



Remedial Action Work Plan

P-1 Plume Area

Former Emerson Street Landfill

NYSDEC Site #828023

Location:

1700 Emerson Street
Rochester, New York 14606

Prepared for:

City of Rochester
Division of Environmental Quality
Room 300-B
Rochester, New York 14614

LaBella Project No. 210173

March 2021

CERTIFICATION

"I Daniel P. Noll certify that I am currently a NYS registered professional engineer and that this Remedial Action Work Plan was prepared in accordance with all applicable statutes and regulations and in substantial conformance with the DER Technical Guidance for Site Investigation and Remediation (DER-10)."



081996

03.15.2021

A handwritten signature in black ink that reads "D.P. Noll".

NYS Professional Engineer #

Date

Signature



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1.0 INTRODUCTION

This Remedial Action Work Plan (RAWP) was developed for the selected remedy (as defined in the Record of Decision (ROD)) to address the P-1 Plume located at 1700 Emerson Street (formerly 1655 Lexington Avenue) in the City of Rochester, Monroe County, New York on the Former Emerson Street Landfill (FESL). Figure 1 illustrates the location of the FESL within the City of Rochester and Figure 2 illustrates the 1700 Emerson Street parcel within the FESL. This RAWP was completed in accordance with New York State Department of Environmental Conservation (NYSDEC) Division of Environmental Remediation (DER) *Technical Guidance for Site Investigation and Remediation* ("DER-10"). A Remedial Investigation (RI) was conducted from 2012-2017 which built upon previous investigations completed at the Site in the late 1980s, 1994 and 2001. LaBella completed a Feasibility Study dated April 2019. The NYSDEC issued a Proposed Remedial Action Plan (PRAP) dated February 2020 and a ROD dated March 2020. The selected remedy as detailed in the ROD includes the following:

- a) Remedial Design
- b) Site Cover
- c) Vapor Mitigation
- d) Zero Valent Iron (ZVI) Permeable Reactive Barrier (PRB)
- e) Monitored Natural Attenuation (MNA)
- f) Institutional Control
- g) Site Management Plan

The City entered into an Order-On-Consent with the NYSDEC in 2009. A portion of the FESL is designated as Inactive Hazardous Waste Disposal Site (IHWDS) Site #828023. A majority of the FESL has been delisted from the IHWDS; however, three (3) parcels (1660, 1700, and 1740 Emerson Street) comprising approximately sixteen (16) acres are currently listed as a Class 3 site on the NYSDEC Registry of Inactive Hazardous Waste Disposal Sites (refer to Figure 2). A "3" classification indicates a site "at which contamination does not presently constitute significant threat to public health or the environment." The apparent source area and a majority of the contamination is at the 1700 Emerson Street parcel which is the largest of the three (3) IHWDS parcels and is owned by the City. As indicated in the ROD, the solvents at the 1700 Emerson parcel are the primary contaminants on-site impacting groundwater and soil vapor.

1.1 RAWP Objective

The objective of the RAWP is to describe the proposed remedy and provide details of remedial actions to be implemented at the FESL that: (1) adequately mitigate potential threats to human health and the environment; (2) are consistent with the remedial objectives for the site; and (3) are consistent with the future contemplated use of the site.

1.2 RAWP Outline

This plan contains 13 sections.

- Section 2. includes a description of the Site and history.
- Section 3. summarizes previous investigation findings used to complete an analysis of alternatives and form the basis for remedy selection in the ROD.
- Sections 4. and 5 describe Standards, Criteria and Guidelines (SCGs) and Remedial Action Objectives (RAOs), respectively.
- Section 6 describes the finding from a Design Phase Investigation (DPI) that included additional monitoring well installations and groundwater analysis and groundwater treatability testing.
- Section 7 presents design details of the selected remedy
- Sections 8 and 9 describe the engineering and institutional controls to be implemented and describes waste handling and disposal practices, respectively.

- Sections 10, 11, and 12 provide plans for Site Health and Safety during work activity, community air monitoring requirements, and data quality control, respectively.
- Section 13 describes the schedule for remedy implementation.

2.0 SITE DESCRIPTION AND HISTORY

The FESL consists of approximately 250-acres of land comprised of 45 individual parcels of which 7 are owned by the City of Rochester (refer to Figure 2 for FESL footprint and summary of parcels). The remaining 38 parcels are owned by 25 private owners. The FESL is predominantly occupied by industrial and commercial properties (15 and 20, respectively based on use codes). In addition, City use codes indicate 5 parcels as vacant land, one parcel as unknown (McCrackanville Street) and 4 parcels are listed as community/public service (one of which is a school, Edison Tech). The surrounding area generally contains industrial and commercial properties. Residential properties are also located to the northeast. The three (3) parcels included in the IHWDS (1660, 1700, and 1740 Emerson Street) are zoned M-1, Industrial District.

Prior to FESL landfilling operations, the area was primarily vacant and relatively flat lying, with a wetland located in the north-central portion of the site. As a result of landfilling activities, the FESL site has been elevated approximately 15+ feet above the surrounding area. An industrial park presently occupies most of the FESL site, including larger facilities and various smaller industrial/commercial facilities, as well as several undeveloped parcels and undeveloped land on otherwise developed parcels.

The FESL was operated by the City as a landfill beginning between sometime in the 1940s until 1971. The landfill was used to dispose of ash derived from the incineration of municipal solid waste at the City's incinerators which were located south of Emerson Street and east of Colfax Street on the FESL. Ash fill and construction and demolition debris were the primary waste materials placed in the landfill. Landfilling began south of Emerson Street and gradually expanded northward and westward to include areas between Emerson Street, Lexington Avenue, Colfax Street and Lee Road, and south of Emerson Street to the east and west of Colfax Street. Fires due to incomplete incineration of municipal solid waste and open burning of refuse reportedly occurred in the late 1960s and early 1970s due to operational problems with the incinerators. Fill during this timeframe was north of Emerson Street. In May of 1971, the City's incinerators were shut down; however, un-incinerated municipal refuse continued to be placed north of Emerson Street until August of 1971. In August 1971, refuse disposal was ceased at FESL and disposal shifted to a different county landfill. In 1971, the landfill was officially closed and a contract for the closure of the eastern half of the landfill specified 2 feet of cover material (preferred to be a sandy loam) to be placed and compacted to 30% in 1 foot lifts. In September 1971, a contract was awarded for the closure of the western portion of the landfill. Since closure, portions of the Site have been developed by various private parties.

The general types of wastes encountered during investigations at the FESL site include the following:

- Municipal Incinerator Ash - generally consisting of ash, cinders, charred refuse, glass and metal slag. Most ash observed in site investigations appears to be fly ash and bottom ash (clinker) from the municipal solid waste incinerators. This generally consists of soil and rock fill with traces of plastic, metal, wood, concrete, bricks, tiles, and asphalt. Construction and demolition debris observed in past investigations generally fits the definition of construction and demolition debris contained in NYSDEC's Part 360. Construction demolition debris fill is common in areas adjacent to current and former roadways on site, and particularly in the lobe of fill south of Emerson Street and east of Colfax Street.
- Soil and Municipal Refuse - This material generally consists of silty sand cover material and disposed, un-incinerated municipal refuse.

- Low-activity Radioactive Waste - This material was encountered in a small area south of Emerson Street and consisted of a sludge-like waste material associated with glass lenses. The sludge was found to contain low levels of radioactive thorium. This material was primarily encountered in a relatively small area in the southwest portion of the FESL and was associated with incinerator ash and refuse fills. This material was removed by Severson Environmental Services on behalf of the City of Rochester.
- The majority of the existing landfill has a soil cover. Cover ranges in thickness from 0 ft. up to approximately 6 ft. Cover materials generally consist of topsoil with grass, gravel, asphalt, or glacial till-derived sandy silt.

The FESL can be separated into four general geographic regions, or quadrants, based on the landfill waste composition aerial photograph interpretation of landfill deposition, and historic analytical data. Refer to Figure 3 for quadrant locations. A summary of the types of waste at each quadrant is as follows:

Quadrants A and B (North of Emerson Street, East of Lee Road, West of Colfax Street):

Portions of Quadrants A and B were filled during the 1970's, the last years of the landfill's operational life. At this time the incinerator was no longer operating properly, resulting in un-incinerated putrescible waste being deposited in the landfill during that period. These portions of the landfill are characterized by thicker fill, higher percentage of potentially putrescible solid waste and less incinerated ash, and higher landfill gas flux at the surface relative to other FESL areas sampled. These areas are characterized by landfill gas flux measurements between 100 and 1200 $\mu\text{g}/\text{m}^2\text{-minute}$, and/or soil gas methane concentrations above 5,000 ppm. In addition, these quadrants have also been characterized with CVOC contamination in soil gas, soil, and groundwater. Quadrant A is distinguishable from Quadrant B by a large area of documented CVOC contamination present in Quadrant A. The listed IHWDS portions of the landfill (i.e., 1660m 1700 and 1740 Emerson Street) are located within Quadrant A.

Quadrant C (South of Emerson Street, East of Colfax Street):

Quadrant C is characterized by thinner fill, lower percentage of potentially putrescible solid waste and more incinerated ash, and intermediate landfill gas flux at the surface relative to other FESL areas sampled. This area is characterized by landfill gas flux measurements below 50 $\mu\text{g}/\text{m}^2\text{-minute}$. It has been hypothesized that the gas detections may be related to the presence of organic rich marsh-derived soils at depth in this area, as opposed to landfill related gas. There is also an area of CVOC contamination in this quadrant.

Quadrant D (South of Emerson Street, West of Colfax Street):

Quadrant D is characterized by thinner fill, lower percentage of potentially putrescible solid waste and ash that was more efficiently and completely incinerated, and lower landfill gas flux at surface relative to other FESL areas sampled. This area is characterized by landfill gas flux measurements between 50 and 200 $\mu\text{g}/\text{m}^2\text{-minute}$. In addition, there are several small areas of CVOC contamination in this quadrant, which may be the result of post-landfill industrial activity as opposed to landfill operations. State and federal wetlands are also located within this quadrant.

3.0 PREVIOUS INVESTIGATIONS

Previous investigations have been conducted at the FESL since the 1980s, which includes the most recent Remedial Investigation (RI) for the P-1 Plume that was conducted in accordance with the *Remedial Investigation Work Plan: P-1 Plume Area* dated November 2012 and five (5) subsequent addenda. The purpose of the RI was to define the nature and extent (areal and vertical extent) of VOCs, specifically

CVOCs in soil, fill, groundwater and the bedrock matrix in the vicinity of the P-1 Plume. Previous investigations have identified CVOCs including trichloroethene (TCE), tetrachloroethylene (PCE) and breakdown compounds (mainly vinyl chloride and cis-1,2-dichloroethene) in groundwater at concentrations up to 69 parts per million (ppm) total CVOCs in groundwater. Previous investigations defined the P-1 Plume as depicted on Figure 3 (plume extent as defined at the time of the RI). Refer to the RI Report by LaBella and GEI dated June 2018 for details. A *Pilot Test Monitoring Report* and *Feasibility Study* dated April 2019 were completed to evaluate the final remedy for the Site.

In addition to investigation reports, there are two (2) current guidance documents applicable to Site development on the FESL:

- *Former Emerson Street Landfill Sub-Slab Ventilation Guidance Document Update 2013* by LaBella dated October 2013
- *Guidance for Waste-fill Management During Site Development on the Former Emerson Street Landfill* by LaBella dated October 2013

The following subsections include a summary of recent relevant reports; a more detailed review can be obtained from each individual report.

3.1 **Soil Vapor Intrusion**

The Order-on-Consent initially required the development and implementation of a soil vapor intrusion (SVI) Work Plan. The SVI Work Plan was developed, approved by NYSDEC and implemented from 2009-2011. The work included soil and groundwater sampling across the FESL as well as SVI assessments at buildings on the FESL. The findings of the initial SVI assessment were detailed in a report titled *Soil Vapor Intrusion Assessment Report: Data Review, Site Screening & Site Prioritization* dated June 2011 (hereinafter referred to as the “2011 SVI Assessment Report”). The 2011 SVI Assessment Report identified several buildings at a risk of SVI due to the FESL. Subsequently, a work plan titled *Soil Vapor Intrusion Investigation Work Plan: Phase II Parcel Specific Investigation* (hereinafter referred to as the “SVI Work Plan”) was submitted to the NYSDEC and NYSDOH in April 2013 to complete SVI sampling within the buildings determined to be at high risk for SVI due to the FESL. The NYSDEC and NYSDOH provided comments to the SVI Work Plan on April 23, 2015 and the SVI Work Plan Work Plan was resubmitted in January 2016 to address the NYSDEC and NYSDOH comments. The SVI Work Plan was implemented beginning in March 2016 and two (2) of the seven (7) buildings tested required mitigation; 575 Colfax Street and 1740 Emerson Street. It should be noted that only the 1740 Emerson Street building was determined to require mitigation as a result of CVOCs due to the FESL (i.e., the P-1 Plume). The owners of 575 Colfax Street and 1740 Emerson Street were notified about SVI conditions. Subsequently, mitigation systems were installed/ activated in the buildings at 575 Colfax Street and 1740 Emerson Street and Construction Completion Reports have been completed.

The findings of the SVI Investigation were detailed in a report titled *Soil Vapor Intrusion Investigation Report* dated March 2018. For properties where SVI testing was completed and it was determined that SVI mitigation was not warranted, property-specific reports were developed, approved by the NYSDEC and NYSDOH, and provided to each property owner. Owners of properties that did not warrant SVI testing were notified that no further work was required due to the FESL. The above reports should be referenced for additional details regarding SVI at the FESL. The NYSDEC ROD stated “*The limits of soil vapor intrusion were identified, and no further actions are required at the remaining properties.*”

3.2 **Remedial Investigation**

The recent RI consisted of installation of six (6) overburden, sixteen (16) shallow bedrock and two (2) deep bedrock groundwater monitoring wells, advancement of thirty-three (33) overburden soil borings, twenty-eight (28) test pits, twenty-one (21) membrane interface probe (MIP) borings, four (4) pump tests to evaluate hydraulic conductivity, downhole geophysics, and associated sampling of soil/ fill, overburden and bedrock groundwater, and bedrock. Figure 4 illustrates the locations of the RI soil borings and wells. A summary of the RI findings is provided in the following subsections.

3.2.1 Nature and Extent of Contamination

The RI defined the P-1 Plume as shown on Figure 3 (based on data at the time of the RI). The greatest concentrations of CVOCs in groundwater to date have been detected in the top 3-ft of bedrock groundwater. Specifically, monitoring wells LAB-DBW-02, LAB-SBW-05, LAB-SBW-09, and P-1 all contained greater than 15 ppm total CVOCs in at least one sampling event. The top 3-ft of bedrock also contains the highest concentrations of CVOCs in the rock matrix within the source area. Concentrations of CVOCs in bedrock and bedrock groundwater generally decrease with depth within the source area.

Groundwater: The source area of CVOCs in groundwater (encompassed by 2013-SB-01, LAB-OBW-01, 2016-SB-19, 2016-SB-20, LAB-DBW-01, LAB-SBW-02, LAB-SBW-09 and LAB-SBW-10) is approximately 16,000 sq. ft. Based on the reduction of CVOCs from 2000 to 2017 including an 83% decrease in total CVOCs in the P-1 well from 54.4 ppm to 8.9 ppm, and a 77% decrease in total CVOCs in GMX-MW-3 (downgradient) from 5.3 ppm to 1.2 ppm, natural attenuation of the plume is occurring.

Soil Vapor: A FESL-wide SVI assessment was conducted from 2009-2017 documented in the 2011 SVI Assessment Report dated June 2011 and SVI Investigation Report dated March

2018 and identified only one (1) building with impacted soil vapor from a FESL-related source. The south adjacent building to the Site (1740 Emerson Street) has been mitigated to prevent SVI related to the FESL. The City of Rochester also has Institutional Controls in-place through their Building Information System that flags all properties within the FESL for further review by the City Department of Environmental Quality. The Institutional Control prevents newly constructed buildings, designed for occupancy, to be occupied without being assessed or mitigated for SVI.

Soil/ Fill: Un-incinerated fill material is generally present in the source area beginning at depths ranging from 2-8-ft bgs, with ash present at greater depths. Total CVOCs have been detected in soil/fill at concentrations up to 766 ppm in LAB-OBW-01 at 23-24-ft bgs and total BTEX has been detected in soil/ fill at concentrations up to 3,040 ppm in 2016-SB-20 at 18-19-ft bgs. The greatest concentrations of CVOCs are present directly above bedrock, generally at depths greater than 20-ft bgs in an approximate 8,000 sq. ft. area (approximately 1,800 cubic yards).

Bedrock: The uppermost 3-ft of bedrock (elevation 518 to 521 fmsl) referred to as the A-Zone) contains the highest concentrations of CVOCs sorbed to the rock matrix in the source area. The concentrations of CVOCs in the A-Zone bedrock matrix are suggestive of a DNAPL source in LAB-SBW-02, LAB-SBW-09, LAB-SBW-10, and LAB-DBW-01. Concentrations of CVOCs generally decrease with depth in the source area. Concentrations of CVOCs in bedrock wells downgradient of the source area (i.e., LAB-SBW-15 and LAB-SBW-16) were non-detect (ND) to lower ppb concentrations) in the A Zones but were detected in the Upper B (elevation between ~512 to 518 fmsl)/B Zone (508 to 512 fmsl). Impacts in bedrock are assumed to be approximately 60,000 sq. ft. and vary in elevations across that area from the A Zone to the B Zone. An estimated 18,000 cubic yards of bedrock impacts are present in the source area.

A summary of the approximate distribution of contaminant mass is included in the following table and further detailed below.

Distribution of Contaminant Mass in P-1 Plume Study Area

Zone	Soil		Bedrock		Groundwater		Estimated Total Mass by Zone	
	Mass (lbs)	% of total Mass	Mass (lbs)	% of total Mass	Mass (lbs)	% of total Mass	Mass (lbs)	% of total Mass
Overburden/ Fill	232	11.78%	--	--	--	--	232	11.78%
Bedrock A Zone	--	--	1,233	62.62%	5	0.25%	1,238	62.87%
Bedrock B1 Zone	--	--	491	24.94%	3	0.15%	498	25.29%
Bedrock B Zone	--	--			4	0.20%		
Bedrock C Zone	--	--	0.10	--	1	0.05%	1	0.05%
Bedrock D Zone	--	--	<0.01	--	<0.01	0.01%	<0.01	0.01
Total Mass (lbs)	232	11.78%	1,724	87.56%	13	0.66%	1,969	100%

Notes:

Mass calculations estimated based on concentration contours developed using modeling software.

Assumptions:

Mass of bedrock = 165 lb/ ft³

Mass of soil = 100 lb/ ft³

Porosity (secondary) of bedrock 10%

The estimated total mass of CVOCs in soil/ fill is 232 lbs (or 11.78% of total mass), groundwater is 13 lbs (or 0.66% of total mass), and bedrock is 1,724 lbs (or 87.56% of total mass). A majority of contaminant mass is in bedrock as opposed to the overburden native soil/ fill material. Calculated porewater concentrations exceed the solubility limits for parent compounds PCE and TCE in bedrock in several locations (LAB-DBW-01, LAB-SBW-02, LAB-SBW-05, LAB-SBW-09, and LAB-SBW-10), which indicates DNAPL source material is suspected, even in the absence of visual confirmation. The significance of these findings relates to contaminant diffusion into the bedrock matrix and the likely presence of DNAPL in tight, closed-ended fractures. Under these situations, back diffusion from the bedrock matrix to groundwater will pose a long-term source of groundwater contamination. CVOCs are the primary contaminant impacting groundwater and CVOCs are migrating off-site with the shallow bedrock groundwater bearing zone. It should be noted that petroleum related constituents (benzene, toluene, ethylbenzene and xylenes (BTEX)) have also been identified; however, these compounds are not migrating and are attenuating within the limits of the property.

Although CVOCs are the primary contaminant CVOCs other contaminants are present at the Site. The ROD stated the following in relation to other constituents: *“Perfluorinated compounds (PFAS) were also detected above screening levels site wide. Due to the nature of the landfill material, a specific source of could not be identified and PFAS are most likely present throughout the landfill. Metals impacting groundwater are generally minor in extent and there is not a distinct source area within the landfill; therefore, metals are not considered as site specific contaminants of concern.”*

3.2.2 Overall Conceptual Site Model

The following presents the overall conceptual model for the Site. This conceptual Site model is based on the RI recently completed and previous investigations.

During the last years of filling at the FESL, it appears some non-municipal waste was placed in the landfill in the vicinity of P-1 and more specifically in the area encompassed by 2013-SB-01, LAB-OBW-01, 2016-SB-19, 2016-SB-20, LAB-DBW-01, LAB-SBW-02, LAB-SBW-09 and LAB-SBW-10. This is supported by a review of aerial photographs, test pits, high concentrations of impacts in the overburden/ fill on top of bedrock, the presence of the greatest concentrations of CVOCs in A Zone groundwater, and bedrock matrix samples.

NAPL and/or high concentrations of VOC impacted groundwater has since migrated laterally and vertically from this source area. Based on rock matrix analysis, impacts migrated to the southeast to LAB-SBW-05 in the A Zone and Upper B Zone. Impacts (not NAPL) further migrated laterally to the west and southwest (LAB-SBW-13 and LAB-SBW-14) and to the south (LAB-SBW-15 and LAB-SBW-16) into the B Zone. This is evidenced by greater concentrations of CVOCs in the B Zone than in the A Zone in these locations. Impacts have not migrated at significant concentrations laterally to the southeast or vertically to the C or D Zones.

As the impacts have migrated downward vertically and laterally, natural degradation has been occurring. This is evidenced by greater concentrations of daughter compounds than parent compounds in bedrock groundwater. In addition, the source edge bedrock samples have a higher proportion of daughter compounds than the samples in the source area. Furthermore, the overall P-1 Plume area has decreased since 2000 and concentrations of total CVOCs have declined. Refer to Figure 3 for extent of the P-1 Plume (at the time of the RI). The source area of CVOCs in groundwater (encompassed by 2013-SB-01, LAB-OBW-01, 2016-SB-19, 2016-SB-20, LAB-DBW-01, LAB-SBW-02, LAB-SBW-09 and LAB-SBW-10) is approximately 16,000 sq. ft. It should be noted that the plume extent has been modified based on the Design Phase Investigation (refer to Section 6).

In accordance with the EPA Technical Protocol Table 2.4, an evaluation that was performed as part of the RI, there is “*Adequate Evidence for anaerobic biodegradation (reductive dechlorination) of chlorinated organics*”. Additionally, compound-specific isotope analysis (CSIA) results indicate natural transformation of parent material (PCE and TCE) to daughter products is occurring. The mechanism for transformation was evaluated using Bio-Trap samplers. Analytical results indicate the presence of DHC (Dehalococoides) and DHBt (Dehalobacter) in population ranges capable of natural biodegradation of CVOCs in the P-1 study area; however, biodegradation appears to be incomplete prior to regulated contaminants leaving the property boundary. This is supported by the fact that *cis*-1,2-dichloroethene (751 ug/L) and vinyl chloride (305 ug/L) were detected in GMX-MW-3 downgradient of the source area proximate to the eastern property boundary in May 2017, and parent compounds were not detected.

3.2.3 Exposure Assessment

On-Site and off-Site exposure assessments were completed in the RI. Based on the on-Site exposure assessment, only on-Site workers have the potential to come in contact with contaminated media. On-Site workers are required to be 40-hour OSHA HAZWOPER trained and work in accordance with a health and safety plan. The Site is currently vacant land. Any future on-Site development would be managed in accordance with the *Waste Fill Management during Site Development Guidance Document*. In addition, an Institutional Control is in place which prohibits permit issuance on the FESL in the City’s Building Information System without City Division of Environmental Quality review. The use of groundwater in the City is prohibited by City code. A completed on-Site exposure pathway does not exist for contaminated media as long as subsurface disturbances are properly managed.

Off-Site human health exposures have been assessed via an extensive SVI investigation and mitigation of impacted buildings. A complete off-Site exposure pathway does not currently exist as long as institutional controls remain in place and the mitigation system installed at 1740 Emerson Street remains in operation. The *Waste Fill Management during Site Development Guidance Document* will be implemented during subsurface work on the FESL and the *FESL Sub-Slab Ventilation Guidance Document* will be implemented during future construction of buildings on the FESL. The City maintains institutional controls for the Site and FESL by flagging all FESL properties in the City Building Information System. The use of groundwater in the City is prohibited by City code.

3.3 ZVI Injection Pilot Test

A pilot test was conducted in 2017 to evaluate two (2) different injection methods for construction of a ZVI PRB in bedrock; pneumatic injections and a blast enhanced bedrock trench. Micro-scale ZVI (Hepure Ferox Flow) was utilized for both pilot test locations. The pilot tests were located just to the north of LAB-SBW-15 and LAB-SBW-16 in order to use these wells for monitoring purposes and site topographic considerations. Both ZVI injection methods proved successful in placement of ZVI into bedrock fractures as observed by decreasing concentrations of CVOCs in bedrock groundwater. The pilot test was detailed in a *Pilot Test Monitoring Report* dated April 2019. The pilot test concluded and recommended the following:

- ZVI was effective in reducing CVOCs in groundwater associated with the P-1 Plume. The injection tests found that ZVI can be injected at adequate volume and dosing within bedrock Zones A and B which contain a majority of the contaminant mass in both the bedrock matrix and groundwater flowing through fractures. .
- Temporary increases in the concentration of CVOCs were observed with both ZVI placement approaches. The initial increase in total CVOCs may be due to several factors:
 - Displacement of DNAPL blebs: Previous drilling work indicated a potential for localized increases of CVOC concentrations in bedrock groundwater following drilling activities, it is assumed that DNAPL blebs present in bedding plane and vertical fractures were mobilized during borehole advancement during drilling. Following equilibration of physical and chemical conditions, CVOC concentrations typically re-equilibrated after a few months.
 - Release of CVOCs from the bedrock matrix: Sample analyses of rock core samples from LAB-SBW-15 and LAB-SBW-16 (including other well locations in the source area) indicated CVOCs diffused from groundwater into the bedrock porosity through matrix diffusion processes. Enhanced fracturing of the bedrock either by pneumatic or blasting methods increases the surface area of the bedrock thereby allowing back diffusion processes to occur more rapidly and increase CVOC concentrations in bedrock groundwater local to the disturbed area. The release of additional mass to the groundwater causes a temporary increase in CVOC concentration which re-equilibrated after a few months.
- The full-scale PRB should consider impacts from back diffusion from the bedrock matrix. As such, the full-scale PRB was recommended to be placed downgradient (south) from the pilot test location.

Method Specific Conclusions/Recommendations

The following ZVI method placement specific conclusions/recommendations are provided:

ZVI Placement in a *Blast Enhanced Bedrock Trench*

- PRB Area – Single shot hole detonations assumed a minimum effective radius of enhance fracture of 2.5 ft.(i.e., 5-ft. diameter) based on a calculated powder factor by the licensed blaster. The ZVI was observed in all locations within the trench with the exception of ML-7D. It should be noted that the shallow monitoring intervals of ML-6S and ML-7S contained significant ZVI (over 3 ft.); however, ML-8S did not have a measurable difference for the depth to bottom. Figure 4A illustrates the location of the Pilot Test Injection Points (IP) and the estimated area of the Pilot Test PRB. In addition, Figure 5 illustrates a revised plume extent based on data obtained during the Design Phase Investigation (refer to Section 6), the Pilot Test area and the proposed PRB. The material was easily placed within the trench via one injection point indicating an effective ‘radius’ of influence of at least 30-ft. (note, radius for the blast enhanced bedrock trench refers to the distance the material was observed to be placed laterally within the trench and is limited to the length and width of blasted bedrock trench itself). However, based on the significant amount of ZVI observed in the shallow intervals on either side of the injection point (i.e., ML-6 and ML-7) and a lack of significant ZVI in ML-8, a more conservative radius of influence of 20 to 25 ft. would be recommended for this approach.
- PRB Thickness – The RI Report estimated a bedrock groundwater flow velocity of 2 to 3 ft/day based on a Darcy flow calculation. The blast enhanced bedrock trench pilot test utilized a single row of blast points with an estimated 5-ft. diameter. As such, the residence time of the water flowing through the PRB was estimated to be approximately 1.7 to 2.5 days for purpose of the Pilot Study and ZVI Treatability column tests. Based on the available data, complete degradation appears to be occurring (as noted by increasing concentrations of ethane and ethene in LBA-SBW-15); however, some CVOCs were still present in LBA-SBW-15. This may be a function of inadequate residence time; however, it may also be due to contaminant mass in the bedrock matrix in the area of LBA-SBW-15. As noted above, a full-scale PRB was recommended to be completed further south of the pilot PRB. This should address the potential back diffusion issues in the area of the current PRB. In this event, LaBella would recommend that the blast enhanced bedrock trench PRB utilize the current thickness (with additional dosing noted below). Monitoring on the downgradient side would determine if any areas require re-assessment.
- Dosing Rate – This approach utilized a dosing rate of 6% (mass of ZVI amendment to mass of bedrock). There was no ‘day-lighting’ of material observed and excessive back pressure was not incurred during the injection intervals. Although ZVI was observed in all intervals, except ML-7D, additional ZVI could likely have been placed. A full scale injection via a blast enhanced bedrock trench could utilize a higher dosing rate. Although the actual amount that could be placed may vary, for planning purposes a dosing rate of 8% or 10% is considered feasible.

Pneumatic Injection

- PRB Area – The pneumatic injection work assumed a 15-ft. radius of influence for each injection point. The injection work around IP-4 and IP-5 appeared to influence the multi-level wells nearest these locations (ML-1 and ML-2); however, IP-4 did not appear to influence locations to the west (IP-3 and ML-4) to the same degree as to the east. In addition, ZVI was not observed in the intermediate and deep intervals at ML-3 (i.e., ML-3I and ML-3D) which is only 8 ft. north of IP-3. Additionally, ZVI was not observed in ML-5 intermediate interval (i.e., ML-5I). This variable influence is expected in a fractured bedrock zone. Based on this, some overlapping of intervals would be recommended for a full-scale pneumatic injection. This could include a second row of injection points off-set from the initial row.

- PRB Thickness – The RI Report estimated a Darcy-calculated groundwater velocity of 2 to 3 ft/day. The pneumatic injection PRB pilot test utilized a single row of injection points with an estimated 30-ft. diameter. As such, the residence time of the water flowing through the PRB is approximately 10 to 15 days. Based on the available data, complete degradation appears to be occurring (as noted by increasing concentrations of ethane and ethene in LAB-SBW-16); however, some CVOCs were still present in LAB-SBW-16. This may be a function of inadequate residence time; however, it may also be due to contaminant mass in the bedrock matrix in the area of LAB-SBW-16. As noted above, a full-scale PRB is recommended to be completed further south of the pilot PRB. This should address the potential back diffusion

issues in the area of the current PRB. Also, as noted above, overlapping injection points are recommended to ensure a continuous PRB and if completed with an additional row, this would increase the PRB thickness. Monitoring on the downgradient side would determine if any areas require re-assessment.

- Dosing Rate – This approach utilized a dosing rate of 0.6% (mass of ZVI amendment to mass of bedrock). There was no ‘day-lighting’ of material observed and excessive back pressure was not incurred during the injection intervals. ZVI was not observed in all intervals as noted above and additional ZVI could likely have been placed. A full scale pneumatic injection was determined to conceivably inject a higher dosing rate. Although the actual amount that could be placed may vary, for planning purposes a dosing rate of 1% should be utilized.

A bench-scale ZVI treatability study was completed in late 2020 and early 2021 to further evaluate the effectiveness of three different ZVI products in degrading CVOC constituents of concern, the appropriate dosing rate, and support PRB design parameters (refer to Section 6).

4.0 STANDARDS, CRITERIA AND GUIDELINES

This section identifies the Standards, Criteria and Guidelines (SCGs) for the Site. The SCGs apply to constituents of concern (COCs) as identified in the Record of Decision (March 2020), as the following:

CVOCs:	
• trichloroethene (TCE)	• 1,1 dichloroethene (1,1-DCE)
• tetrachloroethene (PCE)	• 1,1,2-Trichloroethane (1,1,2-TCA)
• cis-1,2-dichloroethene (c-DCE)	• 1,1-dichloroethane (1,1-DCA)
• vinyl chloride (VC)	• 1,1,2-trichloro-1,2,2-triflouroethane (Freon-113)
• 1,1,1-trichloroethane (1,1-TCA)	
BTEX:	
• benzene	• ethylbenzene
• toluene	• xylenes

Soil SCGs: The following SCGs for soil are applicable for the Site:

- New York Codes, Rules, and Regulations (NYCRR) Subpart 375-6 Remedial Program Soil Cleanup Objectives (RPSCOs) for the Protection of Groundwater;
- NYCRR Subpart 375-6 RPSCOs for Commercial Use.
- NYCRR Subpart 375-6 RPSCOs for Industrial Use.

Groundwater SCGs: The following SCGs for groundwater are applicable for the Site:

- NYSDEC Part 703 Groundwater Standards;
- Technical and Operational Guidance Series (TOGS) 1.1.1 Ambient Water Quality Standards and Guidance Values.

Soil Gas SCGs: Currently, no state regulatory (NYSDEC or NYSDOH) guidance values exist for soil gas.

Bedrock: Currently, no state regulatory (NYSDEC or NYSDOH) guidance values exist for bedrock.

5.0 REMEDIAL ACTION OBJECTIVES

The primary Remedial Action Objectives (RAOs) are as follows:

Groundwater RAOs:

- a. Prevent ingestion of groundwater with contaminant levels exceeding drinking water standards;
- b. Prevent contact with, or inhalation of volatiles, from contaminated groundwater; and
- c. Prevent off-Site migration of contaminants in groundwater at levels exceeding drinking water standards.

Soil RAOs:

- a. Prevent ingestion/ direct contact with contaminated soil;
- b. Prevent inhalation of or exposure from contaminants volatilizing from contaminants in soil; and
- c. Prevent migration of contaminants that would result in groundwater or surface water contamination.

Soil Vapor RAOs

- a. Mitigate impacts to public health resulting from existing, or the potential for, soil vapor intrusion into buildings at a site.

6.0 DESIGN PHASE INVESTIGATION

A Design Phase Investigation (DPI) Work Plan was submitted in August 2020 and the DPI was conducted between September 2020 and January 2021. The DPI Work Plan included the following:

1. Monitoring Well Installations
2. Groundwater & Rock Core Sampling & Analysis
3. ZVI Bench-Scale Treatability Study
 - a. ZVI Kinetics Testing
 - b. ZVI Column/Metals Testing

While not included as a scope item in the DPI Work Plan, a bromide tracer test was also conducted to assess the bedrock groundwater flow velocity in the area selected for ZVI PRB installation. Each of the DPI activities and findings is described in the subsections below.

6.1 *Bedrock Monitoring Well Installations*

Three (3) bedrock groundwater monitoring wells (designated LBA-SBW-17, LBA-SBW-18 & LBA-SBW-19) were installed downgradient from the general area selected for ZVI PRB installation to improve P-1 plume delineation downgradient from the planned PRB and establish background bedrock groundwater quality in this area of the FESL prior to PRB installation. The groundwater sampling and analysis data indicated lower concentrations than previously contoured for the area (additional details below). A fourth bedrock monitoring well was installed (designated LBA-SBW-20) to support configuration of the PRB design

(specifically, the eastern extent of PRB installation) and confirm the conceptual model of CVOC transport of the P-1 plume.

The four (4) wells were installed in general accordance with the DPI Work Plan. Soil cores were retrieved to the top of the bedrock surface using macrocore liners or split spoons and continuously logged by a LaBella and/or GEI geologist. Soil was screened for visible and/or olfactory impairment, and/or indication of detectable volatile organic compounds (VOCs) by a photo-ionization detector (PID) during boring advancement. Based on previous work completed at the Site the P-1 Plume was anticipated to be located only within the bedrock zone in this area and that appeared consistent with the findings of the borings.

Soil sampling was included in the work plan unless PID readings were significantly elevated (e.g., greater than 250 ppm) and since such readings or other evidence of gross impacts were not identified soil samples were not collected. A summary of the soil boring PID readings are provided below:

Location	Depth (ft.)/PID Readings (ppm)							
	0-4	4-8	8-12	12-16	16-20	20-24	24-28	28-32
LBA-SBW-17	0	--	--	5.4	16.8	16.8	18.5	0
LBA-SBW-18	0	0.2	21.7	41.6	47.8	47.8	--	0
LBA-SBW-19	0	0.1	2.5	165	148	0	--	--
LBA-SBW-20	3.7	2.0	0	4.7	4.1	3.2	3.0	0

Notes:

- PID readings collected using a MiniRae 3000 PID and readings shown are in parts per million (ppm) total VOCs.

Upon reaching the bedrock surface, the augers were advanced approximately 2-3 feet into the top of rock to provide a rock-socket for a permanent casing. A 6-inch diameter permanent steel casing was cement-grouted in-place in the top of the rock socket using a tremie pipe. The grout was allowed to cure for approximately 24 hours prior to corehole advancement. Following the installation of the casing, an HQ core barrel was advanced to a depth of approximately 20 feet below the bottom of the permanent casing in 10-foot increments. In order to minimize the potential of potable water loss air rotary coring methods were utilized during the advancement of the core barrel. At the completion of bedrock coring, the HQ core hole was reamed using a 3 7/8" roller bit, and the monitoring wells were completed as an open bedrock hole. All drilling equipment utilized during the installation and testing of each well were decontaminated between monitoring well installations.

Details of the rock coring procedure including drill rate, water loss, and the presence of voids noted during core barrel advancement were recorded on field forms. The retrieved rock core was logged by a Labella and GEI geologist, and logs are included in Appendix 1. The logs include a description of rock type, presence of natural and mechanical breaks, and a calculation of rock-quality designation (RQD). The rock cores are on-site in wooden core boxes. In general, the rock quality was similar to previous bedrock wells installed at the Site which generally consists of highly weathered/fractured bedrock in the top 3-ft. of bedrock with increasing rock competency with depth. The bedrock cores did not exhibit any significant evidence of impacts (i.e., no staining, no odors and all PID readings were 0.0 ppm).

As noted in the DPI Work Plan, a section of core in the upper five feet of bedrock biased toward fracture zones was selected from each bedrock well location was selected for analysis by immediately wrapping aluminum foil for preservation, placed in a plastic bag, and packed in ice for delivery to the laboratory. The rock core was frozen, crushed and placed in a sample jar containing methanol for extraction via EPA Method 5035 and analyzed by EPA Method 8260 following two weeks of preservation. The table below summarizes the rock core testing samples collected:

Well Location	Sample Depth (ft. BGS)	Sample Elevation (ft. MSL)
LAB-SBW-17	35.5-35.8	521.72 – 521.69
LAB-SBW-18	31.8-32.2	521.64 – 521.24
LAB-SBW-19	22.0-22.4	527.08 – 526.68
LAB-SBW-20	29.6-29.9	519.68 – 519.38

Evidence for potential hydraulic communication with nearby monitoring wells (spouting, presence of air bubbles) was also evaluated for during the coring and reaming process; however, no evidence of spouting or other communication was identified during the well installations. In addition, following installation of each well, a Well-Vu Camera was used to observe fractures in each well. Video was recorded and depths of fractures noted. The video scoping indicated similar rock consistency and fractures as previously recorded well locations.

Subsequent to the well installations, each well was developed by pumping and observing water quality indicator parameters until the parameters stabilized. Well development logs are included in Appendix 1.

6.2 Groundwater & Rock Core Sampling & Analysis

6.2.1 Rock Core Sampling Results

The rock core (bedrock matrix) sampling results for VOCs generally indicated minimal concentrations of CVOCs (<500 ppb in each sample) in the downgradient bedrock matrix for wells LAB-SBW-17, LAB-SBW-18 and LAB-SBW-19. The bedrock sample from LAB-SBW-20 identified higher concentrations of CVOCs (26,000 ppb). LAB-SBW-20 is closer to the source area.

Table 1 summarizes the bedrock matrix sampling conducted as part of the RI and DPI.

6.2.2 Bedrock Groundwater Sampling Results

Subsequent to development the wells were allowed to equilibrate at least 48 hrs prior to collecting groundwater samples. During the DPI, groundwater samples were collected from each of the new monitoring wells at two vertical intervals in each well and GMX-MW-3, LAB-SBW-15 and LAB-SBW-16 to assess potential variations in concentrations vertically. This data was utilized to further assess the potential vertical extent of the PRB. Additional groundwater sampling was also conducted as part of the Treatability Study; however, that is summarized in Section 6.3. The table below summarizes the groundwater sampling completed as part of the DPI.

Boring/Well Location	Date	Sampling Depths (Ft. BGS)	Sampling Depth (Ft. Below Top of Rock)	Elevation (fmsl)s
GMX-MW-3	9/16/20	28	6.7	518.69
		30	8.7	516.69
LAB-SBW-15	9/17/20	29	5.3	517.63
		40	16.3	506.63
LAB-SBW-16	9/17/20	33	4.8	517.32
		44	15.8	506.32
LAB-SBW-17	9/16/20	42	9.7	517.01
		52	19.7	507.01
LAB-SBW-18	9/16/20	39	9.0	516.42
		48	18.0	507.42
LAB-SBW-19	9/16/20	35	12.6	515.75
		47	24.6	503.75
LAB-SBW-20	12/14/20	35	7.2	515.25
		43	15.2	507.25

Groundwater sampling logs are included in Appendix 1.

Table 2 summarizes the testing completed for each of the above wells since the baseline testing (March 2017) conducted prior to the Pilot Test. Additional historical testing data for GMX-MW-3 and other wells can be obtained from prior reports. A summary of the data from each well is provided below.

- GMX-MW-3:** This well is downgradient of the source area and was installed June 2000. The initial sampling of this well (July 2000) identified total CVOCs of 5,258 ppb (inclusive of COCs and non-COCs). This well has been sampled numerous times since 2000 and the concentrations of CVOCs have significantly decreased. Specifically, a sample from July 2010 identified total CVOCs of 2,035.6 ppb and May 2017 total CVOCs were 1,201 ppb (prior to the Pilot Test). Since the Pilot Test, this well has been sampled four times: February 2019 (452.6 total CVOCs); June 2020 (550 ppb total CVOCs) and September 2020 (173.6 and 171 ppb total CVOCs). The CVOCs detected in the well have predominantly consisted of the breakdown product COCs namely cis-1,2-Dichloroethene (DCE) and Vinyl Chloride and a non-COC, chloroethane.
- LAB-SBW-15:** This well was installed in April 2017 and is on the downgradient edge of the source area. There have been several sampling events including several events sampling different vertical intervals. The initial ‘depth discrete’ sample from this well collected from the upper most fractured bedrock zone during the well installation identified the highest concentrations of CVOCs (4,976 ppb) of any sample from this well. The Pilot Test blasted bedrock trench PRB was installed approximately 15 feet north of this well. Since the Pilot Test, this well has been sampled on six occasions and with the exception of the initial post Pilot Test sample the total CVOC concentrations have ranged between 77.8 ppb and 435 ppb. The initial post Pilot Test sample indicated a significantly higher concentration of total CVOCs (5,513 ppb) than the baseline Pilot Test samples (22.4 ppb to 91.2 ppb). As summarized in the Pilot Test Report, the initial increase in CVOCs appears to be due to displacing contaminants during the injection process and possibly by back diffusion processes following bedrock blasting during the Pilot Study. The most recent sampling of this well during the DPI included two vertical depths (approximately 28 ft bgs or 516.55 fmsl and 40 ft. bgs or 504.55 fmsl). The concentrations of total CVOCs from these two intervals were similar 400.7 ppb (28 ft. bgs) and 372.5 ppb (40 ft bgs).

- LAB-SBW-16:** This well was installed in April 2017 and there have been several sampling events at different depth discrete intervals. The initial depth discrete sample from this well collected from the upper most fractured bedrock zone during the well installation identified the highest concentrations of CVOCs (3,920 ppb, ~519-522 fmsl) of any sample from this well until the most recent sampling which identified 4,405 ppb total CVOCs in a sample collected from 33 ft bgs (515 fmsl). This well is approximately 15 ft. south of Pilot Test pneumatic injection point 4 (IP-4). Prior to the Pilot Test, three (3) baseline samples (May 2017) were collected from this well at varying elevations. The deepest sample identified the lowest total CVOC concentration (102 ppb, ~500–502 fmsl) and the other two samples identified higher concentrations (475 ppb at ~516.5–518.5 fmsl and 592 ppb at 508-510 fmsl). Since the Pilot Test, there have been six (6) sampling events of this well. Similar to LAB-SBW-15, the initial post injection sample increased in comparison to the baseline samples collected in May 2017; however, concentrations decreased to at or below the pre-injection concentrations until the most recent (September 2020) sampling event. The September 2020 DPI event included sampling two vertical intervals: ~515 fmsl and ~504 fmsl. The 515 fmsl sample indicated significantly higher total CVOCs (4,405 ppb) than the deeper sample (116 ppb). The initial five post Pilot Test sampling events from this well were collected from a depth of approximately ~498 fmsl. This significantly higher concentration of total CVOCs in LAB-SBW-16 may be due to elevated concentrations being present in this zone. It is also possible that since the sampling was completed approximately 2 weeks after installation of LAB-SBW-17, LAB-SBW-18 and LAB-SBW-19 and 1 week after development of these wells that some COCs were displaced during the drilling and/or subsequent pumping; however, these wells are approximately 150 ft. to the south and no communication was observed between these wells during the drilling.
- LAB-SBW-17, LAB-SBW-18 and LAB-SBW-19:** These wells were all installed in September 2020 and have only been sampled once; however, two vertical intervals were sampled from each well in order to assess the potential for variations in concentrations vertically. Prior to installation/sampling, modeling of the groundwater plume inferred a concentration range of 1,000 to 2,500 ppb in this area of the Site. However, the sampling results indicated significantly lower concentrations in the groundwater. A summary of the total CVOCs for these wells is below:

Well	Elevation (fmsl)	Total CVOCs (ppb)
LAB-SBW-17	~517	37.5
	~507	24.27
LAB-SBW-18	~516	75.8
	~507	81.4
LAB-SBW-19	~515	9.7
	~503	8.7

Since monitoring data from these locations were not available/obtained prior to the Pilot Test, it is unknown if the concentrations of total CVOCs in these wells is due to a decrease in concentrations as a result of the Pilot Test PRB (each of these wells are downgradient of the Pilot Test area). Based on the substantially lower concentrations in these wells than what was predicted via modeling, it was determined that water from these wells would not be used as part of the Treatability Study.

- **LAB-SBW-20:** This well was not initially planned to be installed as part of the DPI; however, since LAB-SBW-19 is approximately 100 ft. to the northwest of GMX-MW-3 (an apparent upgradient direction) and LAB-SBW-19 identified lower concentrations of total CVOCs than GMX-MW-3 this well was installed to assess a potentially more direct bedrock migration pathway from the source area to GMX-MW-3 (assess plume configuration) and support PRB design in an eastward direction. Similar to the other three DPI wells, this well included sampling of two vertical intervals after installation/development. The shallow sample (~514 fmsl) identified total CVOCs of 326 ppb and the deeper sample (~506 fmsl) identified a concentration of 66 ppb. The concentration in the shallow sample was within the inferred concentration range for the groundwater plume modeling.

The CVOC P-1 Plume extent is shown on Figure 5 which incorporates the September 2020 sampling data with the inclusion of the four new wells.

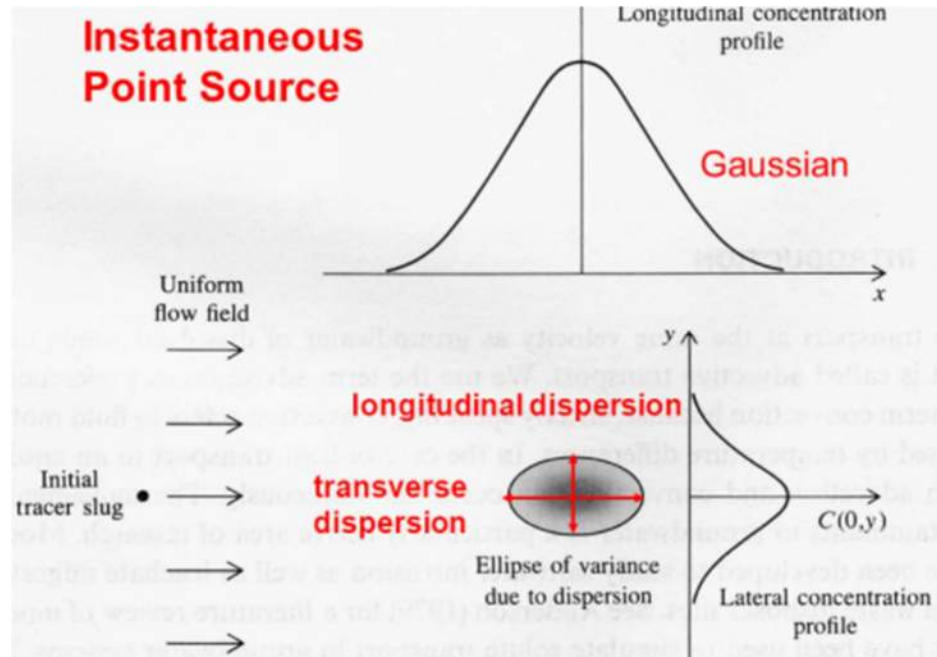
6.2.3 Tracer Test

A tracer test was completed by LaBella to verify the Darcy calculated bedrock groundwater flow velocity for the P-1 Plume in the area local to the planned PRB. The test was completed by injecting a non-reactive tracer salt (bromide) solution into injection wells IP-2 and IP-4 which are directly upgradient of LAB-SBW-15 (16.5 ft) and LAB-SBW-16 (6.5 ft), respectively. The target concentration for the bromide solution was 1,000 mg/L and the actual concentration was confirmed by laboratory testing to be 940 mg/L. The tracer test was initiated on December 17, 2020 and consisted of slow injection (about 100 mL/min) of 2 Liters of the solution into each well via a peristaltic pump with tubing placed approximately 1 ft. below the top of the water table. Baseline bromide samples were collected from LAB-SBW-15 and LAB-SBW-16 prior to the placement of the bromide solution which showed non-detected bromide concentration.

Groundwater samples were collected using a bailer in wells LAB-SBW-15 and LAB-SBW-16 daily with laboratory analysis for bromide. Sampling was not conducted on select days (holidays) and the frequency was reduced after the initial 2 weeks of testing. Collected samples were submitted to Paradigm

Environmental for analysis of bromide via USEPA Method 300.0. Field measurements of specific conductance using a Myron L Company Ultrameter II was performed in the field. Due to a malfunction with the initial meter obtained for the conductivity testing, data for conductivity was not collected on the December 17 and 18, 2021. Conductivity readings were not collected after January 7, 2021 as the conductivity readings correlated poorly with detected bromide concentrations. The bromide testing results and conductivity readings are summarized on Table 3 with graphical analysis also included after Table 3 in the tables section attached.

In porous media, groundwater flow and transport occurs through primary porosity. Under uniform flow conditions, a gaussian distribution of detected bromide concentrations is typically expected as diffusive and dispersive transport properties cause early detections of the tracer in the downgradient wells with the bulk of the tracer mass reaching the downgradient wells through advective groundwater transport (illustrated in the figure below from Wang and Anderson {1982}).



However, constituent transport in fractured rock is different from porous media where transport occurs through interconnected secondary porosity features which include vugs, cavities, fractures, and joint sets. As shown on the graphical representation of Table 3, early detections of bromide in the two downgradient wells in the PRB area are likely caused by diffusion and transverse dispersion which is identified in bromide detections between day 1 and day 5 following injection. On day 6, bromide concentrations were several times higher as the bromide tracer front reached the two downgradient wells during advective transport through fractures and continued to be detected at similar concentrations for 22 days as the bromide concentration slug flowed past the wells. Bromide concentrations declined sharply subsequently. The tracer tests identified an estimated local groundwater flow velocity of approximately 2.75 feet per day in the area of LAB-SBW-15 and 1 foot per day in the area of LAB-SBW-16. The higher flow velocity near well LAB-SBW-15 may be influenced by the 2017 pilot study which used bedrock blasting to create a bedrock fractured trench for ZVI injection and fractures may have propagated a short distance away from the blasted area which may have been responsible for the observed higher flow velocity when compared to LAB-SBW-16.

The measured tracer test velocity in range of 1 to 2.75 feet per day for the PRB area is generally consistent with the larger scale Darcy calculated bedrock groundwater flow velocity for the P-1 Plume of 2 to 3 feet per day reported in the RI Report. The rate of COC migration will be less than flow velocity as the constituents attenuate to the matrix of the water-bearing zone during transport. The groundwater flow velocity and rate of chemical migration is a critical factor in defining the width of the PRB and thus residence time of groundwater (and contaminants) within the PRB.

6.3 ZVI Treatability Study

A laboratory treatability study was conducted by XDD Environmental of Stratham, NH to support the ZVI PRB design. The laboratory report is included in Appendix 2. The treatability tests included kinetic batch bench tests and column studies for treatment of chlorinated ethenes which are the more recalcitrant COCs listed in Section 4. The treatability study was designed to assess optimal ZVI amendments and dose (Kinetics Bench Test) and then through the Column Test to evaluate the PRB width and the potential for mineral precipitates which could impact performance of the PRB over time.

A summary of the testing and findings are provided below.

6.3.1 ZVI Kinetics Bench Tests

Bench scale testing was designed to evaluate three Hepure ZVI products and dose required to treat the chlorinated ethene COCs in groundwater with a goal of achieving at least an 80% reduction. The 80% reduction is not a metric defined in the NYSDEC ROD; however, this minimum reduction in COCs was defined as the goal for the treatability study testing. This (minimum) reduction in COCs is estimated to reduce COCs to a level that will allow impacts to naturally attenuate prior to migration off-site.

Kinetics Test Water

The DPI planned groundwater collection for testing from one of the new monitoring wells (LBA-SBW-17, LBA-SBW-18 or LBA-SBW-19) for use as source water in the bench tests, since this area was anticipated for the future PRB installation. However, as noted above, the concentrations in the new wells were significantly lower than initially anticipated based on the groundwater plume modeling conducted prior to installation. It is anticipated that the lower concentrations are due to the previous Pilot Test attenuating impacts north of this area and thus significantly reducing the plume in this area. Therefore, monitoring wells LAB-SBW-03 and LAB-SBW-07 were selected to provide treatability test water as the concentrations in these wells (based on prior sampling events) were in a CVOC concentration range of 1,000 to 3,000 ug/L and represented more appropriate worst-case groundwater concentration requiring in-situ treatment in the ZVI PRB. The two wells were sampled on September 23, 2020 and the results are summarized in Table 2.

As shown in Table 2, the concentration of total CVOCs in LAB-SBW-03 was 230 ppb and LAB-SBW-07 was 3,031 ppb. Based on these results, LAB-SBW-07 was selected for collecting groundwater to use within the Treatability Study. However, due to concerns with concentrations varying with time, water levels and potential displacement of contaminants seen historically at the Site, at the time water was collected from LAB-SBW-07 (September 28, 2020) for the treatability study, a sample of the water was collected at the beginning (13:30) of the pumping event and at the end (14:50) of the pumping event. These samples indicated similar concentrations to the September 23, 2020 sample with concentrations of 3,132 ppb and 2,120 ppb respectively. These samples were put on a rush turnaround and after receipt of the results the water collected from LAB-SBW-07 was confirmed for use as part of the Treatability Study.

A total of 50-Liters of water was collected from LAB-SBW-07 and sent to XDD for use in the Treatability Study.

ZVI Kinetic Batch Tests

A detailed report on the kinetics test is included in the XDD Report which is included in Appendix 2. This section provide a summary of the work. The following ZVI products were evaluated during bench scale kinetic testing:

- Hepure- Ferox Flow (used for the pilot test)– 95% ZVI. 125-micron average particle size.
- Hepure – Ferox Target – 95% ZVI. 44-micron average particle size
- Hepure – Ferox Plus eZVI – 40% ZVI, food grade soy bean oil, emulsifiers, thickeners and proprietary nutrient blend including nitrogen, phosphorus and vitamin B12, and sodium lactate.

Two (2) doses of each product were selected for testing (i.e., 6 tests total). Dosing was determined based on discussions with Hepure and were determined to be 1% and 5% by weight of bedrock and water. It should be noted that the Pilot Test Testing utilized a 6% dosing for the blasted bedrock trench and a 0.6%

dosing for the pneumatic injections. The kinetic testing was completed in 20 degree Celsius batch reactors. A control was set up with no ZVI product. A duplicate for each of the six (6) tests was also set up. A small amount of bedrock collected from LAB-SBW-18 was added to each batch reactor. Samples were collected at Days 0, 0.5, 1, 2, 3, 4, 5, 8, 13 and 25 and analyzed for TCL VOCs, pH, and ORP.

The ZVI batch testing demonstrated a greater than 95% reduction in treatability testing total COCs for the Ferox Target at 5% dosing and a greater than 85% reduction in treatability testing total COCs for the Ferox Flow at 5% dosing. The Ferox Plus eZVI achieved less than 30% reduction in total COCs and was not retained for further analysis by column tests.

As expected, the pH increased in the ZVI kinetic test treated waters and ORP was lowered to favorably negative values (readings greater than -200 mV) in both the Ferox Flow and Ferox Target products. Both products lowered dissolved methane gas concentrations and dissolved ethene and ethane gas concentrations increased slightly more in the Ferox Target compared to the Ferox Flow as the percentage of CVOC decreased more in the Ferox Target batch test. Alkalinity was reduced by approximately 50% with both ZVI products. The reduction in alkalinity is a function of decreasing soluble calcium carbonate concentrations.

6.3.2 Treatability Study – Column Tests

Column Test Water

Subsequent to determining which treatment chemicals were retained for Column Testing, the water required for the Column Test was planned to be obtained from LAB-SBW-07 on November 30, 2020. However, the two samples collected over the extraction of 50 Liters indicated significantly lower concentrations in LAB-SBW-07 (438 ppb and 335 ppb, respectively) than the previous samples on September 28, 2020. Due to these lower concentrations XDD indicated that there was adequate volume remaining from the Kinetics Test and samples were collected (Column Test Day 0 and Column Test Day 0 Dupe) and analyzed and confirmed adequate concentrations, 2,026 ppb and 2,433 ppb, respectively. As such, this water was utilized for the Column Test.

Column Testing

The objectives of the Column Test were:

- Confirm the ZVI product and dose is successful in a column test resembling Site conditions (i.e., similar groundwater flow rate and bedrock from the Site).
- Determine if the change in groundwater chemistry (i.e., ORP, pH) due to the ZVI results in changes in dissolved metals in groundwater.
- Provide information to support PRB design (specifically necessary residence time and thus PRB width).

Three (3) column tests were constructed; one with the site groundwater and bedrock only as a control, one with site groundwater, bedrock and Ferox Flow (5%) and the third with site groundwater, bedrock and Ferox Target (5%). The Columns were constructed of 1-inch stainless steel tubing and were 4-ft. in length in order to simulate a 4-ft. PRB thickness. Bedrock from LAB-SBW-18 was utilized for the Column Testing and was crushed to a uniform coarse sand particle size. Prior to testing, the columns were saturated with the site groundwater and groundwater was pumped through the columns at the estimated groundwater flow velocity of 2 ft./day simulating the approximate flow velocity in the area of the PRB. The columns were allowed to equilibrate prior to testing as described in Appendix 2. Subsequent testing of treatment efficiency during column testing involved the following sampling and analysis:

- Baseline “Day 0” control sampling for VOCs, pH, ORP, alkalinity, sulfate, dissolved gases, TAL metals. This sample was analyzed to confirm conditions of the water prior to treatment through the columns and as a comparison to the post treatment samples.
- One ‘4-ft. Treatment’ sample with analysis for the same parameters as the Baseline control listed above.
- One ‘4-ft. Treatment: Second/Confirmation sample (i.e. this sample was utilized to confirm the initial 4-ft. treatment results. This sample was analyzed for VOCs only.
- One ‘8-ft. Treatment’ sample (i.e., collecting the water from the 4-ft. Treatment and running it back through the column in order to mimic an 8-ft. thick PRB) was analyzed for VOCs only.

The Column Test results are summarized below and further details on the Column Test are included in the XDD report in Appendix 2.

Test	Compound	% Reduction COCs
4-ft. Treatment	Ferox Flow	64%
	Ferox Target	91%
4-ft. Treatment Confirmation	Ferox Flow	73%
	Ferox Target	98%
8-ft. Treatment	Ferox Flow	66%
	Ferox Target	96%

Note: ZVI dosing was 5% for both ZVI Products.

Other than a reduction in calcium concentrations, metals were not substantially affected by either ZVI product. Similar to the batch tests, pH increased and both ZVI products with Ferox Target having a higher pH than the Ferox Flow. Methane concentrations decreases more in the Ferox Target than in the Ferox Flow and ethene and ethane dissolved gas concentrations were higher in the Ferox Target than the Ferox Flow as a result of higher ethene/ethane CVOC destruction. The increase in reduction percentage by additional treatment using a greater column length was not considered significant.

6.3.3 Summary of ZVI Treatability Testing

The bench-scale treatability testing confirmed field pilot test injection testing results where ZVI Ferox Flow reduced 1,1,1-TCA and chlorinated ethene concentrations in groundwater. Kinetic testing demonstrated a better than 85% reduction in treatability testing COCs using site groundwater with ZVI Ferox Flow and an even higher reduction of in COCs of 95% with ZVI Ferox Target (both at 5% dosing). The bench-scale kinetics tests showed higher reductions in COC concentrations with a higher dose (5% dosing was more effective than 1% dosing). Column tests for Ferox Flow and Ferox Target at 5% dose indicated 73% and 98% COC reductions, respectively for the confirmation columns. Based on the kinetic testing results,

higher dosing would be expected to increase percent removal efficiency in the columns. Both ZVI products reduced ORP value to more than -150 mV in batch and column testing and both ZVI products did not increase metals concentrations.

7.0 SELECTED REMEDY

This section details the selected remedy. As described in the ROD, the elements of the Final Remedy are as follows:

- a) Remedial Design
- b) Site Cover
- c) Vapor Mitigation
- d) Zero Valent Iron (ZVI) Permeable Reactive Barrier (PRB)
- e) Monitored Natural Attenuation (MNA)
- f) Institutional Control
- g) Site Management Plan

7.1 Site Grading/ Cover

A cover system consisting of a minimum 1-ft material that meets Commercial Use SCOs will be placed across the 1700 Emerson Street parcel. Refer to Figure 7 for the area of the Site that will receive cover.

7.1.1 Site Grading/ Cover

A total of approximately 32,220 CY of cover material is currently staged on the Site and will be used as the final cover. An additional 11,100 CY of cover material is also planned for import to the Site in 2021. All the materials imported (and to be imported) were obtained and sampled in accordance with NYSDEC-approved Beneficial Use Determinations (BUDs) under NYCRR Part 360 regulations. The currently stockpiled material and the material planned for import is sufficient to provide an approximate 2.2-ft cover across the Site. BUD material was sampled prior to import and; as such, additional sampling of the cover system will not be completed. The Site will be graded to provide a generally level area for future development; however, the Site is designed with a pitch to the southeast to allow for positive surface drainage and prevent ponding. The sources of cover material include the following:

1. **Colfax Street BUD 828023-1.** Approximately 7,070 CY of soil was imported from 110-210 Colfax Street in 2019 (See Cover Soil Stockpile A on Figure 6 and 7) and approximately 11,100 CY of soil has been approved for import and is awaiting import in 2021. These materials consist of screened soil from various City Street/utility projects. The 2019 material is staged as shown on the attached Figure 6 & 7.
2. **Rundel Library BUD 828023-2.** This material consists of sediment imported from beneath the Rundel Library in 2020. Approximately 2,450 CY of sediment was removed from a cooling basin located beneath the library and staged in "Cover Soil Stockpile B" as shown on the attached Figures 6 & 7.
3. **West River Wall BUD 828023-3.** This material was imported from the West River Wall project and consists of approximately 1,700 CY staged in "Cover Soil Stockpile C" as shown on the attached Figures 6 & 7.
4. **Port of Rochester BUD.** Approximately 20,000 CY of soil/sediment material was imported from the Port of Rochester under a BUD application dated February 2011. This material is located in "Cover Soil Stockpile D" as shown on the attached Figures 6 & 7.

In addition, to the above, there is material that appears to have been placed at the Site from the construction of Edison Tech School. This material appears to be predominantly soil; however, there is landfill material intermixed. Although this material is vegetated it is an approximately 350 ft. by 100 ft. pile that is approximately 15 ft. feet in height. This is currently the highest elevation at the Site and this pile will be re-graded to fill in lower elevations of the Site prior to covering with cover material soils. A demarcation layer (e.g., orange snow fence or similar) will be installed across the Site below the cover material soils

which are considered final cover. The Port of Rochester BUD material will be used as the top 1-foot of cover. Refer to Figure 7 for grading plans and Figure 8 for stormwater control details.

7.1.2 *Monitoring Well Modifications*

Monitoring well risers will need to be modified prior to grading. Monitoring wells will be adjusted to be approximately 3-feet above final grades. Locking well caps will be re-installed on each well following the modifications. In addition, monitoring wells will be protected during cover system construction using concrete Jersey barriers, or similar. The following monitoring wells and injection wells will be modified and protected during grading (refer to Figure 4 for well locations):

- Shallow Bedrock Wells:
 - LAB-SBW-01 through LAB-SBW-20
 - GMX-MW-1
 - GMX-MW-3
 - GMX-MW-4
 - GMX-MW-6S
 - GMX-MW-6D
- Deep Bedrock Wells:
 - DBW-01
 - DBW-02
- Interface Wells
 - P-1
- Injection Wells:
 - IP-1 through IP-5
- Multi-Level Shallow Bedrock Wells:
 - ML-1 through ML-8

The following overburden wells will be decommissioned in accordance with CP-43 prior to grading:

- 2016-SB/MW-18
- 2016-SB/MW-19
- 2016-SB/MW-20
- 2016-SB/MW-21
- 2016-SB/MW-22
- LAB-OBW-01

7.1.3 *Stormwater Controls*

In order to address potential stormwater and erosion concerns, the following erosion and sedimentation controls (ES&Cs) will be put in place during the construction work.

1. Silt fencing will be installed along the perimeter fencing as shown on Figure 7 in order to prevent off-site migration of sediments during construction work. The silt fencing will be maintained throughout the construction project and until the area obtains 80% vegetative cover.
2. A stabilized construction entrance will be installed for the entrance area to the site in order to limit potential migration of sediments off-site through vehicle traffic.
3. As needed, street sweeping will be conducted in order to remove any soil/sediment that is tracked off-site.

Additional details on ES&C measures are shown on Figure 8.

7.2 ZVI Permeable Reactive Barrier (PRB)

The findings from the Remedial Investigation, 2017 Pilot Test (see Section 3.3) and the DPI (see Section 6) were the basis for full scale ZVI PRB design to achieve RAOs. The ZVI PRB will be installed perpendicular to groundwater flow in the approximate location shown on Figure 5 in combination with monitored natural attenuation of to reduce concentrations of COCs in groundwater migrating toward the south and southeast to mitigate migration of CVOCs off-Site. The general groundwater flow direction is toward the south and may trend southeast or southwest based on the seasonal variations and elevation of the sewer system running north-south beneath McCrackanville Street. Total CVOC distribution in bedrock groundwater was modeled after the Design Phase Investigation and is shown on Figure 5. The plume mapping was used to establish the location of the PRB and the vertical depth of the PRB.

The PRB will be approximately 400-ft in length laterally. The eastern side of the PRB will initiate approximately 75 ft. west of McCrackanville Street and be south of but slightly east of LAB-SBW-12 and LAB-SBW-20. The PRB will extend to the southwest and west and then with a slight arc to the northwest. The PRB will extend west to an area approximately 60 ft. to the south of LAB-SBW-14. Vertically, the PRB will extend from the top of bedrock to approximately 15-18 ft btr which includes the A-Zone and B-Zone (upper and lower B zone – See Section 3.2.1). This vertical extent represents >99% of the CVOC mass present in bedrock and bedrock groundwater. Figure 9 provides the plan view location of the PRB relative to the P-1 Plume and Figure 10 provides a detail plan view with cross sections illustrating the lateral and vertical extent of the PRB. Figure 10 also details ZVI injection well construction.

Additional details on the PRB construction including blasting, injection point installation and injections are provided in the sub-sections below.

During the pilot test, monitoring was completed to evaluate soil vapor in the surrounding area of the Site. Methane and VOCs were monitored in surrounding soil gas points to confirm the injection work did not have an effect on methane or VOCs in soil vapor. As detailed in the Pilot Test Monitoring Report, the data did not present any definitive trends that could be attributed to pilot test work. The injections did not appear to cause an increase in methane or VOCs in soil vapor at the Site. Although the full-scale PRB will result in an overall greater disturbance, the Pilot Test areas represented a significant area (over 150 ft) and the Pilot Test PRB was closer to the source area. Based on these results, soil vapor monitoring will not be completed during PRB installation.

7.2.1 Blast-Enhanced Bedrock Trench

The ZVI PRB will be installed via a blast-enhanced bedrock trench. The PRB/blast-enhanced bedrock trench location is shown on Figure 9 and 10. The installation of the PRB via the blast-enhanced bedrock trench is supported by the following:

- The testing completed as part of the Pilot Test PRB indicated that the blast-enhanced bedrock trench PRB successfully treated the COCs.
- The treatability study and tracer testing work as part of the DPI indicated that an 80% reduction in COCs can be achieved with an approximate 4 ft. width (depending on ZVI type and dosing, further discussed in Section 7.2.2).

This PBR construction method consists of fracturing the bedrock using explosives to create a local, highly interconnected fracture network to increase the homogeneity of heterogeneous natural bedrock fracture network. Based on the pilot test, an assumed radius of influence of 2.5-ft is estimated for the blast points. As such, approximately 80 drilled shot holes spaced approximately 5-ft apart will be blasted to form an interconnected blast-enhanced bedrock trench approximately 400-ft in length and 5-ft in width (consistent with the treatability study findings). A New York State-licensed blaster will prepare a Blasting Plan detailing

methods and safety protocols to achieve these requirements. Shot holes will be drilled and loaded with high explosives according to licensed blaster-prepared Blasting Plan. Following drilling and loading of shot holes, each loaded shot hole will be filled with stemming stone to confine the detonation to the bedrock and blast mats will be placed over the shot holes during detonations. Blasting design will be performed according to the blaster-prepared Blasting Plan to ensure proper safety measures are followed based on the USBM Alternative Level Criteria, Appendix B.

Seismic vibration monitoring will be completed at distances no greater than 250 feet from PRB blasting area and located between the PRB and the closest structures to blasting area which will include the sewers along McCrackanville St. located approximately 85 feet from the eastern limit of blasting for the PRB and the solar array located approximately 370 ft. to the north. The action level for blast vibration seismograph readings is a peak particle velocity (ppv) not exceeding 2-inches/sec at a ground frequency of 40 Hz or greater. If the action level is exceeded, work will cease and the contractor will reassess the blasting approach.

Following completion of the blasting, two types of injection wells will be installed in order to maximize distribution of the ZVI. Bedrock and Weathered Bedrock/Top of Bedrock wells will also be installed. Each well will be placed on-center approximately every 50-ft; however, the wells will be off-set by 25-ft. The Weathered Bedrock/Top of Bedrock injection wells will start at the end of the PRB (i.e., 9 wells total) and the Bedrock injection wells will initiate approximately 25-ft. from the end of the trench (i.e., 8 wells total). Injection wells will be placed approximately 25 ft. off each end of the trench. At each location two injection wells will be installed at varying depths:

1. **Bedrock Injection Wells (Injection Interval: ~520 – 505 fmsl)** – The bedrock injection wells are designed to place a majority of the ZVI into the blast-fractured bedrock trench. Each bedrock injection well will be installed by extending a 7-inch diameter borehole through the overburden/fill and no deeper than 1 to 2-ft below top of rock. A 5-inch diameter steel casing will be set to the bottom of the borehole and ‘sealed’ by placing 2-3 feet of bentonite chips and allowed to properly hydrate followed by a cement-bentonite grout slurry. The bentonite chips will be placed to limit the potential for grout infiltrating and clogging the blasted bedrock trench. During placement of the grout, if it appears grout is being lost into the blasted trench, the grout mixture will be thickened initially or grouting will be ceased and casing will be hammered into place but not grouted in place. Grout will be allowed to cure for a minimum of 24 hours prior to sonic coring. Subsequent to setting the casing, a 4.75-inch diameter core hole will be drilled 15-ft below the casing bottom (i.e., approximately 17-feet btr or approximately elevation 505 fmsl). The injection wells will be completed as open rock wells (i.e., no screen or sand pack installed). Rock cores will be retrieved and logged by a LaBella representative for only up to five (5) locations in order to assess the bedrock post-blasting.
2. **Weathered Bedrock/Top of Bedrock Wells/Zone (Injection Interval 524 – 519)** - In addition to the bedrock injection locations, the uppermost portion of bedrock top 2-3 ft (bedrock A-Zone (per Section 3.2.1) will also be targeted for injection work. Targeting this section separately is intended to further assist with and focus placement of ZVI into the uppermost portion of bedrock which has been documented to contain the greatest mass of CVOCs. Currently it is planned that injection in this zone will be completed one of two ways. The method of injection may be modified based on field observations and confirmation of the ability for the ZVI to be placed adequately. Initially, a weathered bedrock/top of bedrock well will be installed by extending a 7-inch diameter bore hole through the overburden/fill and 3-ft below top of rock. Subsequently, a 5-inch stainless steel screened section will be placed with a sand pack placed around the annulus and to 1-ft. above the top of the screen section. A minimum 2-ft. bentonite seal will then be placed followed by grout to the surface. In the

event that this method does not appear to adequately place material, direct injections will also be considered by injecting through the tooling.

A detail of the injection wells is included on Figure 10.

7.2.2 ZVI INJECTIONS

ZVI Selection Rationale

Ferox Flow ZVI is specified for injection into the full-scale ZVI PRB. While the treatability study found Ferox Target ZVI to have a slightly higher percent reduction in treatability study COCs in both the kinetics and the column testing compared to Ferox Flow ZVI at equivalent dosing (5%), XDD indicated that the achieved CVOC percent reduction could be improved by the Ferox Flow ZVI at a higher dosing rate (higher than the 5% tested). While higher dosing would require more Ferox Flow product to be used in the PRB, the cost of the Ferox Target is 60% greater than the Ferox Flow. For application at P-1 Plume, the cost of additional dosing using Ferox Flow would be similar to or lower than the Ferox Target using a 5% dosing with expected similar treatment performance. Another consideration for product specification was product longevity. The Ferox Target consists of a smaller diameter particle size (44 Micron) compared to the Ferox Flow ZVI (average particle size 125 micron) which increases the products reactivity. The downside of higher reactivity for the Ferox Target is a shorter product treatment life (reported by the manufacturer to be 8 to 10 years depending on groundwater quality). The Ferox Flow because of its larger particle size, is expected to have a longer treatment life (expected to be 15+ year).

The Pilot Test indicated that Ferox Flow ZVI adequately treated the groundwater plume (i.e., >80% reduction for total CVOCs in all but one well) at a dosing of 6%. Based on the Pilot Test data, the anticipated longer treatment duration with Ferox Flow, and product cost, the Ferox Flow ZVI was selected for use in the ZVI PRB to mitigate CVOCs in the P-1 Plume. The Pilot Test demonstrated that a 6% dosing rate was feasible and, based on the Pilot Test, a dosing rate of 8-10% was recommended. Therefore, a dosing of 10% Ferox Flow ZVI is specified for injection into the blast-enhanced fractured bedrock trench (approximately 5-ft. in width) with excess capacity to allow for ZVI injection to propagate outward beyond the trench and into the natural fractures into the bedrock thus providing a treatment zone wider than 5-feet but more diffuse beyond the blasted limits in the trench. Based on the treatability study data and pilot test work, the Ferox Flow ZVI at the dosing properly placed into the blast-enhanced bedrock trench will reduce COCs by 80% and thus meet the treatment requirements of the ROD (i.e., mitigating off-site migration of COCs).

ZVI Emplacement

A total of approximately 420,000 lbs of ZVI is planned for injection into the trench via hydraulic injection methods and assumes a maximum 10% dosing of the bedrock mass. The Pilot Test dosing was 6% and did not cause any backpressure or daylighting and thus a 10% dosing rate will be attempted. A slurry of approximately 35-40% ZVI (by weight) will be mixed in a holding tank (in batches). This equates to approximately 75,540 to 117,500 gallons of water total for mixing. The water will be obtained via a fire hydrant in proximity to the Site. The compatibility of the water quality of the municipally supplied water provided the City of Rochester and the Hepure Ferox Flow ZVI will be confirmed with the ZVI supplier. The slurry will be continuously mixed to prevent settling. The slurry will be injected at a flow rate of approximately 30-60 gallons per minute (GPM) using pressures up to approximately 60 psi.

The ZVI will be injected initially into bedrock injection wells in order to place the ZVI from the bottom up within the trench. As noted the bedrock injection wells include an approximate 15-ft. interval which excludes the top 1-2 ft. of bedrock. The weathered rock/top of bedrock injection wells target the top 2-ft.

of bedrock and will be injected into after the bedrock injection wells. The following summarizes the targeted zones and ZVI mass.

Location	Inj. Interval (ft.)(1)	Volume(2) (ft ³)	% Total	Mass ZVI (lbs)	# of Inj. Pts.	ZVI/Pt. (lbs)
Weathered Rock/ Top of Bedrock Zone	2 ft.	4,000	11.76%	49,412	9	5,490
Bedrock Zone	15 ft.	30,000	88.24%	370,588	8	46,324
Totals	17 ft.	34,000	100%	420,000	17	--

(1) Injection Interval for the weathered rock/top of bedrock is based on targeted ZVI placement zone used for ZVI mass calculation. Actual injection interval is greater.

