GROUNDWATER AND LANDFILL GAS MONITORING REPORT #21

FORMER PORTSMOUTH LANDFILL
PORTSMOUTH, RHODE ISLAND 02871

ATLAS PROJECT NO.: 3010000351

PREPARED FOR:

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28 Teal Drive
Wakefield, Rhode Island 02879

PREPARED BY:

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dba Atlas Technical

August 15, 2022

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1.0 INTRODUCTION

ATC Group Services LLC (ATC) dba Atlas Technical (Atlas) was retained by AP Enterprise LLC (APE) to conduct quarterly groundwater and landfill gas monitoring at the former Portsmouth Landfill located on Park Avenue in Portsmouth, Rhode Island (Site). The objective of this work is to implement the Rhode Island Department of Environmental Management (RIDEM) approved Site Monitoring Plan and Second Phase of Site Monitoring Plan prepared by Tim O'Connor & Company LLC.

1.1 Site Location and Description

The entrance to the former Portsmouth Landfill is located 500 feet west-northwest of the intersection formed by Boyds Lane and Park Avenue. The property is identified by the Portsmouth Tax Assessor as Plat 20 Lots 1, 2 & 13 and Plat 25 Lot 2 (the Site). The Site encompasses approximately 15.02 acres. The ground surface of the central portion of the landfill is generally level, and slopes downward along the landfill margins. A Site Locus Map and a Site Plan are included as **Figures 1 and 2**, respectively.

1.2 Background

The following activities were conducted as part of the initial Site Monitoring Plan to evaluate the potential presence of contamination in soil gas and groundwater resulting from historic landfill activities.

On April 25, 2017, ATC installed four (4) groundwater monitoring wells (MW-1, MW-2, MW-3, and MW-4) and four (4) permanent soil gas points (SGPs) (SG-1, SG-2, SG-3 and SG-4) were also installed.

At the request of RIDEM, AP Enterprise directed ATC to install an additional seven permanent SGPs along the Site boundary, near monitoring point SG-3. SG-3 is the only SGP where methane's lower explosive limit (LEL) of 5% and the RIDEM limit of 25% of the LEL (1.25%) were exceeded. On April 13, 2018, ATC installed seven additional perimeter SGPs (SG-3A, SG-3B, SG-3C, SG-3D, SG-3E, SG-3F and SG-3G), located every 50 feet along the edge of the Site boundary near SG-3. These peripheral SGPs are positioned to monitor for potential landfill gas migration from the solid waste mound. These points are positioned between the landfill mound boundary and the nearby residential dwellings.

On November 11, 2021, Atlas installed four (4) additional groundwater monitoring wells (MW-5, MW-6, MW-7 and MW-8) and four (4) additional SGPs (SG-5, SG-6, SG-7 and SG-8).

Groundwater monitoring wells were constructed using two-inch diameter, polyvinyl chloride (PVC) riser and machine-slotted 0.01 inch well screen. Each well screen was placed to intercept the groundwater table. The annulus around each PVC well screen was backfilled with uniform grade, silica sand to approximately two feet above the screen section. Approximately one foot of bentonite was placed around each PVC riser pipe above the silica sand to prevent local surface water runoff and infiltration from directly entering into the wells. The boreholes were backfilled with native soils from the top of the bentonite seal to the surface. A lockable four-inch water-tight stand pipe with expansion cap was cemented at the ground surface.

Each SGP was installed in the unsaturated zone, using a Geoprobe® 21" stainless soil gas implant. The depth of placement was determined by the existing depth to groundwater at each location,

which ranged from approximately 4 to 12 feet below grade. Each SGP was backfilled with uniform grade, silica sand to approximately one foot above the screen section. Approximately one foot of bentonite was placed above the SGP. Each SGP was connected to 3/8" by 1/4" tubing that was brought to the ground surface

Groundwater monitoring well locations and SGPs are depicted on **Figure 2**.

2.0 FIELD ACTIVITIES

The following activities were conducted to evaluate the potential presence of contamination in soil gas and groundwater resulting from historic landfill activities.

2.1 Monitoring Well Gauging and Area Groundwater Flow

On July 19, 2022, Atlas gauged depth to groundwater in the eight (8) groundwater monitoring wells using a Solinst electronic oil/water interface probe. Depth to groundwater was measured from the top of the PVC well risers and ranged from 7.31 feet below top of casing in MW-1 to 15.68 feet below top of casing in MW-8. Non-aqueous phase liquids were not detected on the groundwater surface, or at the bottom of the wells.

On June 15, 2017, DiPrete Engineering completed a well elevation survey of wells MW-1 through MW-4. These monitoring wells were surveyed with reference to mean seal level. Monitoring wells MW-5 through MW-8 are scheduled to be surveyed at a future date.

A Water Level Gauging Sheet is provided as **Table 1**. Groundwater elevation contours are depicted on **Figure 2**.

2.2 Groundwater Sampling and Analysis

On July 19, 2022, Atlas completed quarterly groundwater sampling at the Site. The groundwater samples were obtained using low stress purging. Atlas used a variable speed low-flow peristaltic pump to control the rate of purging and limit the drawdown. High density polyethylene (HDPE, a PFAS-free material) tubing was used at each well. Field parameters were recorded during sampling using a YSI Pro Series with flow-through cell. Field parameters included pH, water temperature, specific conductance, oxidation reduction potential (ORP), dissolved oxygen and turbidity. Upon parameter stabilization groundwater samples were collected from monitoring wells MW-1 through MW-8 for the analysis of Per- and Polyfluoroalkyl Substances (PFAS), including Perfluorooctanoic Acid (PFOA) and Perfluorooctane Sulfonate (PFOS) by EPA Method 537 by Isotope Dilution, volatile organic compounds (VOCs) by EPA Method 8260 and total metals by EPA Methods 6010 and 7010.

Samples for PFAS analysis were collected first, followed by the other parameters. Particular care was taken during the collection of the PFAS samples to avoid cross-contamination with commonly encountered consumer products known or suspected to contain PFAS. Materials treated to provide water resistance were avoided; these included but were not limited to waterproof field books, adhesive labels, and water-resistant clothing. Prior to sampling each well, a fresh pair of nitrile gloves were used. The samples collected for PFAS analysis were collected in laboratory supplied containers, put in Ziplock bags, and placed in a cooler on ice separate from samples for other parameters. The groundwater samples were submitted under chain of custody to Eurofins Environment Testing, New England of North Kingstown, Rhode Island, a Rhode Island certified laboratory.

2.3 Groundwater Analytical Results

In October of 2017, the RIDEM established groundwater quality standard for GA and GAA areas for the sum of PFOA and PFOS of 70 ng/L. In January 2021, RIDEM amended their Solid Waste Regulations to require PFAS sampling for a minimum of two groundwater sampling rounds and notified landfill owners and responsible parties of this requirement and their intent to compare the results to the RIDEM groundwater quality standards. The results reported in this report are the second round of APE's groundwater monitoring to include PFAS. In the samples collected on July 19, 2022, the sum of PFOA and PFOS exceeded the RIDEM groundwater quality standard of 70 ng/L in monitoring wells MW-2 (310 ng/L), MW-3 (260 ng/L), MW-4 (177 ng/L), MW-5 (91 ng/L) MW-6 (710 ng/L), MW-7 (610 ng/L), and MW-8 (380 ng/L).

In June of 2022, the State of Rhode Island passed legislation that established an interim drinking water standard of 20 ng/L for the sum of six of the PFAS chemicals of focus (PFOA, PFOS, PFHxS, PFNA, PFHpA and PFDA). It is not clear at this time how this standard will be used relative to landfill monitoring. The sum of the six PFAs chemicals of focus exceeded 20 ng/L in all of the wells sampled.

Lead was detected in MW-5 at a concentration of 0.110 milligrams per liter (mg/L), exceeding the RIDEM GA Groundwater Objective of 0.015 mg/L. Other metals were detected at concentrations below the RIDEM GA Groundwater Objectives.

Cis-1,2-Dichloroethene was detected in MW-8 at a concentration of 0.089 mg/L, exceeding the RIDEM GA Groundwater objective of 0.07 mg/L. Vinyl chloride was detected in MW-8 at a concentration of 0.020 mg/L, exceeding the RIDEM GA Groundwater objective of 0.002 mg/L. No other VOCs were reported in excess of the RIDEM GA Groundwater Objectives in the groundwater samples obtained on July 19, 2022. The groundwater analytical data is summarized on **Tables 2A** and **2B**. The laboratory analytical report is included in **Appendix A.**

2.4 Soil Gas Monitoring

On July 19, 2022, Atlas conducted the twenty-first quarterly round of landfill gas monitoring. SGPs SGP-3B and SG-5 were have been destroyed and were not monitored. Soil gas concentrations of methane, hydrogen sulfide, oxygen and carbon dioxide were measured at the monitoring points using a Landtech Gem 5000 Landfill Gas Analyzer and a QRAE II Gas Analyzer. Additionally, ambient temperature, barometric pressure, wind speed and wind direction were measured and recorded. SGPs are depicted on **Figure 2**. The soil gas monitoring results are summarized on **Table 3**.

Methane was not detected in any of the SGPs. Hydrogen sulfide was not detected in any of the SGPs. The carbon dioxide concentrations ranged from non-detected to a maximum of 10.1% at SG-8. The oxygen concentrations ranged from atmospheric (approximately 20.4%) down to 5.7% at SG-8. The soil gas monitoring results are summarized in **Table 3**.

3.0 CONCLUSIONS

Atlas has performed the twenty first quarterly groundwater and landfill gas monitoring and the second round of PFAS testing on July 19, 2022, at the former Portsmouth town landfill on Park Avenue in Portsmouth, Rhode Island. Based upon the scope of work and sampling activities completed, Atlas concludes the following:

- The sum of PFOA and PFOS exceeded the RIDEM groundwater quality standard of 70 ng/L in MW-2, MW-3, MW-4, MW-5, MW-6, MW-7, and MW-8.

- The sum of six of the PFAS chemicals of focus (PFOA, PFOS, PFHxS, PFNA, PFHpA and PFDA) exceeded 20 ng/L in all of the wells sampled.

- Lead was detected in MW-5 at a concentration exceeding the RIDEM GA Groundwater Objective. No other metals were detected at concentrations exceeding the RIDEM GA Grounder Objectives.

- Cis-1,2-Dichloroethene and vinyl chloride were detected in MW-8 exceeding the RIDEM GA Groundwater objectives. No other VOCs were reported in excess of the RIDEM GA Groundwater Objectives.

- Methane was not detected in any of the SGPs. Hydrogen sulfide was not detected in any of the SGPs. The carbon dioxide concentrations ranged from non-detected to a maximum of 10.1% at SG-8. The oxygen concentrations ranged from atmospheric (approximately 20.4%) down to 5.7% at SG-8.

The next quarterly monitoring event is scheduled for October 2022.

TABLES

Table 2A

Groundwater Analytical Results
Park Avenue, Portsmouth, Rhode Island

Well ID	Date	Antimony	Arsenic	Barium	Beryllium	Cadmium	Chromium	Cobalt	Copper	Lead	Nickel	Selenium	Zinc	1,1-Dichloroethane	1,4-Dichlorobenzene	Benzene	Chlorobenzene	Chloroethane	Chloroform	cis-1,2-Dichloroethene	Dichlorodifluoromethane	Diethyl Ether	Isopropylbenzene	Tetrachloroethene	trans-1,2-Dichloroethene	Trichloroethene (TCE)	Vinyl Chloride
MW-1	5/31/2017	ND (0.025)	ND (0.002)	**0.062**	ND (0.0005)	ND (0.0025)	ND (0.010)	ND (0.010)	ND (0.010)	ND (0.002)	ND (0.025)	ND (0.005)	ND (0.025)	ND (0.0010)	ND (0.0010)	ND (0.0010)	ND (0.0010)	ND (0.0020)	ND (0.0010)	ND (0.0010)	ND (0.0020)	ND (0.0010)	ND (0.0010)	ND (0.0010)	ND (0.0010)	ND (0.0010)	ND (0.0010)
	9/8/2017	ND (0.002)	ND (0.002)	**0.068**	ND (0.0005)	ND (0.0025)	ND (0.010)	ND (0.010)	ND (0.010)	ND (0.002)	ND (0.025)	ND (0.005)	ND (0.025)	ND (0.0010)	ND (0.0010)	ND (0.0010)	ND (0.0010)	ND (0.0020)	ND (0.0010)	ND (0.0010)	ND (0.0020)	ND (0.0010)	ND (0.0010)	ND (0.0010)	ND (0.0010)	ND (0.0010)	ND (0.0010)
	12/21/2017	ND (0.002)	ND (0.002)	**0.101**	ND (0.0005)	ND (0.0025)	ND (0.010)	ND (0.010)	ND (0.010)	ND (0.010)	ND (0.025)	ND (0.025)	**0.034**	ND (0.0010)	ND (0.0010)	ND (0.0010)	ND (0.0010)	ND (0.0020)	ND (0.0010)	ND (0.0010)	ND (0.0020)	ND (0.0010)	ND (0.0010)	ND (0.0010)	ND (0.0010)	ND (0.0010)	ND (0.0010)
	4/13/2018	ND (0.0005)	ND (0.005)	**0.050**	ND (0.0005)	ND (0.0025)	ND (0.010)	ND (0.010)	ND (0.010)	ND (0.010)	ND (0.025)	ND (0.025)	ND (0.025)	ND (0.0010)	ND (0.0010)	ND (0.0010)	ND (0.0010)	ND (0.0020)	ND (0.0010)	ND (0.0010)	ND (0.0020)	ND (0.0010)	ND (0.0010)	ND (0.0010)	ND (0.0010)	ND (0.0010)	ND (0.0010)
	7/31/2018	ND (0.0005)	ND (0.010)	**0.060**	ND (0.0005)	ND (0.0025)	ND (0.010)	ND (0.010)	ND (0.010)	ND (0.010)	ND (0.025)	ND (0.025)	**0.031**	ND (0.0010)	ND (0.0010)	ND (0.0010)	ND (0.0010)	ND (0.0020)	ND (0.0010)	ND (0.0010)	ND (0.0020)	ND (0.0010)	ND (0.0010)	ND (0.0010)	ND (0.0010)	ND (0.0010)	ND (0.0010)
	10/30/2018	ND (0.001)	**0.003**	**0.135**	ND (0.0005)	ND (0.0025)	ND (0.010)	ND (0.010)	**0.030**	ND (0.010)	ND (0.025)	ND (0.005)	**0.137**	ND (0.0010)	ND (0.0010)	ND (0.0010)	ND (0.0010)	ND (0.0020)	ND (0.0010)	ND (0.0010)	ND (0.0020)	ND (0.0010)	ND (0.0010)	ND (0.0010)	ND (0.0010)	ND (0.0010)	ND (0.0010)
	1/9/2019	ND (0.002)	ND (0.002)	**0.059**	ND (0.0005)	ND (0.0025)	ND (0.010)	ND (0.010)	ND (0.010)	ND (0.010)	ND (0.025)	ND (0.005)	ND (0.025)	ND (0.0010)	ND (0.0010)	ND (0.0010)	ND (0.0010)	ND (0.0020)	ND (0.0010)	ND (0.0010)	ND (0.0020)	ND (0.0010)	ND (0.0010)	ND (0.0010)	ND (0.0010)	ND (0.0010)	ND (0.0010)
	4/12/2019	ND (0.001)	ND (0.002)	**0.051**	ND (0.0005)	ND (0.0025)	ND (0.010)	ND (0.010)	ND (0.010)	ND (0.010)	ND (0.025)	ND (0.025)	ND (0.025)	ND (0.0010)	ND (0.0010)	ND (0.0010)	ND (0.0010)	ND (0.0020)	ND (0.0010)	ND (0.0010)	ND (0.0020)	ND (0.0010)	ND (0.0010)	ND (0.0010)	ND (0.0010)	ND (0.0010)	ND (0.0010)
	7/29/2019	ND (0.001)	ND (0.002)	**0.085**	ND (0.0005)	**0.0032**	ND (0.010)	ND (0.010)	ND (0.01)	ND (0.01)	ND (0.025)	ND (0.005)	**0.036**	ND (0.0010)	ND (0.0010)	ND (0.0010)	ND (0.0010)	ND (0.0020)	ND (0.0010)	ND (0.0010)	ND (0.0020)	ND (0.0010)	ND (0.0010)	ND (0.0010)	ND (0.0010)	ND (0.0010)	ND (0.0010)
	10/30/2019	ND (0.001)	ND (0.002)	**0.088**	ND (0.0005)	ND (0.0025)	ND (0.010)	ND (0.010)	ND (0.001)	ND (0.001)	ND (0.025)	ND (0.025)	ND (0.025)	ND (0.0010)	ND (0.0010)	ND (0.0010)	ND (0.0010)	ND (0.0020)	ND (0.0010)	ND (0.0010)	ND (0.0020)	ND (0.0010)	ND (0.0010)	ND (0.0010)	ND (0.0010)	ND (0.0010)	ND (0.0010)
	1/15/2020	ND (0.010)	ND (0.025)	ND (0.25)	ND (0.0005)	ND (0.025)	ND (0.010)	ND (0.010)	ND (0.1)	ND (0.1)	ND (0.25)	ND (0.025)	ND (0.025)	ND (0.0010)	ND (0.0010)	ND (0.0010)	ND (0.0010)	ND (0.0020)	ND (0.0010)	ND (0.0010)	ND (0.0020)	ND (0.0010)	ND (0.0010)	ND (0.0010)	ND (0.0010)	ND (0.0010)	ND (0.0010)
	4/23/2020	ND (0.001)	ND (0.002)	**0.115**	ND (0.0005)	ND (0.0025)	ND (0.010)	ND (0.010)	ND (0.010)	ND (0.010)	ND (0.025)	ND (0.025)	ND (0.025)	ND (0.0010)	ND (0.0010)	ND (0.0010)	ND (0.0010)	ND (0.0020)	ND (0.0010)	ND (0.0010)	ND (0.0020)	ND (0.0010)	ND (0.0010)	ND (0.0010)	ND (0.0010)	ND (0.0010)	ND (0.0010)
	7/30/2020	ND (0.001)	ND (0.002)	**0.134**	ND (0.0005)	ND (0.0025)	ND (0.010)	ND (0.010)	ND (0.010)	ND (0.010)	ND (0.025)	ND (0.025)	**0.040**	ND (0.0010)	ND (0.0010)	ND (0.0010)	ND (0.0010)	ND (0.0020)	ND (0.0010)	ND (0.0010)	ND (0.0020)	ND (0.0010)	ND (0.0010)	ND (0.0010)	ND (0.0010)	ND (0.0010)	ND (0.0010)
	10/19/2020	ND (0.001)	ND (0.002)	**0.155**	ND (0.0005)	ND (0.0025)	ND (0.010)	ND (0.010)	ND (0.010)	ND (0.010)	ND (0.025)	ND (0.025)	**0.057**	ND (0.0010)	ND (0.0010)	ND (0.0010)	ND (0.0010)	ND (0.0020)	ND (0.0010)	ND (0.0010)	ND (0.0020)	ND (0.0010)	ND (0.0010)	ND (0.0010)	ND (0.0010)	ND (0.0010)	ND (0.0010)
	1/5/2021	ND (0.001)	ND (0.002)	**0.105**	ND (0.0005)	ND (0.0025)	ND (0.010)	ND (0.010)	ND (0.010)	ND (0.010)	ND (0.025)	ND (0.025)	ND (0.025)	ND (0.0010)	ND (0.0010)	ND (0.0010)	ND (0.0010)	ND (0.0020)	ND (0.0010)	ND (0.0010)	ND (0.0020)	ND (0.0010)	ND (0.0010)	ND (0.0010)	ND (0.0010)	ND (0.0010)	ND (0.0010)
	4/7/2021	ND (0.001)	ND (0.002)	**0.123**	ND (0.0005)	ND (0.0025)	ND (0.010)	ND (0.010)	ND (0.010)	ND (0.010)	ND (0.025)	ND (0.025)	ND (0.025)	ND (0.0010)	ND (0.0010)	ND (0.0010)	ND (0.0010)	ND (0.0020)	ND (0.0010)	ND (0.0010)	ND (0.0020)	ND (0.0010)	ND (0.0010)	ND (0.0010)	ND (0.0010)	ND (0.0010)	ND (0.0010)
	7/27/2021	ND (0.001)	ND (0.002)	**0.155**	ND (0.0005)	ND (0.0025)	ND (0.010)	ND (0.010)	ND (0.010)	ND (0.010)	ND (0.025)	ND (0.025)	**0.036**	ND (0.0010)	ND (0.0010)	ND (0.0010)	ND (0.0010)	ND (0.0020)	ND (0.0010)	ND (0.0010)	ND (0.0020)	ND (0.0010)	ND (0.0010)	ND (0.0010)	ND (0.0010)	ND (0.0010)	ND (0.0010)
	10/19/2021	ND (0.002)	ND (0.002)	**0.203**	ND (0.0005)	ND (0.0025)	ND (0.010)	ND (0.010)	ND (0.010)	ND (0.010)	ND (0.025)	ND (0.025)	**0.027**	ND (0.0010)	ND (0.0010)	ND (0.0010)	ND (0.0010)	ND (0.0020)	ND (0.0010)	ND (0.0010)	ND (0.0020)	ND (0.0010)	ND (0.0010)	ND (0.0010)	ND (0.0010)	ND (0.0010)	ND (0.0010)
	1/19/2022	ND (0.002)	ND (0.002)	**0.175**	ND (0.0005)	ND (0.0025)	ND (0.010)	ND (0.010)	ND (0.010)	ND (0.010)	ND (0.025)	ND (0.025)	**0.029**	ND (0.0010)	ND (0.0010)	ND (0.0010)	ND (0.0010)	ND (0.0020)	ND (0.0010)	ND (0.0010)	ND (0.0020)	ND (0.0010)	ND (0.0010)	ND (0.0010)	ND (0.0010)	ND (0.0010)	ND (0.0010)
	4/19/2022	ND (0.001)	ND (0.002)	**0.076**	ND (0.0005)	ND (0.0050)	ND (0.010)	ND (0.010)	ND (0.010)	ND (0.010)	ND (0.025)	ND (0.025)	**0.028**	ND (0.0010)	ND (0.0010)	ND (0.0010)	ND (0.0010)	ND (0.0020)	ND (0.0010)	ND (0.0010)	ND (0.0020)	ND (0.0010)	ND (0.0010)	ND (0.0010)	ND (0.0010)	ND (0.0010)	ND (0.0010)
	7/19/2022	ND (0.001)	**0.0031**	**0.180**	ND (0.0007)	ND (0.0050)	ND (0.0015)	**0.00056**	**0.003**	ND (0.001)	ND (0.001)	ND (0.001)	**0.042**	ND (0.0010)	ND (0.0010)	ND (0.0010)	ND (0.0010)	ND (0.0020)	ND (0.0010)	ND (0.0010)	ND (0.0020)	ND (0.0010)	ND (0.0010)	ND (0.0010)	ND (0.0010)	ND (0.0010)	ND (0.0010)
MW-2	5/31/2017	ND (0.025)	ND (0.002	**0.084**	ND (0.0005)	ND (0.0025)	ND (0.010)	ND (0.010)	ND (0.010)	**0.005**	ND (0.025)	ND (0.005)	**0.044**	ND (0.0010)	ND (0.0010)	ND (0.0010)	ND (0.0010)	ND (0.0020)	ND (0.0010)	ND (0.0010)	ND (0.0020)	ND (0.0010)	ND (0.0010)	ND (0.0010)	ND (0.0010)	ND (0.0010)	ND (0.0010)
	9/8/2017	ND (0.002)	ND (0.002)	**0.177**	ND (0.0005)	ND (0.0025)	ND (0.010)	ND (0.010)	ND (0.010)	ND (0.010)	ND (0.025)	ND (0.005)	(ND 0.025)	ND (0.0010)	ND (0.0010)	ND (0.0010)	**0.0012**	ND (0.0020)	ND (0.0010)	ND (0.0010)	ND (0.0020)	ND (0.0010)	**0.0034**	ND (0.0010)	ND (0.0010)	ND (0.0010)	ND (0.0010)
	12/21/2017	ND (0.002)	ND (0.002)	**0.187**	ND (0.0005)	ND (0.0025)	ND (0.010)	ND (0.010)	ND (0.010)	**0.014**	ND (0.025)	ND (0.025)	**0.089**	ND (0.0010)	ND (0.0010)	ND (0.0010)	ND (0.0010)	ND (0.0020)	ND (0.0010)	ND (0.0010)	ND (0.0020)	ND (0.0010)	ND (0.0010)	ND (0.0010)	ND (0.0010)	ND (0.0010)	ND (0.0010)
	4/13/2018	ND (0.0005)	ND (0.010)	**0.094**	ND (0.0005)	ND (0.0025)	ND (0.010)	ND (0.010)	**0.017**	ND (0.010)	ND (0.025)	ND (0.025)	**0.051**	ND (0.0010)	ND (0.0010)	ND (0.0010)	ND (0.0010)	ND (0.0020)	ND (0.0010)	ND (0.0010)	ND (0.0020)	ND (0.0010)	ND (0.0010)	ND (0.0010)	ND (0.0010)	ND (0.0010)	ND (0.0010)
	7/31/2018	ND (0.0005)	ND (0.002)	**0.119**	ND (0.0005)	ND (0.0025)	ND (0.010)	ND (0.010)	ND (0.010)	ND (0.010)	ND (0.025)	ND (0.025)	**0.060**	ND (0.0010)	ND (0.0010)	ND (0.0010)	ND (0.0010)	ND (0.0020)	ND (0.0010)	ND (0.0010)	ND (0.0020)	ND (0.0010)	**0.0012**	ND (0.0010)	ND (0.0010)	ND (0.0010)	ND (0.0010)
	10/30/2018	ND (0.001)	ND (0.002)	**0.141**	ND (0.0005)	ND (0.0025)	ND (0.010)	ND (0.010)	ND (0.010)	**0.011**	ND (0.025)	ND (0.025)	**0.051**	ND (0.0010)	ND (0.0010)	ND (0.0010)	ND (0.0010)	ND (0.0020)	ND (0.0010)	ND (0.0010)	ND (0.0020)	ND (0.0010)	ND (0.0010)	ND (0.0010)	ND (0.0010)	ND (0.0010)	ND (0.0010)
	1/9/2019	ND (0.002)	**0.003**	**0.070**	ND (0.0005)	ND (0.0025)	ND (0.010)	ND (0.010)	ND (0.010)	ND (0.010)	ND (0.025)	ND (0.005)	ND (0.025)	ND (0.0010)	ND (0.0010)	ND (0.0010)	ND (0.0010)	ND (0.0020)	ND (0.0010)	ND (0.0010)	ND (0.0020)	ND (0.0010)	ND (0.0010)	ND (0.0010)	ND (0.0010)	ND (0.0010)	ND (0.0010)
	4/12/2019	ND (0.001)	ND (0.002)	**0.069**	ND (0.0005)	ND (0.0025)	ND (0.010)	ND (0.010)	ND (0.010)	**0.015**	ND (0.025)	ND (0.025)	**0.071**	ND (0.0010)	ND (0.0010)	ND (0.0010)	ND (0.0010)	ND (0.0020)	ND (0.0010)	ND (0.0010)	ND (0.0020)	ND (0.0010)	ND (0.0010)	ND (0.0010)	ND (0.0010)	ND (0.0010)	ND (0.0010)
	7/29/2019	ND (0.001)	ND (0.002)	**0.088**	ND (0.0005)	ND (0.0025)	ND (0.010)	ND (0.010)	ND (0.01)	ND (0.01)	ND (0.025)	ND (0.005)	**0.041**	ND (0.0010)	ND (0.0010)	ND (0.0010)	ND (0.0010)	ND (0.0020)	ND (0.0010)	ND (0.0010)	ND (0.0020)	ND (0.0010)	ND (0.0010)	ND (0.0010)	ND (0.0010)	ND (0.0010)	ND (0.0010)
	10/30/2019	ND (0.001)	**0.003**	**0.082**	ND (0.0005)	ND (0.0025)	ND (0.010)	ND (0.010)	ND (0.01)	ND (0.01)	ND (0.025)	ND (0.005)	**0.076**	ND (0.0010)	ND (0.0010)	ND (0.0010)	ND (0.0010)	ND (0.0020)	ND (0.0010)	ND (0.0010)	ND (0.0020)	ND (0.0010)	**0.0014**	ND (0.0010)	ND (0.0010)	ND (0.0010)	ND (0.0010)
	1/15/2020	ND (0.001)	**0.004**	**0.093**	ND (0.0005)	ND (0.0025)	ND (0.010)	ND (0.010)	ND (0.010)	ND (0.010)	ND (0.025)	ND (0.025)	ND (0.025)	ND (0.0010)	ND (0.0010)	ND (0.0010)	ND (0.0010)	ND (0.0020)	ND (0.0010)	ND (0.0010)	ND (0.0020)	ND (0.0010)	ND (0.0010)	ND (0.0010)	ND (0.0010)	ND (0.0010)	ND (0.0010)
	4/23/2020	ND (0.001)	**0.003**	**0.074**	ND (0.0005)	ND (0.0025)	ND (0.010)	ND (0.010)	ND (0.010)	ND (0.010)	ND (0.025)	ND (0.025)	ND (0.025)	ND (0.0010)	ND (0.0010)	ND (0.0010)	ND (0.0010)	ND (0.0020)	ND (0.0010)	ND (0.0010)	ND (0.0020)	ND (0.0010)	ND (0.0010)	ND (0.0010)	ND (0.0010)	ND (0.0010)	ND (0.0010)
	7/30/2020	ND (0.001)	ND (0.002)	**0.096**	ND (0.0005)	ND (0.0025)	ND (0.010)	ND (0.010)	ND (0.010)	ND (0.010)	ND (0.025)	ND (0.025)	ND (0.025)	ND (0.0010)	ND (0.0010)	ND (0.0010)	**0.001**	ND (0.0020)	ND (0.0010)	ND (0.0010)	ND (0.0020)	ND (0.0010)	**0.0138**	ND (0.0010)	ND (0.0010)	ND (0.0010)	ND (0.0010)
	10/19/2020	ND (0.001)	ND (0.002)	**0.115**	ND (0.0005)	ND (0.0025)	ND (0.010)	ND (0.010)	ND (0.010)	ND (0.010)	ND (0.025)	ND (0.025)	ND (0.025)	ND (0.0010)	ND (0.0010)	**0.0012**	**0.0019**	ND (0.0020)	ND (0.0010)	ND (0.0010)	ND (0.0020)	ND (0.0010)	**0.0283**	ND (0.0010)	ND (0.0010)	ND (0.0010)	ND (0.0010)
	1/5/2021	ND (0.001)	**0.008**	**0.105**	ND (0.0005)	ND (0.0025)	ND (0.010)	ND (0.010)	**0.016**	**0.011**	ND (0.025)	ND (0.025)	**0.231**	ND (0.0010)	ND (0.0010)	ND (0.0010)	ND (0.0010)	ND (0.0020)	ND (0.0010)	ND (0.0010)	ND (0.0020)	ND (0.0010)	**0.0283**	ND (0.0010)	ND (0.0010)	ND (0.0010)	ND (0.0010)
	4/7/2021	ND (0.001)	**0.004**	**0.064**	ND (0.0005)	ND (0.0025)	ND (0.010)	ND (0.010)	ND (0.010)	ND (0.010)	ND (0.025)	ND (0.025)	**0.041**	ND (0.0010)	ND (0.0010)	ND (0.0010)	ND (0.0010)	ND (0.0020)	ND (0.0010)	ND (0.0010)	ND (0.0020)	ND (0.0010)	ND (0.0010)	ND (0.0010)	ND (0.0010)	ND (0.0010)	ND (0.0010)
	7/27/2021	ND (0.001)	**0.003**	**0.078**	ND (0.0005)	ND (0.0025)	ND (0.010)	ND (0.010)	ND (0.010)	ND (0.010)	ND (0.025)	ND (0.025)	**0.071**	ND (0.0010)	ND (0.0010)	ND (0.0010)	ND (0.0010)	ND (0.0020)	ND (0.0010)	ND (0.0010)	ND (0.0020)	ND (0.0010)	**0.0045**	ND (0.0010)	ND (0.0010)	ND (0.0010)	ND (0.0010)
	10/19/2021	ND (0.002)	**0.004**	**0.094**	ND (0.0005)	ND (0.0025)	ND (0.010)	ND (0.010)	ND (0.010)	ND (0.010)	ND (0.025)	ND (0.025)	**0.039**	ND (0.0010)	ND (0.0010)	ND (0.0010)	ND (0.0010)	ND (0.0020)	ND (0.0010)	ND (0.0010)	ND (0.0020)	ND (0.0010)	ND (0.0010)	ND (0.0010)	ND (0.0010)	ND (0.0010)	ND (0.0010)
	1/19/2022	ND (0.002)	**0.004**	**0.112**	ND (0.0005)	ND (0.0025)	ND (0.010)	ND (0.010)	**0.011**	ND (0.010)	ND (0.025)	ND (0.025)	**0.095**	ND (0.0010)	ND (0.0010)	ND (0.0010)	ND (0.0010)	ND (0.0020)	ND (0.0010)	ND (0.0010)	ND (0.0020)	ND (0.0010)	ND (0.0010)	ND (0.0010)	ND (0.0010)	ND (0.0010)	ND (0.0010)
	4/19/2022	ND (0.001)	ND (0.002)	**0.065**	ND (0.0005)	ND (0.0050)	ND (0.010)	ND (0.010)	ND (0.010)	ND (0.010)	ND (0.025)	ND (0.025)	**0.039**	ND (0.0010)	ND (0.0010)	ND (0.0010)	ND (0.0010)	ND (0.0020)	ND (0.0010)	ND (0.0010)	ND (0.0020)	ND (0.0010)	ND (0.0010)	ND (0.0010)	ND (0.0010)	ND (0.0010)	ND (0.0010)
	7/19/2022	ND (0.001)	**0.0038**	**0.100**	ND (0.0007)	ND (0.0050)	ND (0.0015)	**0.00056**	**0.0043**	**0.0021**	ND (0.001)	ND (0.001)	**0.037**	ND (0.0010)	ND (0.0010)	ND (0.0010)	**0.0011**	**0.0065**	ND (0.0010)	ND (0.0010)	ND (0.0020)	ND (0.0010)	**0.011**	ND (0.0010)	ND (0.0010)	ND (0.0010)	ND (0.0010)
RIDEM GA Groundwater Objectives		**0.006**	**0.01**	**2**	**0.004**	**0.005**	**0.1**	**NS**	**NS**	**0.015**	**0.1**	**0.05**	**NS**	**NS**	**0.075**	**0.005**	**0.1**	**NS**	**NS**	**0.07**	**NS**	**NS**	**NS**	**0.005**	**0.1**	**0.005**	**0.002**

