an analyte at a specific concentration. The RL includes any adjustments from dilutions, concentrations or moisture content, where applicable.
RPD	- Relative Percent Difference: The results from matrix and/or matrix spike duplicates are primarily designed to assess the precision of analytical results in a given matrix and are expressed as relative percent difference (RPD). Values which are less than five times the reporting limit for any individual parameter are evaluated by utilizing the absolute difference between the values; although the RPD value will be provided in the report.
SRM	- Standard Reference Material: A reference sample of a known or certified value that is of the same or similar matrix as the associated field samples.
STLP	- Semi-dynamic Tank Leaching Procedure per EPA Method 1315.
TEF	- Toxic Equivalency Factors: The values assigned to each dioxin and furan to evaluate their toxicity relative to 2,3,7,8-TCDD.
TEQ	- Toxic Equivalent: The measure of a sample's toxicity derived by multiplying each dioxin and furan by its corresponding TEF and then summing the resulting values.
TIC	- Tentatively Identified Compound: A compound that has been identified to be present and is not part of the target compound list (TCL) for the method and/or program. All TICs are qualitatively identified and reported as estimated concentrations.

Report Format: Data Usability Report



Project Name: TROY MILLS LANDFILL SUPERFUND
Project Number: 04.0190987.35

Lab Number: L2323078
Report Date: 06/02/23

Footnotes

- 1 - The reference for this analyte should be considered modified since this analyte is absent from the target analyte list of the original method.

Terms

Analytical Method: Both the document from which the method originates and the analytical reference method. (Example: EPA 8260B is shown as 1,8260B.) The codes for the reference method documents are provided in the References section of the Addendum.

Chlordane: The target compound Chlordane (CAS No. 57-74-9) is reported for GC ECD analyses. Per EPA, this compound "refers to a mixture of chlordane isomers, other chlorinated hydrocarbons and numerous other components." (Reference: USEPA Toxicological Review of Chlordane, In Support of Summary Information on the Integrated Risk Information System (IRIS), December 1997.)

Difference: With respect to Total Oxidizable Precursor (TOP) Assay analysis, the difference is defined as the Post-Treatment value minus the Pre-Treatment value.

Final pH: As it pertains to Sample Receipt & Container Information section of the report, Final pH reflects pH of container determined after adjustment at the laboratory, if applicable. If no adjustment required, value reflects Initial pH.

Frozen Date/Time: With respect to Volatile Organics in soil, Frozen Date/Time reflects the date/time at which associated Reagent Water-preserved vials were initially frozen. Note: If frozen date/time is beyond 48 hours from sample collection, value will be reflected in 'bold'.

Gasoline Range Organics (GRO): Gasoline Range Organics (GRO) results include all chromatographic peaks eluting from Methyl tert butyl ether through Naphthalene, with the exception of GRO analysis in support of State of Ohio programs, which includes all chromatographic peaks eluting from Hexane through Dodecane.

Initial pH: As it pertains to Sample Receipt & Container Information section of the report, Initial pH reflects pH of container determined upon receipt, if applicable.

PAH Total: With respect to Alkylated PAH analyses, the 'PAHs, Total' result is defined as the summation of results for all or a subset of the following compounds: Naphthalene, C1-C4 Naphthalenes, 2-Methylnaphthalene, 1-Methylnaphthalene, Biphenyl, Acenaphthylene, Acenaphthene, Fluorene, C1-C3 Fluorenes, Phenanthrene, C1-C4 Phenanthrenes/Anthracenes, Anthracene, Fluoranthene, Pyrene, C1-C4 Fluoranthenes/Pyrenes, Benz(a)anthracene, Chrysene, C1-C4 Chrysenes, Benzo(b)fluoranthene, Benzo(j)+(k)fluoranthene, Benzo(e)pyrene, Benzo(a)pyrene, Perylene, Indeno(1,2,3-cd)pyrene, Dibenz(ah)+(ac)anthracene, Benzo(g,h,i)perylene. If a 'Total' result is requested, the results of its individual components will also be reported.

PFAS Total: With respect to PFAS analyses, the 'PFAS, Total (5)' result is defined as the summation of results for: PFHpA, PFHxS, PFOA, PFNA and PFOS. In addition, the 'PFAS, Total (6)' result is defined as the summation of results for: PFHpA, PFHxS, PFOA, PFNA, PFDA and PFOS. For MassDEP DW compliance analysis only, the 'PFAS, Total (6)' result is defined as the summation of results at or above the RL. Note: If a 'Total' result is requested, the results of its individual components will also be reported.