(2) Volume of injection zone is based on Injection Interval and assumes a 5-ft. wide trench by 400-ft. long.

Packers will be used to seal off the casing, thereby directing the ZVI slurry horizontally into the bedrock and preventing the injected material from coming back up the casing.

The USEPA Inventory of Injection Wells form (EPA form 7520-16) will be completed and submitted to the USEPA for approval prior to injection. The ZVI will be shipped in bags and mixed with potable water via a hydrant permit on-Site.

During injection work, the following data will be collected:

- Real-Time initiation and maintenance pressures - this will include utilizing a pressure transducer with datalogger during each injection event to continuously record data. This data may be used to create a pressure-time history curve displayed in real-time on a field laptop computer from which the initiation pressure and the maintenance pressure can be determined. The initiation pressure represents the pressure at which the formation yields to the influx of injection fluids. The maintenance pressure represents the pressure required to maintain sustained flow. Based on the Pilot Test it is anticipated that there will be a range of 30 – 60 PSI during the injection work.
- Pressure influence at surrounding monitoring points – During the injection, pressure gauges will be placed at monitoring wells within a 50-ft radius of the injection points that are screened within the treatment depths or above. In addition, pressure gauges will also be placed on each of the adjacent injection points (bedrock and weathered bedrock/top of rock points). These pressure gauges are set up to monitor for the maximum pressure influence at the monitoring well. Each pressure gauge is outfitted with a drag arm indicator that records the maximum pressure detected at the monitoring point during the injection. In addition, visual observations will be used to indicate pressure influence in surrounding wells.
- Mass and volume of injection materials – During the injection the mass and volume of the material that is injected will be documented for each interval. This will be used to compare to the planned injection amount with actual amount in order to determine if there are areas that may require further consideration or injection work to adequately distribute the ZVI within the PRB.

In addition, prior to injecting into the bedrock injection wells, packers will be placed and inflated at the bottom of the casing interval in the weathered bedrock/top of rock injection well to eliminate this as a preferential pathway and potential for daylighting.

It should be noted that the ZVI PRB is expected to effectively treat most chlorinated COCs and the remedy will rely on natural biodegradation process to decay COCs that are not treated or poorly treated with ZVI. Site natural attenuation process were identified to be evident during the RI and subsequent testing and monitoring of the P-1 Plume throughout the investigation/remedy selection process specified in the ROD. The monitoring of groundwater downgradient from the PRB will demonstrate the effectiveness of natural decay and attenuation processes.

7.3 Monitored Natural Attenuation/PRB Monitoring

As indicated in the ROD, MNA is required for groundwater impacts downgradient of the PRB. This sampling will be integrated with the monitoring of the PRB specified in the Site Management Plan (SMP). MNA potential was evaluated in the Feasibility Study. In accordance with EPA *Technical Protocol for Evaluating Natural Attenuation of Chlorinated Solvents in Ground Water* dated September 1998 (“EPA Technical Protocol”) a preliminary analysis was performed using the data collected during the RI (May 2017 low-flow sampling event compared to data obtained previously in 2000 and 2010) to determine if biodegradation is occurring. In accordance with the EPA Technical Protocol there is “Adequate Evidence for anaerobic biodegradation (reductive dechlorination) of chlorinated organics”. Additionally, CSIA results indicate natural transformation of parent material (PCE and TCE) to daughter products is occurring as well as a reduction in chlorinated ethane constituents. In addition, as indicated previously BTEX compounds are also present at the Site and will be included in the monitoring program. The BTEX compounds have not migrated to the extent of the CVOCs and have attenuated prior to the property boundary.

MNA sampling will be completed semi-annually for two (2) years. Monitoring for the initial two (2) years is summarized below. Twelve (12) wells will be sampled via low-flow techniques using a bladder pump. Water quality parameters including temperature, pH, conductivity, dissolved oxygen, ORP, and turbidity will be collected at 5 minute intervals until stabilized and less than 10 NTU is achieved for turbidity (unless equilibrium is achieved for all other parameters and no improvement in sample turbidity is expected with additional purging). The following wells will be sampled years 1-2:

Well	Pump Intake Depth (ft. below top of casing)	Approx. Pump Intake Elevation (fmsl)	Parameters
P-1	30	515	<ul style="list-style-type: none"> • TCL VOCs • Sulfate • Sulfide • Iron II • Nitrate • Nitrite • Ethane • Ethene • Chloride
LAB-DBW-01	62	481	
LAB-DBW-02	64	488	
LAB-SBW-05	30	516	
LAB-SBW-09	25	519	
LAB-SBW-12	30	517	
LAB-SBW-14	25	519	
LAB-SBW-17	35	522	
LAB-SBW-18	35	518	
LAB-SBW-19	38	511	
LAB-SBW-20	30	519	
GMX-MW-3	28	516	

Note: Shaded wells above are downgradient from the PRB and will be utilized to demonstrate performance of the remedy.

The samples will be analyzed by an Environmental Laboratory Accreditation Program (ELAP) certified laboratory and an ASP Category B Deliverable will be provided. In addition, electronic data deliverables will be submitted to the NYSDEC. Data Usability Summary Reports will not be completed unless the data is determined to be 'final data' for any specific monitoring well, in which case a DUSR will be obtained to confirm the data is valid.

The SMP will include the requirements (frequency, wells, parameters, etc.) on the long-term monitoring program (i.e., beyond the initial 2 years).

An annual Periodic Review Report (PRR) will be completed with the data collected during that reporting period

8.0 ENGINEERING AND INSTITUTIONAL CONTROLS

8.1 *Engineering Controls*

Engineering controls (ECs) for the Site are summarized below. The ECs will be detailed in the Site Management Plan (SMP).

8.1.1 *Operation and Maintenance of PRB*

An Operation and Maintenance (O&M) Plan will be developed and included in the SMP (refer to Section 8.2.1). O&M will include the following:

- Periodic (e.g., annual) inspections of the injection wells and monitoring wells. Repair of any damaged wells/ replacement of locks as needed.
- Replenishment of the ZVI which is estimated to be after 15 years. The need to replenish ZVI will be based on groundwater monitoring results and may include only portions necessary based on the results.

8.1.2 *Maintenance of Cover System*

The cover system will be visually evaluated annually for settling, erosion or other evidence of compromise to the cover constructed as part of the final remedy (refer to Section 7.1). If there is damage that impacts the ability of the cover to be protective of human health and the environment, it will be repaired as needed. Any work that disturbs the cover will be completed in accordance with the SMP (refer to Section 8.2.1).

8.1.3 *Vapor Mitigation*

Several vapor mitigation systems are installed in buildings on the FESL. In accordance with The *Former Emerson Street Landfill Sub-Slab Ventilation Guidance Document Update 2013* by LaBella dated October 2013, future buildings constructed on the FESL will be evaluated for soil vapor intrusion, or a mitigation system will be installed during construction. The City currently has a technical assistance program to property owners on the FESL which provides assistance for vapor intrusion evaluation and mitigation system design/ installation. Prior to any building being constructed, a sub-slab depressurization system (SSDS) design will be submitted to NYSDEC for approval.

8.2 *Institutional Controls*

Institutional controls (ICs) for the Site are summarized below. The ICs will be detailed in the Site Management Plan (SMP).

8.2.2 *Site Management Plan*

Two (2) guidance documents have been developed for the FESL:

- **Former Emerson Street Landfill Sub-Slab Ventilation Guidance Document Update 2013 by LaBella dated October 2013**- This document provides guidance on evaluating and mitigating SVI for buildings on the FESL. This document will be implemented for any buildings constructed at the Site in the future.
- **Guidance for Waste-fill Management During Site Development on the Former Emerson Street Landfill by LaBella dated October 2013**- This document provides guidance on identifying, handling, managing and disposing of fill material associated with the FESL. This document will be implemented during any subsurface work at the Site.

All properties on the FESL are flagged in the City's permit system which prevents permit issuance without consideration for FESL-related concerns including fill material and the potential for SVI. City Division of Environmental Quality staff review permit requests for properties on the FESL to ensure the appropriate ICs/ ECs are implemented.

In addition to the existing guidance documents which will remain in effect for the landfill, a SMP will be developed specifically for 1700 Emerson Street which will detail the ICs/ECs and provide an Operation and Maintenance Plan for the PRB. The SMP will also specify long-term monitoring and reporting requirements.

8.2.3 *Environmental Easement*

An environmental easement will be developed for 1700 Emerson Street which will

- require the remedial party or site owner to complete and submit to the Department a periodic certification of institutional and engineering controls in accordance with Part 375-1.8 (h)(3);
- allow the use and development of the controlled property for commercial or industrial use as defined by Part 375-1.8(g), although land use is subject to local zoning laws;
- restrict the use of groundwater as a source of potable or process water, without necessary water quality treatment as determined by the NYSDOH or County DOH; and,
- require compliance with the Department approved Site Management Plan.

It should be noted that the use of groundwater in the City is prohibited by City code.

9.0 WASTE STORAGE AND DISPOSAL

Liquid Waste

Wastewater generated during implementation of the remedy (purge water, decon water, etc.) will be stored on-Site. Water will be stored in 55-gallon drums or larger containers (e.g., frac tank). Drums will be labeled with the contents. The water will be characterized and disposed of under a temporary sewer use permit to the Monroe County Pure Water sewer system. If necessary the water will be treated with carbon to achieve the sewer use limits. In the event carbon is utilized, it will be sent off-site for regeneration or disposal as appropriate.

Soil/Fill/Bedrock

Drill cuttings obtained from the blast holes and injection wells will be staged on poly and covered with poly. The cuttings will be screened any cuttings exhibiting gross contamination (elevated PID readings or strong odors) will be segregated from the remaining cuttings. The cuttings will be characterized by collecting samples and analyzing for full Toxicity Characteristic Leachate Procedure (TCLP) testing. In the event that the material is deemed non-hazardous waste, the cuttings will be spread on-site to the north of the PRB and placed beneath the demarcation layer and covered with the clean soils. In the event a sample fails TCLP testing, the material will be hauled off-site by Part 364 permitted trucks to an appropriately permitted landfill.

10.0 HEALTH AND SAFETY PLAN

A Health and Safety Plan (HASP) similar to that developed for the Pilot Test will be implemented during the remedy implementation. The HASP includes procedures specific to this Work Plan (e.g., ZVI handling procedures, bedrock blasting, etc.). LaBella's HASP is included as Appendix 3. Contractors will be responsible for development and implementation of their own HASP.

11.0 COMMUNITY AIR MONITORING PLAN

The New York State Department of Health (NYSDOH) Generic Community Air Monitoring Plan (CAMP) will be implemented during all intrusive subsurface work. The CAMP is included as Appendix 4.

12.0 QUALITY CONTROL PLAN

LaBella's Quality Control Program (QCP) included as Appendix 5 will be implemented. Quality assurance/quality control (QA/QC) sampling will be conducted for all VOC samples. QA/QC sampling will not be conducted for waste characterization sampling or groundwater quality parameters. QA/QC sampling will include one (1) blind duplicate and one (1) matrix spike/ matrix spike duplicate (MS/MSD) for every 20 samples or per sampling event, and one (1) trip blank for every shipment of groundwater samples.

ASP Category B deliverables and EQUIS Electronic Data Deliverables (EDDs) will be provided by the laboratory. VOC data will be validated by a third party validator; the remaining parameters are considered water quality parameters and will not be validated. LaBella will enter the data to NYSDEC's EQUIS system.

13.0 SCHEDULE AND DELIVERABLES

Following completion of the remedy, a FER will be completed detailing the cover system and PRB installation. The FER will include as-built drawings of the final remedy. A SMP will be developed detailing ongoing monitoring and reporting requirements and ECs/ ICs for the Site. The SMP will include an Operation, Maintenance and Monitoring Plan for the PRB.

An estimated schedule for the remedial work is outlined below. The schedule will be dependent on contractor availability and schedule.

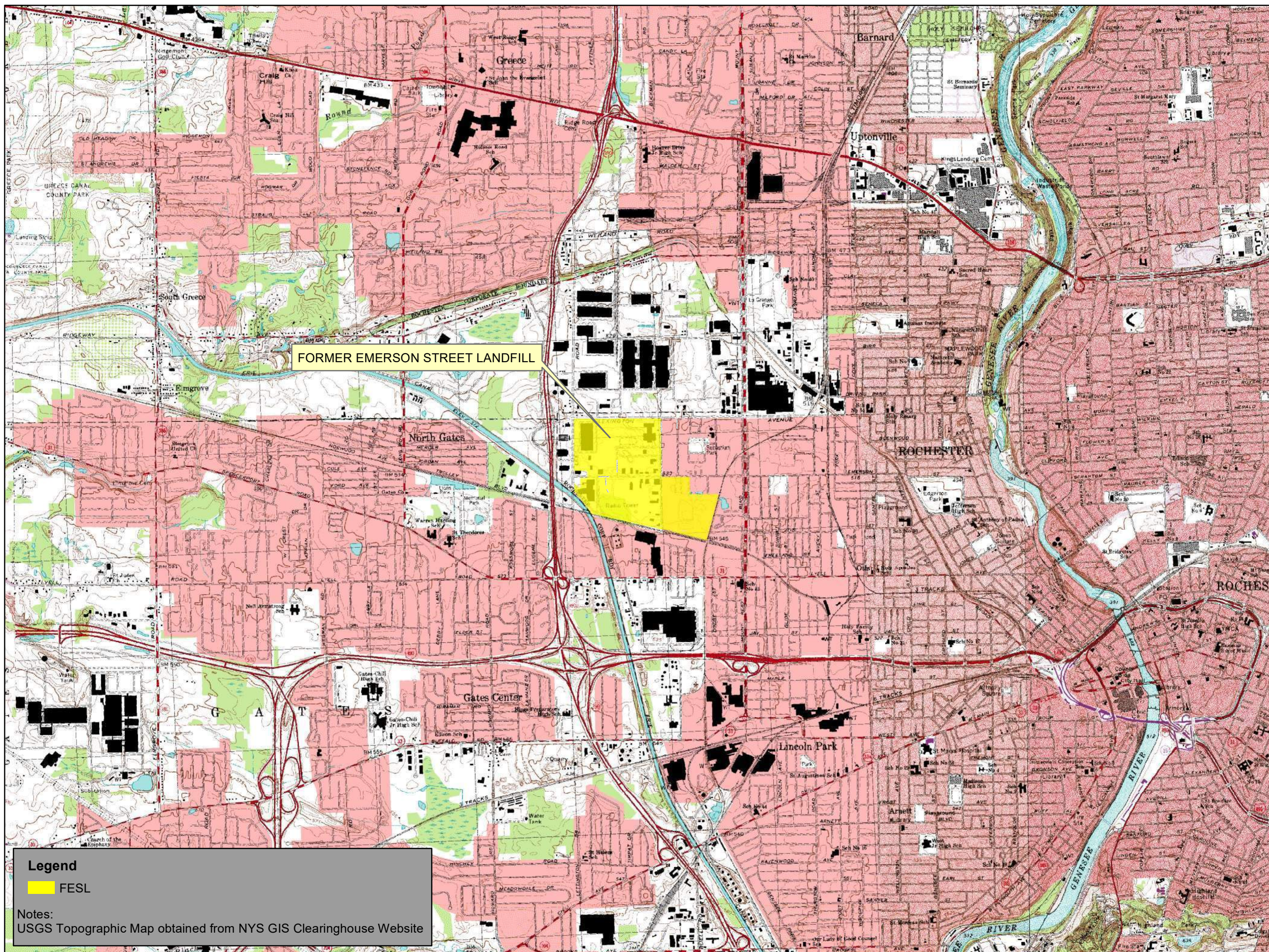
June 2021 – August 2021	Install PRB
September 2021 – November 2021	Construct Cover System
December 2021	FER & SMP



FIGURES

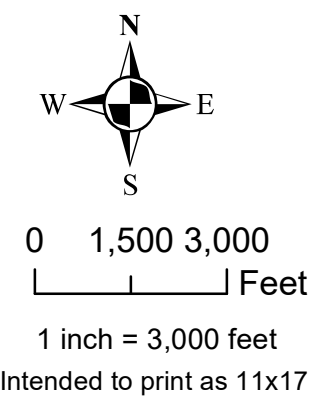
**REMEDIAL ACTION
WORK PLAN
P-1 PLUME AREA
FORMER EMERSON
STREET LANDFILL
NYSDEC SITE #828023
CITY OF ROCHESTER**

SITE LOCATION MAP



Legend
 FESL

Notes:
 USGS Topographic Map obtained from NYS GIS Clearinghouse Website



210173









FIGURE 1

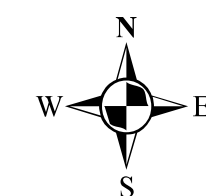
**REMEDIAL ACTION
WORK PLAN
P-1 PLUME AREA
FORMER EMERSON STREET
LANDFILL
NYSDEC SITE #828023**

CITY OF ROCHESTER

**FORMER EMERSON STREET
LANDFILL FOOTPRINT**

Legend

-  Parcel Boundaries
-  Inactive Hazardous Waste Disposal Site #828023
-  FESL Boundary
-  Combined Sewer
-  Sanitary Sewer
-  Storm Sewer
-  Trunk Sewer
-  Storm Inlet Laterals

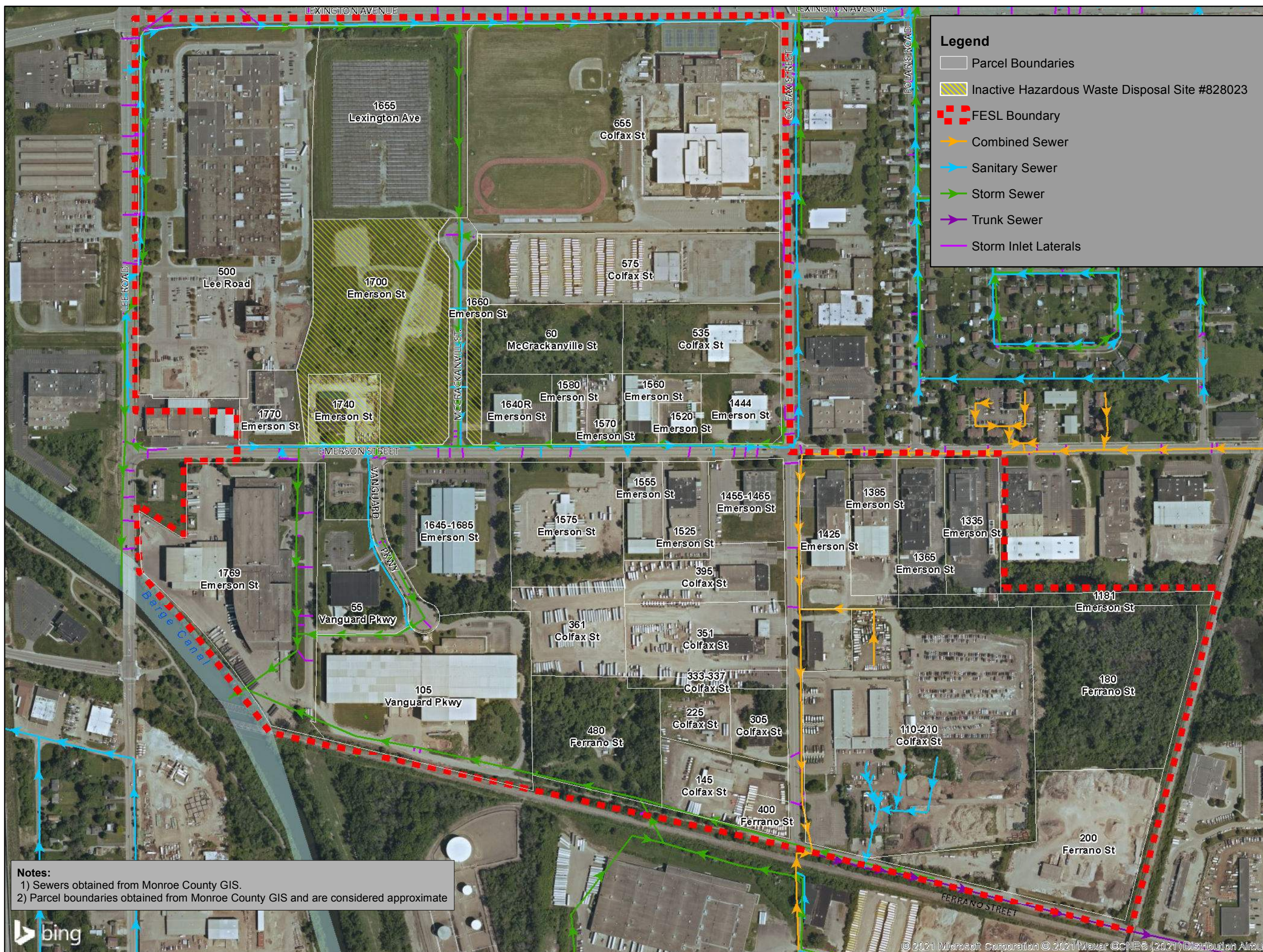


0 400 Feet

1 inch = 400 feet
Intended to print as 11x17

[210173]

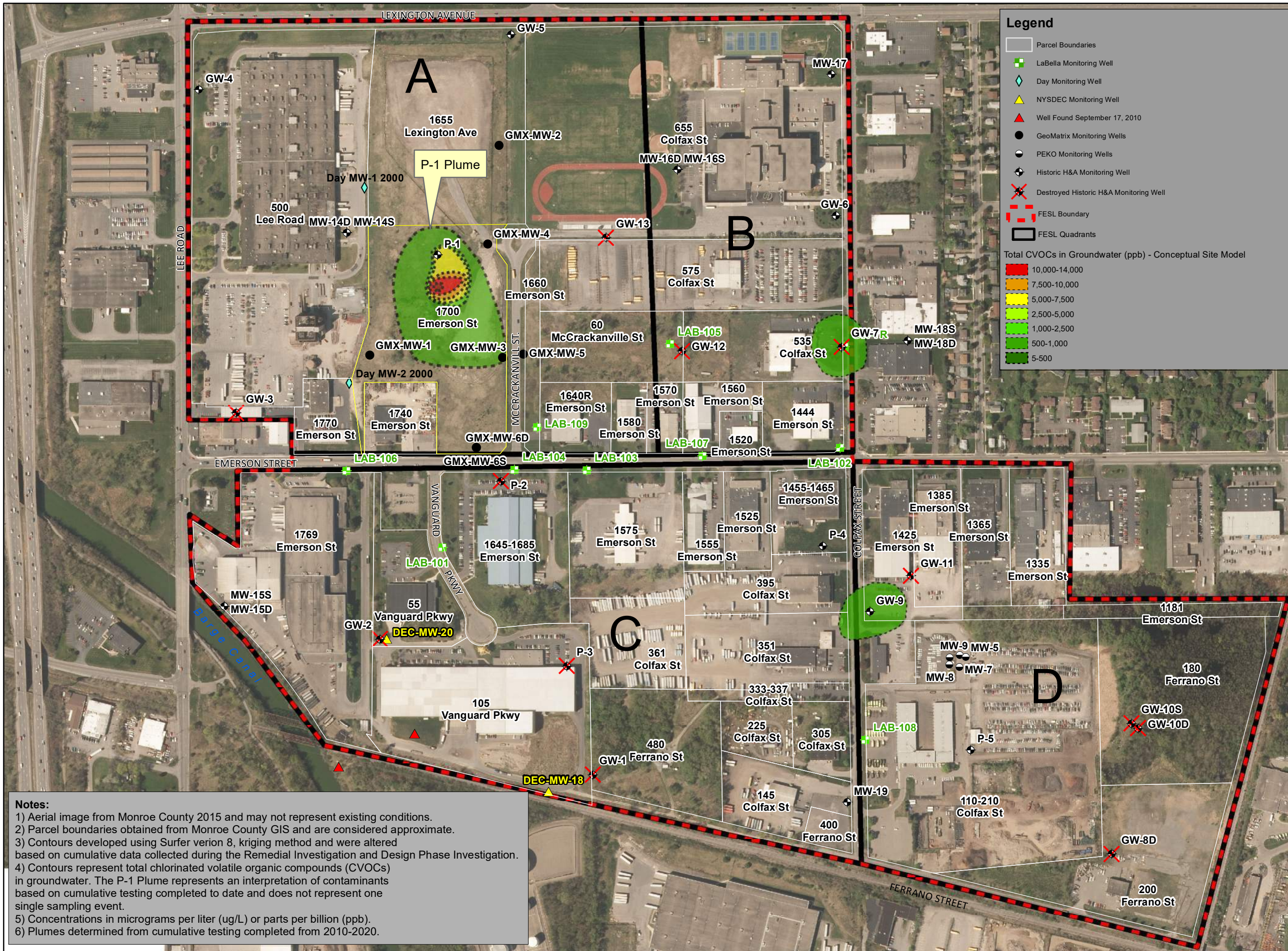
[FIGURE 2]



Notes:
1) Sewers obtained from Monroe County GIS.
2) Parcel boundaries obtained from Monroe County GIS and are considered approximate



\\Projects\Projects\210173 FESL\Drawings\RAWP\Figure 2 - FESL Boundary.mxd



Notes:

- 1) Aerial image from Monroe County 2015 and may not represent existing conditions.
- 2) Parcel boundaries obtained from Monroe County GIS and are considered approximate.
- 3) Contours developed using Surfer version 8, kriging method and were altered based on cumulative data collected during the Remedial Investigation and Design Phase Investigation.
- 4) Contours represent total chlorinated volatile organic compounds (CVOCs) in groundwater. The P-1 Plume represents an interpretation of contaminants based on cumulative testing completed to date and does not represent one single sampling event.
- 5) Concentrations in micrograms per liter (ug/L) or parts per billion (ppb).
- 6) Plumes determined from cumulative testing completed from 2010-2020.

**REMEDIAL ACTION
WORK PLAN
FORMER EMERSON
STREET LANDFILL
NYSDEC SITE #828023**

CITY OF ROCHESTER

**FESL MONITORING WELL
LOCATIONS AND KNOWN
CVOC PLUMES**



0 400 Feet
1 inch = 400 feet

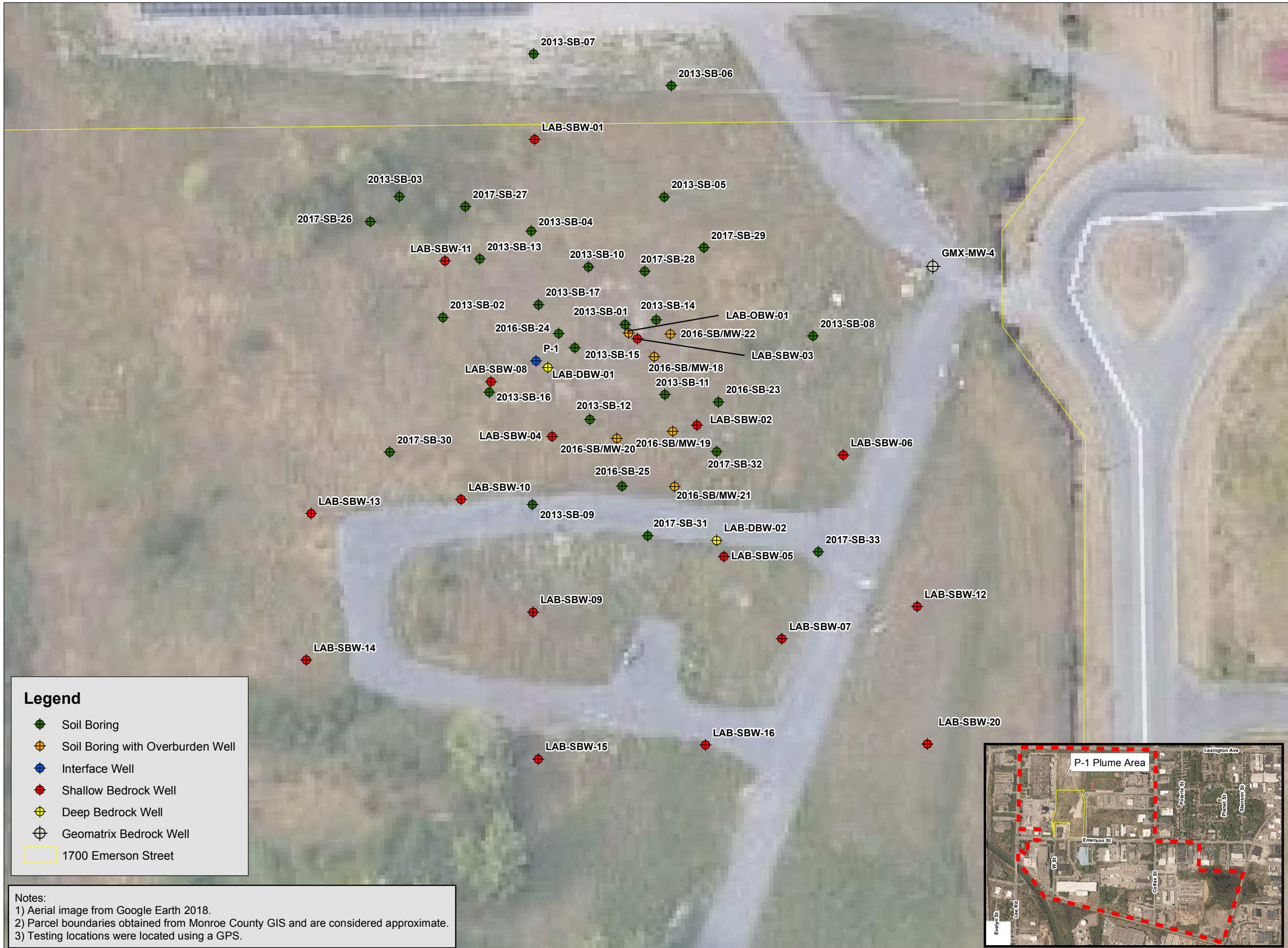
Intended to print as 11x17

[210173]

[FIGURE 3]

REMEDIAL ACTION WORK PLAN
FORMER EMERSON STREET LANDFILL
NYSDEC SITE #828023
CITY OF ROCHESTER

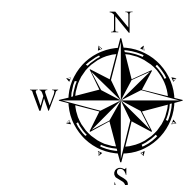
P-1 PLUME AREA
CUMULATIVE SOIL BORINGS
AND MONITORING WELLS



Legend

- Soil Boring
- Soil Boring with Overburden Well
- Interface Well
- Shallow Bedrock Well
- Deep Bedrock Well
- Geomatrix Bedrock Well
- 1700 Emerson Street

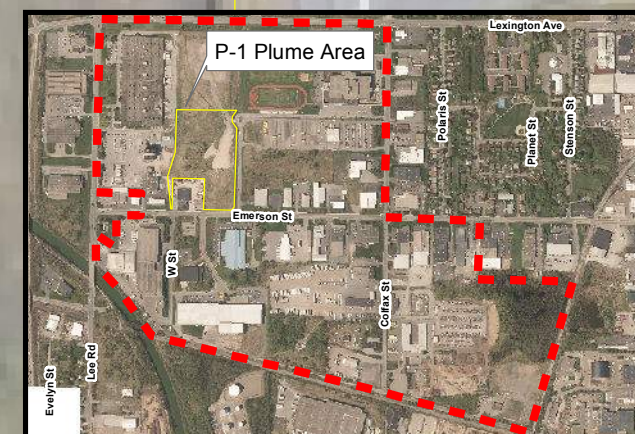
Notes:
 1) Aerial image from Google Earth 2018.
 2) Parcel boundaries obtained from Monroe County GIS and are considered approximate.
 3) Testing locations were located using a GPS.



0 50
Feet

1 inch = 50 feet

Intended to print on 11x17



[210173]











[FIGURE 4]

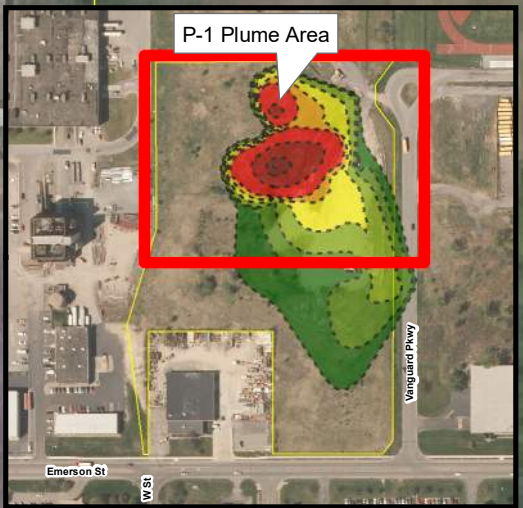
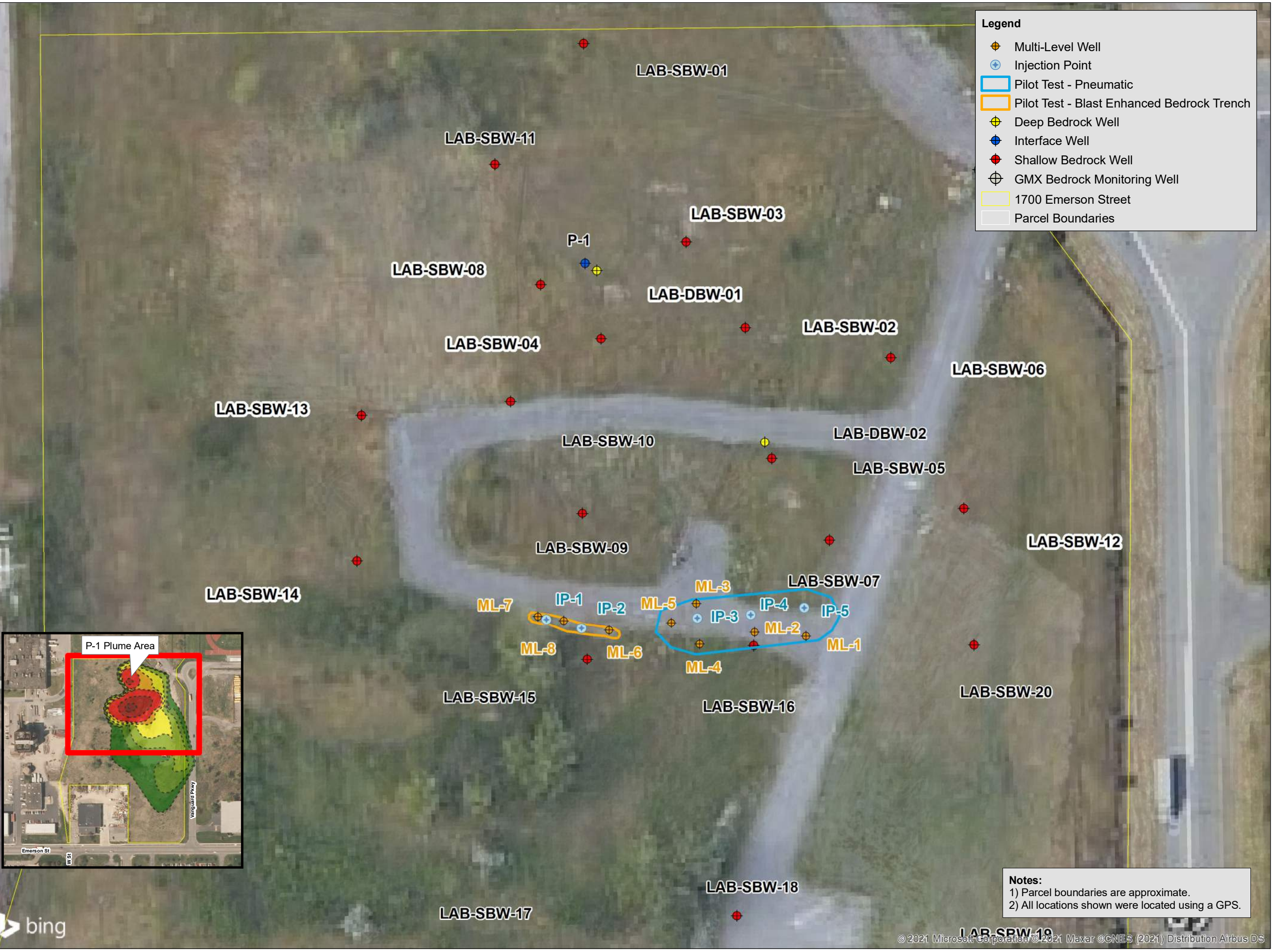
**REMEDIAL ACTION
WORK PLAN
FORMER EMERSON STREET
LANDFILL**

1700 EMERSON STREET
CITY OF ROCHESTER

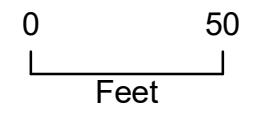
**P-1 Monitoring Wells
& Pilot Test Wells**

Legend

-  Multi-Level Well
-  Injection Point
-  Pilot Test - Pneumatic
-  Pilot Test - Blast Enhanced Bedrock Trench
-  Deep Bedrock Well
-  Interface Well
-  Shallow Bedrock Well
-  GMX Bedrock Monitoring Well
-  1700 Emerson Street
-  Parcel Boundaries



Notes:
1) Parcel boundaries are approximate.
2) All locations shown were located using a GPS.



1 inch = 50 feet
Intended to print on 11x17

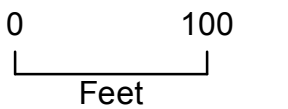
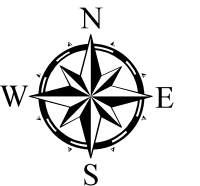
[210173]

[FIGURE 4A]

FORMER EMERSON
STREET LANDFILL
NYSDEC SITE #828023

CITY OF ROCHESTER

PERMEABLE REACTIVE
BARRIER
(BLAST ENHANCED
BEDROCK TRENCH)

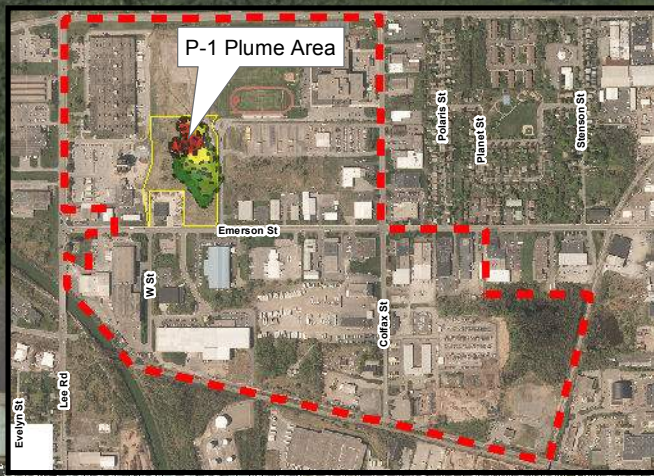
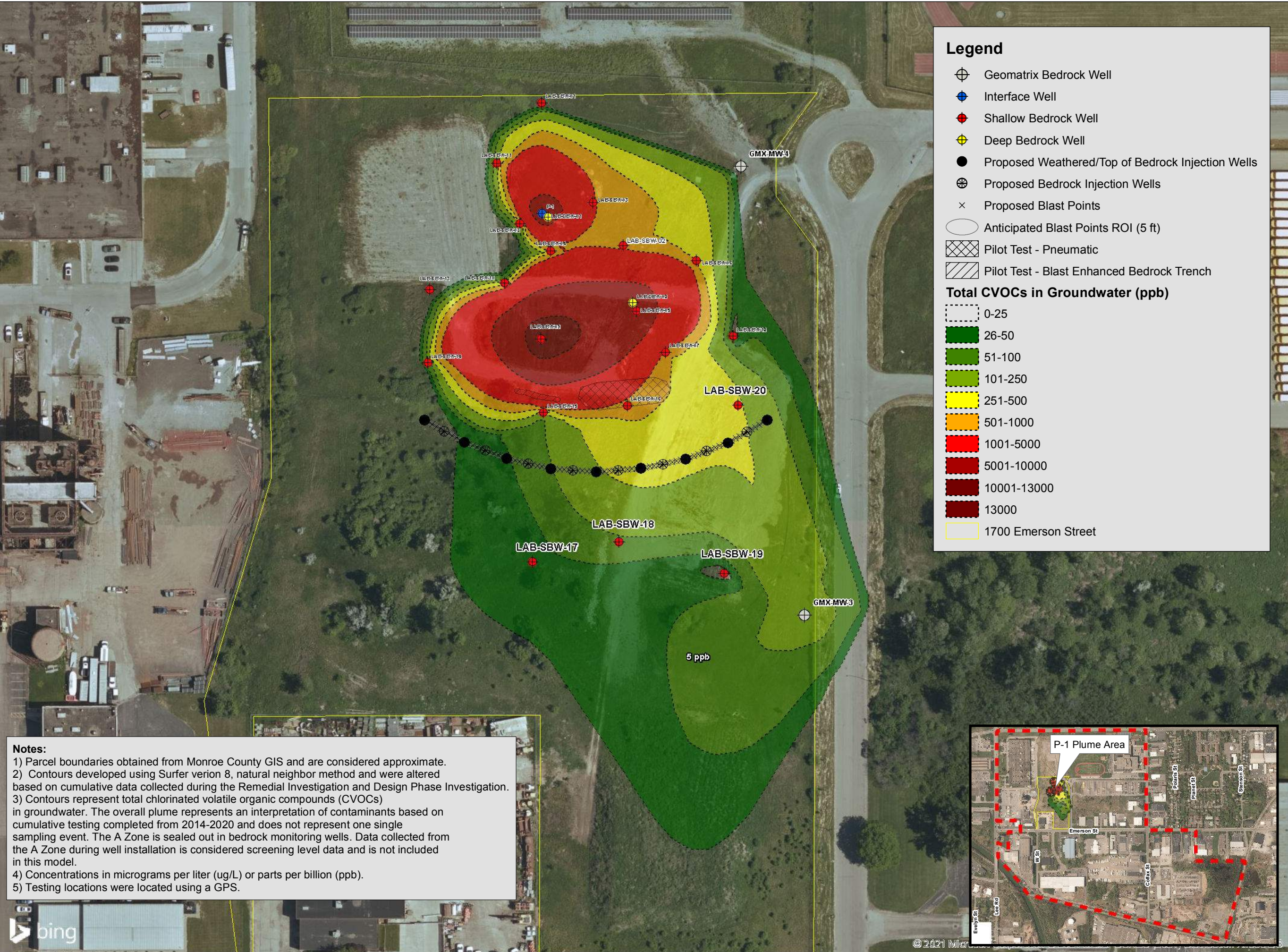


1 inch = 100 feet

Intended to print on 11x17

[210173]

[FIGURE 5]

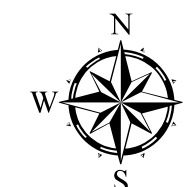


Path: \Projects\21\Projects\21\Projects\21\Rochester_City\210173_FESL\Drawings\RAWP\Figure 5 - PRB Trench.mxd

**REMEDIAL ACTION
WORK PLAN
FORMER EMERSON
STREET LANDFILL
NYSDEC SITE #828023**

CITY OF ROCHESTER

COVER SYSTEM

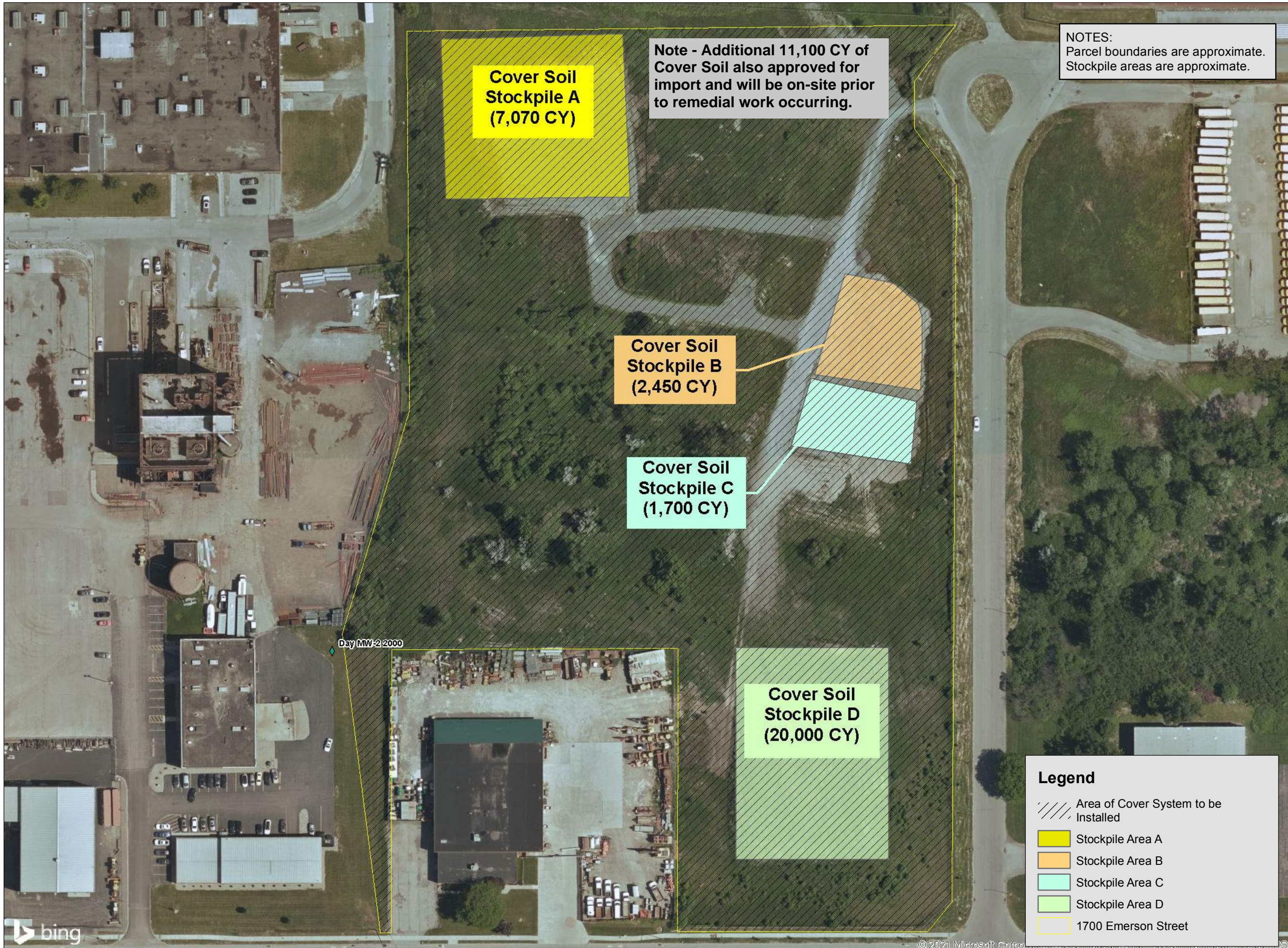


1 inch = 100 feet

Intended to print on 11x17

[210173]

[FIGURE 6]



NOTES:
Parcel boundaries are approximate.
Stockpile areas are approximate.

Legend

- Area of Cover System to be Installed
- Stockpile Area A
- Stockpile Area B
- Stockpile Area C
- Stockpile Area D
- 1700 Emerson Street



It is a violation of New York Education Law Article 145 Sec. 7209, for any person, unless acting under the direction of a licensed architect, professional engineer, or land surveyor, to alter an item in any way. If an item bearing the seal of an architect, engineer, or land surveyor is altered; the altering architect, engineer, or land surveyor shall affix to the item their seal and notation "altered by" followed by their signature and date of such alteration, and a specific description of the alteration.

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CITY OF ROCHESTER

30 CHURCH ST.
ROCHESTER, NY 14614



EMERSON ST GRADING

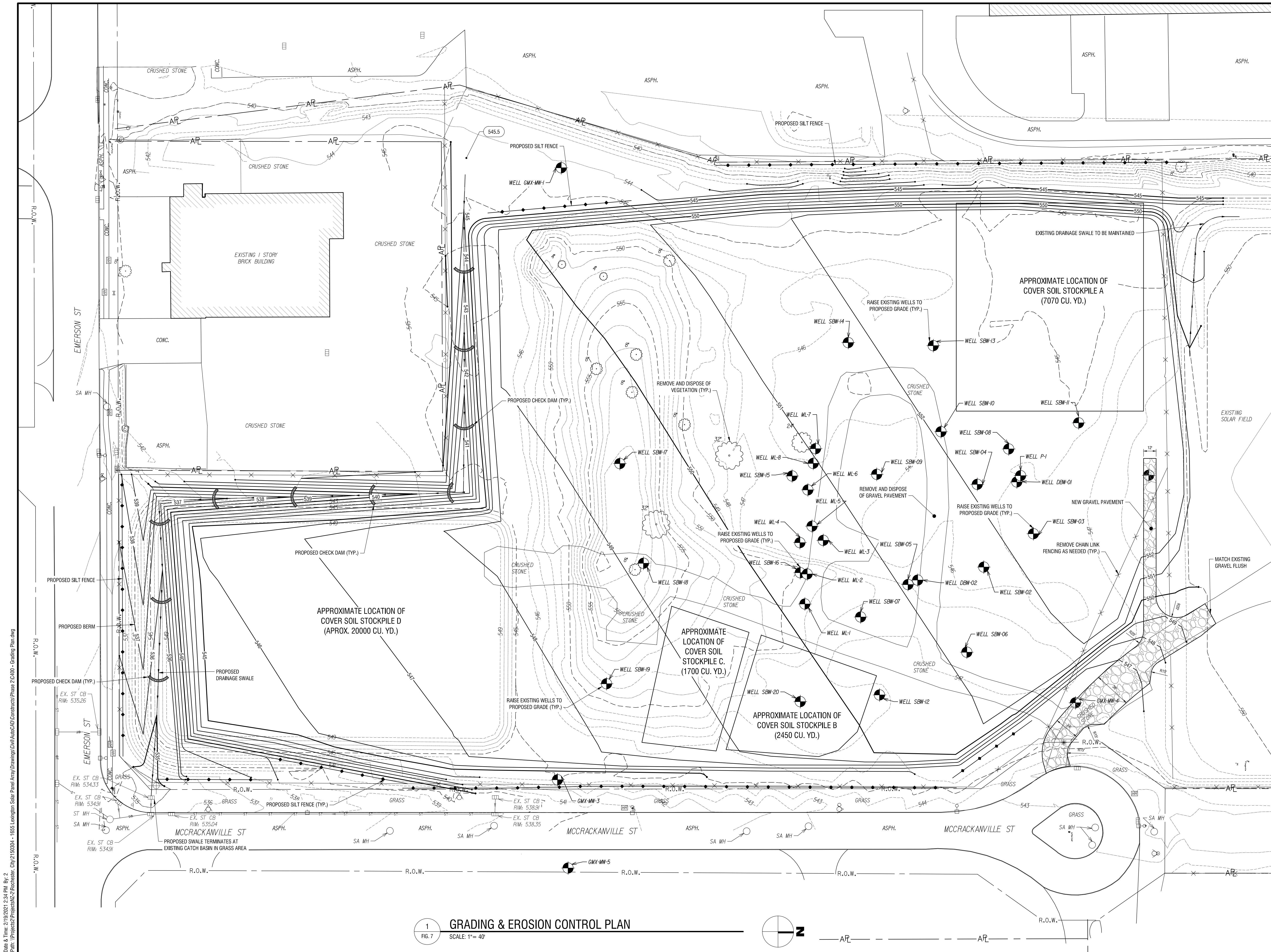
1655 LEXINGTON AVE
ROCHESTER, NY, 14606

NO.	DATE	DESCRIPTION
REVISIONS		
PROJECT NUMBER:	210173	
DRAWN BY:	BER	
REVIEWED BY:	DB	
ISSUED FOR:	REMEDIAL ACTION WORK PLAN	
DATE:	FEBRUARY, 2021	
DRAWING NAME:		

GRADING PLAN & EROSION CONTROL PLAN

DRAWING NUMBER:

FIG. 7



Date & Time: 2/19/2021 2:34 PM By: 2
Path: \\Projects\Projects\210173\210173-1655 Lexington Ave\Drawings\Civil\AutoCAD\Constructs\Phase 2\CAD - Grading\Plan.dwg

1 GRADING & EROSION CONTROL PLAN
FIG. 7 SCALE: 1" = 40'

Date & Time: 2/19/2021 2:57 PM By: 2
 Path: \\Projects\Projects\21-Rochester_City\21505094 - 1655 Lexington Solar Panel Array Drawings\Civil\AutoCAD\Constructs\Phase 2\CAD - Grading\Plan.dwg

NOTES

1. A PRE-CONSTRUCTION MEETING WILL BE CONDUCTED WITH THE CITY OF ROCHESTER, CONTRACTORS, AND NYSDEC PRIOR TO INITIATING WORK.
2. EROSION CONTROL MEASURES WILL BE INSTALLED AS SHOWN PRIOR TO INITIATING SOIL DISTURBANCES.
3. CLEARING AND GRUBBING OF BRUSH, SHRUBS, AND OTHER DEBRIS, WILL BE COMPLETED PRIOR TO SOIL COVER CONSTRUCTION.
4. ALL EROSION CONTROL MEASURES WILL BE INSPECTED AT LEAST WEEKLY AND CLEANED/MAINTAINED AS NECESSARY. ROADWAYS, DRIVES, AND PARKING AREAS WILL BE CLEANED AS NECESSARY.
5. PRELIMINARY GRADING USING EXISTING SOIL ON SITE WILL BE CONDUCTED PRIOR TO PLACING COVER MATERIAL. EXISTING COVER SOILS WILL BE PROTECTED FOR FUTURE PLACEMENT DURING GRADING.
6. PRIOR TO PLACING DEMARCATION LAYER OR FINAL COVER SOILS, ELEVATION DATA WILL BE COLLECTED TO CONFIRM FINAL COVER SOIL MEETS OR EXCEEDS 1-FT IN DEPTH. ALTERNATIVELY GRADE STAKES MAY ALSO BE UTILIZED. COVER THICKNESS (PRE/POST ELEVATION DATA) OR GRADE STAKES WILL BE COLLECTED/PLACED APPROXIMATELY EVERY 50-FT (GRID PATTERN).
7. A DEMARCATION LAYER (E.G. SNOW FENCING OR APPROVED EQUAL) WILL BE INSTALLED ON SURFACE PRIOR TO PLACING CLEAN COVER MATERIALS FROM STOCKPILES.
8. SOILS FROM STOCKPILE D WILL BE PLACED LAST AND PLACED OVER ALL OTHER COVER MATERIAL SOILS.
9. WITHIN 1 WEEK OF PLACING FINAL COVER SOIL (STOCKPILE D) THE AREA WILL HAVE PERMANENT SEEDING, FERTILIZER, AND MULCH PLACED (OR HYDROSEED).
10. ALL ACCUMULATED SILT OR SEDIMENT FROM SILT FENCE, CHECK DAMS, INLET PROTECTION, AND SEDIMENT BASINS WILL BE PLACED BELOW FINAL COVER SYSTEM (INCLUDING DEMARCATION LAYER) PRIOR TO PLACING COVER.
11. SUBSEQUENT TO COMPLETING COVER SYSTEM ALL INCIDENTAL CONSTRUCTION MATERIALS THAT ARE NOT INCORPORATED INTO THE WORK WILL BE PROPERLY DISPOSED OFFSITE.
12. SUBSEQUENT TO STABILIZATION (APPROXIMATELY 80% VEGETATED) EROSION CONTROL PRACTICES WILL BE REMOVED AND DISPOSED OF OFF-SITE.
13. ALL WORK TO BE COMPLETED BY OSHA-40-HR HAZWOPER TRAINED PERSONNEL.
14. COMMUNITY AIR MONITORING TO BE COMPLETED DURING ALL SOIL/FILL DISTURBANCES.
15. EXISTING MONITORING WELLS WILL BE PROTECTED DURING CONSTRUCTION OF WORK AND WELLS WILL BE RAISED AS NEEDED FOR FUTURE USE.
16. FUTURE WELLS ARE NOT SHOWN, BUT WILL ALSO BE PROTECTED.



It is a violation of New York Education Law Article 145 Sec. 7209, for any person, unless acting under the direction of a licensed architect, professional engineer, or land surveyor, to alter an item in any way. If an item bearing the seal of an architect, engineer, or land surveyor is altered; the altering architect, engineer, or land surveyor shall affix to the item their seal and notation "altered by" followed by their signature and date of such alteration, and a specific description of the alteration.

CITY OF ROCHESTER

30 CHURCH ST.
 ROCHESTER, NY 14614



EMERSON ST GRADING

1655 LEXINGTON AVE
 ROCHESTER, NY, 14606

NO.	DATE	DESCRIPTION

REVISIONS

PROJECT NUMBER: 210173

DRAWN BY: BER

REVIEWED BY: DB

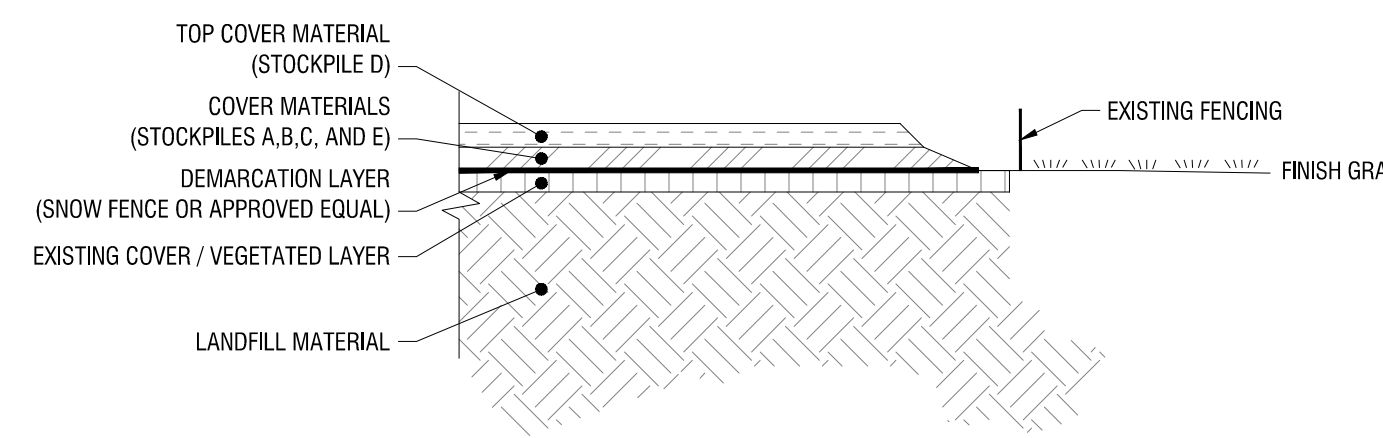
ISSUED FOR: REMEDIAL ACTION WORK PLAN

DATE: FEBRUARY, 2021

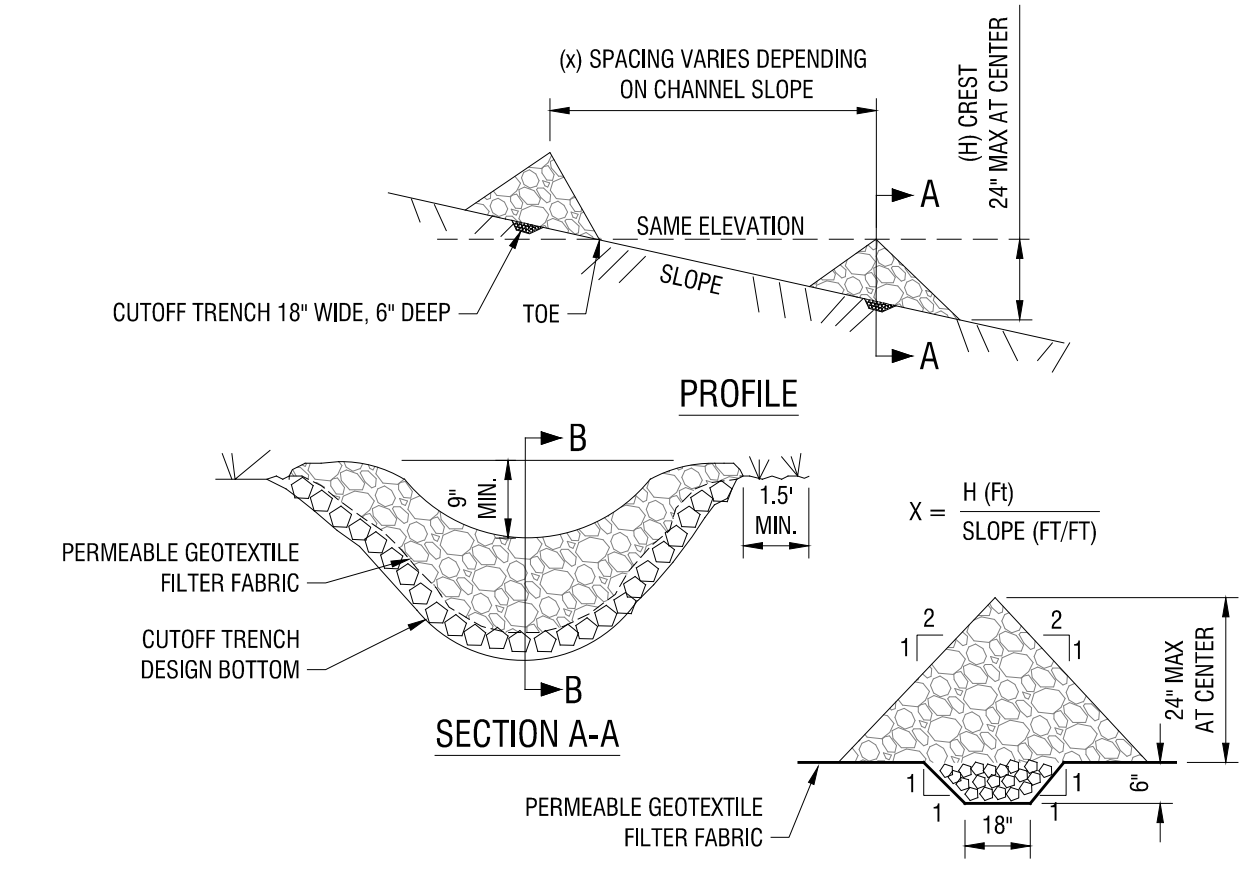
DRAWING NAME:

CONSTRUCTION DETAILS AND GENERAL NOTES

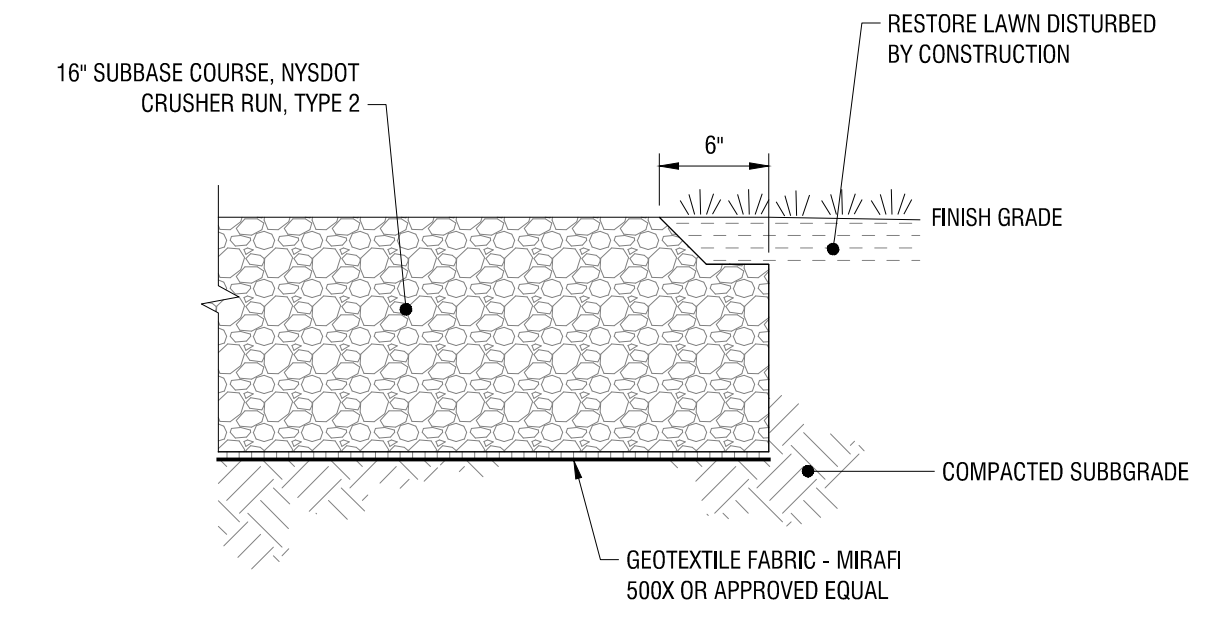
FIG. 8



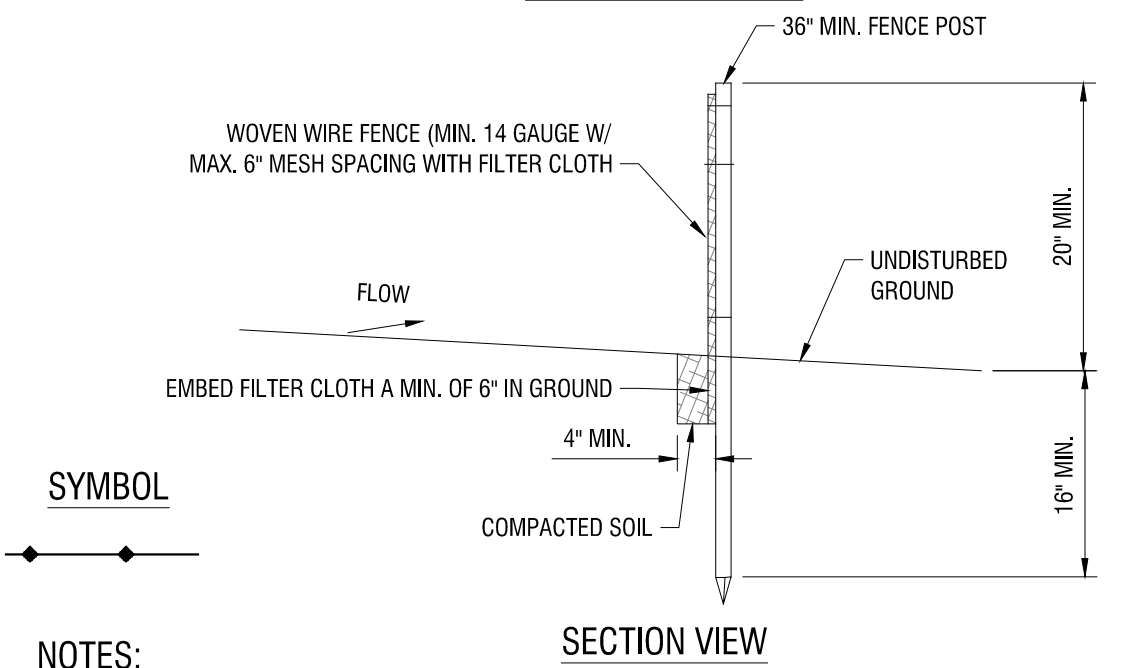
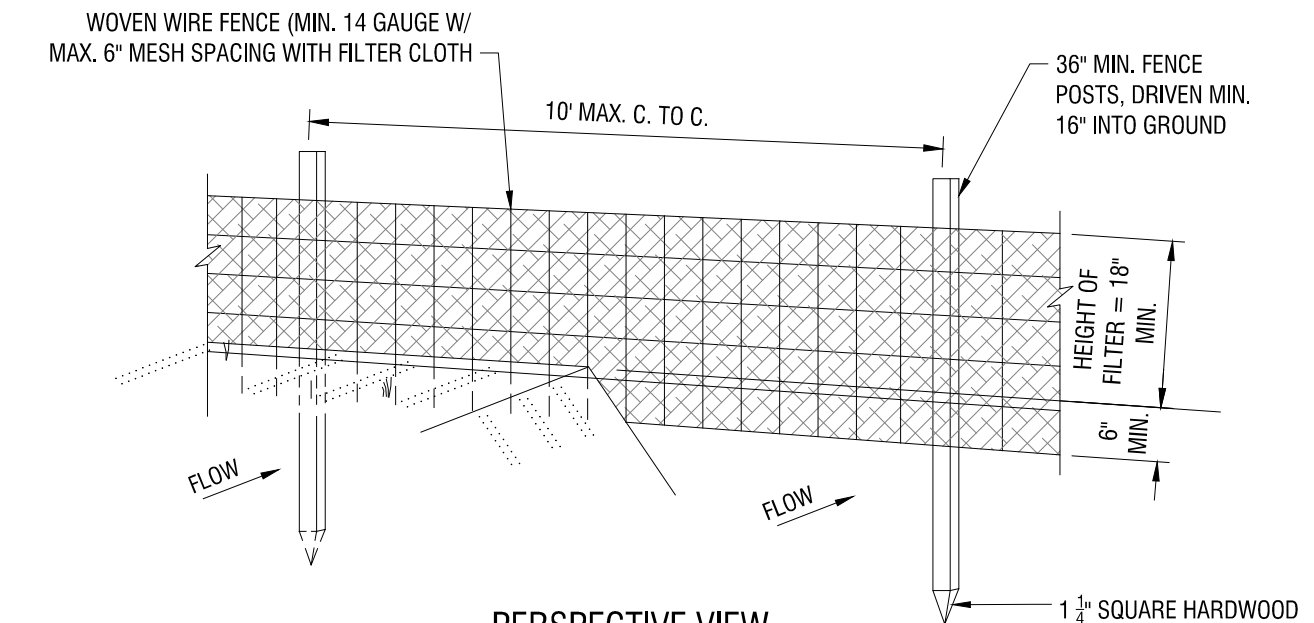
5
 FIG. 8
 N.T.S.



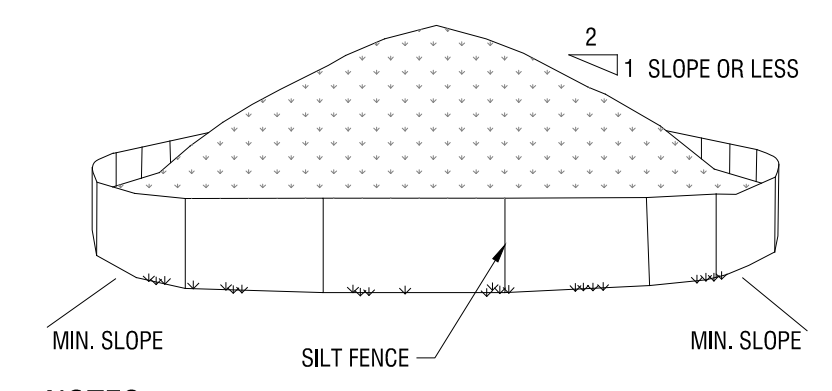
- NOTES:**
1. STONE WILL BE PLACED ON A FILTER FABRIC FOUNDATION TO THE LINES, GRADES AND LOCATIONS SHOWN IN THE PLAN.
 2. SET SPACING OF CHECK DAMS TO ASSUME THAT THE ELEVATION OF THE CREST OF THE DOWNSTREAM DAM IS THE SAME ELEVATION OF THE TOE OF THE UPSTREAM DAM.
 3. EXTEND THE STONE A MINIMUM OF 1.5 FEET BEYOND THE DITCH BANKS TO PREVENT OUTING AROUND THE DAM.
 4. PROTECT THE CHANNEL DOWNSTREAM OF THE LOWEST CHECK DAM FROM SCOUR AND EROSION WITH STONE OR LINER AS APPROPRIATE.
 5. ENSURE THAT CHANNEL APPURTENANCES SUCH AS CULVERT ENTRANCES BELOW CHECK DAMS ARE NOT SUBJECT TO DAMAGE OR BLOCKAGE FROM DISPLACED STONE.
- MAXIMUM DRAINAGE AREA 2 ACRES.
- 2**
 FIG. 8
 NYS DEC DETAIL: STONE CHECK DAM



4
 FIG. 8
 N.T.S.

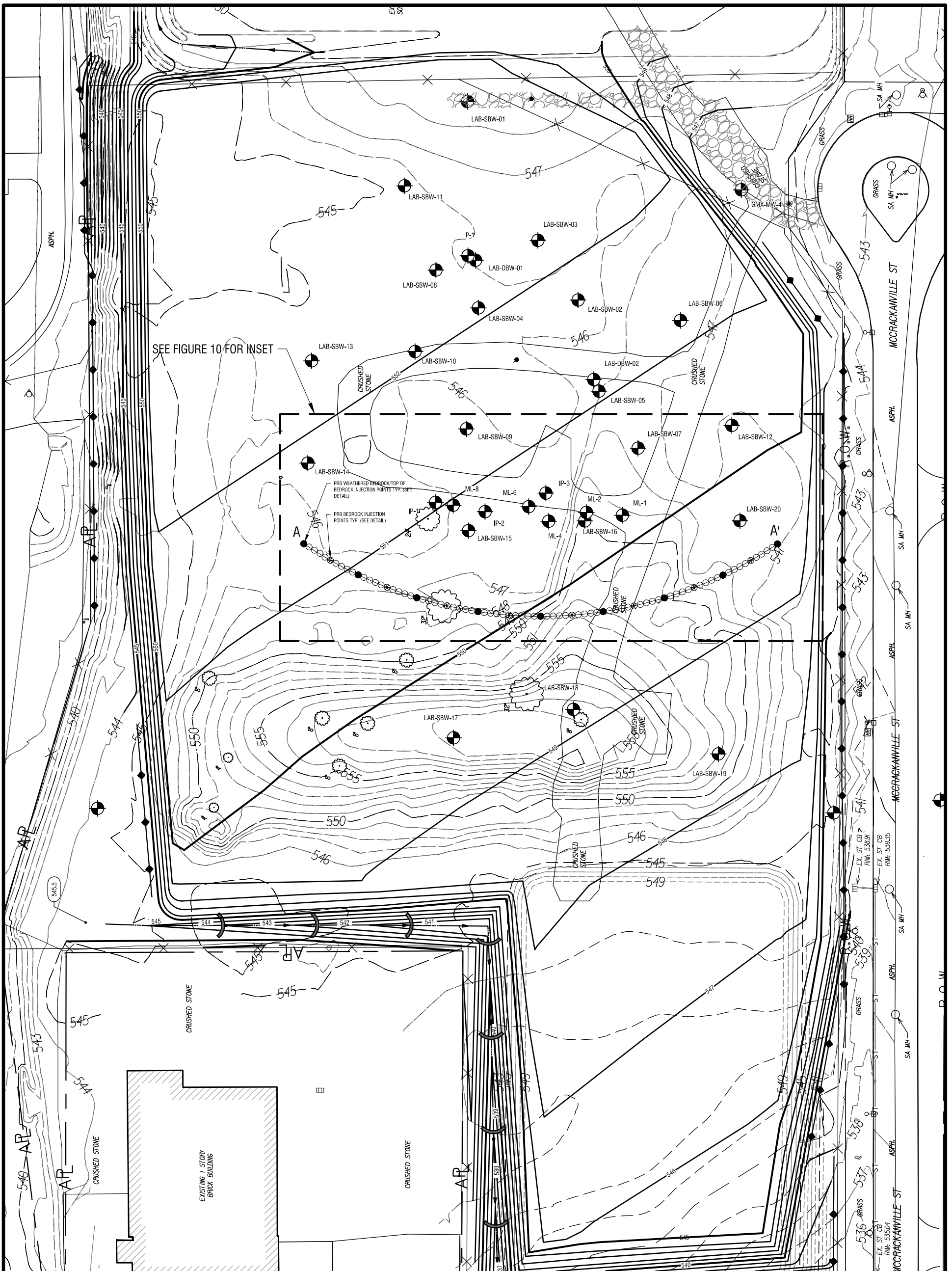


- SYMBOL**
-
- NOTES:**
1. WOVEN WIRE FENCE TO BE FASTENED SECURELY TO FENCE POSTS WITH WIRE TIES OR STAPLES. POSTS SHALL BE STEEL EITHER "1\"/>
- 1**
 FIG. 8
 NYS DEC DETAIL: SILT FENCE

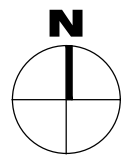


3
 FIG. 8
 N.T.S.

- NOTES:**
1. AREA CHOSEN FOR STOCKPILING OPERATIONS SHALL BE DRY AND STABLE.
 2. MAXIMUM SLOPE OF STOCKPILE SHALL BE 1V/2H.
 3. UPON COMPLETION OF SOIL STOCKPILING, EACH PILE SHALL BE SURROUNDED WITH SILT FENCING, THEN STABILIZED WITH VEGETATION OR COVERED.
 4. SEE SPECIFICATIONS AND DETAIL FOR INSTALLATION OF SILT FENCE.