Notes: All units in mg/L = milligrams per liter
NS = No Standard
ND = not detected above method detection limit
Highlighted Exceeds RIDEM GA Groundwater Objective

Table 2A

Groundwater Analytical Results
Park Avenue, Portsmouth, Rhode Island

Well ID	Date	Antimony	Arsenic	Barium	Beryllium	Cadmium	Chromium	Cobalt	Copper	Lead	Nickel	Selenium	Zinc	1,1-Dichloroethane	1,4-Dichlorobenzene	Benzene	Chlorobenzene	Chloroethane	Chloroform	cis-1,2-Dichloroethene	Dichlorodifluoromethane	Diethyl Ether	Isopropylbenzene	Tetrachloroethene	trans-1,2-Dichloroethene	Trichloroethene (TCE)	Vinyl Chloride
MW-3	5/31/2017	ND (0.025)	ND (0.002)	**0.681**	ND (0.0005)	ND (0.0025)	ND (0.010)	ND (0.010)	ND (0.010)	ND (0.002)	ND (0.025)	ND (0.005)	**0.035**	ND (0.0010)	**0.0011**	ND (0.0010)	**0.0040**	ND (0.0020)	ND (0.0010)	ND (0.0010)	ND (0.0020)	**0.0011**	**0.0240**	ND (0.0010)	ND (0.0010)	ND (0.0010)	ND (0.0010)
	9/8/2017	ND (0.002)	ND (0.002)	**0.606**	ND (0.0005)	ND (0.0025)	ND (0.010)	ND (0.010)	ND (0.010)	**0.027**	ND (0.025)	ND (0.005)	ND (0.025)	ND (0.0010)	ND (0.0010)	ND (0.0010)	**0.0026**	ND (0.0020)	ND (0.0010)	ND (0.0010)	ND (0.0020)	**0.0014**	**0.0025**	ND (0.0010)	ND (0.0010)	ND (0.0010)	ND (0.0010)
	12/21/2017	ND (0.002)	ND (0.002)	**1.01**	ND (0.0005)	ND (0.0025)	ND (0.010)	ND (0.010)	ND (0.010)	**0.025**	ND (0.025)	ND (0.025)	ND (0.025)	ND (0.0010)	**0.0010**	ND (0.0010)	**0.0029**	ND (0.0020)	ND (0.0010)	ND (0.0010)	**0.0073**	**0.0017**	**0.0191**	ND (0.0010)	ND (0.0010)	ND (0.0010)	ND (0.0010)
	4/13/2018	ND (0.0005)	ND (0.006)	**0.460**	ND (0.0005)	ND (0.0025)	ND (0.010)	ND (0.010)	ND (0.010)	ND (0.010)	ND (0.025)	**0.029**	ND (0.025)	ND (0.0010)	**0.0012**	ND (0.0010)	**0.0082**	ND (0.0020)	ND (0.0010)	ND (0.0010)	**0.0051**	ND (0.0010)	**0.0117**	ND (0.0010)	ND (0.0010)	ND (0.0010)	ND (0.0010)
	7/31/2018	ND (0.0005)	ND (0.010)	**0.654**	ND (0.0005)	ND (0.0025)	ND (0.010)	ND (0.010)	ND (0.010)	ND (0.010)	ND (0.025)	ND (0.025)	ND (0.025)	ND (0.0010)	ND (0.0010)	ND (0.0010)	**0.0036**	ND (0.0020)	ND (0.0010)	ND (0.0010)	ND (0.0020)	ND (0.0010)	ND (0.0010)	ND (0.0010)	ND (0.0010)	ND (0.0010)	ND (0.0010)
	10/30/2018	ND (0.001)	ND (0.002)	**0.607**	ND (0.0005)	ND (0.0025)	ND (0.010)	ND (0.010)	ND (0.010)	ND (0.010)	ND (0.025)	ND (0.005)	**0.027**	ND (0.0010)	ND (0.0010)	ND (0.0010)	**0.0024**	ND (0.0020)	ND (0.0010)	ND (0.0010)	ND (0.0020)	**0.0012**	**0.0020**	ND (0.0010)	ND (0.0010)	ND (0.0010)	ND (0.0010)
	1/9/2019	ND (0.002)	ND (0.002)	**0.519**	ND (0.0005)	ND (0.0025)	ND (0.010)	ND (0.010)	ND (0.010)	ND (0.010)	ND (0.025)	ND (0.005)	ND (0.025)	ND (0.0010)	**0.0013**	ND (0.0010)	**0.0053**	ND (0.0020)	ND (0.0010)	ND (0.0010)	**0.0068**	ND (0.0010)	**0.0050**	ND (0.0010)	ND (0.0010)	ND (0.0010)	ND (0.0010)
	4/12/2019	ND (0.001)	ND (0.002)	**0.506**	ND (0.0005)	ND (0.0025)	ND (0.010)	ND (0.010)	ND (0.010)	**0.016**	ND (0.025)	ND (0.025)	ND (0.025)	ND (0.0010)	ND (0.0010)	ND (0.0010)	**0.0044**	ND (0.0020)	ND (0.0010)	ND (0.0010)	ND (0.0020)	ND (0.0010)	**0.0013**	ND (0.0010)	ND (0.0010)	ND (0.0010)	ND (0.0010)
	7/29/2019	ND (0.001)	ND (0.002)	**0.482**	ND (0.0005)	**0.0027**	ND (0.010)	ND (0.010)	ND (0.01)	ND (0.01)	ND (0.025)	ND (0.005)	**0.030**	ND (0.0010)	**0.0010**	ND (0.0010)	**0.0037**	ND (0.0020)	ND (0.0010)	ND (0.0010)	ND (0.0020)	ND (0.0010)	**0.0011**	ND (0.0010)	ND (0.0010)	ND (0.0010)	ND (0.0010)
	10/30/2019	ND (0.001)	**0.004**	**0.470**	ND (0.0005)	ND (0.0025)	ND (0.010)	ND (0.010)	ND (0.01)	ND (0.01)	ND (0.025)	ND (0.005)	**0.043**	ND (0.0010)	ND (0.0010)	ND (0.0010)	**0.0036**	ND (0.0020)	ND (0.0010)	ND (0.0010)	ND (0.0020)	ND (0.0010)	ND (0.0010)	ND (0.0010)	ND (0.0010)	ND (0.0010)	ND (0.0010)
	1/15/2020	ND (0.001)	ND (0.002)	**0.561**	ND (0.0005)	ND (0.0025)	ND (0.010)	ND (0.010)	ND (0.010)	ND (0.010)	ND (0.025)	ND (0.025)	ND (0.025)	ND (0.0010)	ND (0.0010)	ND (0.0010)	**0.0033**	ND (0.0020)	ND (0.0010)	ND (0.0010)	ND (0.0020)	**0.0011**	**0.0036**	ND (0.0010)	ND (0.0010)	ND (0.0010)	ND (0.0010)
	4/23/2020	ND (0.001)	ND (0.002)	**0.086**	**0.0007**	ND (0.0025)	ND (0.010)	**0.022**	ND (0.010)	ND (0.010)	**0.057**	ND (0.025)	**0.309**	ND (0.0010)	ND (0.0010)	ND (0.0010)	**0.001**	ND (0.0020)	ND (0.0010)	ND (0.0010)	ND (0.0020)	ND (0.0010)	ND (0.0010)	ND (0.0010)	ND (0.0010)	ND (0.0010)	ND (0.0010)
	7/30/2020	ND (0.001)	ND (0.002)	**0.225**	ND (0.0005)	ND (0.0025)	ND (0.010)	ND (0.010)	ND (0.010)	ND (0.010)	ND (0.025)	ND (0.025)	**0.145**	ND (0.0010)	ND (0.0010)	ND (0.0010)	**0.0022**	ND (0.0020)	ND (0.0010)	ND (0.0010)	ND (0.0020)	ND (0.0010)	ND (0.0010)	ND (0.0010)	ND (0.0010)	ND (0.0010)	ND (0.0010)
	10/19/2020	ND (0.001)	ND (0.002)	**0.175**	ND (0.0005)	ND (0.0025)	ND (0.010)	ND (0.010)	ND (0.010)	ND (0.010)	ND (0.025)	ND (0.025)	**0.114**	ND (0.0010)	ND (0.0010)	ND (0.0010)	**0.0025**	ND (0.0020)	ND (0.0010)	ND (0.0010)	ND (0.0020)	ND (0.0010)	ND (0.0010)	ND (0.0010)	ND (0.0010)	ND (0.0010)	ND (0.0010)
	1/5/2021	ND (0.001)	ND (0.002)	**0.292**	**0.0019**	ND (0.0025)	ND (0.010)	**0.086**	**0.015**	ND (0.010)	**0.129**	ND (0.025)	**0.840**	ND (0.0010)	ND (0.0010)	ND (0.0010)	**0.0017**	ND (0.0020)	ND (0.0010)	ND (0.0010)	**0.0023**	ND (0.0010)	**0.0034**	ND (0.0010)	ND (0.0010)	ND (0.0010)	ND (0.0010)
	4/7/2021	ND (0.001)	ND (0.002)	**0.394**	ND (0.0005)	ND (0.0025)	ND (0.010)	ND (0.010)	ND (0.010)	ND (0.010)	ND (0.025)	ND (0.025)	**0.075**	ND (0.0010)	ND (0.0010)	ND (0.0010)	**0.0023**	ND (0.0020)	ND (0.0010)	ND (0.0010)	ND (0.0020)	ND (0.0010)	**0.0024**	ND (0.0010)	ND (0.0010)	ND (0.0010)	ND (0.0010)
	7/27/2021	ND (0.001)	ND (0.002)	**0.054**	ND (0.0005)	ND (0.0025)	ND (0.010)	**0.011**	ND (0.010)	ND (0.010)	ND (0.025)	ND (0.025)	**0.083**	ND (0.0010)	ND (0.0010)	ND (0.0010)	**0.0016**	ND (0.0020)	ND (0.0010)	ND (0.0010)	ND (0.0020)	ND (0.0010)	ND (0.0010)	ND (0.0010)	ND (0.0010)	ND (0.0010)	ND (0.0010)
	10/19/2021	ND (0.002)	ND (0.002)	**0.072**	ND (0.0005)	ND (0.0025)	ND (0.010)	ND (0.010)	ND (0.010)	ND (0.010)	ND (0.025)	ND (0.025)	**0.032**	ND (0.0010)	ND (0.0010)	ND (0.0010)	**0.0017**	ND (0.0020)	ND (0.0010)	ND (0.0010)	ND (0.0020)	ND (0.0010)	ND (0.0010)	ND (0.0010)	ND (0.0010)	ND (0.0010)	ND (0.0010)
	1/19/2022	ND (0.002)	ND (0.002)	**0.045**	**0.0008**	ND (0.0025)	ND (0.010)	**0.021**	ND (0.010)	ND (0.010)	**0.035**	ND (0.025)	**0.177**	ND (0.0010)	ND (0.0010)	ND (0.0010)	**0.0016**	ND (0.0020)	ND (0.0010)	ND (0.0010)	ND (0.0020)	ND (0.0010)	ND (0.0010)	ND (0.0010)	ND (0.0010)	ND (0.0010)	ND (0.0010)
	4/19/2022	ND (0.001)	ND (0.002)	ND (0.025)	ND (0.0005)	**0.0059**	ND (0.010)	**0.031**	ND (0.010)	ND (0.010)	**0.033**	ND (0.025)	**0.198**	ND (0.0010)	ND (0.0010)	ND (0.0010)	ND (0.0010)	ND (0.0020)	ND (0.0010)	ND (0.0010)	ND (0.0020)	ND (0.0010)	ND (0.0010)	ND (0.0010)	ND (0.0010)	ND (0.0010)	ND (0.0010)
	7/19/2022	ND (0.001)	**0.0043**	**0.039**	ND (0.0007)	ND (0.0050)	ND (0.0015)	**0.012**	**0.0018**	**0.0032**	**0.0068**	ND (0.001)	**0.037**	ND (0.0010)	ND (0.0010)	ND (0.0010)	**0.0017**	ND (0.0020)	ND (0.0010)	ND (0.0010)	ND (0.0020)	ND (0.0010)	ND (0.0010)	ND (0.0010)	ND (0.0010)	ND (0.0010)	ND (0.0010)
MW-4	5/31/2017	ND (0.025)	ND (0.002	**0.050**	ND (0.0005)	**0.0043**	ND (0.010)	ND (0.010)	**0.057**	ND (0.002)	**0.042**	ND (0.005)	**1.53**	ND (0.0010)	ND (0.0010)	ND (0.0010)	ND (0.0010)	ND (0.0020)	ND (0.0010)	ND (0.0010)	ND (0.0020)	ND (0.0010)	ND (0.0010)	ND (0.0010)	ND (0.0010)	ND (0.0010)	ND (0.0010)
	9/8/2017	ND (0.002)	ND (0.002)	**0.030**	ND (0.0005)	**0.0025**	ND (0.010)	ND (0.010)	**0.021**	ND (0.002)	ND (0.025)	ND (0.005)	**0.562**	ND (0.0010)	ND (0.0010)	ND (0.0010)	ND (0.0010)	ND (0.0020)	**0.0014**	ND (0.0010)	ND (0.0020)	ND (0.0010)	ND (0.0010)	ND (0.0010)	ND (0.0010)	ND (0.0010)	ND (0.0010)
	12/21/2017	ND (0.002)	ND (0.002)	**0.040**	ND (0.0005)	ND (0.0025)	ND (0.010)	ND (0.010)	**0.017**	ND (0.010)	ND (0.025)	ND (0.025)	**0.264**	ND (0.0010)	ND (0.0010)	ND (0.0010)	ND (0.0010)	ND (0.0020)	ND (0.0010)	ND (0.0010)	ND (0.0020)	ND (0.0010)	ND (0.0010)	ND (0.0010)	ND (0.0010)	ND (0.0010)	ND (0.0010)
	4/13/2018	ND (0.002)	ND (0.005)	**0.0490**	ND (0.0005)	**0.0036**	ND (0.010)	ND (0.010)	**0.043**	ND (0.010)	**0.055**	ND (0.025)	**1.90**	ND (0.0010)	ND (0.0010)	ND (0.0010)	ND (0.0010)	ND (0.0020)	ND (0.0010)	ND (0.0010)	ND (0.0020)	ND (0.0010)	ND (0.0010)	ND (0.0010)	ND (0.0010)	ND (0.0010)	ND (0.0010)
	7/31/2018	ND (0.0005)	ND (0.010)	**0.032**	ND (0.0005)	ND (0.0025)	ND (0.010)	ND (0.010)	**0.031**	ND (0.010)	ND (0.025)	ND (0.025)	**0.806**	ND (0.0010)	ND (0.0010)	ND (0.0010)	ND (0.0010)	ND (0.0020)	ND (0.0010)	ND (0.0010)	ND (0.0020)	ND (0.0010)	ND (0.0010)	ND (0.0010)	ND (0.0010)	ND (0.0010)	ND (0.0010)
	10/30/2018	ND (0.001)	ND (0.002)	**0.070**	ND (0.0005)	**0.0044**	ND (0.010)	ND (0.010)	**0.052**	ND (0.010)	**0.036**	ND (0.005)	**1.50**	ND (0.0010)	ND (0.0010)	ND (0.0010)	ND (0.0010)	ND (0.0020)	ND (0.0010)	ND (0.0010)	ND (0.0020)	ND (0.0010)	ND (0.0010)	ND (0.0010)	ND (0.0010)	ND (0.0010)	ND (0.0010)
	1/9/2019	ND (0.002)	ND (0.002)	**0.060**	ND (0.0005)	**0.0030**	ND (0.010)	ND (0.010)	**0.062**	ND (0.010)	**0.059**	ND (0.005)	**1.88**	ND (0.0010)	ND (0.0010)	ND (0.0010)	ND (0.0010)	ND (0.0020)	ND (0.0010)	ND (0.0010)	ND (0.0020)	ND (0.0010)	ND (0.0010)	ND (0.0010)	ND (0.0010)	ND (0.0010)	ND (0.0010)
	4/12/2019	ND (0.001)	ND (0.002)	**0.047**	ND (0.0005)	ND (0.0025)	ND (0.010)	ND (0.010)	**0.034**	ND (0.010)	**0.038**	ND (0.025)	**1.34**	ND (0.0010)	ND (0.0010)	ND (0.0010)	ND (0.0010)	ND (0.0020)	ND (0.0010)	ND (0.0010)	ND (0.0020)	ND (0.0010)	ND (0.0010)	ND (0.0010)	ND (0.0010)	ND (0.0010)	ND (0.0010)
	7/29/2019	ND (0.001)	ND (0.002)	**0.057**	ND (0.0005)	**0.0063**	ND (0.010)	ND (0.010)	**0.052**	ND (0.01)	**0.046**	ND (0.005)	**1.53**	ND (0.0010)	ND (0.0010)	ND (0.0010)	ND (0.0010)	ND (0.0020)	ND (0.0010)	ND (0.0010)	ND (0.0020)	ND (0.0010)	ND (0.0010)	ND (0.0010)	ND (0.0010)	ND (0.0010)	ND (0.0010)
	10/30/2019	ND (0.001)	ND (0.002)	**0.470**	ND (0.0005)	ND (0.0025)	ND (0.010)	ND (0.010)	ND (0.01)	ND (0.01)	ND (0.025)	ND (0.005)	**0.043**	ND (0.0010)	ND (0.0010)	ND (0.0010)	**0.0036**	ND (0.0020)	ND (0.0010)	ND (0.0010)	ND (0.0020)	ND (0.0010)	ND (0.0010)	ND (0.0010)	ND (0.0010)	ND (0.0010)	ND (0.0010)
	1/15/2020	ND (0.001)	ND (0.002)	**0.069**	ND (0.0005)	**0.0040**	ND (0.010)	ND (0.010)	**0.069**	ND (0.010)	**0.070**	ND (0.025)	**2.41**	ND (0.0010)	ND (0.0010)	ND (0.0010)	ND (0.0010)	ND (0.0020)	ND (0.0010)	ND (0.0010)	ND (0.0020)	ND (0.0010)	ND (0.0010)	**0.0014**	ND (0.0010)	ND (0.0010)	ND (0.0010)
	4/23/2020	ND (0.001)	ND (0.002)	**0.063**	ND (0.0005)	**0.0033**	ND (0.010)	ND (0.010)	**0.073**	ND (0.010)	**0.061**	ND (0.025)	**2.06**	ND (0.0010)	ND (0.0010)	ND (0.0010)	ND (0.0010)	ND (0.0020)	ND (0.0010)	ND (0.0010)	ND (0.0020)	ND (0.0010)	ND (0.0010)	**0.0011**	ND (0.0010)	ND (0.0010)	ND (0.0010)
	7/30/2020	ND (0.001)	ND (0.002)	ND (0.025)	ND (0.0005)	ND (0.0025)	ND (0.010)	ND (0.010)	**0.033**	ND (0.010)	ND (0.025)	ND (0.025)	**1.00**	ND (0.0010)	ND (0.0010)	ND (0.0010)	ND (0.0010)	ND (0.0020)	ND (0.0010)	ND (0.0010)	ND (0.0020)	ND (0.0010)	ND (0.0010)	ND (0.0010)	ND (0.0010)	ND (0.0010)	ND (0.0010)
	10/19/2020	ND (0.001)	ND (0.002)	**0.043**	ND (0.0005)	ND (0.0025)	ND (0.010)	ND (0.010)	**0.036**	ND (0.010)	ND (0.025)	ND (0.025)	**1.23**	ND (0.0010)	ND (0.0010)	ND (0.0010)	ND (0.0010)	ND (0.0020)	**0.0013**	ND (0.0010)	ND (0.0020)	ND (0.0010)	ND (0.0010)	ND (0.0010)	ND (0.0010)	ND (0.0010)	ND (0.0010)
	1/5/2021	ND (0.001)	ND (0.002)	**0.062**	ND (0.0005)	**0.0037**	ND (0.010)	ND (0.010)	**0.065**	ND (0.010)	**0.064**	ND (0.025)	**2.12**	ND (0.0010)	ND (0.0010)	ND (0.0010)	ND (0.0010)	ND (0.0020)	ND (0.0010)	ND (0.0010)	ND (0.0020)	ND (0.0010)	ND (0.0010)	**0.0014**	ND (0.0010)	ND (0.0010)	ND (0.0010)
	4/7/2021	ND (0.001)	ND (0.002)	**0.028**	ND (0.0005)	ND (0.0025)	ND (0.010)	ND (0.010)	**0.058**	ND (0.010)	ND (0.025)	ND (0.025)	**0.85**	ND (0.0010)	ND (0.0010)	ND (0.0010)	ND (0.0010)	ND (0.0020)	ND (0.0010)	ND (0.0010)	ND (0.0020)	ND (0.0010)	ND (0.0010)	ND (0.0010)	ND (0.0010)	ND (0.0010)	ND (0.0010)
	7/27/2021	ND (0.001)	ND (0.002)	**0.046**	ND (0.0005)	**0.0034**	ND (0.010)	ND (0.010)	**0.038**	ND (0.010)	**0.029**	ND (0.025)	**1.21**	ND (0.0010)	ND (0.0010)	ND (0.0010)	ND (0.0010)	ND (0.0020)	ND (0.0010)	ND (0.0010)	ND (0.0020)	ND (0.0010)	ND (0.0010)	ND (0.0010)	ND (0.0010)	ND (0.0010)	ND (0.0010)
	10/19/2021	ND (0.002)	ND (0.002)	**0.074**	ND (0.0005)	**0.0052**	ND (0.010)	ND (0.010)	**0.076**	**0.2611**	**0.049**	ND (0.025)	**1.69**	ND (0.0010)	ND (0.0010)	ND (0.0010)	ND (0.0010)	ND (0.0020)	ND (0.0010)	ND (0.0010)	ND (0.0020)	ND (0.0010)	ND (0.0010)	ND (0.0010)	ND (0.0010)	ND (0.0010)	ND (0.0010)
	1/19/2022	ND (0.002)	ND (0.002)	**0.046**	ND (0.0005)	**0.0047**	ND (0.010)	ND (0.010)	**0.102**	ND (0.010)	**0.035**	ND (0.025)	**1.36**	ND (0.0010)	ND (0.0010)	ND (0.0010)	ND (0.0010)	ND (0.0020)	ND (0.0010)	ND (0.0010)	ND (0.0020)	ND (0.0010)	ND (0.0010)	ND (0.0010)	ND (0.0010)	ND (0.0010)	ND (0.0010)
	4/19/2022	ND (0.001)	ND (0.002)	**0.053**	ND (0.0005)	**0.0070**	ND (0.010)	ND (0.010)	**0.081**	ND (0.010)	**0.046**	ND (0.025)	**1.82**	ND (0.0010)	ND (0.0010)	ND (0.0010)	ND (0.0010)	ND (0.0020)	ND (0.0010)	ND (0.0010)	ND (0.0020)	ND (0.0010)	ND (0.0010)	ND (0.0010)	ND (0.0010)	ND (0.0010)	ND (0.0010)
	7/19/2022	ND (0.001)	ND (0.001)	**0.062**	ND (0.0007)	**0.0041**	ND (0.0015)	**0.00038**	**0.058**	**0.0031**	**0.027**	ND (0.001)	**1.50**	ND (0.0010)	ND (0.0010)	ND (0.0010)	ND (0.0010)	ND (0.0020)	ND (0.0010)	ND (0.0010)	ND (0.0020)	ND (0.0010)	ND (0.0010)	ND (0.0010)	ND (0.0010)	ND (0.0010)	ND (0.0010)
RIDEM GA Groundwater Objectives		**0.006**	**0.01**	**2**	**0.004**	**0.005**	**0.1**	**NS**	**NS**	**0.015**	**0.1**	**0.05**	**NS**	**NS**	**0.075**	**0.005**	**0.1**	**NS**	**NS**	**0.07**	**NS**	**NS**	**NS**	**0.005**	**0.1**	**0.005**	**0.002**

Notes:
All units in mg/L = milligrams per liter
NS = No Standard
ND = not detected above method detection limit
Highlighted — Exceeds RIDEM GA Groundwater Objective

Table 2A

Groundwater Analytical Results
Park Avenue, Portsmouth, Rhode Island

Well ID	Date	Antimony	Arsenic	Barium	Beryllium	Cadmium	Chromium	Cobalt	Copper	Lead	Nickel	Selenium	Zinc	1,1-Dichloroethane	1,4-Dichlorobenzene	Benzene	Chlorobenzene	Chloroethane	Chloroform	cis-1,2-Dichloroethene	Dichlorodifluoromethane	Diethyl Ether	Isopropylbenzene	Tetrachloroethene	trans-1,2-Dichloroethene	Trichloroethene (TCE)	Vinyl Chloride
MW-5	1/19/2022	ND (0.002)	**0.006**	**0.095**	ND (0.0005)	ND (0.0025)	**0.013**	**0.014**	**0.025**	**0.038**	ND (0.025)	ND (0.025)	**0.106**	ND (0.0010)	ND (0.0010)	ND (0.0010)	ND (0.0010)	ND (0.0020)	ND (0.0010)	ND (0.0010)	ND (0.0020)	ND (0.0010)	ND (0.0010)	ND (0.0010)	ND (0.0010)	ND (0.0010)	ND (0.0010)
	4/19/2022	ND (0.001)	ND (0.002)	**0.041**	ND (0.0005)	ND (0.0050)	ND (0.010)	ND (0.010)	**0.013**	ND (0.010)	ND (0.025)	ND (0.025)	**0.042**	ND (0.0010)	ND (0.0010)	ND (0.0010)	ND (0.0010)	ND (0.0020)	ND (0.0010)	ND (0.0010)	ND (0.0020)	ND (0.0010)	ND (0.0010)	ND (0.0010)	ND (0.0010)	ND (0.0010)	ND (0.0010)
	7/19/2022	ND (0.001)	**0.0085**	**0.180**	ND (0.0007)	**0.00052**	**0.021**	**0.014**	**0.049**	**0.110**	**0.024**	ND (0.001)	**0.210**	ND (0.0010)	ND (0.0010)	ND (0.0010)	ND (0.0010)	ND (0.0020)	ND (0.0010)	ND (0.0010)	ND (0.0020)	ND (0.0010)	ND (0.0010)	ND (0.0010)	ND (0.0010)	ND (0.0010)	ND (0.0010)
MW-6	1/19/2022	ND (0.002)	ND (0.002)	**0.351**	ND (0.0005)	ND (0.0025)	ND (0.010)	ND (0.010)	**0.017**	ND (0.010)	ND (0.025)	ND (0.025)	**0.115**	ND (0.0010)	**0.0018**	**0.0019**	**0.0048**	ND (0.0020)	ND (0.0010)	ND (0.0010)	ND (0.0020)	**0.0036**	**0.0099**	ND (0.0010)	ND (0.0010)	ND (0.0010)	ND (0.0010)
	4/19/2022	ND (0.001)	ND (0.002)	**0.180**	ND (0.0005)	**0.0056**	ND (0.010)	ND (0.010)	**0.016**	ND (0.010)	ND (0.025)	ND (0.025)	**0.157**	ND (0.0010)	ND (0.0010)	ND (0.0010)	**0.0023**	ND (0.0020)	ND (0.0010)	ND (0.0010)	ND (0.0020)	**0.0013**	**0.0024**	ND (0.0010)	ND (0.0010)	ND (0.0010)	ND (0.0010)
	7/19/2022	ND (0.001)	ND (0.001)	**0.320**	ND (0.0007)	ND (0.0005)	**0.0016**	**0.0011**	**0.0016**	**0.0025**	**0.0028**	ND (0.001)	**0.021**	ND (0.0010)	**0.0016**	**0.0013**	**0.0045**	ND (0.0020)	ND (0.0010)	ND (0.0010)	ND (0.0020)	**0.0013**	**0.0071**	ND (0.0010)	ND (0.0010)	ND (0.0010)	ND (0.0010)
MW-7	1/19/2022	ND (0.002)	**0.023**	**0.212**	ND (0.0005)	ND (0.0025)	**0.020**	ND (0.010)	**0.031**	**0.015**	ND (0.025)	ND (0.025)	**0.056**	ND (0.0010)	ND (0.0010)	ND (0.0010)	ND (0.0010)	ND (0.0020)	ND (0.0010)	ND (0.0010)	ND (0.0020)	ND (0.0010)	**0.0069**	ND (0.0010)	ND (0.0010)	ND (0.0010)	ND (0.0010)
	4/19/2022	ND (0.001)	**0.008**	**0.099**	ND (0.0005)	**0.0051**	ND (0.010)	ND (0.010)	ND (0.010)	ND (0.010)	ND (0.025)	ND (0.025)	**0.122**	ND (0.0010)	ND (0.0010)	ND (0.0010)	**0.0013**	ND (0.0020)	ND (0.0010)	ND (0.0010)	ND (0.0020)	ND (0.0010)	**0.0120**	ND (0.0010)	ND (0.0010)	ND (0.0010)	ND (0.0010)
	7/19/2022	ND (0.001)	**0.0092**	**0.160**	ND (0.0007)	ND (0.0005)	**0.0074**	**0.0039**	**0.0083**	**0.0043**	**0.0054**	ND (0.001)	**0.0018**	ND (0.0010)	ND (0.0010)	ND (0.0010)	ND (0.0010)	ND (0.0020)	ND (0.0010)	ND (0.0010)	ND (0.0020)	ND (0.0010)	**0.0092**	ND (0.0010)	ND (0.0010)	ND (0.0010)	ND (0.0010)
MW-8	1/19/2022	ND (0.002)	**0.012**	**0.079**	ND (0.0005)	ND (0.0025)	ND (0.010)	**0.011**	ND (0.010)	ND (0.010)	ND (0.025)	ND (0.025)	**0.129**	ND (0.0010)	ND (0.0010)	ND (0.0010)	**0.0012**	ND (0.0020)	ND (0.0010)	**0.126**	ND (0.0020)	ND (0.0010)	ND (0.0010)	ND (0.0010)	ND (0.0010)	ND (0.0010)	ND (0.0010)
	4/19/2022	ND (0.001)	**0.005**	**0.069**	ND (0.0005)	**0.0069**	ND (0.010)	**0.019**	ND (0.010)	ND (0.010)	ND (0.025)	ND (0.025)	**0.178**	**0.0024**	ND (0.0010)	ND (0.0010)	ND (0.0010)	**0.0024**	ND (0.0010)	**0.115**	ND (0.0020)	ND (0.0010)	ND (0.0010)	ND (0.0010)	**0.0042**	**0.0015**	**0.0246**
	7/19/2022	ND (0.001)	**0.0077**	**0.085**	ND (0.0007)	ND (0.0005)	**0.0038**	**0.015**	**0.0049**	**0.0046**	**0.012**	ND (0.001)	**0.140**	**0.0020**	ND (0.0010)	ND (0.0010)	ND (0.0010)	**0.0030**	ND (0.0010)	**0.089**	ND (0.0020)	ND (0.0010)	ND (0.0010)	ND (0.0010)	**0.0038**	**0.0011**	**0.020**
RIDEM GA Groundwater Objectives		**0.006**	**0.01**	**2**	**0.004**	**0.005**	**0.1**	**NS**	**NS**	**0.015**	**0.1**	**0.05**	**NS**	**NS**	**0.075**	**0.005**	**0.1**	**NS**	**NS**	**0.07**	**NS**	**NS**	**NS**	**0.005**	**0.1**	**0.005**	**0.002**