Total: With respect to Organic analyses, a 'Total' result is defined as the summation of results for individual isomers or Aroclors. If a 'Total' result is requested, the results of its individual components will also be reported. This is applicable to 'Total' results for methods 8260, 8081 and 8082.

Data Qualifiers

- A** - Spectra identified as "Aldol Condensates" are byproducts of the extraction/concentration procedures when acetone is introduced in the process.
- B** - The analyte was detected above the reporting limit in the associated method blank. Flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For MCP-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For DOD-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank AND the analyte was detected above one-half the reporting limit (or above the reporting limit for common lab contaminants) in the associated method blank. For NJ-Air-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte above the reporting limit. For NJ-related projects (excluding Air), flag only applies to associated field samples that have detectable concentrations of the analyte, which was detected above the reporting limit in the associated method blank or above five times the reporting limit for common lab contaminants (Phthalates, Acetone, Methylene Chloride, 2-Butanone).
- C** - Co-elution: The target analyte co-elutes with a known lab standard (i.e. surrogate, internal standards, etc.) for co-extracted analyses.
- D** - Concentration of analyte was quantified from diluted analysis. Flag only applies to field samples that have detectable concentrations of the analyte.
- E** - Concentration of analyte exceeds the range of the calibration curve and/or linear range of the instrument.
- F** - The ratio of quantifier ion response to qualifier ion response falls outside of the laboratory criteria. Results are considered to be an estimated maximum concentration.
- G** - The concentration may be biased high due to matrix interferences (i.e. co-elution) with non-target compound(s). The result should be considered estimated.
- H** - The analysis of pH was performed beyond the regulatory-required holding time of 15 minutes from the time of sample collection.
- I** - The lower value for the two columns has been reported due to obvious interference.
- J** - Estimated value. This represents an estimated concentration for Tentatively Identified Compounds (TICs).
- M** - Reporting Limit (RL) exceeds the MCP CAM Reporting Limit for this analyte.

Report Format: Data Usability Report



Project Name: TROY MILLS LANDFILL SUPERFUND
Project Number: 04.0190987.35

Lab Number: L2323078
Report Date: 06/02/23

Data Qualifiers

- ND** - Not detected at the reporting limit (RL) for the sample.
- NJ** - Presumptive evidence of compound. This represents an estimated concentration for Tentatively Identified Compounds (TICs), where the identification is based on a mass spectral library search.
- P** - The RPD between the results for the two columns exceeds the method-specified criteria.
- Q** - The quality control sample exceeds the associated acceptance criteria. For DOD-related projects, LCS and/or Continuing Calibration Standard exceedences are also qualified on all associated sample results. Note: This flag is not applicable for matrix spike recoveries when the sample concentration is greater than 4x the spike added or for batch duplicate RPD when the sample concentrations are less than 5x the RL. (Metals only.)
- R** - Analytical results are from sample re-analysis.
- RE** - Analytical results are from sample re-extraction.
- S** - Analytical results are from modified screening analysis.
- V** - The surrogate associated with this target analyte has a recovery outside the QC acceptance limits. (Applicable to MassDEP DW Compliance samples only.)
- Z** - The batch matrix spike and/or duplicate associated with this target analyte has a recovery/RPD outside the QC acceptance limits. (Applicable to MassDEP DW Compliance samples only.)

Project Name: TROY MILLS LANDFILL SUPERFUND
Project Number: 04.0190987.35

Lab Number: L2323078
Report Date: 06/02/23

REFERENCES

- 134 Determination of Selected Perfluorinated Alkyl Acids in Drinking Water by Solid Phase Extraction and Liquid Chromatography/Tandem Mass Spectrometry (LC/MS/MS) using Isotope Dilution. Alpha SOP 23528.

LIMITATION OF LIABILITIES

Alpha Analytical performs services with reasonable care and diligence normal to the analytical testing laboratory industry. In the event of an error, the sole and exclusive responsibility of Alpha Analytical shall be to re-perform the work at it's own expense. In no event shall Alpha Analytical be held liable for any incidental, consequential or special damages, including but not limited to, damages in any way connected with the use of, interpretation of, information or analysis provided by Alpha Analytical.

We strongly urge our clients to comply with EPA protocol regarding sample volume, preservation, cooling, containers, sampling procedures, holding time and splitting of samples in the field.



Certification Information

The following analytes are not included in our Primary NELAP Scope of Accreditation:

Westborough Facility

EPA 624/624.1: m/p-xylene, o-xylene, Naphthalene

EPA 625/625.1: alpha-Terpineol

EPA 8260C/8260D: NPW: 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene, Azobenzene; SCM: Iodomethane (methyl iodide), 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene.