1 PRB Plan
SCALE: 1" = 75'



LEGEND

	EXISTING MINOR CONTOURS
	EXISTING MAJOR CONTOURS
	PROPOSED MINOR CONTOURS
	PROPOSED MAJOR CONTOURS
	PROPERTY LINE
	ENV TESTING LOCATION
	BEDROCK INJECTION WELL
	WEATHERED BEDROCK/TOP OF BEDROCK INJECTION WELL

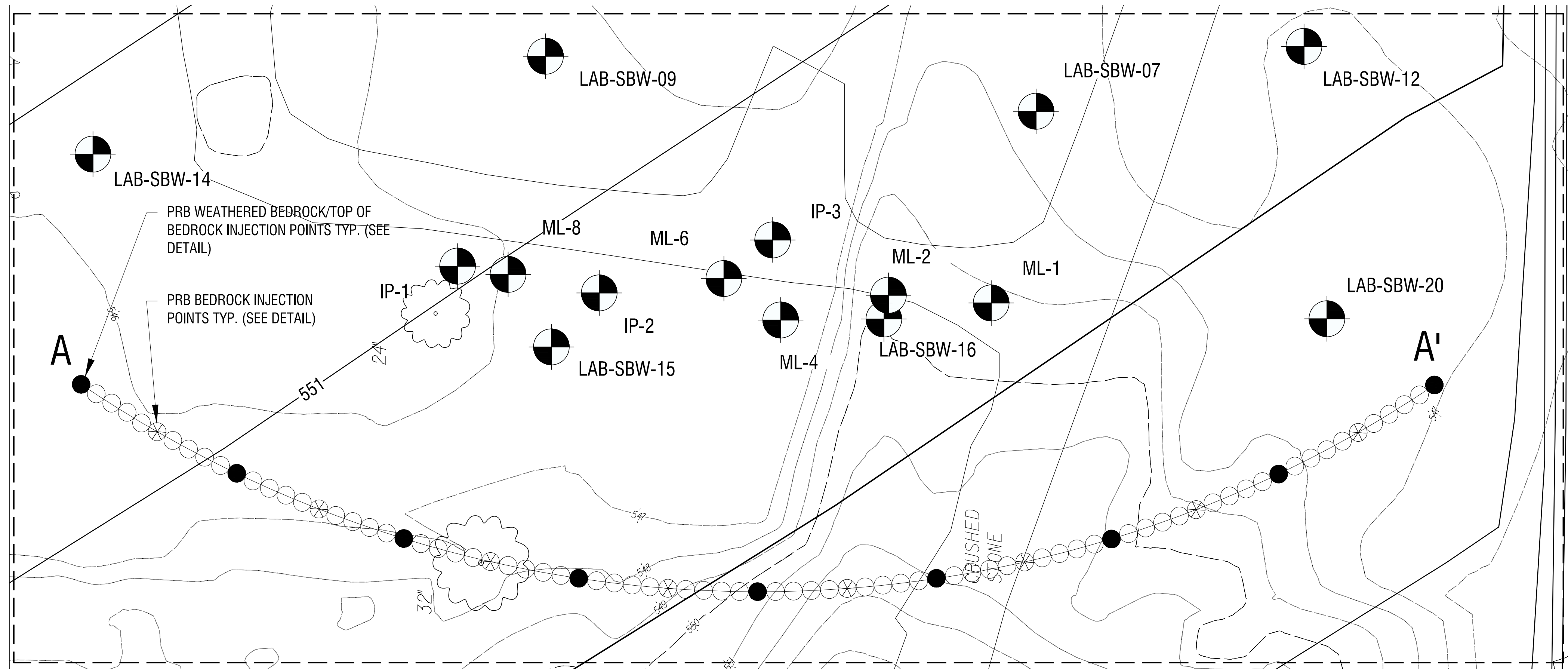
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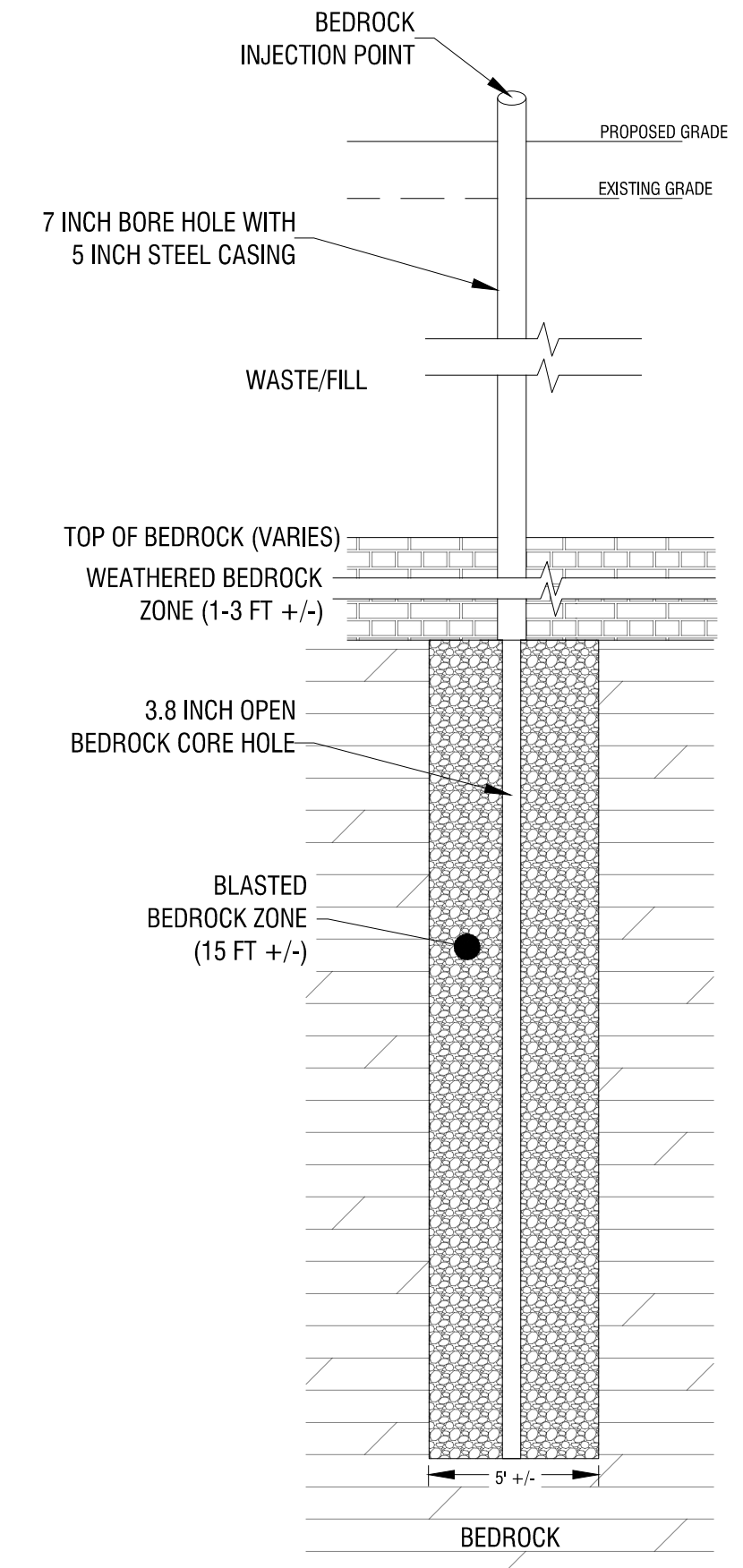
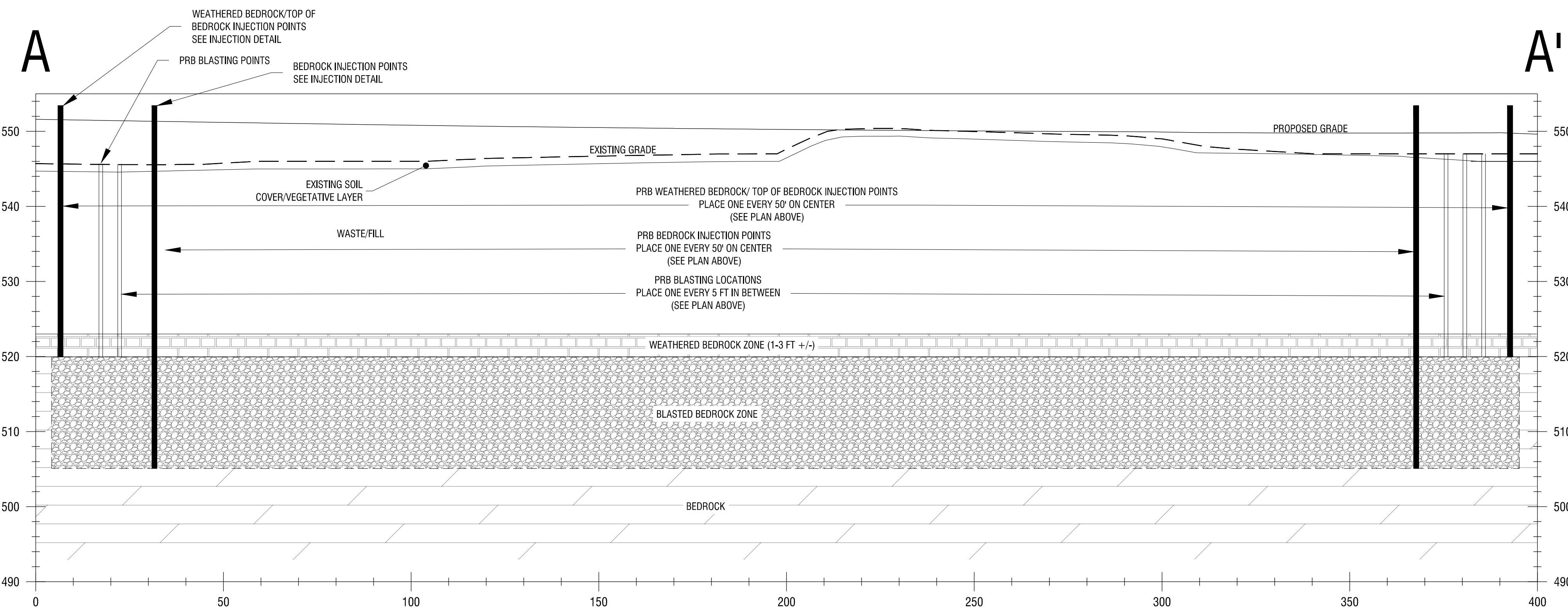
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DRAWING NAME:	PRB PLAN VIEW		
PROJECT NAME:	REMEDIAL ACTION PLAN 1700 EMERSON ST, CITY OF ROCHESTER		

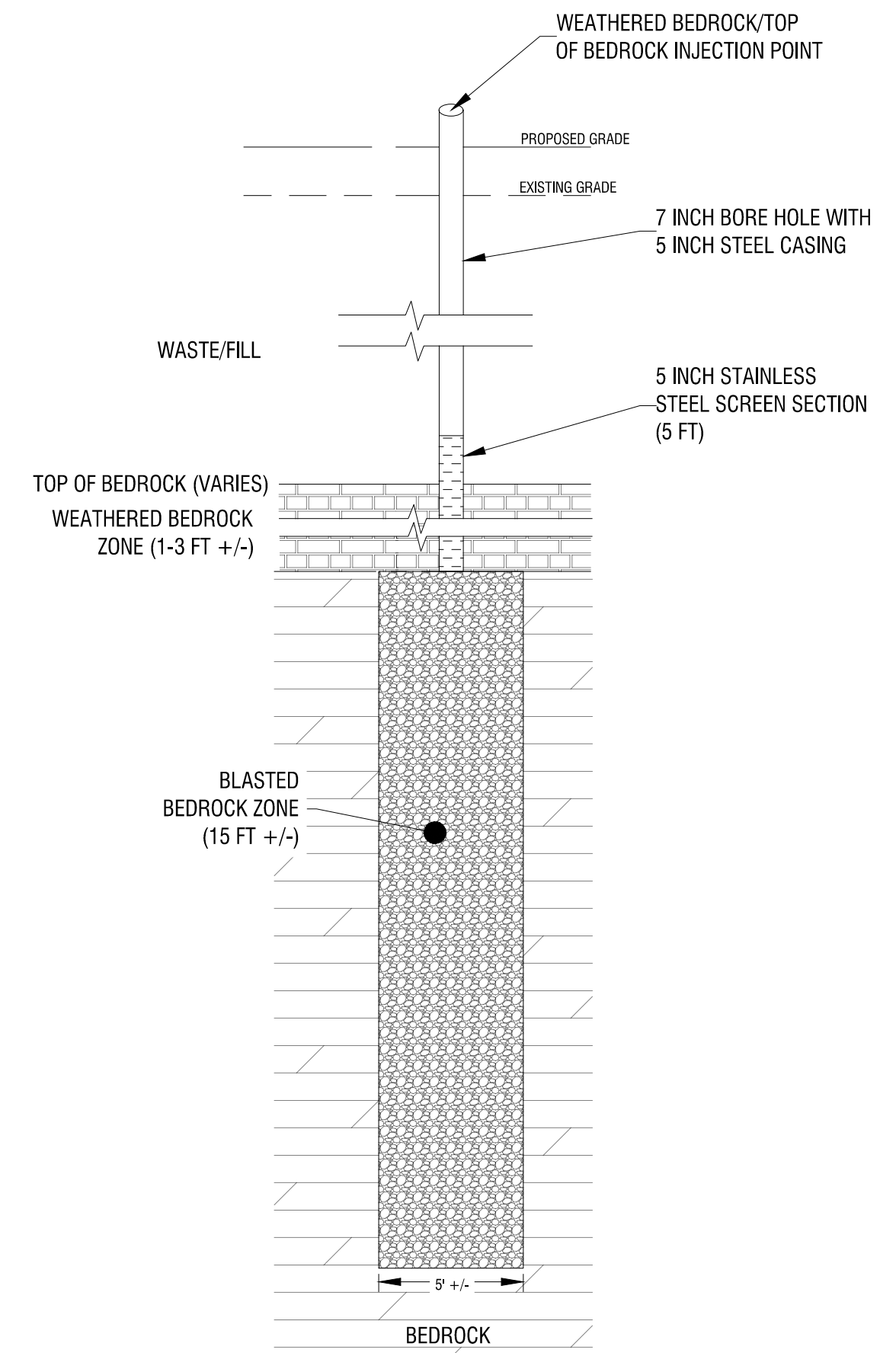
ISSUED FOR:		
REMEDIAL ACTION WORK PLAN		
DRAWN BY:	DATE:	PROJECT NO.:
	2/24/2021	210173
DRAWING NUMBER:		
FIGURE 9		



- LEGEND**
- - - - - EXISTING MINOR CONTOURS
 - - - - - EXISTING MAJOR CONTOURS
 - - - - - PROPOSED MINOR CONTOURS
 - - - - - PROPOSED MAJOR CONTOURS
 - — — — — PROPERTY LINE
 - ERM TESTING LOCATION
 - ⊙ BEDROCK INJECTION WELL
 - ⊙ WEATHERED BEDROCK/TOP OF BEDROCK INJECTION WELL

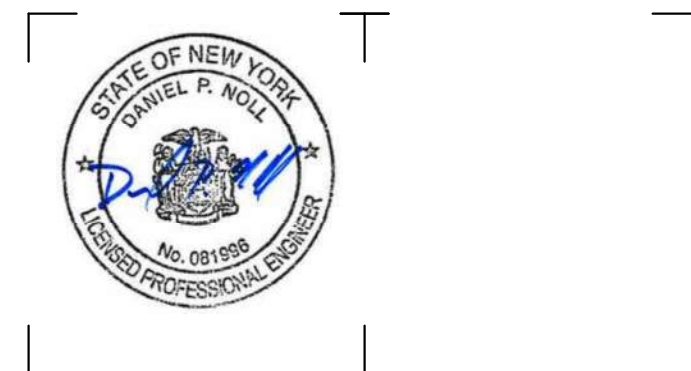


BEDROCK INJECTION DETAIL
SCALE: NTS



NOTE: WEATHERED BEDROCK/TOP OF BEDROCK INJECTION POINTS MAY NOT BE INSTALLED IF CONDUCTED VIA DIRECT INJECTION

WEATHERED BEDROCK/ TOP OF BEDROCK INJECTION DETAIL
SCALE: NTS



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CITY OF ROCHESTER



REMEDIAL ACTION PLAN
1700 EMERSON ST
ROCHESTER, NEW YORK

NO.	DATE	DESCRIPTION
Revisions		

PROJECT NUMBER:	210173
DRAWN BY:	
REVIEWED BY:	
ISSUED FOR:	REMEDIAL ACTION WORK PLAN
DATE:	2/24/2021
DRAWING NAME:	

PRB PLAN AND CROSS SECTIONS AND DETAIL

DRAWING NUMBER:



TABLES

Former Emerson Street Landfill

P-1 Design Phase Investigation

Table 1

Detected Volatile Organic Compounds (VOCs) in Bedrock page 1 of 6
All Results in Micrograms per Kilogram (ug/kg) or Parts Per Billion (PPB)

Sample ID	LAB-SBW-01		LAB-SBW-02		LAB-SBW-02		LAB-SBW-03		LAB-SBW-03		LAB-SBW-04		LAB-SBW-04		LAB-SBW-05		LAB-SBW-05	
Ground Surface Elevation (Feet)	547.39		545.15		545.15		545.20		545.20		546.18		546.18		547.51		547.51	
Sample Elevation Interval (Feet)	516.89-517.29		519.10-519.40		514.15-514.45		519.60-520.00		515.85-516.10		520.98-521.18		511.68-511.93		522.76-523.01		517.16-517.21	
Sample Depth Below Grade (Feet)	30.1-30.5'		25.75-26.05'		30.7-31'		25.2-25.6'		29.1-29.35'		25-25.2'		34.25-34.5'		24.5-24.75'		30.3-30.35'	
Zone	Upper B		A		Upper B		A		Upper B		A		B		A		Upper B	
Date Collected	12/31/2013		12/9/2013		1/2/2014		1/6/2014		1/8/2014		1/14/2014		1/15/2014		1/16/2014		1/17/2014	
Chlorinated VOCs																		
1,1,1-Trichloroethane	ND	H	ND	H	ND	H	2,000	H	ND	H	ND	H	ND	H	ND	H	5,700	H
1,1,2-Trichloro-1,2,2-trifluoroethane (freon-113)	ND	H	ND	H	ND	H	4,100	H	ND	H	ND	H	ND	H	77	JH	16,000	H
1,1-Dichloroethane	ND	H	ND	H	ND	H	260	H	21	JH	200	JH	ND	H	180	JH	2,200	JH
1,1-Dichloroethene	ND	H	ND	H	ND	H	130	JH	ND	H	21	JH	ND	H	ND	H	ND	H
1,2-Dichloroethane	ND	H	ND	H	ND	H	ND	H	ND	H	ND	H	ND	H	ND	H	ND	H
1,4-Dichlorobenzene	ND	H	ND	H	ND	H	8	JH	ND	H	ND	H	ND	H	ND	H	ND	H
cis-1,2-Dichloroethene	ND	H	22,000	H	ND	H	1,200	H	ND	H	2,000	H	ND	H	480	H	2,100	JH
Tetrachloroethene	ND	H	1,700	JH	ND	H	5,600	H	ND	H	ND	H	ND	H	ND	H	60,000	H
trans-1,2-Dichloroethene	ND	H	ND	H	ND	H	27	H	ND	H	ND	H	ND	H	15	JH	ND	H
Trichloroethene	ND	H	89,000	H	52	JH	1,500	H	18	JH	1,200	H	ND	H	110	JH	23,000	H
Vinyl chloride	ND	H	ND	H	ND	H	46	JH	ND	H	76	JH	ND	H	ND	H	ND	H
TOTAL CVOCS	ND		112,700		52		14,871		39		3,497		ND		862		109,000	
BTEX VOCs																		
Benzene	ND	H	ND	H	ND	H	ND	H	ND	H	ND	H	ND	H	12	JH	ND	H
Toluene	ND	H	ND	H	ND	H	4900	H	ND	H	ND	H	ND	H	92	JH	8600	H
Ethyl Benzene	ND	H	ND	H	ND	H	58	JH	ND	H	ND	H	ND	H	10	JH	ND	H
total xylenes	11	JH	ND	H	ND	H	380	JH	16	JH	11	JH	12	JH	36	JH	3600	JH
TOTAL BTEX	11		ND		ND		5,338		16		11		12		150		12,200	
Other VOCs																		
Acetone	ND	H	ND	H	ND	H	ND	H	ND	H	ND	H	ND	H	ND	H	ND	H
Bromoform	ND	H	ND	H	ND	H	ND	H	ND	H	ND	H	ND	H	ND	H	ND	H
Carbon Disulfide	26	JH	ND	H	ND	H	140	JH	21	JH	15	JH	ND	H	ND	H	640	JH
Cyclohexane	ND	H	ND	H	81	JH	ND	H	ND	H	ND	H	ND	H	ND	H	ND	H
Isopropylbenzene	ND	H	ND	H	ND	H	ND	H	ND	H	ND	H	ND	H	ND	H	ND	H
2-Butanone	ND	H	ND	H	ND	H	ND	H	ND	H	ND	H	ND	H	ND	H	ND	H
Methyl Acetate	34	JH	ND	H	ND	H	56	JH	ND	H	ND	H	36	JH	ND	H	ND	H
Methylene Chloride	ND	H	ND	H	ND	H	ND	H	ND	H	ND	H	ND	H	ND	H	ND	H
Methylcyclohexane	ND	H	ND	H	58	JH	24	JH	23	JH	13	JH	240	JH	ND	H	ND	H
Styrene	ND	H	ND	H	ND	H	8.8	JHB	ND	H	ND	H	ND	H	ND	H	ND	H
TOTAL OTHER VOCs	60		ND		139		228.8		44		28		276		ND		640	
TOTAL VOCs (CVOCS + BTEX + OTHER)	71		112700		191		20437.8		99		3536		288		1012		121840	

Legend:

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Red highlighted cells indicate likelihood of DNAPL presence or DNAPL disappearance through matrix diffusion based on estimated rock core matrix porewater concentration greater than the compound solubility

Former Emerson Street Landfill

P-1 Design Phase Investigation

Table 1

Detected Volatile Organic Compounds (VOCs) in Bedrock page 2 of 6
All Results in Micrograms per Kilogram (ug/kg) or Parts Per Billion (PPB)

Sample ID	LAB-DBW-01		LAB-DBW-01		LAB-DBW-01		LAB-DBW-01		LAB-SBW-06		LAB-SBW-06		LAB-SBW-07		LAB-SBW-07		LAB-SBW-08		LAB-SBW-08	
Ground Surface Elevation (Feet)	546.33		546.33		546.33		546.33		545.91		545.91		546.64		546.64		543.50		543.50	
Sample Elevation Interval (Feet)	519.58-519.83		512.83-513.13		502.23-502.53		491.63-491.93		518.11-518.41		510.11-510.71		520.44-521.64		512.14-512.64		517.70-518.20		511.00-511.50	
Sample Depth Below Grade (Feet)	26.5-26.75'		33.2-33.5'		43.8-44.1'		54.4-54.7'		27.5-27.8		35.2-35.8		25-26.2		34-34.5		25.3-25.8		32-32.5	
Zone	A		Upper B		C		C		A		B		A		Upper B		Upper B/A		B	
Date Collected	1/21/2014		1/22/2014		1/22/2014		1/23/2014		6/9/2016		6/9/2016		6/9/2016		6/9/2016		6/9/2016		6/9/2016	
Chlorinated VOCs																				
1,1,1-Trichloroethane	ND	H	ND	H	ND	H	ND	H	ND		ND		ND		ND		ND		ND	
1,1,2-Trichloro-1,2,2-trifluoroethane (freon-113)	ND	H	ND	H	ND	H	ND	H	ND		ND		210	J	ND		ND		ND	
1,1-Dichloroethane	ND	H	ND	H	ND	H	ND	H	36	J	310		ND		ND		84	J	ND	
1,1-Dichloroethene	ND	H	ND	H	ND	H	ND	H	ND		ND		ND		ND		ND		ND	
1,2-Dichloroethane	ND	H	ND	H	ND	H	ND	H	17	JB	ND		ND		ND		ND		ND	
1,4-Dichlorobenzene	ND	H	ND	H	ND	H	ND	H	ND		ND		ND		ND		ND		ND	
cis-1,2-Dichloroethene	3,600	H	76	JH	ND	H	ND	H	130	J	450		ND		78	J	1,400		ND	
Tetrachloroethene	41,000	H	55	JH	18	JH	16	JH	ND		33	J	ND		ND		150	J	ND	
trans-1,2-Dichloroethene	ND	H	ND	H	ND	H	ND	H	ND		ND		ND		ND		ND		ND	
Trichloroethene	2000	JH	13	JH	ND	H	ND	H	140	J	310		40	J	ND		ND		ND	
Vinyl chloride	ND	H	ND	H	ND	H	ND	H	ND		ND		ND		59	J	86	J	ND	
TOTAL CVOCS	46,600		144		18		16		323		1,103		250		137		1,720		0	
BTEX VOCs																				
Benzene	ND	H	ND	H	ND	H	ND	H	42	J	9.9	J	ND		ND		18	J	ND	
Toluene	1100	JH	ND	H	ND	H	17	JH	120	JB	140	JB	34	JB	18	JB	53	JB	19	JB
Ethyl Benzene	ND	H	ND	H	ND	H	62	JH	100	J	ND		ND		ND		ND		ND	J
total xylenes	ND	H	8.5	JH	12	JH	760	H	400	J	ND		36	J	ND		ND		ND	
TOTAL BTEX	1,100		9		12		839		662		150		70		18		71		19	
Other VOCs																				
Acetone	ND	H	ND	H	180	JH	230	JH	ND		ND		ND		ND		ND		ND	
Bromoform	ND	H	ND	H	ND	H	ND	H	ND		ND		ND		ND		ND		ND	
Carbon Disulfide	ND	H	ND	H	20	JH	23	JH	ND		ND		ND		ND		ND		ND	
Cyclohexane	ND	H	ND	H	ND	H	930	H	ND		ND		ND		ND		ND		ND	
Isopropylbenzene	ND	H	ND	H	ND	H	27	H	ND		ND		ND		ND		ND		ND	
2-Butanone	ND	H	ND	H	ND	H	ND	H	ND		ND		ND		ND		ND		ND	
Methyl Acetate	ND	H	39	JH	ND	H	ND	H	ND		ND		ND		ND		ND		ND	
Methylene Chloride	ND	H	ND	H	ND	H	ND	H	ND		ND		ND		ND		ND		ND	
Methylcyclohexane	ND	H	85	JH	570	H	2600	H	42	J	42	J	78	J	98	J	ND		390	J
Styrene	ND	H	ND	H	ND	H	ND	H	ND		ND		ND		ND		ND		ND	
TOTAL OTHER VOCs	ND		124		770		3810		42		42		78		98		ND		390	
TOTAL VOCs (CVOCS + BTEX + OTHER)	47,700		276.5		800		4665		1027		1294.9		398		253		1,791		409	

Legend:

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Red highlighted cells indicate likelihood of DNAPL presence or DNAPL disappearance through matrix diffusion based on estimated rock core matrix porewater concentration greater than the compound solubility

Former Emerson Street Landfill

P-1 Design Phase Investigation

Table 1

Detected Volatile Organic Compounds (VOCs) in Bedrock page 3 of 6
All Results in Micrograms per Kilogram (ug/kg) or Parts Per Billion (PPB)

Sample ID	LAB-DBW-02	LAB-DBW-02	LAB-DBW-02	LAB-DBW-02	LAB-SBW-09	LAB-SBW-09	LAB-SBW-09	LAB-SBW-09	LAB-SBW-10	LAB-SBW-10									
Ground Surface Elevation (Feet)	544.90	544.90	544.90	544.90	544.38	544.38	544.38	544.38	544.02	544.02									
Sample Elevation Interval (Feet)	518.60-519.10	507.80-508.30	498.60-499.00	480.00-480.40	519.38-519.58	515.88-516.18	510.68-510.88	505.98-506.38	519.02-519.52	511.52-512.02									
Sample Depth Below Grade (Feet)	25.8-26.3	36.6-37.1	45.9-46.3	64.5-64.9	24.8-25.0	28.2-28.5	33.5-33.7	38-38.4	24.5-25.0	32.0-32.5									
Zone	A	C/B	C	D	A	Upper B	B	C	A	B/Upper B									
Date Collected	6/15/2016	6/15/2016	6/15/2016	6/15/2016	1/17/2017	1/17/2017	1/17/2017	1/17/2017	1/18/2017	1/19/2017									
Chlorinated VOCs																			
1,1,1-Trichloroethane	1,700	ND	ND	ND	4,300	J	190	J	ND	860	ND								
1,1,2-Trichloro-1,2,2-trifluoroethane (freon-113)	1,900	ND	ND	ND	4,300	J	800		ND	5,600	ND								
1,1-Dichloroethane	890	ND	ND	ND	1,500	J	260		ND	ND	41	J							
1,1-Dichloroethene	270	ND	ND	ND	ND		39	J*	ND	ND	ND								
1,2-Dichloroethane	ND	ND	ND	ND	ND		ND		ND	ND	ND								
1,4-Dichlorobenzene	ND	ND	ND	ND	ND		ND		ND	ND	ND								
cis-1,2-Dichloroethene	8,100	ND	ND	ND	8,600		4,500		ND	950	88	J							
Tetrachloroethene	1,400	ND	ND	ND	6,600		3,000		ND	18,000	ND								
trans-1,2-Dichloroethene	33	J	ND	ND	ND		ND		ND	ND	ND								
Trichloroethene	1,800		ND	ND	ND		110,000		ND	890	63	J							
Vinyl chloride	290		ND	ND	ND		190	J*	ND	74	J*	ND							
TOTAL CVOCs	16,383	ND	ND	ND	135,300		11,079		ND	26,374	192								
BTEX VOCs																			
Benzene	ND	ND	ND	ND	ND		ND		ND	ND	ND	ND							
Toluene	2,200	B	19	JB	16	JB	17	JB	1,600	J	860	ND	1500	ND					
Ethyl Benzene	200	J	ND		ND		ND		52	J	ND	ND	ND	ND					
total xylenes	960		ND		260	J	140	J	ND		340	J	ND	ND					
TOTAL BTEX	3,360		19		276		157		1,600		1,252		ND	1,500	ND				
Other VOCs																			
Acetone	ND		ND		ND		ND		ND		ND		ND	ND					
Bromoform	ND		ND		ND		ND		ND		ND		ND	ND					
Carbon Disulfide	ND		ND		ND		ND		53	J*	ND		ND	ND					
Cyclohexane	ND		ND		ND		ND		ND		ND		ND	ND					
Isopropylbenzene	14	J	ND		25	J	15	J	ND		ND		ND	ND					
2-Butanone	ND		ND		ND		ND		60	JB	56	JB	59	JB	ND	58	JB		
Methyl Acetate	110	J	ND		ND		ND		100	JB	ND		ND	ND	95	J			
Methylene Chloride	ND		ND		ND		2,300	JB	94	JB	95	JB	100	JB	300	JB	99	JB	
Methylcyclohexane	330	J	96	J	2,500		1,700	JB	ND		ND		54	J*	96	J	ND	91	J*
Styrene	ND		ND		ND		ND		ND		ND		ND		ND		ND	ND	
TOTAL OTHER VOCs	454		96		2525		1715		2300		307		205		255		300		343
TOTAL VOCs (CVOCs + BTEX + OTHER)	20,197		115		2,801		1,872		139,200		12,638		205		255		28,174		535

Legend:

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Red highlighted cells indicate likelihood of DNAPL presence or DNAPL disappearance through matrix diffusion based on estimated rock core matrix porewater concentration greater than the compound solubility

Former Emerson Street Landfill

P-1 Design Phase Investigation

Table 1

Detected Volatile Organic Compounds (VOCs) in Bedrock page 4 of 6
All Results in Micrograms per Kilogram (ug/kg) or Parts Per Billion (PPB)

Sample ID	LAB-SBW-11	LAB-SBW-11	LAB-SBW-11	LAB-SBW-12	LAB-SBW-12	LAB-SBW-13	LAB-SBW-13	LAB-SBW-13	LAB-SBW-13
Ground Surface Elevation (Feet)	543.91	543.91	543.91	547.65	547.65	543.40	543.40	543.40	543.40
Sample Elevation Interval (Feet)	517.91-518.41	512.91-513.41	509.11-509.31	519.95-520.15	511.65-512.15	520.20-520.40	517.90-518.20	512.50-512.90	489.60-499.00
Sample Depth Below Grade (Feet)	25.5-26.0	30.5-31.0	34.6-34.8	27.5-27.7	35.5-36.0	23-23.2	25.2-25.5	30.5-30.9	44.4-44.8
Zone	Upper B/A	Upper B	B	A	B/Upper B	A	Upper B/A	Upper B	D/C
Date Collected	1/19/2017	1/23/2017	1/27/2017	1/24/2017	1/25/2017	3/29/2017	3/29/2017	3/30/2017	3/30/2017
Chlorinated VOCs									
1,1,1-Trichloroethane	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1,2-Trichloro-1,2,2-trifluoroethane (freon-113)	ND	ND	ND	ND	ND	ND	24	J*	ND
1,1-Dichloroethane	94	J	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloroethene	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dichloroethane	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,4-Dichlorobenzene	ND	ND	ND	ND	ND	ND	ND	ND	ND
cis-1,2-Dichloroethene	500	ND	ND	ND	ND	ND	37	J*	45
Tetrachloroethene	ND	ND	ND	ND	ND	ND	230	J*	ND
trans-1,2-Dichloroethene	ND	ND	ND	ND	ND	ND	ND	ND	ND
Trichloroethene	78	J	ND	48	J	ND	ND	580	ND
Vinyl chloride	18	J	ND	ND	ND	ND	ND	ND	ND
TOTAL CVOCs	690	ND	48	ND	ND	ND	871	45	ND
BTEX VOCs									
Benzene	ND	ND	ND	ND	ND	48	J*	ND	ND
Toluene	97	J	ND	ND	ND	ND	88	J	ND
Ethyl Benzene	ND	ND	ND	ND	ND	180	J	ND	38
total xylenes	40	J	ND	ND	ND	2,000	ND	ND	360
TOTAL BTEX	137	ND	ND	ND	ND	2228	88	ND	398
Other VOCs									
Acetone	ND	ND	ND	ND	ND	ND	ND	ND	ND
Bromoform	ND	ND	ND	ND	ND	ND	ND	ND	ND
Carbon Disulfide	ND	ND	ND	27	J*	31	J*	23	J
Cyclohexane	ND	ND	ND	ND	ND	ND	ND	ND	ND
Isopropylbenzene	ND	ND	ND	ND	ND	ND	ND	ND	ND
2-Butanone	64	JB	53	JB	57	JB	53	JB	60
Methyl Acetate	360	J	ND	ND	ND	ND	ND	ND	ND
Methylene Chloride	98	JB	97	JB	100	JB	92	JB	100
Methylcyclohexane	71	J*	47	J*	110	J*	ND	ND	43
Styrene	ND	ND	ND	ND	ND	ND	ND	ND	14
TOTAL OTHER VOCs	593	197	267	172	191	75	23	57	2700
TOTAL VOCs (CVOCs + BTEX + OTHER)	1420	197	315	172	191	2,303	982	57	3,098

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Former Emerson Street Landfill

P-1 Design Phase Investigation

Table 1

Detected Volatile Organic Compounds (VOCs) in Bedrock page 5 of 6
All Results in Micrograms per Kilogram (ug/kg) or Parts Per Billion (PPB)

Sample ID	LAB-SBW-14	LAB-SBW-14	LAB-SBW-14	LAB-SBW-14	LAB-SBW-15	LAB-SBW-15	LAB-SBW-15	LAB-SBW-16	LAB-SBW-16	LAB-SBW-16								
Ground Surface Elevation (Feet)	543.99	543.99	543.99	543.99	544.55	544.55	544.55	548.08	548.08	548.08								
Sample Elevation Interval (Feet)	522.49-522.69	520.59-520.79	515.89-516.19	506.59-506.89	521.25-521.45	514.65-514.95	504.15-504.65	521.08-521.28	511.28-511.58	502.88-503.28								
Sample Depth Below Grade (Feet)	21.3-21.5	23.2-23.4	27.8-28.1	37.1-37.4	23.1-23.3	29.6-29.9	39.9-40.4	26.8-27.0	36.5-36.8	44.8-45.2								
Zone	A	A	Upper B	C	A	Upper B	C	A	B	C								
Date Collected	4/3/2017	4/3/2017	4/4/2017	4/4/2017	4/5/2017	4/6/2017	4/6/2017	4/7/2017	4/8/2017	4/8/2017								
Chlorinated VOCs																		
1,1,1-Trichloroethane	ND	ND	ND	ND	ND	ND	ND	ND	93	J	ND							
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	ND	170	J*	ND	ND	160	J*	ND	ND	240	J	ND					
1,1-Dichloroethane	ND	ND	47	J*	ND	ND	140	J*	ND	ND	400	*	100	J*				
1,1-Dichloroethene	ND	ND	ND		ND	ND	ND	ND	ND	ND	ND		ND					
1,2-Dichloroethane	ND	ND	ND		ND	ND	ND	ND	ND	ND	ND		ND					
1,4-Dichlorobenzene	ND	ND	ND		ND	ND	ND	ND	ND	ND	ND		ND					
cis-1,2-Dichloroethene	ND	ND	310	*	ND	ND	1,000	*	ND	ND	4,500	*	250	J*				
Tetrachloroethene	ND	ND	1,100		ND	ND	190	J	ND	ND	330		ND					
trans-1,2-Dichloroethene	ND	ND	ND		ND	ND	ND	ND	ND	ND	ND		ND					
Trichloroethene	ND	ND	190	J	ND	ND	680		ND	ND	5,200		59	J				
Vinyl chloride	ND	ND	19	J*	ND	ND	20	J*	ND	ND	140	J*	57	J*				
TOTAL CVOCS	ND	ND	1,836		ND	ND	2,190		ND	ND	10,903		466					
BTEX VOCs																		
Benzene	27	J*	ND		ND	ND	41	J*	ND	ND	ND		ND					
Toluene	ND	ND	160	J	ND	ND	230	J	ND	ND	350		27	J				
Ethyl Benzene	ND	ND	ND		ND	ND	ND	ND	ND	ND	ND		ND					
total xylenes	ND	ND	42	J	ND	ND	ND	ND	ND	ND	150	J	98	J				
TOTAL BTEX	27	ND	202		ND	ND	271		ND	ND	500		125					
Other VOCs																		
Acetone	ND	ND	ND		ND	ND	ND	ND	ND	ND	ND		ND					
Bromoform	ND	160	J	ND	ND	ND	ND	ND	ND	ND	ND		ND					
Carbon Disulfide	ND	ND	ND		ND	ND	28	J	ND	ND	66	J	ND					
Cyclohexane	ND	ND	ND		ND	ND	ND	ND	ND	ND	ND		ND					
Isopropylbenzene	ND	ND	ND		ND	ND	ND	ND	ND	ND	ND		ND					
2-Butanone	ND	ND	ND		ND	ND	ND	ND	ND	ND	ND		ND					
Methyl Acetate	ND	ND	ND		190	J	180	J	480	J	240	J	150	J	110	J	190	J
Methylene Chloride	ND	ND	ND		ND		67	JB	ND		ND		ND		ND		ND	
Methylcyclohexane	ND	ND	210	J*	490	J*	ND		ND		880	*	ND		73	J*	1,500	*
Styrene	ND	11	J	ND		13	J	ND		ND	ND		ND		ND		ND	
TOTAL OTHER VOCs	ND	171	210		693		247		508		1120		150		249		1690	
TOTAL VOCs (CVOCS + BTEX + OTHER)	27	171	2248		693		247		2969		1,120		150		11,652		2,281	

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B - Compound was found in the blank sample

* LCS or LCSD exceeds the control limits

Red highlighted cells indicate likelihood of DNAPL presence or DNAPL disappearance through matrix diffusion based on estimated rock core matrix porewater concentration greater than the compound solubility

Former Emerson Street Landfill

P-1 Design Phase Investigation

Table 1

Detected Volatile Organic Compounds (VOCs) in Bedrock page 6 of 6
All Results in Micrograms per Kilogram (ug/kg) or Parts Per Billion (PPB)

Sample ID	LAB-SBW-17	LAB-SBW-18	LAB-SBW-19	LAB-SBW-20			
Ground Surface Elevation (Feet)	557.22	553.449	549.08	549.28			
Sample Elevation Interval (Feet)	521.69-521.72	521.25-521.65	526.68-527.08	519.38-519.68			
Sample Depth Below Grade (Feet)	35.5-35.8	31.8-32.2	22.0-22.4	29.6-29.9			
Zone	Upper B	Upper B	A	A			
Date Collected	9/1/2020	9/3/2020	9/4/2020	9/4/2020			
Chlorinated VOCs							
1,1,1-Trichloroethane	ND	ND	ND	ND	H		
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	ND	ND	ND	H		
1,1-Dichloroethane	ND	150	J	ND	H		
1,1-Dichloroethene	ND	ND	ND	ND	H		
1,2-Dichloroethane	ND	ND	ND	ND	H		
1,4-Dichlorobenzene	ND	ND	ND	ND	H		
cis-1,2-Dichloroethene	150	J	71	410	10000	H	
Tetrachloroethene	ND	ND	ND	ND	ND	H	
trans-1,2-Dichloroethene	ND	ND	ND	ND	ND	H	
Trichloroethene	320	150	J	ND	16000	H	
Vinyl chloride	ND	ND	ND	ND	ND	H	
TOTAL CVOCS	470	371	410	410	26,000		
BTEX VOCs							
Benzene	ND	ND	ND	ND	ND	H	
Toluene	ND	ND	ND	ND	ND	H	
Ethyl Benzene	ND	ND	ND	ND	ND	H	
total xylenes	ND	ND	s	ND	ND	H	
TOTAL BTEX	ND	ND	ND	ND	ND		
Other VOCs							
Acetone	ND	680	J	280	J	ND	H
Bromoform	ND	ND	ND	ND	ND	ND	H
Carbon Disulfide	ND	ND	ND	ND	ND	ND	H
Cyclohexane	ND	ND	ND	ND	ND	ND	H
Isopropylbenzene	ND	ND	ND	ND	ND	ND	H
2-Butanone	ND	ND	ND	ND	ND	ND	H
Methyl Acetate	150	J	ND	ND	ND	ND	H
Methylene Chloride	ND	ND	ND	ND	ND	ND	H
Methylcyclohexane	ND	ND	ND	ND	ND	ND	H
Styrene	ND	ND	ND	ND	ND	ND	H
TOTAL OTHER VOCs	150	680	280	280	0		
TOTAL VOCs (CVOCS + BTEX + OTHER)	150	1,051	690	690	26,000		

Legend:

ND - Indicates the analyte was not detected

J - Indicates an estimated value.

H - Sample was prepped or analyzed beyond the specified holding time

B - Compound was found in the blank sample

* LCS or LCSD exceeds the control limits

Red highlighted cells indicate likelihood of DNAPL presence or DNAPL disappearance through matrix diffusion based on estimated rock c

Former Emerson Street Landfill
P-1 Design Phase Investigation
Table 2
Detected Volatile Organic Compounds (VOCs) in Groundwater
All Results in Micrograms Per Liter (ug/L) or about Parts per Billion (PPB)

LAB-SBW-15																					
Sample Location																					
Ground Surface Elevation (Feet)																					
Sample Elevation Interval (Feet)			516.55-518.55		508.05-510.05		500.75-502.75		505.91-515.91**												
Sample Depth Below Grade (Feet)			26-28		34.5-36.5		41.8-43.8		29-39**												
Sample Method																					
Event																					
Sample Date			Baseline		Post Injection 1		Post Injection 2		Post Injection 3												
Sample Date			5/15/2017		1/2/2018		2/21/2018		6/13/2018												
Low-flow																					
Design Phase																					
Sample Date			9/17/2020		9/17/2020		9/17/2020		9/17/2020												
Part 703 Groundwater Quality Standards ug/L (ppb)																					
Chlorinated VOCs																					
Chloroethane	5	80.6	J3	40.7	J3	5.00	U J3	240	110	420	69	230	260	160							
Chloromethane	NL	2.50	U J4	2.50	U J4	2.50	U J4	100	U	5.0	U	8.0	U	4.0	U						
Chlorobenzene	5	1.00	U	1.00	U	1.00	U	100	U	5.0	U	8.0	U	4.0	U						
Chloroform	7	5.00	U	5.00	U	5.00	U	100	U	5.0	U	8.0	U	4.0	U						
cis-1,2-Dichloroethene	5	4.99		4.77		11.7		3600	10	8.0	U	4.0	U	53	71						
Dichlorodifluoromethane	5	5.00	U J4	5.00	U J4	5.00	U J4	100	U	5.0	U	8.0	U	4.0	U						
1,1-Dichloroethene	5	1.00	U	1.00	U	1.00	U	100	U	5.0	U	15	4.0	U	10						
1,1-Dichloroethane	5	1.72		1.55		3.20		73	J	9.4		8.0	U	3.7	J						
1,2-Dichloroethane	5	1.00	U	1.00	U	1.00	U	100	U	5.0	U	8.0	U	4.0	U						
1,4-Dichlorobenzene	3	1.00	U	1.00	U	1.00	U	100	U	5.0	U	8.0	U	4.0	U						
Methylene chloride	5	5.00	U	5.00	U	5.00	U	100	U	5.0	U	8.0	U	5.1	J						
1,1,1-Trichloroethane	5	1.00	U	1.00	U	1.55		100	U	5.0	U	8.0	U	4.0	U						
1,1,2-Trichlorotrifluoroethane	5	2.21		3.16		3.32		100	U	5.0	U	8.0	U	4.0	U						
1,1,2-Trichloroethane	1	1.00	U	1.00	U	1.00	U	100	U	5.0	U	8.0	U	4.0	U						
Tetrachloroethene	5	1.00	U	1.00	U	1.00	U	100	U	5.0	U	8.0	U	4.0	U						
trans-1,2-Dichloroethene	5	1.00	U	1.00	U	1.00	U	100	U	5.0	U	8.0	U	4.0	U						
Trichloroethene	5	1.00	U	1.00	U	1.00	U	100	U	5.0	U	8.0	U	4.0	U						
Vinyl chloride	2	1.64	J3 J4	1.58	J3 J4	2.65	J3 J4	1600	13	8.0	U	4.0	U	38	61						
TOTAL CVOCs	NA	91.16		51.76		22.42		5513	142.4	435	77.8	233.8	400.7	372.5							
BTEX VOCs																					
Benzene	1	3.38		1.45	U	1.00	U	48	J	8.6		20	4.3	U	16	35	45				
Toluene	5	1.32		1.00	U	1.00	U	100	U	8.1		8.0	U	2.3	J	4.0	U	7.8	J		
Ethyl Benzene	5	1.00	U	1.00	U	1.00	U	100	U	5.0	U	8.0	U	4.0	U	10	U				
m/p-Xylene	5	2.00	U	2.00	U	2.00	U														
o-Xylene	5	1.00	U	1.00	U	1.00	U	200	U	8.7	J	9.8	J	5.6	J	8.0	U	20	7.7	J	
TOTAL BTEX	NA	4.70		ND		ND		48	25.4	29.8	7.9	16.0	35.0	60.5							
Other VOCs																					
Acetone	50	50.0	U	50.0	U	50.0	U	1000	U	50	U	8.0	U	40.0	U	40.0	U	100	U	100	U
1,4-Dioxane	NL	100	U	100	U	100	U	NA		NA		8.0	U	NA		NA		10	U	10	U
Carbon Disulfide	60	1.31	J	1.91	J	1.00	U	100	U	5.0	U	1.00	U	4.0	U	4.0	U	10	U	10	U
Cyclohexane	NL	1.00	U	1.00	U	1.00	U	100	U	5.0	U	1.6	J	4.0	U	4.0	U	10	U	10	U
Isopropylbenzene	5	1.00	U	1.00	U	1.00	U	100	U	5.0	U	8.0	U	4.0	U	4.0	U	10	U	10	U
Methyl tert-butyl ether	10	1.00	U	1.00	U	1.00	U	100	U	2.7	J	9.4		1.6	J	7.5		6.4	J	7.5	J
Methylcyclohexane	NL	1.00	U	1.00	U	1.00	U	100	U	6.9		12		2.6	J	20		9.0	J	13	
Styrene	5	1.00	U	1.00	U	1.00	U	100	U	5.0	U	8.0	U	4.0	U	4.0	U	10	U	10	U
1,3,5-Trimethylbenzene	5	1.00	U	1.00	U	1.00	U	NA		NA		8.0	U	NA		NA		10	U	10	U
1,2,4-Trimethylbenzene	5	1.00	U	1.00	U	1.00	U	NA		NA		8.0	U	NA		NA		10	U	10	U
2-Butanone	50	10.0	U	10.0	U	10.0	U	1000	U	15	J	80.0	U	40	U	40	U	100	U	100	U
2-Hexanone	50	10.0	U	10.0	U	10.0	U	500	U	25	U	40.0	U	20	U	20	U	50	U	50	U
4-Methyl-2-pentanone	NL	10.0	U	10.0	U	10.0	U	500	U	25	U	8.0	U	20	U	20	U	50	U	50	U
n-Propylbenzene	5	1.00	U	1.00	U	1.00	U	NA		NA		8.0	U	NA		NA		NA		NA	
Naphthalene	10	5.00	U	5.00	U	5.00	U	NA		NA		8.0	U	NA		NA		NA		NA	
n-Butylbenzene	5	1.00	U	1.00	U	1.00	U	NA		NA		8.0	U	NA		NA		NA		NA	
sec-Butylbenzene	5	1.00	U	1.00	U	1.00	U	NA		NA		8.0	U	NA		NA		NA		NA	
VOC TICs	NA	None found		None found		None found		None found		None found		None found		None found		None found		None found		None found	
TOTAL VOCs	NA	97.17		53.67		22.42		5,561	192.4	487.8	89.9	277.3	451.1	453.5							

Legend:
 NL - Not Listed
 NA indicates not applicable
 Total VOCs - denotes summation of all detected compounds not including TICs (i.e., constituents below the detection limits are assumed to be zero).
 TICs - Tentatively Indicated Compounds
 Yellow highlighted values exceed NYSDEC Part 703 Groundwater Quality Standards
 U - Indicates the compound was analyzed for as part of the standard list but not detected, with the detection limit shown as the value.
 J - Indicates an estimated value
 T - Result is a tentatively identified compound (TIC) and an estimated value
 N - Presumptive evidence of material
 F1 - MS and/or MSD Recovery is outside acceptance limits.
 ** - Indicates a range approximately 5 feet above and below depth to top of pump during sampling
 ML-75 not sampled during Post Injection Event 2 or 3. ML-25 not sampled during Post Injection Event 3. Wells were dry
 Red text indicates a change made in the DUSR
 R indicates the result was rejected in the DUSR
 2020 data not yet validated

Former Emerson Street Landfill
P-1 Design Phase Investigation
Table 2
Detected Volatile Organic Compounds (VOCs) in Groundwater
All Results in Micrograms Per Liter (ug/L) or about Parts per Billion (PPB)

Sample Location		LAB-SBW-16																			
		548.08																			
Ground Surface Elevation (Feet)		548.08																			
Sample Elevation Interval (Feet)		516.58-518.58		508.08-510.08		500.18-502.18		493.27-503.27**			515.08		504.08								
Sample Depth Below Grade (Feet)		29.5-31.5		38-40		45.9-47.9		42-52**			33		44								
Sample Method		PDB																			
Event		Baseline		Post Injection 1		Post Injection 2		Post Injection 3	Post Injection 4	Post Injection 5		Low-flow	Low-flow								
Sample Date		5/15/2017		1/2/2018		2/21/2018		6/13/2018	2/26/2019	5/15/2020		Design Phase	Design Phase								
Sample Date		5/15/2017		1/2/2018		2/21/2018		6/13/2018	2/26/2019	5/15/2020		9/17/2020	9/17/2020								
Chlorinated VOCs		Part 703 Groundwater Quality Standards ug/L (ppb)																			
Chloroethane	5	7.85	J3	11.5	6.43	9.4	J	10	U	3.3	J	0.89	J	19	44	3.7	J				
Chloromethane	NL	2.50	U J4	2.50	U	2.50	U	10	U	10	U	5.0	U	2.0	U	5.0	U	40	U	4.0	U
Chlorobenzene	5	1.00	UJ	1.00	U	1.00	U	10	U	10	U	5.0	U	2.0	U	5.0	U	40	U	4.0	U
Chloroform	7	5.00	UJ	5.00	U	5.00	U	10	U	10	U	5.0	U	2.0	U	5.0	U	40	U	4.0	U
cis-1,2-Dichloroethene	5	180	J	185	18.4	710		74		140	J	6.1		76	F1	1800		28.0			
Dichlorodifluoromethane	5	5.00	U J4	5.00	U	5.00	U	10	U	10	U	5.0	UJ	2.0	U	5.0	U	40	U	4.0	U
1,1-Dichloroethene	5	1.15	J	1.08	U	1.00	U	10	U	10	U	35	J	2.0	U	5.0	U	21	J	4.0	U
1,1-Dichloroethane	5	63.7	J	72.0	52.2	53		29		5.0	UJ	2.7		52	F1	750		34			
1,2-Dichloroethane	5	1.00	UJ	1.00	U	1.00	U	10	U	10	U	5.0	UJ	2.0	U	5.0	U	40	U	4.0	U
1,4-Dichlorobenzene	3	1.00	UJ	1.00	U	1.00	U	10	U	10	U	5.0	UJ	2.0	U	5.0	U	40	U	4.0	U
Methylene chloride	5	5.00	UJ	5.00	U J0	5.00	U J0	10	U	10	U	5.0	U	2.0	J	5.0	U	40	U	4.0	U
1,1,1-Trichloroethane	5	30.4	J	35.6	2.95	21		10	U	19	J	2.0	U	19		380		10			
1,1,2-Trichlorotrifluoroethane	5	78.0	J	84.4	1.34	20		10	U	16	J	2.0	U	34		460		27			
1,1,2-Trichloroethane	1	1.00	UJ	1.00	U J4	1.00	U J4	10	U	10	U	5.0	UJ	2.0	U	5.0	U	40	U	4.0	U
Tetrachloroethene	5	1.01	J	1.18	1.00	10	U	10	U	5.0	UJ	2.0	U	5.0	U	40	U	4.0	U	4.0	U
trans-1,2-Dichloroethene	5	7.22	J	7.04	1.00	10	U	10	U	5.0	UJ	2.0	U	5.0	U	40	U	4.0	U	4.0	U
Trichloroethene	5	6.94	J	7.85	3.02	5.3	J	10	U	5.0	UJ	2.0	U	5.0	U	40	U	4.0	U	4.0	U
Vinyl chloride	2	98.9	J3 J4	187	17.8	440		47		84	J	2.8		83		950		14			
TOTAL CVOCs	NA	475.17		591.6	102.14	1258.7		150		297.3		14.5		283		4405.0		116.7			
BTEX VOCs																					
Benzene	1	12.1	J	12.7	1.00	15		21		23	J	4.7		22		22	J	4.0	U		
Toluene	5	4.56	J	6.85	1.00	11		15		10	J	1.8	J	17		120		8.8			
Ethyl Benzene	5	3.38	J	4.24	1.00	7.8	J	17		12	J	2.1		5.8		40	U	4.0	U		
m/p-Xylene	5	5.12	J	6.64	2.00	260		250		160	J	16		46		50	J	7.2	J		
o-Xylene	5	3.44	J	4.61	1.00	U		U		U		U		U		U		U			
TOTAL BTEX	NA	28.6		35.04	ND	293.8		303		205		24.6		90.8		192.0		16.0			
Other VOCs																					
Acetone	50	50.0	UJ	50.0	U	50.0	U	100	U	100	UJ	15	J	16	J	50	U	400	U	40.0	U
1,4-Dioxane	NL	100	UJ	100	UJ	100	UJ	NA		NA		5.0	U	NA		NA		NA		NA	
Carbon Disulfide	60	1.00	UJ	1.00	U	1.34		10	U	10	U	5.0	U	2.0	U	5.0	U	40	U	4.0	U
Cyclohexane	NL	1.00	UJ	1.00	U	1.00	U	10	U	10	U	5.0	UJ	2.0	U	5.0	U	40	U	4.0	U
Isopropylbenzene	5	1.00	UJ	1.00	U	1.00	U	22		37		35	J	5.7		27		40	U	4.0	U
Methyl tert-butyl ether	10	1.00	UJ	1.00	U	1.00	U	20		42		55	J	26		37		24	J	4.0	U
Methylcyclohexane	NL	1.00	UJ	1.00	U	1.00	U	10	U	10	U	1.3	J	2.0	U	3.6	J	40	U	4.0	U
Styrene	5	1.00	UJ	1.00	U	1.00	U	10	U	10	U	5.0	UJ	2.0	U	5.0	U	40	U	4.0	U
1,3,5-Trimethylbenzene	5	1.00	UJ	1.00	U	1.00	U	NA		NA		5.0	U	NA		NA		40	U	4.0	U
1,2,4-Trimethylbenzene	5	1.00	UJ	1.00	U	1.00	U	NA		NA		5.0	U	NA		NA		40	U	4.0	U
2-Butanone	50	10.0	UJ	10.0	U	10.0	U	100	U	100	UJ	50.0	UJ	7.6	J	5.0	U	400	U	40	U
2-Hexanone	50	10.0	UJ	10.0	U	10.0	U	50	U	50	UJ	25.0	UJ	10.0	U	5.0	U	200	U	20	U
4-Methyl-2-pentanone	NL	10.0	UJ	10.0	U J3	10.0	U J3	50	U	50	U	5.0	UJ	41		5.0	U	200	U	20	U
n-Propylbenzene	5	1.00	UJ	1.00	U	1.00	U	NA		NA		5.0	U	NA		NA		NA		NA	
Naphthalene	10	5.00	UJ	5.00	U J0	5.00	U J0	NA		NA		5.0	U	NA		NA		NA		NA	
n-Butylbenzene	5	1.00	UJ	1.00	U	1.00	U	NA		NA		5.0	U	NA		NA		NA		NA	
sec-Butylbenzene	5	1.00	UJ	1.00	U	1.00	U	NA		NA		5.0	U	NA		NA		NA		NA	
VOC TICs	NA	None found		None found		None found		None found		190	YJN	163		8.4	TJ	65	TJN	None found		None found	
TOTAL VOCs	NA	503.77		626.61	103.48	1,594.5		532.0		608.6		135.4		506.4		4,621.0		132.7			

Legend:
NL - Not Listed
NA indicates not applicable
Total VOCs - denotes summation of all detected compounds not including TICs (i.e., constituents below the detection limits are assumed to be zero).
TICs - Tentatively Indicated Compounds
Yellow highlighted values exceed NYSDEC Part 703 Groundwater Quality Standards
U - Indicates the compound was analyzed for as part of the standard list but not detected, with the detection limit shown as the value.
J - Indicates an estimated value
T - Result is a tentatively identified compound (TIC) and an estimated value
N - Presumptive evidence of material
F1 - MS and/or MSD Recovery is outside acceptance limits.
** - Indicates a range approximately 5 feet above and below depth to top of pump during sampling
ML-75 not sampled during Post Injection Event 2 or 3. ML-25 not sampled during Post Injection Event 3. Wells were dry
Red text indicates a change made in the DUSR
R indicates the result was rejected in the DUSR
2020 data not yet validated

Former Emerson Street Landfill
P-1 Design Phase Investigation
Table 2
Detected Volatile Organic Compounds (VOCs) in Groundwater
All Results in Micrograms Per Liter (ug/L) or about Parts per Billion (PPB)

Sample Location		ML-2S				ML-2I					ML-2D							
		548.3				548.3					548.3							
		518.1-521.1				511.2-516.2					505.3-510.3							
		27.25-30.25				32.15-37.15					38.0-43.0							
Sample Method		Low-flow																
Event		Baseline	Post Injection 1	Post Injection 2	Post Injection 4	Baseline	Post Injection 1	Post Injection 2	Post Injection 3	Post Injection 4	Post Injection 5	Baseline	Post Injection 1	Post Injection 2	Post Injection 3	Post Injection 4	Post Injection 5	
Sample Date		10/19/2017	1/2/2018	2/21/2018	2/27/2019	10/18/2017	1/3/2018	2/21/2018	6/15/2018	2/27/2019	6/15/2020	10/18/2017	1/3/2018	2/21/2018	6/15/2018	2/27/2019	6/15/2020	
Chlorinated VOCs	Part 703 Groundwater Quality Standards ug/L (ppb)																	
		Chloroethane	5	4.6 J	10 U	10 U	4.0 U	R	100 U	38 J	5.4	5.0 U	43	2.2 J	15	5.0 U	10 J	39
Chloromethane	NL	R	10 U	10 U	4.0 U	R	100 U	40 U	5 U	5.0 U	5.0 U	R	2.0 U	5.0 U	5 UJ	2.0 U	10 U	
Chlorobenzene	5	R	10 U	10 U	4.0 U	R	100 U	40 U	5 U	5.0 U	5.0 U	R	2.0 U	5.0 U	5 UJ	2.0 U	10 U	
Chloroform	7	4.1 J	10 U	10 U	4.0 U	R	100 U	40 U	5 U	5.0 U	5.0 U	1.1 J	2.0 U	5.0 U	5 UJ	2.0 U	10 U	
cis-1,2-Dichloroethane	5	160 J	560 J	10 U	46	3000 J	6700	1700	14	53	5.0 U	71 J	150	130	5 UJ	2.6	25	
Dichlorodifluoromethane	5	R	10 U	10 U	4.0 U	R	100 U	40 U	5 U	5.0 U	5.0 U	R	2.0 U	5.0 U	5 UJ	2.0 U	10 U	
1,1-Dichloroethane	5	R	10 U	10 U	4.0 U	R	100 U	40 U	5 U	5.0 U	5.0 U	1.0 J	2.2	5.0 U	5 UJ	2.0 U	10 U	
1,1-Dichloroethane	5	33 J	10 U	10 U	4.0 U	870 J	2200	1000	63	8.4	15	35 J	140	45	49 J	55	110	
1,2-Dichloroethane	5	R	10 U	10 U	4.0 U	R	100 U	40 U	5 U	5.0 U	5.0 U	R	2.0 U	5.0 U	5 UJ	2.0 U	10 U	
1,4-Dichlorobenzene	3	R	10 U	10 U	4.0 U	R	100 U	40 U	5 U	5.0 U	5.0 U	R	2.0 U	5.0 U	5 UJ	2.0 U	10 U	
Methylene chloride	5	R	10 U	10 U	4.3 J	R	100 U	40 U	5 U	6.2 J	5.0 U	R	2.0 U	5.0 U	5 UJ	2.0 J	10 U	
1,1,1-Trichloroethane	5	R	10 U	10 U	4.0 U	480 J	100 U	40 U	5 U	5.0 U	5.0 U	7.0 J	35	5.0 U	6.1 J	3.8	10 U	
1,1,2-Trichlorotrifluoroethane	5	R	10 U	10 U	4.0 U	650 J	140	40 U	5 U	5.0 U	5.0 U	4.3 J	24	5.0 U	2.8 J	1.3	10 U	
1,1,2-Trichloroethane	1	R	10 U	10 U	4.0 U	R	100 U	40 U	5 U	5.0 U	5.0 U	R	2.0 U	5.0 U	5 UJ	2.0 U	10 U	
Tetrachloroethane	5	R	10 U	10 U	4.0 U	R	100 U	40 U	5 U	5.0 U	5.0 U	0.91 J	2.0 U	5.0 U	5 UJ	2.0 U	10 U	
trans-1,2-Dichloroethane	5	R	10 U	10 U	4.0 U	R	100 U	40 U	5 U	5.0 U	5.0 U	R	4.1	5.0 U	5 UJ	2.1	10 U	
Trichloroethane	5	R	10 U	10 U	4.0 U	260 J	100 U	40 U	5 U	5.0 U	5.0 U	11 J	16	2.9 J	5 UJ	1.0 J	10 U	
Vinyl chloride	2	490 J	220	10 U	36	990 J	2300	430	5 U	45	5.0 U	15 J	130	83	5 UJ	3.3	10	
TOTAL CVOCs	NA	691.7	780	ND	86	6,250	11,340	3,168	82	113	58	148.51	516.3	260.9	67.9	110.1	275	
BTEX VOCs																		
Benzene	1	6.0 J	25	24	20	R	100 U	38 J	25	22	15	R	2.3	23	21 J	5.5	32	
Toluene	5	R	10 U	10 U	2.6 J	170 J	510	290	23	12	5.0 U	1.4 J	2.0	18	9.5 J	2.0	76	
Ethyl Benzene	5	R	13	17	6.9	R	100 U	39 J	13	11	5.0 U	R	2.0 U	16	11 J	2.0 U	25	
m/p-Xylene	5	R	620	F1 430	77	R	110 J	210	110	73	10 U	R	1.6 J	210	94 J	3.0 J	140	
o-Xylene	5	R				R						R						
TOTAL BTEX	NA	6.0	658	471	107	170	620	577	171	118	15	1.4	5.9	267	135.5	10.5	273	
Other VOCs																		
Acetone	50	33 J	100 U	100 U	12 J	R	1000 U	400 U	50 U	50 U	18 J*	R	10 J	50 U	50 U	8.7 J	68 J*	
1,4-Dioxane	NL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
Carbon Disulfide	60	R	10 U	10 U	4.0 U	R	100 U	40 U	5 U	5.0 U	5.0 U	R	2.0 U	5.0 U	2 UJ	2.0 U	10 U	
Cyclohexane	NL	R	10 U	10 U	4.0 U	R	100 U	40 U	5 U	2.0 J	5.0 U	R	2.0 U	5.0 U	10 UJ	2.0 U	10 U	
Isopropylbenzene	5	R	46	54	34	R	100 U	40 U	25	28	5.0 U	R	2.0 U	37	24 J	2.0 U	20	
Methyl tert-butyl ether	10	R	39	56	45	R	100 U	20 J	47	41	1.8 J	R	0.87 J	51	33 J	2.1	21	
Methylcyclohexane	NL	R	2.4 J	10 U	0.70 J	R	100 U	40 U	1.4 J	2.4 J	5.0 U	R	0.36 J	2.0 J	1.1 J	2.0 U	10 U	
Styrene	5	R	10 U	10 U	4.0 U	R	100 U	40 U	5 U	5.0 U	5.0 U	R	2.0 U	5.0 U	10 UJ	2.0 U	10 U	
1,3,5-Trimethylbenzene	5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
1,2,4-Trimethylbenzene	5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
2-Butanone	50	R	100 U	100 U	40 U	R	1000 U	400 UJ	57	12 J	50 U	R	2.8 J	50 U	19 J	20 U	100 U	
2-Hexanone	50	R	50 U	50 U	20 U	R	500 U	200 UJ	25 U	25 U	5.0 U	R	10 U	25 U	10 UJ	10 U	10 U	
4-Methyl-2-pentanone	NL	R	50 U	50 U	34	R	500 U	200 U	25 U	83	5.0 U	R	10 U	25 U	10 UJ	10 U	10 U	
n-Propylbenzene	5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
Naphthalene	10	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
n-Butylbenzene	5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
sec-Butylbenzene	5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
VOC TICs	NA	30 TJ	None found	304 TJN	11 TJN	None found	590 TJN	530 TJN	80 TJN	82 TJN	None found	None found	9.2	156 TJN	89 TJN	5.9 TJN	217 TJN	
TOTAL VOCs	NA	730.7	1,525.4	581.0	318.5	6,420	11,960	3,765	383.8	399.0	92.8	149.91	536.2	617.9	280.5	131.4	657.0	

Legend:
NL - Not Listed
NA Indicates not applicable
Total VOCs - denotes summation of all detected compounds not including TICs (i.e., constituents below the detection limits are assumed to be zero).
TICs- Tentatively Indicated Compounds
Yellow highlighted values exceed NYSDEC Part 703 Groundwater Quality Standards
U - Indicates the compound was analyzed for as part of the standard list but not detected, with the detection limit shown as the value.
J - Indicates an estimated value
T- Result is a tentatively identified compound (TIC) and an estimated value
N- Presumptive evidence of material
F1- MS and/or MSD Recovery is outside acceptance limits.
** - Indicates a range approximately 5 feet above and below depth to top of pump during sampling
ML-7S not sampled during Post Injection Event 2 or 3. ML-2S not sampled during Post Injection Event 3. Wells were dry
Red text indicates a change made in the DUSR
R indicates the result was rejected in the DUSR
2020 data not yet validated

Former Emerson Street Landfill
P-1 Design Phase Investigation
Table 2
Detected Volatile Organic Compounds (VOCs) in Groundwater
All Results in Micrograms Per Liter (ug/L) or about Parts per Billion (PPB)

Sample Location		ML-7S			ML-7I					ML-7D					
Ground Surface Elevation (Feet)		545.5			545.5					545.5					
Sample Elevation Interval (Feet)		517.3-520.3			510.2-515.2					503.0-508.0					
Sample Depth Below Grade (Feet)		25.25-28.25			30.3-35.3					37.5-42.5					
Sample Method		Low-flow			Low-flow					Low-flow					
Event		Baseline	Post Injection 1	Baseline	Post Injection 1	Post Injection 2	Post Injection 3	Post Injection 4	Post Injection 5	Baseline	Post Injection 1	Post Injection 2	Post Injection 3	Post Injection 4	Post Injection 5
Sample Date		10/19/2017	1/9/2018	10/19/2017	1/8/2018	2/21/2018	6/14/2018	2/26/2019	6/16/2020	10/20/2017	1/8/2018	2/21/2018	6/14/2018	2/26/2019	6/16/2020
Chlorinated VOCs	Part 703 Groundwater Quality Standards ug/L (ppb)														
Chloroethane	5	R	0.80 J	170 J	200 U	72	50	78	64	110 J	120	100	27	200	180
Chloromethane	NL	R	1.0 U	R	200 U	40 U	20 U	5.0 U	4.0 U	R	10 U	10 U	5 U	5.0 U	4.0 U
Chlorobenzene	5	R	1.0 U	R	200 U	40 U	20 U	5.0 U	4.0 U	R	10 U	10 U	5 U	5.0 U	4.0 U
Chloroform	7	R	1.0 U	R	200 U	40 U	20 U	5.0 U	4.0 U	R	10 U	10 U	5 U	5.0 U	4.0 U
cis-1,2-Dichloroethene	5	R	3.0	2800 J	11000	2900	560	190	44	1000 J	570	20	58	5.0 U	6.7
Dichlorodifluoromethane	5	R	1.0 U	R	200 U	40 U	22	5.0 U	4.0 U	R	10 U	10 U	5 U	5.0 U	4.0 U
1,1-Dichloroethene	5	R	1.0 U	R	200 U	40 U	20 U	5.0 U	4.0 U	R	10 U	10 U	5 U	5.0 U	4.0 U
1,1,1-Trichloroethane	5	R	1.0 U	370 J	1600	680	460	220	74	520 J	560	420	170	46	48
1,2-Dichloroethane	5	R	1.0 U	R	200 U	40 U	20 U	5.0 U	4.0 U	R	10 U	10 U	5 U	5.0 U	4.0 U
1,4-Dichlorobenzene	3	R	1.0 U	R	200 U	40 U	20 U	5.0 U	4.0 U	R	10 U	10 U	5 U	5.0 U	4.0 U
Methylene chloride	5	R	3.2 J	R	200 U	38 J	20 U	4.9 J	2.9 J	R	10 U	10 U	5 U	5.8 J	2.9 J
1,1,1-Trichloroethane	5	R	1.0 U	110 J	200 U	40 U	20 U	10	4.0 U	250 J	150	120	66	15	13
1,1,2-Trichlorotrifluoroethane	5	R	1.0 U	380 J	310 F2	130	41	84	4.0 U	190 J	67	24	6.4	2.8 J	1.5 J
1,1,2-Trichloroethane	1	R	1.0 U	R	200 U	40 U	20 U	5.0 U	4.0 U	R	10 U	10 U	5 U	5.0 U	4.0 U
Tetrachloroethene	5	R	1.0 U	35 J	200 U	40 U	20 U	2.9 J	1.5 J	12 J	3.9 J	10 U	5 U	5.0 U	4.0 U
trans-1,2-Dichloroethene	5	R	1.0 U	R	200 U	40 U	20 U	7.9 J	4.0 U	R	10 U	10 U	5 U	5.0 U	4.0 U
Trichloroethene	5	R	1.0 U	140 J	200 U	40 U	20 U	9.9	4.9	100 J	41	9.8 J	14	5.0 U	3.6 J
Vinyl chloride	2	R	1.0 U	510 J	2900 J	870	360	170	14	230 J	380	19	16	5.0 U	4.0 U
TOTAL CVOCs	NA	ND	7.0	4,515	15,810	4,690	1,493	778	205	2,443	1,917	712.8	357.4	269.6	255.7
BTEX VOCs															
Benzene	1	18 J	3.3	59 J	200 U	38 J	23	20	15	50 J	33	25.0	7.7	9.4	6.0
Toluene	5	R	1.5	75 J	280 F2	160	90	85	36	33 J	16	17	5 U	5.0 U	4.0 U
Ethyl Benzene	5	R	0.96 J	R	200 U	40 U	20 U	5.0 U	4.0 U	R	10 U	10 U	5 U	5.0 U	4.0 U
m/p-Xylene	5	8.8 J	4.6	R	400 U	80 U	40 U	7.8 J	5.7 J	R	400 U	20 U	10 U	10 U	8 U
o-Xylene	5	R		R	400 U	80 U	40 U	7.8 J	5.7 J	R	400 U	20 U	10 U	10 U	8 U
TOTAL BTEX	NA	26.8	10.36	134	280	198	113	113	57	83	49	42	7.7	9.4	6.0
Other VOCs															
Acetone	50	58 J	210 J	R	2000 U	400 U	200 U	50 U	40 U	61 J	43 J	100 U	26 J	50 U	40 U
1,4-Dioxane	NL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon Disulfide	60	R	1.3	R	200 U	40 U	20 U	5.0 U	4.0 U	R	10 U	10 U	5 U	5.0 U	4.0 U
Cyclohexane	NL	R	1.0 U	R	200 U	40 U	20 U	5.0 U	4.0 U	R	10 U	10 U	5 U	5.0 U	4.0 U
Isopropylbenzene	5	R	2.9 J	R	200 U	40 U	20 U	5.0 U	4.0 U	R	10 U	10 U	5 U	5.0 U	4.0 U
Methyl tert-butyl ether	10	R	0.36 J	R	200 U	40 U	20 U	1.4 J	1.6 J	R	4.6 J	5.7 J	1.7 J	1.7 J	1.5 J
Methylcyclohexane	NL	R	0.35 J	R	200 U	40 U	20 U	5.0 U	0.7 J	R	10 U	10 U	5 U	1.1 J	0.85 J
Styrene	5	R	1.0 U	R	200 U	40 U	20 U	5.0 U	4.0 U	R	10 U	10 U	5 U	5.0 U	4.0 U
1,3,5-Trimethylbenzene	5	NA	NA U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trimethylbenzene	5	NA	NA U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Butanone	50	R	420 J	R	2000 U	400 U	200 U	11 J*	4.0 U	R	55 J	61 J	12 J	50 U	4.0 U
2-Hexanone	50	R	5.0 U	R	1000 U	200 U	100 U	25 U	4.0 U	R	50 U	50 U	25 U	25 U	4.0 U
4-Methyl-2-pentanone	NL	R	4.0 J	R	1000 U	200 U	100 U	25 U	4.0 U	R	50 U	50 U	25 U	25 U	4.0 U
n-Propylbenzene	5	NA	NA	NA	NA	NA	NA	NA	4.0 U	NA	NA	NA	NA	NA	NA
Naphthalene	10	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
n-Butylbenzene	5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
sec-Butylbenzene	5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
VOC TICs	NA	64 TJ	783.3	None found	630 TJ	450 TJN	None found	140 TJN	5.7 J	None found	97 TJN	None found	54 TJN	13 TJN	None found
TOTAL VOCs	NA	84.8	656.3	4,649	16,090	4,888	1,606	903	264	2,587	2,068.5	821.5	404.8	281.8	264.1

Legend:
NL - Not Listed
NA indicates not applicable
Total VOCs - denotes summation of all detected compounds not including TICs (i.e., constituents below the detection limits are assumed to be zero).
TICs - Tentatively Identified Compounds
Yellow highlighted values exceed NYSDEC Part 703 Groundwater Quality Standards
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F1 - MS and/or MSD Recovery is outside acceptance limits.
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ML-7S not sampled during Post Injection Event 2 or 3. ML-2S not sampled during Post Injection Event 3. Wells were dry
Red text indicates a change made in the DUSR
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Former Emerson Street Landfill
P-1 Design Phase Investigation
Table 2
Detected Volatile Organic Compounds (VOCs) in Groundwater
All Results in Micrograms Per Liter (ug/L) or about Parts per Billion (PPB)