Notes: All units in mg/L = milligrams per liter
NS = No Standard
ND = not detected above method detection limit
Highlighted Exceeds RIDEM GA Groundwater Objective

Table 2B

Summary of PFAS Detected in Groundwater
Former Portsmouth Landfill
Park Avenue
Portsmouth, Rhode Island

Sample ID	Sample Date	PFAS by USEPA 537M via isotope dilution method																											
		Perfluoroalkyl Carboxylic Acids (PFCAs)											Perfluoroalkyl Sulfonic Acids (PFSAs)							Fluorotelomers			Perfluoroalkane Sulfonamides (FASAs)		Perfluoroalkane Sulfonyl Substances		SUM OF COMPOUNDS OF FOCUS (***)	TOTAL PFOA AND PFOS
		Perfluorobutanoic acid (PFBA)	Perfluoropentanoic acid (PFPeA)	Perfluorohexanoic acid (PFHxA)	Perfluoroheptanoic acid (PFHpA)	Perfluorooctanoic acid (PFOA)	Perfluorononanoic acid (PFNA)	Perfluorodecanoic acid (PFDA)	Perfluoroundecanoic acid (PFUnA)	Perfluorododecanoic acid (PFDoA)	Perfluorotridecanoic acid (PFTrA)	Perfluorotetradecanoic acid (PFTeA)	Perfluorobutane sulfonic acid (PFBS)	Perfluoropentane sulfonic acid (PFPeS)	Perfluorohexane sulfonic acid (PFHxS)	Perfluoroheptane sulfonic acid (PFHpS)	Perfluorooctane sulfonic acid (PFOS)	Perfluorononanesulfonic acid (PFNS)	Perfluorodecane sulfonic acid (PFDS)	8:2 fluorotelomer sulfonic acid (8:2 FTSA)	6:2 fluorotelomer sulfonic acid (6:2 FTSA)	4:2 fluorotelomer sulfonic acid (4:2 FTSA)	Perfluorooctanesulfonamide (FOSA)	N-methyl perfluorooctane sulfonamide (MeFOSA)	N-ethyl perfluorooctanesulfonamido acetic acid (EtFOSAA)	N-methyl perfluorooctanesulfonamido acetic acid (MeFOSAA)		
	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	375-73-5	2706-91-4	355-46-4	375-92-8	1763-23-1	68259-12-1	335-77-3	39108-34-4	27619-97-2	757124-72-4	754-91-6	31506-32-8	2991-50-6	2355-31-9		
		NS	NS	NS	***	***	***	***	NS	NS	NS	NS	NS	NS	***	NS	***	NS	NS	NS	NS	NS	NS	NS	NS	NS	20	70
MW-1	1/19/2022	**28**	**19**	**22**	**15**	**25**	<5.1	<3.9	<6.2	<8.0	<6.4	<6.8	<5.6	<5.5	**22**	<6.5	<5.7	<7.2	<6.4	<6.7	<6.5	<5.4	<3.6	<7.8	<7.0	<8.0	**62**	**25**
	7/19/2022	<24	**18**	**22**	**17**	**33**	<9.6	<9.6	<9.6	<9.6	<9.6	<9.6	<9.6	NA	**26**	<9.6	<9.6	NA	<9.6	<9.6	<24	NA	<9.6	NA	<24	<24	**76**	**33**
MW-2	1/19/2022	**20**	**30**	**30**	**41**	**170**	**27**	<3.9	<6.2	<8.0	<6.4	<6.8	**7.9**	**6.9**	**29**	**11**	**180**	<7.2	<6.4	<6.7	<6.5	<5.4	<3.6	<7.8	**19**	**13**	**447**	**350**
	7/19/2022	<22	**27**	**32**	**57**	**150**	**17**	<9.0	<9.0	<9.0	<9.0	<9.0	**11**	NA	**37**	<9.0	**160**	NA	<9.0	<9.0	<22	NA	<9.0	NA	<22	<22	**421**	**310**
MW-3	1/19/2022	**8.8**	**14**	**13**	**20**	**110**	<5.1	<3.9	<6.2	<8.0	<6.4	<6.8	<5.6	<5.5	**13**	<6.5	**96**	<7.2	<6.4	<6.7	<6.5	<5.4	<3.6	<7.8	**37**	<8.0	**239**	**206**
	7/19/2022	<24	**13**	**15**	**25**	**150**	<9.7	<9.7	<9.7	<9.7	<9.7	<9.7	<9.7	NA	**14**	<9.7	**110**	NA	<9.7	<9.7	<24	NA	<9.7	NA	**72**	<24	**299**	**260**
MW-4	1/19/2022	**5.2**	**8.0**	**6.7**	**7.6**	**46**	<5.1	<3.9	<6.2	<8.0	<6.4	<6.8	**6.6 J**	<5.5	<4.4	<6.5	**130**	<7.2	<6.4	<6.7	<6.5	<5.4	<3.6	<7.8	<7.0	<8.0	**184**	**176**
	7/19/2022	**15**	**14**	**10**	**8.4**	**27**	**2.0**	<1.7	<1.7	<1.7	<1.7	<1.7	**8.6**	NA	**3.0**	<1.7	**150**	NA	<1.7	<1.7	<4.3	NA	<1.7	NA	<4.3	<4.3	**190**	**177**
MW-5	1/19/2022	**21**	**18**	**14**	**8.6**	**15**	<5.1	<3.9	<6.2	<8.0	<6.4	<6.8	<5.6	<5.5	<4.4	<6.5	**21**	<7.2	<6.4	<6.7	<6.5	<5.4	<3.6	<7.8	<7.0	<8.0	**45**	**36**
	7/19/2022	<25	**25**	**20**	**14.0**	**27**	<10	<10	<10	<10	<10	<10	<10	NA	<10	<10	**64**	NA	<10	<10	<25	NA	<10	NA	<25	<25	**105**	**91**
MW-6	1/19/2022	**11**	**38**	**23**	**19**	**130**	**9.8**	<3.9	<6.2	<8.0	<6.4	<6.8	**8.2**	<5.5	**9.7**	**7.3 J**	**550**	<7.2	<6.4	<6.7	<6.5	<5.4	<3.6	<7.8	**27**	<8.0	**719**	**680**
	7/19/2022	<24	**31**	**21**	**23**	**120**	**12**	<9.4	<9.4	<9.4	<9.4	<9.4	**9.5**	NA	<9.4	<9.4	**590**	NA	<9.4	<9.4	<24	NA	<9.4	NA	**53**	<24	**745**	**710**
MW-7	1/19/2022	**17**	**36**	**26**	**26**	**130**	**9.1**	<3.9	<6.2	<8.0	<6.4	<6.8	**13**	<5.5	**9.1**	<6.5	**400**	<7.2	<6.4	<6.7	<6.5	<5.4	<3.6	<7.8	**8.5**	<8.0	**574**	**530**
	7/19/2022	**<23**	**22**	**23**	**23**	**130**	**11.0**	<9.3	<9.3	<9.3	<9.3	<9.3	<9.3	NA	**11**	<9.3	**480**	NA	<9.3	<9.3	<23	NA	<9.3	NA	<23	<23	**655**	**610**
MW-8	1/19/2022	**25**	**39**	**32**	**26**	**100**	<5.1	<3.9	<6.2	<8.0	<6.4	<6.8	<5.6	<5.5	**8.2**	<6.5	**120**	<7.2	<6.4	<6.7	<6.5	<5.4	<3.6	<7.8	<7.0	<8.0	**126**	**220**
	7/19/2022	**25**	**40**	**33**	**33**	**140**	<9.9	<9.9	<9.9	<9.9	<9.9	<9.9	<9.9	NA	**12**	<9.9	**240**	NA	<9.9	<9.9	<25	NA	<9.9	NA	<25	<25	**425**	**380**
Blank	1/19/2022	<3.9	<6.7	<5.3	<6.7	<5.0	<5.1	<3.9	<6.2	<8.0	<6.4	<6.8	<5.6	<5.5	<4.4	<6.5	<5.7	<7.2	<6.4	<6.7	<6.5	<5.4	<3.6	<7.8	<7.0	<8.0	ND	ND
	7/19/2022	<4.3	<1.7	<1.7	<1.7	<1.7	<1.7	<1.7	<1.7	<1.7	<1.7	<1.7	<1.7	NA	<1.7	<1.7	<1.7	NA	<1.7	<1.7	<4.3	NA	<1.7	NA	<4.3	<4.3	ND	ND

Notes:

*** = Compounds of focus, these compounds are compared to 20 ng/L
Highlighted values indicate that the concentrations of the six compounds of focus exceed 20 ng/L
Highlighted values indicate concentrations of PFOA and PFOS exceed the sum of 70 ng/L
All concentrations are expressed in nanograms per liter (ng/L)
Bold entries indicate concentrations above the laboratory method detection limits
<1.0 = Less than laboratory detection limits, which is below the method detection limit of 1.0 ng/L
NS = No Established Standard ; NA = Not Analyzed; ND = None Detected
The 1/19/2022 samples analyzed by Bureau Veritas Laboratories a subcontractor of ESS Laboratory
The 7/19/2022 samples analyzed by Eurofins Environment Testing New England (Eurofins)

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Location	Date	Temperature (°F)	Barometric Pressure (Inches Hg)	Wind Velocity (Miles Per Hour)	Wind Direction	Ambient Methane (CH_4) (%)	Ambient Oxygen (O_2) (%)	Soil Gas Methane (CH_4) (%)	Soil Gas Oxygen (O_2) (%)	Soil Gas Hydrogen Sulfide (H_2S) (ppm)	CO_2 (%)
SG-1	5/30/2017	54	30.24	4	SE	0.0	20.5	0	20.5	0	0
	9/8/2017	72	30.03	5	S	0.0	19.2	0	19.1	0	0
	12/21/2017	32	30.24	8	NW	0.0	21.6	0	21.2	0	0
	4/13/2018	45	29.92	6	SSW	0.0	21.9	0	21.6	0	0
	7/31/2018	85	30.14	1	S	0.0	19.4	0	19.4	0	0
	10/30/2018	50	29.97	8	SSE	0.0	20.9	0	20.8	0	0.1
	1/9/2019	43	29.38	5	S	0.0	20.8	0	20.8	0	0.1
	4/12/2019	49	30.10	6	NW	0.0	21.3	No flow, obstructed			
	4/25/2019	54	29.86	3	N	0.0	20.9	0	20.7	0	0
	7/29/2019	87	30.01	4	SE	0.0	21.9	Standpipe laying on ground. Tubing appeared intact but no flow.			
	10/30/2019	67	30.36	0	---	0.0	20.2	Standpipe repaired			
	1/15/2020	44	30.17	6	S	0.0	21.2	0	21.2	0	0
	4/23/2020	46	30.05	5	S	0.0	20.8	0	20.8	0	0
	7/30/2020	78	29.86	5	S	0.0	20.0	0	20.0	0	0
	10/19/2020	67	30.23	4	S	0.0	20.8	0	20.8	0	0
	1/5/2021	32	29.75	8	E	0.0	20.1	0	20.1	0	0
	4/7/2021	55	29.83	6	E	0.0	19.2	0	19.2	0	0
	7/27/2021	81	29.95	5	SE	0.0	20.3	0	20.0	0	0.4
	10/19/2021	50	29.88	11	W	0.0	20.8	0	20.6	0	0
	1/19/2022	35	29.95	6	S	0.0	22.0	0	22.0	0	0
	4/19/2022	50	29.49	10	SW	0.0	21.0	0	21.0	0	0
	7/19/2022	80	29.67	2	SW	0.0	20.3	0	20.3	0	0
SG-2	5/30/2017	56	30.22	6	SE	0.0	20.6	0	20.6	0	0
	9/8/2017	72	30.03	8	S	0.0	19.4	0	19.3	0	0
	12/21/2017	32	30.24	10	NW	0.0	21.6	0	21.4	0	0
	4/13/2018	72	30.03	8	S	0.0	19.4	0	19.3	0	0
	7/31/2018	85	30.15	12	SW	0.0	19.8	0	19.7	0	0.1
	10/30/2018	50	29.95	8	SE	0.0	21.1	0	20.9	0	0.1
	1/9/2019	43	29.34	10	S	0.0	21.2	0	21.2	0	0
	4/12/2019	49	30.10	7	NE	0.0	21.2	0	21.2	0	0.2
	7/29/2019	99	30.04	3	S	0.0	21.8	0.1	21.6	0	0.2
	10/30/2019	67	30.36	0	---	0.0	20.2	0	20.6	0	0.1
	1/15/2020	45	30.14	5	S	0.0	21.3	0	21.2	0	0
	4/23/2020	49	29.99	3	S	0.0	20.8	0	20.8	0	0
	7/30/2020	80	28.86	10	S	0.0	20.4	0	20.4	0	0
	10/19/2020	65	30.23	2	S	0.0	20.9	0	20.9	0	0
	1/5/2021	32	29.75	3	E	0.0	20.1	0	20.1	0	0
	4/7/2021	56	29.91	4	E	0.0	20.8	0	20.8	0	0
	7/27/2021	84	29.95	8	SE	0.0	20.5	0	20.5	0	0
	10/19/2021	50	29.86	12	W	0.0	20.8	0	20.4	0	0
	1/19/2022	35	29.95	6	S	0.0	22.2	0	19.9	0	0
	4/19/2022	50	29.50	10	SW	0.0	21.0	0	19.8	0	0
	7/19/2022	78	29.67	4	SW	0.0	20.3	0	20.3	0	0

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SG-3	5/30/2017	56	30.22	6	SE	0.0	20.4	9.7	1.3	0	12.5
	9/8/2017	73	30.04	4	SE	0.0	19.7	4.1	11.7	0	5.0
	12/21/2017	32	30.24	10	NW	0.0	21.6	4.6	7.8	0	9.0
	4/13/2018	73	30.04	4	SE	0.0	19.7	4.1	11.7	0	5.0
	7/31/2018	85	30.16	12	SW	0.0	19.7	7.7	5.2	2	10.4
	10/30/2018	51	29.95	10	SSE	0.0	21.8	13.5	0.2	4	2.0
	1/9/2019	42	29.33	12	S	0.0	21.3	16.0	0.0	4	11.7
	4/12/2019	50	30.10	6	N	0.0	20.9	3.6	0.1	1	11.1
	7/29/2019	109	30.05	2	S	0.0	21.6	15.4	0.6	4	11.9
	10/30/2019	67	30.36	0	---	0.0	20.9	10.7	0.2	4	14.4
	1/15/2020	45	30.13	2	S	0.0	21.2	3.0	12.4	1.1	4.8
	4/23/2020	52	29.95	5	S	0.0	21.3	0	21.2	0	0
	7/30/2020	83	29.86	5	S	0.0	20.6	0.1`	20.5	0	0
	10/19/2020	64	30.23	1	S	0.0	21.2	2.7	12.6	2	6.1
	1/5/2021	32	29.75	5	E	0.0	20.1	0	20.1	0	0
	4/7/2021	60	29.91	3	E	0.0	21.7	2.6	13.4	1	3.9
	7/27/2021	86	29.95	9	S	0.0	20.6	0	20.5	0	0
	10/19/2021	52	29.85	10	W	0.0	20.8	15.8	0.3	6	14.1
	1/19/2022	34	29.96	8	S	0.0	22.3	0	22.3	0	0
	4/19/2022	50	29.49	17	SW	0.0	21.2	0	21.1	0	0
	7/19/2022	78	29.67	4	SW	0.0	20.4	0	20.3	0	0.4
SG-4	5/30/2017	56	30.20	8	SE	0.0	20.1	0	19.6	0	0.2
	9/8/2017	73	30.05	6	SE	0.0	19.2	0	18.5	0	0.4
	12/21/2017	32	30.24	6	NW	0.0	21.6	0	21.0	0	0.5
	4/13/2018	73	30.05	6	SE	0.0	19.2	0	18.5	0	0.4
	7/31/2018	85	30.13	1	S	0.0	19.7	0	19.3	0	0.4
	10/30/2018	55	29.96	14	SSE	0.0	21.7	0	18.8	0	15.3
	1/9/2019	43	29.34	10	S	0.0	21.6	0	18.7	0	2.1
	4/12/2019	47	30.10	5	N	0.0	20.7	0	19.9	0	1.4
	7/29/2019	104	30.03	0	SE	0.0	21.3	0	20.3	0	0.9
	10/30/2019	67	30.37	0	---	0.0	21.0	0	18.7	0	1.2
	1/15/2020	44	30.12	2	S	0.0	21.2	0	20.5	0	1.3
	4/23/2020	53	29.97	1	S	0.0	21.1	0	20.7	0	0.4
	7/30/2020	83	29.87	12	S	0.0	20.6	0	20.6	0	0.8
	10/19/2020	60	30.23	2	S	0.0	21.2	0	20.6	0	0.5
	1/5/2021	32	29.75	2	E	0.0	20.1	0	20.1	0	0
	4/7/2021	60	29.91	5	E	0.0	21.6	0	21.3	0	0.3
	7/27/2021	89	29.60	2	SW	0.0	20.7	0	20.7	0	0.3
	10/19/2021	53	29.85	8	W	0.0	20.9	0	20.2	0	1.5
	1/19/2022	34	29.97	5	S	0.0	21.3	0	21.3	0	0
	4/19/2022	50	29.49	20	SW	0.0	21.0	0	20.0	0	1.8
	7/19/2022	80	29.65	3	SW	0.0	20.4	0	20.4	0	0

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SG-5	1/19/2022	32	30.00	5	S	0.0	21.6	0	21.6	0	0
	4/19/2022	50	29.50	19	SW	0.0	21.4	0	17.9	0	2.0
	Destroyed										
SG-6	1/19/2022	33	30.00	2	S	0.0	21.8	0	18.8	0	1.7
	4/19/2022	50	29.49	18	SW	0.0	21.0	0	18.0	0	1.8
	7/19/2022	78	29.65	5	SW	0.0	20.4	0	16.2	0	4.7
SG-7	1/19/2022	34	29.97	5	S	0.0	22.3	0	20.8	0	1.3
	4/19/2022	50	29.49	20	SW	0.0	21.0	0	18.3	0	1.7
	7/19/2022	77	29.65	4	SW	0.0	20.5	0	19.9	0	0.7
SG-8	1/19/2022	33	30.00	5	S	0.0	21.8	3.2	0.5	0	6.0
	4/19/2022	50	29.49	15	SW	0.0	21.4	4.4	0.1	0	7.6
	7/19/2022	85	29.67	5	SW	0.0	20.4	0	5.7	0	10.1

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SG-3A	4/13/2018	45	29.92	6	SSW	0.0	21.9	0	20.1	0	0.7
	7/31/2018	85	30.16	12	SW	0.0	19.9	0	17.0	0	3.3
	10/30/2018	51	29.96	7	SE	0.0	21.4	0	13.5	0	6.5
	1/9/2019	42	29.33	10	S	0.0	21.2	0	17.0	0	3.9
	4/12/2019	46	30.20	9	N	0.0	21.2	0	19.4	1	2.7
	7/29/2019	101	30.04	5	S	0.0	21.9	0.7	0.6	0	14.5
	10/30/2019	67	30.37	0	---	0.0	20.2	0	7.2	0	9.4
	1/15/2020	44	30.13	5	S	0.0	21.2	0	19.8	0	2.2
	4/23/2020	51	29.97	2	S	0.0	21.2	0	20.9	0.5	0.2
	7/30/2020	84	29.86	8	S	0.0	20.4	0	20	0	4.1
	10/19/2020	65	30.23	2	S	0.0	20.9	0	19.7	0	6.4
	1/5/2021	32	29.75	3	E	0.0	20.1	0	17.3	0	2.9
	4/7/2021	58	29.91	0	---	0.0	20.1	0	19.3	0	1.8
	7/27/2021	84	29.95	8	SE	0.0	20.8	0	20.2	0	3.9
	10/19/2021	52	29.85	9	W	0.0	20.9	0	18.6	0	3.5
	1/19/2022	39	29.96	6	S	0.0	20.9	0	18.9	0	2
	4/19/2022	50	29.49	16	SW	0.0	21.0	0	17.6	0	5.1
	7/19/2022	80	29.67	4	SW	0.0	20.4	0	17.0	0	8.5
SG-3B	4/13/2018	45	29.92	6	SSW	0.0	21.9	0	18.2	0	2.6
	7/31/2018	85	30.16	12	SW	0.0	19.9	0	10.3	0	8.6
	10/30/2018	51	29.95	7	SSE	0.0	21.5	0	15.3	0	6.0
	1/9/2019	42	29.33	15	S	0.0	21.1	0	15.9	0	5.0
	4/12/2019	48	30.20	7	NE	0.0	21.1	0	17.2	1	3.4
	7/29/2019	88	30.04	4	S	0.0	21.9	Inaccessible - Dense Vegetation			
	10/30/2019	67	30.34	0	---	0.0	20.6	0	7.4	0	10.9
	1/15/2020	44	30.13	5	S	0.0	21.2	0	18.1	0	2.9
	4/23/2020	51	29.97	5	S	0.0	21.2	0	20.7	0	0.6
	7/30/2020	84	29.86	10	S	0.0	20.4	0	20.1	0	0.9
	10/19/2020	65	30.23	3	S	0.0	20.9	0	20.6	0	3.3
	1/5/2021	32	29.75	5	E	0.0	20.1	0	16.6	0	3.5
	4/7/2021	58	29.91	3	E	0.0	21.3	0	17.0	0	2.8
	7/27/2021	84	29.95	8	SE	0.0	20.2	0	20.1	0	4.8
	10/19/2021	52	29.85	10	W	0.0	20.9	0	18.8	0	6.2
	Destroyed										

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SG-3C	4/13/2018	45	29.92	6	SSW	0.0	21.9	0	17.6	0	3.3
	7/31/2018	85	30.16	12	SW	0.0	19.8	0	12.3	0	7.9
	10/30/2018	52	29.95	9	SSE	0.0	21.4	0	21.6	0	0.1
	1/9/2019	42	29.34	12	S	0.0	21.2	0	20.0	0	3.0
	4/12/2019	48	30.20	7	N	0.0	20.9	0	21.2	0	0.2
	7/29/2019	88	30.04	4	S	0.0	21.9	Inaccessible - Dense Vegetation			
	10/30/2019	67	30.37	0	---	0.0	20.7	0	20.9	0	0.1
	1/15/2020	44	30.12	2	S	0.0	21.2	0	21.0	0	0.1
	4/23/2020	52	29.97	2	S	0.0	21.2	0	20.4	0	2.5
	7/30/2020	85	29.87	7	S	0.0	20.4	0	19.8	0	2
	10/19/2020	65	30.23	3	S	0.0	20.9	0	20.7	0	1.8
	1/5/2021	33	29.75	3	E	0.0	20.1	0	18.6	0	2.1
	4/7/2021	60	29.91	6	E	0.0	21.3	0	19.0	0	2.6
	7/27/2021	86	29.95	9	S	0.0	20.7	0	20.3	0	3.0
	10/19/2021	52	29.85	7	W	0.0	20.9	0	20.0	0	1.7
	1/19/2022	38	29.96	4	S	0.0	20.9	0	19.1	0	1.8
	4/19/2022	50	29.49	18	SW	0.0	21.4	0	19.9	0	2.4
	7/19/2022	80	29.67	3	SW	0.0	20.4	0	18.5	0	3.0
SG-3D	4/13/2018	45	29.92	6	SSW	0.0	21.9	0	20.7	0	0.8
	7/31/2018	85	30.16	12	SW	0.0	19.2	0	18.1	0	1.1
	10/30/2018	52	29.95	9	SE	0.0	21.9	0	20.1	0	1.7
	1/9/2019	41	29.34	10	S	0.0	21.2	0	19.5	0	1.0
	4/12/2019	50	30.30	6	N	0.0	20.8	0	19.9	0	1.3
	7/29/2019	88	30.04	4	S	0.0	21.9	0	20.6	0	1.2
	10/30/2019	67	30.37	0	---	0.0	21.0	0	19.4	0	1.2
	1/15/2020	45	30.13	2	S	0.0	21.2	0	20.6	0	1.0
	4/23/2020	52	29.95	3	S	0.0	21.3	0	20.1	0	1.2
	7/30/2020	85	29.87	5	S	0.0	20.4	0	19.6	0	1.7
	10/19/2020	66	30.23	3	S	0.0	20.9	0	20.2	0	1.0
	1/5/2021	33	29.75	6	E	0.0	20.4	0	19.9	0	1.0
	4/7/2021	60	29.91	5	E	0.0	21.8	0	20.6	0	0.8
	7/27/2021	86	29.95	9	S	0.0	20.5	0	20.2	0	0.7
	10/19/2021	52	29.85	10	W	0.0	20.8	0	19.2	0	2.0
	1/19/2022	39	29.96	5	S	0.0	20.9	0	20.2	0	0.6
	4/19/2022	50	29.49	20	SW	0.0	21.1	0	20.4	0	1.9
	7/19/2022	80	29.67	5	SW	0.0	20.4	0	19.7	0	2.1

Lower explosive limit (LEL) of methane (CH4) is 5%
Landfill gases measured using a Landtech Gem 2000 Plus or 5000 Plus Landfill Gas Monitor

Table 3
Soil Gas Monitoring Data
Former Portsmouth Landfill
Park Avenue, Portsmouth, RI

		Ambient						Soil Gas			
Location	Date	Temperature (°F)	Barometric Pressure (Inches Hg)	Wind Velocity (Miles Per Hour)	Wind Direction	Ambient Methane (CH_4) (%)	Ambient Oxygen (O_2) (%)	Soil Gas Methane (CH_4) (%)	Soil Gas Oxygen (O_2) (%)	Soil Gas Hydrogen Sulfide (H_2S) (ppm)	CO_2 (%)
SG-3E	4/13/2018	45	29.92	6	SSW	0.0	21.9	0	14.9	0	5.4
	7/31/2018	85	30.16	12	SW	0.0	19.2	0	13.7	0	5.2
	10/30/2018	54	29.94	12	SSE	0.0	21.7	0	13.0	0	7.4
	1/9/2019	41	29.33	10	S	0.0	21.3	0	14.4	0	4.8
	4/12/2019	50	30.30	5	N	0.0	20.8	0	15.1	0	4.8
	7/29/2019	102	30.04	1	S	0.0	21.5	0	13.6	0	5.4
	10/30/2019	67	30.80	0	---	0.0	20.9	0	10.5	0	9.1
	1/15/2020	45	30.13	0	---	0.0	21.2	0	19.5	0	2.0
	4/23/2020	52	29.95	3	S	0.0	21.4	0	20.3	0	1.1
	7/30/2020	85	29.87	5	S	0.0	20.4	0	19.6	0	3.6
	10/19/2020	66	30.23	2	S	0.0	20.9	0	20.3	0	4.9
	1/5/2021	33	29.75	4	E	0.0	20.6	0	17.8	0	3.3
	4/7/2021	60	29.91	5	E	0.0	21.6	0	17.4	0	2.7
	7/27/2021	86	29.95	9	S	0.0	20.5	0	20.1	0	0
	10/19/2021	53	29.85	7	W	0.0	20.9	0	18.8	0	5.1
	1/19/2022	38	29.96	5	S	0.0	20.7	0	18.6	0	2.2
	4/19/2022	50	29.49	20	SW	0.0	21.1	0	14.7	0	5.2
	7/19/2022	80	29.67	8	SW	0.0	20.4	0	16.9	0	5.5
SG-3F	4/13/2018	45	29.92	6	SSW	0.0	21.9	0	19.4	0	2.2
	7/31/2018	85	30.16	12	SW	0.0	19.3	0	12.9	1	5.9
	10/30/2018	53	29.94	14	SE	0.0	21.8	0	5.2	0	12.8
	1/9/2019	41	29.33	12	S	0.0	21.3	0	19.0	0	5.1
	4/12/2019	49	30.30	4	NE	0.0	20.8	0	14.3	0	5.6
	7/29/2019	102	30.40	1	S	0.0	21.4	0.1	6	0	11.8
	10/30/2019	67	30.37	0	---	0.0	20.9	0	8.7	0	10.3
	1/15/2020	45	30.13	2	S	0.0	21.2	0	15.2	0	3.5
	4/23/2020	52	29.94	1	S	0.0	21.5	0	12.1	0	7.9
	7/30/2020	85	29.87	10	S	0.0	20.4	0	14.3	0	6.4
	10/19/2020	66	30.23	2	S	0.0	20.9	0	16.5	0	9.0
	1/5/2021	33	29.75	5	E	0.0	20.5	0	15.0	0	5.7
	4/7/2021	60	29.91	3	E	0.0	21.9	0	14.8	0	5.0
	7/27/2021	86	29.95	9	S	0.0	20.9	0	16.9	0	9.6
	10/19/2021	53	29.85	7	W	0.0	20.9	0	16.2	0	7.8
	1/19/2022	38	29.96	5	S	0.0	20.7	0	15.9	0	3.1
	4/19/2022	50	29.50	18	SW	0.0	21.1	0	19.0	0	2.1
	7/19/2022	80	29.67	5	SW	0.0	20.4	0	17.4	0	8.7