EPA 8270D/8270E: NPW: Dimethylnaphthalene, 1,4-Diphenylhydrazine, alpha-Terpineol; SCM: Dimethylnaphthalene, 1,4-Diphenylhydrazine.

SM4500: NPW: Amenable Cyanide; SCM: Total Phosphorus, TKN, NO₂, NO₃.

Mansfield Facility

SM 2540D: TSS

EPA 8082A: NPW: PCB: 1, 5, 31, 87, 101, 110, 141, 151, 153, 180, 183, 187.

EPA TO-15: Halothane, 2,4,4-Trimethyl-2-pentene, 2,4,4-Trimethyl-1-pentene, Thiophene, 2-Methylthiophene,

3-Methylthiophene, 2-Ethylthiophene, 1,2,3-Trimethylbenzene, Indan, Indene, 1,2,4,5-Tetramethylbenzene, Benzothiophene, 1-Methylnaphthalene.

Biological Tissue Matrix: EPA 3050B

The following analytes are included in our Massachusetts DEP Scope of Accreditation

Westborough Facility:

Drinking Water

EPA 300.0: Chloride, Nitrate-N, Fluoride, Sulfate; **EPA 353.2:** Nitrate-N, Nitrite-N; **SM4500NO3-F:** Nitrate-N, Nitrite-N; **SM4500F-C, SM4500CN-CE,**

EPA 180.1, SM2130B, SM4500CI-D, SM2320B, SM2540C, SM4500H-B, SM4500NO2-B

EPA 332: Perchlorate; **EPA 524.2:** THMs and VOCs; **EPA 504.1:** EDB, DBCP.

Microbiology: **SM9215B; SM9223-P/A, SM9223B-Colilert-QT, SM9222D.**

Non-Potable Water

SM4500H,B, EPA 120.1, SM2510B, SM2540C, SM2320B, SM4500CL-E, SM4500F-BC, SM4500NH3-BH: Ammonia-N and Kjeldahl-N, **EPA 350.1:**

Ammonia-N, **LACHAT 10-107-06-1-B:** Ammonia-N, **EPA 351.1, SM4500NO3-F, EPA 353.2:** Nitrate-N, **SM4500P-E, SM4500P-B, E, SM4500SO4-E,**

SM5220D, EPA 410.4, SM5210B, SM5310C, SM4500CL-D, EPA 1664, EPA 420.1, SM4500-CN-CE, SM2540D, EPA 300: Chloride, Sulfate, Nitrate.

EPA 624.1: Volatile Halocarbons & Aromatics,

EPA 608.3: Chlordane, Toxaphene, Aldrin, alpha-BHC, beta-BHC, gamma-BHC, delta-BHC, Dieldrin, DDD, DDE, DDT, Endosulfan I, Endosulfan II, Endosulfan sulfate, Endrin, Endrin Aldehyde, Heptachlor, Heptachlor Epoxide, PCBs

EPA 625.1: SVOC (Acid/Base/Neutral Extractables), **EPA 600/4-81-045:** PCB-Oil.

Microbiology: **SM9223B-Colilert-QT; Enterolert-QT, SM9221E, EPA 1600, EPA 1603, SM9222D.**

Mansfield Facility:

Drinking Water

EPA 200.7: Al, Ba, Cd, Cr, Cu, Fe, Mn, Ni, Na, Ag, Ca, Zn. **EPA 200.8:** Al, Sb, As, Ba, Be, Cd, Cr, Cu, Pb, Mn, Ni, Se, Ag, TL, Zn. **EPA 245.1 Hg.**

EPA 522, EPA 537.1.

Non-Potable Water

EPA 200.7: Al, Sb, As, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Mg, Mn, Mo, Ni, K, Se, Ag, Na, Sr, TL, Ti, V, Zn.

EPA 200.8: Al, Sb, As, Be, Cd, Cr, Cu, Fe, Pb, Mn, Ni, K, Se, Ag, Na, TL, Zn.

EPA 245.1 Hg.

SM2340B

For a complete listing of analytes and methods, please contact your Alpha Project Manager.

PAGE 1 OF 1

ALPHA Job #: 2323078

Billing Information

☒ Same as Client info

PO #: 2589-00 "T"

☐ Add'l Deliverables

Criteria

Sampling and Analysis Plan limits

Date/Time

FORM NO. 01-010-04
(rev. 5-18-94/12)