Sample Location	Blind Dupe 1 (LAB-SBW-16)	Blind Dupe 2 (LAB-SBW-16)	Blind Dupe 3 (LAB-SBW-16)	Duplicate (ML-21)	Dupe (LAB-SBW-15)	Dupe 2 (ML-71)	Dupe (LAB-SBW-15)	Dupe (ML-2D)	DUPE (ML-7D)	DUPE (LAB-SBW-16)	DUPE (ML-7I)	DUP (ML-7D)	BD-GW-09172020 (LAB-SBW-15)	
Ground Surface Elevation (Feet)	548.08	548.08	548.08	548.3	544.55	545.5	544.55	548.3	545.5	548.08	545.5	545.5	544.55	
Sample Elevation Interval (Feet)	516.58-518.58	508.08-510.08	500.18-502.18	511.2-516.2	505.91-515.91**	510.2-515.2	505.91-515.91**	505.3-510.3	503.0-508.0	500.18-502.18	510.2-515.2	503.0-508.0	516.55	
Sample Depth Below Grade (Feet)	29.5-31.5	38-40	45.9-47.9	32.15-37.15	29-39**	30.3-35.3	29-39**	38.0-43.0	37.5-42.5	45.9-47.9	30.3-35.3	37.5-42.5	28	
Sample Method	PDB	PDB	PDB	Low-flow	Low-flow	Low-flow	Low-flow	Low-flow	Low-flow	Low-flow	Low-flow	Low-flow	Low-flow	
Event	Baseline	Baseline	Baseline	Baseline	Post Injection	Post Injection	Post Injection	Post Injection	Post Injection	Post Injection	Post Injection	Post Injection	Design phase	
Sample Date	5/15/2017	5/15/2017	5/15/2017	10/18/2017	1/2/2018	1/8/2018	2/21/2018	6/15/2018	6/14/2018	6/13/2018	2/26/2019	6/15/2020	9/17/2020	
Chlorinated VOCs	Part 703 Groundwater Quality Standards ug/L (ppb)													
Chloroethane	5	8.76	8.68	5.00 U	43 J	230	200 U	120	10	26	3.9 J	72	180	350
Chloromethane	NL	2.50 U	2.50 U	2.50 U	R	100 U	200 U	5.0 U	5.0 U	5.00 U	5.0 U	4.0 U	5.0 U	5.0 U
Chlorobenzene	5	1.00 U	1.00 U	1.00 U	R	100 U	200 U	5.0 U	5.0 U	5.00 U	5.0 U	4.0 U	5.0 U	5.0 U
Chloroform	7	5.00 U	5.00 U	5.00 U	R	100 U	200 U	5.0 U	5.0 U	5.00 U	5.0 U	4.0 U	5.0 U	5.0 U
cis-1,2-Dichloroethene	5	186.0	183.0	18.5	3200 J	3600	13000	11	5.0 U	64	140 J	190 D	6.3	58
Dichlorodifluoromethane	5	5.00 U	5.00 U	5.00 U	R	100 U	200 U	5.0 U	5.0 U	5.00 U	5.0 U	4.0 U	5.0 U	5.0 U
1,1-Dichloroethene	5	1.29 U	1.15 U	1.00 U	R	100 U	200 U	5.0 U	5.0 U	5.00 U	5.0 U	4.0 U	5.0 U	5.0 U
1,1-Dichloroethane	5	64.0	61.7	47.2	870 J	73 J	1900	8.7	50	180	34 J	220 D	45	46
1,2-Dichloroethane	5	1.00 U	1.00 U	1.00 U	R	100 U	200 U	5.0 U	5.0 U	5.00 U	5.0 U	4.0 U	5.0 U	5.0 U
1,4-Dichlorobenzene	3	1.00 U	1.00 U	1.00 U	R	100 U	200 U	5.0 U	5.0 U	5.00 U	5.0 U	4.0 U	5.0 U	5.0 U
Methylene chloride	5	5.00 U	5.00 U	5.00 U	R	100 U	200 U	5.0 U	5.0 U	5.00 U	5.0 U	4.0 U	5.0 U	5.0 U
1,1,1-Trichloroethane	5	29.5	28.2	2.3	530 J	100 U	200 U	5.0 U	5.6 U	69	19 J	9.9	13	11
1,1,2-Trichlorotrifluoroethane	5	91.9	89.2	1.3	710 J	100 U	200 U	5.0 U	5.0 U	4.6 J	16	57	1.4 J	5.9
1,1,2-Trichloroethane	1	1.00 U	1.00 U	1.00 U	R	100 U	200 U	5.0 U	5.0 U	5.00 U	5.0 U	4.0 U	5.0 U	5.0 U
Tetrachloroethane	5	1.11	1.16	1.00 U	R	100 U	200 U	5.0 U	5.0 U	5.00 U	5.0 U	4.0 U	5.0 U	5.0 U
trans-1,2-Dichloroethene	5	6.51	6.70	1.00 U	R	100 U	200 U	5.0 U	5.0 U	5.00 U	5.0 U	4.0 U	5.0 U	5.0 U
Trichloroethene	5	7.12 J	6.90 J	2.67 J	280 J	100 U	200 U	5.0 U	5.0 U	13	5.0 U	9.6	2.7 J	5.0 U
Vinyl chloride	2	117	114.00	11.90	1000 J	1600	3500	14	5.0 U	16	83 J	170 D	4.0 U	46
TOTAL CVOCS	NA	511.90	499.54	83.88	6633	5503	18700	154	65.6	373	296	746	252	520
BTEX VOCs														
Benzene	1	12.20	12.00	1.00 U	R	54 J	200 U	9.1	20	8.0	23 J	20	6.2	45.0
Toluene	5	6.0	6.0	1.00 U	170 J	100 U	330	8.3	9.5	5.00 U	10 J	84	4.0 U	6.2
Ethyl Benzene	5	4.0	3.9	1.00 U	R	100 U	200 U	5.0 U	11	5.00 U	13 J	2.2	4.0 U	
m/p-Xylene	5	6.4	6.1	2.00 U	R									
o-Xylene	5	3.8	3.8	1.00 U	R	200 U	400 U	8.4 J	86	10.0 U	160 J	7.0 J	8.0 U	6.0 J
TOTAL BTEX	NA	32.42	31.65	ND	170	54	330	26	126.5	8.0	206	113	6.2	57.2
Other VOCs														
Acetone	50	50.0 U	50.0 U	50.0 U	R	1000 U	2000 U	50 U	50 U	29 J	21 J	5.0 J	40.0 U	50 U
1,4-Dioxane	NL	100 U	100 U	100 U	NA	NA	NA	NA	NA	NA	5.0 U	NA	NA	5.0 U
Carbon Disulfide	60	1.00 U	1.00 U	1.30 U	R	100 U	200 U	5.0 U	5.0 U	5.0 U	5.0 U	4.0 U	5.0 U	5.0 U
Cyclohexane	NL	1.00 U	1.00 U	1.00 U	R	100 U	200 U	5.0 U	5.0 U	5.0 U	5.0 U	4.0 U	5.0 U	5.0 U
Isopropylbenzene	5	1.00 U	1.00 U	1.00 U	R	100 U	200 U	5.0 U	23	5.0 U	37 J	5.0 U	4.0 U	4.6 J
Methyl tert-butyl ether	10	1.00 U	1.00 U	1.00 U	R	100 U	200 U	2.7 J	31	1.7 J	53 J	1.4 J	1.6 J	7.1
Methylcyclohexane	NL	1.00 U	1.00 U	1.00 U	R	100 U	200 U	7.0	1.3 J	5.0 U	1.3 J	0.48 J	4.0 U	18.0
Styrene	5	1.00 U	1.00 U	1.00 U	R	100 U	200 U	5.0 U	5.0 U	5.0 U	5.0 U	4.0 U	5.0 U	5.0 U
1,3,5-Trimethylbenzene	5	1.00 U	1.00 U	1.00 U	NA	NA	NA	NA	NA	NA	5.0 U	NA	NA	5.0 U
1,2,4-Trimethylbenzene	5	1.00 U	1.00 U	1.00 U	NA	NA	NA	NA	NA	NA	5.0 U	NA	NA	5.0 U
2-Butanone	50	10.0 U	10.0 U	10.0 U	R	1000 U	2000 U	16 J	50 U	12 J	50.0 U	8.8 J*	4.0 U	50 U
2-Hexanone	50	10.0 U	10.0 U	10.0 U	R	500 U	1000 U	25 U	25 U	25.0 U	25.0 U	25.0 U	4.0 U	25 U
4-Methyl-2-pentanone	NL	10.0 U	10.0 U	10.0 U	R	500 U	1000 U	25 U	25 U	25.0 U	5.0 U	25.0 U	4.0 U	25 U
n-Propylbenzene	5	1.00 U	1.00 U	1.00 U	NA	NA	NA	NA	NA	NA	5.0 U	NA	NA	NA
Naphthalene	10	5.00 U	5.00 U	5.00 U	NA	NA	NA	NA	NA	NA	5.0 U	NA	NA	NA
n-Butylbenzene	5	1.00 U	1.00 U	1.00 U	NA	NA	NA	NA	NA	NA	5.0 U	NA	NA	NA
sec-Butylbenzene	5	1.00 U	1.00 U	1.00 U	NA	NA	NA	NA	NA	NA	5.0 U	NA	NA	NA
VOC TICs	NA	None found	None found	None found	None found	None found	810 TJN	None found	66.0 TJN	55.0 TJN	160.0 TJN	149.3 TJN	None found	46.0 TJN
TOTAL VOCs	NA	544.32	531.19	85.18	6,803	5,557	19,030	205	247.4	423.3	614.2	875.1	260.2	606.4

Legend:
NL - Not Listed
NA indicates not applicable
Total VOCs - denotes summation of all detected compounds not including TICs (i.e., constituents below the detection limits are assumed to be zero).
TICs- Tentatively Indicated Compounds
Yellow highlighted values exceed NYSDEC Part 703 Groundwater Quality Standards
U - Indicates the compound was analyzed for as part of the standard list but not detected, with the detection limit shown as the value.
J - Indicates an estimated value
T- Result is a tentatively identified compound (TIC) and an estimated value
N- Presumptive evidence of material
F1- MS and/or MSD Recovery is outside acceptance limits.
** - Indicates a range approximately 5 feet above and below depth to top of pump during sampling
ML-7S not sampled during Post Injection Event 2 or 3. ML-25 not sampled during Post Injection Event 3. Wells were dry
Red text indicates a change made in the DUSR
R indicates the result was rejected in the DUSR
2020 data not yet validated

Former Emerson Street Landfill
P-1 Plume Design Phase Investigation
Table 2
Detected Volatile Organic Compounds (VOCs) in Groundwater
All Results in Micrograms Per Liter (ug/L) or about Parts per Billion (PPB)

Sample Location:		LAB-SBW-17 (42)	LAB-SBW-17 (52)	LAB-SBW-18 (38)	LAB-SBW-18 (47)	LAB-SBW-19 (35)	LAB-SBW-19 (47)	LAB-SBW-20 (35)	LAB-SBW-20 (34)	GMX-MW-3 (28)	GMX-MW-3 (30)		
Sample Depth Below Grade (Feet):		42	52	38	47	35	47		43	28	30		
Sample Date:		9/16/2020	9/16/2020	9/16/2020	9/16/2020	9/16/2020	9/16/2020	12/14/2020	12/14/2020	9/16/2020	9/16/2020		
Chlorinated VOCs	Part 703 Groundwater Quality Standards ug/L (ppb)												
Chloroethane	5	5.6	1.2	4.0	U	74	4.0	U	1.4	21	4.8	150	160
Chloromethane	NL	1.00	U	2.00	U	68	4.0	U	4.0	4.0	U	4.0	U
Chlorobenzene	5	1.00	U	2.00	U	4.0	U	4.0	U	4.0	U	4.0	U
Chloroform	7	1.00	U	2.00	U	4.0	U	4.0	U	4.0	U	4.0	U
cis-1,2-Dichloroethene	5	8.1	2.8	4.0	U	4.0	U	4.0	U	4.0	130.0	19.0	5.2
Dichlorodifluoromethane	5	1.00	U	2.00	U	4.0	U	4.0	U	4.0	U	4.0	U
1,1-Dichloroethene	5	1.00	U	2.00	U	4.0	U	4.0	U	4.0	U	4.0	U
1,1-Dichloroethane	5	15	14	2.9	J	3.9	J	4.3	3.4	89.0	34.0	4.0	U
1,2-Dichloroethane	5	1.00	U	2.00	U	4.0	U	4.0	U	4.0	U	4.0	U
1,4-Dichlorobenzene	3	1.00	U	2.00	U	4.0	U	4.0	U	4.0	U	4.0	U
Methylene chloride	5	1.3	JB	0.52	JB	4.9	B	3.5	JB	5.4	B	3.9	2.6
1,1,1-Trichloroethane	5	1.00	U	2.00	U	4.0	U	4.0	U	4.0	33.0	4.0	U
1,1,2-Trichlorotrifluoroethane	5	1.00	U	0.95	J	4.0	U	4.0	U	4.0	U	4.0	U
1,1,2-Trichloroethane	1	1.00	U	2.00	U	4.0	U	4.0	U	4.0	U	4.0	U
Tetrachloroethene	5	1.00	U	2.00	U	4.0	U	4.0	U	4.0	U	4.0	U
trans-1,2-Dichloroethene	5	2.0	U	2.1	U	4.0	U	4.0	U	4.0	U	4.0	U
Trichloroethene	5	1.00	U	1.2	U	4.0	U	4.0	U	4.0	8.6	4.0	U
Vinyl chloride	2	5.5	1.5	4.0	U	4.0	U	4.0	U	4.0	42.0	5.6	15
TOTAL CVOCs	NA	37.50	U	24.27		75.8		81.4		9.7		8.7	
BTEX VOCs													
Benzene	1	2.4	2.00	U	15	18	4.0	U	4.0	12	2.9	J	12
Toluene	5	1.00	U	2.00	U	4.0	U	4.0	U	4.0	2.8	J	4.0
Ethyl Benzene	5	1.00	U	2.00	U	4.0	U	4.0	U	4.0	U	4.0	U
m/p-Xylene	5	2.00	U	4.00	U	8.00	U	8.0	U	8.0	U	8.0	U
o-Xylene	5	2.00	U	4.00	U	8.00	U	8.0	U	8.0	U	8.0	U
TOTAL BTEX	NA	2.40		ND		15		18		ND		ND	
Other VOCs													
Acetone	50	10.0	U	20	U	40	U	40	U	40	U	40	U
Carbon Disulfide	60	2.00	U	0.32	J	4.0	U	4.0	U	4.0	U	4.0	U
Cyclohexane	NL	1.00	U	2.00	U	4.0	U	4.0	U	4.0	U	4.0	U
Isopropylbenzene	5	1.00	U	2.00	U	4.0	U	4.0	U	4.0	U	4.0	U
Methyl tert-butyl ether	10	7.0	U	0.27	J	61	63	4.3	2.2	1.2	J	4.0	U
Methylcyclohexane	NL	1.00	U	2.00	U	0.74	J	1.6	J	4.0	U	4.0	U
Styrene	5	1.00	U	2.00	U	4.0	U	4.0	U	4.0	U	4.0	U
2-Butanone	50	10.0	U	20	U	8.8	J	40	U	8.7	J	40	U
2-Hexanone	50	5.0	U	10	U	20	U	20	U	20	U	20	U
4-Methyl-2-pentanone	NL	5.0	U	10	U	20	U	20	U	20	U	20	U
VOC TICs	NA	None Found	None Found	40	TJ	46	TJN	None Found	None Found	NA	NA	13	TJN
TOTAL VOCs	NA	48.90		25		161		164		23		11	
TOTAL CONCENTRATION (VOCs + TICs)		48.90		25		201		210		23		11	

Legend:
NL - Not Listed
NA indicates not applicable
Total VOCs - denotes summation of all detected compounds not including TICs (i.e., constituents below the detection limits are assumed to be zero).
TICs- Tentatively Indicated Compounds
Yellow highlighted values exceed NYSDEC Part 703 Groundwater Quality Standards
U - Indicates the compound was analyzed for as part of the standard list but not detected, with the detection limit shown as the value.
J - Indicates an estimated value
T- Result is a tentatively identified compound (TIC) and an estimated value
N- Presumptive evidence of material
F1- MS and/or MSD Recovery is outside acceptance limits.
2020 data not yet validated

Former Emerson Street Landfill
P-1 Plume Design Phase Investigation
Table 2
Detected Volatile Organic Compounds (VOCs) in Groundwater
All Results in Micrograms Per Liter (ug/L) or about Parts per Billion (PPB)

Sample Location		LAB-SBW-03	LAB-SBW-07	LAB-SBW-07 (13:30)	LAB-SBW-07 (14:50)	LAB-SBW-07 (Bench Test Day 0)	LAB-SBW-07 (Column Test Day 0)	LAB-SBW-07 (Column Test Day 0) Dupe	LAB-SBW-07 (12:10)	LAB-SBW-07 (13:35)			
Sample Depth Below Grade (Feet)		30	32	32	32	32	32	32	32	32			
Sample Date		9/23/2020	9/23/2020	9/28/2020	9/28/2020	9/28/2020	9/28/2020	9/28/2020	11/30/2020	11/30/2020			
Chlorinated VOCs	Part 703 Groundwater Quality Standards ug/L (ppb)												
Chloroethane	5	12	28	32	26.5	99	19	23	10	2	U		
Chloromethane	NL	5.0	U	20	U	10.0	U	10.0	U	2	U		
Chlorobenzene	5	5.0	U	20	U	10.0	U	10.0	U	2	U		
Chloroform	7	5.0	U	20	U	10.0	U	12	U	6.2	U		
cis-1,2-Dichloroethene	5	110	880	795	525	340	460	630	79	58.5			
Dichlorodifluoromethane	5	5.0	U	20	U	10.0	U	10.0	U	2	U		
1,1-Dichloroethene	5	5.0	U	18	J	14.1	10.5	5.6	7.8	10.0	2	U	
1,1-Dichloroethane	5	26	690	682	478	300	450	610	102	89.6			
1,2-Dichloroethane	5	5.0	U	20	U	10.0	U	10.0	U	2.5	U		
1,4-Dichlorobenzene	3	5.0	U	20	U	10.0	U	10.0	U	6.2	U		
Methylene chloride	5	3.6	J	11	J	25.0	U	25.0	U	12	U		
1,1,1-Trichloroethane	5	17	380	389	256	160	220	310	35	25.7			
1,1,2-Trichlorotrifluoroethane	5	33	490	605	411	NA	170	370	116	90.8			
1,1,2-Trichloroethane	1	5.0	U	20	U	10.0	U	10.0	U	NA	2	U	
Tetrachloroethene	5	2.0	J	8.5	J	7.88	5.17	350	420	76	2	U	
trans-1,2-Dichloroethene	5	5.0	U	20	U	11	8.15	4.7	5.4	7.2	J	2.71	2.34
Trichloroethene	5	5.0	U	35	29.5	19.4	22	24	17	2.26	2	U	
Vinyl chloride	2	26	490	567	380	200	250	380	91.5	67.9			
TOTAL CVOCs	NA	230	3,031	3,132	2,120	1,481	2,026	2,433	438	U	335		
BTEX VOCs													
Benzene	1	4.2	J	12	J	10.6	7.95	5.2	3.6	3.9	2.78	2.24	
Toluene	5	3.1	J	130	112	67.9	40	3.2	3.3	29.6	22.1		
Ethyl Benzene	5	5.0	U	23	12.4	7.78	12	U	6.2	10.0	3.15	2.27	
m/p-Xylene	5	10	U	120	43.2	23.6	14	6.2	10.0	12.20	8.84		
o-Xylene	5	10	U	120	13.9	9.23	10	J	6.2	10.0	3.69	2.70	
TOTAL BTEX	NA	7.3	285	192	116	69	6.8	7.2	51	38			
Other VOCs													
Acetone	50	50	U	200	U	50.0	U	50.0	U	8.9	J	6.2	U
Carbon Disulfide	60	5.0	U	20	U	10.0	U	10.0	U	25	U	6.2	U
Cyclohexane	NL	5.0	U	20	U	50.0	U	50.0	U	NA	6.2	U	10
Isopropylbenzene	5	5.0	U	20	U	10.0	U	10.0	U	12	U	6.2	U
Methyl tert-butyl ether	10	5.0	U	20	U	10.0	U	10.0	U	12	U	6.2	U
Methylcyclohexane	NL	5.0	U	7.5	J	5.0	10.0	U	NA	6.2	U	10	U
Styrene	5	5.0	U	20	U	25.0	U	25.0	U	12	U	6.2	U
2-Butanone	50	50	U	200	U	50.0	U	50.0	U	25	U	6.2	U
2-Hexanone	50	25	U	100	U	25.0	U	25.0	U	25	U	6.2	U
4-Methyl-2-pentanone	NL	25	U	100	U	25.0	U	25.0	U	25	U	6.2	U
VOC TICs	NA	None found	167	TJ	None found	None found	NA	NA	NA	NA	NA	NA	
TOTAL VOCs	NA	237	3,323	3,330	2,236	1,559	2033	2440	489	373			
TOTAL CONCENTRATION (VOCs + TICs)		237	3,490	3,330	2,236	1,559	2033	2440	489	373			

Legend:
 NL - Not Listed
 NA indicates not applicable
 Total VOCs - denotes summation of all detected compounds not including TICs (i.e., constituents below the detection limits are assumed to be zero).
 TICs- Tentatively Indicated Compounds
 Yellow highlighted values exceed NYSDEC Part 703 Groundwater Quality Standards
 U - Indicates the compound was analyzed for as part of the standard list but not detected, with the detection limit shown as the value.
 J - Indicates an estimated value
 T- Result is a tentatively identified compound (TIC) and an estimated value
 N- Presumptive evidence of material
 F1- MS and/or MSD Recovery is outside acceptance limits.
 2020 data not yet validated

Former Emerson Street Landfill
P-1 Plume Design Phase Investigation
Table 2
Detected Volatile Organic Compounds (VOCs) in Groundwater
All Results in Micrograms Per Liter (ug/L) or about Parts per Billion (PPB)

Sample Location		Trip Blank		Trip Blank		Trip Blank	
Sample Depth Below Grade (Feet)		NA		NA		NA	
Sample Date		9/16/2020		9/23/2020		9/28/2020	
Chlorinated VOCs	Part 703 Groundwater Quality Standards ug/L (ppb)						
Chloroethane	5	1.00	U	1.0	U	2.00	U
Chloromethane	NL	1.00	U	1.0	U	2.00	U
Chlorobenzene	5	1.00	U	1.0	U	2.00	U
Chloroform	7	1.00	U	1.0	U	2.00	U
cis-1,2-Dichloroethene	5	1.00	U	1.0	U	2.00	U
Dichlorodifluoromethane	5	1.00	U	1.0	U	2.00	U
1,1-Dichloroethene	5	1.00	U	1.0	U	2.00	U
1,1-Dichloroethane	5	1.00	U	1.0	U	2.00	U
1,2-Dichloroethane	5	1.00	U	1.0	U	2.00	U
1,4-Dichlorobenzene	3	1.00	U	1.0	U	2.00	U
Methylene chloride	5	1.2	B	0.58	J	5.00	U
1,1,1-Trichloroethane	5	1.00	U	1.0	U	2.00	U
1,1,2-Trichlorotrifluoroethane	5	1.00	U	1.0	U	2.00	U
1,1,2-Trichloroethane	1	1.00	U	1.0	U	2.00	U
Tetrachloroethene	5	1.00	U	1.0	U	2.00	U
trans-1,2-Dichloroethene	5	1.00	U	1.0	U	2.00	U
Trichloroethene	5	1.00	U	1.0	U	2.00	U
Vinyl chloride	2	1.00	U	1.0	U	2.00	U
TOTAL CVOCs	NA	1.2		0.58		ND	
BTEX VOCs							
Benzene	1	1.00	U	1.0	U	1.00	U
Toluene	5	1.00	U	1.0	U	2.00	U
Ethyl Benzene	5	1.00	U	1.0	U	2.00	U
m/p-Xylene	5					2.00	U
o-Xylene	5	2.00	U	2.0	U	2.00	U
TOTAL BTEX	NA	ND	U	ND		ND	
Other VOCs							
Acetone	50	10.0	U	10	U	10.0	U
Carbon Disulfide	60	1.00	U	1.0	U	2.00	U
Cyclohexane	NL	1.00	U	1.0	U	10.00	U
Isopropylbenzene	5	1.00	U	1.0	U	2.00	U
Methyl tert-butyl ether	10	1.00	U	1.0	U	2.00	U
Methylcyclohexane	NL	1.00	U	1.0	U	2.00	U
Styrene	5	1.00	U	1.0	U	5.00	U
2-Butanone	50	10.0	U	10	U	10.0	U
2-Hexanone	50	5.0	U	5.0	U	5.00	U
4-Methyl-2-pentanone	NL	5.0	U	5.0	U	5.00	U
VOC TICs	NA	None Found		None found		None found	
TOTAL VOCs	NA	1.2		0.58		ND	
TOTAL CONCENTRATION (VOCs + TICs)		1.2		0.58		ND	

Legend:
NL - Not Listed
NA indicates not applicable
Total VOCs - denotes summation of all detected compounds not including TICs (i.e., constituents below the detection limits are assumed to be zero).
TICs- Tentatively Indicated Compounds
Yellow highlighted values exceed NYSDEC Part 703 Groundwater Quality Standards
U - Indicates the compound was analyzed for as part of the standard list but not detected, with the detection limit shown as the value.
J - Indicates an estimated value
T- Result is a tentatively identified compound (TIC) and an estimated value
N- Presumptive evidence of material
F1- MS and/or MSD Recovery is outside acceptance limits.
2020 data not yet validated

Table 3
Tracer Test
FESL P-1 Plume
Design Phase Investigation

Tracer Test Details:

Tracer Solution - 940 mg/L Br

Tracer Placement - ML-2 & IP-2 on 12/17/20 @ ~1030 am

IP-2 is approximately 16.5 ft. upgradient (north-northwest) of LBA-SBW-15

ML-2 approximately 6.5 ft. North of LBA-SBW-16

Well ID	LBA-SBW-15		LBA-SBW-16	
	Br ⁻	Cond.	Br ⁻	Cond.
	mg/L	µS	mg/L	µS
12/17/2020	< 0.5	--	< 0.5	--
12/18/2020	0.66	--	1.25	--
12/19/2020	0.75	2,862	1.43	4,617
12/20/2020	1.7	2,844	1.3	4,700
12/21/2020	< 0.5	2,735	1.3	4,700
12/22/2020	< 0.5	2,823	1.2	4,735
12/23/2020	3.55	2,758	3.11	4,699
12/24/2020	3.46	2,789	2.95	4,663
12/25/2020	Not Collected			
12/26/2020	3.62	2,935	2.87	4,761
12/27/2020	3.8	2,876	3.16	4,740
12/28/2020	* 1.3	2,865	* 0.76	4,792
12/29/2020	3.65	2,892	3.12	4,732
12/30/2020	2.82	2,817	2.62	4,670
12/31/2020	3.2	2,794	2.9	4,920
1/1/2021	Not Collected			
1/2/2021	Not Collected			
1/3/2021	3.43	2,997	2.91	4,789
1/4/2021	3.31	2,904	2.87	4,847
1/5/2021	3.8	--	2.85	--
1/6/2021	3.5	2,834	2.76	4,804
1/7/2021	3.56	2,863	3.06	4,770
1/8/2021	3.33	--	3.1	--
1/9/2021	Not Collected			
1/10/2021	Not Collected			
1/11/2021	3.47	--	3.3	--
1/12/2021	Not Collected			
1/13/2021	3.57	--	3.42	--
1/14/2021	Not Collected			
1/15/2021	1.32	--	0.961	--
1/16/2021	Not Collected			
1/17/2021	Not Collected			
1/18/2021	1.41	--	0.946	--

Notes:

-- Meter not available

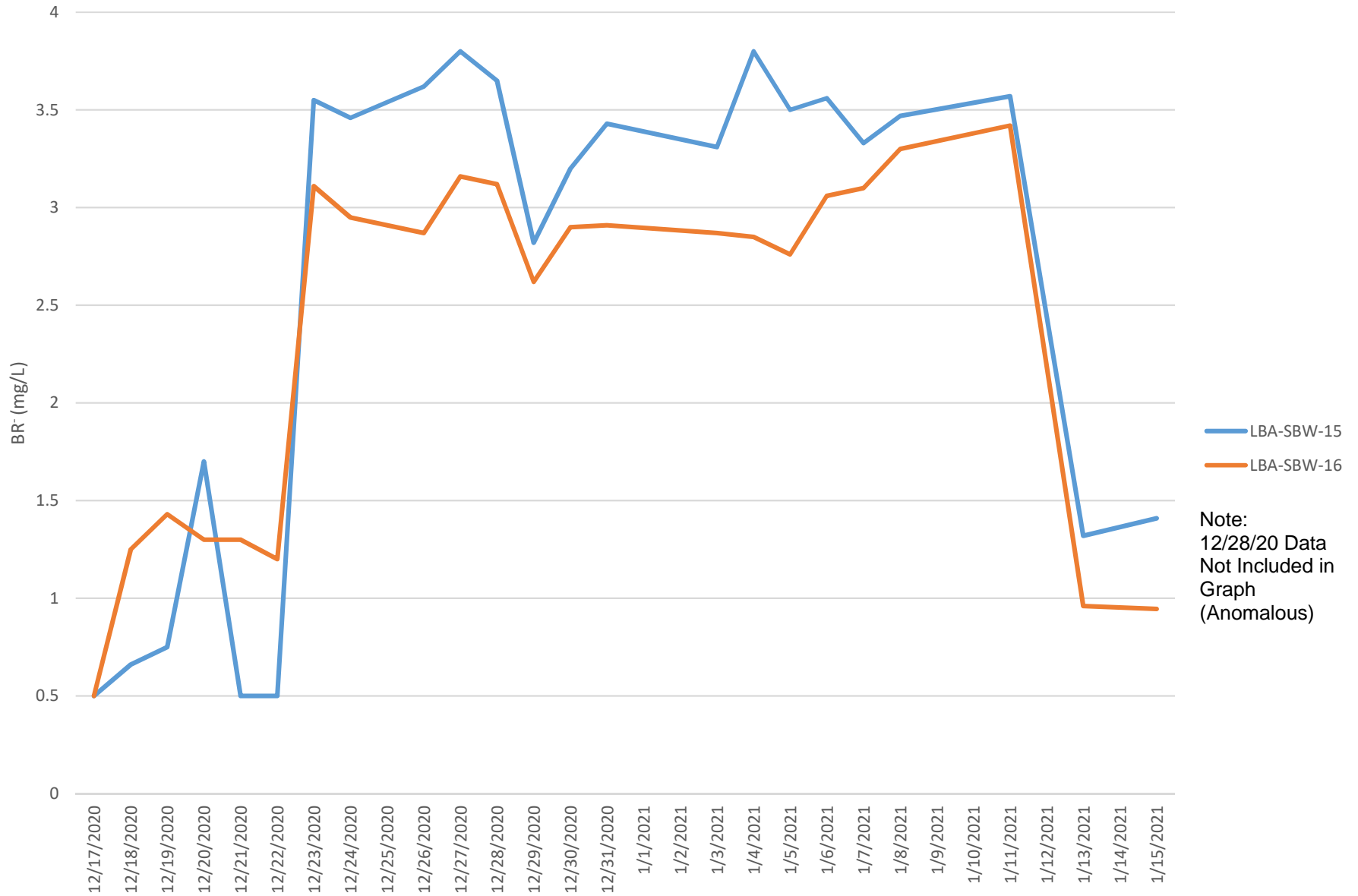
* denotes anomalous readings not included in Graph

Source Well Samples on 30th

ML-2: 23.5 mg/L Br & 4,034 µS

IP-2 - 231 mg/L Br & 2,214 µS

Table 3 - Graphical Representation
BR Tracer Test



Note:
12/28/20 Data
Not Included in
Graph
(Anomalous)



APPENDIX 1

Design Phase Investigation
Data Package

**Design Phase Investigation
Boring Logs/Well Construction Logs**

Boring Location
 NORTHING: _____ EASTING: _____ STATION: _____ OFFSET: _____
 HORIZONTAL DATUM: _____ STATION CENTERLINE: _____
 VERTICAL DATUM: _____ ESTIMATED GROUND SURFACE ELEV. (FT): _____
 LOCATION: Former Emerson St. Landfill

BORING
LAB-SBW-17
 PAGE 1 of 2

Drilling Information
 DATE START / END: 9/2/2020 - 9/3/2020 TOTAL DEPTH (FT): 53.0
 CONTRACTOR: Labella Associates DRILLER: Chris Stone LOGGED BY (Person): M. Cummings
 EQUIPMENT: CME 55 BORING METHOD: Hollow Stem Auger
 AUGER ID/OD: 4.25 in / 10 in CASING ID/OD: 4 in / N/A CORE INFO: Type: HQ
 HAMMER TYPE: Automatic HAMMER WEIGHT (lbs): 140 HAMMER DROP (inch): 30
 WATER LEVEL DEPTHS (ft): _____
 GENERAL NOTES: _____

ABBREVIATIONS: ID = Inside Diameter bpf = Blows per Foot U = Undisturbed Tube Sample WOR = Weight of Rods Q_v = Pocket Penetrometer Strength
 OD = Outside Diameter mpf = Minute per Foot C = Rock Core WOH = Weight of Hammer S_v = Pocket Torvane Shear Strength
 Pen. = Penetration Length S = Split Spoon V = Field Vane Shear RQD = Rock Quality Designation F_v = Field Vane Shear Strength
 Rec. = Recovery Length DP = Direct Push Sample SC = Sonic Core OVM = Organic Vapor Meter NA, NM = Not Applicable, Not Measured

Elev. (ft)	Depth (ft)	Casing Pen. (bpf) or Core Rate (mpf)	SAMPLE INFORMATION					GRAPHIC LOG	Sample Description & Classification	H ₂ O Depth	WELL CONSTRUCTION DETAILS
			Sample No.	Type	Depth (ft)	Pen./ Rec. (in)	Blows Count or RQD				
			1		0 to 5	60/23		OVM=0			4" permanent casing
	5							SOIL/FILL Light brown to dark grey fine to medium sand with silt and medium angular gravel. Few cobbles throughout (rig grinding). Moist, soft.			
								Frequent grinding on cobbles. No samples collected 5-15' bgs. Soil/fill returned in cuttings.			
	10								Frequent grinding on cobbles.		
	15		2		15 to 20	60/32		OVM=5.4			
	20		3		20 to 25	60/23		OVM=16.8			
									WASTE Black fine sand with fine rounded gravel, glass, metal fragementes, cinders. Dry to moist.		

GEOTECHNICAL BORING LOG 02_2017 MW LOGS.GPJ GEI TEMPLATE 11-7-13.GDT 12/17/20

Stratification lines represent approximate boundary between soil types, transitions may be gradual. Water level readings have been made at times and under conditions stated. Fluctuations of groundwater may occur due to other factors than those present at the time measurements were made.

CLIENT: City of Rochester
 PROJECT NAME: Fomer Emerson Street Landfill
 CITY/STATE: Rochester, New York
 GEI PROJECT NUMBER: 1331890

GEI Consultants, Inc. PC
 100 Sylvan Parkway Suite 400
 Amherst, NY 14228
 (716) 204-7154

Boring Location
NORTHING: _____ **EASTING:** _____ **STATION:** _____ **OFFSET:** _____
HORIZONTAL DATUM: _____ **STATION CENTERLINE:** _____
VERTICAL DATUM: _____ **ESTIMATED GROUND SURFACE ELEV. (FT):** _____
LOCATION: Former Emerson St. Landfill

BORING
LAB-SBW-17
 PAGE 2 of 2

Elev. (ft)	Depth (ft)	Casing Pen. (bpf) or Core Rate (mpf)	SAMPLE INFORMATION					GRAPHIC LOG	Sample Description & Classification	H ₂ O Depth	WELL CONSTRUCTION DETAILS
			Sample No.	Type	Depth (ft)	Pen./ Rec. (in)	Blows Count or RQD				
			4		25 to 30	60/22		OVM=18.5			4" permanent casing Open HQ bedrock corehole 33.0-53.0' bgs.
			5	⊗	30 to 30.5	6/2		OVM=0	Waste, as above (glass, wood fragments, few cinders.) Dry to moist. Sampler refusal at 30.5' bgs. Little weathered shale bedrock in sampler. Advance 4-1/4" HSA to 33' bgs to install 4" permanent casing.		
	30		R1		33 to 43	120/107	11	OVM=0	BEDROCK Lockport Fm./Penfield Member- Hard, grey to dark grey shaley dolomite/ dolomitic shale. Moderately to Intensely fractured, with frequent mechanical breaks along shale bedding plane partings, little vertical fracturing. Few small (<10mm dia.) vugs. Slightly weathered throughout.		
	35		R2		43 to 53	120/86	11	OVM=0	Moderately to intensely fractured throughout with little weathering present.		
	40										
	45										
	50										
	55										End of Boring at 53 feet

GEO TECHNICAL BORING LOG 02_2017 MW LOGS.GPJ GEI TEMPLATE 11-7-13.GDT 12/17/20

Stratification lines represent approximate boundary between soil types, transitions may be gradual. Water level readings have been made at times and under conditions stated. Fluctuations of groundwater may occur due to other factors than those present at the time measurements were made.

CLIENT: City of Rochester
PROJECT NAME: Fomer Emerson Street Landfill
CITY/STATE: Rochester, New York
GEI PROJECT NUMBER: 1331890


GEI Consultants, Inc. PC
 100 Sylvan Parkway Suite 400
 Amherst, NY 14228
 (716) 204-7154

Boring Location
NORTHING: _____ **EASTING:** _____ **STATION:** _____ **OFFSET:** _____
HORIZONTAL DATUM: _____ **STATION CENTERLINE:** _____
VERTICAL DATUM: _____ **ESTIMATED GROUND SURFACE ELEV. (FT):** _____
LOCATION: Former Emerson St. Landfill

BORING
LAB-SBW-18
 PAGE 1 of 2

Drilling Information
 DATE START / END: 9/1/2020 - 9/3/2020 TOTAL DEPTH (FT): 50.0
 CONTRACTOR: Labella Associates DRILLER: Chris Stone LOGGED BY (Person): M. Cummings
 EQUIPMENT: CME 55 BORING METHOD: Hollow Stem Auger
 AUGER ID/OD: 4.25 in / 10 in CASING ID/OD: 4 in / N/A CORE INFO: Type: HQ
 HAMMER TYPE: Automatic HAMMER WEIGHT (lbs): 140 HAMMER DROP (inch): 30
 WATER LEVEL DEPTHS (ft): _____
 GENERAL NOTES: _____

ABBREVIATIONS: ID = Inside Diameter bpf = Blows per Foot U = Undisturbed Tube Sample WOR = Weight of Rods Q_v = Pocket Penetrometer Strength
 OD = Outside Diameter mpf = Minute per Foot C = Rock Core WOH = Weight of Hammer S_v = Pocket Torvane Shear Strength
 Pen. = Penetration Length S = Split Spoon V = Field Vane Shear RQD = Rock Quality Designation F_v = Field Vane Shear Strength
 Rec. = Recovery Length DP = Direct Push Sample SC = Sonic Core OVM = Organic Vapor Meter NA, NM = Not Applicable, Not Measured

Elev. (ft)	Depth (ft)	Casing Pen. (bpf) or Core Rate (mpf)	SAMPLE INFORMATION					GRAPHIC LOG	Sample Description & Classification	H ₂ O Depth	WELL CONSTRUCTION DETAILS
			Sample No.	Type	Depth (ft)	Pen./ Rec. (in)	Blows Count or RQD				
			1		0 to 5	60/32		OVM=0	FILL Light brown fine sand with silt and little fine angular to subangular gravel, firm, dry to moist. As above, with trace metal fragments, moist throughout. WASTE Dark brown to black fine sand and silt, plastic pieces, glass, black cinders. Dry to moist. As above, abundant black cinders and glass fragments, light petroleum-like odor, dry to moist.		
	5		2		5 to 10	60/20		OVM=0.2			
	10		3		10 to 15	60/38		OVM=21.7			
	15		4		15 to 20	60/20		OVM=41.6			
	20		5		20 to 25	60/21		OVM=47.8			

GEOTECHNICAL BORING LOG 02_2017 MW LOGS.GPJ GEI TEMPLATE 11-7-13.GDT 12/17/20

Stratification lines represent approximate boundary between soil types, transitions may be gradual. Water level readings have been made at times and under conditions stated. Fluctuations of groundwater may occur due to other factors than those present at the time measurements were made.

CLIENT: City of Rochester
PROJECT NAME: Fomer Emerson Street Landfill
CITY/STATE: Rochester, New York
GEI PROJECT NUMBER: 1331890

GEI Consultants, Inc. PC
 100 Sylvan Parkway Suite 400
 Amherst, NY 14228
 (716) 204-7154



Boring Location
NORTHING: _____ **EASTING:** _____ **STATION:** _____ **OFFSET:** _____
HORIZONTAL DATUM: _____ **STATION CENTERLINE:** _____
VERTICAL DATUM: _____ **ESTIMATED GROUND SURFACE ELEV. (FT):** _____
LOCATION: Former Emerson St. Landfill

BORING
LAB-SBW-18
 PAGE 2 of 2

Elev. (ft)	Depth (ft)	Casing Pen. (bpf) or Core Rate (mpf)	SAMPLE INFORMATION					GRAPHIC LOG	Sample Description & Classification	H ₂ O Depth	WELL CONSTRUCTION DETAILS
			Sample No.	Type	Depth (ft)	Pen./ Rec. (in)	Blows Count or RQD				
			6		25 to 28	36/9			OVM=NA		← 4" permanent casing ← Open HQ bedrock corehole 30.0-50.0' bgs.
30			R1		30 to 40	120/108	0		OVM=0	BEDROCK Lockport Fm./Penfield Member- Hard, grey to dark grey shaley dolomite/ dolomitic shale. Moderately to Intensely fractured, with frequent mechanical breaks along shale bedding plane partings, little vertical fracturing. Few small (<10mm dia.) vugs. Slightly weathered throughout.	
40			R2		40 to 50	120/117	42		OVM=0	Moderately fractured below 40'bgs with frequent mechanical breaks along bedding planes. Slightly weathered throughout.	
50										End of Boring at 50 feet	
55											

Stratification lines represent approximate boundary between soil types, transitions may be gradual. Water level readings have been made at times and under conditions stated. Fluctuations of groundwater may occur due to other factors than those present at the time measurements were made.

CLIENT: City of Rochester
PROJECT NAME: Fomer Emerson Street Landfill
CITY/STATE: Rochester, New York
GEI PROJECT NUMBER: 1331890



GEI Consultants, Inc. PC
 100 Sylvan Parkway Suite 400
 Amherst, NY 14228
 (716) 204-7154

GEOTECHNICAL BORING LOG 02_2017 MW LOGS.GPJ GEI TEMPLATE 11-7-13.GDT 12/17/20

Boring Location
NORTHING: _____ **EASTING:** _____ **STATION:** _____ **OFFSET:** _____
HORIZONTAL DATUM: _____ **STATION CENTERLINE:** _____
VERTICAL DATUM: _____ **ESTIMATED GROUND SURFACE ELEV. (FT):** _____
LOCATION: Former Emerson St. Landfill

BORING
LAB-SBW-19
 PAGE 1 of 2

Drilling Information
 DATE START / END: 8/31/2020 - 9/3/2020 TOTAL DEPTH (FT): 43.2
 CONTRACTOR: Labella Associates DRILLER: Chris Stone LOGGED BY (Person): M. Cummings
 EQUIPMENT: CME 55 BORING METHOD: Hollow Stem Auger
 AUGER ID/OD: 4.25 in / 10 in CASING ID/OD: 4 in / N/A CORE INFO: Type: HQ
 HAMMER TYPE: Automatic HAMMER WEIGHT (lbs): 140 HAMMER DROP (inch): 30
 WATER LEVEL DEPTHS (ft): _____
 GENERAL NOTES: _____

ABBREVIATIONS: ID = Inside Diameter bpf = Blows per Foot U = Undisturbed Tube Sample WOR = Weight of Rods Q_v = Pocket Penetrometer Strength
 OD = Outside Diameter mpf = Minute per Foot C = Rock Core WOH = Weight of Hammer S_v = Pocket Torvane Shear Strength
 Pen. = Penetration Length S = Split Spoon V = Field Vane Shear RQD = Rock Quality Designation F_v = Field Vane Shear Strength
 Rec. = Recovery Length DP = Direct Push Sample SC = Sonic Core OVM = Organic Vapor Meter NA, NM = Not Applicable, Not Measured

Elev. (ft)	Depth (ft)	Casing Pen. (bpf) or Core Rate (mpf)	SAMPLE INFORMATION					GRAPHIC LOG	Sample Description & Classification	H ₂ O Depth	WELL CONSTRUCTION DETAILS
			Sample No.	Type	Depth (ft)	Pen./ Rec. (in)	Blows Count or RQD				
			1		0 to 5	60/30		OVM=0		SOIL/FILL Light brown fine sand with silt, trace fine rounded gravel, loose, dry As above, frequent grinding on cobbles. WASTE Dark brown to black fine sand with silt, plastic pieces, glass, moist, slight petroleum-like odor. Black cinders with glass fragments, slight petroleum-like odor. Poor recovery, as above in sampling shoe. Sampler refusal at 20.7' bgs. Advance 3-7/8" roller bit and 4-1/4" HSA from 20.7- 21.7'. Bedrock confirmed at 21.7' bgs. Advance 4-1/4" HSA to 23.2' bgs to install 4" permanent casing. BEDROCK Lockport Fm./Penfield Member- Hard, grey to dark grey shaley dolomite/ dolomitic shale. Intensely fractured throughout, with frequent mechanical breaks along shale bedding plane	4" permanent casing 4" permanent casing
	5		2		5 to 7	24/17		OVM=0			
			3		7 to 9	24/8		OVM=0.1			
	10		4		9 to 11	24/8		OVM=2.5			
			5		11 to 13	24/6		OVM=18.7			
	15		6		13 to 15	24/24		OVM=165			
			7		15 to 17	24/14		OVM=148			
			8		17 to 19	24/2		OVM=NA			
	20		9		19 to 21	24/0		OVM=NA			
			R1		23.2 to 33.2	120/86	0	OVM=0			

Stratification lines represent approximate boundary between soil types, transitions may be gradual. Water level readings have been made at times and under conditions stated. Fluctuations of groundwater may occur due to other factors than those present at the time measurements were made.

CLIENT: City of Rochester
PROJECT NAME: Fomer Emerson Street Landfill
CITY/STATE: Rochester, New York
GEI PROJECT NUMBER: 1331890


GEI Consultants, Inc. PC
 100 Sylvan Parkway Suite 400
 Amherst, NY 14228
 (716) 204-7154

GEOTECHNICAL BORING LOG 02 - 2017 MW LOGS.GPJ GEI TEMPLATE 11-7-13.GDT 12/17/20

Boring Location

NORTHING: _____ EASTING: _____ STATION: _____ OFFSET: _____
HORIZONTAL DATUM: _____ STATION CENTERLINE: _____
VERTICAL DATUM: _____ ESTIMATED GROUND SURFACE ELEV. (FT): _____
LOCATION: Former Emerson St. Landfill

BORING

LAB-SBW-19

PAGE 2 of 2

Elev. (ft)	Depth (ft)	Casing Pen. (bpf) or Core Rate (mpf)	SAMPLE INFORMATION					GRAPHIC LOG	Sample Description & Classification	H ₂ O Depth	WELL CONSTRUCTION DETAILS
			Sample No.	Type	Depth (ft)	Pen./Rec. (in)	Blows Count or RQD				
	30		R2	33.2 to 40	82/40	0	OVM=0	partings, no vertical fracturing observed. Few small (<10mm dia.) vugs. Slightly weathered throughout. As above, intensely fractured throughout with slight weathering. Few small 10mm diameter vugs exhibiting partial calcite infilling.		← Open HQ bedrock corehole 23.2-43.2' bgs.	
	40							End of Boring at 43.2 feet			
	45										
	50										
	55										

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100 Sylvan Parkway Suite 400
Amherst, NY 14228
(716) 204-7154

Boring Location
NORTHING: _____ **EASTING:** _____ **STATION:** _____ **OFFSET:** _____
HORIZONTAL DATUM: _____ **STATION CENTERLINE:** _____
VERTICAL DATUM: _____ **ESTIMATED GROUND SURFACE ELEV. (FT):** _____
LOCATION: Former Emerson St. Landfill

BORING
LAB-SBW-20
 PAGE 1 of 2

Drilling Information
 DATE START / END: 12/7/2020 - 12/8/2020 TOTAL DEPTH (FT): 48.6
 CONTRACTOR: Labella Associates DRILLER: Chris Stone LOGGED BY (Person): K. Truong / M. Cummings
 EQUIPMENT: CME 55 BORING METHOD: Hollow Stem Auger
 AUGER ID/OD: 4.25 in / 10 in CASING ID/OD: 4 in / N/A CORE INFO: Type: HQ
 HAMMER TYPE: Automatic HAMMER WEIGHT (lbs): 140 HAMMER DROP (inch): 30
 WATER LEVEL DEPTHS (ft): _____
 GENERAL NOTES: _____

ABBREVIATIONS: ID = Inside Diameter bpf = Blows per Foot U = Undisturbed Tube Sample WOR = Weight of Rods Q_v = Pocket Penetrometer Strength
 OD = Outside Diameter mpf = Minute per Foot C = Rock Core WOH = Weight of Hammer S_v = Pocket Torvane Shear Strength
 Pen. = Penetration Length S = Split Spoon V = Field Vane Shear RQD = Rock Quality Designation F_v = Field Vane Shear Strength
 Rec. = Recovery Length DP = Direct Push Sample SC = Sonic Core OVM = Organic Vapor Meter NA, NM = Not Applicable, Not Measured

Elev. (ft)	Depth (ft)	Casing Pen. (bpf) or Core Rate (mpf)	SAMPLE INFORMATION					FIELD TEST DATA	GRAPHIC LOG	Sample Description & Classification	H ₂ O Depth	WELL CONSTRUCTION DETAILS
			Sample No.	Type	Depth (ft)	Pen./ Rec. (in)	Blows Count or RQD					
			1		0 to 2	24/6	2-3-5-7	OVM=0.0			4" permanent casing	
			2		2 to 4	24/6	11-32-25-15	OVM=3.7		SOIL/FILL Grey to dark brown crushed angular limestone gravel, sandy silt, some organics.		
			3		4 to 6	24/11	13-8-5-5	OVM=0.1				
			4		6 to 8	24/15	7-11-10-10	OVM=0.0		As above, fine to coarse gravel, light brown sandy silt with little grey clay.		
			5		8 to 10	24/12	4-7-5-4	OVM=0.0				
			6		10 to 12	24/11	8-4-2-2	OVM=2.0				
			7		12 to 14	24/11	5-7-11-14	OVM=0.0				
			8		14 to 16	24/15	5-4-2-2	OVM=0.0		WASTE Black cinders, ash like material, gravel, glass.		
			9		16 to 18	24/13	10-4-3-3	OVM=4.7		WASTE as above.		
			10		18 to 20	24/7	4-5-4-5	OVM=4.1				
			11		20 to 22	24/11	10-8-8-12	OVM=0.0				
			12		22 to 24	24/7	4-5-4-5	OVM=3.0		WASTE Black-grey sandy silt, reworked with coarse angular gravel fill mixed with ash like material, glass.		
			13		24 to	24/3	10-5-8-3	OVM=3.2				
								OVM=0.3				
								OVM=0.0				
								OVM=2.0				

Stratification lines represent approximate boundary between soil types, transitions may be gradual. Water level readings have been made at times and under conditions stated. Fluctuations of groundwater may occur due to other factors than those present at the time measurements were made.

CLIENT: City of Rochester
PROJECT NAME: Fomer Emerson Street Landfill
CITY/STATE: Rochester, New York
GEI PROJECT NUMBER: 1331890


GEI Consultants, Inc. PC
 100 Sylvan Parkway Suite 400
 Amherst, NY 14228
 (716) 204-7154

GEOTECHNICAL BORING LOG 02 - 2017 MW LOGS.GPJ GEI TEMPLATE 11-7-13.GDT 1/6/21

Boring Location
NORTHING: _____ **EASTING:** _____ **STATION:** _____ **OFFSET:** _____
HORIZONTAL DATUM: _____ **STATION CENTERLINE:** _____
VERTICAL DATUM: _____ **ESTIMATED GROUND SURFACE ELEV. (FT):** _____
LOCATION: Former Emerson St. Landfill

BORING
LAB-SBW-20
 PAGE 2 of 2

Elev. (ft)	Depth (ft)	Casing Pen. (bpf) or Core Rate (mpf)	SAMPLE INFORMATION				Field Test Data	GRAPHIC LOG	Sample Description & Classification	H ₂ O Depth	WELL CONSTRUCTION DETAILS
			Sample No.	Type	Depth (ft)	Pen./ Rec. (in)					
			14	26	24/0	10-50/3	OVM=0.1 OVM=NA		Sampler refusal at 26.8' bgs. Advance 3-7/8" roller bit and 4-1/4" HSA from 26.8 to 28.0' bgs to install 4" permanent casing. BEDROCK Lockport Fm./Penfield Member- Hard, light grey to grey shaley dolomite/ dolomitic shale. Intensely fractured throughout, with frequent mechanical breaks along shale bedding plane partings, no vertical fracturing observed. Few small (<10mm dia.) vugs. Slightly weathered throughout.		
			R1	26 to 28	120/87	0	OVM=0				
			R2 R3	28 to 38	7/1 120/120	0 8	OVM=0 OVM=0				
	30										
	35										
	40			38 to 38.6 38.6 to 48.6							
	45										
	50							End of Boring at 48.6 feet			
	55										

Stratification lines represent approximate boundary between soil types, transitions may be gradual. Water level readings have been made at times and under conditions stated. Fluctuations of groundwater may occur due to other factors than those present at the time measurements were made.

CLIENT: City of Rochester
PROJECT NAME: Fomer Emerson Street Landfill
CITY/STATE: Rochester, New York
GEI PROJECT NUMBER: 1331890


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GEOTECHNICAL BORING LOG 02_2017 MW LOGS.GPJ GEI TEMPLATE 11-7-13.GDT 1/6/21

← Open HQ bedrock corehole 28.0-48.6 bgs.

**Design Phase Investigation
Well Development Logs**



300 State Street
 Rochester, New York 14614
 Telephone: (585) 454-6110
 Facsimile: (585) 454-3066

Project Name: FESL (Former Emerson Street Landfill)
 Location: 1700 Emerson Street, Rochester New York
 Project No.: 210173
 Sampled By: K. Truong
 Date: 9/8/2020
 Weather: _____

WELL I.D.: LAB-SBW-17

WELL DEVELOPMENT INFORMATION

Well Diameter: 2" Static Water Level: _____
 Depth of Well: _____ Length of Well Screen: _____
 Measuring Point: Top of Casing Depth to Top of Pump: _____
 Pump Type: Grundfos Tubing Type: LDPE

FIELD PARAMETER MEASUREMENT

Time	Pump Rate (mL/min)	Gallons Purged	pH	Temp °C	Conductivity (mS/cm)	Turbidity (NTU)	Dissolved O ₂ (mg/L)	Redox (mV)	Depth to Water	Comments
			+/- 0.1	+ 10%	+/- 3%	+ 10%	+ 10%	+/- 10 mV	Ft. BGS	
1240		20	8.25	13.9	3.772	1784	5.27	-7.8	40.55	
1250		20	7.75	13.6	3.734	409.41	4.35	-25.1	40.55	
1300		20	7.78	13.2	3.718	230.41	5.68	-30.1	40.55	
1310		20	7.49	12.7	3.659	175.32	4.55	-46.6	40.55	
1320		20	7.48	13.8	3.616	70.00	5.26	-38.4	40.55	
1330		20	7.10	12.8	3.604	27.07	3.29	-59.4	40.55	

Total 120 Gallons Purged

Purge Time Start: 1240 Purge Time End: 1330 Final Static Water Level: 40.55

OBSERVATIONS



300 State Street
 Rochester, New York 14614
 Telephone: (585) 454-6110
 Facsimile: (585) 454-3066

WELL I.D.: LAB-SBW-18

Project Name: FESL (Former Emerson Street Landfill)
 Location: 1700 Emerson Street, Rochester New York
 Project No.: 210173
 Sampled By: K. Truong
 Date: 9/8/2020
 Weather: _____

WELL DEVELOPMENT INFORMATION

Well Diameter: 2" Static Water Level: _____
 Depth of Well: _____ Length of Well Screen: _____
 Measuring Point: Top of Casing Depth to Top of Pump: _____
 Pump Type: Grundfos Tubing Type: LDPE

FIELD PARAMETER MEASUREMENT

Time	Pump Rate (mL/min)	Gallons Purged	pH	Temp °C	Conductivity (mS/cm)	Turbidity (NTU)	Dissolved O ₂ (mg/L)	Redox (mV)	Depth to Water	Comments
			+/- 0.1	+ 10%	+/- 3%	+ 10%	+ 10%	+/- 10 mV	Ft. BGS	
1045		5	6.73	13.2	3.08	--	--	74.3	36.75	
1105		15	7.2	12.8	3.29	11	4.08	-1.9		
1110		15	7.30	12.7	3.305	7.59	3.38	-2.8		
1115		15	7.85	12.7	3.33	3.04	3.37	-2.4	36.85	
1120		15	7.20	12.8	3.371	5.95	3.23	-19.8	36.9	
1125		15	7.20	12.9	3.375	5.31	3.11	-25.0		
1130		15	7.21	12.7	3.343	24.07	3.44	-41.1	36.96	

Total 95 Gallons Purged

Purge Time Start: 1045 Purge Time End: 1130 Final Static Water Level: 36.96

OBSERVATIONS



300 State Street
 Rochester, New York 14614
 Telephone: (585) 454-6110
 Facsimile: (585) 454-3066

WELL I.D.: LAB-SBW-19

Project Name: FESL (Former Emerson Street Landfill)
Location: 1700 Emerson Street, Rochester New York
Project No.: 210173
Sampled By: K. Truong
Date: 9/8/2020
Weather: _____

WELL DEVELOPMENT INFORMATION

Well Diameter: 2" **Static Water Level:** 32.18
Depth of Well: _____ **Length of Well Screen:** _____
Measuring Point: Top of Casing **Depth to Top of Pump:** _____
Pump Type: Grundfos **Tubing Type:** _____

FIELD PARAMETER MEASUREMENT

Time	Pump Rate (mL/min)	Gallons Purged	pH	Temp °C	Conductivity (mS/cm)	Turbidity (NTU)	Dissolved O ₂ (mg/L)	Redox (mV)	Depth to Water	Comments
			+/- 0.1	+ 10%	+/- 3%	+ 10%	+ 10%	+/- 10 mV	Ft. BGS	
0825		5	7.94	13.3	3.699	161.65	4.43	36.7	37.18	
0835			7.77	13.3	3.536	51.50	5.47	-4.6		
0846			7.63	13.5	3.587	6.72	5.02	-12.8	42.48	
0924			7.48	13.1	3.483	3.00	3.18	-61.9	42.65	
0935		75	7.47	13.2	3.485	5.85	4.09	-90.5	47.68	

Total 75 Gallons Purged

Purge Time Start: 0825 Purge Time End: 0935 Final Static Water Level: 47.68

OBSERVATIONS

**Design Phase Investigation
Groundwater Sampling Logs**



300 State Street
 Rochester, New York 14614
 Telephone: (585) 454-6110
 Facsimile: (585) 454-3066

WELL I.D.: LAB-SBW-15

Project Name: FESL (Former Emerson Street Landfill)
 Location: 1700 Emerson Street, Rochester New York
 Project No.: 210173
 Sampled By: K. Truong
 Date: 12/7/2020
 Weather: 34 °F/Snowy

WELL SAMPLING INFORMATION

Well Diameter: 2" Static Water Level: 27.2
 Depth of Well: _____ Length of Well Screen: _____
 Measuring Point: Top of Casing Depth to Top of Pump: 35'
 Pump Type: Whale Pump Tubing Type: LDPE

FIELD PARAMETER MEASUREMENT

Time	Pump Rate (mL/min)	Gallons Purged	pH	Temp °C	Conductivity (mS/cm)	Turbidity (NTU)	Dissolved O ₂ (mg/L)	Redox (mV)	Depth to Water	Comments
			+/- 0.1	+ 10%	+/- 3%	+ 10%	+ 10%	+/- 10 mV	Ft. BGS	
1515			7.05	10.8	3.101	11.66	1.22	-104.2	27.2	
1520			6.84	11.4	3.389	4.92	0.00	-117.0	27.2	
1525			6.87	11.5	4.627	3.54	-0.11	-115.7	27.3	
1530			6.91	11.5	4.802	2.33	-0.16	-123.8	27.3	
1535			6.92	11.5	4.838	1.94	-0.17	-124.9	27.3	
1540			6.92	11.5	4.859	1.97	-0.18	-127.0	27.3	
1545			6.92	11.5	4.869	1.78	-0.19	-128.6	27.3	

Total _____ Gallons Purged

Purge Time Start: 1515 Purge Time End: 1545 Final Static Water Level: 27.3

OBSERVATIONS

Took readings before coring LAB-SBW-20



300 State Street
 Rochester, New York 14614
 Telephone: (585) 454-6110
 Facsimile: (585) 454-3066

Project Name: FESL (Former Emerson Street Landfill)
 Location: 1700 Emerson Street, Rochester New York
 Project No.: 210173
 Sampled By: K. Truong
 Date: 12/7/2020
 Weather: 34°F/Snowy

WELL I.D.: LAB-SBW-16

WELL SAMPLING INFORMATION

Well Diameter: 2" Static Water Level: 31.72'
 Depth of Well: _____ Length of Well Screen: _____
 Measuring Point: Top of Casing Depth to Top of Pump: _____
 Pump Type: Whale Pump Tubing Type: LDPE

FIELD PARAMETER MEASUREMENT

Time	Pump Rate (mL/min)	Gallons Purged	pH	Temp °C	Conductivity (mS/cm)	Turbidity (NTU)	Dissolved O ₂ (mg/L)	Redox (mV)	Depth to Water	Comments
			+/- 0.1	+ 10%	+/- 3%	+ 10%	+ 10%	+/- 10 mV	Ft. BGS	
1429			6.74	11.6	4.393	6.44	0.83	-77.9	31.72	
1434			6.78	11.8	4.700	2.43	0.06	-102.7	20.8	
1439			6.76	11.8	4.781	2.55	-0.06	-105.6	31.0	
1444			6.74	11.8	4.822	2.49	-0.09	-105.3	31.0	
1449			6.74	11.8	4.832	2.61	-0.11	-107.7	31.0	
1453			6.74	11.8	4.844	2.48	-0.13	-108.7	31.0	

Total _____ Gallons Purged

Purge Time Start: 1429 Purge Time End: 1453 Final Static Water Level: 31.0

OBSERVATIONS

Before installing well LAB-SBW-20



300 State Street
 Rochester, New York 14614
 Telephone: (585) 454-6110
 Facsimile: (585) 454-3066

Project Name: FESL (Former Emerson Street Landfill)
 Location: 1700 Emerson Street, Rochester New York
 Project No.: 210173
 Sampled By: K. Truong
 Date: 12/9/2020
 Weather: 34°F/Snowy

WELL I.D.: LAB-SBW-07

WELL SAMPLING INFORMATION

Well Diameter: 2" Static Water Level: 29.7'
 Depth of Well: 39.7' Length of Well Screen: _____
 Measuring Point: Top of Casing Depth to Top of Pump: 35'
 Pump Type: Whale Pump Tubing Type: LDPE

FIELD PARAMETER MEASUREMENT

Time	Pump Rate (mL/min)	Gallons Purged	pH	Temp °C	Conductivity (mS/cm)	Turbidity (NTU)	Dissolved O ₂ (mg/L)	Redox (mV)	Depth to Water	Comments
			+/- 0.1	+ 10%	+/- 3%	+ 10%	+ 10%	+/- 10 mV	Ft. BGS	
0845			6.85	10.7	5.334	9.29	2.15	-105.8		
0850			6.67	11.5	5.297	1.97	-0.03	-134.9		
0855			6.67	11.6	5.244	2.05	-0.11	-141.2		
0900			6.67	11.6	5.183	1.83	-0.15	-148.9		

Total _____ Gallons Purged

Purge Time Start: 0845 Purge Time End: 0900 Final Static Water Level: 29.7

OBSERVATIONS

Before developing LAB-SBW-20



300 State Street
 Rochester, New York 14614
 Telephone: (585) 454-6110
 Facsimile: (585) 454-3066

WELL I.D.: LAB-SBW-15

Project Name: FESL (Former Emerson Street Landfill)
 Location: 1700 Emerson Street, Rochester New York
 Project No.: 210173
 Sampled By: K. Truong
 Date: 12/9/2020
 Weather: 34°F/Snowy

WELL SAMPLING INFORMATION

Well Diameter: 2" Static Water Level: 27.4'
 Depth of Well: _____ Length of Well Screen: _____
 Measuring Point: Top of casing Depth to Top of Pump: _____
 Pump Type: Whale pump Tubing Type: LDPE

FIELD PARAMETER MEASUREMENT

Time	Pump Rate (mL/min)	Gallons Purged	pH	Temp °C	Conductivity (mS/cm)	Turbidity (NTU)	Dissolved O ₂ (mg/L)	Redox (mV)	Depth to Water	Comments
			+/- 0.1	+ 10%	+/- 3%	+ 10%	+ 10%	+/- 10 mV	Ft. BGS	
1100			6.96	11.0	4.826	0.29	0.29	-127.1	27.4	
1105			6.95	11.1	4.910	-0.09	-0.09	-149.7	27.4	
1110			6.95	11.1	4.926	-0.14	-0.14	-152.4	27.4	
1115			6.94	11.1	4.936	-0.17	-0.17	-155.0	27.4	
1120			6.94	11.2	4.941	-0.20	-0.20	-157.7	27.4	

Total _____ Gallons Purged

Purge Time Start: 1100 Purge Time End: 1120 Final Static Water Level: 27.4

OBSERVATIONS

Before development LAB-SBW-20



300 State Street
 Rochester, New York 14614
 Telephone: (585) 454-6110
 Facsimile: (585) 454-3066

WELL I.D.: LAB-SBW-16

Project Name: FESL (Former Emerson Street Landfill)
 Location: 1700 Emerson Street, Rochester New York
 Project No.: 210173
 Sampled By: K. Truong
 Date: 12/9/2020
 Weather: 34° F/Snowy

WELL SAMPLING INFORMATION

Well Diameter: 2" Static Water Level: 31.2
 Depth of Well: _____ Length of Well Screen: _____
 Measuring Point: Top of Casing Depth to Top of Pump: _____
 Pump Type: Whale Pump Tubing Type: LDPE

FIELD PARAMETER MEASUREMENT

Time	Pump Rate (mL/min)	Gallons Purged	pH	Temp °C	Conductivity (mS/cm)	Turbidity (NTU)	Dissolved O ₂ (mg/L)	Redox (mV)	Depth to Water	Comments
			+/- 0.1	+ 10%	+/- 3%	+ 10%	+ 10%	+/- 10 mV	Ft. BGS	
1000			6.80	11.6	4.997	3.85	0.26	-128.9	31.2	
1005			6.75	11.7	4.964	2.00	-0.05	-138.3	31.2	
1010			6.74	11.7	4.963	1.70	-0.13	-141.4	31.2	
1015			6.74	11.7	4.953	1.60	-0.17	-144.7	31.2	
1020			6.75	11.7	4.943	1.45	-0.19	-147.8	31.2	

Total _____ Gallons Purged

Purge Time Start: 1000 Purge Time End: 1020 Final Static Water Level: 31.2

OBSERVATIONS

Before development of LAB-SBW-20



300 State Street
 Rochester, New York 14614
 Telephone: (585) 454-6110
 Facsimile: (585) 454-3066

Project Name: FESL (Former Emerson Street Landfill)
 Location: 1700 Emerson Street, Rochester New York
 Project No.: 210173
 Sampled By: K. Truong
 Date: 12/9/2020
 Weather: 35°F/Snow

WELL I.D.: LAB-SBW-20

WELL SAMPLING INFORMATION

Well Diameter: 2" Static Water Level: 31.1
 Depth of Well: 49.3 Length of Well Screen: _____
 Measuring Point: Top of casing Depth to Top of Pump: 40'
 Pump Type: Grunfos Pump Tubing Type: LDPE

FIELD PARAMETER MEASUREMENT

Time	Pump Rate (mL/min)	Gallons Purged	pH	Temp °C	Conductivity (mS/cm)	Turbidity (NTU)	Dissolved O ₂ (mg/L)	Redox (mV)	Depth to Water	Comments
			+/- 0.1	+ 10%	+/- 3%	+ 10%	+ 10%	+/- 10 mV	Ft. BGS	
1238			7.12	12.6	4.886	205.00	2.81	3.1	31.1	
1243			6.98	12.9	4.873	90.07	2.24	-9.0	31.1	
1248			6.97	13.3	4.861	80.00	2.03	-7.7	31.1	
1253			6.95	13.3	4.857	55.92	1.90	-4.9	31.1	
1258			6.95	13.3	4.852	79.00	1.95	-1.6	31.1	
1303			6.94	13.5	4.864	62.16	1.90	1.4	31.1	
1308			6.94	13.5	4.857	48.92	1.87	5.3	31.1	
1313			6.93	13.4	4.860	46.57	1.79	8.4	31.1	
1318			6.93	13.8	4.866	54.00	1.73	11.5	31.1	Increased pump rate
1323			7.11	2.9	4.843	43.00	2.83	9.7	31.1	
1328			6.95	12.9	4.827	48.92	1.65	16.7	31.1	
1333			6.95	12.8	4.817	36.17	1.55	18.7	31.1	
1338			6.96	12.9	4.817	37.25	1.55	19.8	31.1	
1344			6.97	12.7	4.797	22.46	1.61	21.5	31.1	
1350			7.18	12.7	4.848	100.00	4.32	62.3	31.1	
1355			6.96	12.8	4.812	29.19	1.77	38.5	31.1	

Total ~36 Gallons Purged

Purge Time Start: 1238 Purge Time End: 1355 Final Static Water Level: 31.1

OBSERVATIONS

1 well volume: 11.88 gallons



300 State Street
 Rochester, New York 14614
 Telephone: (585) 454-6110
 Facsimile: (585) 454-3066

WELL I.D.: LAB-SBW-07

Project Name: FESL (Former Emerson Street Landfill)
 Location: 1700 Emerson Street, Rochester New York
 Project No.: 210173
 Sampled By: K. Truong
 Date: 12/9/2020
 Weather: 35°F/Snow

WELL SAMPLING INFORMATION

Well Diameter: 2"
 Depth of Well: 39.7'
 Measuring Point: Top of Casing
 Pump Type: Whale Pump

Static Water Level: 29.7'
 Length of Well Screen: _____
 Depth to Top of Pump: 35'
 Tubing Type: LDPE

FIELD PARAMETER MEASUREMENT

Time	Pump Rate (mL/min)	Gallons Purged	pH	Temp °C	Conductivity (mS/cm)	Turbidity (NTU)	Dissolved O ₂ (mg/L)	Redox (mV)	Depth to Water	Comments
			+/- 0.1	+ 10%	+/- 3%	+ 10%	+ 10%	+/- 10 mV	Ft. BGS	
1517			6.78	11.5	5.265	1.91	0.37	-150.1	29.7	
1523			6.72	11.6	5.260	1.85	-0.09	-172.8	29.7	
1527			6.71	11.6	5.121	1.84	-0.18	-182.0	29.7	
1533			6.71	11.6	5.178	1.57	-0.20	-185.5	29.7	

Total _____ Gallons Purged

Purge Time Start: 1517 Purge Time End: 1533 Final Static Water Level: 29.7

OBSERVATIONS

After developing LAB-SBW-20



300 State Street
 Rochester, New York 14614
 Telephone: (585) 454-6110
 Facsimile: (585) 454-3066

WELL I.D.: LAB-SBW-16

Project Name: FESL (Former Emerson Street Landfill)
 Location: 1700 Emerson Street, Rochester New York
 Project No.: 210173
 Sampled By: K. Truong
 Date: 12/9/2020
 Weather: 34°F/Snowy

WELL SAMPLING INFORMATION

Well Diameter: 2" Static Water Level: 31.2
 Depth of Well: _____ Length of Well Screen: _____
 Measuring Point: Top of Casing Depth to Top of Pump: _____
 Pump Type: Whale Pump Tubing Type: LDPE

FIELD PARAMETER MEASUREMENT

Time	Pump Rate (mL/min)	Gallons Purged	pH +/- 0.1	Temp °C + 10%	Conductivity (mS/cm) +/- 3%	Turbidity (NTU) + 10%	Dissolved O ₂ (mg/L) + 10%	Redox (mV) +/- 10 mV	Depth to Water Ft. BGS	Comments
1447			7.05	11.3	4.897	7.81	1.68	-108.0	31.2	
1452			6.75	11.6	4.961	2.08	-0.09	-142.7	31.2	
1457			6.75	11.6	4.953	1.46	-0.16	-147.3	31.2	
1502			6.75	11.6	4.940	1.33	-0.19	-152.7	31.2	

Total _____ Gallons Purged

Purge Time Start: 1447 Purge Time End: 1502 Final Static Water Level: 31.2

OBSERVATIONS

After development of LAB-SBW-20



300 State Street
 Rochester, New York 14614
 Telephone: (585) 454-6110
 Facsimile: (585) 454-3066

Project Name: FESL (Former Emerson Street Landfill)
 Location: 1700 Emerson Street, Rochester New York
 Project No.: 210173
 Sampled By: K. Truong
 Date: 12/9/2020
 Weather: 34°F/Snowy

WELL I.D.: LAB-SBW-15

WELL SAMPLING INFORMATION

Well Diameter:	<u>2"</u>	Static Water Level:	<u>27.54'</u>
Depth of Well:	<u></u>	Length of Well Screen:	<u></u>
Measuring Point:	<u>Top of casing</u>	Depth to Top of Pump:	<u></u>
Pump Type:	<u>Whale pump</u>	Tubing Type:	<u>LDPE</u>

FIELD PARAMETER MEASUREMENT

Time	Pump Rate (mL/min)	Gallons Purged	pH +/- 0.1	Temp °C + 10%	Conductivity (mS/cm) +/- 3%	Turbidity (NTU) + 10%	Dissolved O ₂ (mg/L) + 10%	Redox (mV) +/- 10 mV	Depth to Water Ft. BGS	Comments
1420			7.24	11.0	4.890	2.41	0.49	-105.2	27.54	
1425			6.95	11.1	4.94	1.65	-0.07	-128.9	27.54	
1430			6.94	11.1	4.916	1.75	-0.16	-140.4	27.54	
1435			6.95	11.2	4.932	1.61	-0.19	-147.5	27.54	
									27.54	

Total _____ Gallons Purged

Purge Time Start: 1420 Purge Time End: 1435 Final Static Water Level: 27.54

OBSERVATIONS

Before development LAB-SBW-20

**Design Phase Investigation
Laboratory Reports**

Bedrock Matrix Samples

ANALYTICAL REPORT

Eurofins TestAmerica, Canton
4101 Shuffel Street NW
North Canton, OH 44720
Tel: (330)497-9396

Laboratory Job ID: 240-136235-1
Client Project/Site: 1700 Emerson St.

For:
LaBella Associates DPC
300 State Street
Suite 201
Rochester, New York 14614

Attn: Ann Barber



Authorized for release by:
10/16/2020 11:54:49 AM

Kris Brooks, Project Manager II
(330)966-9790
Kris.Brooks@Eurofinset.com

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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.



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Definitions/Glossary

Client: LaBella Associates DPC
Project/Site: 1700 Emerson St.

Job ID: 240-136235-1

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
U	Indicates the analyte was analyzed for but not detected.

GC/MS VOA TICs

Qualifier	Qualifier Description
J	Indicates an Estimated Value for TICs
N	This flag indicates the presumptive evidence of a compound.
T	Result is a tentatively identified compound (TIC) and an estimated value.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	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

Case Narrative

Client: LaBella Associates DPC
Project/Site: 1700 Emerson St.

Job ID: 240-136235-1

Job ID: 240-136235-1

Laboratory: Eurofins TestAmerica, Canton

Narrative

CASE NARRATIVE

Client: LaBella Associates DPC

Project: 1700 Emerson St.

Report Number: 240-136235-1

With the exceptions noted as flags or footnotes, standard analytical protocols were followed in the analysis of the samples and no problems were encountered or anomalies observed. In addition all laboratory quality control samples were within established control limits, with any exceptions noted below. Each sample was analyzed to achieve the lowest possible reporting limit within the constraints of the method. In some cases, due to interference or analytes present at high concentrations, samples were diluted. For diluted samples, the reporting limits are adjusted relative to the dilution required.

Eurofins TestAmerica, Canton attests to the validity of the laboratory data generated by Eurofins TestAmerica facilities reported herein. All analyses performed by Eurofins TestAmerica facilities were done using established laboratory SOPs that incorporate QA/QC procedures described in the application methods. Eurofins TestAmerica's operations groups have reviewed the data for compliance with the laboratory QA/QC plan, and data have been found to be compliant with laboratory protocols unless otherwise noted below.

The test results in this report meet all NELAP requirements for parameters for which accreditation is required or available. Any exceptions to NELAP requirements are noted in this report. Pursuant to NELAP, this report may not be reproduced, except in full, without the written approval of the laboratory.

Calculations are performed before rounding to avoid round-off errors in calculated results.

All holding times were met and proper preservation noted for the methods performed on these samples, unless otherwise detailed in the individual sections below.

All solid sample results are reported on an "as received" basis unless otherwise indicated by the presence of a % solids value in the method header.

This laboratory report is confidential and is intended for the sole use of Eurofins TestAmerica and its client.

RECEIPT

The samples were received on 9/9/2020 10:30 AM; the samples arrived in good condition, and where required, properly preserved and on ice. The temperature of the cooler at receipt was 3.0° C.

VOLATILE ORGANIC COMPOUNDS

Samples LAB-SBW-17 (35.5-35.8) (240-136235-1), LAB-SBW-18 (31.8-32.2) (240-136235-2) and LAB-SBW-19 (22.0-22.4) (240-136235-3) were analyzed for volatile organic compounds in accordance with sw-846 method 8260C. The samples were leached on 09/11/2020, prepared on 09/15/2020 and analyzed on 10/13/2020.

The continuing calibration verification (CCV) analyzed in batch 240-455767 was outside the method criteria for the following analyte(s): Dichloro-difluoromethane and N-Propylbenzene. An MRL standard at or below the reporting limit (RL) was analyzed with the affected samples LAB-SBW-17 (35.5-35.8) (240-136235-1), LAB-SBW-18 (31.8-32.2) (240-136235-2), LAB-SBW-19 (22.0-22.4) (240-136235-3), (CCVIS 240-455767/3), (LCS 240-451456/2-A) and (MB 240-451456/1-A) and found to be acceptable. As indicated in the reference method, sample analysis may proceed; however, any detection for the affected analyte(s) is considered estimated.

Samples LAB-SBW-17 (35.5-35.8) (240-136235-1), LAB-SBW-18 (31.8-32.2) (240-136235-2) and LAB-SBW-19 (22.0-22.4) (240-136235-3) were kept in contact with methanol for 4 weeks prior to analysis. The samples were shaken for 15 minutes on 9/16/2020, 9/24/2020, 9/30/2020, and 10/7/2020.

Case Narrative

Client: LaBella Associates DPC
Project/Site: 1700 Emerson St.