Lower explosive limit (LEL) of methane (CH4) is 5%

Landfill gases measured using a Landtech Gem 2000 Plus or 5000 Plus Landfill Gas Monitor

Table 3
Soil Gas Monitoring Data
Former Portsmouth Landfill
Park Avenue, Portsmouth, RI

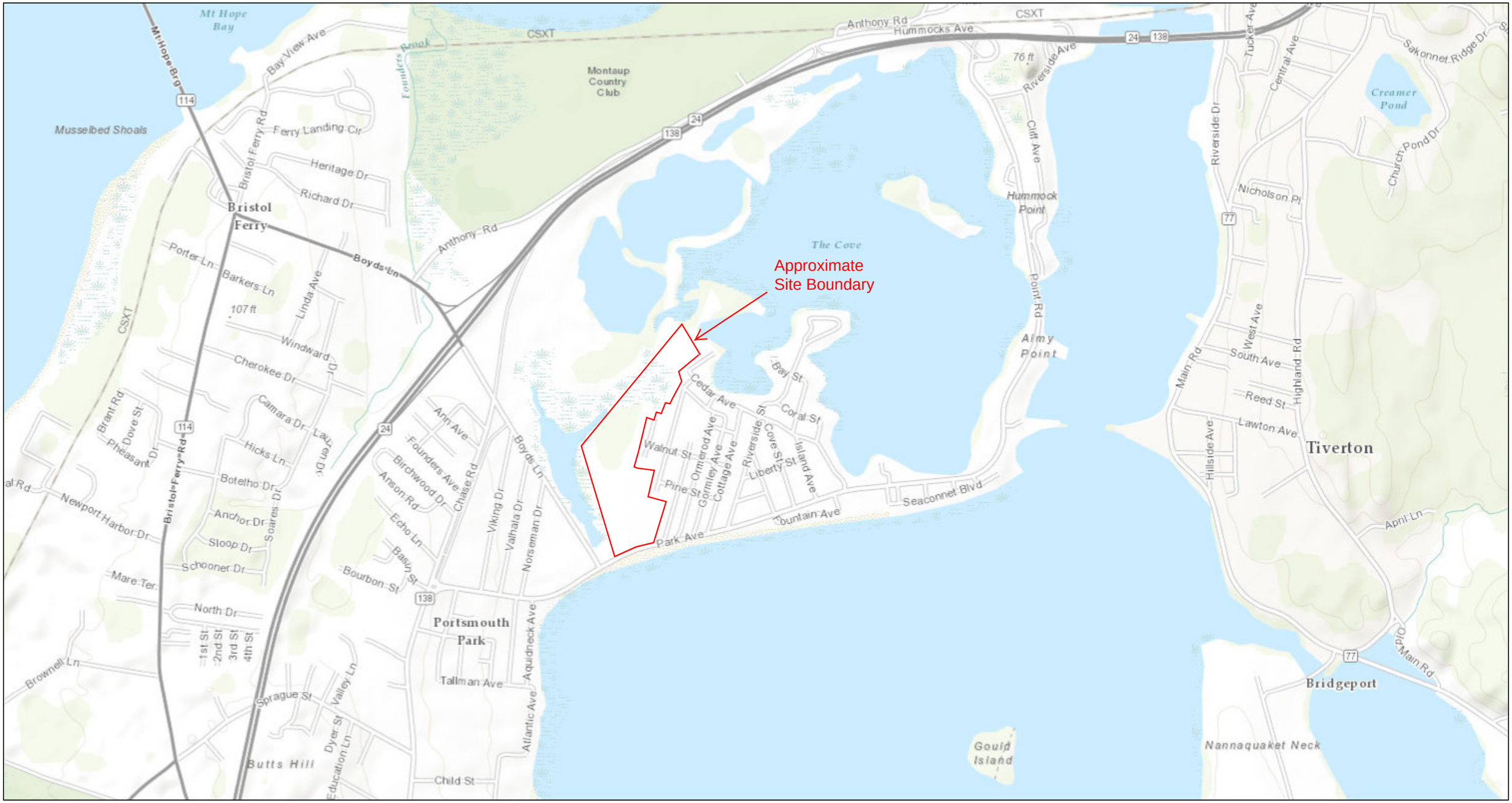
		Ambient						Soil Gas			
Location	Date	Temperature (°F)	Barometric Pressure (Inches Hg)	Wind Velocity (Miles Per Hour)	Wind Direction	Ambient Methane (CH_4) (%)	Ambient Oxygen (O_2) (%)	Soil Gas Methane (CH_4) (%)	Soil Gas Oxygen (O_2) (%)	Soil Gas Hydrogen Sulfide (H_2S) (ppm)	CO_2 (%)
SG-3G	4/13/2018	45	29.92	6	SSW	0.0	21.9	0	20.1	0	1.4
	7/31/2018	85	30.16	12	SW	0.0	19.6	0	16.3	0	1.8
	7/31/2018	85	30.16	12	SW	0.0	19.6	0	16.3	0	1.8
	10/30/2018	53	29.94	14	SE	0.0	21.6	0	19.1	0	2.1
	1/9/2019	41	29.33	10	S	0.0	21.2	0	18.9	0	1.2
	4/12/2019	49	30.30	4	N	0.0	20.6	0	19.8	0	1.7
	7/29/2019	88	30.04	4	S	0.0	21.9	0	20.9	0	1.2
	10/30/2019	67	30.37	0	---	0.0	20.9	0	18.1	0	2.8
	1/15/2020	45	30.13	2	S	0.0	21.2	0	18.7	0	1.5
	4/23/2020	52	29.94	1	S	0.0	21.5	0	18.6	0	1.9
	7/30/2020	85	29.87	8	S	0.0	20.4	0	16.9	0	2.2
	10/19/2020	66	30.23	4	S	0.0	20.5	0	16.4	0	1.6
	1/5/2021	33	29.75	6	E	0.0	20.5	0	19.2	0	1.2
	4/7/2021	60	29.91	4	E	0.0	21.9	0	20.1	0	1.3
	7/27/2021	86	29.95	9	S	0.0	20.6	0	15.4	0	1.8
	10/19/2021	53	29.85	8	W	0.0	20.9	0	17.6	0	2.0
	1/19/2022	38	29.96	6	S	0.0	20.7	0	20.2	0	1.0
	4/19/2022	50	29.50	10	SW	0.0	21.1	0	19.6	0	1.0
	7/19/2022	80	29.67	5	SW	0.0	20.4	0	18.0	0	3.3

Lower explosive limit (LEL) of methane (CH4) is 5%

Landfill gases measured using a Landtech Gem 2000 Plus or 5000 Plus Landfill Gas Monitor

FIGURES

RIDEM Environmental Resource Map



July 7, 2017

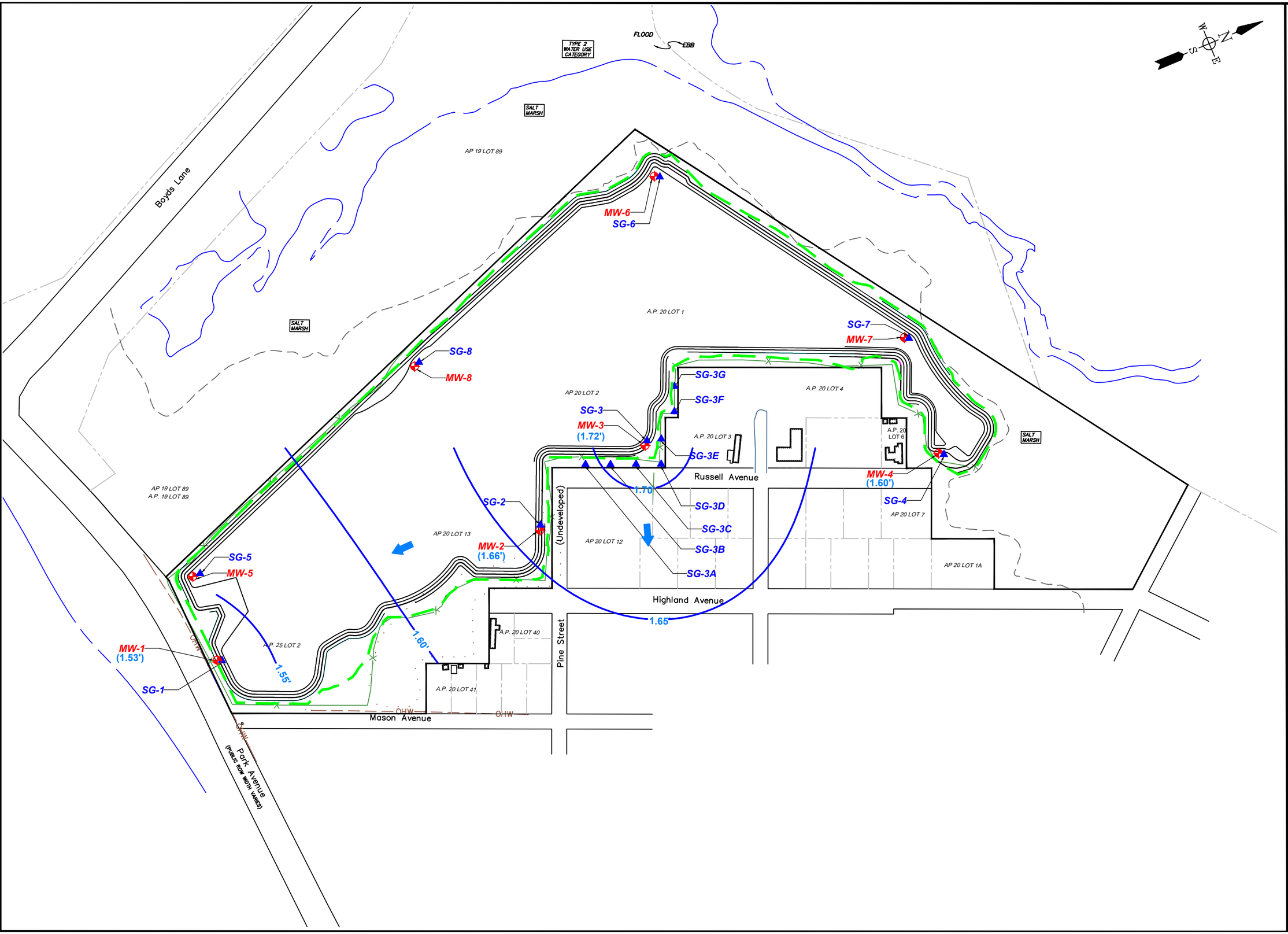
1:18,056

0 0.175 0.35 0.7 mi

0 0.35 0.7 1.4 km

Figure 1: Site Locus Map

Sources: Esri, HERE, DeLorme, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), swisstopo, MapmyIndia, © OpenStreetMap contributors, and the GIS



LEGEND

- MONITORING WELL
- SOIL GAS POINT
- APPROXIMATE CAP BOUNDARY
- SITE BOUNDARY
- GROUNDWATER ELEVATION (3.20')
- GROUNDWATER ELEVATION CONTOUR 2.80'

MONITORING NOTES

1. Monitoring Wells MW-1 through MW-4 and Soil Gas Points SG-1 through SG-4 installed on 4/25/2017
2. Soil Gas Points SG-3A through SG-3G installed on 4/13/2018
3. Monitoring Wells MW-5 through MW-8 and Soil Gas Points SG-5 through SG-8 installed on 11/11/2021

Approximate Feet
0 200

NAME/ADDRESS:

Prepared for
AP Enterprise LLC
28 Teal Drive, Wakefield, RI 02879

DRAWING TITLE:

Groundwater Elevation Contours
July 19, 2022
Former Portsmouth Landfill

ATLAS

DRAWN BY:	AK/BAM
CHECKED BY:	AK/PDC
PROJECT NO.	3010000351
DATE:	8/4/2022

FIGURE NO. **2**

APPENDIX A

GROUNDWATER LABORATORY ANALYTICAL RESULTS

eurofins | Environment Testing New England

ANALYTICAL REPORT

Eurofins New England
646 Camp Ave
North Kingstown, RI 02852
Tel: (413)789-9018

Laboratory Job ID: 620-5844-1
Client Project/Site: Portsmouth Landfill

For:
Atlas Technical Consultants LLC
400 Reservoir Ave
Suite 2C
Providence, Rhode Island 02907

Attn: Adrienne Kee

Authorized for release by:
7/26/2022 8:19:04 AM

Becky Mason, Project Manager II
(413)572-4000
Becky.Mason@et.eurofinsus.com

Table of Contents

Definitions/Glossary

Client: Atlas Technical Consultants LLC
Project/Site: Portsmouth Landfill

Job ID: 620-5844-1

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Client: Atlas Technical Consultants LLC
Project/Site: Portsmouth Landfill

Job ID: 620-5844-1

Job ID: 620-5844-1

Laboratory: Eurofins New England

Narrative

Job Narrative
620-5844-1

Receipt
The samples were received on 7/19/2022 5:06 PM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice. The temperature of the cooler at receipt was 18.5º C.

Receipt Exceptions
The following samples were received at the laboratory outside the required temperature criteria: MW-1 (620-5844-1), MW-2 (620-5844-2), MW-3 (620-5844-3), MW-4 (620-5844-4), MW-5 (620-5844-5), MW-6 (620-5844-6), MW-7 (620-5844-7), MW-8 (620-5844-8) and Trip Blank (620-5844-9). The samples are considered acceptable since it was collected and submitted to the laboratory on the same day and there is evidence that the chilling process has begun.

LCMS
Method 3535: A deviation from the Standard Operating Procedure (SOP) occurred. Details are as follows: Samples MW-1 (620-5844-1), MW-2 (620-5844-2), MW-3 (620-5844-3), MW-5 (620-5844-5), MW-6 (620-5844-6), MW-7 (620-5844-7) and MW-8 (620-5844-8) were diluted 5x due to matrix concerns (turbidity, color)

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Detection Summary

Client: Atlas Technical Consultants LLC
Project/Site: Portsmouth Landfill

Job ID: 620-5844-1

Client Sample ID: MW-1 — Lab Sample ID: 620-5844-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluoropentanoic acid (PFPeA)	18		9.6		ng/L	1		537 (modified)	Total/NA
Perfluorohexanoic acid (PFHxA)	22		9.6		ng/L	1		537 (modified)	Total/NA
Perfluoroheptanoic acid (PFHpA)	17		9.6		ng/L	1		537 (modified)	Total/NA
Perfluorooctanoic acid (PFOA)	33		9.6		ng/L	1		537 (modified)	Total/NA
Perfluorohexanesulfonic acid (PFHxS)	26		9.6		ng/L	1		537 (modified)	Total/NA

Client Sample ID: MW-2 — Lab Sample ID: 620-5844-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluoropentanoic acid (PFPeA)	27		9.0		ng/L	1		537 (modified)	Total/NA
Perfluorohexanoic acid (PFHxA)	32		9.0		ng/L	1		537 (modified)	Total/NA
Perfluoroheptanoic acid (PFHpA)	57		9.0		ng/L	1		537 (modified)	Total/NA
Perfluorooctanoic acid (PFOA)	150		9.0		ng/L	1		537 (modified)	Total/NA
Perfluorononanoic acid (PFNA)	17		9.0		ng/L	1		537 (modified)	Total/NA
Perfluorobutanesulfonic acid (PFBS)	11		9.0		ng/L	1		537 (modified)	Total/NA
Perfluorohexanesulfonic acid (PFHxS)	37		9.0		ng/L	1		537 (modified)	Total/NA
Perfluorooctanesulfonic acid (PFOS)	160		9.0		ng/L	1		537 (modified)	Total/NA

Client Sample ID: MW-3 — Lab Sample ID: 620-5844-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluoropentanoic acid (PFPeA)	13		9.7		ng/L	1		537 (modified)	Total/NA
Perfluorohexanoic acid (PFHxA)	15		9.7		ng/L	1		537 (modified)	Total/NA
Perfluoroheptanoic acid (PFHpA)	25		9.7		ng/L	1		537 (modified)	Total/NA
Perfluorooctanoic acid (PFOA)	150		9.7		ng/L	1		537 (modified)	Total/NA
Perfluorohexanesulfonic acid (PFHxS)	14		9.7		ng/L	1		537 (modified)	Total/NA
Perfluorooctanesulfonic acid (PFOS)	110		9.7		ng/L	1		537 (modified)	Total/NA
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	72		24		ng/L	1		537 (modified)	Total/NA

Client Sample ID: MW-4 — Lab Sample ID: 620-5844-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluorobutanoic acid (PFBA)	15		4.3		ng/L	1		537 (modified)	Total/NA
Perfluoropentanoic acid (PFPeA)	14		1.7		ng/L	1		537 (modified)	Total/NA
Perfluorohexanoic acid (PFHxA)	10		1.7		ng/L	1		537 (modified)	Total/NA
Perfluoroheptanoic acid (PFHpA)	8.4		1.7		ng/L	1		537 (modified)	Total/NA
Perfluorooctanoic acid (PFOA)	27		1.7		ng/L	1		537 (modified)	Total/NA
Perfluorononanoic acid (PFNA)	2.0		1.7		ng/L	1		537 (modified)	Total/NA
Perfluorobutanesulfonic acid (PFBS)	8.6		1.7		ng/L	1		537 (modified)	Total/NA
Perfluorohexanesulfonic acid (PFHxS)	3.0		1.7		ng/L	1		537 (modified)	Total/NA
Perfluorooctanesulfonic acid (PFOS)	150		1.7		ng/L	1		537 (modified)	Total/NA

Client Sample ID: MW-5 — Lab Sample ID: 620-5844-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluoropentanoic acid (PFPeA)	25		10		ng/L	1		537 (modified)	Total/NA
Perfluorohexanoic acid (PFHxA)	20		10		ng/L	1		537 (modified)	Total/NA
Perfluoroheptanoic acid (PFHpA)	14		10		ng/L	1		537 (modified)	Total/NA
Perfluorooctanoic acid (PFOA)	27		10		ng/L	1		537 (modified)	Total/NA
Perfluorooctanesulfonic acid (PFOS)	64		10		ng/L	1		537 (modified)	Total/NA

This Detection Summary does not include radiochemical test results.

Detection Summary

Client: Atlas Technical Consultants LLC
Project/Site: Portsmouth Landfill

Job ID: 620-5844-1

Client Sample ID: MW-6 — Lab Sample ID: 620-5844-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluoropentanoic acid (PFPeA)	31		9.4		ng/L	1		537 (modified)	Total/NA
Perfluorohexanoic acid (PFHxA)	21		9.4		ng/L	1		537 (modified)	Total/NA
Perfluoroheptanoic acid (PFHpA)	23		9.4		ng/L	1		537 (modified)	Total/NA
Perfluorooctanoic acid (PFOA)	120		9.4		ng/L	1		537 (modified)	Total/NA
Perfluorononanoic acid (PFNA)	12		9.4		ng/L	1		537 (modified)	Total/NA
Perfluorobutanesulfonic acid (PFBS)	9.5		9.4		ng/L	1		537 (modified)	Total/NA
Perfluorooctanesulfonic acid (PFOS)	590		9.4		ng/L	1		537 (modified)	Total/NA
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	53		24		ng/L	1		537 (modified)	Total/NA

Client Sample ID: MW-7 — Lab Sample ID: 620-5844-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluoropentanoic acid (PFPeA)	22		9.3		ng/L	1		537 (modified)	Total/NA
Perfluorohexanoic acid (PFHxA)	23		9.3		ng/L	1		537 (modified)	Total/NA
Perfluoroheptanoic acid (PFHpA)	23		9.3		ng/L	1		537 (modified)	Total/NA
Perfluorooctanoic acid (PFOA)	130		9.3		ng/L	1		537 (modified)	Total/NA
Perfluorononanoic acid (PFNA)	11		9.3		ng/L	1		537 (modified)	Total/NA
Perfluorohexanesulfonic acid (PFHxS)	11		9.3		ng/L	1		537 (modified)	Total/NA
Perfluorooctanesulfonic acid (PFOS)	480		9.3		ng/L	1		537 (modified)	Total/NA

Client Sample ID: MW-8 — Lab Sample ID: 620-5844-8

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluorobutanoic acid (PFBA)	25		25		ng/L	1		537 (modified)	Total/NA
Perfluoropentanoic acid (PFPeA)	40		9.9		ng/L	1		537 (modified)	Total/NA
Perfluorohexanoic acid (PFHxA)	33		9.9		ng/L	1		537 (modified)	Total/NA
Perfluoroheptanoic acid (PFHpA)	33		9.9		ng/L	1		537 (modified)	Total/NA
Perfluorooctanoic acid (PFOA)	140		9.9		ng/L	1		537 (modified)	Total/NA
Perfluorohexanesulfonic acid (PFHxS)	12		9.9		ng/L	1		537 (modified)	Total/NA
Perfluorooctanesulfonic acid (PFOS)	240		9.9		ng/L	1		537 (modified)	Total/NA

Client Sample ID: Trip Blank — Lab Sample ID: 620-5844-9

No Detections.

This Detection Summary does not include radiochemical test results.

Client: Atlas Technical Consultants LLC
Project/Site: Portsmouth Landfill

Job ID: 620-5844-1

Client Sample ID: MW-1
Date Collected: 07/19/22 14:45
Date Received: 07/19/22 17:06

Lab Sample ID: 620-5844-1
Matrix: Water

Method: 537 (modified) - Fluorinated Alkyl Substances

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	ND		24		ng/L		07/21/22 11:57	07/21/22 21:59	1
Perfluoropentanoic acid (PFPeA)	**18**		9.6		ng/L		07/21/22 11:57	07/21/22 21:59	1
Perfluorohexanoic acid (PFHxA)	**22**		9.6		ng/L		07/21/22 11:57	07/21/22 21:59	1
Perfluoroheptanoic acid (PFHpA)	**17**		9.6		ng/L		07/21/22 11:57	07/21/22 21:59	1
Perfluorooctanoic acid (PFOA)	**33**		9.6		ng/L		07/21/22 11:57	07/21/22 21:59	1
Perfluorononanoic acid (PFNA)	ND		9.6		ng/L		07/21/22 11:57	07/21/22 21:59	1
Perfluorodecanoic acid (PFDA)	ND		9.6		ng/L		07/21/22 11:57	07/21/22 21:59	1
Perfluoroundecanoic acid (PFUnA)	ND		9.6		ng/L		07/21/22 11:57	07/21/22 21:59	1
Perfluorododecanoic acid (PFDoA)	ND		9.6		ng/L		07/21/22 11:57	07/21/22 21:59	1
Perfluorotridecanoic acid (PFTriA)	ND		9.6		ng/L		07/21/22 11:57	07/21/22 21:59	1
Perfluorotetradecanoic acid (PFTeA)	ND		9.6		ng/L		07/21/22 11:57	07/21/22 21:59	1
Perfluorobutanesulfonic acid (PFBS)	ND		9.6		ng/L		07/21/22 11:57	07/21/22 21:59	1
Perfluorohexanesulfonic acid (PFHxS)	**26**		9.6		ng/L		07/21/22 11:57	07/21/22 21:59	1
Perfluoroheptanesulfonic acid (PFHpS)	ND		9.6		ng/L		07/21/22 11:57	07/21/22 21:59	1
Perfluorooctanesulfonic acid (PFOS)	ND		9.6		ng/L		07/21/22 11:57	07/21/22 21:59	1
Perfluorodecanesulfonic acid (PFDS)	ND		9.6		ng/L		07/21/22 11:57	07/21/22 21:59	1
Perfluorooctanesulfonamide (PFOSA)	ND		9.6		ng/L		07/21/22 11:57	07/21/22 21:59	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		24		ng/L		07/21/22 11:57	07/21/22 21:59	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		24		ng/L		07/21/22 11:57	07/21/22 21:59	1
1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2)	ND		24		ng/L		07/21/22 11:57	07/21/22 21:59	1
1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2)	ND		9.6		ng/L		07/21/22 11:57	07/21/22 21:59	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
18O2 PFHxS	*81*		*50 - 150*	*07/21/22 11:57*	*07/21/22 21:59*	*1*
13C4 PFHpA	*106*		*50 - 150*	*07/21/22 11:57*	*07/21/22 21:59*	*1*
13C4 PFOA	*103*		*50 - 150*	*07/21/22 11:57*	*07/21/22 21:59*	*1*
13C4 PFOS	*77*		*50 - 150*	*07/21/22 11:57*	*07/21/22 21:59*	*1*
13C5 PFNA	*99*		*50 - 150*	*07/21/22 11:57*	*07/21/22 21:59*	*1*
13C4 PFBA	*104*		*50 - 150*	*07/21/22 11:57*	*07/21/22 21:59*	*1*
13C2 PFHxA	*108*		*50 - 150*	*07/21/22 11:57*	*07/21/22 21:59*	*1*
13C2 PFDA	*94*		*50 - 150*	*07/21/22 11:57*	*07/21/22 21:59*	*1*
13C2 PFUnA	*87*		*50 - 150*	*07/21/22 11:57*	*07/21/22 21:59*	*1*
13C2 PFDoA	*79*		*50 - 150*	*07/21/22 11:57*	*07/21/22 21:59*	*1*
13C8 FOSA	*73*		*50 - 150*	*07/21/22 11:57*	*07/21/22 21:59*	*1*
13C5 PFPeA	*112*		*50 - 150*	*07/21/22 11:57*	*07/21/22 21:59*	*1*
13C2 PFTeDA	*79*		*50 - 150*	*07/21/22 11:57*	*07/21/22 21:59*	*1*
d3-NMeFOSAA	*97*		*50 - 150*	*07/21/22 11:57*	*07/21/22 21:59*	*1*
d5-NEtFOSAA	*88*		*50 - 150*	*07/21/22 11:57*	*07/21/22 21:59*	*1*
M2-6:2 FTS	*87*		*50 - 150*	*07/21/22 11:57*	*07/21/22 21:59*	*1*
M2-8:2 FTS	*92*		*50 - 150*	*07/21/22 11:57*	*07/21/22 21:59*	*1*
13C3 PFBS	*84*		*50 - 150*	*07/21/22 11:57*	*07/21/22 21:59*	*1*

Client: Atlas Technical Consultants LLC
Project/Site: Portsmouth Landfill

Job ID: 620-5844-1

Client Sample ID: MW-2

Date Collected: 07/19/22 12:40
Date Received: 07/19/22 17:06

Lab Sample ID: 620-5844-2

Matrix: Water

Method: 537 (modified) - Fluorinated Alkyl Substances

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	ND		22		ng/L		07/21/22 11:57	07/21/22 22:07	1
Perfluoropentanoic acid (PFPeA)	**27**		9.0		ng/L		07/21/22 11:57	07/21/22 22:07	1
Perfluorohexanoic acid (PFHxA)	**32**		9.0		ng/L		07/21/22 11:57	07/21/22 22:07	1
Perfluoroheptanoic acid (PFHpA)	**57**		9.0		ng/L		07/21/22 11:57	07/21/22 22:07	1
Perfluorooctanoic acid (PFOA)	**150**		9.0		ng/L		07/21/22 11:57	07/21/22 22:07	1
Perfluorononanoic acid (PFNA)	**17**		9.0		ng/L		07/21/22 11:57	07/21/22 22:07	1
Perfluorodecanoic acid (PFDA)	ND		9.0		ng/L		07/21/22 11:57	07/21/22 22:07	1
Perfluoroundecanoic acid (PFUnA)	ND		9.0		ng/L		07/21/22 11:57	07/21/22 22:07	1
Perfluorododecanoic acid (PFDoA)	ND		9.0		ng/L		07/21/22 11:57	07/21/22 22:07	1
Perfluorotridecanoic acid (PFTriA)	ND		9.0		ng/L		07/21/22 11:57	07/21/22 22:07	1
Perfluorotetradecanoic acid (PFTeA)	ND		9.0		ng/L		07/21/22 11:57	07/21/22 22:07	1
Perfluorobutanesulfonic acid (PFBS)	**11**		9.0		ng/L		07/21/22 11:57	07/21/22 22:07	1
Perfluorohexanesulfonic acid (PFHxS)	**37**		9.0		ng/L		07/21/22 11:57	07/21/22 22:07	1
Perfluoroheptanesulfonic acid (PFHpS)	ND		9.0		ng/L		07/21/22 11:57	07/21/22 22:07	1
Perfluorooctanesulfonic acid (PFOS)	**160**		9.0		ng/L		07/21/22 11:57	07/21/22 22:07	1
Perfluorodecanesulfonic acid (PFDS)	ND		9.0		ng/L		07/21/22 11:57	07/21/22 22:07	1
Perfluorooctanesulfonamide (PFOSA)	ND		9.0		ng/L		07/21/22 11:57	07/21/22 22:07	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		22		ng/L		07/21/22 11:57	07/21/22 22:07	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		22		ng/L		07/21/22 11:57	07/21/22 22:07	1
1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2)	ND		22		ng/L		07/21/22 11:57	07/21/22 22:07	1
1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2)	ND		9.0		ng/L		07/21/22 11:57	07/21/22 22:07	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
18O2 PFHxS	*80*		*50 - 150*	*07/21/22 11:57*	*07/21/22 22:07*	*1*
13C4 PFHpA	*105*		*50 - 150*	*07/21/22 11:57*	*07/21/22 22:07*	*1*
13C4 PFOA	*101*		*50 - 150*	*07/21/22 11:57*	*07/21/22 22:07*	*1*
13C4 PFOS	*76*		*50 - 150*	*07/21/22 11:57*	*07/21/22 22:07*	*1*
13C5 PFNA	*97*		*50 - 150*	*07/21/22 11:57*	*07/21/22 22:07*	*1*
13C4 PFBA	*107*		*50 - 150*	*07/21/22 11:57*	*07/21/22 22:07*	*1*
13C2 PFHxA	*107*		*50 - 150*	*07/21/22 11:57*	*07/21/22 22:07*	*1*
13C2 PFDA	*95*		*50 - 150*	*07/21/22 11:57*	*07/21/22 22:07*	*1*
13C2 PFUnA	*88*		*50 - 150*	*07/21/22 11:57*	*07/21/22 22:07*	*1*
13C2 PFDoA	*87*		*50 - 150*	*07/21/22 11:57*	*07/21/22 22:07*	*1*
13C8 FOSA	*73*		*50 - 150*	*07/21/22 11:57*	*07/21/22 22:07*	*1*
13C5 PFPeA	*117*		*50 - 150*	*07/21/22 11:57*	*07/21/22 22:07*	*1*
13C2 PFTeDA	*79*		*50 - 150*	*07/21/22 11:57*	*07/21/22 22:07*	*1*
d3-NMeFOSAA	*93*		*50 - 150*	*07/21/22 11:57*	*07/21/22 22:07*	*1*
d5-NEtFOSAA	*90*		*50 - 150*	*07/21/22 11:57*	*07/21/22 22:07*	*1*
M2-6:2 FTS	*92*		*50 - 150*	*07/21/22 11:57*	*07/21/22 22:07*	*1*
M2-8:2 FTS	*92*		*50 - 150*	*07/21/22 11:57*	*07/21/22 22:07*	*1*
13C3 PFBS	*94*		*50 - 150*	*07/21/22 11:57*	*07/21/22 22:07*	*1*

Client: Atlas Technical Consultants LLC
Project/Site: Portsmouth Landfill

Job ID: 620-5844-1

Client Sample ID: MW-3

Date Collected: 07/19/22 11:25
Date Received: 07/19/22 17:06

Lab Sample ID: 620-5844-3

Matrix: Water

Method: 537 (modified) - Fluorinated Alkyl Substances

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	ND		24		ng/L		07/21/22 11:57	07/21/22 22:15	1
Perfluoropentanoic acid (PFPeA)	**13**		9.7		ng/L		07/21/22 11:57	07/21/22 22:15	1
Perfluorohexanoic acid (PFHxA)	**15**		9.7		ng/L		07/21/22 11:57	07/21/22 22:15	1
Perfluoroheptanoic acid (PFHpA)	**25**		9.7		ng/L		07/21/22 11:57	07/21/22 22:15	1
Perfluorooctanoic acid (PFOA)	**150**		9.7		ng/L		07/21/22 11:57	07/21/22 22:15	1
Perfluorononanoic acid (PFNA)	ND		9.7		ng/L		07/21/22 11:57	07/21/22 22:15	1
Perfluorodecanoic acid (PFDA)	ND		9.7		ng/L		07/21/22 11:57	07/21/22 22:15	1
Perfluoroundecanoic acid (PFUnA)	ND		9.7		ng/L		07/21/22 11:57	07/21/22 22:15	1
Perfluorododecanoic acid (PFDoA)	ND		9.7		ng/L		07/21/22 11:57	07/21/22 22:15	1
Perfluorotridecanoic acid (PFTriA)	ND		9.7		ng/L		07/21/22 11:57	07/21/22 22:15	1
Perfluorotetradecanoic acid (PFTeA)	ND		9.7		ng/L		07/21/22 11:57	07/21/22 22:15	1
Perfluorobutanesulfonic acid (PFBS)	ND		9.7		ng/L		07/21/22 11:57	07/21/22 22:15	1
Perfluorohexanesulfonic acid (PFHxS)	**14**		9.7		ng/L		07/21/22 11:57	07/21/22 22:15	1
Perfluoroheptanesulfonic acid (PFHpS)	ND		9.7		ng/L		07/21/22 11:57	07/21/22 22:15	1
Perfluorooctanesulfonic acid (PFOS)	**110**		9.7		ng/L		07/21/22 11:57	07/21/22 22:15	1
Perfluorodecanesulfonic acid (PFDS)	ND		9.7		ng/L		07/21/22 11:57	07/21/22 22:15	1
Perfluorooctanesulfonamide (PFOSA)	ND		9.7		ng/L		07/21/22 11:57	07/21/22 22:15	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		24		ng/L		07/21/22 11:57	07/21/22 22:15	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	**72**		24		ng/L		07/21/22 11:57	07/21/22 22:15	1
1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2)	ND		24		ng/L		07/21/22 11:57	07/21/22 22:15	1
1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2)	ND		9.7		ng/L		07/21/22 11:57	07/21/22 22:15	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
18O2 PFHxS	*80*		*50 - 150*	*07/21/22 11:57*	*07/21/22 22:15*	*1*
13C4 PFHpA	*104*		*50 - 150*	*07/21/22 11:57*	*07/21/22 22:15*	*1*
13C4 PFOA	*104*		*50 - 150*	*07/21/22 11:57*	*07/21/22 22:15*	*1*
13C4 PFOS	*74*		*50 - 150*	*07/21/22 11:57*	*07/21/22 22:15*	*1*
13C5 PFNA	*95*		*50 - 150*	*07/21/22 11:57*	*07/21/22 22:15*	*1*
13C4 PFBA	*100*		*50 - 150*	*07/21/22 11:57*	*07/21/22 22:15*	*1*
13C2 PFHxA	*107*		*50 - 150*	*07/21/22 11:57*	*07/21/22 22:15*	*1*
13C2 PFDA	*91*		*50 - 150*	*07/21/22 11:57*	*07/21/22 22:15*	*1*
13C2 PFUnA	*80*		*50 - 150*	*07/21/22 11:57*	*07/21/22 22:15*	*1*
13C2 PFDoA	*75*		*50 - 150*	*07/21/22 11:57*	*07/21/22 22:15*	*1*
13C8 FOSA	*70*		*50 - 150*	*07/21/22 11:57*	*07/21/22 22:15*	*1*
13C5 PFPeA	*112*		*50 - 150*	*07/21/22 11:57*	*07/21/22 22:15*	*1*
13C2 PFTeDA	*71*		*50 - 150*	*07/21/22 11:57*	*07/21/22 22:15*	*1*
d3-NMeFOSAA	*87*		*50 - 150*	*07/21/22 11:57*	*07/21/22 22:15*	*1*
d5-NEtFOSAA	*87*		*50 - 150*	*07/21/22 11:57*	*07/21/22 22:15*	*1*
M2-6:2 FTS	*90*		*50 - 150*	*07/21/22 11:57*	*07/21/22 22:15*	*1*
M2-8:2 FTS	*83*		*50 - 150*	*07/21/22 11:57*	*07/21/22 22:15*	*1*
13C3 PFBS	*88*		*50 - 150*	*07/21/22 11:57*	*07/21/22 22:15*	*1*

Client: Atlas Technical Consultants LLC
Project/Site: Portsmouth Landfill

Job ID: 620-5844-1

Client Sample ID: MW-4
Date Collected: 07/19/22 08:50
Date Received: 07/19/22 17:06

Lab Sample ID: 620-5844-4
Matrix: Water

Method: 537 (modified) - Fluorinated Alkyl Substances

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	**15**		4.3		ng/L		07/21/22 11:57	07/21/22 22:24	1
Perfluoropentanoic acid (PFPeA)	**14**		1.7		ng/L		07/21/22 11:57	07/21/22 22:24	1
Perfluorohexanoic acid (PFHxA)	**10**		1.7		ng/L		07/21/22 11:57	07/21/22 22:24	1
Perfluoroheptanoic acid (PFHpA)	**8.4**		1.7		ng/L		07/21/22 11:57	07/21/22 22:24	1
Perfluorooctanoic acid (PFOA)	**27**		1.7		ng/L		07/21/22 11:57	07/21/22 22:24	1
Perfluorononanoic acid (PFNA)	**2.0**		1.7		ng/L		07/21/22 11:57	07/21/22 22:24	1
Perfluorodecanoic acid (PFDA)	ND		1.7		ng/L		07/21/22 11:57	07/21/22 22:24	1
Perfluoroundecanoic acid (PFUnA)	ND		1.7		ng/L		07/21/22 11:57	07/21/22 22:24	1
Perfluorododecanoic acid (PFDoA)	ND		1.7		ng/L		07/21/22 11:57	07/21/22 22:24	1
Perfluorotridecanoic acid (PFTriA)	ND		1.7		ng/L		07/21/22 11:57	07/21/22 22:24	1
Perfluorotetradecanoic acid (PFTeA)	ND		1.7		ng/L		07/21/22 11:57	07/21/22 22:24	1
Perfluorobutanesulfonic acid (PFBS)	**8.6**		1.7		ng/L		07/21/22 11:57	07/21/22 22:24	1
Perfluorohexanesulfonic acid (PFHxS)	**3.0**		1.7		ng/L		07/21/22 11:57	07/21/22 22:24	1
Perfluoroheptanesulfonic acid (PFHpS)	ND		1.7		ng/L		07/21/22 11:57	07/21/22 22:24	1
Perfluorooctanesulfonic acid (PFOS)	**150**		1.7		ng/L		07/21/22 11:57	07/21/22 22:24	1
Perfluorodecanesulfonic acid (PFDS)	ND		1.7		ng/L		07/21/22 11:57	07/21/22 22:24	1
Perfluorooctanesulfonamide (PFOSA)	ND		1.7		ng/L		07/21/22 11:57	07/21/22 22:24	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		4.3		ng/L		07/21/22 11:57	07/21/22 22:24	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		4.3		ng/L		07/21/22 11:57	07/21/22 22:24	1
1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2)	ND		4.3		ng/L		07/21/22 11:57	07/21/22 22:24	1
1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2)	ND		1.7		ng/L		07/21/22 11:57	07/21/22 22:24	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
18O2 PFHxS	*83*		*50 - 150*	*07/21/22 11:57*	*07/21/22 22:24*	*1*
13C4 PFHpA	*105*		*50 - 150*	*07/21/22 11:57*	*07/21/22 22:24*	*1*
13C4 PFOA	*105*		*50 - 150*	*07/21/22 11:57*	*07/21/22 22:24*	*1*
13C4 PFOS	*73*		*50 - 150*	*07/21/22 11:57*	*07/21/22 22:24*	*1*
13C5 PFNA	*98*		*50 - 150*	*07/21/22 11:57*	*07/21/22 22:24*	*1*
13C4 PFBA	*93*		*50 - 150*	*07/21/22 11:57*	*07/21/22 22:24*	*1*
13C2 PFHxA	*106*		*50 - 150*	*07/21/22 11:57*	*07/21/22 22:24*	*1*
13C2 PFDA	*98*		*50 - 150*	*07/21/22 11:57*	*07/21/22 22:24*	*1*
13C2 PFUnA	*91*		*50 - 150*	*07/21/22 11:57*	*07/21/22 22:24*	*1*
13C2 PFDoA	*90*		*50 - 150*	*07/21/22 11:57*	*07/21/22 22:24*	*1*
13C8 FOSA	*73*		*50 - 150*	*07/21/22 11:57*	*07/21/22 22:24*	*1*
13C5 PFPeA	*108*		*50 - 150*	*07/21/22 11:57*	*07/21/22 22:24*	*1*
13C2 PFTeDA	*87*		*50 - 150*	*07/21/22 11:57*	*07/21/22 22:24*	*1*
d3-NMeFOSAA	*100*		*50 - 150*	*07/21/22 11:57*	*07/21/22 22:24*	*1*
d5-NEtFOSAA	*95*		*50 - 150*	*07/21/22 11:57*	*07/21/22 22:24*	*1*
M2-6:2 FTS	*93*		*50 - 150*	*07/21/22 11:57*	*07/21/22 22:24*	*1*
M2-8:2 FTS	*91*		*50 - 150*	*07/21/22 11:57*	*07/21/22 22:24*	*1*
13C3 PFBS	*88*		*50 - 150*	*07/21/22 11:57*	*07/21/22 22:24*	*1*

Client: Atlas Technical Consultants LLC
Project/Site: Portsmouth Landfill

Job ID: 620-5844-1

Client Sample ID: MW-5
Date Collected: 07/19/22 15:20
Date Received: 07/19/22 17:06

Lab Sample ID: 620-5844-5
Matrix: Water

Method: 537 (modified) - Fluorinated Alkyl Substances

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	ND		25		ng/L		07/21/22 11:57	07/21/22 22:32	1
Perfluoropentanoic acid (PFPeA)	**25**		10		ng/L		07/21/22 11:57	07/21/22 22:32	1
Perfluorohexanoic acid (PFHxA)	**20**		10		ng/L		07/21/22 11:57	07/21/22 22:32	1
Perfluoroheptanoic acid (PFHpA)	**14**		10		ng/L		07/21/22 11:57	07/21/22 22:32	1
Perfluorooctanoic acid (PFOA)	**27**		10		ng/L		07/21/22 11:57	07/21/22 22:32	1
Perfluorononanoic acid (PFNA)	ND		10		ng/L		07/21/22 11:57	07/21/22 22:32	1
Perfluorodecanoic acid (PFDA)	ND		10		ng/L		07/21/22 11:57	07/21/22 22:32	1
Perfluoroundecanoic acid (PFUnA)	ND		10		ng/L		07/21/22 11:57	07/21/22 22:32	1
Perfluorododecanoic acid (PFDoA)	ND		10		ng/L		07/21/22 11:57	07/21/22 22:32	1
Perfluorotridecanoic acid (PFTriA)	ND		10		ng/L		07/21/22 11:57	07/21/22 22:32	1
Perfluorotetradecanoic acid (PFTeA)	ND		10		ng/L		07/21/22 11:57	07/21/22 22:32	1
Perfluorobutanesulfonic acid (PFBS)	ND		10		ng/L		07/21/22 11:57	07/21/22 22:32	1
Perfluorohexanesulfonic acid (PFHxS)	ND		10		ng/L		07/21/22 11:57	07/21/22 22:32	1
Perfluoroheptanesulfonic acid (PFHpS)	ND		10		ng/L		07/21/22 11:57	07/21/22 22:32	1
Perfluorooctanesulfonic acid (PFOS)	**64**		10		ng/L		07/21/22 11:57	07/21/22 22:32	1
Perfluorodecanesulfonic acid (PFDS)	ND		10		ng/L		07/21/22 11:57	07/21/22 22:32	1
Perfluorooctanesulfonamide (PFOSA)	ND		10		ng/L		07/21/22 11:57	07/21/22 22:32	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		25		ng/L		07/21/22 11:57	07/21/22 22:32	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		25		ng/L		07/21/22 11:57	07/21/22 22:32	1
1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2)	ND		25		ng/L		07/21/22 11:57	07/21/22 22:32	1
1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2)	ND		10		ng/L		07/21/22 11:57	07/21/22 22:32	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
18O2 PFHxS	*81*		*50 - 150*	*07/21/22 11:57*	*07/21/22 22:32*	*1*
13C4 PFHpA	*107*		*50 - 150*	*07/21/22 11:57*	*07/21/22 22:32*	*1*
13C4 PFOA	*105*		*50 - 150*	*07/21/22 11:57*	*07/21/22 22:32*	*1*
13C4 PFOS	*75*		*50 - 150*	*07/21/22 11:57*	*07/21/22 22:32*	*1*
13C5 PFNA	*96*		*50 - 150*	*07/21/22 11:57*	*07/21/22 22:32*	*1*
13C4 PFBA	*100*		*50 - 150*	*07/21/22 11:57*	*07/21/22 22:32*	*1*
13C2 PFHxA	*108*		*50 - 150*	*07/21/22 11:57*	*07/21/22 22:32*	*1*
13C2 PFDA	*94*		*50 - 150*	*07/21/22 11:57*	*07/21/22 22:32*	*1*
13C2 PFUnA	*84*		*50 - 150*	*07/21/22 11:57*	*07/21/22 22:32*	*1*
13C2 PFDoA	*76*		*50 - 150*	*07/21/22 11:57*	*07/21/22 22:32*	*1*
13C8 FOSA	*75*		*50 - 150*	*07/21/22 11:57*	*07/21/22 22:32*	*1*
13C5 PFPeA	*112*		*50 - 150*	*07/21/22 11:57*	*07/21/22 22:32*	*1*
13C2 PFTeDA	*74*		*50 - 150*	*07/21/22 11:57*	*07/21/22 22:32*	*1*
d3-NMeFOSAA	*97*		*50 - 150*	*07/21/22 11:57*	*07/21/22 22:32*	*1*
d5-NEtFOSAA	*87*		*50 - 150*	*07/21/22 11:57*	*07/21/22 22:32*	*1*
M2-6:2 FTS	*91*		*50 - 150*	*07/21/22 11:57*	*07/21/22 22:32*	*1*
M2-8:2 FTS	*88*		*50 - 150*	*07/21/22 11:57*	*07/21/22 22:32*	*1*
13C3 PFBS	*92*		*50 - 150*	*07/21/22 11:57*	*07/21/22 22:32*	*1*

Client: Atlas Technical Consultants LLC
Project/Site: Portsmouth Landfill

Job ID: 620-5844-1

Client Sample ID: MW-6

Date Collected: 07/19/22 10:25
Date Received: 07/19/22 17:06

Lab Sample ID: 620-5844-6

Matrix: Water

Method: 537 (modified) - Fluorinated Alkyl Substances

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	ND		24		ng/L		07/21/22 11:57	07/21/22 22:40	1
Perfluoropentanoic acid (PFPeA)	**31**		9.4		ng/L		07/21/22 11:57	07/21/22 22:40	1
Perfluorohexanoic acid (PFHxA)	**21**		9.4		ng/L		07/21/22 11:57	07/21/22 22:40	1
Perfluoroheptanoic acid (PFHpA)	**23**		9.4		ng/L		07/21/22 11:57	07/21/22 22:40	1
Perfluorooctanoic acid (PFOA)	**120**		9.4		ng/L		07/21/22 11:57	07/21/22 22:40	1
Perfluorononanoic acid (PFNA)	**12**		9.4		ng/L		07/21/22 11:57	07/21/22 22:40	1
Perfluorodecanoic acid (PFDA)	ND		9.4		ng/L		07/21/22 11:57	07/21/22 22:40	1
Perfluoroundecanoic acid (PFUnA)	ND		9.4		ng/L		07/21/22 11:57	07/21/22 22:40	1
Perfluorododecanoic acid (PFDoA)	ND		9.4		ng/L		07/21/22 11:57	07/21/22 22:40	1
Perfluorotridecanoic acid (PFTriA)	ND		9.4		ng/L		07/21/22 11:57	07/21/22 22:40	1
Perfluorotetradecanoic acid (PFTeA)	ND		9.4		ng/L		07/21/22 11:57	07/21/22 22:40	1
Perfluorobutanesulfonic acid (PFBS)	**9.5**		9.4		ng/L		07/21/22 11:57	07/21/22 22:40	1
Perfluorohexanesulfonic acid (PFHxS)	ND		9.4		ng/L		07/21/22 11:57	07/21/22 22:40	1
Perfluoroheptanesulfonic acid (PFHpS)	ND		9.4		ng/L		07/21/22 11:57	07/21/22 22:40	1
Perfluorooctanesulfonic acid (PFOS)	**590**		9.4		ng/L		07/21/22 11:57	07/21/22 22:40	1
Perfluorodecanesulfonic acid (PFDS)	ND		9.4		ng/L		07/21/22 11:57	07/21/22 22:40	1
Perfluorooctanesulfonamide (PFOSA)	ND		9.4		ng/L		07/21/22 11:57	07/21/22 22:40	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		24		ng/L		07/21/22 11:57	07/21/22 22:40	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	**53**		24		ng/L		07/21/22 11:57	07/21/22 22:40	1
1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2)	ND		24		ng/L		07/21/22 11:57	07/21/22 22:40	1
1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2)	ND		9.4		ng/L		07/21/22 11:57	07/21/22 22:40	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
18O2 PFHxS	*82*		*50 - 150*	*07/21/22 11:57*	*07/21/22 22:40*	*1*
13C4 PFHpA	*105*		*50 - 150*	*07/21/22 11:57*	*07/21/22 22:40*	*1*
13C4 PFOA	*104*		*50 - 150*	*07/21/22 11:57*	*07/21/22 22:40*	*1*
13C4 PFOS	*75*		*50 - 150*	*07/21/22 11:57*	*07/21/22 22:40*	*1*
13C5 PFNA	*96*		*50 - 150*	*07/21/22 11:57*	*07/21/22 22:40*	*1*
13C4 PFBA	*95*		*50 - 150*	*07/21/22 11:57*	*07/21/22 22:40*	*1*
13C2 PFHxA	*109*		*50 - 150*	*07/21/22 11:57*	*07/21/22 22:40*	*1*
13C2 PFDA	*95*		*50 - 150*	*07/21/22 11:57*	*07/21/22 22:40*	*1*
13C2 PFUnA	*87*		*50 - 150*	*07/21/22 11:57*	*07/21/22 22:40*	*1*
13C2 PFDoA	*80*		*50 - 150*	*07/21/22 11:57*	*07/21/22 22:40*	*1*
13C8 FOSA	*74*		*50 - 150*	*07/21/22 11:57*	*07/21/22 22:40*	*1*
13C5 PFPeA	*108*		*50 - 150*	*07/21/22 11:57*	*07/21/22 22:40*	*1*
13C2 PFTeDA	*79*		*50 - 150*	*07/21/22 11:57*	*07/21/22 22:40*	*1*
d3-NMeFOSAA	*90*		*50 - 150*	*07/21/22 11:57*	*07/21/22 22:40*	*1*
d5-NEtFOSAA	*92*		*50 - 150*	*07/21/22 11:57*	*07/21/22 22:40*	*1*
M2-6:2 FTS	*94*		*50 - 150*	*07/21/22 11:57*	*07/21/22 22:40*	*1*
M2-8:2 FTS	*90*		*50 - 150*	*07/21/22 11:57*	*07/21/22 22:40*	*1*
13C3 PFBS	*84*		*50 - 150*	*07/21/22 11:57*	*07/21/22 22:40*	*1*

Client: Atlas Technical Consultants LLC
Project/Site: Portsmouth Landfill

Job ID: 620-5844-1

Client Sample ID: MW-7
Date Collected: 07/19/22 09:25
Date Received: 07/19/22 17:06

Lab Sample ID: 620-5844-7
Matrix: Water

Method: 537 (modified) - Fluorinated Alkyl Substances

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	ND		23		ng/L		07/21/22 11:57	07/21/22 22:48	1
Perfluoropentanoic acid (PFPeA)	**22**		9.3		ng/L		07/21/22 11:57	07/21/22 22:48	1
Perfluorohexanoic acid (PFHxA)	**23**		9.3		ng/L		07/21/22 11:57	07/21/22 22:48	1
Perfluoroheptanoic acid (PFHpA)	**23**		9.3		ng/L		07/21/22 11:57	07/21/22 22:48	1
Perfluorooctanoic acid (PFOA)	**130**		9.3		ng/L		07/21/22 11:57	07/21/22 22:48	1
Perfluorononanoic acid (PFNA)	**11**		9.3		ng/L		07/21/22 11:57	07/21/22 22:48	1
Perfluorodecanoic acid (PFDA)	ND		9.3		ng/L		07/21/22 11:57	07/21/22 22:48	1
Perfluoroundecanoic acid (PFUnA)	ND		9.3		ng/L		07/21/22 11:57	07/21/22 22:48	1
Perfluorododecanoic acid (PFDoA)	ND		9.3		ng/L		07/21/22 11:57	07/21/22 22:48	1
Perfluorotridecanoic acid (PFTriA)	ND		9.3		ng/L		07/21/22 11:57	07/21/22 22:48	1
Perfluorotetradecanoic acid (PFTeA)	ND		9.3		ng/L		07/21/22 11:57	07/21/22 22:48	1
Perfluorobutanesulfonic acid (PFBS)	ND		9.3		ng/L		07/21/22 11:57	07/21/22 22:48	1
Perfluorohexanesulfonic acid (PFHxS)	**11**		9.3		ng/L		07/21/22 11:57	07/21/22 22:48	1
Perfluoroheptanesulfonic acid (PFHpS)	ND		9.3		ng/L		07/21/22 11:57	07/21/22 22:48	1
Perfluorooctanesulfonic acid (PFOS)	**480**		9.3		ng/L		07/21/22 11:57	07/21/22 22:48	1
Perfluorodecanesulfonic acid (PFDS)	ND		9.3		ng/L		07/21/22 11:57	07/21/22 22:48	1
Perfluorooctanesulfonamide (PFOSA)	ND		9.3		ng/L		07/21/22 11:57	07/21/22 22:48	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		23		ng/L		07/21/22 11:57	07/21/22 22:48	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		23		ng/L		07/21/22 11:57	07/21/22 22:48	1
1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2)	ND		23		ng/L		07/21/22 11:57	07/21/22 22:48	1
1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2)	ND		9.3		ng/L		07/21/22 11:57	07/21/22 22:48	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
18O2 PFHxS	*82*		*50 - 150*	*07/21/22 11:57*	*07/21/22 22:48*	*1*
13C4 PFHpA	*105*		*50 - 150*	*07/21/22 11:57*	*07/21/22 22:48*	*1*
13C4 PFOA	*105*		*50 - 150*	*07/21/22 11:57*	*07/21/22 22:48*	*1*
13C4 PFOS	*77*		*50 - 150*	*07/21/22 11:57*	*07/21/22 22:48*	*1*
13C5 PFNA	*98*		*50 - 150*	*07/21/22 11:57*	*07/21/22 22:48*	*1*
13C4 PFBA	*94*		*50 - 150*	*07/21/22 11:57*	*07/21/22 22:48*	*1*
13C2 PFHxA	*106*		*50 - 150*	*07/21/22 11:57*	*07/21/22 22:48*	*1*
13C2 PFDA	*99*		*50 - 150*	*07/21/22 11:57*	*07/21/22 22:48*	*1*
13C2 PFUnA	*91*		*50 - 150*	*07/21/22 11:57*	*07/21/22 22:48*	*1*
13C2 PFDoA	*80*		*50 - 150*	*07/21/22 11:57*	*07/21/22 22:48*	*1*
13C8 FOSA	*75*		*50 - 150*	*07/21/22 11:57*	*07/21/22 22:48*	*1*
13C5 PFPeA	*111*		*50 - 150*	*07/21/22 11:57*	*07/21/22 22:48*	*1*
13C2 PFTeDA	*80*		*50 - 150*	*07/21/22 11:57*	*07/21/22 22:48*	*1*
d3-NMeFOSAA	*99*		*50 - 150*	*07/21/22 11:57*	*07/21/22 22:48*	*1*
d5-NEtFOSAA	*89*		*50 - 150*	*07/21/22 11:57*	*07/21/22 22:48*	*1*
M2-6:2 FTS	*97*		*50 - 150*	*07/21/22 11:57*	*07/21/22 22:48*	*1*
M2-8:2 FTS	*92*		*50 - 150*	*07/21/22 11:57*	*07/21/22 22:48*	*1*
13C3 PFBS	*87*		*50 - 150*	*07/21/22 11:57*	*07/21/22 22:48*	*1*

Client: Atlas Technical Consultants LLC
Project/Site: Portsmouth Landfill

Job ID: 620-5844-1

Client Sample ID: MW-8
Date Collected: 07/19/22 13:45
Date Received: 07/19/22 17:06

Lab Sample ID: 620-5844-8
Matrix: Water

Method: 537 (modified) - Fluorinated Alkyl Substances

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	**25**		25		ng/L		07/21/22 11:57	07/21/22 22:56	1
Perfluoropentanoic acid (PFPeA)	**40**		9.9		ng/L		07/21/22 11:57	07/21/22 22:56	1
Perfluorohexanoic acid (PFHxA)	**33**		9.9		ng/L		07/21/22 11:57	07/21/22 22:56	1
Perfluoroheptanoic acid (PFHpA)	**33**		9.9		ng/L		07/21/22 11:57	07/21/22 22:56	1
Perfluorooctanoic acid (PFOA)	**140**		9.9		ng/L		07/21/22 11:57	07/21/22 22:56	1
Perfluorononanoic acid (PFNA)	ND		9.9		ng/L		07/21/22 11:57	07/21/22 22:56	1
Perfluorodecanoic acid (PFDA)	ND		9.9		ng/L		07/21/22 11:57	07/21/22 22:56	1
Perfluoroundecanoic acid (PFUnA)	ND		9.9		ng/L		07/21/22 11:57	07/21/22 22:56	1
Perfluorododecanoic acid (PFDoA)	ND		9.9		ng/L		07/21/22 11:57	07/21/22 22:56	1
Perfluorotridecanoic acid (PFTriA)	ND		9.9		ng/L		07/21/22 11:57	07/21/22 22:56	1
Perfluorotetradecanoic acid (PFTeA)	ND		9.9		ng/L		07/21/22 11:57	07/21/22 22:56	1
Perfluorobutanesulfonic acid (PFBS)	ND		9.9		ng/L		07/21/22 11:57	07/21/22 22:56	1
Perfluorohexanesulfonic acid (PFHxS)	**12**		9.9		ng/L		07/21/22 11:57	07/21/22 22:56	1
Perfluoroheptanesulfonic acid (PFHpS)	ND		9.9		ng/L		07/21/22 11:57	07/21/22 22:56	1
Perfluorooctanesulfonic acid (PFOS)	**240**		9.9		ng/L		07/21/22 11:57	07/21/22 22:56	1
Perfluorodecanesulfonic acid (PFDS)	ND		9.9		ng/L		07/21/22 11:57	07/21/22 22:56	1
Perfluorooctanesulfonamide (PFOSA)	ND		9.9		ng/L		07/21/22 11:57	07/21/22 22:56	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		25		ng/L		07/21/22 11:57	07/21/22 22:56	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		25		ng/L		07/21/22 11:57	07/21/22 22:56	1
1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2)	ND		25		ng/L		07/21/22 11:57	07/21/22 22:56	1
1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2)	ND		9.9		ng/L		07/21/22 11:57	07/21/22 22:56	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
18O2 PFHxS	*81*		*50 - 150*	*07/21/22 11:57*	*07/21/22 22:56*	*1*
13C4 PFHpA	*102*		*50 - 150*	*07/21/22 11:57*	*07/21/22 22:56*	*1*
13C4 PFOA	*104*		*50 - 150*	*07/21/22 11:57*	*07/21/22 22:56*	*1*
13C4 PFOS	*73*		*50 - 150*	*07/21/22 11:57*	*07/21/22 22:56*	*1*
13C5 PFNA	*92*		*50 - 150*	*07/21/22 11:57*	*07/21/22 22:56*	*1*
13C4 PFBA	*101*		*50 - 150*	*07/21/22 11:57*	*07/21/22 22:56*	*1*
13C2 PFHxA	*107*		*50 - 150*	*07/21/22 11:57*	*07/21/22 22:56*	*1*
13C2 PFDA	*94*		*50 - 150*	*07/21/22 11:57*	*07/21/22 22:56*	*1*
13C2 PFUnA	*83*		*50 - 150*	*07/21/22 11:57*	*07/21/22 22:56*	*1*
13C2 PFDoA	*79*		*50 - 150*	*07/21/22 11:57*	*07/21/22 22:56*	*1*
13C8 FOSA	*75*		*50 - 150*	*07/21/22 11:57*	*07/21/22 22:56*	*1*
13C5 PFPeA	*111*		*50 - 150*	*07/21/22 11:57*	*07/21/22 22:56*	*1*
13C2 PFTeDA	*78*		*50 - 150*	*07/21/22 11:57*	*07/21/22 22:56*	*1*
d3-NMeFOSAA	*91*		*50 - 150*	*07/21/22 11:57*	*07/21/22 22:56*	*1*
d5-NEtFOSAA	*89*		*50 - 150*	*07/21/22 11:57*	*07/21/22 22:56*	*1*
M2-6:2 FTS	*90*		*50 - 150*	*07/21/22 11:57*	*07/21/22 22:56*	*1*
M2-8:2 FTS	*87*		*50 - 150*	*07/21/22 11:57*	*07/21/22 22:56*	*1*
13C3 PFBS	*82*		*50 - 150*	*07/21/22 11:57*	*07/21/22 22:56*	*1*