Job ID: 240-136235-1

Job ID: 240-136235-1 (Continued)

Laboratory: Eurofins TestAmerica, Canton (Continued)

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

MOISTURE

Samples LAB-SBW-17 (35.5-35.8) (240-136235-1), LAB-SBW-18 (31.8-32.2) (240-136235-2) and LAB-SBW-19 (22.0-22.4) (240-136235-3) were analyzed for Moisture in accordance with Moisture. The samples were leached on 09/11/2020 and analyzed on 09/11/2020.

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

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Method Summary

Client: LaBella Associates DPC
Project/Site: 1700 Emerson St.

Job ID: 240-136235-1

Method	Method Description	Protocol	Laboratory
8260C	Volatile Organic Compounds by GC/MS	SW846	TAL CAN
Moisture	Percent Moisture	EPA	TAL CAN
5030C	Purge and Trap	SW846	TAL CAN
Part Size Red	Particle Size Reduction Preparation	None	TAL CAN

Protocol References:

EPA = US Environmental Protection Agency

None = None

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

Laboratory References:

TAL CAN = Eurofins TestAmerica, Canton, 4101 Shuffel Street NW, North Canton, OH 44720, TEL (330)497-9396

Sample Summary

Client: LaBella Associates DPC
Project/Site: 1700 Emerson St.

Job ID: 240-136235-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
240-136235-1	LAB-SBW-17 (35.5-35.8)	Solid	09/01/20 12:00	09/09/20 10:30	
240-136235-2	LAB-SBW-18 (31.8-32.2)	Solid	09/03/20 14:30	09/09/20 10:30	
240-136235-3	LAB-SBW-19 (22.0-22.4)	Solid	09/04/20 15:00	09/09/20 10:30	

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Detection Summary

Client: LaBella Associates DPC
Project/Site: 1700 Emerson St.

Job ID: 240-136235-1

Client Sample ID: LAB-SBW-17 (35.5-35.8)

Lab Sample ID: 240-136235-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil	Fac	D	Method	Prep Type
cis-1,2-Dichloroethene	150	J	250	41	ug/Kg	1		✳	8260C	Total/NA
Trichloroethene	320		250	150	ug/Kg	1		✳	8260C	Total/NA

Client Sample ID: LAB-SBW-18 (31.8-32.2)

Lab Sample ID: 240-136235-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil	Fac	D	Method	Prep Type
1,1-Dichloroethane	150	J	260	49	ug/Kg	1		✳	8260C	Total/NA
Acetone	680	J	1000	250	ug/Kg	1		✳	8260C	Total/NA
cis-1,2-Dichloroethene	71	J	260	41	ug/Kg	1		✳	8260C	Total/NA
Trichloroethene	150	J	260	150	ug/Kg	1		✳	8260C	Total/NA

Client Sample ID: LAB-SBW-19 (22.0-22.4)

Lab Sample ID: 240-136235-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil	Fac	D	Method	Prep Type
Acetone	280	J	1000	250	ug/Kg	1		✳	8260C	Total/NA
cis-1,2-Dichloroethene	410		260	41	ug/Kg	1		✳	8260C	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins TestAmerica, Canton

Client Sample Results

Client: LaBella Associates DPC
Project/Site: 1700 Emerson St.

Job ID: 240-136235-1

Client Sample ID: LAB-SBW-17 (35.5-35.8)

Lab Sample ID: 240-136235-1

Date Collected: 09/01/20 12:00

Matrix: Solid

Date Received: 09/09/20 10:30

Percent Solids: 99.3

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	79	U	250	79	ug/Kg	☼	09/15/20 21:44	10/13/20 15:03	1
1,1,2,2-Tetrachloroethane	150	U	250	150	ug/Kg	☼	09/15/20 21:44	10/13/20 15:03	1
1,1,2-Trichloro-1,2,2-trifluoroethane	68	U	250	68	ug/Kg	☼	09/15/20 21:44	10/13/20 15:03	1
1,1,2-Trichloroethane	58	U	250	58	ug/Kg	☼	09/15/20 21:44	10/13/20 15:03	1
1,1-Dichloroethane	49	U	250	49	ug/Kg	☼	09/15/20 21:44	10/13/20 15:03	1
1,1-Dichloroethene	83	U	250	83	ug/Kg	☼	09/15/20 21:44	10/13/20 15:03	1
1,2,4-Trichlorobenzene	130	U	250	130	ug/Kg	☼	09/15/20 21:44	10/13/20 15:03	1
1,2,4-Trimethylbenzene	54	U	250	54	ug/Kg	☼	09/15/20 21:44	10/13/20 15:03	1
1,2-Dibromo-3-Chloropropane	220	U	510	220	ug/Kg	☼	09/15/20 21:44	10/13/20 15:03	1
1,2-Dichlorobenzene	120	U	250	120	ug/Kg	☼	09/15/20 21:44	10/13/20 15:03	1
1,2-Dichloroethane	48	U	250	48	ug/Kg	☼	09/15/20 21:44	10/13/20 15:03	1
1,2-Dichloropropane	38	U	250	38	ug/Kg	☼	09/15/20 21:44	10/13/20 15:03	1
1,3,5-Trimethylbenzene	40	U	250	40	ug/Kg	☼	09/15/20 21:44	10/13/20 15:03	1
1,3-Dichlorobenzene	47	U	250	47	ug/Kg	☼	09/15/20 21:44	10/13/20 15:03	1
1,4-Dichlorobenzene	56	U	250	56	ug/Kg	☼	09/15/20 21:44	10/13/20 15:03	1
1,4-Dioxane	2400	U	13000	2400	ug/Kg	☼	09/15/20 21:44	10/13/20 15:03	1
2-Butanone (MEK)	160	U	1000	160	ug/Kg	☼	09/15/20 21:44	10/13/20 15:03	1
2-Hexanone	270	U	1000	270	ug/Kg	☼	09/15/20 21:44	10/13/20 15:03	1
4-Methyl-2-pentanone (MIBK)	240	U	1000	240	ug/Kg	☼	09/15/20 21:44	10/13/20 15:03	1
Acetone	250	U	1000	250	ug/Kg	☼	09/15/20 21:44	10/13/20 15:03	1
Benzene	43	U	250	43	ug/Kg	☼	09/15/20 21:44	10/13/20 15:03	1
Bromoform	230	U	250	230	ug/Kg	☼	09/15/20 21:44	10/13/20 15:03	1
Bromomethane	170	U	250	170	ug/Kg	☼	09/15/20 21:44	10/13/20 15:03	1
Carbon disulfide	110	U	250	110	ug/Kg	☼	09/15/20 21:44	10/13/20 15:03	1
Carbon tetrachloride	100	U	250	100	ug/Kg	☼	09/15/20 21:44	10/13/20 15:03	1
Chlorobenzene	36	U	250	36	ug/Kg	☼	09/15/20 21:44	10/13/20 15:03	1
Chlorodibromomethane	120	U	250	120	ug/Kg	☼	09/15/20 21:44	10/13/20 15:03	1
Chloroethane	150	U	250	150	ug/Kg	☼	09/15/20 21:44	10/13/20 15:03	1
Chloroform	55	U	250	55	ug/Kg	☼	09/15/20 21:44	10/13/20 15:03	1
Chloromethane	67	U	250	67	ug/Kg	☼	09/15/20 21:44	10/13/20 15:03	1
cis-1,2-Dichloroethene	150	J	250	41	ug/Kg	☼	09/15/20 21:44	10/13/20 15:03	1
cis-1,3-Dichloropropene	130	U	250	130	ug/Kg	☼	09/15/20 21:44	10/13/20 15:03	1
Cyclohexane	170	U	510	170	ug/Kg	☼	09/15/20 21:44	10/13/20 15:03	1
Dichlorobromomethane	28	U	250	28	ug/Kg	☼	09/15/20 21:44	10/13/20 15:03	1
Dichlorodifluoromethane	54	U	250	54	ug/Kg	☼	09/15/20 21:44	10/13/20 15:03	1
Ethylbenzene	48	U	250	48	ug/Kg	☼	09/15/20 21:44	10/13/20 15:03	1
Ethylene Dibromide	80	U	250	80	ug/Kg	☼	09/15/20 21:44	10/13/20 15:03	1
Isopropylbenzene	39	U	250	39	ug/Kg	☼	09/15/20 21:44	10/13/20 15:03	1
Methyl acetate	170	U	1300	170	ug/Kg	☼	09/15/20 21:44	10/13/20 15:03	1
Methyl tert-butyl ether	38	U	250	38	ug/Kg	☼	09/15/20 21:44	10/13/20 15:03	1
Methylcyclohexane	67	U	510	67	ug/Kg	☼	09/15/20 21:44	10/13/20 15:03	1
Methylene Chloride	390	U	510	390	ug/Kg	☼	09/15/20 21:44	10/13/20 15:03	1
Naphthalene	120	U	250	120	ug/Kg	☼	09/15/20 21:44	10/13/20 15:03	1
n-Butylbenzene	71	U	250	71	ug/Kg	☼	09/15/20 21:44	10/13/20 15:03	1
N-Propylbenzene	28	U	250	28	ug/Kg	☼	09/15/20 21:44	10/13/20 15:03	1
p-Isopropyltoluene	29	U	250	29	ug/Kg	☼	09/15/20 21:44	10/13/20 15:03	1
sec-Butylbenzene	51	U	250	51	ug/Kg	☼	09/15/20 21:44	10/13/20 15:03	1
Styrene	53	U	250	53	ug/Kg	☼	09/15/20 21:44	10/13/20 15:03	1
tert-Butylbenzene	51	U	250	51	ug/Kg	☼	09/15/20 21:44	10/13/20 15:03	1

Eurofins TestAmerica, Canton

Client Sample Results

Client: LaBella Associates DPC
Project/Site: 1700 Emerson St.

Job ID: 240-136235-1

Client Sample ID: LAB-SBW-17 (35.5-35.8)

Lab Sample ID: 240-136235-1

Date Collected: 09/01/20 12:00

Matrix: Solid

Date Received: 09/09/20 10:30

Percent Solids: 99.3

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Tetrachloroethene	98	U	250	98	ug/Kg	☼	09/15/20 21:44	10/13/20 15:03	1
Toluene	240	U	250	240	ug/Kg	☼	09/15/20 21:44	10/13/20 15:03	1
trans-1,2-Dichloroethene	63	U	250	63	ug/Kg	☼	09/15/20 21:44	10/13/20 15:03	1
trans-1,3-Dichloropropene	110	U	250	110	ug/Kg	☼	09/15/20 21:44	10/13/20 15:03	1
Trichloroethene	320		250	150	ug/Kg	☼	09/15/20 21:44	10/13/20 15:03	1
Trichlorofluoromethane	140	U	250	140	ug/Kg	☼	09/15/20 21:44	10/13/20 15:03	1
Vinyl chloride	120	U	250	120	ug/Kg	☼	09/15/20 21:44	10/13/20 15:03	1
Xylenes, Total	92	U	510	92	ug/Kg	☼	09/15/20 21:44	10/13/20 15:03	1

Tentatively Identified Compound	Est. Result	Qualifier	Unit	D	RT	CAS No.	Prepared	Analyzed	Dil Fac
Octane	350	T J N	ug/Kg	☼	8.13	111-65-9	09/15/20 21:44	10/13/20 15:03	1
Octane, 2-methyl-	390	T J N	ug/Kg	☼	9.07	3221-61-2	09/15/20 21:44	10/13/20 15:03	1
Nonane	930	T J N	ug/Kg	☼	9.51	111-84-2	09/15/20 21:44	10/13/20 15:03	1
Nonane, 3-methyl-	320	T J N	ug/Kg	☼	10.35	5911-04-6	09/15/20 21:44	10/13/20 15:03	1
Decane	1300	T J N	ug/Kg	☼	10.65	124-18-5	09/15/20 21:44	10/13/20 15:03	1
Undecane	910	T J N	ug/Kg	☼	11.65	1120-21-4	09/15/20 21:44	10/13/20 15:03	1
Dodecane	440	T J N	ug/Kg	☼	12.56	112-40-3	09/15/20 21:44	10/13/20 15:03	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	95		59 - 120	09/15/20 21:44	10/13/20 15:03	1
4-Bromofluorobenzene (Surr)	96		51 - 127	09/15/20 21:44	10/13/20 15:03	1
Dibromofluoromethane (Surr)	89		56 - 122	09/15/20 21:44	10/13/20 15:03	1
Toluene-d8 (Surr)	100		64 - 124	09/15/20 21:44	10/13/20 15:03	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Solids	99.3		0.1	0.1	%			09/11/20 13:22	1
Percent Moisture	0.7		0.1	0.1	%			09/11/20 13:22	1

Client Sample Results

Client: LaBella Associates DPC
Project/Site: 1700 Emerson St.

Job ID: 240-136235-1

Client Sample ID: LAB-SBW-18 (31.8-32.2)

Lab Sample ID: 240-136235-2

Date Collected: 09/03/20 14:30

Matrix: Solid

Date Received: 09/09/20 10:30

Percent Solids: 98.5

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	80	U	260	80	ug/Kg	☼	09/15/20 21:44	10/13/20 15:26	1
1,1,2,2-Tetrachloroethane	150	U	260	150	ug/Kg	☼	09/15/20 21:44	10/13/20 15:26	1
1,1,2-Trichloro-1,2,2-trifluoroethane	69	U	260	69	ug/Kg	☼	09/15/20 21:44	10/13/20 15:26	1
1,1,2-Trichloroethane	59	U	260	59	ug/Kg	☼	09/15/20 21:44	10/13/20 15:26	1
1,1-Dichloroethane	150	J	260	49	ug/Kg	☼	09/15/20 21:44	10/13/20 15:26	1
1,1-Dichloroethene	84	U	260	84	ug/Kg	☼	09/15/20 21:44	10/13/20 15:26	1
1,2,4-Trichlorobenzene	140	U	260	140	ug/Kg	☼	09/15/20 21:44	10/13/20 15:26	1
1,2,4-Trimethylbenzene	55	U	260	55	ug/Kg	☼	09/15/20 21:44	10/13/20 15:26	1
1,2-Dibromo-3-Chloropropane	230	U	510	230	ug/Kg	☼	09/15/20 21:44	10/13/20 15:26	1
1,2-Dichlorobenzene	120	U	260	120	ug/Kg	☼	09/15/20 21:44	10/13/20 15:26	1
1,2-Dichloroethane	48	U	260	48	ug/Kg	☼	09/15/20 21:44	10/13/20 15:26	1
1,2-Dichloropropane	38	U	260	38	ug/Kg	☼	09/15/20 21:44	10/13/20 15:26	1
1,3,5-Trimethylbenzene	40	U	260	40	ug/Kg	☼	09/15/20 21:44	10/13/20 15:26	1
1,3-Dichlorobenzene	47	U	260	47	ug/Kg	☼	09/15/20 21:44	10/13/20 15:26	1
1,4-Dichlorobenzene	57	U	260	57	ug/Kg	☼	09/15/20 21:44	10/13/20 15:26	1
1,4-Dioxane	2400	U	13000	2400	ug/Kg	☼	09/15/20 21:44	10/13/20 15:26	1
2-Butanone (MEK)	160	U	1000	160	ug/Kg	☼	09/15/20 21:44	10/13/20 15:26	1
2-Hexanone	270	U	1000	270	ug/Kg	☼	09/15/20 21:44	10/13/20 15:26	1
4-Methyl-2-pentanone (MIBK)	240	U	1000	240	ug/Kg	☼	09/15/20 21:44	10/13/20 15:26	1
Acetone	680	J	1000	250	ug/Kg	☼	09/15/20 21:44	10/13/20 15:26	1
Benzene	43	U	260	43	ug/Kg	☼	09/15/20 21:44	10/13/20 15:26	1
Bromoform	230	U	260	230	ug/Kg	☼	09/15/20 21:44	10/13/20 15:26	1
Bromomethane	170	U	260	170	ug/Kg	☼	09/15/20 21:44	10/13/20 15:26	1
Carbon disulfide	110	U	260	110	ug/Kg	☼	09/15/20 21:44	10/13/20 15:26	1
Carbon tetrachloride	100	U	260	100	ug/Kg	☼	09/15/20 21:44	10/13/20 15:26	1
Chlorobenzene	36	U	260	36	ug/Kg	☼	09/15/20 21:44	10/13/20 15:26	1
Chlorodibromomethane	120	U	260	120	ug/Kg	☼	09/15/20 21:44	10/13/20 15:26	1
Chloroethane	150	U	260	150	ug/Kg	☼	09/15/20 21:44	10/13/20 15:26	1
Chloroform	56	U	260	56	ug/Kg	☼	09/15/20 21:44	10/13/20 15:26	1
Chloromethane	68	U	260	68	ug/Kg	☼	09/15/20 21:44	10/13/20 15:26	1
cis-1,2-Dichloroethene	71	J	260	41	ug/Kg	☼	09/15/20 21:44	10/13/20 15:26	1
cis-1,3-Dichloropropene	130	U	260	130	ug/Kg	☼	09/15/20 21:44	10/13/20 15:26	1
Cyclohexane	170	U	510	170	ug/Kg	☼	09/15/20 21:44	10/13/20 15:26	1
Dichlorobromomethane	29	U	260	29	ug/Kg	☼	09/15/20 21:44	10/13/20 15:26	1
Dichlorodifluoromethane	55	U	260	55	ug/Kg	☼	09/15/20 21:44	10/13/20 15:26	1
Ethylbenzene	48	U	260	48	ug/Kg	☼	09/15/20 21:44	10/13/20 15:26	1
Ethylene Dibromide	81	U	260	81	ug/Kg	☼	09/15/20 21:44	10/13/20 15:26	1
Isopropylbenzene	39	U	260	39	ug/Kg	☼	09/15/20 21:44	10/13/20 15:26	1
Methyl acetate	170	U	1300	170	ug/Kg	☼	09/15/20 21:44	10/13/20 15:26	1
Methyl tert-butyl ether	38	U	260	38	ug/Kg	☼	09/15/20 21:44	10/13/20 15:26	1
Methylcyclohexane	68	U	510	68	ug/Kg	☼	09/15/20 21:44	10/13/20 15:26	1
Methylene Chloride	390	U	510	390	ug/Kg	☼	09/15/20 21:44	10/13/20 15:26	1
Naphthalene	120	U	260	120	ug/Kg	☼	09/15/20 21:44	10/13/20 15:26	1
n-Butylbenzene	72	U	260	72	ug/Kg	☼	09/15/20 21:44	10/13/20 15:26	1
N-Propylbenzene	29	U	260	29	ug/Kg	☼	09/15/20 21:44	10/13/20 15:26	1
p-Isopropyltoluene	30	U	260	30	ug/Kg	☼	09/15/20 21:44	10/13/20 15:26	1
sec-Butylbenzene	51	U	260	51	ug/Kg	☼	09/15/20 21:44	10/13/20 15:26	1
Styrene	53	U	260	53	ug/Kg	☼	09/15/20 21:44	10/13/20 15:26	1
tert-Butylbenzene	51	U	260	51	ug/Kg	☼	09/15/20 21:44	10/13/20 15:26	1

Eurofins TestAmerica, Canton

Client Sample Results

Client: LaBella Associates DPC
Project/Site: 1700 Emerson St.

Job ID: 240-136235-1

Client Sample ID: LAB-SBW-18 (31.8-32.2)

Lab Sample ID: 240-136235-2

Date Collected: 09/03/20 14:30

Matrix: Solid

Date Received: 09/09/20 10:30

Percent Solids: 98.5

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Tetrachloroethene	100	U	260	100	ug/Kg	☼	09/15/20 21:44	10/13/20 15:26	1
Toluene	250	U	260	250	ug/Kg	☼	09/15/20 21:44	10/13/20 15:26	1
trans-1,2-Dichloroethene	64	U	260	64	ug/Kg	☼	09/15/20 21:44	10/13/20 15:26	1
trans-1,3-Dichloropropene	110	U	260	110	ug/Kg	☼	09/15/20 21:44	10/13/20 15:26	1
Trichloroethene	150	J	260	150	ug/Kg	☼	09/15/20 21:44	10/13/20 15:26	1
Trichlorofluoromethane	140	U	260	140	ug/Kg	☼	09/15/20 21:44	10/13/20 15:26	1
Vinyl chloride	130	U	260	130	ug/Kg	☼	09/15/20 21:44	10/13/20 15:26	1
Xylenes, Total	94	U	510	94	ug/Kg	☼	09/15/20 21:44	10/13/20 15:26	1

Tentatively Identified Compound	Est. Result	Qualifier	Unit	D	RT	CAS No.	Prepared	Analyzed	Dil Fac
Octane	460	T J N	ug/Kg	☼	8.13	111-65-9	09/15/20 21:44	10/13/20 15:26	1
Heptane, 2,4-dimethyl-	390	T J N	ug/Kg	☼	9.06	2213-23-2	09/15/20 21:44	10/13/20 15:26	1
Nonane	930	T J N	ug/Kg	☼	9.51	111-84-2	09/15/20 21:44	10/13/20 15:26	1
Nonane, 3-methyl-	300	T J N	ug/Kg	☼	10.35	5911-04-6	09/15/20 21:44	10/13/20 15:26	1
Decane	1300	T J N	ug/Kg	☼	10.65	124-18-5	09/15/20 21:44	10/13/20 15:26	1
Undecane	930	T J N	ug/Kg	☼	11.65	1120-21-4	09/15/20 21:44	10/13/20 15:26	1
Dodecane	480	T J N	ug/Kg	☼	12.56	112-40-3	09/15/20 21:44	10/13/20 15:26	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	98		59 - 120	09/15/20 21:44	10/13/20 15:26	1
4-Bromofluorobenzene (Surr)	97		51 - 127	09/15/20 21:44	10/13/20 15:26	1
Dibromofluoromethane (Surr)	90		56 - 122	09/15/20 21:44	10/13/20 15:26	1
Toluene-d8 (Surr)	101		64 - 124	09/15/20 21:44	10/13/20 15:26	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Solids	98.5		0.1	0.1	%			09/11/20 13:22	1
Percent Moisture	1.5		0.1	0.1	%			09/11/20 13:22	1

Client Sample Results

Client: LaBella Associates DPC
Project/Site: 1700 Emerson St.

Job ID: 240-136235-1

Client Sample ID: LAB-SBW-19 (22.0-22.4)

Lab Sample ID: 240-136235-3

Date Collected: 09/04/20 15:00

Matrix: Solid

Date Received: 09/09/20 10:30

Percent Solids: 98.8

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	80	U	260	80	ug/Kg	☼	09/15/20 21:44	10/13/20 15:50	1
1,1,2,2-Tetrachloroethane	150	U	260	150	ug/Kg	☼	09/15/20 21:44	10/13/20 15:50	1
1,1,2-Trichloro-1,2,2-trifluoroethane	69	U	260	69	ug/Kg	☼	09/15/20 21:44	10/13/20 15:50	1
1,1,2-Trichloroethane	58	U	260	58	ug/Kg	☼	09/15/20 21:44	10/13/20 15:50	1
1,1-Dichloroethane	49	U	260	49	ug/Kg	☼	09/15/20 21:44	10/13/20 15:50	1
1,1-Dichloroethene	84	U	260	84	ug/Kg	☼	09/15/20 21:44	10/13/20 15:50	1
1,2,4-Trichlorobenzene	140	U	260	140	ug/Kg	☼	09/15/20 21:44	10/13/20 15:50	1
1,2,4-Trimethylbenzene	54	U	260	54	ug/Kg	☼	09/15/20 21:44	10/13/20 15:50	1
1,2-Dibromo-3-Chloropropane	230	U	510	230	ug/Kg	☼	09/15/20 21:44	10/13/20 15:50	1
1,2-Dichlorobenzene	120	U	260	120	ug/Kg	☼	09/15/20 21:44	10/13/20 15:50	1
1,2-Dichloroethane	48	U	260	48	ug/Kg	☼	09/15/20 21:44	10/13/20 15:50	1
1,2-Dichloropropane	38	U	260	38	ug/Kg	☼	09/15/20 21:44	10/13/20 15:50	1
1,3,5-Trimethylbenzene	40	U	260	40	ug/Kg	☼	09/15/20 21:44	10/13/20 15:50	1
1,3-Dichlorobenzene	47	U	260	47	ug/Kg	☼	09/15/20 21:44	10/13/20 15:50	1
1,4-Dichlorobenzene	56	U	260	56	ug/Kg	☼	09/15/20 21:44	10/13/20 15:50	1
1,4-Dioxane	2400	U	13000	2400	ug/Kg	☼	09/15/20 21:44	10/13/20 15:50	1
2-Butanone (MEK)	160	U	1000	160	ug/Kg	☼	09/15/20 21:44	10/13/20 15:50	1
2-Hexanone	270	U	1000	270	ug/Kg	☼	09/15/20 21:44	10/13/20 15:50	1
4-Methyl-2-pentanone (MIBK)	240	U	1000	240	ug/Kg	☼	09/15/20 21:44	10/13/20 15:50	1
Acetone	280	J	1000	250	ug/Kg	☼	09/15/20 21:44	10/13/20 15:50	1
Benzene	43	U	260	43	ug/Kg	☼	09/15/20 21:44	10/13/20 15:50	1
Bromoform	230	U	260	230	ug/Kg	☼	09/15/20 21:44	10/13/20 15:50	1
Bromomethane	170	U	260	170	ug/Kg	☼	09/15/20 21:44	10/13/20 15:50	1
Carbon disulfide	110	U	260	110	ug/Kg	☼	09/15/20 21:44	10/13/20 15:50	1
Carbon tetrachloride	100	U	260	100	ug/Kg	☼	09/15/20 21:44	10/13/20 15:50	1
Chlorobenzene	36	U	260	36	ug/Kg	☼	09/15/20 21:44	10/13/20 15:50	1
Chlorodibromomethane	120	U	260	120	ug/Kg	☼	09/15/20 21:44	10/13/20 15:50	1
Chloroethane	150	U	260	150	ug/Kg	☼	09/15/20 21:44	10/13/20 15:50	1
Chloroform	55	U	260	55	ug/Kg	☼	09/15/20 21:44	10/13/20 15:50	1
Chloromethane	68	U	260	68	ug/Kg	☼	09/15/20 21:44	10/13/20 15:50	1
cis-1,2-Dichloroethene	410		260	41	ug/Kg	☼	09/15/20 21:44	10/13/20 15:50	1
cis-1,3-Dichloropropene	130	U	260	130	ug/Kg	☼	09/15/20 21:44	10/13/20 15:50	1
Cyclohexane	170	U	510	170	ug/Kg	☼	09/15/20 21:44	10/13/20 15:50	1
Dichlorobromomethane	29	U	260	29	ug/Kg	☼	09/15/20 21:44	10/13/20 15:50	1
Dichlorodifluoromethane	54	U	260	54	ug/Kg	☼	09/15/20 21:44	10/13/20 15:50	1
Ethylbenzene	48	U	260	48	ug/Kg	☼	09/15/20 21:44	10/13/20 15:50	1
Ethylene Dibromide	81	U	260	81	ug/Kg	☼	09/15/20 21:44	10/13/20 15:50	1
Isopropylbenzene	39	U	260	39	ug/Kg	☼	09/15/20 21:44	10/13/20 15:50	1
Methyl acetate	170	U	1300	170	ug/Kg	☼	09/15/20 21:44	10/13/20 15:50	1
Methyl tert-butyl ether	38	U	260	38	ug/Kg	☼	09/15/20 21:44	10/13/20 15:50	1
Methylcyclohexane	68	U	510	68	ug/Kg	☼	09/15/20 21:44	10/13/20 15:50	1
Methylene Chloride	390	U	510	390	ug/Kg	☼	09/15/20 21:44	10/13/20 15:50	1
Naphthalene	120	U	260	120	ug/Kg	☼	09/15/20 21:44	10/13/20 15:50	1
n-Butylbenzene	72	U	260	72	ug/Kg	☼	09/15/20 21:44	10/13/20 15:50	1
N-Propylbenzene	29	U	260	29	ug/Kg	☼	09/15/20 21:44	10/13/20 15:50	1
p-Isopropyltoluene	30	U	260	30	ug/Kg	☼	09/15/20 21:44	10/13/20 15:50	1
sec-Butylbenzene	51	U	260	51	ug/Kg	☼	09/15/20 21:44	10/13/20 15:50	1
Styrene	53	U	260	53	ug/Kg	☼	09/15/20 21:44	10/13/20 15:50	1
tert-Butylbenzene	51	U	260	51	ug/Kg	☼	09/15/20 21:44	10/13/20 15:50	1

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Client Sample Results

Client: LaBella Associates DPC
Project/Site: 1700 Emerson St.

Job ID: 240-136235-1

Client Sample ID: LAB-SBW-19 (22.0-22.4)

Lab Sample ID: 240-136235-3

Date Collected: 09/04/20 15:00

Matrix: Solid

Date Received: 09/09/20 10:30

Percent Solids: 98.8

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Tetrachloroethene	99	U	260	99	ug/Kg	☼	09/15/20 21:44	10/13/20 15:50	1
Toluene	250	U	260	250	ug/Kg	☼	09/15/20 21:44	10/13/20 15:50	1
trans-1,2-Dichloroethene	64	U	260	64	ug/Kg	☼	09/15/20 21:44	10/13/20 15:50	1
trans-1,3-Dichloropropene	110	U	260	110	ug/Kg	☼	09/15/20 21:44	10/13/20 15:50	1
Trichloroethene	150	U	260	150	ug/Kg	☼	09/15/20 21:44	10/13/20 15:50	1
Trichlorofluoromethane	140	U	260	140	ug/Kg	☼	09/15/20 21:44	10/13/20 15:50	1
Vinyl chloride	130	U	260	130	ug/Kg	☼	09/15/20 21:44	10/13/20 15:50	1
Xylenes, Total	93	U	510	93	ug/Kg	☼	09/15/20 21:44	10/13/20 15:50	1

Tentatively Identified Compound	Est. Result	Qualifier	Unit	D	RT	CAS No.	Prepared	Analyzed	Dil Fac
Octane	450	T J N	ug/Kg	☼	8.13	111-65-9	09/15/20 21:44	10/13/20 15:50	1
Heptane, 2,4-dimethyl-	480	T J N	ug/Kg	☼	9.06	2213-23-2	09/15/20 21:44	10/13/20 15:50	1
Octane, 3-methyl-	340	T J N	ug/Kg	☼	9.16	2216-33-3	09/15/20 21:44	10/13/20 15:50	1
Nonane	1100	T J N	ug/Kg	☼	9.51	111-84-2	09/15/20 21:44	10/13/20 15:50	1
Nonane, 3-methyl-	360	T J N	ug/Kg	☼	10.35	5911-04-6	09/15/20 21:44	10/13/20 15:50	1
Decane	1600	T J N	ug/Kg	☼	10.65	124-18-5	09/15/20 21:44	10/13/20 15:50	1
Undecane	1200	T J N	ug/Kg	☼	11.65	1120-21-4	09/15/20 21:44	10/13/20 15:50	1
Dodecane	600	T J N	ug/Kg	☼	12.56	112-40-3	09/15/20 21:44	10/13/20 15:50	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	98		59 - 120	09/15/20 21:44	10/13/20 15:50	1
4-Bromofluorobenzene (Surr)	97		51 - 127	09/15/20 21:44	10/13/20 15:50	1
Dibromofluoromethane (Surr)	89		56 - 122	09/15/20 21:44	10/13/20 15:50	1
Toluene-d8 (Surr)	101		64 - 124	09/15/20 21:44	10/13/20 15:50	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Solids	98.8		0.1	0.1	%			09/11/20 13:22	1
Percent Moisture	1.2		0.1	0.1	%			09/11/20 13:22	1

Surrogate Summary

Client: LaBella Associates DPC
Project/Site: 1700 Emerson St.

Job ID: 240-136235-1

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

Matrix: Solid

Prep Type: Total/NA

Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	DCA	BFB	DBFM	TOL
		(59-120)	(51-127)	(56-122)	(64-124)
240-136235-1	LAB-SBW-17 (35.5-35.8)	95	96	89	100
240-136235-2	LAB-SBW-18 (31.8-32.2)	98	97	90	101
240-136235-3	LAB-SBW-19 (22.0-22.4)	98	97	89	101
LCS 240-451456/2-A	Lab Control Sample	82	90	85	87
MB 240-451456/1-A	Method Blank	97	98	91	103

Surrogate Legend

DCA = 1,2-Dichloroethane-d4 (Surr)

BFB = 4-Bromofluorobenzene (Surr)

DBFM = Dibromofluoromethane (Surr)

TOL = Toluene-d8 (Surr)

QC Sample Results

Client: LaBella Associates DPC
 Project/Site: 1700 Emerson St.

Job ID: 240-136235-1

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

Lab Sample ID: MB 240-451456/1-A
Matrix: Solid
Analysis Batch: 455767

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 451456

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
1,1,1-Trichloroethane	78	U	250	78	ug/Kg		09/15/20 21:44	10/13/20 14:39	1
1,1,1,2-Tetrachloroethane	150	U	250	150	ug/Kg		09/15/20 21:44	10/13/20 14:39	1
1,1,2-Trichloro-1,2,2-trifluoroethane	67	U	250	67	ug/Kg		09/15/20 21:44	10/13/20 14:39	1
1,1,2-Trichloroethane	57	U	250	57	ug/Kg		09/15/20 21:44	10/13/20 14:39	1
1,1-Dichloroethane	48	U	250	48	ug/Kg		09/15/20 21:44	10/13/20 14:39	1
1,1-Dichloroethene	82	U	250	82	ug/Kg		09/15/20 21:44	10/13/20 14:39	1
1,2,4-Trichlorobenzene	130	U	250	130	ug/Kg		09/15/20 21:44	10/13/20 14:39	1
1,2,4-Trimethylbenzene	53	U	250	53	ug/Kg		09/15/20 21:44	10/13/20 14:39	1
1,2-Dibromo-3-Chloropropane	220	U	500	220	ug/Kg		09/15/20 21:44	10/13/20 14:39	1
1,2-Dichlorobenzene	120	U	250	120	ug/Kg		09/15/20 21:44	10/13/20 14:39	1
1,2-Dichloroethane	47	U	250	47	ug/Kg		09/15/20 21:44	10/13/20 14:39	1
1,2-Dichloropropane	37	U	250	37	ug/Kg		09/15/20 21:44	10/13/20 14:39	1
1,3,5-Trimethylbenzene	39	U	250	39	ug/Kg		09/15/20 21:44	10/13/20 14:39	1
1,3-Dichlorobenzene	46	U	250	46	ug/Kg		09/15/20 21:44	10/13/20 14:39	1
1,4-Dichlorobenzene	55	U	250	55	ug/Kg		09/15/20 21:44	10/13/20 14:39	1
1,4-Dioxane	2300	U	13000	2300	ug/Kg		09/15/20 21:44	10/13/20 14:39	1
2-Butanone (MEK)	160	U	1000	160	ug/Kg		09/15/20 21:44	10/13/20 14:39	1
2-Hexanone	260	U	1000	260	ug/Kg		09/15/20 21:44	10/13/20 14:39	1
4-Methyl-2-pentanone (MIBK)	240	U	1000	240	ug/Kg		09/15/20 21:44	10/13/20 14:39	1
Acetone	240	U	1000	240	ug/Kg		09/15/20 21:44	10/13/20 14:39	1
Benzene	42	U	250	42	ug/Kg		09/15/20 21:44	10/13/20 14:39	1
Bromoform	230	U	250	230	ug/Kg		09/15/20 21:44	10/13/20 14:39	1
Bromomethane	170	U	250	170	ug/Kg		09/15/20 21:44	10/13/20 14:39	1
Carbon disulfide	110	U	250	110	ug/Kg		09/15/20 21:44	10/13/20 14:39	1
Carbon tetrachloride	100	U	250	100	ug/Kg		09/15/20 21:44	10/13/20 14:39	1
Chlorobenzene	35	U	250	35	ug/Kg		09/15/20 21:44	10/13/20 14:39	1
Chlorodibromomethane	120	U	250	120	ug/Kg		09/15/20 21:44	10/13/20 14:39	1
Chloroethane	150	U	250	150	ug/Kg		09/15/20 21:44	10/13/20 14:39	1
Chloroform	54	U	250	54	ug/Kg		09/15/20 21:44	10/13/20 14:39	1
Chloromethane	66	U	250	66	ug/Kg		09/15/20 21:44	10/13/20 14:39	1
cis-1,2-Dichloroethene	40	U	250	40	ug/Kg		09/15/20 21:44	10/13/20 14:39	1
cis-1,3-Dichloropropene	120	U	250	120	ug/Kg		09/15/20 21:44	10/13/20 14:39	1
Cyclohexane	160	U	500	160	ug/Kg		09/15/20 21:44	10/13/20 14:39	1
Dichlorobromomethane	28	U	250	28	ug/Kg		09/15/20 21:44	10/13/20 14:39	1
Dichlorodifluoromethane	53	U	250	53	ug/Kg		09/15/20 21:44	10/13/20 14:39	1
Ethylbenzene	47	U	250	47	ug/Kg		09/15/20 21:44	10/13/20 14:39	1
Ethylene Dibromide	79	U	250	79	ug/Kg		09/15/20 21:44	10/13/20 14:39	1
Isopropylbenzene	38	U	250	38	ug/Kg		09/15/20 21:44	10/13/20 14:39	1
Methyl acetate	170	U	1300	170	ug/Kg		09/15/20 21:44	10/13/20 14:39	1
Methyl tert-butyl ether	37	U	250	37	ug/Kg		09/15/20 21:44	10/13/20 14:39	1
Methylcyclohexane	66	U	500	66	ug/Kg		09/15/20 21:44	10/13/20 14:39	1
Methylene Chloride	380	U	500	380	ug/Kg		09/15/20 21:44	10/13/20 14:39	1
Naphthalene	120	U	250	120	ug/Kg		09/15/20 21:44	10/13/20 14:39	1
n-Butylbenzene	70	U	250	70	ug/Kg		09/15/20 21:44	10/13/20 14:39	1
N-Propylbenzene	28	U	250	28	ug/Kg		09/15/20 21:44	10/13/20 14:39	1
p-Isopropyltoluene	29	U	250	29	ug/Kg		09/15/20 21:44	10/13/20 14:39	1
sec-Butylbenzene	50	U	250	50	ug/Kg		09/15/20 21:44	10/13/20 14:39	1
Styrene	52	U	250	52	ug/Kg		09/15/20 21:44	10/13/20 14:39	1

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QC Sample Results

Client: LaBella Associates DPC
Project/Site: 1700 Emerson St.

Job ID: 240-136235-1

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

Lab Sample ID: MB 240-451456/1-A
Matrix: Solid
Analysis Batch: 455767

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 451456

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
tert-Butylbenzene	50	U	250	50	ug/Kg		09/15/20 21:44	10/13/20 14:39	1
Tetrachloroethene	97	U	250	97	ug/Kg		09/15/20 21:44	10/13/20 14:39	1
Toluene	240	U	250	240	ug/Kg		09/15/20 21:44	10/13/20 14:39	1
trans-1,2-Dichloroethene	62	U	250	62	ug/Kg		09/15/20 21:44	10/13/20 14:39	1
trans-1,3-Dichloropropene	110	U	250	110	ug/Kg		09/15/20 21:44	10/13/20 14:39	1
Trichloroethene	140	U	250	140	ug/Kg		09/15/20 21:44	10/13/20 14:39	1
Trichlorofluoromethane	140	U	250	140	ug/Kg		09/15/20 21:44	10/13/20 14:39	1
Vinyl chloride	120	U	250	120	ug/Kg		09/15/20 21:44	10/13/20 14:39	1
Xylenes, Total	91	U	500	91	ug/Kg		09/15/20 21:44	10/13/20 14:39	1

Tentatively Identified Compound	MB Est. Result	MB Qualifier	Unit	D	RT	CAS No.	Prepared	Analyzed	Dil Fac
Tentatively Identified Compound	None		ug/Kg				09/15/20 21:44	10/13/20 14:39	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	97		59 - 120	09/15/20 21:44	10/13/20 14:39	1
4-Bromofluorobenzene (Surr)	98		51 - 127	09/15/20 21:44	10/13/20 14:39	1
Dibromofluoromethane (Surr)	91		56 - 122	09/15/20 21:44	10/13/20 14:39	1
Toluene-d8 (Surr)	103		64 - 124	09/15/20 21:44	10/13/20 14:39	1

Lab Sample ID: LCS 240-451456/2-A
Matrix: Solid
Analysis Batch: 455767

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 451456

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
1,1,1-Trichloroethane	1000	890		ug/Kg		89	60 - 126
1,1,1,2-Tetrachloroethane	1000	984		ug/Kg		98	61 - 134
1,1,1,2-Trichloro-1,2,2-trifluoroethane	1000	805		ug/Kg		80	58 - 144
1,1,2-Trichloroethane	1000	945		ug/Kg		94	78 - 120
1,1-Dichloroethane	1000	887		ug/Kg		89	69 - 120
1,1-Dichloroethene	1000	735		ug/Kg		74	48 - 140
1,2,4-Trichlorobenzene	1000	1030		ug/Kg		103	56 - 120
1,2,4-Trimethylbenzene	1000	1130		ug/Kg		113	69 - 122
1,2-Dibromo-3-Chloropropane	1000	798		ug/Kg		80	35 - 137
1,2-Dichlorobenzene	1000	994		ug/Kg		99	74 - 120
1,2-Dichloroethane	1000	887		ug/Kg		89	66 - 120
1,2-Dichloropropane	1000	925		ug/Kg		93	77 - 120
1,3,5-Trimethylbenzene	1000	1140		ug/Kg		114	68 - 126
1,3-Dichlorobenzene	1000	1050		ug/Kg		105	74 - 120
1,4-Dichlorobenzene	1000	1040		ug/Kg		104	74 - 120
1,4-Dioxane	20000	18600		ug/Kg		93	44 - 154
2-Butanone (MEK)	2000	1670		ug/Kg		84	61 - 131
2-Hexanone	2000	1900		ug/Kg		95	54 - 135
4-Methyl-2-pentanone (MIBK)	2000	1980		ug/Kg		99	56 - 124
Acetone	2000	1630		ug/Kg		82	47 - 157
Benzene	1000	865		ug/Kg		86	75 - 120
Bromoform	1000	805		ug/Kg		80	44 - 131
Bromomethane	1000	280		ug/Kg		28	10 - 158

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QC Sample Results

Client: LaBella Associates DPC
Project/Site: 1700 Emerson St.

Job ID: 240-136235-1

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

Lab Sample ID: LCS 240-451456/2-A
Matrix: Solid
Analysis Batch: 455767

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 451456

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Carbon disulfide	1000	378		ug/Kg		38	33 - 144
Carbon tetrachloride	1000	816		ug/Kg		82	54 - 130
Chlorobenzene	1000	982		ug/Kg		98	79 - 120
Chlorodibromomethane	1000	930		ug/Kg		93	60 - 121
Chloroethane	1000	246	J	ug/Kg		25	10 - 159
Chloroform	1000	866		ug/Kg		87	74 - 120
Chloromethane	1000	489		ug/Kg		49	40 - 127
cis-1,2-Dichloroethene	1000	876		ug/Kg		88	76 - 120
cis-1,3-Dichloropropene	1000	942		ug/Kg		94	62 - 124
Cyclohexane	1000	765		ug/Kg		76	57 - 126
Dichlorobromomethane	1000	938		ug/Kg		94	63 - 121
Dichlorodifluoromethane	1000	401		ug/Kg		40	18 - 137
Ethylbenzene	1000	1060		ug/Kg		106	75 - 120
Ethylene Dibromide	1000	901		ug/Kg		90	73 - 126
Isopropylbenzene	1000	1150		ug/Kg		115	74 - 120
Methyl acetate	2000	2000		ug/Kg		100	63 - 120
Methyl tert-butyl ether	1000	906		ug/Kg		91	66 - 120
Methylcyclohexane	1000	785		ug/Kg		78	62 - 124
Methylene Chloride	1000	722		ug/Kg		72	48 - 142
m-Xylene & p-Xylene	1000	1110		ug/Kg		111	76 - 120
Naphthalene	1000	932		ug/Kg		93	43 - 127
n-Butylbenzene	1000	1180		ug/Kg		118	64 - 123
N-Propylbenzene	1000	1150		ug/Kg		115	70 - 122
o-Xylene	1000	1060		ug/Kg		106	76 - 120
p-Isopropyltoluene	1000	1180		ug/Kg		118	70 - 121
sec-Butylbenzene	1000	1140		ug/Kg		114	69 - 122
Styrene	1000	1060		ug/Kg		106	70 - 120
tert-Butylbenzene	1000	1160		ug/Kg		116	68 - 121
Tetrachloroethene	1000	969		ug/Kg		97	75 - 124
Toluene	1000	1030		ug/Kg		103	76 - 120
trans-1,2-Dichloroethene	1000	786		ug/Kg		79	74 - 125
trans-1,3-Dichloropropene	1000	845		ug/Kg		84	58 - 120
Trichloroethene	1000	894		ug/Kg		89	75 - 123
Trichlorofluoromethane	1000	687		ug/Kg		69	33 - 152
Vinyl chloride	1000	568		ug/Kg		57	39 - 140
Xylenes, Total	2000	2170		ug/Kg		109	77 - 120

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	82		59 - 120
4-Bromofluorobenzene (Surr)	90		51 - 127
Dibromofluoromethane (Surr)	85		56 - 122
Toluene-d8 (Surr)	87		64 - 124

QC Association Summary

Client: LaBella Associates DPC
Project/Site: 1700 Emerson St.

Job ID: 240-136235-1

GC/MS VOA

Processed Batch: 450979

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-136235-1	LAB-SBW-17 (35.5-35.8)	Total/NA	Solid	Part Size Red	
240-136235-2	LAB-SBW-18 (31.8-32.2)	Total/NA	Solid	Part Size Red	
240-136235-3	LAB-SBW-19 (22.0-22.4)	Total/NA	Solid	Part Size Red	

Prep Batch: 451456

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-136235-1	LAB-SBW-17 (35.5-35.8)	Total/NA	Solid	5030C	450979
240-136235-2	LAB-SBW-18 (31.8-32.2)	Total/NA	Solid	5030C	450979
240-136235-3	LAB-SBW-19 (22.0-22.4)	Total/NA	Solid	5030C	450979
MB 240-451456/1-A	Method Blank	Total/NA	Solid	5030C	
LCS 240-451456/2-A	Lab Control Sample	Total/NA	Solid	5030C	

Analysis Batch: 455767

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-136235-1	LAB-SBW-17 (35.5-35.8)	Total/NA	Solid	8260C	451456
240-136235-2	LAB-SBW-18 (31.8-32.2)	Total/NA	Solid	8260C	451456
240-136235-3	LAB-SBW-19 (22.0-22.4)	Total/NA	Solid	8260C	451456
MB 240-451456/1-A	Method Blank	Total/NA	Solid	8260C	451456
LCS 240-451456/2-A	Lab Control Sample	Total/NA	Solid	8260C	451456

General Chemistry

Processed Batch: 450979

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-136235-1	LAB-SBW-17 (35.5-35.8)	Total/NA	Solid	Part Size Red	
240-136235-2	LAB-SBW-18 (31.8-32.2)	Total/NA	Solid	Part Size Red	
240-136235-3	LAB-SBW-19 (22.0-22.4)	Total/NA	Solid	Part Size Red	

Analysis Batch: 451000

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-136235-1	LAB-SBW-17 (35.5-35.8)	Total/NA	Solid	Moisture	450979
240-136235-2	LAB-SBW-18 (31.8-32.2)	Total/NA	Solid	Moisture	450979
240-136235-3	LAB-SBW-19 (22.0-22.4)	Total/NA	Solid	Moisture	450979

Lab Chronicle

Client: LaBella Associates DPC
Project/Site: 1700 Emerson St.

Job ID: 240-136235-1

Client Sample ID: LAB-SBW-17 (35.5-35.8)
Date Collected: 09/01/20 12:00
Date Received: 09/09/20 10:30

Lab Sample ID: 240-136235-1
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Processed	Part Size Red			450979	09/11/20 10:29	POP	TAL CAN
Total/NA	Analysis	Moisture		1	451000	09/11/20 13:22	AJ	TAL CAN

Client Sample ID: LAB-SBW-17 (35.5-35.8)
Date Collected: 09/01/20 12:00
Date Received: 09/09/20 10:30

Lab Sample ID: 240-136235-1
Matrix: Solid
Percent Solids: 99.3

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Processed	Part Size Red			450979	09/11/20 10:29	POP	TAL CAN
Total/NA	Prep	5030C			451456	09/15/20 21:44	LAM	TAL CAN
Total/NA	Analysis	8260C		1	455767	10/13/20 15:03	SAM	TAL CAN

Client Sample ID: LAB-SBW-18 (31.8-32.2)
Date Collected: 09/03/20 14:30
Date Received: 09/09/20 10:30

Lab Sample ID: 240-136235-2
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Processed	Part Size Red			450979	09/11/20 10:29	POP	TAL CAN
Total/NA	Analysis	Moisture		1	451000	09/11/20 13:22	AJ	TAL CAN

Client Sample ID: LAB-SBW-18 (31.8-32.2)
Date Collected: 09/03/20 14:30
Date Received: 09/09/20 10:30

Lab Sample ID: 240-136235-2
Matrix: Solid
Percent Solids: 98.5

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Processed	Part Size Red			450979	09/11/20 10:29	POP	TAL CAN
Total/NA	Prep	5030C			451456	09/15/20 21:44	LAM	TAL CAN
Total/NA	Analysis	8260C		1	455767	10/13/20 15:26	SAM	TAL CAN

Client Sample ID: LAB-SBW-19 (22.0-22.4)
Date Collected: 09/04/20 15:00
Date Received: 09/09/20 10:30

Lab Sample ID: 240-136235-3
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Processed	Part Size Red			450979	09/11/20 10:29	POP	TAL CAN
Total/NA	Analysis	Moisture		1	451000	09/11/20 13:22	AJ	TAL CAN

Client Sample ID: LAB-SBW-19 (22.0-22.4)
Date Collected: 09/04/20 15:00
Date Received: 09/09/20 10:30

Lab Sample ID: 240-136235-3
Matrix: Solid
Percent Solids: 98.8

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Processed	Part Size Red			450979	09/11/20 10:29	POP	TAL CAN
Total/NA	Prep	5030C			451456	09/15/20 21:44	LAM	TAL CAN
Total/NA	Analysis	8260C		1	455767	10/13/20 15:50	SAM	TAL CAN

Lab Chronicle

Client: LaBella Associates DPC
Project/Site: 1700 Emerson St.

Job ID: 240-136235-1

Laboratory References:

TAL CAN = Eurofins TestAmerica, Canton, 4101 Shuffel Street NW, North Canton, OH 44720, TEL (330)497-9396

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Accreditation/Certification Summary

Client: LaBella Associates DPC
Project/Site: 1700 Emerson St.

Job ID: 240-136235-1

Laboratory: Eurofins TestAmerica, Canton

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

<u>Authority</u>	<u>Program</u>	<u>Identification Number</u>	<u>Expiration Date</u>
New York	NELAP	10975	03-31-21

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.

<u>Analysis Method</u>	<u>Prep Method</u>	<u>Matrix</u>	<u>Analyte</u>
Moisture		Solid	Percent Moisture
Moisture		Solid	Percent Solids



2/130

North CANTON
 Buffalo CANTON
 4101 snuffel st NW, Chain of Custody Record
 OH, 44720 MIKE (GEL)

Client Information Client Contact: Katharine Truong Company: LaBella Associates DPC Address: 300 State Street Suite 201 City: Rochester State, Zip: NY, 14614 Phone: 716-233-2222 Email: ktruong@labellapc.com Project Name: 1700 EMERSON ST Site:		Lab PM: Johnston, Orlette S E-Mail: orlette.johnson@testamericainc.com COC No: 480-136654-01462-2 Page: Page 2 of 2 Job #:	
Due Date Requested: TAT Requested (days):		Analysis Requested Perform MS/MSD (Yes or No) <input checked="" type="checkbox"/> D A Field Filled Sample (Yes or No) <input checked="" type="checkbox"/> N N N N Total Number of Containers:	
Sample Identification Sample ID: LAB-SBW-17 (35.5-35.8) Sample ID: LAB-SBW-18 (31.8-32.2) Sample ID: LAB-SBW-19 (22.0-22.4)		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 Other: M - Hexane N - None O - AsNaO2 P - Na2O4S Q - Na2SO3 R - Na2SO4 S - H2SO4 T - TSP Dodecalhydrate U - Acetone V - MCAA W - pH 4-S Z - other (specify)	
Sample Date 9/11/20 9/17/20 9/14/20		Sample Time 1200 1430 1508	
Sample Type (C=comp, G=grab) G G G		Matrix (Hexane, Spent, Operational, Other) Water Water Rock	
Sample Preservation Code: D A		Special Instructions/Note:	
Possible Hazard Identification <input checked="" type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown <input type="checkbox"/> Radiological Deliverable Requested: I, II, III, IV, Other (specify): EQUIS ASP-CADS Report			
Sample Disposal (A fee may be assessed if samples are retained longer than 1 month) <input type="checkbox"/> Return To Client <input checked="" type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months			
Empty Kit Relinquished by:			
Relinquished by: <i>[Signature]</i> Date/Time: 9/18/2020 1440		Relinquished by: <i>[Signature]</i> Date/Time: 9-9-20 1030	
Relinquished by: <i>[Signature]</i> Date/Time:		Relinquished by: <i>[Signature]</i> Date/Time:	
Relinquished by: <i>[Signature]</i> Date/Time:		Relinquished by: <i>[Signature]</i> Date/Time:	
Custody Seals Intact: <input type="checkbox"/> Yes <input type="checkbox"/> No		Custody Seal No.:	



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**Eurofins TestAmerica Canton Sample Receipt Form/Narrative
Canton Facility**


Login # : 136235

Client LaBella Site Name _____
Cooler Received on 9-9-20 Opened on 9-9-20
FedEx: 1st Grd Exp UPS FAS Clipper Client Drop Off TestAmerica Courier Other

Cooler unpacked by:
Math Snyder

Receipt After-hours: Drop-off Date/Time _____ **Storage Location** _____

TestAmerica Cooler # TA Foam Box Client Cooler Box Other _____
Packing material used: Bubble Wrap Foam Plastic Bag None Other _____
COOLANT: Wet Ice Blue Ice Dry Ice Water None

1. Cooler temperature upon receipt See Multiple Cooler Form
IR GUN# IR-10 (CF +0.7 °C) Observed Cooler Temp. _____ °C Corrected Cooler Temp. _____ °C
IR GUN #IR-11 (CF +0.9°C) Observed Cooler Temp. 2.1 °C Corrected Cooler Temp. 3.0 °C
2. Were tamper/custody seals on the outside of the cooler(s)? If Yes Quantity 1 Yes No
-Were the seals on the outside of the cooler(s) signed & dated? Yes No NA
-Were tamper/custody seals on the bottle(s) or bottle kits (LLHg/MeHg)? Yes No
-Were tamper/custody seals intact and uncompromised? Yes No NA
3. Shippers' packing slip attached to the cooler(s)? Yes No
4. Did custody papers accompany the sample(s)? Yes No
5. Were the custody papers relinquished & signed in the appropriate place? Yes No
6. Was/were the person(s) who collected the samples clearly identified on the COC? Yes No
7. Did all bottles arrive in good condition (Unbroken)? Yes No
8. Could all bottle labels (ID/Date/Time) be reconciled with the COC? Yes No
9. For each sample, does the COC specify preservatives (Y/N), # of containers (Y/N), and sample type of grab/comp (Y/N)? Yes No
10. Were correct bottle(s) used for the test(s) indicated? Yes No
11. Sufficient quantity received to perform indicated analyses? Yes No
12. Are these work share samples and all listed on the COC? Yes No
If yes, Questions 13-17 have been checked at the originating laboratory.
13. Were all preserved sample(s) at the correct pH upon receipt? Yes No NA pH Strip Lot# HC907861
14. Were VOAs on the COC? Yes No NA
15. Were air bubbles >6 mm in any VOA vials? Yes No NA  Larger than this.
16. Was a VOA trip blank present in the cooler(s)? Trip Blank Lot # _____ Yes No
17. Was a LL Hg or Me Hg trip blank present? Yes No

Tests that are not checked for pH by Receiving:
VOAs
Oil and Grease
TOC

Contacted PM _____ Date _____ by _____ via Verbal Voice Mail Other
Concerning _____

18. CHAIN OF CUSTODY & SAMPLE DISCREPANCIES additional next page Samples processed by:

19. SAMPLE CONDITION
Sample(s) _____ were received after the recommended holding time had expired.
Sample(s) _____ were received in a broken container.
Sample(s) _____ were received with bubble >6 mm in diameter. (Notify PM)

20. SAMPLE PRESERVATION
Sample(s) _____ were further preserved in the laboratory.
Time preserved: _____ Preservative(s) added/Lot number(s): _____
VOA Sample Preservation - Date/Time VOAs Frozen: _____

ANALYTICAL REPORT

Eurofins TestAmerica, Canton
4101 Shuffel Street NW
North Canton, OH 44720
Tel: (330)497-9396

Laboratory Job ID: 240-141676-1
Client Project/Site: FESL - 210173

For:
LaBella Associates DPC
300 State Street
Suite 201
Rochester, New York 14614

Attn: Ann Barber



Authorized for release by:
1/15/2021 12:25:01 PM

Kris Brooks, Project Manager II
(330)966-9790
Kris.Brooks@Eurofinset.com

LINKS

Review your project
results through
TotalAccess

Have a Question?



Visit us at:

www.eurofinsus.com/Env

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.



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Definitions/Glossary

Client: LaBella Associates DPC
Project/Site: FESL - 210173

Job ID: 240-141676-1

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
*+	LCS and/or LCSD is outside acceptance limits, high biased.
H	Sample was prepped or analyzed beyond the specified holding time
U	Indicates the analyte was analyzed for but not detected.

GC/MS VOA TICs

Qualifier	Qualifier Description
H	Sample was prepped or analyzed beyond the specified holding time
J	Indicates an Estimated Value for TICs
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
N	This flag indicates the presumptive evidence of a compound.
T	Result is a tentatively identified compound (TIC) and an estimated value.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	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

Case Narrative

Client: LaBella Associates DPC
Project/Site: FESL - 210173

Job ID: 240-141676-1

Job ID: 240-141676-1

Laboratory: Eurofins TestAmerica, Canton

Narrative

Job Narrative 240-141676-1

Comments

No additional comments.

Receipt

The sample was received on 12/10/2020 10:30 AM; the sample arrived in good condition, and where required, properly preserved and on ice. The temperature of the cooler at receipt was 3.0° C.

GC/MS VOA

Method 5030C: Sample LAB-SBW-20 (29.6-29.9) (240-141676-1) was kept in contact with methanol for 4 weeks prior to analysis. The sample was shaken for 15 minutes on 12/15/20, 12/22/20, 12/29/20, and 1/7/21.

Method 8260C: The continuing calibration verification (CCV) associated with batch 240-468773 recovered above the upper control limit for: 1,1,1-Trichloroethane; 1,1,2-Trichloro-1,2,2-trifluoroethane; Carbon tetrachloride; Dichloro-difluoromethane; Methylcyclohexane and Trichlorofluoromethane. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported.

Method 8260C: The following sample was analyzed outside of analytical holding time due to the terms of the project: LAB-SBW-20 (29.6-29.9) (240-141676-1).

Method 8260C: The laboratory control sample (LCS) for preparation batch 240-465022 and 240-465613 and analytical batch 240-468773 recovered outside control limits for the following analyte: Methyl acetate. This analyte was biased high in the LCS and was not detected in the associated samples; therefore, the data have been reported.

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

General Chemistry

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

Method Summary

Client: LaBella Associates DPC
Project/Site: FESL - 210173

Job ID: 240-141676-1

Method	Method Description	Protocol	Laboratory
8260C	Volatile Organic Compounds by GC/MS	SW846	TAL CAN
Moisture	Percent Moisture	EPA	TAL CAN
5030C	Purge and Trap	SW846	TAL CAN
Part Size Red	Particle Size Reduction Preparation	None	TAL CAN

Protocol References:

EPA = US Environmental Protection Agency

None = None

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

Laboratory References:

TAL CAN = Eurofins TestAmerica, Canton, 4101 Shuffel Street NW, North Canton, OH 44720, TEL (330)497-9396



Sample Summary

Client: LaBella Associates DPC
Project/Site: FESL - 210173

Job ID: 240-141676-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
240-141676-1	LAB-SBW-20 (29.6-29.9)	Solid	12/08/20 12:36	12/10/20 10:30	

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Detection Summary

Client: LaBella Associates DPC
Project/Site: FESL - 210173

Job ID: 240-141676-1

Client Sample ID: LAB-SBW-20 (29.6-29.9)

Lab Sample ID: 240-141676-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
cis-1,2-Dichloroethene	10000	H	720	120	ug/Kg	2.857	✳	8260C	Total/NA
Trichloroethene	16000	H	720	410	ug/Kg	2.857	✳	8260C	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins TestAmerica, Canton



Client Sample Results

Client: LaBella Associates DPC
Project/Site: FESL - 210173

Job ID: 240-141676-1

Client Sample ID: LAB-SBW-20 (29.6-29.9)

Lab Sample ID: 240-141676-1

Date Collected: 12/08/20 12:36

Matrix: Solid

Date Received: 12/10/20 10:30

Percent Solids: 99.3

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	230	U H	720	230	ug/Kg	✱	12/15/20 20:47	01/12/21 17:52	2.857
1,1,2,2-Tetrachloroethane	430	U H	720	430	ug/Kg	✱	12/15/20 20:47	01/12/21 17:52	2.857
1,1,2-Trichloro-1,2,2-trifluoroethane	190	U H	720	190	ug/Kg	✱	12/15/20 20:47	01/12/21 17:52	2.857
1,1,2-Trichloroethane	170	U H	720	170	ug/Kg	✱	12/15/20 20:47	01/12/21 17:52	2.857
1,1-Dichloroethane	140	U H	720	140	ug/Kg	✱	12/15/20 20:47	01/12/21 17:52	2.857
1,1-Dichloroethene	240	U H	720	240	ug/Kg	✱	12/15/20 20:47	01/12/21 17:52	2.857
1,2,4-Trichlorobenzene	390	U H	720	390	ug/Kg	✱	12/15/20 20:47	01/12/21 17:52	2.857
1,2,4-Trimethylbenzene	150	U H	720	150	ug/Kg	✱	12/15/20 20:47	01/12/21 17:52	2.857
1,2-Dibromo-3-Chloropropane	640	U H	1400	640	ug/Kg	✱	12/15/20 20:47	01/12/21 17:52	2.857
1,2-Dichlorobenzene	350	U H	720	350	ug/Kg	✱	12/15/20 20:47	01/12/21 17:52	2.857
1,2-Dichloroethane	140	U H	720	140	ug/Kg	✱	12/15/20 20:47	01/12/21 17:52	2.857
1,2-Dichloropropane	110	U H	720	110	ug/Kg	✱	12/15/20 20:47	01/12/21 17:52	2.857
1,3,5-Trimethylbenzene	110	U H	720	110	ug/Kg	✱	12/15/20 20:47	01/12/21 17:52	2.857
1,3-Dichlorobenzene	130	U H	720	130	ug/Kg	✱	12/15/20 20:47	01/12/21 17:52	2.857
1,4-Dichlorobenzene	160	U H	720	160	ug/Kg	✱	12/15/20 20:47	01/12/21 17:52	2.857
1,4-Dioxane	6700	U H	36000	6700	ug/Kg	✱	12/15/20 20:47	01/12/21 17:52	2.857
2-Butanone (MEK)	460	U H	2900	460	ug/Kg	✱	12/15/20 20:47	01/12/21 17:52	2.857
2-Hexanone	760	U H	2900	760	ug/Kg	✱	12/15/20 20:47	01/12/21 17:52	2.857
4-Methyl-2-pentanone (MIBK)	690	U H	2900	690	ug/Kg	✱	12/15/20 20:47	01/12/21 17:52	2.857
Acetone	710	U H	2900	710	ug/Kg	✱	12/15/20 20:47	01/12/21 17:52	2.857
Benzene	120	U H	720	120	ug/Kg	✱	12/15/20 20:47	01/12/21 17:52	2.857
Bromoform	660	U H	720	660	ug/Kg	✱	12/15/20 20:47	01/12/21 17:52	2.857
Bromomethane	480	U H	720	480	ug/Kg	✱	12/15/20 20:47	01/12/21 17:52	2.857
Carbon disulfide	310	U H	720	310	ug/Kg	✱	12/15/20 20:47	01/12/21 17:52	2.857
Carbon tetrachloride	300	U H	720	300	ug/Kg	✱	12/15/20 20:47	01/12/21 17:52	2.857
Chlorobenzene	100	U H	720	100	ug/Kg	✱	12/15/20 20:47	01/12/21 17:52	2.857
Chlorodibromomethane	340	U H	720	340	ug/Kg	✱	12/15/20 20:47	01/12/21 17:52	2.857
Chloroethane	430	U H	720	430	ug/Kg	✱	12/15/20 20:47	01/12/21 17:52	2.857
Chloroform	160	U H	720	160	ug/Kg	✱	12/15/20 20:47	01/12/21 17:52	2.857
Chloromethane	190	U H	720	190	ug/Kg	✱	12/15/20 20:47	01/12/21 17:52	2.857
cis-1,2-Dichloroethene	10000	H	720	120	ug/Kg	✱	12/15/20 20:47	01/12/21 17:52	2.857
cis-1,3-Dichloropropene	360	U H	720	360	ug/Kg	✱	12/15/20 20:47	01/12/21 17:52	2.857
Cyclohexane	470	U H	1400	470	ug/Kg	✱	12/15/20 20:47	01/12/21 17:52	2.857
Dichlorobromomethane	81	U H	720	81	ug/Kg	✱	12/15/20 20:47	01/12/21 17:52	2.857
Dichlorodifluoromethane	150	U H	720	150	ug/Kg	✱	12/15/20 20:47	01/12/21 17:52	2.857
Ethylbenzene	140	U H	720	140	ug/Kg	✱	12/15/20 20:47	01/12/21 17:52	2.857
Ethylene Dibromide	230	U H	720	230	ug/Kg	✱	12/15/20 20:47	01/12/21 17:52	2.857
Isopropylbenzene	110	U H	720	110	ug/Kg	✱	12/15/20 20:47	01/12/21 17:52	2.857
Methyl acetate	490	U H *+	3600	490	ug/Kg	✱	12/15/20 20:47	01/12/21 17:52	2.857
Methyl tert-butyl ether	110	U H	720	110	ug/Kg	✱	12/15/20 20:47	01/12/21 17:52	2.857
Methylcyclohexane	190	U H	1400	190	ug/Kg	✱	12/15/20 20:47	01/12/21 17:52	2.857
Methylene Chloride	1100	U H	1400	1100	ug/Kg	✱	12/15/20 20:47	01/12/21 17:52	2.857
Naphthalene	340	U H	720	340	ug/Kg	✱	12/15/20 20:47	01/12/21 17:52	2.857
n-Butylbenzene	200	U H	720	200	ug/Kg	✱	12/15/20 20:47	01/12/21 17:52	2.857
N-Propylbenzene	81	U H	720	81	ug/Kg	✱	12/15/20 20:47	01/12/21 17:52	2.857
p-Isopropyltoluene	84	U H	720	84	ug/Kg	✱	12/15/20 20:47	01/12/21 17:52	2.857
sec-Butylbenzene	140	U H	720	140	ug/Kg	✱	12/15/20 20:47	01/12/21 17:52	2.857
Styrene	150	U H	720	150	ug/Kg	✱	12/15/20 20:47	01/12/21 17:52	2.857
tert-Butylbenzene	140	U H	720	140	ug/Kg	✱	12/15/20 20:47	01/12/21 17:52	2.857

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Client Sample Results

Client: LaBella Associates DPC
Project/Site: FESL - 210173

Job ID: 240-141676-1

Client Sample ID: LAB-SBW-20 (29.6-29.9)

Lab Sample ID: 240-141676-1

Date Collected: 12/08/20 12:36

Matrix: Solid

Date Received: 12/10/20 10:30

Percent Solids: 99.3

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Tetrachloroethene	280	U H	720	280	ug/Kg	☼	12/15/20 20:47	01/12/21 17:52	2.857
Toluene	700	U H	720	700	ug/Kg	☼	12/15/20 20:47	01/12/21 17:52	2.857
trans-1,2-Dichloroethene	180	U H	720	180	ug/Kg	☼	12/15/20 20:47	01/12/21 17:52	2.857
trans-1,3-Dichloropropene	300	U H	720	300	ug/Kg	☼	12/15/20 20:47	01/12/21 17:52	2.857
Trichloroethene	16000	H	720	410	ug/Kg	☼	12/15/20 20:47	01/12/21 17:52	2.857
Trichlorofluoromethane	400	U H	720	400	ug/Kg	☼	12/15/20 20:47	01/12/21 17:52	2.857
Vinyl chloride	360	U H	720	360	ug/Kg	☼	12/15/20 20:47	01/12/21 17:52	2.857
Xylenes, Total	260	U H	1400	260	ug/Kg	☼	12/15/20 20:47	01/12/21 17:52	2.857

Tentatively Identified Compound	Est. Result	Qualifier	Unit	D	RT	CAS No.	Prepared	Analyzed	Dil Fac
Unknown	3300	T H J	ug/Kg	☼	2.87		12/15/20 20:47	01/12/21 17:52	2.857
Nonane	1400	T H J N	ug/Kg	☼	9.51	111-84-2	12/15/20 20:47	01/12/21 17:52	2.857
Decane	2100	T H J N	ug/Kg	☼	10.64	124-18-5	12/15/20 20:47	01/12/21 17:52	2.857
Undecane	1800	T H J N	ug/Kg	☼	11.65	1120-21-4	12/15/20 20:47	01/12/21 17:52	2.857
Dodecane	1100	T H J N	ug/Kg	☼	12.56	112-40-3	12/15/20 20:47	01/12/21 17:52	2.857

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	114		59 - 120	12/15/20 20:47	01/12/21 17:52	2.857
4-Bromofluorobenzene (Surr)	99		51 - 127	12/15/20 20:47	01/12/21 17:52	2.857
Dibromofluoromethane (Surr)	99		56 - 122	12/15/20 20:47	01/12/21 17:52	2.857
Toluene-d8 (Surr)	98		64 - 124	12/15/20 20:47	01/12/21 17:52	2.857

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Solids	99.3		0.1	0.1	%			12/16/20 12:25	1
Percent Moisture	0.7		0.1	0.1	%			12/16/20 12:25	1

Surrogate Summary

Client: LaBella Associates DPC
Project/Site: FESL - 210173

Job ID: 240-141676-1

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

Matrix: Solid

Prep Type: Total/NA

Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	DCA	BFB	DBFM	TOL
		(59-120)	(51-127)	(56-122)	(64-124)
240-141676-1	LAB-SBW-20 (29.6-29.9)	114	99	99	98
LCS 240-465613/2-A	Lab Control Sample	92	88	92	80
MB 240-465613/1-A	Method Blank	106	94	97	94

Surrogate Legend

DCA = 1,2-Dichloroethane-d4 (Surr)

BFB = 4-Bromofluorobenzene (Surr)

DBFM = Dibromofluoromethane (Surr)

TOL = Toluene-d8 (Surr)

QC Sample Results

Client: LaBella Associates DPC
 Project/Site: FESL - 210173

Job ID: 240-141676-1

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

Lab Sample ID: MB 240-465613/1-A
Matrix: Solid
Analysis Batch: 468773

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 465613

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
1,1,1-Trichloroethane	78	U	250	78	ug/Kg		12/15/20 20:47	01/12/21 17:28	1
1,1,1,2-Tetrachloroethane	150	U	250	150	ug/Kg		12/15/20 20:47	01/12/21 17:28	1
1,1,2-Trichloro-1,2,2-trifluoroethane	67	U	250	67	ug/Kg		12/15/20 20:47	01/12/21 17:28	1
1,1,2-Trichloroethane	57	U	250	57	ug/Kg		12/15/20 20:47	01/12/21 17:28	1
1,1-Dichloroethane	48	U	250	48	ug/Kg		12/15/20 20:47	01/12/21 17:28	1
1,1-Dichloroethene	82	U	250	82	ug/Kg		12/15/20 20:47	01/12/21 17:28	1
1,2,4-Trichlorobenzene	130	U	250	130	ug/Kg		12/15/20 20:47	01/12/21 17:28	1
1,2,4-Trimethylbenzene	53	U	250	53	ug/Kg		12/15/20 20:47	01/12/21 17:28	1
1,2-Dibromo-3-Chloropropane	220	U	500	220	ug/Kg		12/15/20 20:47	01/12/21 17:28	1
1,2-Dichlorobenzene	120	U	250	120	ug/Kg		12/15/20 20:47	01/12/21 17:28	1
1,2-Dichloroethane	47	U	250	47	ug/Kg		12/15/20 20:47	01/12/21 17:28	1
1,2-Dichloropropane	37	U	250	37	ug/Kg		12/15/20 20:47	01/12/21 17:28	1
1,3,5-Trimethylbenzene	39	U	250	39	ug/Kg		12/15/20 20:47	01/12/21 17:28	1
1,3-Dichlorobenzene	46	U	250	46	ug/Kg		12/15/20 20:47	01/12/21 17:28	1
1,4-Dichlorobenzene	55	U	250	55	ug/Kg		12/15/20 20:47	01/12/21 17:28	1
1,4-Dioxane	2300	U	13000	2300	ug/Kg		12/15/20 20:47	01/12/21 17:28	1
2-Butanone (MEK)	160	U	1000	160	ug/Kg		12/15/20 20:47	01/12/21 17:28	1
2-Hexanone	260	U	1000	260	ug/Kg		12/15/20 20:47	01/12/21 17:28	1
4-Methyl-2-pentanone (MIBK)	240	U	1000	240	ug/Kg		12/15/20 20:47	01/12/21 17:28	1
Acetone	240	U	1000	240	ug/Kg		12/15/20 20:47	01/12/21 17:28	1
Benzene	42	U	250	42	ug/Kg		12/15/20 20:47	01/12/21 17:28	1
Bromoform	230	U	250	230	ug/Kg		12/15/20 20:47	01/12/21 17:28	1
Bromomethane	170	U	250	170	ug/Kg		12/15/20 20:47	01/12/21 17:28	1
Carbon disulfide	110	U	250	110	ug/Kg		12/15/20 20:47	01/12/21 17:28	1
Carbon tetrachloride	100	U	250	100	ug/Kg		12/15/20 20:47	01/12/21 17:28	1
Chlorobenzene	35	U	250	35	ug/Kg		12/15/20 20:47	01/12/21 17:28	1
Chlorodibromomethane	120	U	250	120	ug/Kg		12/15/20 20:47	01/12/21 17:28	1
Chloroethane	150	U	250	150	ug/Kg		12/15/20 20:47	01/12/21 17:28	1
Chloroform	54	U	250	54	ug/Kg		12/15/20 20:47	01/12/21 17:28	1
Chloromethane	66	U	250	66	ug/Kg		12/15/20 20:47	01/12/21 17:28	1
cis-1,2-Dichloroethene	40	U	250	40	ug/Kg		12/15/20 20:47	01/12/21 17:28	1
cis-1,3-Dichloropropene	120	U	250	120	ug/Kg		12/15/20 20:47	01/12/21 17:28	1
Cyclohexane	160	U	500	160	ug/Kg		12/15/20 20:47	01/12/21 17:28	1
Dichlorobromomethane	28	U	250	28	ug/Kg		12/15/20 20:47	01/12/21 17:28	1
Dichlorodifluoromethane	53	U	250	53	ug/Kg		12/15/20 20:47	01/12/21 17:28	1
Ethylbenzene	47	U	250	47	ug/Kg		12/15/20 20:47	01/12/21 17:28	1
Ethylene Dibromide	79	U	250	79	ug/Kg		12/15/20 20:47	01/12/21 17:28	1
Isopropylbenzene	38	U	250	38	ug/Kg		12/15/20 20:47	01/12/21 17:28	1
Methyl acetate	170	U	1300	170	ug/Kg		12/15/20 20:47	01/12/21 17:28	1
Methyl tert-butyl ether	37	U	250	37	ug/Kg		12/15/20 20:47	01/12/21 17:28	1
Methylcyclohexane	66	U	500	66	ug/Kg		12/15/20 20:47	01/12/21 17:28	1
Methylene Chloride	380	U	500	380	ug/Kg		12/15/20 20:47	01/12/21 17:28	1
Naphthalene	120	U	250	120	ug/Kg		12/15/20 20:47	01/12/21 17:28	1
n-Butylbenzene	70	U	250	70	ug/Kg		12/15/20 20:47	01/12/21 17:28	1
N-Propylbenzene	28	U	250	28	ug/Kg		12/15/20 20:47	01/12/21 17:28	1
p-Isopropyltoluene	29	U	250	29	ug/Kg		12/15/20 20:47	01/12/21 17:28	1
sec-Butylbenzene	50	U	250	50	ug/Kg		12/15/20 20:47	01/12/21 17:28	1
Styrene	52	U	250	52	ug/Kg		12/15/20 20:47	01/12/21 17:28	1

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QC Sample Results

Client: LaBella Associates DPC
Project/Site: FESL - 210173

Job ID: 240-141676-1

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

Lab Sample ID: MB 240-465613/1-A
Matrix: Solid
Analysis Batch: 468773

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 465613

Analyte	MB MB		RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
tert-Butylbenzene	50	U	250	50	ug/Kg		12/15/20 20:47	01/12/21 17:28	1
Tetrachloroethene	97	U	250	97	ug/Kg		12/15/20 20:47	01/12/21 17:28	1
Toluene	240	U	250	240	ug/Kg		12/15/20 20:47	01/12/21 17:28	1
trans-1,2-Dichloroethene	62	U	250	62	ug/Kg		12/15/20 20:47	01/12/21 17:28	1
trans-1,3-Dichloropropene	110	U	250	110	ug/Kg		12/15/20 20:47	01/12/21 17:28	1
Trichloroethene	140	U	250	140	ug/Kg		12/15/20 20:47	01/12/21 17:28	1
Trichlorofluoromethane	140	U	250	140	ug/Kg		12/15/20 20:47	01/12/21 17:28	1
Vinyl chloride	120	U	250	120	ug/Kg		12/15/20 20:47	01/12/21 17:28	1
Xylenes, Total	91	U	500	91	ug/Kg		12/15/20 20:47	01/12/21 17:28	1