Client: Atlas Technical Consultants LLC
Project/Site: Portsmouth Landfill

Job ID: 620-5844-1

Client Sample ID: Trip Blank

Date Collected: 07/19/22 08:05
Date Received: 07/19/22 17:06

Lab Sample ID: 620-5844-9

Matrix: Water

Method: 537 (modified) - Fluorinated Alkyl Substances

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	ND		4.3		ng/L		07/21/22 11:57	07/21/22 23:05	1
Perfluoropentanoic acid (PFPeA)	ND		1.7		ng/L		07/21/22 11:57	07/21/22 23:05	1
Perfluorohexanoic acid (PFHxA)	ND		1.7		ng/L		07/21/22 11:57	07/21/22 23:05	1
Perfluoroheptanoic acid (PFHpA)	ND		1.7		ng/L		07/21/22 11:57	07/21/22 23:05	1
Perfluorooctanoic acid (PFOA)	ND		1.7		ng/L		07/21/22 11:57	07/21/22 23:05	1
Perfluorononanoic acid (PFNA)	ND		1.7		ng/L		07/21/22 11:57	07/21/22 23:05	1
Perfluorodecanoic acid (PFDA)	ND		1.7		ng/L		07/21/22 11:57	07/21/22 23:05	1
Perfluoroundecanoic acid (PFUnA)	ND		1.7		ng/L		07/21/22 11:57	07/21/22 23:05	1
Perfluorododecanoic acid (PFDoA)	ND		1.7		ng/L		07/21/22 11:57	07/21/22 23:05	1
Perfluorotridecanoic acid (PFTriA)	ND		1.7		ng/L		07/21/22 11:57	07/21/22 23:05	1
Perfluorotetradecanoic acid (PFTeA)	ND		1.7		ng/L		07/21/22 11:57	07/21/22 23:05	1
Perfluorobutanesulfonic acid (PFBS)	ND		1.7		ng/L		07/21/22 11:57	07/21/22 23:05	1
Perfluorohexanesulfonic acid (PFHxS)	ND		1.7		ng/L		07/21/22 11:57	07/21/22 23:05	1
Perfluoroheptanesulfonic acid (PFHpS)	ND		1.7		ng/L		07/21/22 11:57	07/21/22 23:05	1
Perfluorooctanesulfonic acid (PFOS)	ND		1.7		ng/L		07/21/22 11:57	07/21/22 23:05	1
Perfluorodecanesulfonic acid (PFDS)	ND		1.7		ng/L		07/21/22 11:57	07/21/22 23:05	1
Perfluorooctanesulfonamide (PFOSA)	ND		1.7		ng/L		07/21/22 11:57	07/21/22 23:05	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		4.3		ng/L		07/21/22 11:57	07/21/22 23:05	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		4.3		ng/L		07/21/22 11:57	07/21/22 23:05	1
1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2)	ND		4.3		ng/L		07/21/22 11:57	07/21/22 23:05	1
1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2)	ND		1.7		ng/L		07/21/22 11:57	07/21/22 23:05	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
18O2 PFHxS	*78*		*50 - 150*	*07/21/22 11:57*	*07/21/22 23:05*	*1*
13C4 PFHpA	*107*		*50 - 150*	*07/21/22 11:57*	*07/21/22 23:05*	*1*
13C4 PFOA	*106*		*50 - 150*	*07/21/22 11:57*	*07/21/22 23:05*	*1*
13C4 PFOS	*67*		*50 - 150*	*07/21/22 11:57*	*07/21/22 23:05*	*1*
13C5 PFNA	*91*		*50 - 150*	*07/21/22 11:57*	*07/21/22 23:05*	*1*
13C4 PFBA	*117*		*50 - 150*	*07/21/22 11:57*	*07/21/22 23:05*	*1*
13C2 PFHxA	*112*		*50 - 150*	*07/21/22 11:57*	*07/21/22 23:05*	*1*
13C2 PFDA	*88*		*50 - 150*	*07/21/22 11:57*	*07/21/22 23:05*	*1*
13C2 PFUnA	*74*		*50 - 150*	*07/21/22 11:57*	*07/21/22 23:05*	*1*
13C2 PFDoA	*68*		*50 - 150*	*07/21/22 11:57*	*07/21/22 23:05*	*1*
13C8 FOSA	*60*		*50 - 150*	*07/21/22 11:57*	*07/21/22 23:05*	*1*
13C5 PFPeA	*117*		*50 - 150*	*07/21/22 11:57*	*07/21/22 23:05*	*1*
13C2 PFTeDA	*71*		*50 - 150*	*07/21/22 11:57*	*07/21/22 23:05*	*1*
d3-NMeFOSAA	*86*		*50 - 150*	*07/21/22 11:57*	*07/21/22 23:05*	*1*
d5-NEtFOSAA	*80*		*50 - 150*	*07/21/22 11:57*	*07/21/22 23:05*	*1*
M2-6:2 FTS	*87*		*50 - 150*	*07/21/22 11:57*	*07/21/22 23:05*	*1*
M2-8:2 FTS	*78*		*50 - 150*	*07/21/22 11:57*	*07/21/22 23:05*	*1*
13C3 PFBS	*90*		*50 - 150*	*07/21/22 11:57*	*07/21/22 23:05*	*1*

Isotope Dilution Summary

Client: Atlas Technical Consultants LLC
Project/Site: Portsmouth Landfill

Job ID: 620-5844-1

Method: 537 (modified) - Fluorinated Alkyl Substances

Matrix: Water **Prep Type: Total/NA**

		Percent Isotope Dilution Recovery (Acceptance Limits)							
Lab Sample ID	Client Sample ID	PFHxS (50-150)	C4PFHA (50-150)	PFOA (50-150)	PFOS (50-150)	PFNA (50-150)	PFBA (50-150)	PFHxA (50-150)	PFDA (50-150)
620-5844-1	MW-1	81	106	103	77	99	104	108	94
620-5844-2	MW-2	80	105	101	76	97	107	107	95
620-5844-3	MW-3	80	104	104	74	95	100	107	91
620-5844-4	MW-4	83	105	105	73	98	93	106	98
620-5844-5	MW-5	81	107	105	75	96	100	108	94
620-5844-6	MW-6	82	105	104	75	96	95	109	95
620-5844-7	MW-7	82	105	105	77	98	94	106	99
620-5844-8	MW-8	81	102	104	73	92	101	107	94
620-5844-9	Trip Blank	78	107	106	67	91	117	112	88
LLCS 200-181907/2-A	Lab Control Sample	80	104	104	75	96	115	110	92
MB 200-181907/1-A	Method Blank	80	105	103	74	99	115	108	94

		Percent Isotope Dilution Recovery (Acceptance Limits)							
Lab Sample ID	Client Sample ID	PFUnA (50-150)	PFDoA (50-150)	PFOSA (50-150)	PFPeA (50-150)	PFTDA (50-150)	d3NMFOS (50-150)	d5NEFOS (50-150)	M262FTS (50-150)
620-5844-1	MW-1	87	79	73	112	79	97	88	87
620-5844-2	MW-2	88	87	73	117	79	93	90	92
620-5844-3	MW-3	80	75	70	112	71	87	87	90
620-5844-4	MW-4	91	90	73	108	87	100	95	93
620-5844-5	MW-5	84	76	75	112	74	97	87	91
620-5844-6	MW-6	87	80	74	108	79	90	92	94
620-5844-7	MW-7	91	80	75	111	80	99	89	97
620-5844-8	MW-8	83	79	75	111	78	91	89	90
620-5844-9	Trip Blank	74	68	60	117	71	86	80	87
LLCS 200-181907/2-A	Lab Control Sample	85	79	75	123	77	95	85	82
MB 200-181907/1-A	Method Blank	87	80	74	115	76	99	93	82

		Percent Isotope Dilution Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	M282FTS (50-150)	C3PFBS (50-150)
620-5844-1	MW-1	92	84
620-5844-2	MW-2	92	94
620-5844-3	MW-3	83	88
620-5844-4	MW-4	91	88
620-5844-5	MW-5	88	92
620-5844-6	MW-6	90	84
620-5844-7	MW-7	92	87
620-5844-8	MW-8	87	82
620-5844-9	Trip Blank	78	90
LLCS 200-181907/2-A	Lab Control Sample	87	91
MB 200-181907/1-A	Method Blank	82	87

Surrogate Legend

PFHxS = 18O2 PFHxS
C4PFHA = 13C4 PFHpA
PFOA = 13C4 PFOA
PFOS = 13C4 PFOS
PFNA = 13C5 PFNA
PFBA = 13C4 PFBA
PFHxA = 13C2 PFHxA
PFDA = 13C2 PFDA

Isotope Dilution Summary

Client: Atlas Technical Consultants LLC
Job ID: 620-5844-1
Project/Site: Portsmouth Landfill

PFUnA = 13C2 PFUnA
PFDoA = 13C2 PFDoA
PFOSA = 13C8 FOSA
PFPeA = 13C5 PFPeA
PFTDA = 13C2 PFTeDA
d3NMFOS = d3-NMeFOSAA
d5NEFOS = d5-NEtFOSAA
M262FTS = M2-6:2 FTS
M282FTS = M2-8:2 FTS
C3PFBS = 13C3 PFBS

Method: 537 (modified) - Fluorinated Alkyl Substances

Lab Sample ID: MB 200-181907/1-A
Matrix: Water
Analysis Batch: 181928

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 181907

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	ND		5.0		ng/L		07/21/22 11:57	07/21/22 19:56	1
Perfluoropentanoic acid (PFPeA)	ND		2.0		ng/L		07/21/22 11:57	07/21/22 19:56	1
Perfluorohexanoic acid (PFHxA)	ND		2.0		ng/L		07/21/22 11:57	07/21/22 19:56	1
Perfluoroheptanoic acid (PFHpA)	ND		2.0		ng/L		07/21/22 11:57	07/21/22 19:56	1
Perfluorooctanoic acid (PFOA)	ND		2.0		ng/L		07/21/22 11:57	07/21/22 19:56	1
Perfluorononanoic acid (PFNA)	ND		2.0		ng/L		07/21/22 11:57	07/21/22 19:56	1
Perfluorodecanoic acid (PFDA)	ND		2.0		ng/L		07/21/22 11:57	07/21/22 19:56	1
Perfluoroundecanoic acid (PFUnA)	ND		2.0		ng/L		07/21/22 11:57	07/21/22 19:56	1
Perfluorododecanoic acid (PFDoA)	ND		2.0		ng/L		07/21/22 11:57	07/21/22 19:56	1
Perfluorotridecanoic acid (PFTriA)	ND		2.0		ng/L		07/21/22 11:57	07/21/22 19:56	1
Perfluorotetradecanoic acid (PFTeA)	ND		2.0		ng/L		07/21/22 11:57	07/21/22 19:56	1
Perfluorobutanesulfonic acid (PFBS)	ND		2.0		ng/L		07/21/22 11:57	07/21/22 19:56	1
Perfluorohexanesulfonic acid (PFHxS)	ND		2.0		ng/L		07/21/22 11:57	07/21/22 19:56	1
Perfluoroheptanesulfonic acid (PFHpS)	ND		2.0		ng/L		07/21/22 11:57	07/21/22 19:56	1
Perfluorooctanesulfonic acid (PFOS)	ND		2.0		ng/L		07/21/22 11:57	07/21/22 19:56	1
Perfluorodecanesulfonic acid (PFDS)	ND		2.0		ng/L		07/21/22 11:57	07/21/22 19:56	1
Perfluorooctanesulfonamide (PFOSA)	ND		2.0		ng/L		07/21/22 11:57	07/21/22 19:56	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		5.0		ng/L		07/21/22 11:57	07/21/22 19:56	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		5.0		ng/L		07/21/22 11:57	07/21/22 19:56	1
1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2)	ND		5.0		ng/L		07/21/22 11:57	07/21/22 19:56	1
1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2)	ND		2.0		ng/L		07/21/22 11:57	07/21/22 19:56	1

Isotope Dilution	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
18O2 PFHxS	*80*		*50 - 150*	*07/21/22 11:57*	*07/21/22 19:56*	*1*
13C4 PFHpA	*105*		*50 - 150*	*07/21/22 11:57*	*07/21/22 19:56*	*1*
13C4 PFOA	*103*		*50 - 150*	*07/21/22 11:57*	*07/21/22 19:56*	*1*
13C4 PFOS	*74*		*50 - 150*	*07/21/22 11:57*	*07/21/22 19:56*	*1*
13C5 PFNA	*99*		*50 - 150*	*07/21/22 11:57*	*07/21/22 19:56*	*1*
13C4 PFBA	*115*		*50 - 150*	*07/21/22 11:57*	*07/21/22 19:56*	*1*
13C2 PFHxA	*108*		*50 - 150*	*07/21/22 11:57*	*07/21/22 19:56*	*1*
13C2 PFDA	*94*		*50 - 150*	*07/21/22 11:57*	*07/21/22 19:56*	*1*
13C2 PFUnA	*87*		*50 - 150*	*07/21/22 11:57*	*07/21/22 19:56*	*1*
13C2 PFDoA	*80*		*50 - 150*	*07/21/22 11:57*	*07/21/22 19:56*	*1*
13C8 FOSA	*74*		*50 - 150*	*07/21/22 11:57*	*07/21/22 19:56*	*1*
13C5 PFPeA	*115*		*50 - 150*	*07/21/22 11:57*	*07/21/22 19:56*	*1*
13C2 PFTeDA	*76*		*50 - 150*	*07/21/22 11:57*	*07/21/22 19:56*	*1*
d3-NMeFOSAA	*99*		*50 - 150*	*07/21/22 11:57*	*07/21/22 19:56*	*1*
d5-NEtFOSAA	*93*		*50 - 150*	*07/21/22 11:57*	*07/21/22 19:56*	*1*
M2-6:2 FTS	*82*		*50 - 150*	*07/21/22 11:57*	*07/21/22 19:56*	*1*
M2-8:2 FTS	*82*		*50 - 150*	*07/21/22 11:57*	*07/21/22 19:56*	*1*
13C3 PFBS	*87*		*50 - 150*	*07/21/22 11:57*	*07/21/22 19:56*	*1*

Method: 537 (modified) - Fluorinated Alkyl Substances (Continued)

Lab Sample ID: LLCS 200-181907/2-A
Matrix: Water
Analysis Batch: 181928

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 181907

Analyte	Spike Added	LLCS Result	LLCS Qualifier	Unit	D	%Rec	%Rec Limits
Perfluorobutanoic acid (PFBA)	10.0	10.9		ng/L		109	50 - 150
Perfluoropentanoic acid (PFPeA)	4.00	4.10		ng/L		103	50 - 150
Perfluorohexanoic acid (PFHxA)	4.00	4.26		ng/L		107	50 - 150
Perfluoroheptanoic acid (PFHpA)	4.00	4.41		ng/L		110	50 - 150
Perfluorooctanoic acid (PFOA)	4.00	4.15		ng/L		104	50 - 150
Perfluorononanoic acid (PFNA)	4.00	4.34		ng/L		109	50 - 150
Perfluorodecanoic acid (PFDA)	4.00	4.38		ng/L		109	50 - 150
Perfluoroundecanoic acid (PFUnA)	4.00	4.28		ng/L		107	50 - 150
Perfluorododecanoic acid (PFDoA)	4.00	4.16		ng/L		104	50 - 150
Perfluorotridecanoic acid (PFTriA)	4.00	4.40		ng/L		110	50 - 150
Perfluorotetradecanoic acid (PFTeA)	4.00	4.36		ng/L		109	50 - 150
Perfluorobutanesulfonic acid (PFBS)	3.54	3.68		ng/L		104	50 - 150
Perfluorohexanesulfonic acid (PFHxS)	3.64	3.82		ng/L		105	50 - 150
Perfluoroheptanesulfonic acid (PFHpS)	3.81	3.99		ng/L		105	50 - 150
Perfluorooctanesulfonic acid (PFOS)	3.71	3.63		ng/L		98	50 - 150
Perfluorodecanesulfonic acid (PFDS)	3.86	3.41		ng/L		88	50 - 150
Perfluorooctanesulfonamide (PFOSA)	4.00	3.98		ng/L		99	50 - 150
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	10.0	9.53		ng/L		95	50 - 150
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	10.0	9.59		ng/L		96	50 - 150
1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2)	9.48	9.63		ng/L		102	50 - 150
1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2)	3.83	3.36		ng/L		88	50 - 150

Isotope Dilution	*LLCS %Recovery*	*LLCS Qualifier*	*Limits*
18O2 PFHxS	*80*		*50 - 150*
13C4 PFHpA	*104*		*50 - 150*
13C4 PFOA	*104*		*50 - 150*
13C4 PFOS	*75*		*50 - 150*
13C5 PFNA	*96*		*50 - 150*
13C4 PFBA	*115*		*50 - 150*
13C2 PFHxA	*110*		*50 - 150*
13C2 PFDA	*92*		*50 - 150*
13C2 PFUnA	*85*		*50 - 150*
13C2 PFDoA	*79*		*50 - 150*
13C8 FOSA	*75*		*50 - 150*
13C5 PFPeA	*123*		*50 - 150*
13C2 PFTeDA	*77*		*50 - 150*
d3-NMeFOSAA	*95*		*50 - 150*
d5-NEtFOSAA	*85*		*50 - 150*

Method: 537 (modified) - Fluorinated Alkyl Substances (Continued)

Lab Sample ID: LLCS 200-181907/2-A
Matrix: Water
Analysis Batch: 181928

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 181907

Isotope Dilution	LLCS %Recovery	LLCS Qualifier	Limits
M2-6:2 FTS	82		50 - 150
M2-8:2 FTS	87		50 - 150
13C3 PFBS	91		50 - 150

QC Association Summary

Client: Atlas Technical Consultants LLC
Project/Site: Portsmouth Landfill

Job ID: 620-5844-1

LCMS

Prep Batch: 181907

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
620-5844-1	MW-1	Total/NA	Water	3535	
620-5844-2	MW-2	Total/NA	Water	3535	
620-5844-3	MW-3	Total/NA	Water	3535	
620-5844-4	MW-4	Total/NA	Water	3535	
620-5844-5	MW-5	Total/NA	Water	3535	
620-5844-6	MW-6	Total/NA	Water	3535	
620-5844-7	MW-7	Total/NA	Water	3535	
620-5844-8	MW-8	Total/NA	Water	3535	
620-5844-9	Trip Blank	Total/NA	Water	3535	
MB 200-181907/1-A	Method Blank	Total/NA	Water	3535	
LLCS 200-181907/2-A	Lab Control Sample	Total/NA	Water	3535	

Analysis Batch: 181928

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
620-5844-1	MW-1	Total/NA	Water	537 (modified)	181907
620-5844-2	MW-2	Total/NA	Water	537 (modified)	181907
620-5844-3	MW-3	Total/NA	Water	537 (modified)	181907
620-5844-4	MW-4	Total/NA	Water	537 (modified)	181907
620-5844-5	MW-5	Total/NA	Water	537 (modified)	181907
620-5844-6	MW-6	Total/NA	Water	537 (modified)	181907
620-5844-7	MW-7	Total/NA	Water	537 (modified)	181907
620-5844-8	MW-8	Total/NA	Water	537 (modified)	181907
620-5844-9	Trip Blank	Total/NA	Water	537 (modified)	181907
MB 200-181907/1-A	Method Blank	Total/NA	Water	537 (modified)	181907
LLCS 200-181907/2-A	Lab Control Sample	Total/NA	Water	537 (modified)	181907

Lab Chronicle

Client: Atlas Technical Consultants LLC
Project/Site: Portsmouth Landfill

Job ID: 620-5844-1

Client Sample ID: MW-1
Date Collected: 07/19/22 14:45
Date Received: 07/19/22 17:06

Lab Sample ID: 620-5844-1
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3535			181907	07/21/22 11:57	CM	TAL BUR
Total/NA	Analysis	537 (modified)		1	181928	07/21/22 21:59	ND	TAL BUR

Client Sample ID: MW-2
Date Collected: 07/19/22 12:40
Date Received: 07/19/22 17:06

Lab Sample ID: 620-5844-2
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3535			181907	07/21/22 11:57	CM	TAL BUR
Total/NA	Analysis	537 (modified)		1	181928	07/21/22 22:07	ND	TAL BUR

Client Sample ID: MW-3
Date Collected: 07/19/22 11:25
Date Received: 07/19/22 17:06

Lab Sample ID: 620-5844-3
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3535			181907	07/21/22 11:57	CM	TAL BUR
Total/NA	Analysis	537 (modified)		1	181928	07/21/22 22:15	ND	TAL BUR

Client Sample ID: MW-4
Date Collected: 07/19/22 08:50
Date Received: 07/19/22 17:06

Lab Sample ID: 620-5844-4
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3535			181907	07/21/22 11:57	CM	TAL BUR
Total/NA	Analysis	537 (modified)		1	181928	07/21/22 22:24	ND	TAL BUR

Client Sample ID: MW-5
Date Collected: 07/19/22 15:20
Date Received: 07/19/22 17:06

Lab Sample ID: 620-5844-5
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3535			181907	07/21/22 11:57	CM	TAL BUR
Total/NA	Analysis	537 (modified)		1	181928	07/21/22 22:32	ND	TAL BUR

Client Sample ID: MW-6
Date Collected: 07/19/22 10:25
Date Received: 07/19/22 17:06

Lab Sample ID: 620-5844-6
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3535			181907	07/21/22 11:57	CM	TAL BUR
Total/NA	Analysis	537 (modified)		1	181928	07/21/22 22:40	ND	TAL BUR

Lab Chronicle

Client: Atlas Technical Consultants LLC
Project/Site: Portsmouth Landfill

Job ID: 620-5844-1

Client Sample ID: MW-7
Date Collected: 07/19/22 09:25
Date Received: 07/19/22 17:06

Lab Sample ID: 620-5844-7
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3535			181907	07/21/22 11:57	CM	TAL BUR
Total/NA	Analysis	537 (modified)		1	181928	07/21/22 22:48	ND	TAL BUR

Client Sample ID: MW-8
Date Collected: 07/19/22 13:45
Date Received: 07/19/22 17:06

Lab Sample ID: 620-5844-8
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3535			181907	07/21/22 11:57	CM	TAL BUR
Total/NA	Analysis	537 (modified)		1	181928	07/21/22 22:56	ND	TAL BUR

Client Sample ID: Trip Blank
Date Collected: 07/19/22 08:05
Date Received: 07/19/22 17:06

Lab Sample ID: 620-5844-9
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3535			181907	07/21/22 11:57	CM	TAL BUR
Total/NA	Analysis	537 (modified)		1	181928	07/21/22 23:05	ND	TAL BUR

Laboratory References:

TAL BUR = Eurofins Burlington, 530 Community Drive, Suite 11, South Burlington, VT 05403, TEL (802)660-1990

Accreditation/Certification Summary

Client: Atlas Technical Consultants LLC
Job ID: 620-5844-1
Project/Site: Portsmouth Landfill

Laboratory: Eurofins Burlington

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
ANAB	Dept. of Defense ELAP	L2336	02-25-23
Connecticut	State	PH-0751	09-30-23
DE Haz. Subst. Cleanup Act (HSCA)	State	N/A	05-17-23
Florida	NELAP	E87467	06-30-23
Minnesota	NELAP	050-999-436	12-31-22
New Hampshire	NELAP	2006	12-18-22
New Jersey	NELAP	VT972	06-30-23
New York	NELAP	10391	04-01-23
Pennsylvania	NELAP	68-00489	04-30-23
Rhode Island	State	LAO00298	12-30-22
US Fish & Wildlife	US Federal Programs	058448	07-31-22
USDA	US Federal Programs	P330-17-00272	10-30-23
Vermont	State	VT4000	02-10-23
Virginia	NELAP	460209	12-14-22
Wisconsin	State	399133350	08-31-22

Method Summary

Client: Atlas Technical Consultants LLC
Project/Site: Portsmouth Landfill

Job ID: 620-5844-1

Method	Method Description	Protocol	Laboratory
537 (modified)	Fluorinated Alkyl Substances	EPA	TAL BUR
3535	Solid-Phase Extraction (SPE)	SW846	TAL BUR

Protocol References:

EPA = US Environmental Protection Agency

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL BUR = Eurofins Burlington, 530 Community Drive, Suite 11, South Burlington, VT 05403, TEL (802)660-1990

Sample Summary

Client: Atlas Technical Consultants LLC
Project/Site: Portsmouth Landfill

Job ID: 620-5844-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
620-5844-1	MW-1	Water	07/19/22 14:45	07/19/22 17:06
620-5844-2	MW-2	Water	07/19/22 12:40	07/19/22 17:06
620-5844-3	MW-3	Water	07/19/22 11:25	07/19/22 17:06
620-5844-4	MW-4	Water	07/19/22 08:50	07/19/22 17:06
620-5844-5	MW-5	Water	07/19/22 15:20	07/19/22 17:06
620-5844-6	MW-6	Water	07/19/22 10:25	07/19/22 17:06
620-5844-7	MW-7	Water	07/19/22 09:25	07/19/22 17:06
620-5844-8	MW-8	Water	07/19/22 13:45	07/19/22 17:06
620-5844-9	Trip Blank	Water	07/19/22 08:05	07/19/22 17:06

>> Select a Laboratory or Service Center <<

#N/A
#N/A
#N/A
##

Chain of Custody Record

eurofins

Regulatory Program: ☐DW ☐NPDES ☐RCRA ☑Other: RIDEM Solid Waste Regs TestAmerica Laboratories, Inc. d/b/a Eurofins TestAmerica

Client Contact		
Atlas dba ATC Group Services	Project Manager: Adrienne Kee	COC No.
10 State St, Suite 100	Email adrienne kee@oneatlas com	1 of 1 COCs
Woburn, MA 01801	Tel: 401.741.2183	TALS Project #:
Adrienne Kee 401 741.2183	Site Contact: Adrienne Kee	Sampler
Project Name: Portsmouth Landfill	Lab Contact: Becky Mason	For Lab Use Only:
Site Park Ave, Portsmouth RI	Date:	Walk-in Client:
P O # 3010000351	Carrier:	Lab Sampling:
		Job / SDG No..

Analysis Turnaround Time

☐ CALENDAR DAYS ☐ WORKING DAYS

TAT if different from Below ________

☐ 2 weeks
☐ 1 week
☐ 2 days
☐ 1 day

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	Matrix	# of Cont.	Filtered Sample (Y / N)	Perform MS / MSD (Y / N)	PFAs 537m (Isotope Dilution)	Sample Specific Notes.
MW-1	7/14/22	1445	G	GW	2	N		X	
MW-2	↓	1240	↓	↓	↓	↓			
MW-3	↓	1125	↓	↓	↓	↓			
MW-4	↓	0850	↓	↓	↓	↓			
MW-5	↓	1520	↓	↓	↓	↓			
MW-6	↓	1025	↓	↓	↓	↓			
MW-7	↓	0925	↓	↓	↓	↓			
MW-8	↓	1345	↓	↓	↓	↓			
Trip Blank	↓	0800	G	PFAS Free water	2	↓		X	

620-5844 Chain of Custody

Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other ________

Possible Hazard Identification:
Are any samples from a listed EPA Hazardous Waste? Please List any EPA Waste Codes for the sample in the Comments Section if the lab is to dispose of the sample

☐Non-Hazard ☐Flammable ☐Skin Irritant ☐Poison B ☑Unknown

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)

☐Return to Client ☐Disposal by Lab ☐Archive for ______ Months

Special Instructions/QC Requirements & Comments: RIDEM Solid Waste Regulations

Custody Seals Intact: ☐ Yes ☐ No	Custody Seal No.		Cooler Temp (°C): Obs'd. 4.1 Corr'd: 4.5		Therm ID No. TR [illegible]
Relinquished by: [signature]	Company:	Date/Time:	Received by: [signature]	Company: EAE	Date/Time: 5:06
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
Relinquished by:	Company:	Date/Time:	Received in Laboratory by:	Company:	Date/Time:

Form No. CA-C-WI-002, Rev. 4.35, dated 10/6/2020

Eurofins New England
646 Camp Ave
North Kingstown, RI 02852
Phone 413-789-9018

Chain of Custody Record

620-5844 Chain of Custody

ofins Environment Testing America

Client Information (Sub Contract Lab)	Sampler:	Lab PM: Mason, Becky C		620-5303.1
Client Contact: Shipping/Receiving	Phone	E-Mail: Becky.Mason@et.eurofinsus.com	State of Origin: Rhode Island	Page: Page 1 of 1
Company: TestAmerica Laboratories, Inc.		Accreditations Required (See note)		Job #: 620-5844-1
Address: 530 Community Drive, Suite 11,	Due Date Requested: 7/26/2022			
City: South Burlington	TAT Requested (days):			
State, Zip: VT, 05403				
Phone: 802-660-1990(Tel) 802-660-1919(Fax)	PO #:			
Email	WO #:			
Project Name: Landfill	Project #: 62001272			
Site	SSOW#:			

Analysis Requested

Preservation Codes:

A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - pH 4-5, Y - Trizma, Z - other (specify)

Other:

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	PFC_DA/3535_IVWT PFAS, Standard List (21 analytes)	Total Number of containers	Special Instructions/Note:
			Preservation Code:						
MW-1 (620-5844-1)	7/19/22	14 45 Eastern		Water			X	2	
MW-2 (620-5844-2)	7/19/22	12 40 Eastern		Water			X	2	
MW-3 (620-5844-3)	7/19/22	11 25 Eastern		Water			X	2	
MW-4 (620-5844-4)	7/19/22	08 50 Eastern		Water			X	2	
MW-5 (620-5844-5)	7/19/22	15 20 Eastern		Water			X	2	
MW-6 (620-5844-6)	7/19/22	10 25 Eastern		Water			X	2	
MW-7 (620-5844-7)	7/19/22	09 25 Eastern		Water			X	2	
MW-8 (620-5844-8)	7/19/22	13 45 Eastern		Water			X	2	
Trip Blank (620-5844-9)	7/19/22	08 05 Eastern		Water			X	2	

Note Since laboratory accreditations are subject to change, Eurofins Environment Testing Northeast, LLC places the ownership of method, analyte & accreditation compliance upon out subcontract laboratories This sample shipment is forwarded under chain-of-custody If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the Eurofins Environment Testing Northeast, LLC laboratory or other instructions will be provided Any changes to accreditation status should be brought to Eurofins Environment Testing Northeast, LLC attention immediately If all requested accreditations are current to date, return the signed Chain of Custody attesting to said complicance to Eurofins Environment Testing Northeast, LLC

Possible Hazard Identification *Unconfirmed*	***Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)*** ☐ *Return To Client* ☐ *Disposal By Lab* ☐ *Archive For* _____ *Months*
Deliverable Requested I, II, III, IV, Other (specify) Primary Deliverable Rank. 2	Special Instructions/QC Requirements:

Empty Kit Relinquished by	Date	Time:	Method of Shipment:

	Relinquished by:	Date/Time	Company	Received by	Date/Time	Company
1		4:30 7/20/22	ENE		7/21/2022 10:28	TAKC
2	Relinquished by:	Date/Time	Company	Received by:	Date/Time	Company
3	Relinquished by	Date/Time	Company	Received by:	Date/Time	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No..	Cooler Temperature(s) °C and Other Remarks

Ver: 06/08/2021

After printing this label:
1. Use the 'Print' button on this page to print your label to your laser or inkjet printer.
2. Fold the printed page along the horizontal line.
3. Place label in shipping pouch and affix it to your shipment so that the barcode portion of the label can be read and scanned.

Warning Use only the printed original label for shipping. Using a photocopy of this label for shipping purposes is fraudulent and could result in additional billing charges, along with the cancellation of your FedEx account number.
Use of this system constitutes your agreement to the service conditions in the current FedEx Service Guide, available on fedex.com.FedEx will not be responsible for any claim in excess of $100 per package, whether the result of loss, damage, delay, non-delivery,misdelivery,or misinformation, unless you declare a higher value, pay an additional charge, document your actual loss and file a timely claim.Limitations found in the current FedEx Service Guide apply. Your right to recover from FedEx for any loss, including intrinsic value of the package, loss of sales, income interest, profit, attorney's fees, costs, and other forms of damage whether direct, incidental,consequential, or special is limited to the greater of $100 or the authorized declared value. Recovery cannot exceed actual documented loss.Maximum for items of extraordinary value is $1,000, e.g. jewelry, precious metals, negotiable instruments and other items listed in our ServiceGuide. Written claims must be filed within strict time limits, see current FedEx Service Guide.

Login Sample Receipt Checklist

Client: Atlas Technical Consultants LLC

Job Number: 620-5844-1

Login Number: 5844
List Number: 1
Creator: Makhoul, Elie

List Source: Eurofins New England

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	N/A	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Login Sample Receipt Checklist

Client: Atlas Technical Consultants LLC

Job Number: 620-5844-1

Login Number: 5844
List Number: 2
Creator: Cunningham, Caroline R

List Source: Eurofins Burlington
List Creation: 07/21/22 11:40 AM

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	Lab does not accept radioactive samples.
The cooler's custody seal, if present, is intact.	True	Seal present with no number.
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	3.3ºC
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	N/A	Received project as a subcontract.
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	N/A	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

eurofins | Environment Testing New England

ANALYTICAL REPORT

Eurofins New England
646 Camp Ave
North Kingstown, RI 02852
Tel: (413)789-9018

Laboratory Job ID: 620-5845-1
Client Project/Site: Portsmouth Landfill

For:
Atlas Technical Consultants LLC
400 Reservoir Ave
Suite 2C
Providence, Rhode Island 02907

Attn: Adrienne Kee

Authorized for release by:
7/26/2022 8:22:14 AM

Becky Mason, Project Manager II
(413)572-4000
Becky.Mason@et.eurofinsus.com

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

Table of Contents

Definitions/Glossary

Client: Atlas Technical Consultants LLC
Project/Site: Portsmouth Landfill

Job ID: 620-5845-1

Qualifiers

Metals

Qualifier	Qualifier Description
^6+	Interference Check Standard (ICSA and/or ICSAB) is outside acceptance limits, high biased.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Job ID: 620-5845-1

Laboratory: Eurofins New England

Narrative

Job Narrative
620-5845-1

Receipt
The samples were received on 7/19/2022 5:05 PM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice. The temperature of the cooler at receipt was 18.5º C.

Receipt Exceptions
The following samples were received at the laboratory outside the required temperature criteria: MW-1 (620-5845-1), MW-2 (620-5845-2), MW-3 (620-5845-3), MW-4 (620-5845-4), MW-5 (620-5845-5), MW-6 (620-5845-6), MW-7 (620-5845-7), MW-8 (620-5845-8) and Trip Blank (620-5845-9). The samples are considered acceptable since it was collected and submitted to the laboratory on the same day and there is evidence that the chilling process has begun.

GC/MS VOA
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Metals
Method 6020B: The interference check standard solution (ICSA) associated with the following samples showed results for <barium> at a level greater than 2X the reporting limit. The solution contains trace impurities of this element, and the results are not due to any matrix interference. These results are consistent with those found by the manufacturer of the ICSA solution. MW-1 (620-5845-1), MW-2 (620-5845-2), MW-3 (620-5845-3), MW-4 (620-5845-4), MW-5 (620-5845-5), MW-6 (620-5845-6), MW-7 (620-5845-7), MW-8 (620-5845-8), (LCS 480-634474/2-A) and (MB 480-634474/1-A) MW-1 (620-5845-1), MW-2 (620-5845-2), MW-3 (620-5845-3), MW-4 (620-5845-4), MW-5 (620-5845-5), MW-6 (620-5845-6), MW-7 (620-5845-7), MW-8 (620-5845-8), (LCS 480-634474/2-A) and (MB 480-634474/1-A)

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Detection Summary

Client: Atlas Technical Consultants LLC
Project/Site: Portsmouth Landfill

Job ID: 620-5845-1

Client Sample ID: MW-1 — Lab Sample ID: 620-5845-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	3.1		1.0		ug/L	1		6020B	Total/NA
Barium	180	^6+	1.0		ug/L	1		6020B	Total/NA
Cobalt	0.56		0.30		ug/L	1		6020B	Total/NA
Copper	3.0		1.0		ug/L	1		6020B	Total/NA
Zinc	42		10		ug/L	1		6020B	Total/NA

Client Sample ID: MW-2 — Lab Sample ID: 620-5845-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chlorobenzene	1.1		1.0		ug/L	1		8260C	Total/NA
Chloroethane	6.5		2.0		ug/L	1		8260C	Total/NA
Isopropylbenzene	11		1.0		ug/L	1		8260C	Total/NA
Arsenic	3.8		1.0		ug/L	1		6020B	Total/NA
Barium	100	^6+	1.0		ug/L	1		6020B	Total/NA
Cobalt	0.56		0.30		ug/L	1		6020B	Total/NA
Copper	4.3		1.0		ug/L	1		6020B	Total/NA
Lead	2.1		1.0		ug/L	1		6020B	Total/NA
Zinc	37		10		ug/L	1		6020B	Total/NA

Client Sample ID: MW-3 — Lab Sample ID: 620-5845-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chlorobenzene	1.7		1.0		ug/L	1		8260C	Total/NA
Arsenic	4.3		1.0		ug/L	1		6020B	Total/NA
Barium	39	^6+	1.0		ug/L	1		6020B	Total/NA
Cobalt	12		0.30		ug/L	1		6020B	Total/NA
Copper	1.8		1.0		ug/L	1		6020B	Total/NA
Lead	3.2		1.0		ug/L	1		6020B	Total/NA
Nickel	6.8		1.0		ug/L	1		6020B	Total/NA
Zinc	37		10		ug/L	1		6020B	Total/NA

Client Sample ID: MW-4 — Lab Sample ID: 620-5845-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Barium	62	^6+	1.0		ug/L	1		6020B	Total/NA
Cadmium	4.1		0.50		ug/L	1		6020B	Total/NA
Cobalt	0.38		0.30		ug/L	1		6020B	Total/NA
Copper	58		1.0		ug/L	1		6020B	Total/NA
Lead	3.1		1.0		ug/L	1		6020B	Total/NA
Nickel	27		1.0		ug/L	1		6020B	Total/NA
Zinc	1500		100		ug/L	10		6020B	Total/NA

Client Sample ID: MW-5 — Lab Sample ID: 620-5845-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	8.5		1.0		ug/L	1		6020B	Total/NA
Barium	180	^6+	1.0		ug/L	1		6020B	Total/NA
Cadmium	0.52		0.50		ug/L	1		6020B	Total/NA
Chromium	21		1.5		ug/L	1		6020B	Total/NA
Cobalt	14		0.30		ug/L	1		6020B	Total/NA
Copper	49		1.0		ug/L	1		6020B	Total/NA
Lead	110		1.0		ug/L	1		6020B	Total/NA
Nickel	24		1.0		ug/L	1		6020B	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins New England

Detection Summary

Client: Atlas Technical Consultants LLC
Project/Site: Portsmouth Landfill

Job ID: 620-5845-1

Client Sample ID: MW-5 (Continued) — Lab Sample ID: 620-5845-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Vanadium	22		4.0		ug/L	1		6020B	Total/NA
Zinc	210		10		ug/L	1		6020B	Total/NA

Client Sample ID: MW-6 — Lab Sample ID: 620-5845-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,4-Dichlorobenzene	1.6		1.0		ug/L	1		8260C	Total/NA
Benzene	1.3		1.0		ug/L	1		8260C	Total/NA
Chlorobenzene	4.5		1.0		ug/L	1		8260C	Total/NA
Diethyl ether	1.3		1.0		ug/L	1		8260C	Total/NA
Isopropylbenzene	7.1		1.0		ug/L	1		8260C	Total/NA
Barium	320	^6+	1.0		ug/L	1		6020B	Total/NA
Chromium	1.6		1.5		ug/L	1		6020B	Total/NA
Cobalt	1.1		0.30		ug/L	1		6020B	Total/NA
Copper	1.6		1.0		ug/L	1		6020B	Total/NA
Lead	2.5		1.0		ug/L	1		6020B	Total/NA
Nickel	2.8		1.0		ug/L	1		6020B	Total/NA
Zinc	21		10		ug/L	1		6020B	Total/NA

Client Sample ID: MW-7 — Lab Sample ID: 620-5845-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Isopropylbenzene	9.2		1.0		ug/L	1		8260C	Total/NA
Arsenic	9.2		1.0		ug/L	1		6020B	Total/NA
Barium	160	^6+	1.0		ug/L	1		6020B	Total/NA
Chromium	7.4		1.5		ug/L	1		6020B	Total/NA
Cobalt	3.9		0.30		ug/L	1		6020B	Total/NA
Copper	8.3		1.0		ug/L	1		6020B	Total/NA
Lead	4.3		1.0		ug/L	1		6020B	Total/NA
Nickel	5.4		1.0		ug/L	1		6020B	Total/NA
Vanadium	5.1		4.0		ug/L	1		6020B	Total/NA
Zinc	18		10		ug/L	1		6020B	Total/NA

Client Sample ID: MW-8 — Lab Sample ID: 620-5845-8

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1-Dichloroethane	2.0		1.0		ug/L	1		8260C	Total/NA
Chloroethane	3.0		2.0		ug/L	1		8260C	Total/NA
cis-1,2-Dichloroethene	89		1.0		ug/L	1		8260C	Total/NA
trans-1,2-Dichloroethene	3.8		1.0		ug/L	1		8260C	Total/NA
Trichloroethene	1.1		1.0		ug/L	1		8260C	Total/NA
Vinyl chloride	20		1.0		ug/L	1		8260C	Total/NA
Arsenic	7.7		1.0		ug/L	1		6020B	Total/NA
Barium	85	^6+	1.0		ug/L	1		6020B	Total/NA
Chromium	3.8		1.5		ug/L	1		6020B	Total/NA
Cobalt	15		0.30		ug/L	1		6020B	Total/NA
Copper	4.9		1.0		ug/L	1		6020B	Total/NA
Lead	4.6		1.0		ug/L	1		6020B	Total/NA
Nickel	12		1.0		ug/L	1		6020B	Total/NA
Zinc	140		10		ug/L	1		6020B	Total/NA

This Detection Summary does not include radiochemical test results.

Detection Summary

Client: Atlas Technical Consultants LLC
Project/Site: Portsmouth Landfill

Job ID: 620-5845-1

Client Sample ID: Trip Blank

Lab Sample ID: 620-5845-9

No Detections.

This Detection Summary does not include radiochemical test results.

Client Sample Results

Client: Atlas Technical Consultants LLC
Project/Site: Portsmouth Landfill

Job ID: 620-5845-1

Client Sample ID: MW-1

Date Collected: 07/19/22 14:45
Date Received: 07/19/22 17:05

Lab Sample ID: 620-5845-1

Matrix: Water

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1-Dichloroethane	ND		1.0		ug/L			07/22/22 22:08	1
1,4-Dichlorobenzene	ND		1.0		ug/L			07/22/22 22:08	1
Benzene	ND		1.0		ug/L			07/22/22 22:08	1
Chlorobenzene	ND		1.0		ug/L			07/22/22 22:08	1
Chloroethane	ND		2.0		ug/L			07/22/22 22:08	1
Chloroform	ND		1.0		ug/L			07/22/22 22:08	1
cis-1,2-Dichloroethene	ND		1.0		ug/L			07/22/22 22:08	1
Dichlorodifluoromethane	ND		2.0		ug/L			07/22/22 22:08	1
Diethyl ether	ND		1.0		ug/L			07/22/22 22:08	1
Isopropylbenzene	ND		1.0		ug/L			07/22/22 22:08	1
Tetrachloroethene	ND		1.0		ug/L			07/22/22 22:08	1
trans-1,2-Dichloroethene	ND		1.0		ug/L			07/22/22 22:08	1
Trichloroethene	ND		1.0		ug/L			07/22/22 22:08	1
Vinyl chloride	ND		1.0		ug/L			07/22/22 22:08	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*101*		*70 - 130*		*07/22/22 22:08*	*1*
4-Bromofluorobenzene (Surr)	*96*		*70 - 130*		*07/22/22 22:08*	*1*
Dibromofluoromethane (Surr)	*100*		*70 - 130*		*07/22/22 22:08*	*1*
Toluene-d8 (Surr)	*101*		*70 - 130*		*07/22/22 22:08*	*1*

Method: 6020B - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		1.0		ug/L		07/22/22 09:00	07/22/22 18:26	1
Arsenic	**3.1**		1.0		ug/L		07/22/22 09:00	07/22/22 18:26	1
Barium	**180**	**^6+**	1.0		ug/L		07/22/22 09:00	07/22/22 18:26	1
Beryllium	ND		0.70		ug/L		07/22/22 09:00	07/22/22 18:26	1
Cadmium	ND		0.50		ug/L		07/22/22 09:00	07/22/22 18:26	1
Chromium	ND		1.5		ug/L		07/22/22 09:00	07/22/22 18:26	1
Cobalt	**0.56**		0.30		ug/L		07/22/22 09:00	07/22/22 18:26	1
Copper	**3.0**		1.0		ug/L		07/22/22 09:00	07/22/22 18:26	1
Lead	ND		1.0		ug/L		07/22/22 09:00	07/22/22 18:26	1
Nickel	ND		1.0		ug/L		07/22/22 09:00	07/22/22 18:26	1
Selenium	ND		1.0		ug/L		07/22/22 09:00	07/22/22 18:26	1
Silver	ND		0.50		ug/L		07/22/22 09:00	07/22/22 18:26	1
Thallium	ND		0.20		ug/L		07/22/22 09:00	07/22/22 18:26	1
Vanadium	ND		4.0		ug/L		07/22/22 09:00	07/22/22 18:26	1
Zinc	**42**		10		ug/L		07/22/22 09:00	07/22/22 18:26	1

Client Sample Results

Client: Atlas Technical Consultants LLC
Project/Site: Portsmouth Landfill

Job ID: 620-5845-1

Client Sample ID: MW-2

Date Collected: 07/19/22 12:40
Date Received: 07/19/22 17:05

Lab Sample ID: 620-5845-2

Matrix: Water

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1-Dichloroethane	ND		1.0		ug/L			07/22/22 22:34	1
1,4-Dichlorobenzene	ND		1.0		ug/L			07/22/22 22:34	1
Benzene	ND		1.0		ug/L			07/22/22 22:34	1
Chlorobenzene	**1.1**		1.0		ug/L			07/22/22 22:34	1
Chloroethane	**6.5**		2.0		ug/L			07/22/22 22:34	1
Chloroform	ND		1.0		ug/L			07/22/22 22:34	1
cis-1,2-Dichloroethene	ND		1.0		ug/L			07/22/22 22:34	1
Dichlorodifluoromethane	ND		2.0		ug/L			07/22/22 22:34	1
Diethyl ether	ND		1.0		ug/L			07/22/22 22:34	1
Isopropylbenzene	**11**		1.0		ug/L			07/22/22 22:34	1
Tetrachloroethene	ND		1.0		ug/L			07/22/22 22:34	1
trans-1,2-Dichloroethene	ND		1.0		ug/L			07/22/22 22:34	1
Trichloroethene	ND		1.0		ug/L			07/22/22 22:34	1
Vinyl chloride	ND		1.0		ug/L			07/22/22 22:34	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*102*		*70 - 130*		*07/22/22 22:34*	*1*
4-Bromofluorobenzene (Surr)	*98*		*70 - 130*		*07/22/22 22:34*	*1*
Dibromofluoromethane (Surr)	*101*		*70 - 130*		*07/22/22 22:34*	*1*
Toluene-d8 (Surr)	*101*		*70 - 130*		*07/22/22 22:34*	*1*

Method: 6020B - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		1.0		ug/L		07/22/22 09:00	07/22/22 18:28	1
Arsenic	**3.8**		1.0		ug/L		07/22/22 09:00	07/22/22 18:28	1
Barium	**100**	**^6+**	1.0		ug/L		07/22/22 09:00	07/22/22 18:28	1
Beryllium	ND		0.70		ug/L		07/22/22 09:00	07/22/22 18:28	1
Cadmium	ND		0.50		ug/L		07/22/22 09:00	07/22/22 18:28	1
Chromium	ND		1.5		ug/L		07/22/22 09:00	07/22/22 18:28	1
Cobalt	**0.56**		0.30		ug/L		07/22/22 09:00	07/22/22 18:28	1
Copper	**4.3**		1.0		ug/L		07/22/22 09:00	07/22/22 18:28	1
Lead	**2.1**		1.0		ug/L		07/22/22 09:00	07/22/22 18:28	1
Nickel	ND		1.0		ug/L		07/22/22 09:00	07/22/22 18:28	1
Selenium	ND		1.0		ug/L		07/22/22 09:00	07/22/22 18:28	1
Silver	ND		0.50		ug/L		07/22/22 09:00	07/22/22 18:28	1
Thallium	ND		0.20		ug/L		07/22/22 09:00	07/22/22 18:28	1
Vanadium	ND		4.0		ug/L		07/22/22 09:00	07/22/22 18:28	1
Zinc	**37**		10		ug/L		07/22/22 09:00	07/22/22 18:28	1

Client: Atlas Technical Consultants LLC
Project/Site: Portsmouth Landfill

Job ID: 620-5845-1

Client Sample ID: MW-3

Date Collected: 07/19/22 11:25
Date Received: 07/19/22 17:05

Lab Sample ID: 620-5845-3

Matrix: Water

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1-Dichloroethane	ND		1.0		ug/L			07/22/22 23:00	1
1,4-Dichlorobenzene	ND		1.0		ug/L			07/22/22 23:00	1
Benzene	ND		1.0		ug/L			07/22/22 23:00	1
Chlorobenzene	**1.7**		1.0		ug/L			07/22/22 23:00	1
Chloroethane	ND		2.0		ug/L			07/22/22 23:00	1
Chloroform	ND		1.0		ug/L			07/22/22 23:00	1
cis-1,2-Dichloroethene	ND		1.0		ug/L			07/22/22 23:00	1
Dichlorodifluoromethane	ND		2.0		ug/L			07/22/22 23:00	1
Diethyl ether	ND		1.0		ug/L			07/22/22 23:00	1
Isopropylbenzene	ND		1.0		ug/L			07/22/22 23:00	1
Tetrachloroethene	ND		1.0		ug/L			07/22/22 23:00	1
trans-1,2-Dichloroethene	ND		1.0		ug/L			07/22/22 23:00	1
Trichloroethene	ND		1.0		ug/L			07/22/22 23:00	1
Vinyl chloride	ND		1.0		ug/L			07/22/22 23:00	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*102*		*70 - 130*		*07/22/22 23:00*	*1*
4-Bromofluorobenzene (Surr)	*96*		*70 - 130*		*07/22/22 23:00*	*1*
Dibromofluoromethane (Surr)	*101*		*70 - 130*		*07/22/22 23:00*	*1*
Toluene-d8 (Surr)	*101*		*70 - 130*		*07/22/22 23:00*	*1*

Method: 6020B - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		1.0		ug/L		07/22/22 09:00	07/22/22 18:31	1
Arsenic	**4.3**		1.0		ug/L		07/22/22 09:00	07/22/22 18:31	1
Barium	**39**	**^6+**	1.0		ug/L		07/22/22 09:00	07/22/22 18:31	1
Beryllium	ND		0.70		ug/L		07/22/22 09:00	07/22/22 18:31	1
Cadmium	ND		0.50		ug/L		07/22/22 09:00	07/22/22 18:31	1
Chromium	ND		1.5		ug/L		07/22/22 09:00	07/22/22 18:31	1
Cobalt	**12**		0.30		ug/L		07/22/22 09:00	07/22/22 18:31	1
Copper	**1.8**		1.0		ug/L		07/22/22 09:00	07/22/22 18:31	1
Lead	**3.2**		1.0		ug/L		07/22/22 09:00	07/22/22 18:31	1
Nickel	**6.8**		1.0		ug/L		07/22/22 09:00	07/22/22 18:31	1
Selenium	ND		1.0		ug/L		07/22/22 09:00	07/22/22 18:31	1
Silver	ND		0.50		ug/L		07/22/22 09:00	07/22/22 18:31	1
Thallium	ND		0.20		ug/L		07/22/22 09:00	07/22/22 18:31	1
Vanadium	ND		4.0		ug/L		07/22/22 09:00	07/22/22 18:31	1
Zinc	**37**		10		ug/L		07/22/22 09:00	07/22/22 18:31	1

Client: Atlas Technical Consultants LLC
Project/Site: Portsmouth Landfill

Job ID: 620-5845-1

Client Sample ID: MW-4

Date Collected: 07/19/22 08:50
Date Received: 07/19/22 17:05

Lab Sample ID: 620-5845-4

Matrix: Water

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1-Dichloroethane	ND		1.0		ug/L			07/22/22 23:26	1
1,4-Dichlorobenzene	ND		1.0		ug/L			07/22/22 23:26	1
Benzene	ND		1.0		ug/L			07/22/22 23:26	1
Chlorobenzene	ND		1.0		ug/L			07/22/22 23:26	1
Chloroethane	ND		2.0		ug/L			07/22/22 23:26	1
Chloroform	ND		1.0		ug/L			07/22/22 23:26	1
cis-1,2-Dichloroethene	ND		1.0		ug/L			07/22/22 23:26	1
Dichlorodifluoromethane	ND		2.0		ug/L			07/22/22 23:26	1
Diethyl ether	ND		1.0		ug/L			07/22/22 23:26	1
Isopropylbenzene	ND		1.0		ug/L			07/22/22 23:26	1
Tetrachloroethene	ND		1.0		ug/L			07/22/22 23:26	1
trans-1,2-Dichloroethene	ND		1.0		ug/L			07/22/22 23:26	1
Trichloroethene	ND		1.0		ug/L			07/22/22 23:26	1
Vinyl chloride	ND		1.0		ug/L			07/22/22 23:26	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*101*		*70 - 130*		*07/22/22 23:26*	*1*
4-Bromofluorobenzene (Surr)	*96*		*70 - 130*		*07/22/22 23:26*	*1*
Dibromofluoromethane (Surr)	*101*		*70 - 130*		*07/22/22 23:26*	*1*
Toluene-d8 (Surr)	*102*		*70 - 130*		*07/22/22 23:26*	*1*

Method: 6020B - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		1.0		ug/L		07/22/22 09:00	07/22/22 18:33	1
Arsenic	ND		1.0		ug/L		07/22/22 09:00	07/22/22 18:33	1
Barium	**62**	**^6+**	1.0		ug/L		07/22/22 09:00	07/22/22 18:33	1
Beryllium	ND		0.70		ug/L		07/22/22 09:00	07/22/22 18:33	1
Cadmium	**4.1**		0.50		ug/L		07/22/22 09:00	07/22/22 18:33	1
Chromium	ND		1.5		ug/L		07/22/22 09:00	07/22/22 18:33	1
Cobalt	**0.38**		0.30		ug/L		07/22/22 09:00	07/22/22 18:33	1
Copper	**58**		1.0		ug/L		07/22/22 09:00	07/22/22 18:33	1
Lead	**3.1**		1.0		ug/L		07/22/22 09:00	07/22/22 18:33	1
Nickel	**27**		1.0		ug/L		07/22/22 09:00	07/22/22 18:33	1
Selenium	ND		1.0		ug/L		07/22/22 09:00	07/22/22 18:33	1
Silver	ND		0.50		ug/L		07/22/22 09:00	07/22/22 18:33	1
Thallium	ND		0.20		ug/L		07/22/22 09:00	07/22/22 18:33	1
Vanadium	ND		4.0		ug/L		07/22/22 09:00	07/22/22 18:33	1
Zinc	**1500**		100		ug/L		07/22/22 09:00	07/25/22 12:45	10

Client: Atlas Technical Consultants LLC
Project/Site: Portsmouth Landfill

Job ID: 620-5845-1

Client Sample ID: MW-5

Date Collected: 07/19/22 15:20
Date Received: 07/19/22 17:05

Lab Sample ID: 620-5845-5

Matrix: Water

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1-Dichloroethane	ND		1.0		ug/L			07/22/22 23:52	1
1,4-Dichlorobenzene	ND		1.0		ug/L			07/22/22 23:52	1
Benzene	ND		1.0		ug/L			07/22/22 23:52	1
Chlorobenzene	ND		1.0		ug/L			07/22/22 23:52	1
Chloroethane	ND		2.0		ug/L			07/22/22 23:52	1
Chloroform	ND		1.0		ug/L			07/22/22 23:52	1
cis-1,2-Dichloroethene	ND		1.0		ug/L			07/22/22 23:52	1
Dichlorodifluoromethane	ND		2.0		ug/L			07/22/22 23:52	1
Diethyl ether	ND		1.0		ug/L			07/22/22 23:52	1
Isopropylbenzene	ND		1.0		ug/L			07/22/22 23:52	1
Tetrachloroethene	ND		1.0		ug/L			07/22/22 23:52	1
trans-1,2-Dichloroethene	ND		1.0		ug/L			07/22/22 23:52	1
Trichloroethene	ND		1.0		ug/L			07/22/22 23:52	1
Vinyl chloride	ND		1.0		ug/L			07/22/22 23:52	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*102*		*70 - 130*		*07/22/22 23:52*	*1*
4-Bromofluorobenzene (Surr)	*96*		*70 - 130*		*07/22/22 23:52*	*1*
Dibromofluoromethane (Surr)	*102*		*70 - 130*		*07/22/22 23:52*	*1*
Toluene-d8 (Surr)	*102*		*70 - 130*		*07/22/22 23:52*	*1*

Method: 6020B - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		1.0		ug/L		07/22/22 09:00	07/22/22 18:35	1
Arsenic	**8.5**		1.0		ug/L		07/22/22 09:00	07/22/22 18:35	1
Barium	**180**	**^6+**	1.0		ug/L		07/22/22 09:00	07/22/22 18:35	1
Beryllium	ND		0.70		ug/L		07/22/22 09:00	07/22/22 18:35	1
Cadmium	**0.52**		0.50		ug/L		07/22/22 09:00	07/22/22 18:35	1
Chromium	**21**		1.5		ug/L		07/22/22 09:00	07/22/22 18:35	1
Cobalt	**14**		0.30		ug/L		07/22/22 09:00	07/22/22 18:35	1
Copper	**49**		1.0		ug/L		07/22/22 09:00	07/22/22 18:35	1
Lead	**110**		1.0		ug/L		07/22/22 09:00	07/22/22 18:35	1
Nickel	**24**		1.0		ug/L		07/22/22 09:00	07/22/22 18:35	1
Selenium	ND		1.0		ug/L		07/22/22 09:00	07/22/22 18:35	1
Silver	ND		0.50		ug/L		07/22/22 09:00	07/22/22 18:35	1
Thallium	ND		0.20		ug/L		07/22/22 09:00	07/22/22 18:35	1
Vanadium	**22**		4.0		ug/L		07/22/22 09:00	07/22/22 18:35	1
Zinc	**210**		10		ug/L		07/22/22 09:00	07/22/22 18:35	1

Client: Atlas Technical Consultants LLC
Project/Site: Portsmouth Landfill

Job ID: 620-5845-1

Client Sample ID: MW-6

Date Collected: 07/19/22 10:25
Date Received: 07/19/22 17:05

Lab Sample ID: 620-5845-6

Matrix: Water

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1-Dichloroethane	ND		1.0		ug/L			07/23/22 00:18	1
1,4-Dichlorobenzene	**1.6**		1.0		ug/L			07/23/22 00:18	1
Benzene	**1.3**		1.0		ug/L			07/23/22 00:18	1
Chlorobenzene	**4.5**		1.0		ug/L			07/23/22 00:18	1
Chloroethane	ND		2.0		ug/L			07/23/22 00:18	1
Chloroform	ND		1.0		ug/L			07/23/22 00:18	1
cis-1,2-Dichloroethene	ND		1.0		ug/L			07/23/22 00:18	1
Dichlorodifluoromethane	ND		2.0		ug/L			07/23/22 00:18	1
Diethyl ether	**1.3**		1.0		ug/L			07/23/22 00:18	1
Isopropylbenzene	**7.1**		1.0		ug/L			07/23/22 00:18	1
Tetrachloroethene	ND		1.0		ug/L			07/23/22 00:18	1
trans-1,2-Dichloroethene	ND		1.0		ug/L			07/23/22 00:18	1
Trichloroethene	ND		1.0		ug/L			07/23/22 00:18	1
Vinyl chloride	ND		1.0		ug/L			07/23/22 00:18	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*102*		*70 - 130*		*07/23/22 00:18*	*1*
4-Bromofluorobenzene (Surr)	*96*		*70 - 130*		*07/23/22 00:18*	*1*
Dibromofluoromethane (Surr)	*101*		*70 - 130*		*07/23/22 00:18*	*1*
Toluene-d8 (Surr)	*101*		*70 - 130*		*07/23/22 00:18*	*1*

Method: 6020B - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		1.0		ug/L		07/22/22 09:00	07/22/22 18:38	1
Arsenic	ND		1.0		ug/L		07/22/22 09:00	07/22/22 18:38	1
Barium	**320**	**^6+**	1.0		ug/L		07/22/22 09:00	07/22/22 18:38	1
Beryllium	ND		0.70		ug/L		07/22/22 09:00	07/22/22 18:38	1
Cadmium	ND		0.50		ug/L		07/22/22 09:00	07/22/22 18:38	1
Chromium	**1.6**		1.5		ug/L		07/22/22 09:00	07/22/22 18:38	1
Cobalt	**1.1**		0.30		ug/L		07/22/22 09:00	07/22/22 18:38	1
Copper	**1.6**		1.0		ug/L		07/22/22 09:00	07/22/22 18:38	1
Lead	**2.5**		1.0		ug/L		07/22/22 09:00	07/22/22 18:38	1
Nickel	**2.8**		1.0		ug/L		07/22/22 09:00	07/22/22 18:38	1
Selenium	ND		1.0		ug/L		07/22/22 09:00	07/22/22 18:38	1
Silver	ND		0.50		ug/L		07/22/22 09:00	07/22/22 18:38	1
Thallium	ND		0.20		ug/L		07/22/22 09:00	07/22/22 18:38	1
Vanadium	ND		4.0		ug/L		07/22/22 09:00	07/22/22 18:38	1
Zinc	**21**		10		ug/L		07/22/22 09:00	07/22/22 18:38	1

Client: Atlas Technical Consultants LLC
Project/Site: Portsmouth Landfill

Job ID: 620-5845-1

Client Sample ID: MW-7

Date Collected: 07/19/22 09:25
Date Received: 07/19/22 17:05

Lab Sample ID: 620-5845-7

Matrix: Water

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1-Dichloroethane	ND		1.0		ug/L			07/23/22 00:45	1
1,4-Dichlorobenzene	ND		1.0		ug/L			07/23/22 00:45	1
Benzene	ND		1.0		ug/L			07/23/22 00:45	1
Chlorobenzene	ND		1.0		ug/L			07/23/22 00:45	1
Chloroethane	ND		2.0		ug/L			07/23/22 00:45	1
Chloroform	ND		1.0		ug/L			07/23/22 00:45	1
cis-1,2-Dichloroethene	ND		1.0		ug/L			07/23/22 00:45	1
Dichlorodifluoromethane	ND		2.0		ug/L			07/23/22 00:45	1
Diethyl ether	ND		1.0		ug/L			07/23/22 00:45	1
Isopropylbenzene	**9.2**		1.0		ug/L			07/23/22 00:45	1
Tetrachloroethene	ND		1.0		ug/L			07/23/22 00:45	1
trans-1,2-Dichloroethene	ND		1.0		ug/L			07/23/22 00:45	1
Trichloroethene	ND		1.0		ug/L			07/23/22 00:45	1
Vinyl chloride	ND		1.0		ug/L			07/23/22 00:45	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*102*		*70 - 130*		*07/23/22 00:45*	*1*
4-Bromofluorobenzene (Surr)	*97*		*70 - 130*		*07/23/22 00:45*	*1*
Dibromofluoromethane (Surr)	*101*		*70 - 130*		*07/23/22 00:45*	*1*
Toluene-d8 (Surr)	*101*		*70 - 130*		*07/23/22 00:45*	*1*