Tentatively Identified Compound	MB MB		Unit	D	RT	CAS No.	Prepared	Analyzed	Dil Fac
	Est. Result	Qualifier							
n-Butanol	4840	J	ug/Kg		6.70	71-36-3	12/15/20 20:47	01/12/21 17:28	1
Tentatively Identified Compound	None		ug/Kg				12/15/20 20:47	01/12/21 17:28	1

Surrogate	MB MB		Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
1,2-Dichloroethane-d4 (Surr)	106		59 - 120	12/15/20 20:47	01/12/21 17:28	1
4-Bromofluorobenzene (Surr)	94		51 - 127	12/15/20 20:47	01/12/21 17:28	1
Dibromofluoromethane (Surr)	97		56 - 122	12/15/20 20:47	01/12/21 17:28	1
Toluene-d8 (Surr)	94		64 - 124	12/15/20 20:47	01/12/21 17:28	1

Lab Sample ID: LCS 240-465613/2-A
Matrix: Solid
Analysis Batch: 468773

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 465613

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1,2,2-Tetrachloroethane	1000	936		ug/Kg		94	61 - 134
1,1,2-Trichloro-1,2,2-trifluoroethane	1000	932		ug/Kg		93	58 - 144
1,1,2-Trichloroethane	1000	1020		ug/Kg		102	78 - 120
1,1-Dichloroethane	1000	945		ug/Kg		95	69 - 120
1,1-Dichloroethene	1000	814		ug/Kg		81	48 - 140
1,2,4-Trichlorobenzene	1000	887		ug/Kg		89	56 - 120
1,2,4-Trimethylbenzene	1000	994		ug/Kg		99	69 - 122
1,2-Dibromo-3-Chloropropane	1000	778		ug/Kg		78	35 - 137
1,2-Dichlorobenzene	1000	929		ug/Kg		93	74 - 120
1,2-Dichloroethane	1000	1010		ug/Kg		101	66 - 120
1,2-Dichloropropane	1000	1030		ug/Kg		103	77 - 120
1,3,5-Trimethylbenzene	1000	973		ug/Kg		97	68 - 126
1,3-Dichlorobenzene	1000	940		ug/Kg		94	74 - 120
1,4-Dichlorobenzene	1000	937		ug/Kg		94	74 - 120
1,4-Dioxane	20000	24000		ug/Kg		120	44 - 154
2-Butanone (MEK)	2000	2110		ug/Kg		106	61 - 131
2-Hexanone	2000	2010		ug/Kg		101	54 - 135
4-Methyl-2-pentanone (MIBK)	2000	2030		ug/Kg		102	56 - 124
Acetone	2000	2330		ug/Kg		117	47 - 157
Benzene	1000	932		ug/Kg		93	75 - 120
Bromoform	1000	834		ug/Kg		83	44 - 131

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QC Sample Results

Client: LaBella Associates DPC
Project/Site: FESL - 210173

Job ID: 240-141676-1

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

Lab Sample ID: LCS 240-465613/2-A
Matrix: Solid
Analysis Batch: 468773

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 465613

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Bromomethane	1000	334		ug/Kg		33	10 - 158
Carbon disulfide	1000	386		ug/Kg		39	33 - 144
Carbon tetrachloride	1000	854		ug/Kg		85	54 - 130
Chlorobenzene	1000	931		ug/Kg		93	79 - 120
Chlorodibromomethane	1000	881		ug/Kg		88	60 - 121
Chloroethane	1000	290		ug/Kg		29	10 - 159
Chloroform	1000	988		ug/Kg		99	74 - 120
Chloromethane	1000	526		ug/Kg		53	40 - 127
cis-1,2-Dichloroethene	1000	975		ug/Kg		97	76 - 120
cis-1,3-Dichloropropene	1000	966		ug/Kg		97	62 - 124
Cyclohexane	1000	755		ug/Kg		76	57 - 126
Dichlorobromomethane	1000	1020		ug/Kg		102	63 - 121
Dichlorodifluoromethane	1000	474		ug/Kg		47	18 - 137
Ethylbenzene	1000	982		ug/Kg		98	75 - 120
Ethylene Dibromide	1000	956		ug/Kg		96	73 - 126
Isopropylbenzene	1000	1030		ug/Kg		103	74 - 120
Methyl acetate	2000	2450	*+	ug/Kg		123	63 - 120
Methyl tert-butyl ether	1000	1080		ug/Kg		108	66 - 120
Methylcyclohexane	1000	812		ug/Kg		81	62 - 124
Methylene Chloride	1000	1070		ug/Kg		107	48 - 142
m-Xylene & p-Xylene	1000	1110		ug/Kg		111	76 - 120
Naphthalene	1000	857		ug/Kg		86	43 - 127
n-Butylbenzene	1000	967		ug/Kg		97	64 - 123
N-Propylbenzene	1000	932		ug/Kg		93	70 - 122
o-Xylene	1000	1030		ug/Kg		103	76 - 120
p-Isopropyltoluene	1000	987		ug/Kg		99	70 - 121
sec-Butylbenzene	1000	977		ug/Kg		98	69 - 122
Styrene	1000	1080		ug/Kg		108	70 - 120
tert-Butylbenzene	1000	967		ug/Kg		97	68 - 121
Tetrachloroethene	1000	842		ug/Kg		84	75 - 124
Toluene	1000	1020		ug/Kg		102	76 - 120
trans-1,2-Dichloroethene	1000	835		ug/Kg		84	74 - 125
trans-1,3-Dichloropropene	1000	804		ug/Kg		80	58 - 120
Trichloroethene	1000	942		ug/Kg		94	75 - 123
Trichlorofluoromethane	1000	653		ug/Kg		65	33 - 152
Vinyl chloride	1000	596		ug/Kg		60	39 - 140
Xylenes, Total	2000	2140		ug/Kg		107	77 - 120

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	92		59 - 120
4-Bromofluorobenzene (Surr)	88		51 - 127
Dibromofluoromethane (Surr)	92		56 - 122
Toluene-d8 (Surr)	80		64 - 124

QC Association Summary

Client: LaBella Associates DPC
Project/Site: FESL - 210173

Job ID: 240-141676-1

GC/MS VOA

Processed Batch: 465022

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-141676-1	LAB-SBW-20 (29.6-29.9)	Total/NA	Solid	Part Size Red	

Prep Batch: 465613

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-141676-1	LAB-SBW-20 (29.6-29.9)	Total/NA	Solid	5030C	465022
MB 240-465613/1-A	Method Blank	Total/NA	Solid	5030C	
LCS 240-465613/2-A	Lab Control Sample	Total/NA	Solid	5030C	

Analysis Batch: 468773

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-141676-1	LAB-SBW-20 (29.6-29.9)	Total/NA	Solid	8260C	465613
MB 240-465613/1-A	Method Blank	Total/NA	Solid	8260C	465613
LCS 240-465613/2-A	Lab Control Sample	Total/NA	Solid	8260C	465613

General Chemistry

Processed Batch: 465022

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-141676-1	LAB-SBW-20 (29.6-29.9)	Total/NA	Solid	Part Size Red	

Analysis Batch: 465739

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-141676-1	LAB-SBW-20 (29.6-29.9)	Total/NA	Solid	Moisture	465022

Lab Chronicle

Client: LaBella Associates DPC
Project/Site: FESL - 210173

Job ID: 240-141676-1

Client Sample ID: LAB-SBW-20 (29.6-29.9)

Lab Sample ID: 240-141676-1

Date Collected: 12/08/20 12:36

Matrix: Solid

Date Received: 12/10/20 10:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Processed	Part Size Red			465022	12/11/20 06:22	POP	TAL CAN
Total/NA	Analysis	Moisture		1	465739	12/16/20 12:25	AJ	TAL CAN

Client Sample ID: LAB-SBW-20 (29.6-29.9)

Lab Sample ID: 240-141676-1

Date Collected: 12/08/20 12:36

Matrix: Solid

Date Received: 12/10/20 10:30

Percent Solids: 99.3

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Processed	Part Size Red			465022	12/11/20 06:22	POP	TAL CAN
Total/NA	Prep	5030C			465613	12/15/20 20:47	LAM	TAL CAN
Total/NA	Analysis	8260C		2.857	468773	01/12/21 17:52	TJL2	TAL CAN

Laboratory References:

TAL CAN = Eurofins TestAmerica, Canton, 4101 Shuffel Street NW, North Canton, OH 44720, TEL (330)497-9396

Accreditation/Certification Summary

Client: LaBella Associates DPC
Project/Site: FESL - 210173

Job ID: 240-141676-1

Laboratory: Eurofins TestAmerica, Canton

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

Authority	Program	Identification Number	Expiration Date
New York	NELAP	10975	03-31-21

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
Moisture		Solid	Percent Moisture
Moisture		Solid	Percent Solids



2.1/3.0

North Canton, OH 44720-6900
phone 330.497.9396 fax 330.497.0772

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

Regulatory Program: DW NPDES RCRA Other:

Client Contact Your Company Name here: <u>Libella Associates</u> Address: <u>300 State St, Suite 200</u> City/State/Zip: <u>Wadsworth, NY 14610</u> (xxx) xxx-xxxx: <u>575-4574</u> Phone: _____ (xxx) xxx-xxxx: _____ FAX: _____ Project Name: <u>ESL</u> Site: <u>210173</u> P.O.#: _____		Project Manager: <u>Don Dell</u> Email: <u>DIDELL@LABTECH.PA.COM</u> Tel/Fax: _____		Site Contact: <u>Katherine Truby</u> Date: <u>12/8/2020</u> Lab Contact: _____ Carrier: _____		COC No: _____ of _____ COCs TALS Project #: _____ Sampler: <u>Katherine Truby</u> For Lab Use Only: Walk-in Client: _____ Lab Sampling: _____ Job / SDG No.: _____	
Analysis Turnaround Time <input type="checkbox"/> CALENDAR DAYS <input type="checkbox"/> WORKING DAYS TAT if different from Below _____ <input type="checkbox"/> 2 weeks <input checked="" type="checkbox"/> 1 week <input type="checkbox"/> 2 days <input type="checkbox"/> 1 day		Sample Date: <u>12/8/20</u> Sample Time: <u>1230</u> Matrix: <u>Water</u> # of Cont.: <u>1</u>		Filtered Sample (Y/N): _____ Perform MS / MSD (Y/N): _____		Sample Specific Notes: _____ _____ _____	
Sample Identification <u>LAB-SBW-20(29.4-29.9)</u>		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.		Special Instructions/QC Requirements & Comments: <input type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown	
Custody Seals Intact: <input type="checkbox"/> Yes <input type="checkbox"/> No		Cooler Temp. (°C): Obs'd: _____ Cor'd: _____ Therm ID No.: _____		<input type="checkbox"/> Return to Client <input checked="" type="checkbox"/> Disposal by Lab <input type="checkbox"/> Archive for _____ Months		Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)	
Relinquished by: <u>Katherine Truby</u>		Relinquished by: <u>Don Dell</u>		Relinquished by: _____		Relinquished by: _____	
Date/Time: _____		Date/Time: <u>12/10/20 1030</u>		Date/Time: _____		Date/Time: _____	
Company: _____		Company: <u>LAB</u>		Company: _____		Company: _____	



Eurofins TestAmerica Canton Sample Receipt Form/Narrative

Login # : 111676

Canton Facility

Client LaBella Site Name _____

Cooler unpacked by:

Cooler Received on 12-10-20 Opened on 12-10-20

Mattson

FedEx: 1st Grd UPS FAS Clipper Client Drop Off TestAmerica Courier Other _____

Receipt After-hours: Drop-off Date/Time _____ Storage Location _____

TestAmerica Cooler # 7A Foam Box Client Cooler Box Other _____

Packing material used: Bubble Wrap Foam Plastic Bag None Other _____

COOLANT: Wet Ice Blue Ice Dry Ice Water None

1. Cooler temperature upon receipt See Multiple Cooler Form
 IR GUN# IR-11 (CF +0.9 °C) Observed Cooler Temp. 2.1 °C Corrected Cooler Temp. 3.0 °C
 IR GUN #IR-12 (CF +0.5 °C) Observed Cooler Temp. _____ °C Corrected Cooler Temp. _____ °C

2. Were tamper/custody seals on the outside of the cooler(s)? If Yes Quantity 1 Yes No
 -Were the seals on the outside of the cooler(s) signed & dated? Yes No NA
 -Were tamper/custody seals on the bottle(s) or bottle kits (LLHg/MeHg)? Yes No NA
 -Were tamper/custody seals intact and uncompromised? Yes No NA

3. Shippers' packing slip attached to the cooler(s)? Yes No
 4. Did custody papers accompany the sample(s)? Yes No
 5. Were the custody papers relinquished & signed in the appropriate place? Yes No
 6. Was/were the person(s) who collected the samples clearly identified on the COC? Yes No
 7. Did all bottles arrive in good condition (Unbroken)? Yes No
 8. Could all bottle labels (ID/Date/Time) be reconciled with the COC? Yes No

9. For each sample, does the COC specify preservatives (Y/N), # of containers (Y/N), and sample type of grab/comp (Y/N)? Yes No

10. Were correct bottle(s) used for the test(s) indicated? Yes No
 11. Sufficient quantity received to perform indicated analyses? Yes No
 12. Are these work share samples and all listed on the COC? Yes No

If yes, Questions 13-17 have been checked at the originating laboratory.

13. Were all preserved sample(s) at the correct pH upon receipt? Yes No NA pH Strip Lot# HC907861
 14. Were VOAs on the COC? Yes No NA
 15. Were air bubbles >6 mm in any VOA vials? Yes No NA **●** ← Larger than this.
 16. Was a VOA trip blank present in the cooler(s)? Trip Blank Lot # _____ Yes No NA
 17. Was a LL Hg or Me Hg trip blank present? Yes No NA

Tests that are not checked for pH by Receiving:

VOAs
Oil and Grease
TOC

Contacted PM _____ Date _____ by _____ via Verbal Voice Mail Other _____

Concerning _____

18. CHAIN OF CUSTODY & SAMPLE DISCREPANCIES additional next page

Samples processed by: Ryan

19. SAMPLE CONDITION
 Sample(s) _____ were received after the recommended holding time had expired.
 Sample(s) _____ were received in a broken container.
 Sample(s) _____ were received with bubble >6 mm in diameter. (Notify PM)

20. SAMPLE PRESERVATION
 Sample(s) _____ were further preserved in the laboratory.
 Time preserved: _____ Preservative(s) added/Lot number(s): _____
 VOA Sample Preservation - Date/Time VOAs Frozen: _____

**Design Phase Investigation
Laboratory Reports**

Groundwater Samples

ANALYTICAL REPORT

Eurofins TestAmerica, Buffalo
10 Hazelwood Drive
Amherst, NY 14228-2298
Tel: (716)691-2600

Laboratory Job ID: 480-175323-1

Client Project/Site: Former Emerson Street Landfill Project

For:

LaBella Associates DPC
300 State Street
Suite 201
Rochester, New York 14614

Attn: Ann Aquilina Barber



Authorized for release by:

9/25/2020 12:16:00 PM

Rebecca Jones, Project Management Assistant I
Rebecca.Jones@Eurofinset.com

Designee for

Brian Fischer, Manager of Project Management
(716)504-9835

Brian.Fischer@Eurofinset.com

LINKS

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results through

TotalAccess

Have a Question?



Visit us at:

www.eurofinsus.com/Env

The test results in this report meet all 2003 NELAC, 2009 TNI, and 2016 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

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.



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Definitions/Glossary

Client: LaBella Associates DPC
Project/Site: Former Emerson Street Landfill Project

Job ID: 480-175323-1

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

GC/MS VOA TICs

Qualifier	Qualifier Description
J	Indicates an Estimated Value for TICs
N	Presumptive evidence of material.
T	Result is a tentatively identified compound (TIC) and an estimated value.

GC VOA

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

General Chemistry

Qualifier	Qualifier Description
E	Result exceeded calibration range.
H	Sample was prepped or analyzed beyond the specified holding time
HF	Field parameter with a holding time of 15 minutes. Test performed by laboratory at client's request.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

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

Case Narrative

Client: LaBella Associates DPC
Project/Site: Former Emerson Street Landfill Project

Job ID: 480-175323-1

Job ID: 480-175323-1

Laboratory: Eurofins TestAmerica, Buffalo

Narrative

Job Narrative 480-175323-1

Comments

No additional comments.

Receipt

The samples were received on 9/18/2020 10:00 AM; the samples arrived in good condition, and where required, properly preserved and on ice. The temperature of the cooler at receipt was 3.7° C.

GC/MS VOA

Method 8260C: The following sample was collected in a properly preserved vial; however, the pH was outside the required criteria when verified by the laboratory. The sample was analyzed within the 7-day holding time specified for unpreserved samples: LAB-SBW-16-09172020 33 (480-175323-7). Sample pH is 7.

Method 8260C: The following volatiles sample was diluted due to foaming at the time of purging during the original sample analysis: LAB-SBW-16-09172020 44 (480-175323-8). Elevated reporting limits (RLs) are provided.

Method 8260C: The following samples were diluted to bring the concentration of target analytes within the calibration range: LAB-SBW-16-09172020 33 (480-175323-7), LAB-SBW-15-09172020 28 (480-175323-9), LAB-SBW-15-09172020 28 (480-175323-9[MS]) and LAB-SBW-15-09172020 28 (480-175323-9[MSD]). Elevated reporting limits (RLs) are provided.

Method 8260C: The continuing calibration verification (CCV) associated with batch 480-550342 recovered above the upper control limit for Trichlorofluoromethane. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported. The associated samples are impacted: LAB-SBW-16-09172020 33 (480-175323-7), LAB-SBW-16-09172020 44 (480-175323-8) and LAB-SBW-15-09172020 28 (480-175323-9).

Method 8260C: The following sample was diluted to bring the concentration of target analytes within the calibration range: BD-GW-09172020 (480-175323-11). Elevated reporting limits (RLs) are provided.

Method 8260C: The following volatiles sample was diluted due to foaming at the time of purging during the original sample analysis: LAB-SBW-15-09172020 40 (480-175323-10). Elevated reporting limits (RLs) are provided.

Method 8260C: The continuing calibration verification (CCV) analyzed in 480-550523 was outside the method criteria for the following analyte: Methylcyclohexane. As indicated in the reference method, sample analysis may proceed; however, any detection for the affected analyte is considered estimated. The associated samples are impacted: LAB-SBW-15-09172020 40 (480-175323-10) and BD-GW-09172020 (480-175323-11).

Method 8260C: The continuing calibration verification (CCV) associated with batch 480-550523 recovered above the upper control limit for Methylcyclohexane. The sample associated with this CCV was non-detects for the affected analyte; therefore, the data have been reported. The associated sample is impacted: TRIP BLANK-09172020 (480-175323-12).

Method 8260C: The continuing calibration verification (CCV) analyzed in 480-550523 was outside the method criteria for the following analyte: 1,1,2-Trichloro-1,2,2-trifluoroethane. As indicated in the reference method, sample analysis may proceed; however, any detection for the affected analyte is considered estimated. The associated sample is impacted: BD-GW-09172020 (480-175323-11).

Method 8260C: The continuing calibration verification (CCV) associated with batch 480-550523 recovered above the upper control limit for 1,1,2-Trichloro-1,2,2-trifluoroethane. The samples associated with this CCV were non-detected above the reporting limit for the affected analyte; therefore, the data have been reported. The associated samples are impacted: LAB-SBW-15-09172020 40 (480-175323-10) and TRIP BLANK-09172020 (480-175323-12).

Method 8260C: The continuing calibration verification (CCV) associated with batch 480-550523 recovered above the upper control limit for 2-Hexanone, Cyclohexane, and Carbon disulfide. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported. The associated samples are impacted: LAB-SBW-15-09172020 40 (480-175323-10), BD-GW-09172020 (480-175323-11) and TRIP BLANK-09172020 (480-175323-12).

Case Narrative

Client: LaBella Associates DPC
Project/Site: Former Emerson Street Landfill Project

Job ID: 480-175323-1

Job ID: 480-175323-1 (Continued)

Laboratory: Eurofins TestAmerica, Buffalo (Continued)

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

HPLC/IC

Method 9056A: The following samples were diluted to bring the concentration of target analytes within the calibration range: LAB-SBW-19-09162020 35 (480-175323-1), LAB-SBW-19-09162020 47 (480-175323-2), LAB-SBW-18-09162020 38 (480-175323-3), LAB-SBW-18-09162020 47 (480-175323-4), LAB-SBW-17-09162020 42 (480-175323-5) and LAB-SBW-17-09162020 52 (480-175323-6). Elevated reporting limits (RLs) are provided.

Method 9056A: The following samples were diluted to bring the concentration of target analytes within the calibration range: LAB-SBW-17-09162020 42 (480-175323-5) and LAB-SBW-17-09162020 52 (480-175323-6). Elevated reporting limits (RLs) are provided.

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

GC VOA

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

General Chemistry

Method SM 3500 FE D: This analysis is normally performed in the field and has a method-defined holding time of 15 minutes. The following samples has been qualified with the "HF" flag to indicate analysis was performed in the laboratory outside the 15 minute timeframe: LAB-SBW-19-09162020 35 (480-175323-1), LAB-SBW-19-09162020 47 (480-175323-2), LAB-SBW-18-09162020 38 (480-175323-3), LAB-SBW-18-09162020 47 (480-175323-4), LAB-SBW-17-09162020 42 (480-175323-5) and LAB-SBW-17-09162020 52 (480-175323-6).

Method 353.2: The following sample(s) was received with less than 2 days remaining on the holding time or less than one shift (8 hours) remaining on a test with a holding time of 48 hours or less. As such, the laboratory had insufficient time remaining to perform the analysis within holding time: LAB-SBW-19-09162020 35 (480-175323-1), LAB-SBW-19-09162020 47 (480-175323-2), LAB-SBW-18-09162020 38 (480-175323-3) and LAB-SBW-18-09162020 47 (480-175323-4).

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

Detection Summary

Client: LaBella Associates DPC
Project/Site: Former Emerson Street Landfill Project

Job ID: 480-175323-1

Client Sample ID: LAB-SBW-19-09162020 35

Lab Sample ID: 480-175323-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	718		5.0	2.8	mg/L	10		9056A	Total/NA
Sulfate	41.0		20.0	3.5	mg/L	10		9056A	Total/NA

Client Sample ID: LAB-SBW-19-09162020 47

Lab Sample ID: 480-175323-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	666		5.0	2.8	mg/L	10		9056A	Total/NA
Sulfate	29.5		20.0	3.5	mg/L	10		9056A	Total/NA

Client Sample ID: LAB-SBW-18-09162020 38

Lab Sample ID: 480-175323-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Ethane	300		7.5	1.5	ug/L	1		RSK-175	Total/NA
Chloride	265		5.0	2.8	mg/L	10		9056A	Total/NA

Client Sample ID: LAB-SBW-18-09162020 47

Lab Sample ID: 480-175323-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	268		5.0	2.8	mg/L	10		9056A	Total/NA
Sulfide	0.80	J	1.0	0.67	mg/L	1		SM 4500 S2 F	Total/NA

Client Sample ID: LAB-SBW-17-09162020 42

Lab Sample ID: 480-175323-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Ethane	23		7.5	1.5	ug/L	1		RSK-175	Total/NA
Ethene	15		7.0	1.5	ug/L	1		RSK-175	Total/NA
Chloride	1030		10.0	5.6	mg/L	20		9056A	Total/NA
Sulfate	101		20.0	3.5	mg/L	10		9056A	Total/NA
Sulfide	0.80	J	1.0	0.67	mg/L	1		SM 4500 S2 F	Total/NA

Client Sample ID: LAB-SBW-17-09162020 52

Lab Sample ID: 480-175323-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Ethane	5.1	J	7.5	1.5	ug/L	1		RSK-175	Total/NA
Chloride	1130		10.0	5.6	mg/L	20		9056A	Total/NA
Sulfate	112		20.0	3.5	mg/L	10		9056A	Total/NA

Client Sample ID: LAB-SBW-16-09172020 33

Lab Sample ID: 480-175323-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1,1-Trichloroethane	380		40	33	ug/L	40		8260C	Total/NA
1,1,2-Trichloro-1,2,2-trifluoroethane	460		40	12	ug/L	40		8260C	Total/NA
1,1-Dichloroethane	750		40	15	ug/L	40		8260C	Total/NA
1,1-Dichloroethene	21	J	40	12	ug/L	40		8260C	Total/NA
Benzene	22	J	40	16	ug/L	40		8260C	Total/NA
Chloroethane	44		40	13	ug/L	40		8260C	Total/NA
cis-1,2-Dichloroethene	1800		40	32	ug/L	40		8260C	Total/NA
Methyl tert-butyl ether	24	J	40	6.4	ug/L	40		8260C	Total/NA
Toluene	120		40	20	ug/L	40		8260C	Total/NA
Vinyl chloride	950		40	36	ug/L	40		8260C	Total/NA
Xylenes, Total	50	J	80	26	ug/L	40		8260C	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins TestAmerica, Buffalo

Detection Summary

Client: LaBella Associates DPC
 Project/Site: Former Emerson Street Landfill Project

Job ID: 480-175323-1

Client Sample ID: LAB-SBW-16-09172020 44

Lab Sample ID: 480-175323-8

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1,1-Trichloroethane	10		4.0	3.3	ug/L	4		8260C	Total/NA
1,1,2-Trichloro-1,2,2-trifluoroethane	27		4.0	1.2	ug/L	4		8260C	Total/NA
1,1-Dichloroethane	34		4.0	1.5	ug/L	4		8260C	Total/NA
Chloroethane	3.7	J	4.0	1.3	ug/L	4		8260C	Total/NA
cis-1,2-Dichloroethene	28		4.0	3.2	ug/L	4		8260C	Total/NA
Toluene	8.8		4.0	2.0	ug/L	4		8260C	Total/NA
Vinyl chloride	14		4.0	3.6	ug/L	4		8260C	Total/NA
Xylenes, Total	7.2	J	8.0	2.6	ug/L	4		8260C	Total/NA

Client Sample ID: LAB-SBW-15-09172020 28

Lab Sample ID: 480-175323-9

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1,1-Trichloroethane	9.7	J	10	8.2	ug/L	10		8260C	Total/NA
1,1-Dichloroethane	40		10	3.8	ug/L	10		8260C	Total/NA
Benzene	35		10	4.1	ug/L	10		8260C	Total/NA
Chloroethane	260		10	3.2	ug/L	10		8260C	Total/NA
cis-1,2-Dichloroethene	53		10	8.1	ug/L	10		8260C	Total/NA
Methyl tert-butyl ether	6.4	J	10	1.6	ug/L	10		8260C	Total/NA
Methylcyclohexane	9.0	J	10	1.6	ug/L	10		8260C	Total/NA
Vinyl chloride	38		10	9.0	ug/L	10		8260C	Total/NA

Client Sample ID: LAB-SBW-15-09172020 40

Lab Sample ID: 480-175323-10

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1,1-Trichloroethane	14		10	8.2	ug/L	10		8260C	Total/NA
1,1,2-Trichloro-1,2,2-trifluoroethane	8.5	J	10	3.1	ug/L	10		8260C	Total/NA
1,1-Dichloroethane	58		10	3.8	ug/L	10		8260C	Total/NA
Benzene	45		10	4.1	ug/L	10		8260C	Total/NA
Chloroethane	160		10	3.2	ug/L	10		8260C	Total/NA
cis-1,2-Dichloroethene	71		10	8.1	ug/L	10		8260C	Total/NA
Methyl tert-butyl ether	7.5	J	10	1.6	ug/L	10		8260C	Total/NA
Methylcyclohexane	13		10	1.6	ug/L	10		8260C	Total/NA
Toluene	7.8	J	10	5.1	ug/L	10		8260C	Total/NA
Vinyl chloride	61		10	9.0	ug/L	10		8260C	Total/NA
Xylenes, Total	7.7	J	20	6.6	ug/L	10		8260C	Total/NA

Client Sample ID: BD-GW-09172020

Lab Sample ID: 480-175323-11

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1,1-Trichloroethane	11		5.0	4.1	ug/L	5		8260C	Total/NA
1,1,2-Trichloro-1,2,2-trifluoroethane	5.9		5.0	1.6	ug/L	5		8260C	Total/NA
1,1-Dichloroethane	46		5.0	1.9	ug/L	5		8260C	Total/NA
Benzene	45		5.0	2.1	ug/L	5		8260C	Total/NA
Chloroethane	350		5.0	1.6	ug/L	5		8260C	Total/NA
cis-1,2-Dichloroethene	58		5.0	4.1	ug/L	5		8260C	Total/NA
Isopropylbenzene	4.6	J	5.0	4.0	ug/L	5		8260C	Total/NA
Methyl tert-butyl ether	7.1		5.0	0.80	ug/L	5		8260C	Total/NA
Methylcyclohexane	18		5.0	0.80	ug/L	5		8260C	Total/NA
Methylene Chloride	2.6	J	5.0	2.2	ug/L	5		8260C	Total/NA
Toluene	6.2		5.0	2.6	ug/L	5		8260C	Total/NA
Vinyl chloride	46		5.0	4.5	ug/L	5		8260C	Total/NA
Xylenes, Total	6.0	J	10	3.3	ug/L	5		8260C	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins TestAmerica, Buffalo

Detection Summary

Client: LaBella Associates DPC
Project/Site: Former Emerson Street Landfill Project

Job ID: 480-175323-1

Client Sample ID: TRIP BLANK-09172020

Lab Sample ID: 480-175323-12

No Detections.

1

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This Detection Summary does not include radiochemical test results.

Eurofins TestAmerica, Buffalo

Client Sample Results

Client: LaBella Associates DPC
 Project/Site: Former Emerson Street Landfill Project

Job ID: 480-175323-1

Client Sample ID: LAB-SBW-19-09162020 35

Lab Sample ID: 480-175323-1

Date Collected: 09/16/20 11:05

Matrix: Water

Date Received: 09/18/20 10:00

Method: RSK-175 - Dissolved Gases (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethane	ND		7.5	1.5	ug/L			09/23/20 08:11	1
Ethene	ND		7.0	1.5	ug/L			09/23/20 08:11	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate	ND	H	0.050	0.020	mg/L as N			09/18/20 14:11	1
Nitrite	ND	H	0.050	0.020	mg/L as N			09/18/20 14:15	1
Chloride	718		5.0	2.8	mg/L			09/21/20 19:26	10
Sulfate	41.0		20.0	3.5	mg/L			09/21/20 19:26	10
Ferrous Iron	ND	HF	0.10	0.075	mg/L			09/19/20 13:50	1
Sulfide	ND		1.0	0.67	mg/L			09/22/20 16:35	1

Client Sample ID: LAB-SBW-19-09162020 47

Lab Sample ID: 480-175323-2

Date Collected: 09/16/20 12:40

Matrix: Water

Date Received: 09/18/20 10:00

Method: RSK-175 - Dissolved Gases (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethane	ND		7.5	1.5	ug/L			09/23/20 08:29	1
Ethene	ND		7.0	1.5	ug/L			09/23/20 08:29	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate	ND	H	0.050	0.020	mg/L as N			09/18/20 14:16	1
Nitrite	ND	H	0.050	0.020	mg/L as N			09/18/20 14:16	1
Chloride	666		5.0	2.8	mg/L			09/21/20 19:41	10
Sulfate	29.5		20.0	3.5	mg/L			09/21/20 19:41	10
Ferrous Iron	ND	HF	0.10	0.075	mg/L			09/19/20 13:50	1
Sulfide	ND		1.0	0.67	mg/L			09/22/20 16:35	1

Client Sample ID: LAB-SBW-18-09162020 38

Lab Sample ID: 480-175323-3

Date Collected: 09/16/20 11:15

Matrix: Water

Date Received: 09/18/20 10:00

Method: RSK-175 - Dissolved Gases (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethane	300		7.5	1.5	ug/L			09/23/20 08:48	1
Ethene	ND		7.0	1.5	ug/L			09/23/20 08:48	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate	ND	H	0.050	0.020	mg/L as N			09/18/20 14:17	1
Nitrite	ND	H	0.050	0.020	mg/L as N			09/18/20 14:18	1
Chloride	265		5.0	2.8	mg/L			09/21/20 20:54	10
Sulfate	ND		20.0	3.5	mg/L			09/21/20 20:54	10
Ferrous Iron	ND	HF	0.10	0.075	mg/L			09/19/20 13:50	1
Sulfide	ND		1.0	0.67	mg/L			09/22/20 16:35	1

Client Sample Results

Client: LaBella Associates DPC
 Project/Site: Former Emerson Street Landfill Project

Job ID: 480-175323-1

Client Sample ID: LAB-SBW-18-09162020 47

Lab Sample ID: 480-175323-4

Date Collected: 09/16/20 13:25

Matrix: Water

Date Received: 09/18/20 10:00

Method: RSK-175 - Dissolved Gases (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethane	ND		7.5	1.5	ug/L			09/23/20 09:07	1
Ethene	ND		7.0	1.5	ug/L			09/23/20 09:07	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate	ND	H	0.050	0.020	mg/L as N			09/18/20 14:18	1
Nitrite	ND	H	0.050	0.020	mg/L as N			09/18/20 14:17	1
Chloride	268		5.0	2.8	mg/L			09/21/20 21:08	10
Sulfate	ND		20.0	3.5	mg/L			09/21/20 21:08	10
Ferrous Iron	ND	HF	0.10	0.075	mg/L			09/19/20 13:50	1
Sulfide	0.80	J	1.0	0.67	mg/L			09/22/20 16:35	1

Client Sample ID: LAB-SBW-17-09162020 42

Lab Sample ID: 480-175323-5

Date Collected: 09/16/20 15:45

Matrix: Water

Date Received: 09/18/20 10:00

Method: RSK-175 - Dissolved Gases (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethane	23		7.5	1.5	ug/L			09/23/20 09:26	1
Ethene	15		7.0	1.5	ug/L			09/23/20 09:26	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate	ND		0.050	0.020	mg/L as N			09/18/20 14:10	1
Nitrite	ND		0.050	0.020	mg/L as N			09/18/20 14:10	1
Chloride	1030		10.0	5.6	mg/L			09/23/20 19:31	20
Sulfate	101		20.0	3.5	mg/L			09/21/20 21:23	10
Ferrous Iron	ND	HF	0.10	0.075	mg/L			09/19/20 13:50	1
Sulfide	0.80	J	1.0	0.67	mg/L			09/22/20 16:35	1

Client Sample ID: LAB-SBW-17-09162020 52

Lab Sample ID: 480-175323-6

Date Collected: 09/16/20 17:00

Matrix: Water

Date Received: 09/18/20 10:00

Method: RSK-175 - Dissolved Gases (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethane	5.1	J	7.5	1.5	ug/L			09/23/20 09:45	1
Ethene	ND		7.0	1.5	ug/L			09/23/20 09:45	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate	ND		0.050	0.020	mg/L as N			09/18/20 14:13	1
Nitrite	ND		0.050	0.020	mg/L as N			09/18/20 14:13	1
Chloride	1130		10.0	5.6	mg/L			09/23/20 19:46	20
Sulfate	112		20.0	3.5	mg/L			09/21/20 21:37	10
Ferrous Iron	ND	HF	0.10	0.075	mg/L			09/19/20 13:50	1
Sulfide	ND		1.0	0.67	mg/L			09/22/20 16:35	1

Client Sample Results

Client: LaBella Associates DPC
 Project/Site: Former Emerson Street Landfill Project

Job ID: 480-175323-1

Client Sample ID: LAB-SBW-16-09172020 33

Lab Sample ID: 480-175323-7

Date Collected: 09/17/20 09:20

Matrix: Water

Date Received: 09/18/20 10:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	380		40	33	ug/L			09/21/20 14:25	40
1,1,2,2-Tetrachloroethane	ND		40	8.4	ug/L			09/21/20 14:25	40
1,1,2-Trichloroethane	ND		40	9.2	ug/L			09/21/20 14:25	40
1,1,2-Trichloro-1,2,2-trifluoroethane	460		40	12	ug/L			09/21/20 14:25	40
1,1-Dichloroethane	750		40	15	ug/L			09/21/20 14:25	40
1,1-Dichloroethene	21	J	40	12	ug/L			09/21/20 14:25	40
1,2,4-Trichlorobenzene	ND		40	16	ug/L			09/21/20 14:25	40
1,2-Dibromo-3-Chloropropane	ND		40	16	ug/L			09/21/20 14:25	40
1,2-Dichlorobenzene	ND		40	32	ug/L			09/21/20 14:25	40
1,2-Dichloroethane	ND		40	8.4	ug/L			09/21/20 14:25	40
1,2-Dichloropropane	ND		40	29	ug/L			09/21/20 14:25	40
1,3-Dichlorobenzene	ND		40	31	ug/L			09/21/20 14:25	40
1,4-Dichlorobenzene	ND		40	34	ug/L			09/21/20 14:25	40
2-Butanone (MEK)	ND		400	53	ug/L			09/21/20 14:25	40
2-Hexanone	ND		200	50	ug/L			09/21/20 14:25	40
4-Methyl-2-pentanone (MIBK)	ND		200	84	ug/L			09/21/20 14:25	40
Acetone	ND		400	120	ug/L			09/21/20 14:25	40
Benzene	22	J	40	16	ug/L			09/21/20 14:25	40
Bromodichloromethane	ND		40	16	ug/L			09/21/20 14:25	40
Bromoform	ND		40	10	ug/L			09/21/20 14:25	40
Bromomethane	ND		40	28	ug/L			09/21/20 14:25	40
Carbon disulfide	ND		40	7.6	ug/L			09/21/20 14:25	40
Carbon tetrachloride	ND		40	11	ug/L			09/21/20 14:25	40
Chlorobenzene	ND		40	30	ug/L			09/21/20 14:25	40
Dibromochloromethane	ND		40	13	ug/L			09/21/20 14:25	40
Chloroethane	44		40	13	ug/L			09/21/20 14:25	40
Chloroform	ND		40	14	ug/L			09/21/20 14:25	40
Chloromethane	ND		40	14	ug/L			09/21/20 14:25	40
cis-1,2-Dichloroethene	1800		40	32	ug/L			09/21/20 14:25	40
cis-1,3-Dichloropropene	ND		40	14	ug/L			09/21/20 14:25	40
Cyclohexane	ND		40	7.2	ug/L			09/21/20 14:25	40
Dichlorodifluoromethane	ND		40	27	ug/L			09/21/20 14:25	40
Ethylbenzene	ND		40	30	ug/L			09/21/20 14:25	40
1,2-Dibromoethane	ND		40	29	ug/L			09/21/20 14:25	40
Isopropylbenzene	ND		40	32	ug/L			09/21/20 14:25	40
Methyl acetate	ND		100	52	ug/L			09/21/20 14:25	40
Methyl tert-butyl ether	24	J	40	6.4	ug/L			09/21/20 14:25	40
Methylcyclohexane	ND		40	6.4	ug/L			09/21/20 14:25	40
Methylene Chloride	ND		40	18	ug/L			09/21/20 14:25	40
Styrene	ND		40	29	ug/L			09/21/20 14:25	40
Tetrachloroethene	ND		40	14	ug/L			09/21/20 14:25	40
Toluene	120		40	20	ug/L			09/21/20 14:25	40
trans-1,2-Dichloroethene	ND		40	36	ug/L			09/21/20 14:25	40
trans-1,3-Dichloropropene	ND		40	15	ug/L			09/21/20 14:25	40
Trichloroethene	ND		40	18	ug/L			09/21/20 14:25	40
Trichlorofluoromethane	ND		40	35	ug/L			09/21/20 14:25	40
Vinyl chloride	950		40	36	ug/L			09/21/20 14:25	40
Xylenes, Total	50	J	80	26	ug/L			09/21/20 14:25	40

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Client Sample Results

Client: LaBella Associates DPC
 Project/Site: Former Emerson Street Landfill Project

Job ID: 480-175323-1

Client Sample ID: LAB-SBW-16-09172020 33

Lab Sample ID: 480-175323-7

Date Collected: 09/17/20 09:20

Matrix: Water

Date Received: 09/18/20 10:00

<i>Tentatively Identified Compound</i>	<i>Est. Result</i>	<i>Qualifier</i>	<i>Unit</i>	<i>D</i>	<i>RT</i>	<i>CAS No.</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Dil Fac</i>
<i>Tentatively Identified Compound</i>	<i>None</i>		<i>ug/L</i>					<i>09/21/20 14:25</i>	<i>40</i>
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
<i>Toluene-d8 (Surr)</i>	99		80 - 120					<i>09/21/20 14:25</i>	<i>40</i>
<i>1,2-Dichloroethane-d4 (Surr)</i>	109		77 - 120					<i>09/21/20 14:25</i>	<i>40</i>
<i>4-Bromofluorobenzene (Surr)</i>	98		73 - 120					<i>09/21/20 14:25</i>	<i>40</i>
<i>Dibromofluoromethane (Surr)</i>	101		75 - 123					<i>09/21/20 14:25</i>	<i>40</i>

Client Sample ID: LAB-SBW-16-09172020 44

Lab Sample ID: 480-175323-8

Date Collected: 09/17/20 11:15

Matrix: Water

Date Received: 09/18/20 10:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	10		4.0	3.3	ug/L			09/21/20 14:49	4
1,1,1,2-Tetrachloroethane	ND		4.0	0.84	ug/L			09/21/20 14:49	4
1,1,2-Trichloroethane	ND		4.0	0.92	ug/L			09/21/20 14:49	4
1,1,2-Trichloro-1,2,2-trifluoroethane	27		4.0	1.2	ug/L			09/21/20 14:49	4
1,1-Dichloroethane	34		4.0	1.5	ug/L			09/21/20 14:49	4
1,1-Dichloroethene	ND		4.0	1.2	ug/L			09/21/20 14:49	4
1,2,4-Trichlorobenzene	ND		4.0	1.6	ug/L			09/21/20 14:49	4
1,2-Dibromo-3-Chloropropane	ND		4.0	1.6	ug/L			09/21/20 14:49	4
1,2-Dichlorobenzene	ND		4.0	3.2	ug/L			09/21/20 14:49	4
1,2-Dichloroethane	ND		4.0	0.84	ug/L			09/21/20 14:49	4
1,2-Dichloropropane	ND		4.0	2.9	ug/L			09/21/20 14:49	4
1,3-Dichlorobenzene	ND		4.0	3.1	ug/L			09/21/20 14:49	4
1,4-Dichlorobenzene	ND		4.0	3.4	ug/L			09/21/20 14:49	4
2-Butanone (MEK)	ND		40	5.3	ug/L			09/21/20 14:49	4
2-Hexanone	ND		20	5.0	ug/L			09/21/20 14:49	4
4-Methyl-2-pentanone (MIBK)	ND		20	8.4	ug/L			09/21/20 14:49	4
Acetone	ND		40	12	ug/L			09/21/20 14:49	4
Benzene	ND		4.0	1.6	ug/L			09/21/20 14:49	4
Bromodichloromethane	ND		4.0	1.6	ug/L			09/21/20 14:49	4
Bromoform	ND		4.0	1.0	ug/L			09/21/20 14:49	4
Bromomethane	ND		4.0	2.8	ug/L			09/21/20 14:49	4
Carbon disulfide	ND		4.0	0.76	ug/L			09/21/20 14:49	4
Carbon tetrachloride	ND		4.0	1.1	ug/L			09/21/20 14:49	4
Chlorobenzene	ND		4.0	3.0	ug/L			09/21/20 14:49	4
Dibromochloromethane	ND		4.0	1.3	ug/L			09/21/20 14:49	4
Chloroethane	3.7 J		4.0	1.3	ug/L			09/21/20 14:49	4
Chloroform	ND		4.0	1.4	ug/L			09/21/20 14:49	4
Chloromethane	ND		4.0	1.4	ug/L			09/21/20 14:49	4
cis-1,2-Dichloroethene	28		4.0	3.2	ug/L			09/21/20 14:49	4
cis-1,3-Dichloropropene	ND		4.0	1.4	ug/L			09/21/20 14:49	4
Cyclohexane	ND		4.0	0.72	ug/L			09/21/20 14:49	4
Dichlorodifluoromethane	ND		4.0	2.7	ug/L			09/21/20 14:49	4
Ethylbenzene	ND		4.0	3.0	ug/L			09/21/20 14:49	4
1,2-Dibromoethane	ND		4.0	2.9	ug/L			09/21/20 14:49	4
Isopropylbenzene	ND		4.0	3.2	ug/L			09/21/20 14:49	4
Methyl acetate	ND		10	5.2	ug/L			09/21/20 14:49	4

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Client Sample Results

Client: LaBella Associates DPC
 Project/Site: Former Emerson Street Landfill Project

Job ID: 480-175323-1

Client Sample ID: LAB-SBW-16-09172020 44

Lab Sample ID: 480-175323-8

Date Collected: 09/17/20 11:15

Matrix: Water

Date Received: 09/18/20 10:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methyl tert-butyl ether	ND		4.0	0.64	ug/L			09/21/20 14:49	4
Methylcyclohexane	ND		4.0	0.64	ug/L			09/21/20 14:49	4
Methylene Chloride	ND		4.0	1.8	ug/L			09/21/20 14:49	4
Styrene	ND		4.0	2.9	ug/L			09/21/20 14:49	4
Tetrachloroethene	ND		4.0	1.4	ug/L			09/21/20 14:49	4
Toluene	8.8		4.0	2.0	ug/L			09/21/20 14:49	4
trans-1,2-Dichloroethene	ND		4.0	3.6	ug/L			09/21/20 14:49	4
trans-1,3-Dichloropropene	ND		4.0	1.5	ug/L			09/21/20 14:49	4
Trichloroethene	ND		4.0	1.8	ug/L			09/21/20 14:49	4
Trichlorofluoromethane	ND		4.0	3.5	ug/L			09/21/20 14:49	4
Vinyl chloride	14		4.0	3.6	ug/L			09/21/20 14:49	4
Xylenes, Total	7.2 J		8.0	2.6	ug/L			09/21/20 14:49	4

Tentatively Identified Compound	Est. Result	Qualifier	Unit	D	RT	CAS No.	Prepared	Analyzed	Dil Fac
Tentatively Identified Compound	None		ug/L					09/21/20 14:49	4

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	103		80 - 120		09/21/20 14:49	4
1,2-Dichloroethane-d4 (Surr)	113		77 - 120		09/21/20 14:49	4
4-Bromofluorobenzene (Surr)	104		73 - 120		09/21/20 14:49	4
Dibromofluoromethane (Surr)	107		75 - 123		09/21/20 14:49	4

Client Sample ID: LAB-SBW-15-09172020 28

Lab Sample ID: 480-175323-9

Date Collected: 09/17/20 09:30

Matrix: Water

Date Received: 09/18/20 10:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	9.7 J		10	8.2	ug/L			09/21/20 15:13	10
1,1,1,2,2-Tetrachloroethane	ND		10	2.1	ug/L			09/21/20 15:13	10
1,1,2-Trichloroethane	ND		10	2.3	ug/L			09/21/20 15:13	10
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		10	3.1	ug/L			09/21/20 15:13	10
1,1-Dichloroethane	40		10	3.8	ug/L			09/21/20 15:13	10
1,1-Dichloroethene	ND		10	2.9	ug/L			09/21/20 15:13	10
1,2,4-Trichlorobenzene	ND		10	4.1	ug/L			09/21/20 15:13	10
1,2-Dibromo-3-Chloropropane	ND		10	3.9	ug/L			09/21/20 15:13	10
1,2-Dichlorobenzene	ND		10	7.9	ug/L			09/21/20 15:13	10
1,2-Dichloroethane	ND		10	2.1	ug/L			09/21/20 15:13	10
1,2-Dichloropropane	ND		10	7.2	ug/L			09/21/20 15:13	10
1,3-Dichlorobenzene	ND		10	7.8	ug/L			09/21/20 15:13	10
1,4-Dichlorobenzene	ND		10	8.4	ug/L			09/21/20 15:13	10
2-Butanone (MEK)	ND		100	13	ug/L			09/21/20 15:13	10
2-Hexanone	ND		50	12	ug/L			09/21/20 15:13	10
4-Methyl-2-pentanone (MIBK)	ND		50	21	ug/L			09/21/20 15:13	10
Acetone	ND		100	30	ug/L			09/21/20 15:13	10
Benzene	35		10	4.1	ug/L			09/21/20 15:13	10
Bromodichloromethane	ND		10	3.9	ug/L			09/21/20 15:13	10
Bromoform	ND		10	2.6	ug/L			09/21/20 15:13	10
Bromomethane	ND		10	6.9	ug/L			09/21/20 15:13	10
Carbon disulfide	ND		10	1.9	ug/L			09/21/20 15:13	10

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Client Sample Results

Client: LaBella Associates DPC
Project/Site: Former Emerson Street Landfill Project

Job ID: 480-175323-1

Client Sample ID: LAB-SBW-15-09172020 28

Lab Sample ID: 480-175323-9

Date Collected: 09/17/20 09:30

Matrix: Water

Date Received: 09/18/20 10:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Carbon tetrachloride	ND		10	2.7	ug/L			09/21/20 15:13	10
Chlorobenzene	ND		10	7.5	ug/L			09/21/20 15:13	10
Dibromochloromethane	ND		10	3.2	ug/L			09/21/20 15:13	10
Chloroethane	260		10	3.2	ug/L			09/21/20 15:13	10
Chloroform	ND		10	3.4	ug/L			09/21/20 15:13	10
Chloromethane	ND		10	3.5	ug/L			09/21/20 15:13	10
cis-1,2-Dichloroethene	53		10	8.1	ug/L			09/21/20 15:13	10
cis-1,3-Dichloropropene	ND		10	3.6	ug/L			09/21/20 15:13	10
Cyclohexane	ND		10	1.8	ug/L			09/21/20 15:13	10
Dichlorodifluoromethane	ND		10	6.8	ug/L			09/21/20 15:13	10
Ethylbenzene	ND		10	7.4	ug/L			09/21/20 15:13	10
1,2-Dibromoethane	ND		10	7.3	ug/L			09/21/20 15:13	10
Isopropylbenzene	ND		10	7.9	ug/L			09/21/20 15:13	10
Methyl acetate	ND		25	13	ug/L			09/21/20 15:13	10
Methyl tert-butyl ether	6.4	J	10	1.6	ug/L			09/21/20 15:13	10
Methylcyclohexane	9.0	J	10	1.6	ug/L			09/21/20 15:13	10
Methylene Chloride	ND		10	4.4	ug/L			09/21/20 15:13	10
Styrene	ND		10	7.3	ug/L			09/21/20 15:13	10
Tetrachloroethene	ND		10	3.6	ug/L			09/21/20 15:13	10
Toluene	ND		10	5.1	ug/L			09/21/20 15:13	10
trans-1,2-Dichloroethene	ND		10	9.0	ug/L			09/21/20 15:13	10
trans-1,3-Dichloropropene	ND		10	3.7	ug/L			09/21/20 15:13	10
Trichloroethene	ND		10	4.6	ug/L			09/21/20 15:13	10
Trichlorofluoromethane	ND		10	8.8	ug/L			09/21/20 15:13	10
Vinyl chloride	38		10	9.0	ug/L			09/21/20 15:13	10
Xylenes, Total	ND		20	6.6	ug/L			09/21/20 15:13	10

Tentatively Identified Compound	Est. Result	Qualifier	Unit	D	RT	CAS No.	Prepared	Analyzed	Dil Fac
Tentatively Identified Compound	None		ug/L					09/21/20 15:13	10

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	101		80 - 120		09/21/20 15:13	10
1,2-Dichloroethane-d4 (Surr)	110		77 - 120		09/21/20 15:13	10
4-Bromofluorobenzene (Surr)	103		73 - 120		09/21/20 15:13	10
Dibromofluoromethane (Surr)	104		75 - 123		09/21/20 15:13	10

Client Sample ID: LAB-SBW-15-09172020 40

Lab Sample ID: 480-175323-10

Date Collected: 09/17/20 11:10

Matrix: Water

Date Received: 09/18/20 10:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	14		10	8.2	ug/L			09/22/20 16:15	10
1,1,1,2-Tetrachloroethane	ND		10	2.1	ug/L			09/22/20 16:15	10
1,1,2-Trichloroethane	ND		10	2.3	ug/L			09/22/20 16:15	10
1,1,2-Trichloro-1,2,2-trifluoroethane	8.5	J	10	3.1	ug/L			09/22/20 16:15	10
1,1-Dichloroethane	58		10	3.8	ug/L			09/22/20 16:15	10
1,1-Dichloroethene	ND		10	2.9	ug/L			09/22/20 16:15	10
1,2,4-Trichlorobenzene	ND		10	4.1	ug/L			09/22/20 16:15	10
1,2-Dibromo-3-Chloropropane	ND		10	3.9	ug/L			09/22/20 16:15	10

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Client Sample Results

Client: LaBella Associates DPC
Project/Site: Former Emerson Street Landfill Project

Job ID: 480-175323-1

Client Sample ID: LAB-SBW-15-09172020 40

Lab Sample ID: 480-175323-10

Date Collected: 09/17/20 11:10

Matrix: Water

Date Received: 09/18/20 10:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichlorobenzene	ND		10	7.9	ug/L			09/22/20 16:15	10
1,2-Dichloroethane	ND		10	2.1	ug/L			09/22/20 16:15	10
1,2-Dichloropropane	ND		10	7.2	ug/L			09/22/20 16:15	10
1,3-Dichlorobenzene	ND		10	7.8	ug/L			09/22/20 16:15	10
1,4-Dichlorobenzene	ND		10	8.4	ug/L			09/22/20 16:15	10
2-Butanone (MEK)	ND		100	13	ug/L			09/22/20 16:15	10
2-Hexanone	ND		50	12	ug/L			09/22/20 16:15	10
4-Methyl-2-pentanone (MIBK)	ND		50	21	ug/L			09/22/20 16:15	10
Acetone	ND		100	30	ug/L			09/22/20 16:15	10
Benzene	45		10	4.1	ug/L			09/22/20 16:15	10
Bromodichloromethane	ND		10	3.9	ug/L			09/22/20 16:15	10
Bromoform	ND		10	2.6	ug/L			09/22/20 16:15	10
Bromomethane	ND		10	6.9	ug/L			09/22/20 16:15	10
Carbon disulfide	ND		10	1.9	ug/L			09/22/20 16:15	10
Carbon tetrachloride	ND		10	2.7	ug/L			09/22/20 16:15	10
Chlorobenzene	ND		10	7.5	ug/L			09/22/20 16:15	10
Dibromochloromethane	ND		10	3.2	ug/L			09/22/20 16:15	10
Chloroethane	160		10	3.2	ug/L			09/22/20 16:15	10
Chloroform	ND		10	3.4	ug/L			09/22/20 16:15	10
Chloromethane	ND		10	3.5	ug/L			09/22/20 16:15	10
cis-1,2-Dichloroethene	71		10	8.1	ug/L			09/22/20 16:15	10
cis-1,3-Dichloropropene	ND		10	3.6	ug/L			09/22/20 16:15	10
Cyclohexane	ND		10	1.8	ug/L			09/22/20 16:15	10
Dichlorodifluoromethane	ND		10	6.8	ug/L			09/22/20 16:15	10
Ethylbenzene	ND		10	7.4	ug/L			09/22/20 16:15	10
1,2-Dibromoethane	ND		10	7.3	ug/L			09/22/20 16:15	10
Isopropylbenzene	ND		10	7.9	ug/L			09/22/20 16:15	10
Methyl acetate	ND		25	13	ug/L			09/22/20 16:15	10
Methyl tert-butyl ether	7.5 J		10	1.6	ug/L			09/22/20 16:15	10
Methylcyclohexane	13		10	1.6	ug/L			09/22/20 16:15	10
Methylene Chloride	ND		10	4.4	ug/L			09/22/20 16:15	10
Styrene	ND		10	7.3	ug/L			09/22/20 16:15	10
Tetrachloroethene	ND		10	3.6	ug/L			09/22/20 16:15	10
Toluene	7.8 J		10	5.1	ug/L			09/22/20 16:15	10
trans-1,2-Dichloroethene	ND		10	9.0	ug/L			09/22/20 16:15	10
trans-1,3-Dichloropropene	ND		10	3.7	ug/L			09/22/20 16:15	10
Trichloroethene	ND		10	4.6	ug/L			09/22/20 16:15	10
Trichlorofluoromethane	ND		10	8.8	ug/L			09/22/20 16:15	10
Vinyl chloride	61		10	9.0	ug/L			09/22/20 16:15	10
Xylenes, Total	7.7 J		20	6.6	ug/L			09/22/20 16:15	10

Tentatively Identified Compound	Est. Result	Qualifier	Unit	D	RT	CAS No.	Prepared	Analyzed	Dil Fac
Tentatively Identified Compound	None		ug/L					09/22/20 16:15	10

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	98		80 - 120		09/22/20 16:15	10
1,2-Dichloroethane-d4 (Surr)	103		77 - 120		09/22/20 16:15	10
4-Bromofluorobenzene (Surr)	99		73 - 120		09/22/20 16:15	10
Dibromofluoromethane (Surr)	103		75 - 123		09/22/20 16:15	10

Eurofins TestAmerica, Buffalo

Client Sample Results

Client: LaBella Associates DPC
 Project/Site: Former Emerson Street Landfill Project

Job ID: 480-175323-1

Client Sample ID: BD-GW-09172020

Lab Sample ID: 480-175323-11

Date Collected: 09/17/20 00:00

Matrix: Water

Date Received: 09/18/20 10:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	11		5.0	4.1	ug/L			09/22/20 16:39	5
1,1,1,2,2-Tetrachloroethane	ND		5.0	1.1	ug/L			09/22/20 16:39	5
1,1,2-Trichloroethane	ND		5.0	1.2	ug/L			09/22/20 16:39	5
1,1,2-Trichloro-1,2,2-trifluoroethane	5.9		5.0	1.6	ug/L			09/22/20 16:39	5
1,1-Dichloroethane	46		5.0	1.9	ug/L			09/22/20 16:39	5
1,1-Dichloroethene	ND		5.0	1.5	ug/L			09/22/20 16:39	5
1,2,4-Trichlorobenzene	ND		5.0	2.1	ug/L			09/22/20 16:39	5
1,2-Dibromo-3-Chloropropane	ND		5.0	2.0	ug/L			09/22/20 16:39	5
1,2-Dichlorobenzene	ND		5.0	4.0	ug/L			09/22/20 16:39	5
1,2-Dichloroethane	ND		5.0	1.1	ug/L			09/22/20 16:39	5
1,2-Dichloropropane	ND		5.0	3.6	ug/L			09/22/20 16:39	5
1,3-Dichlorobenzene	ND		5.0	3.9	ug/L			09/22/20 16:39	5
1,4-Dichlorobenzene	ND		5.0	4.2	ug/L			09/22/20 16:39	5
2-Butanone (MEK)	ND		50	6.6	ug/L			09/22/20 16:39	5
2-Hexanone	ND		25	6.2	ug/L			09/22/20 16:39	5
4-Methyl-2-pentanone (MIBK)	ND		25	11	ug/L			09/22/20 16:39	5
Acetone	ND		50	15	ug/L			09/22/20 16:39	5
Benzene	45		5.0	2.1	ug/L			09/22/20 16:39	5
Bromodichloromethane	ND		5.0	2.0	ug/L			09/22/20 16:39	5
Bromoform	ND		5.0	1.3	ug/L			09/22/20 16:39	5
Bromomethane	ND		5.0	3.5	ug/L			09/22/20 16:39	5
Carbon disulfide	ND		5.0	0.95	ug/L			09/22/20 16:39	5
Carbon tetrachloride	ND		5.0	1.4	ug/L			09/22/20 16:39	5
Chlorobenzene	ND		5.0	3.8	ug/L			09/22/20 16:39	5
Dibromochloromethane	ND		5.0	1.6	ug/L			09/22/20 16:39	5
Chloroethane	350		5.0	1.6	ug/L			09/22/20 16:39	5
Chloroform	ND		5.0	1.7	ug/L			09/22/20 16:39	5
Chloromethane	ND		5.0	1.8	ug/L			09/22/20 16:39	5
cis-1,2-Dichloroethene	58		5.0	4.1	ug/L			09/22/20 16:39	5
cis-1,3-Dichloropropene	ND		5.0	1.8	ug/L			09/22/20 16:39	5
Cyclohexane	ND		5.0	0.90	ug/L			09/22/20 16:39	5
Dichlorodifluoromethane	ND		5.0	3.4	ug/L			09/22/20 16:39	5
Ethylbenzene	ND		5.0	3.7	ug/L			09/22/20 16:39	5
1,2-Dibromoethane	ND		5.0	3.7	ug/L			09/22/20 16:39	5
Isopropylbenzene	4.6 J		5.0	4.0	ug/L			09/22/20 16:39	5
Methyl acetate	ND		13	6.5	ug/L			09/22/20 16:39	5
Methyl tert-butyl ether	7.1		5.0	0.80	ug/L			09/22/20 16:39	5
Methylcyclohexane	18		5.0	0.80	ug/L			09/22/20 16:39	5
Methylene Chloride	2.6 J		5.0	2.2	ug/L			09/22/20 16:39	5
Styrene	ND		5.0	3.7	ug/L			09/22/20 16:39	5
Tetrachloroethene	ND		5.0	1.8	ug/L			09/22/20 16:39	5
Toluene	6.2		5.0	2.6	ug/L			09/22/20 16:39	5
trans-1,2-Dichloroethene	ND		5.0	4.5	ug/L			09/22/20 16:39	5
trans-1,3-Dichloropropene	ND		5.0	1.9	ug/L			09/22/20 16:39	5
Trichloroethene	ND		5.0	2.3	ug/L			09/22/20 16:39	5
Trichlorofluoromethane	ND		5.0	4.4	ug/L			09/22/20 16:39	5
Vinyl chloride	46		5.0	4.5	ug/L			09/22/20 16:39	5
Xylenes, Total	6.0 J		10	3.3	ug/L			09/22/20 16:39	5

Eurofins TestAmerica, Buffalo

Client Sample Results

Client: LaBella Associates DPC
Project/Site: Former Emerson Street Landfill Project

Job ID: 480-175323-1

Client Sample ID: BD-GW-09172020

Lab Sample ID: 480-175323-11

Date Collected: 09/17/20 00:00

Matrix: Water

Date Received: 09/18/20 10:00

<i>Tentatively Identified Compound</i>	<i>Est. Result</i>	<i>Qualifier</i>	<i>Unit</i>	<i>D</i>	<i>RT</i>	<i>CAS No.</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Dil Fac</i>
Ethene, ethyloxy-	14	T J N	ug/L		2.16	1000221-95-9		09/22/20 16:39	5
Unknown	14	T J	ug/L		7.55			09/22/20 16:39	5
Unknown	18	T J	ug/L		8.96			09/22/20 16:39	5
<i>Surrogate</i>	<i>%Recovery</i>	<i>Qualifier</i>	<i>Limits</i>				<i>Prepared</i>	<i>Analyzed</i>	<i>Dil Fac</i>
Toluene-d8 (Surr)	99		80 - 120					09/22/20 16:39	5
1,2-Dichloroethane-d4 (Surr)	104		77 - 120					09/22/20 16:39	5
4-Bromofluorobenzene (Surr)	98		73 - 120					09/22/20 16:39	5
Dibromofluoromethane (Surr)	103		75 - 123					09/22/20 16:39	5

Client Sample ID: TRIP BLANK-09172020

Lab Sample ID: 480-175323-12

Date Collected: 09/17/20 08:00

Matrix: Water

Date Received: 09/18/20 10:00

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

<i>Analyte</i>	<i>Result</i>	<i>Qualifier</i>	<i>RL</i>	<i>MDL</i>	<i>Unit</i>	<i>D</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Dil Fac</i>
1,1,1-Trichloroethane	ND		1.0	0.82	ug/L			09/22/20 17:03	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.21	ug/L			09/22/20 17:03	1
1,1,2-Trichloroethane	ND		1.0	0.23	ug/L			09/22/20 17:03	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.0	0.31	ug/L			09/22/20 17:03	1
1,1-Dichloroethane	ND		1.0	0.38	ug/L			09/22/20 17:03	1
1,1-Dichloroethene	ND		1.0	0.29	ug/L			09/22/20 17:03	1
1,2,4-Trichlorobenzene	ND		1.0	0.41	ug/L			09/22/20 17:03	1
1,2-Dibromo-3-Chloropropane	ND		1.0	0.39	ug/L			09/22/20 17:03	1
1,2-Dichlorobenzene	ND		1.0	0.79	ug/L			09/22/20 17:03	1
1,2-Dichloroethane	ND		1.0	0.21	ug/L			09/22/20 17:03	1
1,2-Dichloropropane	ND		1.0	0.72	ug/L			09/22/20 17:03	1
1,3-Dichlorobenzene	ND		1.0	0.78	ug/L			09/22/20 17:03	1
1,4-Dichlorobenzene	ND		1.0	0.84	ug/L			09/22/20 17:03	1
2-Butanone (MEK)	ND		10	1.3	ug/L			09/22/20 17:03	1
2-Hexanone	ND		5.0	1.2	ug/L			09/22/20 17:03	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	2.1	ug/L			09/22/20 17:03	1
Acetone	ND		10	3.0	ug/L			09/22/20 17:03	1
Benzene	ND		1.0	0.41	ug/L			09/22/20 17:03	1
Bromodichloromethane	ND		1.0	0.39	ug/L			09/22/20 17:03	1
Bromoform	ND		1.0	0.26	ug/L			09/22/20 17:03	1
Bromomethane	ND		1.0	0.69	ug/L			09/22/20 17:03	1
Carbon disulfide	ND		1.0	0.19	ug/L			09/22/20 17:03	1
Carbon tetrachloride	ND		1.0	0.27	ug/L			09/22/20 17:03	1
Chlorobenzene	ND		1.0	0.75	ug/L			09/22/20 17:03	1
Dibromochloromethane	ND		1.0	0.32	ug/L			09/22/20 17:03	1
Chloroethane	ND		1.0	0.32	ug/L			09/22/20 17:03	1
Chloroform	ND		1.0	0.34	ug/L			09/22/20 17:03	1
Chloromethane	ND		1.0	0.35	ug/L			09/22/20 17:03	1
cis-1,2-Dichloroethene	ND		1.0	0.81	ug/L			09/22/20 17:03	1
cis-1,3-Dichloropropene	ND		1.0	0.36	ug/L			09/22/20 17:03	1
Cyclohexane	ND		1.0	0.18	ug/L			09/22/20 17:03	1
Dichlorodifluoromethane	ND		1.0	0.68	ug/L			09/22/20 17:03	1
Ethylbenzene	ND		1.0	0.74	ug/L			09/22/20 17:03	1
1,2-Dibromoethane	ND		1.0	0.73	ug/L			09/22/20 17:03	1

Eurolins TestAmerica, Buffalo

Client Sample Results

Client: LaBella Associates DPC
 Project/Site: Former Emerson Street Landfill Project

Job ID: 480-175323-1

Client Sample ID: TRIP BLANK-09172020

Lab Sample ID: 480-175323-12

Date Collected: 09/17/20 08:00

Matrix: Water

Date Received: 09/18/20 10:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Isopropylbenzene	ND		1.0	0.79	ug/L			09/22/20 17:03	1
Methyl acetate	ND		2.5	1.3	ug/L			09/22/20 17:03	1
Methyl tert-butyl ether	ND		1.0	0.16	ug/L			09/22/20 17:03	1
Methylcyclohexane	ND		1.0	0.16	ug/L			09/22/20 17:03	1
Methylene Chloride	ND		1.0	0.44	ug/L			09/22/20 17:03	1
Styrene	ND		1.0	0.73	ug/L			09/22/20 17:03	1
Tetrachloroethene	ND		1.0	0.36	ug/L			09/22/20 17:03	1
Toluene	ND		1.0	0.51	ug/L			09/22/20 17:03	1
trans-1,2-Dichloroethene	ND		1.0	0.90	ug/L			09/22/20 17:03	1
trans-1,3-Dichloropropene	ND		1.0	0.37	ug/L			09/22/20 17:03	1
Trichloroethene	ND		1.0	0.46	ug/L			09/22/20 17:03	1
Trichlorofluoromethane	ND		1.0	0.88	ug/L			09/22/20 17:03	1
Vinyl chloride	ND		1.0	0.90	ug/L			09/22/20 17:03	1
Xylenes, Total	ND		2.0	0.66	ug/L			09/22/20 17:03	1

Tentatively Identified Compound	Est. Result	Qualifier	Unit	D	RT	CAS No.	Prepared	Analyzed	Dil Fac
Tentatively Identified Compound	None		ug/L					09/22/20 17:03	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	99		80 - 120		09/22/20 17:03	1
1,2-Dichloroethane-d4 (Surr)	104		77 - 120		09/22/20 17:03	1
4-Bromofluorobenzene (Surr)	97		73 - 120		09/22/20 17:03	1
Dibromofluoromethane (Surr)	97		75 - 123		09/22/20 17:03	1

Surrogate Summary

Client: LaBella Associates DPC
 Project/Site: Former Emerson Street Landfill Project

Job ID: 480-175323-1

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

Matrix: Water

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)			
		TOL (80-120)	DCA (77-120)	BFB (73-120)	DBFM (75-123)
480-175323-7	LAB-SBW-16-09172020 33	99	109	98	101
480-175323-8	LAB-SBW-16-09172020 44	103	113	104	107
480-175323-9	LAB-SBW-15-09172020 28	101	110	103	104
480-175323-9 MS	LAB-SBW-15-09172020 28	104	113	104	106
480-175323-9 MSD	LAB-SBW-15-09172020 28	105	112	106	99
480-175323-10	LAB-SBW-15-09172020 40	98	103	99	103
480-175323-11	BD-GW-09172020	99	104	98	103
480-175323-12	TRIP BLANK-09172020	99	104	97	97
LCS 480-550342/5	Lab Control Sample	104	108	106	104
LCS 480-550523/5	Lab Control Sample	100	103	99	101
MB 480-550342/7	Method Blank	100	110	98	101
MB 480-550523/7	Method Blank	102	102	97	101

Surrogate Legend

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

QC Sample Results

Client: LaBella Associates DPC
 Project/Site: Former Emerson Street Landfill Project

Job ID: 480-175323-1

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

Lab Sample ID: MB 480-550342/7
Matrix: Water
Analysis Batch: 550342

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

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
1,1,1-Trichloroethane	ND		1.0	0.82	ug/L			09/21/20 11:27	1
1,1,1,2,2-Tetrachloroethane	ND		1.0	0.21	ug/L			09/21/20 11:27	1
1,1,2-Trichloroethane	ND		1.0	0.23	ug/L			09/21/20 11:27	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.0	0.31	ug/L			09/21/20 11:27	1
1,1-Dichloroethane	ND		1.0	0.38	ug/L			09/21/20 11:27	1
1,1-Dichloroethene	ND		1.0	0.29	ug/L			09/21/20 11:27	1
1,2,4-Trichlorobenzene	ND		1.0	0.41	ug/L			09/21/20 11:27	1
1,2-Dibromo-3-Chloropropane	ND		1.0	0.39	ug/L			09/21/20 11:27	1
1,2-Dichlorobenzene	ND		1.0	0.79	ug/L			09/21/20 11:27	1
1,2-Dichloroethane	ND		1.0	0.21	ug/L			09/21/20 11:27	1
1,2-Dichloropropane	ND		1.0	0.72	ug/L			09/21/20 11:27	1
1,3-Dichlorobenzene	ND		1.0	0.78	ug/L			09/21/20 11:27	1
1,4-Dichlorobenzene	ND		1.0	0.84	ug/L			09/21/20 11:27	1
2-Butanone (MEK)	ND		10	1.3	ug/L			09/21/20 11:27	1
2-Hexanone	ND		5.0	1.2	ug/L			09/21/20 11:27	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	2.1	ug/L			09/21/20 11:27	1
Acetone	ND		10	3.0	ug/L			09/21/20 11:27	1
Benzene	ND		1.0	0.41	ug/L			09/21/20 11:27	1
Bromodichloromethane	ND		1.0	0.39	ug/L			09/21/20 11:27	1
Bromoform	ND		1.0	0.26	ug/L			09/21/20 11:27	1
Bromomethane	ND		1.0	0.69	ug/L			09/21/20 11:27	1
Carbon disulfide	ND		1.0	0.19	ug/L			09/21/20 11:27	1
Carbon tetrachloride	ND		1.0	0.27	ug/L			09/21/20 11:27	1
Chlorobenzene	ND		1.0	0.75	ug/L			09/21/20 11:27	1
Dibromochloromethane	ND		1.0	0.32	ug/L			09/21/20 11:27	1
Chloroethane	ND		1.0	0.32	ug/L			09/21/20 11:27	1
Chloroform	ND		1.0	0.34	ug/L			09/21/20 11:27	1
Chloromethane	ND		1.0	0.35	ug/L			09/21/20 11:27	1
cis-1,2-Dichloroethene	ND		1.0	0.81	ug/L			09/21/20 11:27	1
cis-1,3-Dichloropropene	ND		1.0	0.36	ug/L			09/21/20 11:27	1
Cyclohexane	ND		1.0	0.18	ug/L			09/21/20 11:27	1
Dichlorodifluoromethane	ND		1.0	0.68	ug/L			09/21/20 11:27	1
Ethylbenzene	ND		1.0	0.74	ug/L			09/21/20 11:27	1
1,2-Dibromoethane	ND		1.0	0.73	ug/L			09/21/20 11:27	1
Isopropylbenzene	ND		1.0	0.79	ug/L			09/21/20 11:27	1
Methyl acetate	ND		2.5	1.3	ug/L			09/21/20 11:27	1
Methyl tert-butyl ether	ND		1.0	0.16	ug/L			09/21/20 11:27	1
Methylcyclohexane	ND		1.0	0.16	ug/L			09/21/20 11:27	1
Methylene Chloride	ND		1.0	0.44	ug/L			09/21/20 11:27	1
Styrene	ND		1.0	0.73	ug/L			09/21/20 11:27	1
Tetrachloroethene	ND		1.0	0.36	ug/L			09/21/20 11:27	1
Toluene	ND		1.0	0.51	ug/L			09/21/20 11:27	1
trans-1,2-Dichloroethene	ND		1.0	0.90	ug/L			09/21/20 11:27	1
trans-1,3-Dichloropropene	ND		1.0	0.37	ug/L			09/21/20 11:27	1
Trichloroethene	ND		1.0	0.46	ug/L			09/21/20 11:27	1
Trichlorofluoromethane	ND		1.0	0.88	ug/L			09/21/20 11:27	1
Vinyl chloride	ND		1.0	0.90	ug/L			09/21/20 11:27	1
Xylenes, Total	ND		2.0	0.66	ug/L			09/21/20 11:27	1

Eurofins TestAmerica, Buffalo

QC Sample Results

Client: LaBella Associates DPC
 Project/Site: Former Emerson Street Landfill Project

Job ID: 480-175323-1

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

Lab Sample ID: MB 480-550342/7
Matrix: Water
Analysis Batch: 550342

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

<i>Tentatively Identified Compound</i>	<i>Est. Result</i>	<i>Qualifier</i>	<i>Unit</i>	<i>D</i>	<i>RT</i>	<i>CAS No.</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Dil Fac</i>
<i>Tentatively Identified Compound</i>	<i>None</i>		<i>ug/L</i>					<i>09/21/20 11:27</i>	<i>1</i>

<i>Surrogate</i>	<i>%Recovery</i>	<i>Qualifier</i>	<i>Limits</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Dil Fac</i>
<i>Toluene-d8 (Surr)</i>	<i>100</i>		<i>80 - 120</i>		<i>09/21/20 11:27</i>	<i>1</i>
<i>1,2-Dichloroethane-d4 (Surr)</i>	<i>110</i>		<i>77 - 120</i>		<i>09/21/20 11:27</i>	<i>1</i>
<i>4-Bromofluorobenzene (Surr)</i>	<i>98</i>		<i>73 - 120</i>		<i>09/21/20 11:27</i>	<i>1</i>
<i>Dibromofluoromethane (Surr)</i>	<i>101</i>		<i>75 - 123</i>		<i>09/21/20 11:27</i>	<i>1</i>