Method: 6020B - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		1.0		ug/L		07/22/22 09:00	07/22/22 18:40	1
Arsenic	**9.2**		1.0		ug/L		07/22/22 09:00	07/22/22 18:40	1
Barium	**160**	**^6+**	1.0		ug/L		07/22/22 09:00	07/22/22 18:40	1
Beryllium	ND		0.70		ug/L		07/22/22 09:00	07/22/22 18:40	1
Cadmium	ND		0.50		ug/L		07/22/22 09:00	07/22/22 18:40	1
Chromium	**7.4**		1.5		ug/L		07/22/22 09:00	07/22/22 18:40	1
Cobalt	**3.9**		0.30		ug/L		07/22/22 09:00	07/22/22 18:40	1
Copper	**8.3**		1.0		ug/L		07/22/22 09:00	07/22/22 18:40	1
Lead	**4.3**		1.0		ug/L		07/22/22 09:00	07/22/22 18:40	1
Nickel	**5.4**		1.0		ug/L		07/22/22 09:00	07/22/22 18:40	1
Selenium	ND		1.0		ug/L		07/22/22 09:00	07/22/22 18:40	1
Silver	ND		0.50		ug/L		07/22/22 09:00	07/22/22 18:40	1
Thallium	ND		0.20		ug/L		07/22/22 09:00	07/22/22 18:40	1
Vanadium	**5.1**		4.0		ug/L		07/22/22 09:00	07/22/22 18:40	1
Zinc	**18**		10		ug/L		07/22/22 09:00	07/22/22 18:40	1

Client: Atlas Technical Consultants LLC
Project/Site: Portsmouth Landfill

Job ID: 620-5845-1

Client Sample ID: MW-8

Date Collected: 07/19/22 13:45
Date Received: 07/19/22 17:05

Lab Sample ID: 620-5845-8

Matrix: Water

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1-Dichloroethane	**2.0**		1.0		ug/L			07/23/22 01:11	1
1,4-Dichlorobenzene	ND		1.0		ug/L			07/23/22 01:11	1
Benzene	ND		1.0		ug/L			07/23/22 01:11	1
Chlorobenzene	ND		1.0		ug/L			07/23/22 01:11	1
Chloroethane	**3.0**		2.0		ug/L			07/23/22 01:11	1
Chloroform	ND		1.0		ug/L			07/23/22 01:11	1
cis-1,2-Dichloroethene	**89**		1.0		ug/L			07/23/22 01:11	1
Dichlorodifluoromethane	ND		2.0		ug/L			07/23/22 01:11	1
Diethyl ether	ND		1.0		ug/L			07/23/22 01:11	1
Isopropylbenzene	ND		1.0		ug/L			07/23/22 01:11	1
Tetrachloroethene	ND		1.0		ug/L			07/23/22 01:11	1
trans-1,2-Dichloroethene	**3.8**		1.0		ug/L			07/23/22 01:11	1
Trichloroethene	**1.1**		1.0		ug/L			07/23/22 01:11	1
Vinyl chloride	**20**		1.0		ug/L			07/23/22 01:11	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*103*		*70 - 130*		*07/23/22 01:11*	*1*
4-Bromofluorobenzene (Surr)	*96*		*70 - 130*		*07/23/22 01:11*	*1*
Dibromofluoromethane (Surr)	*102*		*70 - 130*		*07/23/22 01:11*	*1*
Toluene-d8 (Surr)	*102*		*70 - 130*		*07/23/22 01:11*	*1*

Method: 6020B - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		1.0		ug/L		07/22/22 09:00	07/22/22 18:42	1
Arsenic	**7.7**		1.0		ug/L		07/22/22 09:00	07/22/22 18:42	1
Barium	**85**	**^6+**	1.0		ug/L		07/22/22 09:00	07/22/22 18:42	1
Beryllium	ND		0.70		ug/L		07/22/22 09:00	07/22/22 18:42	1
Cadmium	ND		0.50		ug/L		07/22/22 09:00	07/22/22 18:42	1
Chromium	**3.8**		1.5		ug/L		07/22/22 09:00	07/22/22 18:42	1
Cobalt	**15**		0.30		ug/L		07/22/22 09:00	07/22/22 18:42	1
Copper	**4.9**		1.0		ug/L		07/22/22 09:00	07/22/22 18:42	1
Lead	**4.6**		1.0		ug/L		07/22/22 09:00	07/22/22 18:42	1
Nickel	**12**		1.0		ug/L		07/22/22 09:00	07/22/22 18:42	1
Selenium	ND		1.0		ug/L		07/22/22 09:00	07/22/22 18:42	1
Silver	ND		0.50		ug/L		07/22/22 09:00	07/22/22 18:42	1
Thallium	ND		0.20		ug/L		07/22/22 09:00	07/22/22 18:42	1
Vanadium	ND		4.0		ug/L		07/22/22 09:00	07/22/22 18:42	1
Zinc	**140**		10		ug/L		07/22/22 09:00	07/22/22 18:42	1

Client: Atlas Technical Consultants LLC
Project/Site: Portsmouth Landfill

Job ID: 620-5845-1

Client Sample ID: Trip Blank
Date Collected: 07/19/22 00:00
Date Received: 07/19/22 17:05

Lab Sample ID: 620-5845-9
Matrix: Water

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1-Dichloroethane	ND		1.0		ug/L			07/22/22 21:15	1
1,4-Dichlorobenzene	ND		1.0		ug/L			07/22/22 21:15	1
Benzene	ND		1.0		ug/L			07/22/22 21:15	1
Chlorobenzene	ND		1.0		ug/L			07/22/22 21:15	1
Chloroethane	ND		2.0		ug/L			07/22/22 21:15	1
Chloroform	ND		1.0		ug/L			07/22/22 21:15	1
cis-1,2-Dichloroethene	ND		1.0		ug/L			07/22/22 21:15	1
Dichlorodifluoromethane	ND		2.0		ug/L			07/22/22 21:15	1
Diethyl ether	ND		1.0		ug/L			07/22/22 21:15	1
Isopropylbenzene	ND		1.0		ug/L			07/22/22 21:15	1
Tetrachloroethene	ND		1.0		ug/L			07/22/22 21:15	1
trans-1,2-Dichloroethene	ND		1.0		ug/L			07/22/22 21:15	1
Trichloroethene	ND		1.0		ug/L			07/22/22 21:15	1
Vinyl chloride	ND		1.0		ug/L			07/22/22 21:15	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*102*		*70 - 130*		*07/22/22 21:15*	*1*
4-Bromofluorobenzene (Surr)	*97*		*70 - 130*		*07/22/22 21:15*	*1*
Dibromofluoromethane (Surr)	*101*		*70 - 130*		*07/22/22 21:15*	*1*
Toluene-d8 (Surr)	*101*		*70 - 130*		*07/22/22 21:15*	*1*

Surrogate Summary

Client: Atlas Technical Consultants LLC
Project/Site: Portsmouth Landfill

Job ID: 620-5845-1

Method: 8260C - Volatile Organic Compounds by GC/MS

Matrix: Water

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)			
		DCA	BFB	DBFM	TOL
Lab Sample ID	Client Sample ID	(70-130)	(70-130)	(70-130)	(70-130)
620-5845-1	MW-1	101	96	100	101
620-5845-2	MW-2	102	98	101	101
620-5845-3	MW-3	102	96	101	101
620-5845-4	MW-4	101	96	101	102
620-5845-5	MW-5	102	96	102	102
620-5845-6	MW-6	102	96	101	101
620-5845-7	MW-7	102	97	101	101
620-5845-8	MW-8	103	96	102	102
620-5845-9	Trip Blank	102	97	101	101
LCS 620-13314/4	Lab Control Sample	100	100	102	101
LCSD 620-13314/5	Lab Control Sample Dup	100	101	102	101
MB 620-13314/7	Method Blank	101	96	100	101

Surrogate Legend

DCA = 1,2-Dichloroethane-d4 (Surr)
BFB = 4-Bromofluorobenzene (Surr)
DBFM = Dibromofluoromethane (Surr)
TOL = Toluene-d8 (Surr)

Method: 8260C - Volatile Organic Compounds by GC/MS

Lab Sample ID: MB 620-13314/7
Matrix: Water
Analysis Batch: 13314

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1-Dichloroethane	ND		1.0		ug/L			07/22/22 20:49	1
1,4-Dichlorobenzene	ND		1.0		ug/L			07/22/22 20:49	1
Benzene	ND		1.0		ug/L			07/22/22 20:49	1
Chlorobenzene	ND		1.0		ug/L			07/22/22 20:49	1
Chloroethane	ND		2.0		ug/L			07/22/22 20:49	1
Chloroform	ND		1.0		ug/L			07/22/22 20:49	1
cis-1,2-Dichloroethene	ND		1.0		ug/L			07/22/22 20:49	1
Dichlorodifluoromethane	ND		2.0		ug/L			07/22/22 20:49	1
Diethyl ether	ND		1.0		ug/L			07/22/22 20:49	1
Isopropylbenzene	ND		1.0		ug/L			07/22/22 20:49	1
Tetrachloroethene	ND		1.0		ug/L			07/22/22 20:49	1
trans-1,2-Dichloroethene	ND		1.0		ug/L			07/22/22 20:49	1
Trichloroethene	ND		1.0		ug/L			07/22/22 20:49	1
Vinyl chloride	ND		1.0		ug/L			07/22/22 20:49	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*101*		*70 - 130*		*07/22/22 20:49*	*1*
4-Bromofluorobenzene (Surr)	*96*		*70 - 130*		*07/22/22 20:49*	*1*
Dibromofluoromethane (Surr)	*100*		*70 - 130*		*07/22/22 20:49*	*1*
Toluene-d8 (Surr)	*101*		*70 - 130*		*07/22/22 20:49*	*1*

Lab Sample ID: LCS 620-13314/4
Matrix: Water
Analysis Batch: 13314

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
1,1-Dichloroethane	20.0	22.5		ug/L		113	81 - 120
1,4-Dichlorobenzene	20.0	21.5		ug/L		108	86 - 116
Benzene	20.0	22.0		ug/L		110	86 - 111
Chlorobenzene	20.0	21.8		ug/L		109	93 - 115
Chloroethane	20.0	20.2		ug/L		101	56 - 155
Chloroform	20.0	21.8		ug/L		109	84 - 116
cis-1,2-Dichloroethene	20.0	23.7		ug/L		118	81 - 124
Dichlorodifluoromethane	20.0	18.2		ug/L		91	36 - 131
Diethyl ether	20.0	22.3		ug/L		111	69 - 122
Isopropylbenzene	20.0	21.7		ug/L		109	83 - 117
Tetrachloroethene	20.0	22.5		ug/L		112	85 - 116
trans-1,2-Dichloroethene	20.0	24.1		ug/L		121	81 - 127
Trichloroethene	20.0	21.2		ug/L		106	74 - 118
Vinyl chloride	20.0	18.3		ug/L		92	62 - 130

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*100*		*70 - 130*
4-Bromofluorobenzene (Surr)	*100*		*70 - 130*
Dibromofluoromethane (Surr)	*102*		*70 - 130*
Toluene-d8 (Surr)	*101*		*70 - 130*

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCSD 620-13314/5
Matrix: Water
Analysis Batch: 13314

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
1,1-Dichloroethane			20.0	22.6		ug/L		113	81 - 120	0	20
1,4-Dichlorobenzene			20.0	21.9		ug/L		110	86 - 116	2	20
Benzene			20.0	22.1		ug/L		110	86 - 111	0	20
Chlorobenzene			20.0	22.3		ug/L		111	93 - 115	2	20
Chloroethane			20.0	20.3		ug/L		102	56 - 155	1	20
Chloroform			20.0	21.9		ug/L		110	84 - 116	0	20
cis-1,2-Dichloroethene			20.0	24.0		ug/L		120	81 - 124	1	20
Dichlorodifluoromethane			20.0	18.1		ug/L		91	36 - 131	1	20
Diethyl ether			20.0	22.5		ug/L		113	69 - 122	1	20
Isopropylbenzene			20.0	22.1		ug/L		110	83 - 117	2	20
Tetrachloroethene			20.0	22.7		ug/L		113	85 - 116	1	20
trans-1,2-Dichloroethene			20.0	24.2		ug/L		121	81 - 127	0	20
Trichloroethene			20.0	21.1		ug/L		106	74 - 118	0	20
Vinyl chloride			20.0	15.0		ug/L		75	62 - 130	20	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*100*		*70 - 130*
4-Bromofluorobenzene (Surr)	*101*		*70 - 130*
Dibromofluoromethane (Surr)	*102*		*70 - 130*
Toluene-d8 (Surr)	*101*		*70 - 130*

Method: 6020B - Metals (ICP/MS)

Lab Sample ID: MB 480-634474/1-A
Matrix: Water
Analysis Batch: 634727

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 634474

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		1.0		ug/L		07/22/22 09:00	07/22/22 17:35	1
Arsenic	ND		1.0		ug/L		07/22/22 09:00	07/22/22 17:35	1
Barium	ND	^6+	1.0		ug/L		07/22/22 09:00	07/22/22 17:35	1
Beryllium	ND		0.70		ug/L		07/22/22 09:00	07/22/22 17:35	1
Cadmium	ND		0.50		ug/L		07/22/22 09:00	07/22/22 17:35	1
Chromium	ND		1.5		ug/L		07/22/22 09:00	07/22/22 17:35	1
Cobalt	ND		0.30		ug/L		07/22/22 09:00	07/22/22 17:35	1
Copper	ND		1.0		ug/L		07/22/22 09:00	07/22/22 17:35	1
Lead	ND		1.0		ug/L		07/22/22 09:00	07/22/22 17:35	1
Nickel	ND		1.0		ug/L		07/22/22 09:00	07/22/22 17:35	1
Selenium	ND		1.0		ug/L		07/22/22 09:00	07/22/22 17:35	1
Silver	ND		0.50		ug/L		07/22/22 09:00	07/22/22 17:35	1
Thallium	ND		0.20		ug/L		07/22/22 09:00	07/22/22 17:35	1
Vanadium	ND		4.0		ug/L		07/22/22 09:00	07/22/22 17:35	1
Zinc	ND		10		ug/L		07/22/22 09:00	07/22/22 17:35	1

Method: 6020B - Metals (ICP/MS) (Continued)

Lab Sample ID: LCS 480-634474/2-A
Matrix: Water
Analysis Batch: 634727

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 634474

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Antimony	20.0	20.7		ug/L		104	80 - 120
Arsenic	20.0	18.9		ug/L		94	80 - 120
Barium	20.0	19.7	^6+	ug/L		99	80 - 120
Beryllium	20.0	19.1		ug/L		95	80 - 120
Cadmium	20.0	20.1		ug/L		100	80 - 120
Chromium	20.0	20.5		ug/L		103	80 - 120
Cobalt	20.0	20.4		ug/L		102	80 - 120
Copper	20.0	21.1		ug/L		105	80 - 120
Lead	20.0	20.4		ug/L		102	80 - 120
Nickel	20.0	19.7		ug/L		99	80 - 120
Selenium	20.0	19.9		ug/L		100	80 - 120
Silver	20.0	20.9		ug/L		104	80 - 120
Thallium	20.0	20.1		ug/L		100	80 - 120
Vanadium	20.0	20.2		ug/L		101	80 - 120
Zinc	50.0	49.2		ug/L		98	80 - 120

QC Association Summary

Client: Atlas Technical Consultants LLC
Project/Site: Portsmouth Landfill

Job ID: 620-5845-1

GC/MS VOA

Analysis Batch: 13314

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
620-5845-1	MW-1	Total/NA	Water	8260C	
620-5845-2	MW-2	Total/NA	Water	8260C	
620-5845-3	MW-3	Total/NA	Water	8260C	
620-5845-4	MW-4	Total/NA	Water	8260C	
620-5845-5	MW-5	Total/NA	Water	8260C	
620-5845-6	MW-6	Total/NA	Water	8260C	
620-5845-7	MW-7	Total/NA	Water	8260C	
620-5845-8	MW-8	Total/NA	Water	8260C	
620-5845-9	Trip Blank	Total/NA	Water	8260C	
MB 620-13314/7	Method Blank	Total/NA	Water	8260C	
LCS 620-13314/4	Lab Control Sample	Total/NA	Water	8260C	
LCSD 620-13314/5	Lab Control Sample Dup	Total/NA	Water	8260C	

Metals

Prep Batch: 634474

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
620-5845-1	MW-1	Total/NA	Water	3020A	
620-5845-2	MW-2	Total/NA	Water	3020A	
620-5845-3	MW-3	Total/NA	Water	3020A	
620-5845-4	MW-4	Total/NA	Water	3020A	
620-5845-5	MW-5	Total/NA	Water	3020A	
620-5845-6	MW-6	Total/NA	Water	3020A	
620-5845-7	MW-7	Total/NA	Water	3020A	
620-5845-8	MW-8	Total/NA	Water	3020A	
MB 480-634474/1-A	Method Blank	Total/NA	Water	3020A	
LCS 480-634474/2-A	Lab Control Sample	Total/NA	Water	3020A	

Analysis Batch: 634727

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
620-5845-1	MW-1	Total/NA	Water	6020B	634474
620-5845-2	MW-2	Total/NA	Water	6020B	634474
620-5845-3	MW-3	Total/NA	Water	6020B	634474
620-5845-4	MW-4	Total/NA	Water	6020B	634474
620-5845-5	MW-5	Total/NA	Water	6020B	634474
620-5845-6	MW-6	Total/NA	Water	6020B	634474
620-5845-7	MW-7	Total/NA	Water	6020B	634474
620-5845-8	MW-8	Total/NA	Water	6020B	634474
MB 480-634474/1-A	Method Blank	Total/NA	Water	6020B	634474
LCS 480-634474/2-A	Lab Control Sample	Total/NA	Water	6020B	634474

Analysis Batch: 634777

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
620-5845-4	MW-4	Total/NA	Water	6020B	634474

Lab Chronicle

Client: Atlas Technical Consultants LLC
Project/Site: Portsmouth Landfill

Job ID: 620-5845-1

Client Sample ID: MW-1
Date Collected: 07/19/22 14:45
Date Received: 07/19/22 17:05

Lab Sample ID: 620-5845-1
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	13314	07/22/22 22:08	CLR	ENE
Total/NA	Prep	3020A			634474	07/22/22 09:00	VAK	TAL BUF
Total/NA	Analysis	6020B		1	634727	07/22/22 18:26	BMB	TAL BUF

Client Sample ID: MW-2
Date Collected: 07/19/22 12:40
Date Received: 07/19/22 17:05

Lab Sample ID: 620-5845-2
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	13314	07/22/22 22:34	CLR	ENE
Total/NA	Prep	3020A			634474	07/22/22 09:00	VAK	TAL BUF
Total/NA	Analysis	6020B		1	634727	07/22/22 18:28	BMB	TAL BUF

Client Sample ID: MW-3
Date Collected: 07/19/22 11:25
Date Received: 07/19/22 17:05

Lab Sample ID: 620-5845-3
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	13314	07/22/22 23:00	CLR	ENE
Total/NA	Prep	3020A			634474	07/22/22 09:00	VAK	TAL BUF
Total/NA	Analysis	6020B		1	634727	07/22/22 18:31	BMB	TAL BUF

Client Sample ID: MW-4
Date Collected: 07/19/22 08:50
Date Received: 07/19/22 17:05

Lab Sample ID: 620-5845-4
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	13314	07/22/22 23:26	CLR	ENE
Total/NA	Prep	3020A			634474	07/22/22 09:00	VAK	TAL BUF
Total/NA	Analysis	6020B		1	634727	07/22/22 18:33	BMB	TAL BUF
Total/NA	Prep	3020A			634474	07/22/22 09:00	VAK	TAL BUF
Total/NA	Analysis	6020B		10	634777	07/25/22 12:45	BMB	TAL BUF

Client Sample ID: MW-5
Date Collected: 07/19/22 15:20
Date Received: 07/19/22 17:05

Lab Sample ID: 620-5845-5
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	13314	07/22/22 23:52	CLR	ENE
Total/NA	Prep	3020A			634474	07/22/22 09:00	VAK	TAL BUF
Total/NA	Analysis	6020B		1	634727	07/22/22 18:35	BMB	TAL BUF

Lab Chronicle

Client: Atlas Technical Consultants LLC
Project/Site: Portsmouth Landfill

Job ID: 620-5845-1

Client Sample ID: MW-6
Date Collected: 07/19/22 10:25
Date Received: 07/19/22 17:05

Lab Sample ID: 620-5845-6
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	13314	07/23/22 00:18	CLR	ENE
Total/NA	Prep	3020A			634474	07/22/22 09:00	VAK	TAL BUF
Total/NA	Analysis	6020B		1	634727	07/22/22 18:38	BMB	TAL BUF

Client Sample ID: MW-7
Date Collected: 07/19/22 09:25
Date Received: 07/19/22 17:05

Lab Sample ID: 620-5845-7
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	13314	07/23/22 00:45	CLR	ENE
Total/NA	Prep	3020A			634474	07/22/22 09:00	VAK	TAL BUF
Total/NA	Analysis	6020B		1	634727	07/22/22 18:40	BMB	TAL BUF

Client Sample ID: MW-8
Date Collected: 07/19/22 13:45
Date Received: 07/19/22 17:05

Lab Sample ID: 620-5845-8
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	13314	07/23/22 01:11	CLR	ENE
Total/NA	Prep	3020A			634474	07/22/22 09:00	VAK	TAL BUF
Total/NA	Analysis	6020B		1	634727	07/22/22 18:42	BMB	TAL BUF

Client Sample ID: Trip Blank
Date Collected: 07/19/22 00:00
Date Received: 07/19/22 17:05

Lab Sample ID: 620-5845-9
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	13314	07/22/22 21:15	CLR	ENE

Laboratory References:

ENE = Eurofins New England, 646 Camp Ave, North Kingstown, RI 02852, TEL (413)789-9018

TAL BUF = Eurofins Buffalo, 10 Hazelwood Drive, Amherst, NY 14228-2298, TEL (716)691-2600

Accreditation/Certification Summary

Client: Atlas Technical Consultants LLC
Job ID: 620-5845-1
Project/Site: Portsmouth Landfill

Laboratory: Eurofins New England

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	Identification Number	Expiration Date
Rhode Island	State	LAI00368	12-30-22

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
8260C		Water	1,1-Dichloroethane
8260C		Water	1,4-Dichlorobenzene
8260C		Water	Benzene
8260C		Water	Chlorobenzene
8260C		Water	Chloroethane
8260C		Water	Chloroform
8260C		Water	cis-1,2-Dichloroethene
8260C		Water	Dichlorodifluoromethane
8260C		Water	Diethyl ether
8260C		Water	Isopropylbenzene
8260C		Water	Tetrachloroethene
8260C		Water	trans-1,2-Dichloroethene
8260C		Water	Trichloroethene
8260C		Water	Vinyl chloride

Laboratory: Eurofins Buffalo

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	Identification Number	Expiration Date
Rhode Island	State	LAO00328	12-30-22

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
6020B	3020A	Water	Antimony
6020B	3020A	Water	Arsenic
6020B	3020A	Water	Barium
6020B	3020A	Water	Beryllium
6020B	3020A	Water	Cadmium
6020B	3020A	Water	Chromium
6020B	3020A	Water	Cobalt
6020B	3020A	Water	Copper
6020B	3020A	Water	Lead
6020B	3020A	Water	Nickel
6020B	3020A	Water	Selenium
6020B	3020A	Water	Silver
6020B	3020A	Water	Thallium
6020B	3020A	Water	Vanadium
6020B	3020A	Water	Zinc

Method Summary

Client: Atlas Technical Consultants LLC
Project/Site: Portsmouth Landfill

Job ID: 620-5845-1

Method	Method Description	Protocol	Laboratory
8260C	Volatile Organic Compounds by GC/MS	SW846	ENE
6020B	Metals (ICP/MS)	SW846	TAL BUF
3020A	Preparation, Total Metals	SW846	TAL BUF
5030C	Purge and Trap	SW846	ENE

Protocol References:

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

ENE = Eurofins New England, 646 Camp Ave, North Kingstown, RI 02852, TEL (413)789-9018

TAL BUF = Eurofins Buffalo, 10 Hazelwood Drive, Amherst, NY 14228-2298, TEL (716)691-2600

Sample Summary

Client: Atlas Technical Consultants LLC
Project/Site: Portsmouth Landfill

Job ID: 620-5845-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
620-5845-1	MW-1	Water	07/19/22 14:45	07/19/22 17:05
620-5845-2	MW-2	Water	07/19/22 12:40	07/19/22 17:05
620-5845-3	MW-3	Water	07/19/22 11:25	07/19/22 17:05
620-5845-4	MW-4	Water	07/19/22 08:50	07/19/22 17:05
620-5845-5	MW-5	Water	07/19/22 15:20	07/19/22 17:05
620-5845-6	MW-6	Water	07/19/22 10:25	07/19/22 17:05
620-5845-7	MW-7	Water	07/19/22 09:25	07/19/22 17:05
620-5845-8	MW-8	Water	07/19/22 13:45	07/19/22 17:05
620-5845-9	Trip Blank	Water	07/19/22 00:00	07/19/22 17:05

>> Select a Laboratory or Service Center <<
#N/A
#N/A
#N/A
##

Chain of Custody Record

eurofins | Environment Testing America

Regulatory Program: ☐DW ☐NPDES ☐RCRA ☑Other RIDEM GA GW Limits

TestAmerica Laboratories, Inc. d/b/a Eurofins TestAmerica

Client Contact	**Project Manager: Adrienne Kee**	COC No.
Atlas dba ATC Group Services	Email: adrienne.kee@oneatlas.com	**Site Contact: Adrienne Kee** — **Date:** — 1 of 1 COCs
10 State St, Suite 100	**Tel: 401.741.2183**	**Lab Contact: Becky Mason** — **Carrier:** — TALS Project #
Woburn, MA 01801	**Analysis Turnaround Time**	Sampler
Adrienne Kee 401 741 2183	☐ CALENDAR DAYS ☐ WORKING DAYS	**For Lab Use Only:**
	TAT if different from Below _____	Walk-in Client:
Project Name Portsmouth Landfill	☐ 2 weeks	Lab Sampling
Site Park Ave, Portsmouth RI	☐ 1 week	Job / SDG No
P O # 3010000351	☐ 2 days	
	☐ 1 day	

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	Matrix	# of Cont.	Filtered Sample (Y / N)	Perform MS / MSD (Y / N)	VOCs (8260)	Total Sb, As, Ba, Be, Cd, Cr, Co,	Total Cu, Pb, Ni, Se, Ag, Tl, V, Zn	Sample Specific Notes
MW-1	7/14/22	1445	G	GW	4	N		X	X	X	
MW-2		1240			4			X	X	X	
MW-3		1125			4			X	X	X	
MW-4		0850			4			X	X	X	
MW-5		1520			4			X	X	X	
MW-6		1025			4			X	X	X	
MW-7		0925			4			X	X	X	
MW-8		1345			4			X	X	X	
Trip Blank		–		W	3			X			

620-5845 Chain of Custody

Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other _____ — 2 4 4

Possible Hazard Identification:
Are any samples from a listed EPA Hazardous Waste? Please List any EPA Waste Codes for the sample in the Comments Section if the lab is to dispose of the sample

☐Non-Hazard ☐Flammable ☐Skin Irritant ☐Poison B ☑Unknown

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)

☐Return to Client ☐Disposal by Lab ☐Archive for_____ Months

Special Instructions/QC Requirements & Comments: Need RIDEM GA Groundwater Limits

Custody Seals Intact: ☐ Yes ☐ No | Custody Seal No | Cooler Temp (°C) Obs'd 15.1 Corr'd 14.5 | Therm ID No IR#6

Relinquished by	Company	Date/Time	Received by	Company GEL	Date/Time
Relinquished by	Company	Date/Time	Received by	Company	Date/Time
Relinquished by	Company	Date/Time	Received in Laboratory by	Company	Date/Time

Form No. CA-C-WI-002, Rev. 4.35, dated 10/6/2020

7/26/2022

Eurofins New England
646 Camp Ave
North Kingstown, RI 02852
Phone: 413-789-9018

Chain of Custody Record

eurofins | Environment Testing America

Client Information (Sub Contract Lab)	Sampler:	Lab PM: Mason, Becky C	Carrier Tracking No(s):	COC No: 620-5304.1
Client Contact: Shipping/Receiving	Phone:	E-Mail: Becky.Mason@et.eurofinsus.com	State of Origin: Rhode Island	Page: Page 1 of 1
Company: Eurofins Environment Testing Northeast,		Accreditations Required (See note):		Job #: 620-5845-1
Address: 10 Hazelwood Drive, ,	Due Date Requested: 7/26/2022			
City: Amherst	TAT Requested (days):			
State, Zip: NY, 14228-2298				
Phone: 716-691-2600(Tel) 716-691-7991(Fax)	PO #:			
Email:	WO #:			
Project Name: Landfill	Project #: 62001272			
Site:	SSOW#:			

Analysis Requested

Preservation Codes:
A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - pH 4-5, Y - Trizma, Z - other (specify)
Other:

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	6020B/3020A 6020 Metals	Total Number of containers	Special Instructions/Note:
			Preservation Code:						
MW-1 (620-5845-1)	7/19/22	14:45 Eastern		Water			X	1	
MW-2 (620-5845-2)	7/19/22	12:40 Eastern		Water			X	1	
MW-3 (620-5845-3)	7/19/22	11:25 Eastern		Water			X	1	
MW-4 (620-5845-4)	7/19/22	08:50 Eastern		Water			X	1	
MW-5 (620-5845-5)	7/19/22	15:20 Eastern		Water			X	1	
MW-6 (620-5845-6)	7/19/22	10:25 Eastern		Water			X	1	
MW-7 (620-5845-7)	7/19/22	09:25 Eastern		Water			X	1	
MW-8 (620-5845-8)	7/19/22	13:45 Eastern		Water			X	1	

Note: Since laboratory accreditations are subject to change, Eurofins Environment Testing Northeast, LLC places the ownership of method, analyte & accreditation compliance upon out subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the Eurofins Environment Testing Northeast, LLC laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins Environment Testing Northeast, LLC attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said complicance to Eurofins Environment Testing Northeast, LLC.

Possible Hazard Identification	*Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)*
Unconfirmed	☐ *Return To Client* ☐ *Disposal By Lab* ☐ *Archive For* _____ *Months*
Deliverable Requested: I, II, III, IV, Other (specify) Primary Deliverable Rank: 2	Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:			
Relinquished by:	Date/Time: 7/20/22	Company GNE	Received by:	Date/Time: 7-21-22 1000	Company TAB
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks: 2.6 ICE

Ver: 06/08/2021

Login Sample Receipt Checklist

Client: Atlas Technical Consultants LLC

Job Number: 620-5845-1

Login Number: 5845
List Number: 1
Creator: Makhoul, Elie

List Source: Eurofins New England

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	N/A	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Login Sample Receipt Checklist

Client: Atlas Technical Consultants LLC

Job Number: 620-5845-1

Login Number: 5845
List Number: 2
Creator: Yeager, Brian A

List Source: Eurofins Buffalo
List Creation: 07/21/22 11:44 AM

Question	Answer	Comment
Radioactivity either was not measured or, if measured, is at or below background	True	
The cooler's custody seal, if present, is intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	2.6 ICE
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the sample IDs on the containers and the COC.	True	
Samples are received within Holding Time (Excluding tests with immediate HTs)..	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.	True	
If necessary, staff have been informed of any short hold time or quick TAT needs	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Sampling Company provided.	True	
Samples received within 48 hours of sampling.	True	
Samples requiring field filtration have been filtered in the field.	True	
Chlorine Residual checked.	True	