Lab Sample ID: LCS 480-550342/5
Matrix: Water
Analysis Batch: 550342

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

<i>Analyte</i>	<i>Spike Added</i>	<i>LCS Result</i>	<i>LCS Qualifier</i>	<i>Unit</i>	<i>D</i>	<i>%Rec</i>	<i>%Rec. Limits</i>
1,1,1-Trichloroethane	25.0	24.8		ug/L		99	73 - 126
1,1,2,2-Tetrachloroethane	25.0	23.0		ug/L		92	76 - 120
1,1,2-Trichloroethane	25.0	24.7		ug/L		99	76 - 122
1,1,2-Trichloro-1,2,2-trifluoroethane	25.0	28.4		ug/L		114	61 - 148
1,1-Dichloroethane	25.0	24.1		ug/L		96	77 - 120
1,1-Dichloroethene	25.0	24.5		ug/L		98	66 - 127
1,2,4-Trichlorobenzene	25.0	25.0		ug/L		100	79 - 122
1,2-Dibromo-3-Chloropropane	25.0	25.9		ug/L		104	56 - 134
1,2-Dichlorobenzene	25.0	24.0		ug/L		96	80 - 124
1,2-Dichloroethane	25.0	25.4		ug/L		101	75 - 120
1,2-Dichloropropane	25.0	24.5		ug/L		98	76 - 120
1,3-Dichlorobenzene	25.0	24.8		ug/L		99	77 - 120
1,4-Dichlorobenzene	25.0	24.7		ug/L		99	80 - 120
2-Butanone (MEK)	125	138		ug/L		110	57 - 140
2-Hexanone	125	132		ug/L		106	65 - 127
4-Methyl-2-pentanone (MIBK)	125	123		ug/L		98	71 - 125
Acetone	125	152		ug/L		122	56 - 142
Benzene	25.0	24.2		ug/L		97	71 - 124
Bromodichloromethane	25.0	25.8		ug/L		103	80 - 122
Bromoform	25.0	26.0		ug/L		104	61 - 132
Bromomethane	25.0	25.1		ug/L		101	55 - 144
Carbon disulfide	25.0	23.0		ug/L		92	59 - 134
Carbon tetrachloride	25.0	26.8		ug/L		107	72 - 134
Chlorobenzene	25.0	25.3		ug/L		101	80 - 120
Dibromochloromethane	25.0	26.5		ug/L		106	75 - 125
Chloroethane	25.0	25.3		ug/L		101	69 - 136
Chloroform	25.0	24.3		ug/L		97	73 - 127
Chloromethane	25.0	24.1		ug/L		97	68 - 124
cis-1,2-Dichloroethene	25.0	23.8		ug/L		95	74 - 124
cis-1,3-Dichloropropene	25.0	26.2		ug/L		105	74 - 124
Cyclohexane	25.0	25.4		ug/L		102	59 - 135
Dichlorodifluoromethane	25.0	31.6		ug/L		126	59 - 135
Ethylbenzene	25.0	25.3		ug/L		101	77 - 123
1,2-Dibromoethane	25.0	24.9		ug/L		99	77 - 120

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QC Sample Results

Client: LaBella Associates DPC
 Project/Site: Former Emerson Street Landfill Project

Job ID: 480-175323-1

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

Lab Sample ID: LCS 480-550342/5
Matrix: Water
Analysis Batch: 550342

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Isopropylbenzene	25.0	25.2		ug/L		101	77 - 122
Methyl acetate	50.0	46.4		ug/L		93	74 - 133
Methyl tert-butyl ether	25.0	24.2		ug/L		97	77 - 120
Methylcyclohexane	25.0	26.5		ug/L		106	68 - 134
Methylene Chloride	25.0	21.9		ug/L		88	75 - 124
Styrene	25.0	25.3		ug/L		101	80 - 120
Tetrachloroethene	25.0	24.6		ug/L		98	74 - 122
Toluene	25.0	24.9		ug/L		100	80 - 122
trans-1,2-Dichloroethene	25.0	23.5		ug/L		94	73 - 127
trans-1,3-Dichloropropene	25.0	26.8		ug/L		107	80 - 120
Trichloroethene	25.0	24.0		ug/L		96	74 - 123
Trichlorofluoromethane	25.0	30.0		ug/L		120	62 - 150
Vinyl chloride	25.0	25.9		ug/L		104	65 - 133

Surrogate	LCS %Recovery	LCS Qualifier	LCS Limits
Toluene-d8 (Surr)	104		80 - 120
1,2-Dichloroethane-d4 (Surr)	108		77 - 120
4-Bromofluorobenzene (Surr)	106		73 - 120
Dibromofluoromethane (Surr)	104		75 - 123

Lab Sample ID: 480-175323-9 MS
Matrix: Water
Analysis Batch: 550342

Client Sample ID: LAB-SBW-15-09172020 28
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1,1-Trichloroethane	9.7	J	250	281		ug/L		108	73 - 126
1,1,2,2-Tetrachloroethane	ND		250	244		ug/L		98	76 - 120
1,1,2-Trichloroethane	ND		250	250		ug/L		100	76 - 122
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		250	308		ug/L		123	61 - 148
1,1-Dichloroethane	40		250	290		ug/L		100	77 - 120
1,1-Dichloroethene	ND		250	271		ug/L		108	66 - 127
1,2,4-Trichlorobenzene	ND		250	260		ug/L		104	79 - 122
1,2-Dibromo-3-Chloropropane	ND		250	282		ug/L		113	56 - 134
1,2-Dichlorobenzene	ND		250	263		ug/L		105	80 - 124
1,2-Dichloroethane	ND		250	264		ug/L		106	75 - 120
1,2-Dichloropropane	ND		250	256		ug/L		102	76 - 120
1,3-Dichlorobenzene	ND		250	267		ug/L		107	77 - 120
1,4-Dichlorobenzene	ND		250	263		ug/L		105	78 - 124
2-Butanone (MEK)	ND		1250	1280		ug/L		102	57 - 140
2-Hexanone	ND		1250	1270		ug/L		102	65 - 127
4-Methyl-2-pentanone (MIBK)	ND		1250	1250		ug/L		100	71 - 125
Acetone	ND		1250	1300		ug/L		104	56 - 142
Benzene	35		250	291		ug/L		102	71 - 124
Bromodichloromethane	ND		250	268		ug/L		107	80 - 122
Bromoform	ND		250	258		ug/L		103	61 - 132
Bromomethane	ND		250	252		ug/L		101	55 - 144
Carbon disulfide	ND		250	258		ug/L		103	59 - 134
Carbon tetrachloride	ND		250	289		ug/L		116	72 - 134

Eurofins TestAmerica, Buffalo

QC Sample Results

Client: LaBella Associates DPC
 Project/Site: Former Emerson Street Landfill Project

Job ID: 480-175323-1

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

Lab Sample ID: 480-175323-9 MS

Client Sample ID: LAB-SBW-15-09172020 28

Matrix: Water

Prep Type: Total/NA

Analysis Batch: 550342

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chlorobenzene	ND		250	257		ug/L		103	80 - 120
Dibromochloromethane	ND		250	275		ug/L		110	75 - 125
Chloroethane	260		250	517		ug/L		104	69 - 136
Chloroform	ND		250	255		ug/L		102	73 - 127
Chloromethane	ND		250	218		ug/L		87	68 - 124
cis-1,2-Dichloroethene	53		250	298		ug/L		98	74 - 124
cis-1,3-Dichloropropene	ND		250	252		ug/L		101	74 - 124
Cyclohexane	ND		250	282		ug/L		113	59 - 135
Dichlorodifluoromethane	ND		250	302		ug/L		121	59 - 135
Ethylbenzene	ND		250	267		ug/L		107	77 - 123
1,2-Dibromoethane	ND		250	248		ug/L		99	77 - 120
Isopropylbenzene	ND		250	281		ug/L		112	77 - 122
Methyl acetate	ND		500	469		ug/L		94	74 - 133
Methyl tert-butyl ether	6.4	J	250	253		ug/L		99	77 - 120
Methylcyclohexane	9.0	J	250	304		ug/L		118	68 - 134
Methylene Chloride	ND		250	235		ug/L		94	75 - 124
Styrene	ND		250	269		ug/L		108	80 - 120
Tetrachloroethene	ND		250	267		ug/L		107	74 - 122
Toluene	ND		250	264		ug/L		106	80 - 122
trans-1,2-Dichloroethene	ND		250	270		ug/L		108	73 - 127
trans-1,3-Dichloropropene	ND		250	260		ug/L		104	80 - 120
Trichloroethene	ND		250	261		ug/L		104	74 - 123
Trichlorofluoromethane	ND		250	301		ug/L		120	62 - 150
Vinyl chloride	38		250	293		ug/L		102	65 - 133

Surrogate	MS %Recovery	MS Qualifier	MS Limits
Toluene-d8 (Surr)	104		80 - 120
1,2-Dichloroethane-d4 (Surr)	113		77 - 120
4-Bromofluorobenzene (Surr)	104		73 - 120
Dibromofluoromethane (Surr)	106		75 - 123

Lab Sample ID: 480-175323-9 MSD

Client Sample ID: LAB-SBW-15-09172020 28

Matrix: Water

Prep Type: Total/NA

Analysis Batch: 550342

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,1,1-Trichloroethane	9.7	J	250	274		ug/L		106	73 - 126	2	15
1,1,2,2-Tetrachloroethane	ND		250	238		ug/L		95	76 - 120	3	15
1,1,2-Trichloroethane	ND		250	261		ug/L		104	76 - 122	4	15
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		250	302		ug/L		121	61 - 148	2	20
1,1-Dichloroethane	40		250	279		ug/L		96	77 - 120	4	20
1,1-Dichloroethene	ND		250	261		ug/L		105	66 - 127	4	16
1,2,4-Trichlorobenzene	ND		250	260		ug/L		104	79 - 122	0	20
1,2-Dibromo-3-Chloropropane	ND		250	269		ug/L		107	56 - 134	5	15
1,2-Dichlorobenzene	ND		250	264		ug/L		105	80 - 124	0	20
1,2-Dichloroethane	ND		250	258		ug/L		103	75 - 120	2	20
1,2-Dichloropropane	ND		250	254		ug/L		102	76 - 120	1	20
1,3-Dichlorobenzene	ND		250	263		ug/L		105	77 - 120	1	20

Eurofins TestAmerica, Buffalo

QC Sample Results

Client: LaBella Associates DPC
 Project/Site: Former Emerson Street Landfill Project

Job ID: 480-175323-1

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

Lab Sample ID: 480-175323-9 MSD

Client Sample ID: LAB-SBW-15-09172020 28

Matrix: Water

Prep Type: Total/NA

Analysis Batch: 550342

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,4-Dichlorobenzene	ND		250	262		ug/L		105	78 - 124	0	20
2-Butanone (MEK)	ND		1250	1350		ug/L		108	57 - 140	6	20
2-Hexanone	ND		1250	1340		ug/L		107	65 - 127	5	15
4-Methyl-2-pentanone (MIBK)	ND		1250	1270		ug/L		101	71 - 125	1	35
Acetone	ND		1250	1370		ug/L		110	56 - 142	5	15
Benzene	35		250	286		ug/L		100	71 - 124	2	13
Bromodichloromethane	ND		250	260		ug/L		104	80 - 122	3	15
Bromoform	ND		250	269		ug/L		108	61 - 132	4	15
Bromomethane	ND		250	244		ug/L		98	55 - 144	3	15
Carbon disulfide	ND		250	249		ug/L		100	59 - 134	3	15
Carbon tetrachloride	ND		250	286		ug/L		115	72 - 134	1	15
Chlorobenzene	ND		250	258		ug/L		103	80 - 120	0	25
Dibromochloromethane	ND		250	269		ug/L		107	75 - 125	2	15
Chloroethane	260		250	515		ug/L		104	69 - 136	0	15
Chloroform	ND		250	245		ug/L		98	73 - 127	4	20
Chloromethane	ND		250	223		ug/L		89	68 - 124	2	15
cis-1,2-Dichloroethene	53		250	293		ug/L		96	74 - 124	2	15
cis-1,3-Dichloropropene	ND		250	254		ug/L		102	74 - 124	1	15
Cyclohexane	ND		250	275		ug/L		110	59 - 135	3	20
Dichlorodifluoromethane	ND		250	302		ug/L		121	59 - 135	0	20
Ethylbenzene	ND		250	268		ug/L		107	77 - 123	1	15
1,2-Dibromoethane	ND		250	260		ug/L		104	77 - 120	5	15
Isopropylbenzene	ND		250	270		ug/L		108	77 - 122	4	20
Methyl acetate	ND		500	470		ug/L		94	74 - 133	0	20
Methyl tert-butyl ether	6.4	J	250	252		ug/L		98	77 - 120	0	37
Methylcyclohexane	9.0	J	250	297		ug/L		115	68 - 134	2	20
Methylene Chloride	ND		250	223		ug/L		89	75 - 124	5	15
Styrene	ND		250	270		ug/L		108	80 - 120	0	20
Tetrachloroethene	ND		250	267		ug/L		107	74 - 122	0	20
Toluene	ND		250	264		ug/L		106	80 - 122	0	15
trans-1,2-Dichloroethene	ND		250	257		ug/L		103	73 - 127	5	20
trans-1,3-Dichloropropene	ND		250	262		ug/L		105	80 - 120	1	15
Trichloroethene	ND		250	253		ug/L		101	74 - 123	3	16
Trichlorofluoromethane	ND		250	292		ug/L		117	62 - 150	3	20
Vinyl chloride	38		250	285		ug/L		99	65 - 133	3	15

Surrogate	MSD %Recovery	MSD Qualifier	Limits
Toluene-d8 (Surr)	105		80 - 120
1,2-Dichloroethane-d4 (Surr)	112		77 - 120
4-Bromofluorobenzene (Surr)	106		73 - 120
Dibromofluoromethane (Surr)	99		75 - 123

Lab Sample ID: MB 480-550523/7

Client Sample ID: Method Blank

Matrix: Water

Prep Type: Total/NA

Analysis Batch: 550523

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		1.0	0.82	ug/L			09/22/20 10:35	1

Eurofins TestAmerica, Buffalo

QC Sample Results

Client: LaBella Associates DPC
 Project/Site: Former Emerson Street Landfill Project

Job ID: 480-175323-1

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

Lab Sample ID: MB 480-550523/7
Matrix: Water
Analysis Batch: 550523

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,2,2-Tetrachloroethane	ND		1.0	0.21	ug/L			09/22/20 10:35	1
1,1,2-Trichloroethane	ND		1.0	0.23	ug/L			09/22/20 10:35	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.0	0.31	ug/L			09/22/20 10:35	1
1,1-Dichloroethane	ND		1.0	0.38	ug/L			09/22/20 10:35	1
1,1-Dichloroethene	ND		1.0	0.29	ug/L			09/22/20 10:35	1
1,2,4-Trichlorobenzene	ND		1.0	0.41	ug/L			09/22/20 10:35	1
1,2-Dibromo-3-Chloropropane	ND		1.0	0.39	ug/L			09/22/20 10:35	1
1,2-Dichlorobenzene	ND		1.0	0.79	ug/L			09/22/20 10:35	1
1,2-Dichloroethane	ND		1.0	0.21	ug/L			09/22/20 10:35	1
1,2-Dichloropropane	ND		1.0	0.72	ug/L			09/22/20 10:35	1
1,3-Dichlorobenzene	ND		1.0	0.78	ug/L			09/22/20 10:35	1
1,4-Dichlorobenzene	ND		1.0	0.84	ug/L			09/22/20 10:35	1
2-Butanone (MEK)	ND		10	1.3	ug/L			09/22/20 10:35	1
2-Hexanone	ND		5.0	1.2	ug/L			09/22/20 10:35	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	2.1	ug/L			09/22/20 10:35	1
Acetone	ND		10	3.0	ug/L			09/22/20 10:35	1
Benzene	ND		1.0	0.41	ug/L			09/22/20 10:35	1
Bromodichloromethane	ND		1.0	0.39	ug/L			09/22/20 10:35	1
Bromoform	ND		1.0	0.26	ug/L			09/22/20 10:35	1
Bromomethane	ND		1.0	0.69	ug/L			09/22/20 10:35	1
Carbon disulfide	ND		1.0	0.19	ug/L			09/22/20 10:35	1
Carbon tetrachloride	ND		1.0	0.27	ug/L			09/22/20 10:35	1
Chlorobenzene	ND		1.0	0.75	ug/L			09/22/20 10:35	1
Dibromochloromethane	ND		1.0	0.32	ug/L			09/22/20 10:35	1
Chloroethane	ND		1.0	0.32	ug/L			09/22/20 10:35	1
Chloroform	ND		1.0	0.34	ug/L			09/22/20 10:35	1
Chloromethane	ND		1.0	0.35	ug/L			09/22/20 10:35	1
cis-1,2-Dichloroethene	ND		1.0	0.81	ug/L			09/22/20 10:35	1
cis-1,3-Dichloropropene	ND		1.0	0.36	ug/L			09/22/20 10:35	1
Cyclohexane	ND		1.0	0.18	ug/L			09/22/20 10:35	1
Dichlorodifluoromethane	ND		1.0	0.68	ug/L			09/22/20 10:35	1
Ethylbenzene	ND		1.0	0.74	ug/L			09/22/20 10:35	1
1,2-Dibromoethane	ND		1.0	0.73	ug/L			09/22/20 10:35	1
Isopropylbenzene	ND		1.0	0.79	ug/L			09/22/20 10:35	1
Methyl acetate	ND		2.5	1.3	ug/L			09/22/20 10:35	1
Methyl tert-butyl ether	ND		1.0	0.16	ug/L			09/22/20 10:35	1
Methylcyclohexane	ND		1.0	0.16	ug/L			09/22/20 10:35	1
Methylene Chloride	ND		1.0	0.44	ug/L			09/22/20 10:35	1
Styrene	ND		1.0	0.73	ug/L			09/22/20 10:35	1
Tetrachloroethene	ND		1.0	0.36	ug/L			09/22/20 10:35	1
Toluene	ND		1.0	0.51	ug/L			09/22/20 10:35	1
trans-1,2-Dichloroethene	ND		1.0	0.90	ug/L			09/22/20 10:35	1
trans-1,3-Dichloropropene	ND		1.0	0.37	ug/L			09/22/20 10:35	1
Trichloroethene	ND		1.0	0.46	ug/L			09/22/20 10:35	1
Trichlorofluoromethane	ND		1.0	0.88	ug/L			09/22/20 10:35	1
Vinyl chloride	ND		1.0	0.90	ug/L			09/22/20 10:35	1
Xylenes, Total	ND		2.0	0.66	ug/L			09/22/20 10:35	1

QC Sample Results

Client: LaBella Associates DPC
 Project/Site: Former Emerson Street Landfill Project

Job ID: 480-175323-1

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

Lab Sample ID: MB 480-550523/7
Matrix: Water
Analysis Batch: 550523

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

<i>Tentatively Identified Compound</i>	<i>Est. Result</i>	<i>Qualifier</i>	<i>Unit</i>	<i>D</i>	<i>RT</i>	<i>CAS No.</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Dil Fac</i>
<i>Tentatively Identified Compound</i>	<i>None</i>		<i>ug/L</i>					<i>09/22/20 10:35</i>	<i>1</i>

<i>Surrogate</i>	<i>%Recovery</i>	<i>Qualifier</i>	<i>Limits</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Dil Fac</i>
<i>Toluene-d8 (Surr)</i>	<i>102</i>		<i>80 - 120</i>		<i>09/22/20 10:35</i>	<i>1</i>
<i>1,2-Dichloroethane-d4 (Surr)</i>	<i>102</i>		<i>77 - 120</i>		<i>09/22/20 10:35</i>	<i>1</i>
<i>4-Bromofluorobenzene (Surr)</i>	<i>97</i>		<i>73 - 120</i>		<i>09/22/20 10:35</i>	<i>1</i>
<i>Dibromofluoromethane (Surr)</i>	<i>101</i>		<i>75 - 123</i>		<i>09/22/20 10:35</i>	<i>1</i>

Lab Sample ID: LCS 480-550523/5
Matrix: Water
Analysis Batch: 550523

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

<i>Analyte</i>	<i>Spike Added</i>	<i>LCS Result</i>	<i>LCS Qualifier</i>	<i>Unit</i>	<i>D</i>	<i>%Rec</i>	<i>%Rec. Limits</i>
1,1,1-Trichloroethane	25.0	27.0		ug/L		108	73 - 126
1,1,2,2-Tetrachloroethane	25.0	27.8		ug/L		111	76 - 120
1,1,2-Trichloroethane	25.0	26.9		ug/L		108	76 - 122
1,1,2-Trichloro-1,2,2-trifluoroethane	25.0	29.0		ug/L		116	61 - 148
1,1-Dichloroethane	25.0	28.0		ug/L		112	77 - 120
1,1-Dichloroethene	25.0	28.4		ug/L		113	66 - 127
1,2,4-Trichlorobenzene	25.0	28.2		ug/L		113	79 - 122
1,2-Dibromo-3-Chloropropane	25.0	29.5		ug/L		118	56 - 134
1,2-Dichlorobenzene	25.0	27.5		ug/L		110	80 - 124
1,2-Dichloroethane	25.0	26.4		ug/L		106	75 - 120
1,2-Dichloropropane	25.0	27.6		ug/L		110	76 - 120
1,3-Dichlorobenzene	25.0	27.3		ug/L		109	77 - 120
1,4-Dichlorobenzene	25.0	27.1		ug/L		109	80 - 120
2-Butanone (MEK)	125	150		ug/L		120	57 - 140
2-Hexanone	125	150		ug/L		120	65 - 127
4-Methyl-2-pentanone (MIBK)	125	140		ug/L		112	71 - 125
Acetone	125	154		ug/L		124	56 - 142
Benzene	25.0	27.2		ug/L		109	71 - 124
Bromodichloromethane	25.0	28.7		ug/L		115	80 - 122
Bromoform	25.0	27.5		ug/L		110	61 - 132
Bromomethane	25.0	25.1		ug/L		101	55 - 144
Carbon disulfide	25.0	29.0		ug/L		116	59 - 134
Carbon tetrachloride	25.0	26.2		ug/L		105	72 - 134
Chlorobenzene	25.0	26.8		ug/L		107	80 - 120
Dibromochloromethane	25.0	26.6		ug/L		106	75 - 125
Chloroethane	25.0	25.9		ug/L		104	69 - 136
Chloroform	25.0	26.1		ug/L		104	73 - 127
Chloromethane	25.0	27.1		ug/L		108	68 - 124
cis-1,2-Dichloroethene	25.0	26.3		ug/L		105	74 - 124
cis-1,3-Dichloropropene	25.0	27.2		ug/L		109	74 - 124
Cyclohexane	25.0	30.0		ug/L		120	59 - 135
Dichlorodifluoromethane	25.0	26.5		ug/L		106	59 - 135
Ethylbenzene	25.0	27.6		ug/L		110	77 - 123
1,2-Dibromoethane	25.0	26.7		ug/L		107	77 - 120

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QC Sample Results

Client: LaBella Associates DPC
 Project/Site: Former Emerson Street Landfill Project

Job ID: 480-175323-1

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

Lab Sample ID: LCS 480-550523/5
Matrix: Water
Analysis Batch: 550523

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Isopropylbenzene	25.0	28.3		ug/L		113	77 - 122
Methyl acetate	50.0	51.2		ug/L		102	74 - 133
Methyl tert-butyl ether	25.0	26.0		ug/L		104	77 - 120
Methylcyclohexane	25.0	29.5		ug/L		118	68 - 134
Methylene Chloride	25.0	25.4		ug/L		102	75 - 124
Styrene	25.0	27.4		ug/L		110	80 - 120
Tetrachloroethene	25.0	27.4		ug/L		110	74 - 122
Toluene	25.0	27.1		ug/L		108	80 - 122
trans-1,2-Dichloroethene	25.0	26.4		ug/L		106	73 - 127
trans-1,3-Dichloropropene	25.0	27.1		ug/L		108	80 - 120
Trichloroethene	25.0	27.4		ug/L		110	74 - 123
Trichlorofluoromethane	25.0	26.0		ug/L		104	62 - 150
Vinyl chloride	25.0	26.0		ug/L		104	65 - 133

Surrogate	LCS %Recovery	LCS Qualifier	Limits
Toluene-d8 (Surr)	100		80 - 120
1,2-Dichloroethane-d4 (Surr)	103		77 - 120
4-Bromofluorobenzene (Surr)	99		73 - 120
Dibromofluoromethane (Surr)	101		75 - 123

Method: RSK-175 - Dissolved Gases (GC)

Lab Sample ID: MB 480-550722/3
Matrix: Water
Analysis Batch: 550722

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethane	ND		7.5	1.5	ug/L			09/23/20 06:55	1
Ethene	ND		7.0	1.5	ug/L			09/23/20 06:55	1

Lab Sample ID: LCS 480-550722/4
Matrix: Water
Analysis Batch: 550722

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Ethane	36.8	36.3		ug/L		99	79 - 120
Ethene	33.7	34.0		ug/L		101	85 - 120

Lab Sample ID: LCSD 480-550722/5
Matrix: Water
Analysis Batch: 550722

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
Ethane	36.8	37.7		ug/L		103	79 - 120	4	50
Ethene	33.7	35.1		ug/L		104	85 - 120	3	50

QC Sample Results

Client: LaBella Associates DPC
 Project/Site: Former Emerson Street Landfill Project

Job ID: 480-175323-1

Method: 9056A - Anions, Ion Chromatography

Lab Sample ID: MB 480-550459/4
Matrix: Water
Analysis Batch: 550459

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		0.50	0.28	mg/L			09/21/20 18:13	1
Sulfate	ND		2.0	0.35	mg/L			09/21/20 18:13	1

Lab Sample ID: LCS 480-550459/3
Matrix: Water
Analysis Batch: 550459

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	50.0	53.65		mg/L		107	90 - 110
Sulfate	50.0	51.83		mg/L		104	90 - 110

Lab Sample ID: 480-175323-2 MS
Matrix: Water
Analysis Batch: 550459

Client Sample ID: LAB-SBW-19-09162020 47
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	666		500	1134	E	mg/L		94	81 - 120
Sulfate	29.5		500	508.6		mg/L		96	80 - 120

Lab Sample ID: 480-175323-2 MSD
Matrix: Water
Analysis Batch: 550459

Client Sample ID: LAB-SBW-19-09162020 47
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	666		500	1128	E	mg/L		92	81 - 120	1	15
Sulfate	29.5		500	503.3		mg/L		95	80 - 120	1	15

Lab Sample ID: MB 480-550665/4
Matrix: Water
Analysis Batch: 550665

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		0.50	0.28	mg/L			09/23/20 19:17	1
Sulfate	ND		2.0	0.35	mg/L			09/23/20 19:17	1

Lab Sample ID: LCS 480-550665/3
Matrix: Water
Analysis Batch: 550665

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	50.0	49.89		mg/L		100	90 - 110
Sulfate	50.0	48.11		mg/L		96	90 - 110

QC Sample Results

Client: LaBella Associates DPC
 Project/Site: Former Emerson Street Landfill Project

Job ID: 480-175323-1

Method: SM 3500 FE D - Iron, Ferrous and Ferric

Lab Sample ID: MB 480-550305/3
Matrix: Water
Analysis Batch: 550305

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ferrous Iron	ND		0.10	0.075	mg/L			09/19/20 13:50	1

Lab Sample ID: LCS 480-550305/4
Matrix: Water
Analysis Batch: 550305

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Ferrous Iron	2.00	2.04		mg/L		102	90 - 110

Lab Sample ID: 480-175323-4 MS
Matrix: Water
Analysis Batch: 550305

Client Sample ID: LAB-SBW-18-09162020 47
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Ferrous Iron	ND	HF	2.00	2.29		mg/L		115	70 - 130

Lab Sample ID: 480-175323-6 MS
Matrix: Water
Analysis Batch: 550305

Client Sample ID: LAB-SBW-17-09162020 52
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Ferrous Iron	ND	HF	2.00	2.18		mg/L		109	70 - 130

Lab Sample ID: 480-175323-1 DU
Matrix: Water
Analysis Batch: 550305

Client Sample ID: LAB-SBW-19-09162020 35
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Ferrous Iron	ND	HF	ND		mg/L		NC	20

Lab Sample ID: 480-175323-2 DU
Matrix: Water
Analysis Batch: 550305

Client Sample ID: LAB-SBW-19-09162020 47
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Ferrous Iron	ND	HF	ND		mg/L		NC	20

Lab Sample ID: 480-175323-3 DU
Matrix: Water
Analysis Batch: 550305

Client Sample ID: LAB-SBW-18-09162020 38
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Ferrous Iron	ND	HF	ND		mg/L		NC	20

Lab Sample ID: 480-175323-4 DU
Matrix: Water
Analysis Batch: 550305

Client Sample ID: LAB-SBW-18-09162020 47
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Ferrous Iron	ND	HF	ND		mg/L		NC	20

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QC Sample Results

Client: LaBella Associates DPC
 Project/Site: Former Emerson Street Landfill Project

Job ID: 480-175323-1

Method: SM 3500 FE D - Iron, Ferrous and Ferric

Lab Sample ID: 480-175323-5 DU
 Matrix: Water
 Analysis Batch: 550305

Client Sample ID: LAB-SBW-17-09162020 42
 Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	Limit
Ferrous Iron	ND	HF	ND		mg/L		NC	20

Lab Sample ID: 480-175323-6 DU
 Matrix: Water
 Analysis Batch: 550305

Client Sample ID: LAB-SBW-17-09162020 52
 Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	Limit
Ferrous Iron	ND	HF	ND		mg/L		NC	20

Method: SM 4500 S2 F - Sulfide, Total

Lab Sample ID: MB 480-550702/3
 Matrix: Water
 Analysis Batch: 550702

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfide	ND		1.0	0.67	mg/L			09/22/20 16:35	1

Lab Sample ID: LCS 480-550702/4
 Matrix: Water
 Analysis Batch: 550702

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Sulfide	9.20	9.20		mg/L		100	90 - 110

Lab Sample ID: 480-175323-6 MS
 Matrix: Water
 Analysis Batch: 550702

Client Sample ID: LAB-SBW-17-09162020 52
 Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Sulfide	ND		2.45	2.80		mg/L		114	40 - 150

QC Association Summary

Client: LaBella Associates DPC
Project/Site: Former Emerson Street Landfill Project

Job ID: 480-175323-1

GC/MS VOA

Analysis Batch: 550342

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-175323-7	LAB-SBW-16-09172020 33	Total/NA	Water	8260C	
480-175323-8	LAB-SBW-16-09172020 44	Total/NA	Water	8260C	
480-175323-9	LAB-SBW-15-09172020 28	Total/NA	Water	8260C	
MB 480-550342/7	Method Blank	Total/NA	Water	8260C	
LCS 480-550342/5	Lab Control Sample	Total/NA	Water	8260C	
480-175323-9 MS	LAB-SBW-15-09172020 28	Total/NA	Water	8260C	
480-175323-9 MSD	LAB-SBW-15-09172020 28	Total/NA	Water	8260C	

Analysis Batch: 550523

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-175323-10	LAB-SBW-15-09172020 40	Total/NA	Water	8260C	
480-175323-11	BD-GW-09172020	Total/NA	Water	8260C	
480-175323-12	TRIP BLANK-09172020	Total/NA	Water	8260C	
MB 480-550523/7	Method Blank	Total/NA	Water	8260C	
LCS 480-550523/5	Lab Control Sample	Total/NA	Water	8260C	

GC VOA

Analysis Batch: 550722

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-175323-1	LAB-SBW-19-09162020 35	Total/NA	Water	RSK-175	
480-175323-2	LAB-SBW-19-09162020 47	Total/NA	Water	RSK-175	
480-175323-3	LAB-SBW-18-09162020 38	Total/NA	Water	RSK-175	
480-175323-4	LAB-SBW-18-09162020 47	Total/NA	Water	RSK-175	
480-175323-5	LAB-SBW-17-09162020 42	Total/NA	Water	RSK-175	
480-175323-6	LAB-SBW-17-09162020 52	Total/NA	Water	RSK-175	
MB 480-550722/3	Method Blank	Total/NA	Water	RSK-175	
LCS 480-550722/4	Lab Control Sample	Total/NA	Water	RSK-175	
LCSD 480-550722/5	Lab Control Sample Dup	Total/NA	Water	RSK-175	

General Chemistry

Analysis Batch: 550243

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-175323-1	LAB-SBW-19-09162020 35	Total/NA	Water	353.2	
480-175323-2	LAB-SBW-19-09162020 47	Total/NA	Water	353.2	
480-175323-3	LAB-SBW-18-09162020 38	Total/NA	Water	353.2	
480-175323-4	LAB-SBW-18-09162020 47	Total/NA	Water	353.2	
480-175323-5	LAB-SBW-17-09162020 42	Total/NA	Water	353.2	
480-175323-6	LAB-SBW-17-09162020 52	Total/NA	Water	353.2	

Analysis Batch: 550244

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-175323-1	LAB-SBW-19-09162020 35	Total/NA	Water	353.2	
480-175323-2	LAB-SBW-19-09162020 47	Total/NA	Water	353.2	
480-175323-3	LAB-SBW-18-09162020 38	Total/NA	Water	353.2	
480-175323-4	LAB-SBW-18-09162020 47	Total/NA	Water	353.2	
480-175323-5	LAB-SBW-17-09162020 42	Total/NA	Water	353.2	
480-175323-6	LAB-SBW-17-09162020 52	Total/NA	Water	353.2	

QC Association Summary

Client: LaBella Associates DPC
 Project/Site: Former Emerson Street Landfill Project

Job ID: 480-175323-1

General Chemistry

Analysis Batch: 550305

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-175323-1	LAB-SBW-19-09162020 35	Total/NA	Water	SM 3500 FE D	
480-175323-2	LAB-SBW-19-09162020 47	Total/NA	Water	SM 3500 FE D	
480-175323-3	LAB-SBW-18-09162020 38	Total/NA	Water	SM 3500 FE D	
480-175323-4	LAB-SBW-18-09162020 47	Total/NA	Water	SM 3500 FE D	
480-175323-5	LAB-SBW-17-09162020 42	Total/NA	Water	SM 3500 FE D	
480-175323-6	LAB-SBW-17-09162020 52	Total/NA	Water	SM 3500 FE D	
MB 480-550305/3	Method Blank	Total/NA	Water	SM 3500 FE D	
LCS 480-550305/4	Lab Control Sample	Total/NA	Water	SM 3500 FE D	
480-175323-4 MS	LAB-SBW-18-09162020 47	Total/NA	Water	SM 3500 FE D	
480-175323-6 MS	LAB-SBW-17-09162020 52	Total/NA	Water	SM 3500 FE D	
480-175323-1 DU	LAB-SBW-19-09162020 35	Total/NA	Water	SM 3500 FE D	
480-175323-2 DU	LAB-SBW-19-09162020 47	Total/NA	Water	SM 3500 FE D	
480-175323-3 DU	LAB-SBW-18-09162020 38	Total/NA	Water	SM 3500 FE D	
480-175323-4 DU	LAB-SBW-18-09162020 47	Total/NA	Water	SM 3500 FE D	
480-175323-5 DU	LAB-SBW-17-09162020 42	Total/NA	Water	SM 3500 FE D	
480-175323-6 DU	LAB-SBW-17-09162020 52	Total/NA	Water	SM 3500 FE D	

Analysis Batch: 550459

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-175323-1	LAB-SBW-19-09162020 35	Total/NA	Water	9056A	
480-175323-2	LAB-SBW-19-09162020 47	Total/NA	Water	9056A	
480-175323-3	LAB-SBW-18-09162020 38	Total/NA	Water	9056A	
480-175323-4	LAB-SBW-18-09162020 47	Total/NA	Water	9056A	
480-175323-5	LAB-SBW-17-09162020 42	Total/NA	Water	9056A	
480-175323-6	LAB-SBW-17-09162020 52	Total/NA	Water	9056A	
MB 480-550459/4	Method Blank	Total/NA	Water	9056A	
LCS 480-550459/3	Lab Control Sample	Total/NA	Water	9056A	
480-175323-2 MS	LAB-SBW-19-09162020 47	Total/NA	Water	9056A	
480-175323-2 MSD	LAB-SBW-19-09162020 47	Total/NA	Water	9056A	

Analysis Batch: 550665

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-175323-5	LAB-SBW-17-09162020 42	Total/NA	Water	9056A	
480-175323-6	LAB-SBW-17-09162020 52	Total/NA	Water	9056A	
MB 480-550665/4	Method Blank	Total/NA	Water	9056A	
LCS 480-550665/3	Lab Control Sample	Total/NA	Water	9056A	

Analysis Batch: 550702

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-175323-1	LAB-SBW-19-09162020 35	Total/NA	Water	SM 4500 S2 F	
480-175323-2	LAB-SBW-19-09162020 47	Total/NA	Water	SM 4500 S2 F	
480-175323-3	LAB-SBW-18-09162020 38	Total/NA	Water	SM 4500 S2 F	
480-175323-4	LAB-SBW-18-09162020 47	Total/NA	Water	SM 4500 S2 F	
480-175323-5	LAB-SBW-17-09162020 42	Total/NA	Water	SM 4500 S2 F	
480-175323-6	LAB-SBW-17-09162020 52	Total/NA	Water	SM 4500 S2 F	
MB 480-550702/3	Method Blank	Total/NA	Water	SM 4500 S2 F	
LCS 480-550702/4	Lab Control Sample	Total/NA	Water	SM 4500 S2 F	
480-175323-6 MS	LAB-SBW-17-09162020 52	Total/NA	Water	SM 4500 S2 F	

Lab Chronicle

Client: LaBella Associates DPC
 Project/Site: Former Emerson Street Landfill Project

Job ID: 480-175323-1

Client Sample ID: LAB-SBW-19-09162020 35

Lab Sample ID: 480-175323-1

Date Collected: 09/16/20 11:05

Matrix: Water

Date Received: 09/18/20 10:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	RSK-175		1	550722	09/23/20 08:11	MAN	TAL BUF
Total/NA	Analysis	353.2		1	550243	09/18/20 14:11	CRK	TAL BUF
Total/NA	Analysis	353.2		1	550244	09/18/20 14:15	CRK	TAL BUF
Total/NA	Analysis	9056A		10	550459	09/21/20 19:26	IMZ	TAL BUF
Total/NA	Analysis	SM 3500 FE D		1	550305	09/19/20 13:50	CSS	TAL BUF
Total/NA	Analysis	SM 4500 S2 F		1	550702	09/22/20 16:35	MJB	TAL BUF

Client Sample ID: LAB-SBW-19-09162020 47

Lab Sample ID: 480-175323-2

Date Collected: 09/16/20 12:40

Matrix: Water

Date Received: 09/18/20 10:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	RSK-175		1	550722	09/23/20 08:29	MAN	TAL BUF
Total/NA	Analysis	353.2		1	550243	09/18/20 14:16	CRK	TAL BUF
Total/NA	Analysis	353.2		1	550244	09/18/20 14:16	CRK	TAL BUF
Total/NA	Analysis	9056A		10	550459	09/21/20 19:41	IMZ	TAL BUF
Total/NA	Analysis	SM 3500 FE D		1	550305	09/19/20 13:50	CSS	TAL BUF
Total/NA	Analysis	SM 4500 S2 F		1	550702	09/22/20 16:35	MJB	TAL BUF

Client Sample ID: LAB-SBW-18-09162020 38

Lab Sample ID: 480-175323-3

Date Collected: 09/16/20 11:15

Matrix: Water

Date Received: 09/18/20 10:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	RSK-175		1	550722	09/23/20 08:48	MAN	TAL BUF
Total/NA	Analysis	353.2		1	550243	09/18/20 14:17	CRK	TAL BUF
Total/NA	Analysis	353.2		1	550244	09/18/20 14:18	CRK	TAL BUF
Total/NA	Analysis	9056A		10	550459	09/21/20 20:54	IMZ	TAL BUF
Total/NA	Analysis	SM 3500 FE D		1	550305	09/19/20 13:50	CSS	TAL BUF
Total/NA	Analysis	SM 4500 S2 F		1	550702	09/22/20 16:35	MJB	TAL BUF

Client Sample ID: LAB-SBW-18-09162020 47

Lab Sample ID: 480-175323-4

Date Collected: 09/16/20 13:25

Matrix: Water

Date Received: 09/18/20 10:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	RSK-175		1	550722	09/23/20 09:07	MAN	TAL BUF
Total/NA	Analysis	353.2		1	550244	09/18/20 14:17	CRK	TAL BUF
Total/NA	Analysis	353.2		1	550243	09/18/20 14:18	CRK	TAL BUF
Total/NA	Analysis	9056A		10	550459	09/21/20 21:08	IMZ	TAL BUF
Total/NA	Analysis	SM 3500 FE D		1	550305	09/19/20 13:50	CSS	TAL BUF
Total/NA	Analysis	SM 4500 S2 F		1	550702	09/22/20 16:35	MJB	TAL BUF

Eurofins TestAmerica, Buffalo

Lab Chronicle

Client: LaBella Associates DPC
Project/Site: Former Emerson Street Landfill Project

Job ID: 480-175323-1

Client Sample ID: LAB-SBW-17-09162020 42

Lab Sample ID: 480-175323-5

Date Collected: 09/16/20 15:45

Matrix: Water

Date Received: 09/18/20 10:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	RSK-175		1	550722	09/23/20 09:26	MAN	TAL BUF
Total/NA	Analysis	353.2		1	550243	09/18/20 14:10	CRK	TAL BUF
Total/NA	Analysis	353.2		1	550244	09/18/20 14:10	CRK	TAL BUF
Total/NA	Analysis	9056A		10	550459	09/21/20 21:23	IMZ	TAL BUF
Total/NA	Analysis	9056A		20	550665	09/23/20 19:31	RJS	TAL BUF
Total/NA	Analysis	SM 3500 FE D		1	550305	09/19/20 13:50	CSS	TAL BUF
Total/NA	Analysis	SM 4500 S2 F		1	550702	09/22/20 16:35	MJB	TAL BUF

Client Sample ID: LAB-SBW-17-09162020 52

Lab Sample ID: 480-175323-6

Date Collected: 09/16/20 17:00

Matrix: Water

Date Received: 09/18/20 10:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	RSK-175		1	550722	09/23/20 09:45	MAN	TAL BUF
Total/NA	Analysis	353.2		1	550243	09/18/20 14:13	CRK	TAL BUF
Total/NA	Analysis	353.2		1	550244	09/18/20 14:13	CRK	TAL BUF
Total/NA	Analysis	9056A		10	550459	09/21/20 21:37	IMZ	TAL BUF
Total/NA	Analysis	9056A		20	550665	09/23/20 19:46	RJS	TAL BUF
Total/NA	Analysis	SM 3500 FE D		1	550305	09/19/20 13:50	CSS	TAL BUF
Total/NA	Analysis	SM 4500 S2 F		1	550702	09/22/20 16:35	MJB	TAL BUF

Client Sample ID: LAB-SBW-16-09172020 33

Lab Sample ID: 480-175323-7

Date Collected: 09/17/20 09:20

Matrix: Water

Date Received: 09/18/20 10:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		40	550342	09/21/20 14:25	CRL	TAL BUF

Client Sample ID: LAB-SBW-16-09172020 44

Lab Sample ID: 480-175323-8

Date Collected: 09/17/20 11:15

Matrix: Water

Date Received: 09/18/20 10:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		4	550342	09/21/20 14:49	CRL	TAL BUF

Client Sample ID: LAB-SBW-15-09172020 28

Lab Sample ID: 480-175323-9

Date Collected: 09/17/20 09:30

Matrix: Water

Date Received: 09/18/20 10:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		10	550342	09/21/20 15:13	CRL	TAL BUF

Eurofins TestAmerica, Buffalo

Lab Chronicle

Client: LaBella Associates DPC
Project/Site: Former Emerson Street Landfill Project

Job ID: 480-175323-1

Client Sample ID: LAB-SBW-15-09172020 40

Lab Sample ID: 480-175323-10

Date Collected: 09/17/20 11:10

Matrix: Water

Date Received: 09/18/20 10:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		10	550523	09/22/20 16:15	RJF	TAL BUF

Client Sample ID: BD-GW-09172020

Lab Sample ID: 480-175323-11

Date Collected: 09/17/20 00:00

Matrix: Water

Date Received: 09/18/20 10:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		5	550523	09/22/20 16:39	RJF	TAL BUF

Client Sample ID: TRIP BLANK-09172020

Lab Sample ID: 480-175323-12

Date Collected: 09/17/20 08:00

Matrix: Water

Date Received: 09/18/20 10:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	550523	09/22/20 17:03	RJF	TAL BUF

Laboratory References:

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

Accreditation/Certification Summary

Client: LaBella Associates DPC
Project/Site: Former Emerson Street Landfill Project

Job ID: 480-175323-1

Laboratory: Eurofins TestAmerica, Buffalo

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

Authority	Program	Identification Number	Expiration Date
New York	NELAP	10026	04-01-21

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
SM 3500 FE D		Water	Ferrous Iron

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13
- 14
- 15

Method Summary

Client: LaBella Associates DPC
Project/Site: Former Emerson Street Landfill Project

Job ID: 480-175323-1

Method	Method Description	Protocol	Laboratory
8260C	Volatile Organic Compounds by GC/MS	SW846	TAL BUF
RSK-175	Dissolved Gases (GC)	RSK	TAL BUF
353.2	Nitrate	EPA	TAL BUF
353.2	Nitrogen, Nitrite	MCAWW	TAL BUF
9056A	Anions, Ion Chromatography	SW846	TAL BUF
SM 3500 FE D	Iron, Ferrous and Ferric	SM	TAL BUF
SM 4500 S2 F	Sulfide, Total	SM	TAL BUF
5030C	Purge and Trap	SW846	TAL BUF

Protocol References:

EPA = US Environmental Protection Agency

MCAWW = "Methods For Chemical Analysis Of Water And Wastes", EPA-600/4-79-020, March 1983 And Subsequent Revisions.

RSK = Sample Prep And Calculations For Dissolved Gas Analysis In Water Samples Using A GC Headspace Equilibration Technique, RSKSOP-175, Rev. 0, 8/11/94, USEPA Research Lab

SM = "Standard Methods For The Examination Of Water And Wastewater"

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

Laboratory References:

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

Sample Summary

Client: LaBella Associates DPC
Project/Site: Former Emerson Street Landfill Project

Job ID: 480-175323-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
480-175323-1	LAB-SBW-19-09162020 35	Water	09/16/20 11:05	09/18/20 10:00	
480-175323-2	LAB-SBW-19-09162020 47	Water	09/16/20 12:40	09/18/20 10:00	
480-175323-3	LAB-SBW-18-09162020 38	Water	09/16/20 11:15	09/18/20 10:00	
480-175323-4	LAB-SBW-18-09162020 47	Water	09/16/20 13:25	09/18/20 10:00	
480-175323-5	LAB-SBW-17-09162020 42	Water	09/16/20 15:45	09/18/20 10:00	
480-175323-6	LAB-SBW-17-09162020 52	Water	09/16/20 17:00	09/18/20 10:00	
480-175323-7	LAB-SBW-16-09172020 33	Water	09/17/20 09:20	09/18/20 10:00	
480-175323-8	LAB-SBW-16-09172020 44	Water	09/17/20 11:15	09/18/20 10:00	
480-175323-9	LAB-SBW-15-09172020 28	Water	09/17/20 09:30	09/18/20 10:00	
480-175323-10	LAB-SBW-15-09172020 40	Water	09/17/20 11:10	09/18/20 10:00	
480-175323-11	BD-GW-09172020	Water	09/17/20 00:00	09/18/20 10:00	
480-175323-12	TRIP BLANK-09172020	Water	09/17/20 08:00	09/18/20 10:00	

10 Hazelwood Drive
Amherst, NY 14228-2298
Phone: 716-691-2600 Fax: 716-691-7991

Chain of Custody Record

Client Information		Sample ID: <u>Katherine Tracy</u>		Lab PM: <u>Fischer, Brian J</u>		Carrier Tracking No(s):		COC No: <u>480-150410-25355.1</u>	
Client Contact: <u>Mr. Allan Engelbert</u>		Phone: <u>855-208-3438</u>		E-Mail: <u>Brian.Fischer@Eurofinset.com</u>		Page: <u>Page 1 of 2</u>		Job #:	
Company: <u>LaBella Associates DPC</u>		Due Date Requested:		Analysis Requested		Preservation Codes:		M - Hexane N - None O - AsNaO2 P - Na2O4S Q - Na2SO3 R - Na2S2O3 S - H2SO4 T - TSP Dodecahydrate U - Acetone V - MCAA	
Address: <u>300 State Street Suite 201</u>		TAT Requested (days): <u>Standard</u>		Perform MS/MSD (Yes or No)		8260C - TCL VOCs + TICs		A - HCL B - NaOH C - Zn Acetate D - Nitric Acid E - NaHSO4 F - MeOH G - Amchlor H - Ascorbic Acid I - Ice	
City: <u>Rochester</u>		PO #: <u>210173</u>		Field Filtered Sample (Yes or No)		3500_FE_D - Ferrous Iron		Special Instructions/Note:	
State/Zip: <u>NY, 14614</u>		WO #: <u>48016058</u>		Matrix (W=water, S=solid, O=water, BT=TRAP, A=Air)		SM4500_S2_F - Sulfide		480-175323 Chain of Custody	
Phone: <u>585-295-6289(Tel)</u>		Project #: <u>48016058</u>		Sample Date		RSK_175 - Ethane & Ethene		Total	
Email: <u>aengelbert@labellapc.com</u>		SSOW#: <u>48016058</u>		Sample Time		353_2_353_2 Nitrite, Nitrate Calc		7	
Project Name: <u>Former Emerson Street Landfill Project</u>		Sample Date		Sample Type (C=Comp, G=grab)		9056A_28D - Chloride & Sulfate		7	
Site: <u>48016058</u>		Sample Date		Preservation Code		Perform MS/MSD (Yes or No)		7	
Sample Identification		Sample Date		Sample Type (C=Comp, G=grab)		Field Filtered Sample (Yes or No)		7	
<u>LAB-SBW-19-09162020e 35</u>		<u>9/16/2020</u>		<u>G</u>		<u>X</u>		<u>7</u>	
<u>LAB-SBW-19-09162020e 47</u>		<u>9/16/2020</u>		<u>G</u>		<u>X</u>		<u>7</u>	
<u>LAB-SBW-18-09162020 (38)</u>		<u>9/16/2020</u>		<u>G</u>		<u>X</u>		<u>7</u>	
<u>LAB-SBW-18-09162020 (47)</u>		<u>9/16/2020</u>		<u>G</u>		<u>X</u>		<u>7</u>	
<u>LAB-SBW-17-09162020 (12)</u>		<u>9/16/2020</u>		<u>G</u>		<u>X</u>		<u>7</u>	
<u>LAB-SBW-17-09162020 (52)</u>		<u>9/16/2020</u>		<u>G</u>		<u>X</u>		<u>7</u>	
<u>MAX-AW-3-09162020</u>		<u>1/16/2020</u>		<u>Water</u>		<u>X</u>		<u>7</u>	
<u>MAX-AW-3-09162020</u>		<u>9/16/2020</u>		<u>Water</u>		<u>X</u>		<u>7</u>	
<u>LAB-SBW-16-09172020 (33)</u>		<u>9/17/2020</u>		<u>Water</u>		<u>X</u>		<u>3</u>	
<u>LAB-SBW-16-09172020 (44)</u>		<u>9/17/2020</u>		<u>Water</u>		<u>X</u>		<u>3</u>	
<u>LAB-SBW-15-09172020 (28)</u>		<u>9/17/2020</u>		<u>Water</u>		<u>X</u>		<u>9</u>	
Possible Hazard Identification		Deliverable Requested: <input type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown <input type="checkbox"/> Radiological		Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)		<input type="checkbox"/> Return To Client <input checked="" type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months			
Empty Kit Relinquished by:		Date:		Special Instructions/QC Requirements:					
Relinquished by: <u>[Signature]</u>		Date/Time: <u>9/17/2020 1300</u>		Received by: <u>[Signature]</u>		Date/Time: <u>9/18/20 1600</u>		Company: <u>Company</u>	
Relinquished by: <u>[Signature]</u>		Date/Time: <u>9/17/2020 1300</u>		Received by: <u>[Signature]</u>		Date/Time: <u>9/18/20 1600</u>		Company: <u>Company</u>	
Relinquished by: <u>[Signature]</u>		Date/Time: <u>9/17/2020 1300</u>		Received by: <u>[Signature]</u>		Date/Time: <u>9/18/20 1600</u>		Company: <u>Company</u>	
Custody Seal No.: <u>3.7#1 ICE</u>		Custody Seal No.:		Cooler Temperature(s) °C and Other Remarks:					



Chain of Custody Record

Client Information Client Contact: Mr. Allan Engelbert Company: LaBella Associates DPC Address: 300 State Street Suite 201 City: Rochester State, Zip: NY, 14614 Phone: 585-295-6289 (Tel) Email: aengelbert@labellapc.com Project Name: Former Emerson Street Landfill Project Site:		Lab PM: Fischer, Brian J E-Mail: Brian.Fischer@Eurofinset.com Camer Tracking No(s): COC No: 480-150410-25355.2 Page: Page 2 of 2 Job #:	
Due Date Requested: TAT Requested (days): Standard		Analysis Requested 9056A_28D - Chloride & Sulfate 333.2_353.2 Nitrite, Nitrate Calc RSK_175 - Ethane & Ethene SM4500_S2_F - Sulfide 3500_FE_D - Ferrous Iron 8260C - TCL VOCs + TICs	
PO #: 210173 WO #:		Preservation Codes: 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 X - EDTA Y - EDA Z - other (specify)	
Project #: 48016058 SSON#:		Special Instructions/Note: Total Number of containers:	
Sample Identification LAB-SBW-15-09172020 (40) BD-GW-09172020 Trip-BGWB-09172020		Field Filtered Sample (Yes or No) Perform MS/MSD (Yes or No) 956A_28D - Chloride & Sulfate 333.2_353.2 Nitrite, Nitrate Calc RSK_175 - Ethane & Ethene SM4500_S2_F - Sulfide 3500_FE_D - Ferrous Iron 8260C - TCL VOCs + TICs	
Sample Date 9/17/2020 9/17/2020 9/17/2020		Sample Time 1110 - 0800	
Sample Type (C=comp, G=grab) G G G		Matrix (W=water, S=solid, O=wastewater, BT=BIOTISSUE, A=AIR) Water Water Water Water Water Water Water Water Water	
Preservation Code: G G G		Special Instructions/Note: Total Number of containers: 3 3 2	
Possible Hazard Identification <input type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown <input type="checkbox"/> Radiological			
Deliverable Requested: I, II, III, IV, Other (specify)			
Empty Kit Relinquished by:			
Relinquished by: [Signature] Date/Time: 9/17/2020 1300 Company: Labella		Method of Shipment: [Signature] Date/Time: 9/18/2020 1000 Company: TA	
Relinquished by: [Signature] Date/Time:		Relinquished by: [Signature] Date/Time:	
Relinquished by: [Signature] Date/Time:		Relinquished by: [Signature] Date/Time:	
Custody Seals Intact: A Yes A No		Cooler Temperature(s) °C and Other Remarks:	



Login Sample Receipt Checklist

Client: LaBella Associates DPC

Job Number: 480-175323-1

Login Number: 175323

List Number: 1

Creator: Wallace, Cameron

List Source: Eurofins TestAmerica, Buffalo

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	
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	LABELLA
Samples received within 48 hours of sampling.	True	
Samples requiring field filtration have been filtered in the field.	True	
Chlorine Residual checked.	N/A	



ANALYTICAL REPORT

Eurofins TestAmerica, Buffalo
10 Hazelwood Drive
Amherst, NY 14228-2298
Tel: (716)691-2600

Laboratory Job ID: 480-175214-1

Client Project/Site: Former Emerson Street Landfill Project

For:

LaBella Associates DPC
300 State Street
Suite 201
Rochester, New York 14614

Attn: Ann Aquilina Barber



Authorized for release by:

9/17/2020 10:03:43 PM

Rebecca Jones, Project Management Assistant I
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Designee for

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(716)504-9835

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The test results in this report meet all 2003 NELAC, 2009 TNI, and 2016 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

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.



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Definitions/Glossary

Client: LaBella Associates DPC
Project/Site: Former Emerson Street Landfill Project

Job ID: 480-175214-1

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
B	Compound was found in the blank and sample.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

GC/MS VOA TICs

Qualifier	Qualifier Description
J	Indicates an Estimated Value for TICs
N	Presumptive evidence of material.
T	Result is a tentatively identified compound (TIC) and an estimated value.

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

Case Narrative

Client: LaBella Associates DPC
Project/Site: Former Emerson Street Landfill Project

Job ID: 480-175214-1

Job ID: 480-175214-1

Laboratory: Eurofins TestAmerica, Buffalo

Narrative

Job Narrative 480-175214-1

Comments

No additional comments.

Receipt

The samples were received on 9/17/2020 10:00 AM; the samples arrived in good condition, and where required, properly preserved and on ice. The temperature of the cooler at receipt was 4.6° C.

GC/MS VOA

Method 8260C: The following volatiles samples were diluted due to foaming at the time of purging during the original sample analysis: LAB-SBW-19-09162020 (35) (480-175214-5), LAB-SBW-19-09162020 (47) (480-175214-7) and LAB-SBW-17-09162020 (42) (480-175214-8). Elevated reporting limits (RLs) are provided.

Method 8260C: The following samples were diluted to bring the concentration of target analytes within the calibration range: LAB-SBW-18-091620 (38) (480-175214-2), GMX-MW-3-09162020 (28) (480-175214-3), GMX-MW-3-09162020 (30) (480-175214-4) and LAB-SBW-18-09162020 (42) (480-175214-6). Elevated reporting limits (RLs) are provided.

Method 8260C: The method blank for analytical batch analytical batch 480-549880 contained Methylene Chloride below the reporting limit (RL). This compound is considered a common laboratory contaminant. The associated sample(s) was not re-extracted and/or re-analyzed because the concentration of the common lab contaminant in the samples was similar to the concentration in the method blank. The following samples are impacted: LAB-SBW-18-091620 (38) (480-175214-2), GMX-MW-3-09162020 (28) (480-175214-3), GMX-MW-3-09162020 (30) (480-175214-4), LAB-SBW-19-09162020 (35) (480-175214-5), LAB-SBW-18-09162020 (42) (480-175214-6), LAB-SBW-19-09162020 (47) (480-175214-7), LAB-SBW-17-09162020 (42) (480-175214-8) and LAB-SBW-17-09162020 (52) (480-175214-9).

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

Detection Summary

Client: LaBella Associates DPC
 Project/Site: Former Emerson Street Landfill Project

Job ID: 480-175214-1

Client Sample ID: TRIP BLANK

Lab Sample ID: 480-175214-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Methylene Chloride	1.2	B	1.0	0.44	ug/L	1		8260C	Total/NA

Client Sample ID: LAB-SBW-18-091620 (38)

Lab Sample ID: 480-175214-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1-Dichloroethane	2.9	J	4.0	1.5	ug/L	4		8260C	Total/NA
2-Butanone (MEK)	8.8	J	40	5.3	ug/L	4		8260C	Total/NA
Benzene	15		4.0	1.6	ug/L	4		8260C	Total/NA
Chloroethane	68		4.0	1.3	ug/L	4		8260C	Total/NA
Methyl tert-butyl ether	61		4.0	0.64	ug/L	4		8260C	Total/NA
Methylcyclohexane	0.74	J	4.0	0.64	ug/L	4		8260C	Total/NA
Methylene Chloride	4.9	B	4.0	1.8	ug/L	4		8260C	Total/NA

Client Sample ID: GMX-MW-3-09162020 (28)

Lab Sample ID: 480-175214-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
2-Butanone (MEK)	6.9	J	40	5.3	ug/L	4		8260C	Total/NA
Benzene	12		4.0	1.6	ug/L	4		8260C	Total/NA
Chloroethane	150		4.0	1.3	ug/L	4		8260C	Total/NA
cis-1,2-Dichloroethene	5.2		4.0	3.2	ug/L	4		8260C	Total/NA
Methyl tert-butyl ether	67		4.0	0.64	ug/L	4		8260C	Total/NA
Methylene Chloride	3.4	J B	4.0	1.8	ug/L	4		8260C	Total/NA
Toluene	2.2	J	4.0	2.0	ug/L	4		8260C	Total/NA
Vinyl chloride	15		4.0	3.6	ug/L	4		8260C	Total/NA

Client Sample ID: GMX-MW-3-09162020 (30)

Lab Sample ID: 480-175214-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
2-Butanone (MEK)	5.8	J	40	5.3	ug/L	4		8260C	Total/NA
Benzene	12		4.0	1.6	ug/L	4		8260C	Total/NA
Chloroethane	160		4.0	1.3	ug/L	4		8260C	Total/NA
Cyclohexane	2.1	J	4.0	0.72	ug/L	4		8260C	Total/NA
Isopropylbenzene	3.5	J	4.0	3.2	ug/L	4		8260C	Total/NA
Methyl tert-butyl ether	66		4.0	0.64	ug/L	4		8260C	Total/NA
Methylcyclohexane	2.9	J	4.0	0.64	ug/L	4		8260C	Total/NA
Methylene Chloride	3.7	J B	4.0	1.8	ug/L	4		8260C	Total/NA
Vinyl chloride	7.3		4.0	3.6	ug/L	4		8260C	Total/NA

Client Sample ID: LAB-SBW-19-09162020 (35)

Lab Sample ID: 480-175214-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1-Dichloroethane	4.3		4.0	1.5	ug/L	4		8260C	Total/NA
2-Butanone (MEK)	8.7	J	40	5.3	ug/L	4		8260C	Total/NA
Methyl tert-butyl ether	4.3		4.0	0.64	ug/L	4		8260C	Total/NA
Methylene Chloride	5.4	B	4.0	1.8	ug/L	4		8260C	Total/NA

Client Sample ID: LAB-SBW-18-09162020 (42)

Lab Sample ID: 480-175214-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1-Dichloroethane	3.9	J	4.0	1.5	ug/L	4		8260C	Total/NA
Benzene	18		4.0	1.6	ug/L	4		8260C	Total/NA
Chloroethane	74		4.0	1.3	ug/L	4		8260C	Total/NA
Methyl tert-butyl ether	63		4.0	0.64	ug/L	4		8260C	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins TestAmerica, Buffalo

Detection Summary

Client: LaBella Associates DPC
 Project/Site: Former Emerson Street Landfill Project

Job ID: 480-175214-1

Client Sample ID: LAB-SBW-18-09162020 (42) (Continued)

Lab Sample ID: 480-175214-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Methylcyclohexane	1.6	J	4.0	0.64	ug/L	4		8260C	Total/NA
Methylene Chloride	3.5	J B	4.0	1.8	ug/L	4		8260C	Total/NA

Client Sample ID: LAB-SBW-19-09162020 (47)

Lab Sample ID: 480-175214-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1-Dichloroethane	3.4	J	4.0	1.5	ug/L	4		8260C	Total/NA
Chloroethane	1.4	J	4.0	1.3	ug/L	4		8260C	Total/NA
Methyl tert-butyl ether	2.2	J	4.0	0.64	ug/L	4		8260C	Total/NA
Methylene Chloride	3.9	J B	4.0	1.8	ug/L	4		8260C	Total/NA

Client Sample ID: LAB-SBW-17-09162020 (42)

Lab Sample ID: 480-175214-8

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1-Dichloroethane	15		2.0	0.76	ug/L	2		8260C	Total/NA
Benzene	2.4		2.0	0.82	ug/L	2		8260C	Total/NA
Carbon disulfide	2.0		2.0	0.38	ug/L	2		8260C	Total/NA
Chloroethane	5.6		2.0	0.64	ug/L	2		8260C	Total/NA
cis-1,2-Dichloroethene	8.1		2.0	1.6	ug/L	2		8260C	Total/NA
Methyl tert-butyl ether	7.0		2.0	0.32	ug/L	2		8260C	Total/NA
Methylene Chloride	1.3	J B	2.0	0.88	ug/L	2		8260C	Total/NA
trans-1,2-Dichloroethene	2.0		2.0	1.8	ug/L	2		8260C	Total/NA
Vinyl chloride	5.5		2.0	1.8	ug/L	2		8260C	Total/NA

Client Sample ID: LAB-SBW-17-09162020 (52)

Lab Sample ID: 480-175214-9

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1,2-Trichloro-1,2,2-trifluoroethane	0.95	J	1.0	0.31	ug/L	1		8260C	Total/NA
1,1-Dichloroethane	14		1.0	0.38	ug/L	1		8260C	Total/NA
Carbon disulfide	0.32	J	1.0	0.19	ug/L	1		8260C	Total/NA
Chloroethane	1.2		1.0	0.32	ug/L	1		8260C	Total/NA
cis-1,2-Dichloroethene	2.8		1.0	0.81	ug/L	1		8260C	Total/NA
Methyl tert-butyl ether	0.27	J	1.0	0.16	ug/L	1		8260C	Total/NA
Methylene Chloride	0.52	J B	1.0	0.44	ug/L	1		8260C	Total/NA
trans-1,2-Dichloroethene	2.1		1.0	0.90	ug/L	1		8260C	Total/NA
Trichloroethene	1.2		1.0	0.46	ug/L	1		8260C	Total/NA
Vinyl chloride	1.5		1.0	0.90	ug/L	1		8260C	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins TestAmerica, Buffalo

Client Sample Results

Client: LaBella Associates DPC
 Project/Site: Former Emerson Street Landfill Project

Job ID: 480-175214-1

Client Sample ID: TRIP BLANK

Lab Sample ID: 480-175214-1

Date Collected: 09/16/20 08:00

Matrix: Water

Date Received: 09/17/20 10:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		1.0	0.82	ug/L			09/17/20 12:03	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.21	ug/L			09/17/20 12:03	1
1,1,2-Trichloroethane	ND		1.0	0.23	ug/L			09/17/20 12:03	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.0	0.31	ug/L			09/17/20 12:03	1
1,1-Dichloroethane	ND		1.0	0.38	ug/L			09/17/20 12:03	1
1,1-Dichloroethene	ND		1.0	0.29	ug/L			09/17/20 12:03	1
1,2,4-Trichlorobenzene	ND		1.0	0.41	ug/L			09/17/20 12:03	1
1,2-Dibromo-3-Chloropropane	ND		1.0	0.39	ug/L			09/17/20 12:03	1
1,2-Dichlorobenzene	ND		1.0	0.79	ug/L			09/17/20 12:03	1
1,2-Dichloroethane	ND		1.0	0.21	ug/L			09/17/20 12:03	1
1,2-Dichloropropane	ND		1.0	0.72	ug/L			09/17/20 12:03	1
1,3-Dichlorobenzene	ND		1.0	0.78	ug/L			09/17/20 12:03	1
1,4-Dichlorobenzene	ND		1.0	0.84	ug/L			09/17/20 12:03	1
2-Butanone (MEK)	ND		10	1.3	ug/L			09/17/20 12:03	1
2-Hexanone	ND		5.0	1.2	ug/L			09/17/20 12:03	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	2.1	ug/L			09/17/20 12:03	1
Acetone	ND		10	3.0	ug/L			09/17/20 12:03	1
Benzene	ND		1.0	0.41	ug/L			09/17/20 12:03	1
Bromodichloromethane	ND		1.0	0.39	ug/L			09/17/20 12:03	1
Bromoform	ND		1.0	0.26	ug/L			09/17/20 12:03	1
Bromomethane	ND		1.0	0.69	ug/L			09/17/20 12:03	1
Carbon disulfide	ND		1.0	0.19	ug/L			09/17/20 12:03	1
Carbon tetrachloride	ND		1.0	0.27	ug/L			09/17/20 12:03	1
Chlorobenzene	ND		1.0	0.75	ug/L			09/17/20 12:03	1
Dibromochloromethane	ND		1.0	0.32	ug/L			09/17/20 12:03	1
Chloroethane	ND		1.0	0.32	ug/L			09/17/20 12:03	1
Chloroform	ND		1.0	0.34	ug/L			09/17/20 12:03	1
Chloromethane	ND		1.0	0.35	ug/L			09/17/20 12:03	1
cis-1,2-Dichloroethene	ND		1.0	0.81	ug/L			09/17/20 12:03	1
cis-1,3-Dichloropropene	ND		1.0	0.36	ug/L			09/17/20 12:03	1
Cyclohexane	ND		1.0	0.18	ug/L			09/17/20 12:03	1
Dichlorodifluoromethane	ND		1.0	0.68	ug/L			09/17/20 12:03	1
Ethylbenzene	ND		1.0	0.74	ug/L			09/17/20 12:03	1
1,2-Dibromoethane	ND		1.0	0.73	ug/L			09/17/20 12:03	1
Isopropylbenzene	ND		1.0	0.79	ug/L			09/17/20 12:03	1
Methyl acetate	ND		2.5	1.3	ug/L			09/17/20 12:03	1
Methyl tert-butyl ether	ND		1.0	0.16	ug/L			09/17/20 12:03	1
Methylcyclohexane	ND		1.0	0.16	ug/L			09/17/20 12:03	1
Methylene Chloride	1.2	B	1.0	0.44	ug/L			09/17/20 12:03	1
Styrene	ND		1.0	0.73	ug/L			09/17/20 12:03	1
Tetrachloroethene	ND		1.0	0.36	ug/L			09/17/20 12:03	1
Toluene	ND		1.0	0.51	ug/L			09/17/20 12:03	1
trans-1,2-Dichloroethene	ND		1.0	0.90	ug/L			09/17/20 12:03	1
trans-1,3-Dichloropropene	ND		1.0	0.37	ug/L			09/17/20 12:03	1
Trichloroethene	ND		1.0	0.46	ug/L			09/17/20 12:03	1
Trichlorofluoromethane	ND		1.0	0.88	ug/L			09/17/20 12:03	1
Vinyl chloride	ND		1.0	0.90	ug/L			09/17/20 12:03	1
Xylenes, Total	ND		2.0	0.66	ug/L			09/17/20 12:03	1

Client Sample Results

Client: LaBella Associates DPC
 Project/Site: Former Emerson Street Landfill Project

Job ID: 480-175214-1

Client Sample ID: TRIP BLANK

Lab Sample ID: 480-175214-1

Date Collected: 09/16/20 08:00

Matrix: Water

Date Received: 09/17/20 10:00

Tentatively Identified Compound	Est. Result	Qualifier	Unit	D	RT	CAS No.	Prepared	Analyzed	Dil Fac
Tentatively Identified Compound	None		ug/L					09/17/20 12:03	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	101		80 - 120					09/17/20 12:03	1
1,2-Dichloroethane-d4 (Surr)	112		77 - 120					09/17/20 12:03	1
4-Bromofluorobenzene (Surr)	107		73 - 120					09/17/20 12:03	1
Dibromofluoromethane (Surr)	115		75 - 123					09/17/20 12:03	1

Client Sample ID: LAB-SBW-18-091620 (38)

Lab Sample ID: 480-175214-2

Date Collected: 09/16/20 11:15

Matrix: Water

Date Received: 09/17/20 10:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		4.0	3.3	ug/L			09/17/20 15:40	4
1,1,1,2-Tetrachloroethane	ND		4.0	0.84	ug/L			09/17/20 15:40	4
1,1,2-Trichloroethane	ND		4.0	0.92	ug/L			09/17/20 15:40	4
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		4.0	1.2	ug/L			09/17/20 15:40	4
1,1-Dichloroethane	2.9	J	4.0	1.5	ug/L			09/17/20 15:40	4
1,1-Dichloroethene	ND		4.0	1.2	ug/L			09/17/20 15:40	4
1,2,4-Trichlorobenzene	ND		4.0	1.6	ug/L			09/17/20 15:40	4
1,2-Dibromo-3-Chloropropane	ND		4.0	1.6	ug/L			09/17/20 15:40	4
1,2-Dichlorobenzene	ND		4.0	3.2	ug/L			09/17/20 15:40	4
1,2-Dichloroethane	ND		4.0	0.84	ug/L			09/17/20 15:40	4
1,2-Dichloropropane	ND		4.0	2.9	ug/L			09/17/20 15:40	4
1,3-Dichlorobenzene	ND		4.0	3.1	ug/L			09/17/20 15:40	4
1,4-Dichlorobenzene	ND		4.0	3.4	ug/L			09/17/20 15:40	4
2-Butanone (MEK)	8.8	J	40	5.3	ug/L			09/17/20 15:40	4
2-Hexanone	ND		20	5.0	ug/L			09/17/20 15:40	4
4-Methyl-2-pentanone (MIBK)	ND		20	8.4	ug/L			09/17/20 15:40	4
Acetone	ND		40	12	ug/L			09/17/20 15:40	4
Benzene	15		4.0	1.6	ug/L			09/17/20 15:40	4
Bromodichloromethane	ND		4.0	1.6	ug/L			09/17/20 15:40	4
Bromoform	ND		4.0	1.0	ug/L			09/17/20 15:40	4
Bromomethane	ND		4.0	2.8	ug/L			09/17/20 15:40	4
Carbon disulfide	ND		4.0	0.76	ug/L			09/17/20 15:40	4
Carbon tetrachloride	ND		4.0	1.1	ug/L			09/17/20 15:40	4
Chlorobenzene	ND		4.0	3.0	ug/L			09/17/20 15:40	4
Dibromochloromethane	ND		4.0	1.3	ug/L			09/17/20 15:40	4
Chloroethane	68		4.0	1.3	ug/L			09/17/20 15:40	4
Chloroform	ND		4.0	1.4	ug/L			09/17/20 15:40	4
Chloromethane	ND		4.0	1.4	ug/L			09/17/20 15:40	4
cis-1,2-Dichloroethene	ND		4.0	3.2	ug/L			09/17/20 15:40	4
cis-1,3-Dichloropropene	ND		4.0	1.4	ug/L			09/17/20 15:40	4
Cyclohexane	ND		4.0	0.72	ug/L			09/17/20 15:40	4
Dichlorodifluoromethane	ND		4.0	2.7	ug/L			09/17/20 15:40	4
Ethylbenzene	ND		4.0	3.0	ug/L			09/17/20 15:40	4
1,2-Dibromoethane	ND		4.0	2.9	ug/L			09/17/20 15:40	4
Isopropylbenzene	ND		4.0	3.2	ug/L			09/17/20 15:40	4
Methyl acetate	ND		10	5.2	ug/L			09/17/20 15:40	4
Methyl tert-butyl ether	61		4.0	0.64	ug/L			09/17/20 15:40	4

Eurofins TestAmerica, Buffalo

Client Sample Results

Client: LaBella Associates DPC
 Project/Site: Former Emerson Street Landfill Project

Job ID: 480-175214-1

Client Sample ID: LAB-SBW-18-091620 (38)

Lab Sample ID: 480-175214-2

Date Collected: 09/16/20 11:15

Matrix: Water

Date Received: 09/17/20 10:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methylcyclohexane	0.74	J	4.0	0.64	ug/L			09/17/20 15:40	4
Methylene Chloride	4.9	B	4.0	1.8	ug/L			09/17/20 15:40	4
Styrene	ND		4.0	2.9	ug/L			09/17/20 15:40	4
Tetrachloroethene	ND		4.0	1.4	ug/L			09/17/20 15:40	4
Toluene	ND		4.0	2.0	ug/L			09/17/20 15:40	4
trans-1,2-Dichloroethene	ND		4.0	3.6	ug/L			09/17/20 15:40	4
trans-1,3-Dichloropropene	ND		4.0	1.5	ug/L			09/17/20 15:40	4
Trichloroethene	ND		4.0	1.8	ug/L			09/17/20 15:40	4
Trichlorofluoromethane	ND		4.0	3.5	ug/L			09/17/20 15:40	4
Vinyl chloride	ND		4.0	3.6	ug/L			09/17/20 15:40	4
Xylenes, Total	ND		8.0	2.6	ug/L			09/17/20 15:40	4

Tentatively Identified Compound	Est. Result	Qualifier	Unit	D	RT	CAS No.	Prepared	Analyzed	Dil Fac
Unknown	13	T J	ug/L		2.64			09/17/20 15:40	4
Unknown	13	T J	ug/L		9.46			09/17/20 15:40	4
Unknown	14	T J	ug/L		11.18			09/17/20 15:40	4

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	98		80 - 120		09/17/20 15:40	4
1,2-Dichloroethane-d4 (Surr)	110		77 - 120		09/17/20 15:40	4
4-Bromofluorobenzene (Surr)	102		73 - 120		09/17/20 15:40	4
Dibromofluoromethane (Surr)	104		75 - 123		09/17/20 15:40	4

Client Sample ID: GMX-MW-3-09162020 (28)

Lab Sample ID: 480-175214-3

Date Collected: 09/16/20 15:05

Matrix: Water

Date Received: 09/17/20 10:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		4.0	3.3	ug/L			09/17/20 16:03	4
1,1,2,2-Tetrachloroethane	ND		4.0	0.84	ug/L			09/17/20 16:03	4
1,1,2-Trichloroethane	ND		4.0	0.92	ug/L			09/17/20 16:03	4
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		4.0	1.2	ug/L			09/17/20 16:03	4
1,1-Dichloroethane	ND		4.0	1.5	ug/L			09/17/20 16:03	4
1,1-Dichloroethene	ND		4.0	1.2	ug/L			09/17/20 16:03	4
1,2,4-Trichlorobenzene	ND		4.0	1.6	ug/L			09/17/20 16:03	4
1,2-Dibromo-3-Chloropropane	ND		4.0	1.6	ug/L			09/17/20 16:03	4
1,2-Dichlorobenzene	ND		4.0	3.2	ug/L			09/17/20 16:03	4
1,2-Dichloroethane	ND		4.0	0.84	ug/L			09/17/20 16:03	4
1,2-Dichloropropane	ND		4.0	2.9	ug/L			09/17/20 16:03	4
1,3-Dichlorobenzene	ND		4.0	3.1	ug/L			09/17/20 16:03	4
1,4-Dichlorobenzene	ND		4.0	3.4	ug/L			09/17/20 16:03	4
2-Butanone (MEK)	6.9	J	40	5.3	ug/L			09/17/20 16:03	4
2-Hexanone	ND		20	5.0	ug/L			09/17/20 16:03	4
4-Methyl-2-pentanone (MIBK)	ND		20	8.4	ug/L			09/17/20 16:03	4
Acetone	ND		40	12	ug/L			09/17/20 16:03	4
Benzene	12		4.0	1.6	ug/L			09/17/20 16:03	4
Bromodichloromethane	ND		4.0	1.6	ug/L			09/17/20 16:03	4
Bromoform	ND		4.0	1.0	ug/L			09/17/20 16:03	4
Bromomethane	ND		4.0	2.8	ug/L			09/17/20 16:03	4

Eurofins TestAmerica, Buffalo

Client Sample Results

Client: LaBella Associates DPC
 Project/Site: Former Emerson Street Landfill Project

Job ID: 480-175214-1

Client Sample ID: GMX-MW-3-09162020 (28)

Lab Sample ID: 480-175214-3

Date Collected: 09/16/20 15:05

Matrix: Water

Date Received: 09/17/20 10:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Carbon disulfide	ND		4.0	0.76	ug/L			09/17/20 16:03	4
Carbon tetrachloride	ND		4.0	1.1	ug/L			09/17/20 16:03	4
Chlorobenzene	ND		4.0	3.0	ug/L			09/17/20 16:03	4
Dibromochloromethane	ND		4.0	1.3	ug/L			09/17/20 16:03	4
Chloroethane	150		4.0	1.3	ug/L			09/17/20 16:03	4
Chloroform	ND		4.0	1.4	ug/L			09/17/20 16:03	4
Chloromethane	ND		4.0	1.4	ug/L			09/17/20 16:03	4
cis-1,2-Dichloroethene	5.2		4.0	3.2	ug/L			09/17/20 16:03	4
cis-1,3-Dichloropropene	ND		4.0	1.4	ug/L			09/17/20 16:03	4
Cyclohexane	ND		4.0	0.72	ug/L			09/17/20 16:03	4
Dichlorodifluoromethane	ND		4.0	2.7	ug/L			09/17/20 16:03	4
Ethylbenzene	ND		4.0	3.0	ug/L			09/17/20 16:03	4
1,2-Dibromoethane	ND		4.0	2.9	ug/L			09/17/20 16:03	4
Isopropylbenzene	ND		4.0	3.2	ug/L			09/17/20 16:03	4
Methyl acetate	ND		10	5.2	ug/L			09/17/20 16:03	4
Methyl tert-butyl ether	67		4.0	0.64	ug/L			09/17/20 16:03	4
Methylcyclohexane	ND		4.0	0.64	ug/L			09/17/20 16:03	4
Methylene Chloride	3.4	J B	4.0	1.8	ug/L			09/17/20 16:03	4
Styrene	ND		4.0	2.9	ug/L			09/17/20 16:03	4
Tetrachloroethene	ND		4.0	1.4	ug/L			09/17/20 16:03	4
Toluene	2.2	J	4.0	2.0	ug/L			09/17/20 16:03	4
trans-1,2-Dichloroethene	ND		4.0	3.6	ug/L			09/17/20 16:03	4
trans-1,3-Dichloropropene	ND		4.0	1.5	ug/L			09/17/20 16:03	4
Trichloroethene	ND		4.0	1.8	ug/L			09/17/20 16:03	4
Trichlorofluoromethane	ND		4.0	3.5	ug/L			09/17/20 16:03	4
Vinyl chloride	15		4.0	3.6	ug/L			09/17/20 16:03	4
Xylenes, Total	ND		8.0	2.6	ug/L			09/17/20 16:03	4

Tentatively Identified Compound	Est. Result	Qualifier	Unit	D	RT	CAS No.	Prepared	Analyzed	Dil Fac
Ethyl ether	13	T J N	ug/L		2.65	60-29-7		09/17/20 16:03	4

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	99		80 - 120		09/17/20 16:03	4
1,2-Dichloroethane-d4 (Surr)	111		77 - 120		09/17/20 16:03	4
4-Bromofluorobenzene (Surr)	100		73 - 120		09/17/20 16:03	4
Dibromofluoromethane (Surr)	101		75 - 123		09/17/20 16:03	4

Client Sample ID: GMX-MW-3-09162020 (30)

Lab Sample ID: 480-175214-4

Date Collected: 09/16/20 16:00

Matrix: Water

Date Received: 09/17/20 10:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		4.0	3.3	ug/L			09/17/20 16:27	4
1,1,2,2-Tetrachloroethane	ND		4.0	0.84	ug/L			09/17/20 16:27	4
1,1,2-Trichloroethane	ND		4.0	0.92	ug/L			09/17/20 16:27	4
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		4.0	1.2	ug/L			09/17/20 16:27	4
1,1-Dichloroethane	ND		4.0	1.5	ug/L			09/17/20 16:27	4
1,1-Dichloroethene	ND		4.0	1.2	ug/L			09/17/20 16:27	4
1,2,4-Trichlorobenzene	ND		4.0	1.6	ug/L			09/17/20 16:27	4

Eurofins TestAmerica, Buffalo

Client Sample Results

Client: LaBella Associates DPC
 Project/Site: Former Emerson Street Landfill Project

Job ID: 480-175214-1

Client Sample ID: GMX-MW-3-09162020 (30)

Lab Sample ID: 480-175214-4

Date Collected: 09/16/20 16:00

Matrix: Water

Date Received: 09/17/20 10:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromo-3-Chloropropane	ND		4.0	1.6	ug/L			09/17/20 16:27	4
1,2-Dichlorobenzene	ND		4.0	3.2	ug/L			09/17/20 16:27	4
1,2-Dichloroethane	ND		4.0	0.84	ug/L			09/17/20 16:27	4
1,2-Dichloropropane	ND		4.0	2.9	ug/L			09/17/20 16:27	4
1,3-Dichlorobenzene	ND		4.0	3.1	ug/L			09/17/20 16:27	4
1,4-Dichlorobenzene	ND		4.0	3.4	ug/L			09/17/20 16:27	4
2-Butanone (MEK)	5.8	J	40	5.3	ug/L			09/17/20 16:27	4
2-Hexanone	ND		20	5.0	ug/L			09/17/20 16:27	4
4-Methyl-2-pentanone (MIBK)	ND		20	8.4	ug/L			09/17/20 16:27	4
Acetone	ND		40	12	ug/L			09/17/20 16:27	4
Benzene	12		4.0	1.6	ug/L			09/17/20 16:27	4
Bromodichloromethane	ND		4.0	1.6	ug/L			09/17/20 16:27	4
Bromoform	ND		4.0	1.0	ug/L			09/17/20 16:27	4
Bromomethane	ND		4.0	2.8	ug/L			09/17/20 16:27	4
Carbon disulfide	ND		4.0	0.76	ug/L			09/17/20 16:27	4
Carbon tetrachloride	ND		4.0	1.1	ug/L			09/17/20 16:27	4
Chlorobenzene	ND		4.0	3.0	ug/L			09/17/20 16:27	4
Dibromochloromethane	ND		4.0	1.3	ug/L			09/17/20 16:27	4
Chloroethane	160		4.0	1.3	ug/L			09/17/20 16:27	4
Chloroform	ND		4.0	1.4	ug/L			09/17/20 16:27	4
Chloromethane	ND		4.0	1.4	ug/L			09/17/20 16:27	4
cis-1,2-Dichloroethene	ND		4.0	3.2	ug/L			09/17/20 16:27	4
cis-1,3-Dichloropropene	ND		4.0	1.4	ug/L			09/17/20 16:27	4
Cyclohexane	2.1	J	4.0	0.72	ug/L			09/17/20 16:27	4
Dichlorodifluoromethane	ND		4.0	2.7	ug/L			09/17/20 16:27	4
Ethylbenzene	ND		4.0	3.0	ug/L			09/17/20 16:27	4
1,2-Dibromoethane	ND		4.0	2.9	ug/L			09/17/20 16:27	4
Isopropylbenzene	3.5	J	4.0	3.2	ug/L			09/17/20 16:27	4
Methyl acetate	ND		10	5.2	ug/L			09/17/20 16:27	4
Methyl tert-butyl ether	66		4.0	0.64	ug/L			09/17/20 16:27	4
Methylcyclohexane	2.9	J	4.0	0.64	ug/L			09/17/20 16:27	4
Methylene Chloride	3.7	J B	4.0	1.8	ug/L			09/17/20 16:27	4
Styrene	ND		4.0	2.9	ug/L			09/17/20 16:27	4
Tetrachloroethene	ND		4.0	1.4	ug/L			09/17/20 16:27	4
Toluene	ND		4.0	2.0	ug/L			09/17/20 16:27	4
trans-1,2-Dichloroethene	ND		4.0	3.6	ug/L			09/17/20 16:27	4
trans-1,3-Dichloropropene	ND		4.0	1.5	ug/L			09/17/20 16:27	4
Trichloroethene	ND		4.0	1.8	ug/L			09/17/20 16:27	4
Trichlorofluoromethane	ND		4.0	3.5	ug/L			09/17/20 16:27	4
Vinyl chloride	7.3		4.0	3.6	ug/L			09/17/20 16:27	4
Xylenes, Total	ND		8.0	2.6	ug/L			09/17/20 16:27	4

Tentatively Identified Compound	Est. Result	Qualifier	Unit	D	RT	CAS No.	Prepared	Analyzed	Dil Fac
Ethyl ether	14	T J N	ug/L		2.65	60-29-7		09/17/20 16:27	4

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	99		80 - 120		09/17/20 16:27	4
1,2-Dichloroethane-d4 (Surr)	105		77 - 120		09/17/20 16:27	4
4-Bromofluorobenzene (Surr)	104		73 - 120		09/17/20 16:27	4
Dibromofluoromethane (Surr)	101		75 - 123		09/17/20 16:27	4

Eurofins TestAmerica, Buffalo

Client Sample Results

Client: LaBella Associates DPC
 Project/Site: Former Emerson Street Landfill Project

Job ID: 480-175214-1

Client Sample ID: LAB-SBW-19-09162020 (35)

Lab Sample ID: 480-175214-5

Date Collected: 09/16/20 11:05

Matrix: Water

Date Received: 09/17/20 10:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		4.0	3.3	ug/L			09/17/20 16:51	4
1,1,1,2-Tetrachloroethane	ND		4.0	0.84	ug/L			09/17/20 16:51	4
1,1,2-Trichloroethane	ND		4.0	0.92	ug/L			09/17/20 16:51	4
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		4.0	1.2	ug/L			09/17/20 16:51	4
1,1-Dichloroethane	4.3		4.0	1.5	ug/L			09/17/20 16:51	4
1,1-Dichloroethene	ND		4.0	1.2	ug/L			09/17/20 16:51	4
1,2,4-Trichlorobenzene	ND		4.0	1.6	ug/L			09/17/20 16:51	4
1,2-Dibromo-3-Chloropropane	ND		4.0	1.6	ug/L			09/17/20 16:51	4
1,2-Dichlorobenzene	ND		4.0	3.2	ug/L			09/17/20 16:51	4
1,2-Dichloroethane	ND		4.0	0.84	ug/L			09/17/20 16:51	4
1,2-Dichloropropane	ND		4.0	2.9	ug/L			09/17/20 16:51	4
1,3-Dichlorobenzene	ND		4.0	3.1	ug/L			09/17/20 16:51	4
1,4-Dichlorobenzene	ND		4.0	3.4	ug/L			09/17/20 16:51	4
2-Butanone (MEK)	8.7 J		40	5.3	ug/L			09/17/20 16:51	4
2-Hexanone	ND		20	5.0	ug/L			09/17/20 16:51	4
4-Methyl-2-pentanone (MIBK)	ND		20	8.4	ug/L			09/17/20 16:51	4
Acetone	ND		40	12	ug/L			09/17/20 16:51	4
Benzene	ND		4.0	1.6	ug/L			09/17/20 16:51	4
Bromodichloromethane	ND		4.0	1.6	ug/L			09/17/20 16:51	4
Bromoform	ND		4.0	1.0	ug/L			09/17/20 16:51	4
Bromomethane	ND		4.0	2.8	ug/L			09/17/20 16:51	4
Carbon disulfide	ND		4.0	0.76	ug/L			09/17/20 16:51	4
Carbon tetrachloride	ND		4.0	1.1	ug/L			09/17/20 16:51	4
Chlorobenzene	ND		4.0	3.0	ug/L			09/17/20 16:51	4
Dibromochloromethane	ND		4.0	1.3	ug/L			09/17/20 16:51	4
Chloroethane	ND		4.0	1.3	ug/L			09/17/20 16:51	4
Chloroform	ND		4.0	1.4	ug/L			09/17/20 16:51	4
Chloromethane	ND		4.0	1.4	ug/L			09/17/20 16:51	4
cis-1,2-Dichloroethene	ND		4.0	3.2	ug/L			09/17/20 16:51	4
cis-1,3-Dichloropropene	ND		4.0	1.4	ug/L			09/17/20 16:51	4
Cyclohexane	ND		4.0	0.72	ug/L			09/17/20 16:51	4
Dichlorodifluoromethane	ND		4.0	2.7	ug/L			09/17/20 16:51	4
Ethylbenzene	ND		4.0	3.0	ug/L			09/17/20 16:51	4
1,2-Dibromoethane	ND		4.0	2.9	ug/L			09/17/20 16:51	4
Isopropylbenzene	ND		4.0	3.2	ug/L			09/17/20 16:51	4
Methyl acetate	ND		10	5.2	ug/L			09/17/20 16:51	4
Methyl tert-butyl ether	4.3		4.0	0.64	ug/L			09/17/20 16:51	4
Methylcyclohexane	ND		4.0	0.64	ug/L			09/17/20 16:51	4
Methylene Chloride	5.4 B		4.0	1.8	ug/L			09/17/20 16:51	4
Styrene	ND		4.0	2.9	ug/L			09/17/20 16:51	4
Tetrachloroethene	ND		4.0	1.4	ug/L			09/17/20 16:51	4
Toluene	ND		4.0	2.0	ug/L			09/17/20 16:51	4
trans-1,2-Dichloroethene	ND		4.0	3.6	ug/L			09/17/20 16:51	4
trans-1,3-Dichloropropene	ND		4.0	1.5	ug/L			09/17/20 16:51	4
Trichloroethene	ND		4.0	1.8	ug/L			09/17/20 16:51	4
Trichlorofluoromethane	ND		4.0	3.5	ug/L			09/17/20 16:51	4
Vinyl chloride	ND		4.0	3.6	ug/L			09/17/20 16:51	4
Xylenes, Total	ND		8.0	2.6	ug/L			09/17/20 16:51	4

Client Sample Results

Client: LaBella Associates DPC
 Project/Site: Former Emerson Street Landfill Project

Job ID: 480-175214-1

Client Sample ID: LAB-SBW-19-09162020 (35)

Lab Sample ID: 480-175214-5

Date Collected: 09/16/20 11:05

Matrix: Water

Date Received: 09/17/20 10:00

<i>Tentatively Identified Compound</i>	<i>Est. Result</i>	<i>Qualifier</i>	<i>Unit</i>	<i>D</i>	<i>RT</i>	<i>CAS No.</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Dil Fac</i>
<i>Tentatively Identified Compound</i>	<i>None</i>		<i>ug/L</i>					09/17/20 16:51	4
<i>Surrogate</i>	<i>%Recovery</i>	<i>Qualifier</i>	<i>Limits</i>				<i>Prepared</i>	<i>Analyzed</i>	<i>Dil Fac</i>
<i>Toluene-d8 (Surr)</i>	102		80 - 120					09/17/20 16:51	4
<i>1,2-Dichloroethane-d4 (Surr)</i>	111		77 - 120					09/17/20 16:51	4
<i>4-Bromofluorobenzene (Surr)</i>	103		73 - 120					09/17/20 16:51	4
<i>Dibromofluoromethane (Surr)</i>	108		75 - 123					09/17/20 16:51	4

Client Sample ID: LAB-SBW-18-09162020 (42)

Lab Sample ID: 480-175214-6

Date Collected: 09/16/20 13:25

Matrix: Water

Date Received: 09/17/20 10:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		4.0	3.3	ug/L			09/17/20 17:15	4
1,1,1,2-Tetrachloroethane	ND		4.0	0.84	ug/L			09/17/20 17:15	4
1,1,2-Trichloroethane	ND		4.0	0.92	ug/L			09/17/20 17:15	4
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		4.0	1.2	ug/L			09/17/20 17:15	4
1,1-Dichloroethane	3.9	J	4.0	1.5	ug/L			09/17/20 17:15	4
1,1-Dichloroethene	ND		4.0	1.2	ug/L			09/17/20 17:15	4
1,2,4-Trichlorobenzene	ND		4.0	1.6	ug/L			09/17/20 17:15	4
1,2-Dibromo-3-Chloropropane	ND		4.0	1.6	ug/L			09/17/20 17:15	4
1,2-Dichlorobenzene	ND		4.0	3.2	ug/L			09/17/20 17:15	4
1,2-Dichloroethane	ND		4.0	0.84	ug/L			09/17/20 17:15	4
1,2-Dichloropropane	ND		4.0	2.9	ug/L			09/17/20 17:15	4
1,3-Dichlorobenzene	ND		4.0	3.1	ug/L			09/17/20 17:15	4
1,4-Dichlorobenzene	ND		4.0	3.4	ug/L			09/17/20 17:15	4
2-Butanone (MEK)	ND		40	5.3	ug/L			09/17/20 17:15	4
2-Hexanone	ND		20	5.0	ug/L			09/17/20 17:15	4
4-Methyl-2-pentanone (MIBK)	ND		20	8.4	ug/L			09/17/20 17:15	4
Acetone	ND		40	12	ug/L			09/17/20 17:15	4
Benzene	18		4.0	1.6	ug/L			09/17/20 17:15	4
Bromodichloromethane	ND		4.0	1.6	ug/L			09/17/20 17:15	4
Bromoform	ND		4.0	1.0	ug/L			09/17/20 17:15	4
Bromomethane	ND		4.0	2.8	ug/L			09/17/20 17:15	4
Carbon disulfide	ND		4.0	0.76	ug/L			09/17/20 17:15	4
Carbon tetrachloride	ND		4.0	1.1	ug/L			09/17/20 17:15	4
Chlorobenzene	ND		4.0	3.0	ug/L			09/17/20 17:15	4
Dibromochloromethane	ND		4.0	1.3	ug/L			09/17/20 17:15	4
Chloroethane	74		4.0	1.3	ug/L			09/17/20 17:15	4
Chloroform	ND		4.0	1.4	ug/L			09/17/20 17:15	4
Chloromethane	ND		4.0	1.4	ug/L			09/17/20 17:15	4
cis-1,2-Dichloroethene	ND		4.0	3.2	ug/L			09/17/20 17:15	4
cis-1,3-Dichloropropene	ND		4.0	1.4	ug/L			09/17/20 17:15	4
Cyclohexane	ND		4.0	0.72	ug/L			09/17/20 17:15	4
Dichlorodifluoromethane	ND		4.0	2.7	ug/L			09/17/20 17:15	4
Ethylbenzene	ND		4.0	3.0	ug/L			09/17/20 17:15	4
1,2-Dibromoethane	ND		4.0	2.9	ug/L			09/17/20 17:15	4
Isopropylbenzene	ND		4.0	3.2	ug/L			09/17/20 17:15	4
Methyl acetate	ND		10	5.2	ug/L			09/17/20 17:15	4
Methyl tert-butyl ether	63		4.0	0.64	ug/L			09/17/20 17:15	4

Eurofins TestAmerica, Buffalo

Client Sample Results

Client: LaBella Associates DPC
 Project/Site: Former Emerson Street Landfill Project

Job ID: 480-175214-1

Client Sample ID: LAB-SBW-18-09162020 (42)

Lab Sample ID: 480-175214-6

Date Collected: 09/16/20 13:25

Matrix: Water

Date Received: 09/17/20 10:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methylcyclohexane	1.6	J	4.0	0.64	ug/L			09/17/20 17:15	4
Methylene Chloride	3.5	J B	4.0	1.8	ug/L			09/17/20 17:15	4
Styrene	ND		4.0	2.9	ug/L			09/17/20 17:15	4
Tetrachloroethene	ND		4.0	1.4	ug/L			09/17/20 17:15	4
Toluene	ND		4.0	2.0	ug/L			09/17/20 17:15	4
trans-1,2-Dichloroethene	ND		4.0	3.6	ug/L			09/17/20 17:15	4
trans-1,3-Dichloropropene	ND		4.0	1.5	ug/L			09/17/20 17:15	4
Trichloroethene	ND		4.0	1.8	ug/L			09/17/20 17:15	4
Trichlorofluoromethane	ND		4.0	3.5	ug/L			09/17/20 17:15	4
Vinyl chloride	ND		4.0	3.6	ug/L			09/17/20 17:15	4
Xylenes, Total	ND		8.0	2.6	ug/L			09/17/20 17:15	4

Tentatively Identified Compound	Est. Result	Qualifier	Unit	D	RT	CAS No.	Prepared	Analyzed	Dil Fac
Unknown	14	T J	ug/L		2.65			09/17/20 17:15	4
Unknown	13	T J	ug/L		9.46			09/17/20 17:15	4
Unknown	19	T J	ug/L		11.18			09/17/20 17:15	4

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	101		80 - 120		09/17/20 17:15	4
1,2-Dichloroethane-d4 (Surr)	109		77 - 120		09/17/20 17:15	4
4-Bromofluorobenzene (Surr)	104		73 - 120		09/17/20 17:15	4
Dibromofluoromethane (Surr)	102		75 - 123		09/17/20 17:15	4

Client Sample ID: LAB-SBW-19-09162020 (47)

Lab Sample ID: 480-175214-7

Date Collected: 09/16/20 12:40

Matrix: Water

Date Received: 09/17/20 10:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		4.0	3.3	ug/L			09/17/20 17:39	4
1,1,2,2-Tetrachloroethane	ND		4.0	0.84	ug/L			09/17/20 17:39	4
1,1,2-Trichloroethane	ND		4.0	0.92	ug/L			09/17/20 17:39	4
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		4.0	1.2	ug/L			09/17/20 17:39	4
1,1-Dichloroethane	3.4	J	4.0	1.5	ug/L			09/17/20 17:39	4
1,1-Dichloroethene	ND		4.0	1.2	ug/L			09/17/20 17:39	4
1,2,4-Trichlorobenzene	ND		4.0	1.6	ug/L			09/17/20 17:39	4
1,2-Dibromo-3-Chloropropane	ND		4.0	1.6	ug/L			09/17/20 17:39	4
1,2-Dichlorobenzene	ND		4.0	3.2	ug/L			09/17/20 17:39	4
1,2-Dichloroethane	ND		4.0	0.84	ug/L			09/17/20 17:39	4
1,2-Dichloropropane	ND		4.0	2.9	ug/L			09/17/20 17:39	4
1,3-Dichlorobenzene	ND		4.0	3.1	ug/L			09/17/20 17:39	4
1,4-Dichlorobenzene	ND		4.0	3.4	ug/L			09/17/20 17:39	4
2-Butanone (MEK)	ND		40	5.3	ug/L			09/17/20 17:39	4
2-Hexanone	ND		20	5.0	ug/L			09/17/20 17:39	4
4-Methyl-2-pentanone (MIBK)	ND		20	8.4	ug/L			09/17/20 17:39	4
Acetone	ND		40	12	ug/L			09/17/20 17:39	4
Benzene	ND		4.0	1.6	ug/L			09/17/20 17:39	4
Bromodichloromethane	ND		4.0	1.6	ug/L			09/17/20 17:39	4
Bromoform	ND		4.0	1.0	ug/L			09/17/20 17:39	4
Bromomethane	ND		4.0	2.8	ug/L			09/17/20 17:39	4

Eurofins TestAmerica, Buffalo

Client Sample Results

Client: LaBella Associates DPC
 Project/Site: Former Emerson Street Landfill Project

Job ID: 480-175214-1

Client Sample ID: LAB-SBW-19-09162020 (47)

Lab Sample ID: 480-175214-7

Date Collected: 09/16/20 12:40

Matrix: Water

Date Received: 09/17/20 10:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Carbon disulfide	ND		4.0	0.76	ug/L			09/17/20 17:39	4
Carbon tetrachloride	ND		4.0	1.1	ug/L			09/17/20 17:39	4
Chlorobenzene	ND		4.0	3.0	ug/L			09/17/20 17:39	4
Dibromochloromethane	ND		4.0	1.3	ug/L			09/17/20 17:39	4
Chloroethane	1.4	J	4.0	1.3	ug/L			09/17/20 17:39	4
Chloroform	ND		4.0	1.4	ug/L			09/17/20 17:39	4
Chloromethane	ND		4.0	1.4	ug/L			09/17/20 17:39	4
cis-1,2-Dichloroethene	ND		4.0	3.2	ug/L			09/17/20 17:39	4
cis-1,3-Dichloropropene	ND		4.0	1.4	ug/L			09/17/20 17:39	4
Cyclohexane	ND		4.0	0.72	ug/L			09/17/20 17:39	4
Dichlorodifluoromethane	ND		4.0	2.7	ug/L			09/17/20 17:39	4
Ethylbenzene	ND		4.0	3.0	ug/L			09/17/20 17:39	4
1,2-Dibromoethane	ND		4.0	2.9	ug/L			09/17/20 17:39	4
Isopropylbenzene	ND		4.0	3.2	ug/L			09/17/20 17:39	4
Methyl acetate	ND		10	5.2	ug/L			09/17/20 17:39	4
Methyl tert-butyl ether	2.2	J	4.0	0.64	ug/L			09/17/20 17:39	4
Methylcyclohexane	ND		4.0	0.64	ug/L			09/17/20 17:39	4
Methylene Chloride	3.9	J B	4.0	1.8	ug/L			09/17/20 17:39	4
Styrene	ND		4.0	2.9	ug/L			09/17/20 17:39	4
Tetrachloroethene	ND		4.0	1.4	ug/L			09/17/20 17:39	4
Toluene	ND		4.0	2.0	ug/L			09/17/20 17:39	4
trans-1,2-Dichloroethene	ND		4.0	3.6	ug/L			09/17/20 17:39	4
trans-1,3-Dichloropropene	ND		4.0	1.5	ug/L			09/17/20 17:39	4
Trichloroethene	ND		4.0	1.8	ug/L			09/17/20 17:39	4
Trichlorofluoromethane	ND		4.0	3.5	ug/L			09/17/20 17:39	4
Vinyl chloride	ND		4.0	3.6	ug/L			09/17/20 17:39	4
Xylenes, Total	ND		8.0	2.6	ug/L			09/17/20 17:39	4

Tentatively Identified Compound	Est. Result	Qualifier	Unit	D	RT	CAS No.	Prepared	Analyzed	Dil Fac
Tentatively Identified Compound	None		ug/L					09/17/20 17:39	4

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	97		80 - 120		09/17/20 17:39	4
1,2-Dichloroethane-d4 (Surr)	106		77 - 120		09/17/20 17:39	4
4-Bromofluorobenzene (Surr)	98		73 - 120		09/17/20 17:39	4
Dibromofluoromethane (Surr)	101		75 - 123		09/17/20 17:39	4

Client Sample ID: LAB-SBW-17-09162020 (42)

Lab Sample ID: 480-175214-8

Date Collected: 09/16/20 15:45

Matrix: Water

Date Received: 09/17/20 10:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		2.0	1.6	ug/L			09/17/20 18:03	2
1,1,2,2-Tetrachloroethane	ND		2.0	0.42	ug/L			09/17/20 18:03	2
1,1,2-Trichloroethane	ND		2.0	0.46	ug/L			09/17/20 18:03	2
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		2.0	0.62	ug/L			09/17/20 18:03	2
1,1-Dichloroethane	15		2.0	0.76	ug/L			09/17/20 18:03	2
1,1-Dichloroethene	ND		2.0	0.58	ug/L			09/17/20 18:03	2
1,2,4-Trichlorobenzene	ND		2.0	0.82	ug/L			09/17/20 18:03	2

Eurofins TestAmerica, Buffalo

Client Sample Results

Client: LaBella Associates DPC
 Project/Site: Former Emerson Street Landfill Project

Job ID: 480-175214-1

Client Sample ID: LAB-SBW-17-09162020 (42)

Lab Sample ID: 480-175214-8

Date Collected: 09/16/20 15:45

Matrix: Water

Date Received: 09/17/20 10:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromo-3-Chloropropane	ND		2.0	0.78	ug/L			09/17/20 18:03	2
1,2-Dichlorobenzene	ND		2.0	1.6	ug/L			09/17/20 18:03	2
1,2-Dichloroethane	ND		2.0	0.42	ug/L			09/17/20 18:03	2
1,2-Dichloropropane	ND		2.0	1.4	ug/L			09/17/20 18:03	2
1,3-Dichlorobenzene	ND		2.0	1.6	ug/L			09/17/20 18:03	2
1,4-Dichlorobenzene	ND		2.0	1.7	ug/L			09/17/20 18:03	2
2-Butanone (MEK)	ND		20	2.6	ug/L			09/17/20 18:03	2
2-Hexanone	ND		10	2.5	ug/L			09/17/20 18:03	2
4-Methyl-2-pentanone (MIBK)	ND		10	4.2	ug/L			09/17/20 18:03	2
Acetone	ND		20	6.0	ug/L			09/17/20 18:03	2
Benzene	2.4		2.0	0.82	ug/L			09/17/20 18:03	2
Bromodichloromethane	ND		2.0	0.78	ug/L			09/17/20 18:03	2
Bromoform	ND		2.0	0.52	ug/L			09/17/20 18:03	2
Bromomethane	ND		2.0	1.4	ug/L			09/17/20 18:03	2
Carbon disulfide	2.0		2.0	0.38	ug/L			09/17/20 18:03	2
Carbon tetrachloride	ND		2.0	0.54	ug/L			09/17/20 18:03	2
Chlorobenzene	ND		2.0	1.5	ug/L			09/17/20 18:03	2
Dibromochloromethane	ND		2.0	0.64	ug/L			09/17/20 18:03	2
Chloroethane	5.6		2.0	0.64	ug/L			09/17/20 18:03	2
Chloroform	ND		2.0	0.68	ug/L			09/17/20 18:03	2
Chloromethane	ND		2.0	0.70	ug/L			09/17/20 18:03	2
cis-1,2-Dichloroethene	8.1		2.0	1.6	ug/L			09/17/20 18:03	2
cis-1,3-Dichloropropene	ND		2.0	0.72	ug/L			09/17/20 18:03	2
Cyclohexane	ND		2.0	0.36	ug/L			09/17/20 18:03	2
Dichlorodifluoromethane	ND		2.0	1.4	ug/L			09/17/20 18:03	2
Ethylbenzene	ND		2.0	1.5	ug/L			09/17/20 18:03	2
1,2-Dibromoethane	ND		2.0	1.5	ug/L			09/17/20 18:03	2
Isopropylbenzene	ND		2.0	1.6	ug/L			09/17/20 18:03	2
Methyl acetate	ND		5.0	2.6	ug/L			09/17/20 18:03	2
Methyl tert-butyl ether	7.0		2.0	0.32	ug/L			09/17/20 18:03	2
Methylcyclohexane	ND		2.0	0.32	ug/L			09/17/20 18:03	2
Methylene Chloride	1.3 J B		2.0	0.88	ug/L			09/17/20 18:03	2
Styrene	ND		2.0	1.5	ug/L			09/17/20 18:03	2
Tetrachloroethene	ND		2.0	0.72	ug/L			09/17/20 18:03	2
Toluene	ND		2.0	1.0	ug/L			09/17/20 18:03	2
trans-1,2-Dichloroethene	2.0		2.0	1.8	ug/L			09/17/20 18:03	2
trans-1,3-Dichloropropene	ND		2.0	0.74	ug/L			09/17/20 18:03	2
Trichloroethene	ND		2.0	0.92	ug/L			09/17/20 18:03	2
Trichlorofluoromethane	ND		2.0	1.8	ug/L			09/17/20 18:03	2
Vinyl chloride	5.5		2.0	1.8	ug/L			09/17/20 18:03	2
Xylenes, Total	ND		4.0	1.3	ug/L			09/17/20 18:03	2

Tentatively Identified Compound	Est. Result	Qualifier	Unit	D	RT	CAS No.	Prepared	Analyzed	Dil Fac
Tentatively Identified Compound	None		ug/L					09/17/20 18:03	2

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	100		80 - 120		09/17/20 18:03	2
1,2-Dichloroethane-d4 (Surr)	110		77 - 120		09/17/20 18:03	2
4-Bromofluorobenzene (Surr)	101		73 - 120		09/17/20 18:03	2
Dibromofluoromethane (Surr)	107		75 - 123		09/17/20 18:03	2

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Client Sample Results

Client: LaBella Associates DPC
 Project/Site: Former Emerson Street Landfill Project

Job ID: 480-175214-1

Client Sample ID: LAB-SBW-17-09162020 (52)

Lab Sample ID: 480-175214-9

Date Collected: 09/16/20 17:00

Matrix: Water

Date Received: 09/17/20 10:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		1.0	0.82	ug/L			09/17/20 18:27	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.21	ug/L			09/17/20 18:27	1
1,1,2-Trichloroethane	ND		1.0	0.23	ug/L			09/17/20 18:27	1
1,1,2-Trichloro-1,2,2-trifluoroethane	0.95	J	1.0	0.31	ug/L			09/17/20 18:27	1
1,1-Dichloroethane	14		1.0	0.38	ug/L			09/17/20 18:27	1
1,1-Dichloroethene	ND		1.0	0.29	ug/L			09/17/20 18:27	1
1,2,4-Trichlorobenzene	ND		1.0	0.41	ug/L			09/17/20 18:27	1
1,2-Dibromo-3-Chloropropane	ND		1.0	0.39	ug/L			09/17/20 18:27	1
1,2-Dichlorobenzene	ND		1.0	0.79	ug/L			09/17/20 18:27	1
1,2-Dichloroethane	ND		1.0	0.21	ug/L			09/17/20 18:27	1
1,2-Dichloropropane	ND		1.0	0.72	ug/L			09/17/20 18:27	1
1,3-Dichlorobenzene	ND		1.0	0.78	ug/L			09/17/20 18:27	1
1,4-Dichlorobenzene	ND		1.0	0.84	ug/L			09/17/20 18:27	1
2-Butanone (MEK)	ND		10	1.3	ug/L			09/17/20 18:27	1
2-Hexanone	ND		5.0	1.2	ug/L			09/17/20 18:27	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	2.1	ug/L			09/17/20 18:27	1
Acetone	ND		10	3.0	ug/L			09/17/20 18:27	1
Benzene	ND		1.0	0.41	ug/L			09/17/20 18:27	1
Bromodichloromethane	ND		1.0	0.39	ug/L			09/17/20 18:27	1
Bromoform	ND		1.0	0.26	ug/L			09/17/20 18:27	1
Bromomethane	ND		1.0	0.69	ug/L			09/17/20 18:27	1
Carbon disulfide	0.32	J	1.0	0.19	ug/L			09/17/20 18:27	1
Carbon tetrachloride	ND		1.0	0.27	ug/L			09/17/20 18:27	1
Chlorobenzene	ND		1.0	0.75	ug/L			09/17/20 18:27	1
Dibromochloromethane	ND		1.0	0.32	ug/L			09/17/20 18:27	1
Chloroethane	1.2		1.0	0.32	ug/L			09/17/20 18:27	1
Chloroform	ND		1.0	0.34	ug/L			09/17/20 18:27	1
Chloromethane	ND		1.0	0.35	ug/L			09/17/20 18:27	1
cis-1,2-Dichloroethene	2.8		1.0	0.81	ug/L			09/17/20 18:27	1
cis-1,3-Dichloropropene	ND		1.0	0.36	ug/L			09/17/20 18:27	1
Cyclohexane	ND		1.0	0.18	ug/L			09/17/20 18:27	1
Dichlorodifluoromethane	ND		1.0	0.68	ug/L			09/17/20 18:27	1
Ethylbenzene	ND		1.0	0.74	ug/L			09/17/20 18:27	1
1,2-Dibromoethane	ND		1.0	0.73	ug/L			09/17/20 18:27	1
Isopropylbenzene	ND		1.0	0.79	ug/L			09/17/20 18:27	1
Methyl acetate	ND		2.5	1.3	ug/L			09/17/20 18:27	1
Methyl tert-butyl ether	0.27	J	1.0	0.16	ug/L			09/17/20 18:27	1
Methylcyclohexane	ND		1.0	0.16	ug/L			09/17/20 18:27	1
Methylene Chloride	0.52	J B	1.0	0.44	ug/L			09/17/20 18:27	1
Styrene	ND		1.0	0.73	ug/L			09/17/20 18:27	1
Tetrachloroethene	ND		1.0	0.36	ug/L			09/17/20 18:27	1
Toluene	ND		1.0	0.51	ug/L			09/17/20 18:27	1
trans-1,2-Dichloroethene	2.1		1.0	0.90	ug/L			09/17/20 18:27	1
trans-1,3-Dichloropropene	ND		1.0	0.37	ug/L			09/17/20 18:27	1
Trichloroethene	1.2		1.0	0.46	ug/L			09/17/20 18:27	1
Trichlorofluoromethane	ND		1.0	0.88	ug/L			09/17/20 18:27	1
Vinyl chloride	1.5		1.0	0.90	ug/L			09/17/20 18:27	1
Xylenes, Total	ND		2.0	0.66	ug/L			09/17/20 18:27	1

Client Sample Results

Client: LaBella Associates DPC
 Project/Site: Former Emerson Street Landfill Project

Job ID: 480-175214-1

Client Sample ID: LAB-SBW-17-09162020 (52)

Lab Sample ID: 480-175214-9

Date Collected: 09/16/20 17:00

Matrix: Water

Date Received: 09/17/20 10:00

<u>Tentatively Identified Compound</u>	<u>Est. Result</u>	<u>Qualifier</u>	<u>Unit</u>	<u>D</u>	<u>RT</u>	<u>CAS No.</u>	<u>Prepared</u>	<u>Analyzed</u>	<u>Dil Fac</u>
Tentatively Identified Compound	None		ug/L					09/17/20 18:27	1
<u>Surrogate</u>	<u>%Recovery</u>	<u>Qualifier</u>	<u>Limits</u>				<u>Prepared</u>	<u>Analyzed</u>	<u>Dil Fac</u>
Toluene-d8 (Surr)	99		80 - 120					09/17/20 18:27	1
1,2-Dichloroethane-d4 (Surr)	112		77 - 120					09/17/20 18:27	1
4-Bromofluorobenzene (Surr)	102		73 - 120					09/17/20 18:27	1
Dibromofluoromethane (Surr)	108		75 - 123					09/17/20 18:27	1



Surrogate Summary

Client: LaBella Associates DPC
Project/Site: Former Emerson Street Landfill Project

Job ID: 480-175214-1

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

Matrix: Water

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)			
		TOL (80-120)	DCA (77-120)	BFB (73-120)	DBFM (75-123)
480-175214-1	TRIP BLANK	101	112	107	115
480-175214-2	LAB-SBW-18-091620 (38)	98	110	102	104
480-175214-3	GMX-MW-3-09162020 (28)	99	111	100	101
480-175214-4	GMX-MW-3-09162020 (30)	99	105	104	101
480-175214-5	LAB-SBW-19-09162020 (35)	102	111	103	108
480-175214-6	LAB-SBW-18-09162020 (42)	101	109	104	102
480-175214-7	LAB-SBW-19-09162020 (47)	97	106	98	101
480-175214-8	LAB-SBW-17-09162020 (42)	100	110	101	107
480-175214-9	LAB-SBW-17-09162020 (52)	99	112	102	108
LCS 480-549880/5	Lab Control Sample	102	107	106	104
MB 480-549880/7	Method Blank	101	115	100	114

Surrogate Legend

TOL = Toluene-d8 (Surr)

DCA = 1,2-Dichloroethane-d4 (Surr)

BFB = 4-Bromofluorobenzene (Surr)

DBFM = Dibromofluoromethane (Surr)

QC Sample Results

Client: LaBella Associates DPC
 Project/Site: Former Emerson Street Landfill Project

Job ID: 480-175214-1

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

Lab Sample ID: MB 480-549880/7

Matrix: Water

Analysis Batch: 549880

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
1,1,1-Trichloroethane	ND		1.0	0.82	ug/L			09/17/20 11:04	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.21	ug/L			09/17/20 11:04	1
1,1,2-Trichloroethane	ND		1.0	0.23	ug/L			09/17/20 11:04	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.0	0.31	ug/L			09/17/20 11:04	1
1,1-Dichloroethane	ND		1.0	0.38	ug/L			09/17/20 11:04	1
1,1-Dichloroethene	ND		1.0	0.29	ug/L			09/17/20 11:04	1
1,2,4-Trichlorobenzene	ND		1.0	0.41	ug/L			09/17/20 11:04	1
1,2-Dibromo-3-Chloropropane	ND		1.0	0.39	ug/L			09/17/20 11:04	1
1,2-Dichlorobenzene	ND		1.0	0.79	ug/L			09/17/20 11:04	1
1,2-Dichloroethane	ND		1.0	0.21	ug/L			09/17/20 11:04	1
1,2-Dichloropropane	ND		1.0	0.72	ug/L			09/17/20 11:04	1
1,3-Dichlorobenzene	ND		1.0	0.78	ug/L			09/17/20 11:04	1
1,4-Dichlorobenzene	ND		1.0	0.84	ug/L			09/17/20 11:04	1
2-Butanone (MEK)	ND		10	1.3	ug/L			09/17/20 11:04	1
2-Hexanone	ND		5.0	1.2	ug/L			09/17/20 11:04	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	2.1	ug/L			09/17/20 11:04	1
Acetone	ND		10	3.0	ug/L			09/17/20 11:04	1
Benzene	ND		1.0	0.41	ug/L			09/17/20 11:04	1
Bromodichloromethane	ND		1.0	0.39	ug/L			09/17/20 11:04	1
Bromoform	ND		1.0	0.26	ug/L			09/17/20 11:04	1
Bromomethane	ND		1.0	0.69	ug/L			09/17/20 11:04	1
Carbon disulfide	ND		1.0	0.19	ug/L			09/17/20 11:04	1
Carbon tetrachloride	ND		1.0	0.27	ug/L			09/17/20 11:04	1
Chlorobenzene	ND		1.0	0.75	ug/L			09/17/20 11:04	1
Dibromochloromethane	ND		1.0	0.32	ug/L			09/17/20 11:04	1
Chloroethane	ND		1.0	0.32	ug/L			09/17/20 11:04	1
Chloroform	ND		1.0	0.34	ug/L			09/17/20 11:04	1
Chloromethane	ND		1.0	0.35	ug/L			09/17/20 11:04	1
cis-1,2-Dichloroethene	ND		1.0	0.81	ug/L			09/17/20 11:04	1
cis-1,3-Dichloropropene	ND		1.0	0.36	ug/L			09/17/20 11:04	1
Cyclohexane	ND		1.0	0.18	ug/L			09/17/20 11:04	1
Dichlorodifluoromethane	ND		1.0	0.68	ug/L			09/17/20 11:04	1
Ethylbenzene	ND		1.0	0.74	ug/L			09/17/20 11:04	1
1,2-Dibromoethane	ND		1.0	0.73	ug/L			09/17/20 11:04	1
Isopropylbenzene	ND		1.0	0.79	ug/L			09/17/20 11:04	1
Methyl acetate	ND		2.5	1.3	ug/L			09/17/20 11:04	1
Methyl tert-butyl ether	ND		1.0	0.16	ug/L			09/17/20 11:04	1
Methylcyclohexane	ND		1.0	0.16	ug/L			09/17/20 11:04	1
Methylene Chloride	0.440	J	1.0	0.44	ug/L			09/17/20 11:04	1
Styrene	ND		1.0	0.73	ug/L			09/17/20 11:04	1
Tetrachloroethene	ND		1.0	0.36	ug/L			09/17/20 11:04	1
Toluene	ND		1.0	0.51	ug/L			09/17/20 11:04	1
trans-1,2-Dichloroethene	ND		1.0	0.90	ug/L			09/17/20 11:04	1
trans-1,3-Dichloropropene	ND		1.0	0.37	ug/L			09/17/20 11:04	1
Trichloroethene	ND		1.0	0.46	ug/L			09/17/20 11:04	1
Trichlorofluoromethane	ND		1.0	0.88	ug/L			09/17/20 11:04	1
Vinyl chloride	ND		1.0	0.90	ug/L			09/17/20 11:04	1
Xylenes, Total	ND		2.0	0.66	ug/L			09/17/20 11:04	1

Eurofins TestAmerica, Buffalo

QC Sample Results

Client: LaBella Associates DPC
 Project/Site: Former Emerson Street Landfill Project

Job ID: 480-175214-1

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

Lab Sample ID: MB 480-549880/7

Matrix: Water

Analysis Batch: 549880

Client Sample ID: Method Blank

Prep Type: Total/NA

<i>Tentatively Identified Compound</i>	<i>Est. Result</i>	<i>Qualifier</i>	<i>Unit</i>	<i>D</i>	<i>RT</i>	<i>CAS No.</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Dil Fac</i>
<i>Tentatively Identified Compound</i>	<i>None</i>		<i>ug/L</i>					<i>09/17/20 11:04</i>	<i>1</i>

<i>Surrogate</i>	<i>%Recovery</i>	<i>Qualifier</i>	<i>Limits</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Dil Fac</i>
<i>Toluene-d8 (Surr)</i>	<i>101</i>		<i>80 - 120</i>		<i>09/17/20 11:04</i>	<i>1</i>
<i>1,2-Dichloroethane-d4 (Surr)</i>	<i>115</i>		<i>77 - 120</i>		<i>09/17/20 11:04</i>	<i>1</i>
<i>4-Bromofluorobenzene (Surr)</i>	<i>100</i>		<i>73 - 120</i>		<i>09/17/20 11:04</i>	<i>1</i>
<i>Dibromofluoromethane (Surr)</i>	<i>114</i>		<i>75 - 123</i>		<i>09/17/20 11:04</i>	<i>1</i>

Lab Sample ID: LCS 480-549880/5

Matrix: Water

Analysis Batch: 549880

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

<i>Analyte</i>	<i>Spike Added</i>	<i>LCS Result</i>	<i>LCS Qualifier</i>	<i>Unit</i>	<i>D</i>	<i>%Rec</i>	<i>%Rec. Limits</i>
1,1,1-Trichloroethane	25.0	25.4		ug/L		102	73 - 126
1,1,2,2-Tetrachloroethane	25.0	23.4		ug/L		94	76 - 120
1,1,2-Trichloroethane	25.0	25.0		ug/L		100	76 - 122
1,1,2-Trichloro-1,2,2-trifluoroethane	25.0	27.9		ug/L		112	61 - 148
1,1-Dichloroethane	25.0	25.0		ug/L		100	77 - 120
1,1-Dichloroethene	25.0	25.0		ug/L		100	66 - 127
1,2,4-Trichlorobenzene	25.0	25.3		ug/L		101	79 - 122
1,2-Dibromo-3-Chloropropane	25.0	24.5		ug/L		98	56 - 134
1,2-Dichlorobenzene	25.0	24.9		ug/L		100	80 - 124
1,2-Dichloroethane	25.0	25.3		ug/L		101	75 - 120
1,2-Dichloropropane	25.0	25.2		ug/L		101	76 - 120
1,3-Dichlorobenzene	25.0	25.1		ug/L		100	77 - 120
1,4-Dichlorobenzene	25.0	25.3		ug/L		101	80 - 120
2-Butanone (MEK)	125	134		ug/L		107	57 - 140
2-Hexanone	125	128		ug/L		102	65 - 127
4-Methyl-2-pentanone (MIBK)	125	120		ug/L		96	71 - 125
Acetone	125	131		ug/L		105	56 - 142
Benzene	25.0	25.4		ug/L		101	71 - 124
Bromodichloromethane	25.0	26.0		ug/L		104	80 - 122
Bromoform	25.0	26.8		ug/L		107	61 - 132
Bromomethane	25.0	23.2		ug/L		93	55 - 144
Carbon disulfide	25.0	23.6		ug/L		95	59 - 134
Carbon tetrachloride	25.0	27.3		ug/L		109	72 - 134
Chlorobenzene	25.0	25.2		ug/L		101	80 - 120
Dibromochloromethane	25.0	26.9		ug/L		108	75 - 125
Chloroethane	25.0	24.2		ug/L		97	69 - 136
Chloroform	25.0	24.8		ug/L		99	73 - 127
Chloromethane	25.0	22.6		ug/L		91	68 - 124
cis-1,2-Dichloroethene	25.0	24.7		ug/L		99	74 - 124
cis-1,3-Dichloropropene	25.0	26.5		ug/L		106	74 - 124
Cyclohexane	25.0	27.0		ug/L		108	59 - 135
Dichlorodifluoromethane	25.0	24.0		ug/L		96	59 - 135
Ethylbenzene	25.0	25.5		ug/L		102	77 - 123
1,2-Dibromoethane	25.0	25.5		ug/L		102	77 - 120

Eurofins TestAmerica, Buffalo

QC Sample Results

Client: LaBella Associates DPC
 Project/Site: Former Emerson Street Landfill Project

Job ID: 480-175214-1

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

Lab Sample ID: LCS 480-549880/5

Matrix: Water

Analysis Batch: 549880

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Isopropylbenzene	25.0	25.8		ug/L		103	77 - 122
Methyl acetate	50.0	47.0		ug/L		94	74 - 133
Methyl tert-butyl ether	25.0	24.4		ug/L		98	77 - 120
Methylcyclohexane	25.0	28.5		ug/L		114	68 - 134
Methylene Chloride	25.0	22.2		ug/L		89	75 - 124
Styrene	25.0	26.0		ug/L		104	80 - 120
Tetrachloroethene	25.0	25.0		ug/L		100	74 - 122
Toluene	25.0	25.0		ug/L		100	80 - 122
trans-1,2-Dichloroethene	25.0	24.4		ug/L		98	73 - 127
trans-1,3-Dichloropropene	25.0	26.5		ug/L		106	80 - 120
Trichloroethene	25.0	25.0		ug/L		100	74 - 123
Trichlorofluoromethane	25.0	27.5		ug/L		110	62 - 150
Vinyl chloride	25.0	24.8		ug/L		99	65 - 133

Surrogate	LCS LCS		Limits
	%Recovery	Qualifier	
Toluene-d8 (Surr)	102		80 - 120
1,2-Dichloroethane-d4 (Surr)	107		77 - 120
4-Bromofluorobenzene (Surr)	106		73 - 120
Dibromofluoromethane (Surr)	104		75 - 123

QC Association Summary

Client: LaBella Associates DPC
Project/Site: Former Emerson Street Landfill Project

Job ID: 480-175214-1

GC/MS VOA

Analysis Batch: 549880

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-175214-1	TRIP BLANK	Total/NA	Water	8260C	
480-175214-2	LAB-SBW-18-091620 (38)	Total/NA	Water	8260C	
480-175214-3	GMX-MW-3-09162020 (28)	Total/NA	Water	8260C	
480-175214-4	GMX-MW-3-09162020 (30)	Total/NA	Water	8260C	
480-175214-5	LAB-SBW-19-09162020 (35)	Total/NA	Water	8260C	
480-175214-6	LAB-SBW-18-09162020 (42)	Total/NA	Water	8260C	
480-175214-7	LAB-SBW-19-09162020 (47)	Total/NA	Water	8260C	
480-175214-8	LAB-SBW-17-09162020 (42)	Total/NA	Water	8260C	
480-175214-9	LAB-SBW-17-09162020 (52)	Total/NA	Water	8260C	
MB 480-549880/7	Method Blank	Total/NA	Water	8260C	
LCS 480-549880/5	Lab Control Sample	Total/NA	Water	8260C	

Lab Chronicle

Client: LaBella Associates DPC
Project/Site: Former Emerson Street Landfill Project

Job ID: 480-175214-1

Client Sample ID: TRIP BLANK

Lab Sample ID: 480-175214-1

Date Collected: 09/16/20 08:00

Matrix: Water

Date Received: 09/17/20 10:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	549880	09/17/20 12:03	AMM	TAL BUF

Client Sample ID: LAB-SBW-18-091620 (38)

Lab Sample ID: 480-175214-2

Date Collected: 09/16/20 11:15

Matrix: Water

Date Received: 09/17/20 10:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		4	549880	09/17/20 15:40	AMM	TAL BUF

Client Sample ID: GMX-MW-3-09162020 (28)

Lab Sample ID: 480-175214-3

Date Collected: 09/16/20 15:05

Matrix: Water

Date Received: 09/17/20 10:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		4	549880	09/17/20 16:03	AMM	TAL BUF

Client Sample ID: GMX-MW-3-09162020 (30)

Lab Sample ID: 480-175214-4

Date Collected: 09/16/20 16:00

Matrix: Water

Date Received: 09/17/20 10:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		4	549880	09/17/20 16:27	AMM	TAL BUF

Client Sample ID: LAB-SBW-19-09162020 (35)

Lab Sample ID: 480-175214-5

Date Collected: 09/16/20 11:05

Matrix: Water

Date Received: 09/17/20 10:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		4	549880	09/17/20 16:51	AMM	TAL BUF

Client Sample ID: LAB-SBW-18-09162020 (42)

Lab Sample ID: 480-175214-6

Date Collected: 09/16/20 13:25

Matrix: Water

Date Received: 09/17/20 10:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		4	549880	09/17/20 17:15	AMM	TAL BUF

Client Sample ID: LAB-SBW-19-09162020 (47)

Lab Sample ID: 480-175214-7

Date Collected: 09/16/20 12:40

Matrix: Water

Date Received: 09/17/20 10:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		4	549880	09/17/20 17:39	AMM	TAL BUF

Lab Chronicle

Client: LaBella Associates DPC
Project/Site: Former Emerson Street Landfill Project

Job ID: 480-175214-1

Client Sample ID: LAB-SBW-17-09162020 (42)

Lab Sample ID: 480-175214-8

Date Collected: 09/16/20 15:45

Matrix: Water

Date Received: 09/17/20 10:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		2	549880	09/17/20 18:03	AMM	TAL BUF

Client Sample ID: LAB-SBW-17-09162020 (52)

Lab Sample ID: 480-175214-9

Date Collected: 09/16/20 17:00

Matrix: Water

Date Received: 09/17/20 10:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	549880	09/17/20 18:27	AMM	TAL BUF

Laboratory References:

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



Accreditation/Certification Summary

Client: LaBella Associates DPC
Project/Site: Former Emerson Street Landfill Project

Job ID: 480-175214-1

Laboratory: Eurofins TestAmerica, Buffalo

The accreditations/certifications listed below are applicable to this report.

Authority	Program	Identification Number	Expiration Date
New York	NELAP	10026	04-01-21

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13
- 14
- 15

Method Summary

Client: LaBella Associates DPC
Project/Site: Former Emerson Street Landfill Project

Job ID: 480-175214-1

Method	Method Description	Protocol	Laboratory
8260C	Volatile Organic Compounds by GC/MS	SW846	TAL BUF
5030C	Purge and Trap	SW846	TAL BUF

Protocol References:

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

Laboratory References:

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



Sample Summary

Client: LaBella Associates DPC
Project/Site: Former Emerson Street Landfill Project

Job ID: 480-175214-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
480-175214-1	TRIP BLANK	Water	09/16/20 08:00	09/17/20 10:00	
480-175214-2	LAB-SBW-18-091620 (38)	Water	09/16/20 11:15	09/17/20 10:00	
480-175214-3	GMX-MW-3-09162020 (28)	Water	09/16/20 15:05	09/17/20 10:00	
480-175214-4	GMX-MW-3-09162020 (30)	Water	09/16/20 16:00	09/17/20 10:00	
480-175214-5	LAB-SBW-19-09162020 (35)	Water	09/16/20 11:05	09/17/20 10:00	
480-175214-6	LAB-SBW-18-09162020 (42)	Water	09/16/20 13:25	09/17/20 10:00	
480-175214-7	LAB-SBW-19-09162020 (47)	Water	09/16/20 12:40	09/17/20 10:00	
480-175214-8	LAB-SBW-17-09162020 (42)	Water	09/16/20 15:45	09/17/20 10:00	
480-175214-9	LAB-SBW-17-09162020 (52)	Water	09/16/20 17:00	09/17/20 10:00	

Chain of Custody Record

Client Information Client Contact: Ann Aquilina Barber Company: LaBella Associates DPC Address: 300 State Street Suite 201 City: Rochester State, Zip: NY, 14614 Phone: 585-295-6289(Tel) Email: aabarber@labellapc.com Project Name: Former Emerson Street Landfill Project Site:		Lab PM: Fischer, Brian J E-Mail: Brian.Fischer@Eurofins.com Phone: 585-208-3438 Carrier Tracking No(s): COC No: 480-150610-33429.1 Page: Page 1 of 1 Job #:	
Due Date Requested: 9/18/2020 TAT Requested (days): 1 TAT PO #: 210173 WO #:		Analysis Requested Preservation Codes: A - HCL B - NaOH C - Zn Acetate D - Nitric Acid E - NaHSO4 F - MeOH G - Acetone H - decahydrate I - (specify)	
Sample Identification Sample Date Sample Time Sample Type (C=Comp, G=grab) Matrix (W=water, S=solid, O=soil, BT=tissue, A=Air) Preservation Code: Field Filtered Sample (Yes or No) Perform MSMSD (Yes or No) 8260C - TCL VOCs + TICs		Special Instructions/Note: Total Numt	
TPB-16 LAB-SBW-18-09162020 (38) GMX-MW-3-09162020 (28) CMX-MW-3-09162020 (30) JTB-SBW-19-09162020 (35) LAB-SBW-18-09162020 (47) LAB-SBW-19-09162020 (47) LAB-SBW-17-09162020 (42) LAB-SBW-17-07162020 (52)		9/16/2020 800 Water 9/16/2020 1115 Water 9/16/2020 1505 Water 9/16/2020 1600 9/16/2020 1105 9/16/2020 1325 9/16/2020 1240 9/16/2020 1545 9/16/2020 1700	
Possible Hazard Identification <input type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown <input type="checkbox"/> Radiological			
Deliverable Requested: I, II, III, IV, Other (specify) equist capes			
Empty Kit Relinquished by:		Method of Shipment:	
Relinquished by:		Date/Time: 9/17/2020 1600 Company:	
Relinquished by:		Date/Time:	
Relinquished by:		Date/Time:	
Custody Seals Intact: Δ Yes Δ No		Cooler Temperature(s) °C and Other Remarks: 416 # 1 ICE	



Login Sample Receipt Checklist

Client: LaBella Associates DPC

Job Number: 480-175214-1

Login Number: 175214

List Number: 1

Creator: Kolb, Chris M

List Source: Eurofins TestAmerica, Buffalo

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	
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	labella
Samples received within 48 hours of sampling.	True	
Samples requiring field filtration have been filtered in the field.	True	
Chlorine Residual checked.	True	



ANALYTICAL REPORT

Eurofins TestAmerica, Buffalo
10 Hazelwood Drive
Amherst, NY 14228-2298
Tel: (716)691-2600

Laboratory Job ID: 480-179432-1

Client Project/Site: Former Emerson Street Landfill Project

For:

LaBella Associates DPC
300 State Street
Suite 201
Rochester, New York 14614

Attn: Ann Aquilina Barber



Authorized for release by:

12/28/2020 11:15:28 AM

Rebecca Jones, Project Management Assistant I
Rebecca.Jones@Eurofinset.com

Designee for

Brian Fischer, Manager of Project Management
(716)504-9835

Brian.Fischer@Eurofinset.com

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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.

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Definitions/Glossary

Client: LaBella Associates DPC
Project/Site: Former Emerson Street Landfill Project

Job ID: 480-179432-1

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

General Chemistry

Qualifier	Qualifier Description
H	Sample was prepped or analyzed beyond the specified holding time
HF	Field parameter with a holding time of 15 minutes. Test performed by laboratory at client's request.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

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

Case Narrative

Client: LaBella Associates DPC
Project/Site: Former Emerson Street Landfill Project

Job ID: 480-179432-1

Job ID: 480-179432-1

Laboratory: Eurofins TestAmerica, Buffalo

Narrative

Job Narrative 480-179432-1

Comments

No additional comments.

Receipt

The samples were received on 12/16/2020 8:00 AM; the samples arrived in good condition, and where required, properly preserved and on ice. The temperature of the cooler at receipt was 3.3° C.

GC/MS VOA

Method 8260C: The following sample was diluted to bring the concentration of target analytes within the calibration range: SBW-20- 35 (480-179432-1). Elevated reporting limits (RLs) are provided.

Method 8260C: The following volatiles sample was diluted due to foaming at the time of purging during the original sample analysis: SBW-20- 34 (480-179432-2). Elevated reporting limits (RLs) are provided.

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

HPLC/IC

Method 9056A: The following samples were diluted to bring the concentration of target analytes within the calibration range: SBW-20- 35 (480-179432-1) and SBW-20- 34 (480-179432-2). Elevated reporting limits (RLs) are provided.

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

GC VOA

Method RSK-175: The following samples were diluted to bring the concentration of target analytes within the calibration range: SBW-20- 35 (480-179432-1) and SBW-20- 34 (480-179432-2). Elevated reporting limits (RLs) are provided.

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

General Chemistry

Method SM 3500 FE D: This analysis is normally performed in the field and has a method-defined holding time of 15 minutes. The following samples has been qualified with the "HF" flag to indicate analysis was performed in the laboratory outside the 15 minute timeframe: SBW-20- 35 (480-179432-1) and SBW-20- 34 (480-179432-2).

Method 353.2: The following sample(s) was received with minimum amount of time remaining on the test. As such, the laboratory had insufficient time remaining to perform the analysis within holding time: SBW-20- 35 (480-179432-1) and SBW-20- 34 (480-179432-2).

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

Detection Summary

Client: LaBella Associates DPC
 Project/Site: Former Emerson Street Landfill Project

Job ID: 480-179432-1

Client Sample ID: SBW-20- 35

Lab Sample ID: 480-179432-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1,1-Trichloroethane	33		4.0	3.3	ug/L	4		8260C	Total/NA
1,1,2-Trichloro-1,2,2-trifluoroethane	16		4.0	1.2	ug/L	4		8260C	Total/NA
1,1-Dichloroethane	89		4.0	1.5	ug/L	4		8260C	Total/NA
Benzene	12		4.0	1.6	ug/L	4		8260C	Total/NA
Chloroethane	21		4.0	1.3	ug/L	4		8260C	Total/NA
cis-1,2-Dichloroethene	130		4.0	3.2	ug/L	4		8260C	Total/NA
Methyl tert-butyl ether	1.2	J	4.0	0.64	ug/L	4		8260C	Total/NA
Methylcyclohexane	0.99	J	4.0	0.64	ug/L	4		8260C	Total/NA
Methylene Chloride	2.6	J	4.0	1.8	ug/L	4		8260C	Total/NA
Toluene	2.8	J	4.0	2.0	ug/L	4		8260C	Total/NA
Trichloroethene	8.6		4.0	1.8	ug/L	4		8260C	Total/NA
Vinyl chloride	42		4.0	3.6	ug/L	4		8260C	Total/NA
Methane	2500		88	22	ug/L	22		RSK-175	Total/NA
Nitrate	0.020	J H	0.050	0.020	mg/L as N	1		353.2	Total/NA
Chloride	934		5.0	2.8	mg/L	10		9056A	Total/NA
Sulfate	60.1		20.0	3.5	mg/L	10		9056A	Total/NA
Ferrous Iron	0.18	HF	0.10	0.075	mg/L	1		SM 3500 FE D	Total/NA
Sulfide	1.2		1.0	0.67	mg/L	1		SM 4500 S2 F	Total/NA

Client Sample ID: SBW-20- 34

Lab Sample ID: 480-179432-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1-Dichloroethane	34		4.0	1.5	ug/L	4		8260C	Total/NA
Benzene	2.9	J	4.0	1.6	ug/L	4		8260C	Total/NA
Chloroethane	4.8		4.0	1.3	ug/L	4		8260C	Total/NA
cis-1,2-Dichloroethene	19		4.0	3.2	ug/L	4		8260C	Total/NA
Methylcyclohexane	1.4	J	4.0	0.64	ug/L	4		8260C	Total/NA
Methylene Chloride	2.6	J	4.0	1.8	ug/L	4		8260C	Total/NA
Trichloroethene	3.3	J	4.0	1.8	ug/L	4		8260C	Total/NA
Vinyl chloride	5.6		4.0	3.6	ug/L	4		8260C	Total/NA
Methane	1100		88	22	ug/L	22		RSK-175	Total/NA
Nitrate	0.033	J H	0.050	0.020	mg/L as N	1		353.2	Total/NA
Chloride	1160		10.0	5.6	mg/L	20		9056A	Total/NA
Sulfate	153		40.0	7.0	mg/L	20		9056A	Total/NA
Ferrous Iron	0.31	HF	0.10	0.075	mg/L	1		SM 3500 FE D	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins TestAmerica, Buffalo

Client Sample Results

Client: LaBella Associates DPC
 Project/Site: Former Emerson Street Landfill Project

Job ID: 480-179432-1

Client Sample ID: SBW-20- 35

Lab Sample ID: 480-179432-1

Date Collected: 12/14/20 11:14

Matrix: Water

Date Received: 12/16/20 08:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	33		4.0	3.3	ug/L			12/18/20 16:14	4
1,1,2,2-Tetrachloroethane	ND		4.0	0.84	ug/L			12/18/20 16:14	4
1,1,2-Trichloroethane	ND		4.0	0.92	ug/L			12/18/20 16:14	4
1,1,2-Trichloro-1,2,2-trifluoroethane	16		4.0	1.2	ug/L			12/18/20 16:14	4
1,1-Dichloroethane	89		4.0	1.5	ug/L			12/18/20 16:14	4
1,1-Dichloroethene	ND		4.0	1.2	ug/L			12/18/20 16:14	4
1,2,4-Trichlorobenzene	ND		4.0	1.6	ug/L			12/18/20 16:14	4
1,2-Dibromo-3-Chloropropane	ND		4.0	1.6	ug/L			12/18/20 16:14	4
1,2-Dichlorobenzene	ND		4.0	3.2	ug/L			12/18/20 16:14	4
1,2-Dichloroethane	ND		4.0	0.84	ug/L			12/18/20 16:14	4
1,2-Dichloropropane	ND		4.0	2.9	ug/L			12/18/20 16:14	4
1,3-Dichlorobenzene	ND		4.0	3.1	ug/L			12/18/20 16:14	4
1,4-Dichlorobenzene	ND		4.0	3.4	ug/L			12/18/20 16:14	4
2-Butanone (MEK)	ND		40	5.3	ug/L			12/18/20 16:14	4
2-Hexanone	ND		20	5.0	ug/L			12/18/20 16:14	4
4-Methyl-2-pentanone (MIBK)	ND		20	8.4	ug/L			12/18/20 16:14	4
Acetone	ND		40	12	ug/L			12/18/20 16:14	4
Benzene	12		4.0	1.6	ug/L			12/18/20 16:14	4
Bromodichloromethane	ND		4.0	1.6	ug/L			12/18/20 16:14	4
Bromoform	ND		4.0	1.0	ug/L			12/18/20 16:14	4
Bromomethane	ND		4.0	2.8	ug/L			12/18/20 16:14	4
Carbon disulfide	ND		4.0	0.76	ug/L			12/18/20 16:14	4
Carbon tetrachloride	ND		4.0	1.1	ug/L			12/18/20 16:14	4
Chlorobenzene	ND		4.0	3.0	ug/L			12/18/20 16:14	4
Dibromochloromethane	ND		4.0	1.3	ug/L			12/18/20 16:14	4
Chloroethane	21		4.0	1.3	ug/L			12/18/20 16:14	4
Chloroform	ND		4.0	1.4	ug/L			12/18/20 16:14	4
Chloromethane	ND		4.0	1.4	ug/L			12/18/20 16:14	4
cis-1,2-Dichloroethene	130		4.0	3.2	ug/L			12/18/20 16:14	4
cis-1,3-Dichloropropene	ND		4.0	1.4	ug/L			12/18/20 16:14	4
Cyclohexane	ND		4.0	0.72	ug/L			12/18/20 16:14	4
Dichlorodifluoromethane	ND		4.0	2.7	ug/L			12/18/20 16:14	4
Ethylbenzene	ND		4.0	3.0	ug/L			12/18/20 16:14	4
1,2-Dibromoethane	ND		4.0	2.9	ug/L			12/18/20 16:14	4
Isopropylbenzene	ND		4.0	3.2	ug/L			12/18/20 16:14	4
Methyl acetate	ND		10	5.2	ug/L			12/18/20 16:14	4
Methyl tert-butyl ether	1.2 J		4.0	0.64	ug/L			12/18/20 16:14	4
Methylcyclohexane	0.99 J		4.0	0.64	ug/L			12/18/20 16:14	4
Methylene Chloride	2.6 J		4.0	1.8	ug/L			12/18/20 16:14	4
Styrene	ND		4.0	2.9	ug/L			12/18/20 16:14	4
Tetrachloroethene	ND		4.0	1.4	ug/L			12/18/20 16:14	4
Toluene	2.8 J		4.0	2.0	ug/L			12/18/20 16:14	4
trans-1,2-Dichloroethene	ND		4.0	3.6	ug/L			12/18/20 16:14	4
trans-1,3-Dichloropropene	ND		4.0	1.5	ug/L			12/18/20 16:14	4
Trichloroethene	8.6		4.0	1.8	ug/L			12/18/20 16:14	4
Trichlorofluoromethane	ND		4.0	3.5	ug/L			12/18/20 16:14	4
Vinyl chloride	42		4.0	3.6	ug/L			12/18/20 16:14	4
Xylenes, Total	ND		8.0	2.6	ug/L			12/18/20 16:14	4

Client Sample Results

Client: LaBella Associates DPC
 Project/Site: Former Emerson Street Landfill Project

Job ID: 480-179432-1

Client Sample ID: SBW-20- 35

Lab Sample ID: 480-179432-1

Date Collected: 12/14/20 11:14

Matrix: Water

Date Received: 12/16/20 08:00

Tentatively Identified Compound	Est. Result	Qualifier	Unit	D	RT	CAS No.	Prepared	Analyzed	Dil Fac
Tentatively Identified Compound	None		ug/L					12/18/20 16:14	4
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	101		80 - 120					12/18/20 16:14	4
1,2-Dichloroethane-d4 (Surr)	104		77 - 120					12/18/20 16:14	4
4-Bromofluorobenzene (Surr)	104		73 - 120					12/18/20 16:14	4
Dibromofluoromethane (Surr)	107		75 - 123					12/18/20 16:14	4

Method: RSK-175 - Dissolved Gases (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methane	2500		88	22	ug/L			12/17/20 18:00	22
Ethane	ND		170	33	ug/L			12/17/20 18:00	22
Ethene	ND		150	33	ug/L			12/17/20 18:00	22

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate	0.020	J H	0.050	0.020	mg/L as N			12/16/20 18:13	1
Nitrite	ND	H	0.050	0.020	mg/L as N			12/16/20 18:13	1
Chloride	934		5.0	2.8	mg/L			12/18/20 17:37	10
Sulfate	60.1		20.0	3.5	mg/L			12/18/20 17:37	10
Ferrous Iron	0.18	HF	0.10	0.075	mg/L			12/23/20 17:25	1
Sulfide	1.2		1.0	0.67	mg/L			12/17/20 17:37	1

Client Sample ID: SBW-20- 34

Lab Sample ID: 480-179432-2

Date Collected: 12/14/20 13:07

Matrix: Water

Date Received: 12/16/20 08:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		4.0	3.3	ug/L			12/18/20 16:37	4
1,1,1,2-Tetrachloroethane	ND		4.0	0.84	ug/L			12/18/20 16:37	4
1,1,2-Trichloroethane	ND		4.0	0.92	ug/L			12/18/20 16:37	4
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		4.0	1.2	ug/L			12/18/20 16:37	4
1,1-Dichloroethane	34		4.0	1.5	ug/L			12/18/20 16:37	4
1,1-Dichloroethene	ND		4.0	1.2	ug/L			12/18/20 16:37	4
1,2,4-Trichlorobenzene	ND		4.0	1.6	ug/L			12/18/20 16:37	4
1,2-Dibromo-3-Chloropropane	ND		4.0	1.6	ug/L			12/18/20 16:37	4
1,2-Dichlorobenzene	ND		4.0	3.2	ug/L			12/18/20 16:37	4
1,2-Dichloroethane	ND		4.0	0.84	ug/L			12/18/20 16:37	4
1,2-Dichloropropane	ND		4.0	2.9	ug/L			12/18/20 16:37	4
1,3-Dichlorobenzene	ND		4.0	3.1	ug/L			12/18/20 16:37	4
1,4-Dichlorobenzene	ND		4.0	3.4	ug/L			12/18/20 16:37	4
2-Butanone (MEK)	ND		40	5.3	ug/L			12/18/20 16:37	4
2-Hexanone	ND		20	5.0	ug/L			12/18/20 16:37	4
4-Methyl-2-pentanone (MIBK)	ND		20	8.4	ug/L			12/18/20 16:37	4
Acetone	ND		40	12	ug/L			12/18/20 16:37	4
Benzene	2.9	J	4.0	1.6	ug/L			12/18/20 16:37	4
Bromodichloromethane	ND		4.0	1.6	ug/L			12/18/20 16:37	4
Bromoform	ND		4.0	1.0	ug/L			12/18/20 16:37	4
Bromomethane	ND		4.0	2.8	ug/L			12/18/20 16:37	4
Carbon disulfide	ND		4.0	0.76	ug/L			12/18/20 16:37	4

Eurofins TestAmerica, Buffalo

Client Sample Results

Client: LaBella Associates DPC
 Project/Site: Former Emerson Street Landfill Project

Job ID: 480-179432-1

Client Sample ID: SBW-20- 34

Lab Sample ID: 480-179432-2

Date Collected: 12/14/20 13:07

Matrix: Water

Date Received: 12/16/20 08:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Carbon tetrachloride	ND		4.0	1.1	ug/L			12/18/20 16:37	4
Chlorobenzene	ND		4.0	3.0	ug/L			12/18/20 16:37	4
Dibromochloromethane	ND		4.0	1.3	ug/L			12/18/20 16:37	4
Chloroethane	4.8		4.0	1.3	ug/L			12/18/20 16:37	4
Chloroform	ND		4.0	1.4	ug/L			12/18/20 16:37	4
Chloromethane	ND		4.0	1.4	ug/L			12/18/20 16:37	4
cis-1,2-Dichloroethene	19		4.0	3.2	ug/L			12/18/20 16:37	4
cis-1,3-Dichloropropene	ND		4.0	1.4	ug/L			12/18/20 16:37	4
Cyclohexane	ND		4.0	0.72	ug/L			12/18/20 16:37	4
Dichlorodifluoromethane	ND		4.0	2.7	ug/L			12/18/20 16:37	4
Ethylbenzene	ND		4.0	3.0	ug/L			12/18/20 16:37	4
1,2-Dibromoethane	ND		4.0	2.9	ug/L			12/18/20 16:37	4
Isopropylbenzene	ND		4.0	3.2	ug/L			12/18/20 16:37	4
Methyl acetate	ND		10	5.2	ug/L			12/18/20 16:37	4
Methyl tert-butyl ether	ND		4.0	0.64	ug/L			12/18/20 16:37	4
Methylcyclohexane	1.4 J		4.0	0.64	ug/L			12/18/20 16:37	4
Methylene Chloride	2.6 J		4.0	1.8	ug/L			12/18/20 16:37	4
Styrene	ND		4.0	2.9	ug/L			12/18/20 16:37	4
Tetrachloroethene	ND		4.0	1.4	ug/L			12/18/20 16:37	4
Toluene	ND		4.0	2.0	ug/L			12/18/20 16:37	4
trans-1,2-Dichloroethene	ND		4.0	3.6	ug/L			12/18/20 16:37	4
trans-1,3-Dichloropropene	ND		4.0	1.5	ug/L			12/18/20 16:37	4
Trichloroethene	3.3 J		4.0	1.8	ug/L			12/18/20 16:37	4
Trichlorofluoromethane	ND		4.0	3.5	ug/L			12/18/20 16:37	4
Vinyl chloride	5.6		4.0	3.6	ug/L			12/18/20 16:37	4
Xylenes, Total	ND		8.0	2.6	ug/L			12/18/20 16:37	4

Tentatively Identified Compound	Est. Result	Qualifier	Unit	D	RT	CAS No.	Prepared	Analyzed	Dil Fac
Tentatively Identified Compound	None		ug/L					12/18/20 16:37	4

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	100		80 - 120		12/18/20 16:37	4
1,2-Dichloroethane-d4 (Surr)	103		77 - 120		12/18/20 16:37	4
4-Bromofluorobenzene (Surr)	101		73 - 120		12/18/20 16:37	4
Dibromofluoromethane (Surr)	107		75 - 123		12/18/20 16:37	4

Method: RSK-175 - Dissolved Gases (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methane	1100		88	22	ug/L			12/17/20 18:19	22
Ethane	ND		170	33	ug/L			12/17/20 18:19	22
Ethene	ND		150	33	ug/L			12/17/20 18:19	22

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate	0.033	J H	0.050	0.020	mg/L as N			12/16/20 18:14	1
Nitrite	ND	H	0.050	0.020	mg/L as N			12/16/20 18:14	1
Chloride	1160		10.0	5.6	mg/L			12/18/20 17:51	20
Sulfate	153		40.0	7.0	mg/L			12/18/20 17:51	20
Ferrous Iron	0.31	HF	0.10	0.075	mg/L			12/23/20 17:25	1
Sulfide	ND		1.0	0.67	mg/L			12/17/20 17:37	1

Eurofins TestAmerica, Buffalo

Surrogate Summary

Client: LaBella Associates DPC
Project/Site: Former Emerson Street Landfill Project

Job ID: 480-179432-1

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

Matrix: Water

Prep Type: Total/NA

Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	TOL	DCA	BFB	DBFM
		(80-120)	(77-120)	(73-120)	(75-123)
480-179432-1	SBW-20- 35	101	104	104	107
480-179432-2	SBW-20- 34	100	103	101	107
LCS 480-563775/5	Lab Control Sample	101	102	104	106
MB 480-563775/7	Method Blank	101	102	102	104

Surrogate Legend

TOL = Toluene-d8 (Surr)

DCA = 1,2-Dichloroethane-d4 (Surr)

BFB = 4-Bromofluorobenzene (Surr)

DBFM = Dibromofluoromethane (Surr)

QC Sample Results

Client: LaBella Associates DPC
 Project/Site: Former Emerson Street Landfill Project

Job ID: 480-179432-1

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

Lab Sample ID: MB 480-563775/7

Matrix: Water

Analysis Batch: 563775

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
1,1,1-Trichloroethane	ND		1.0	0.82	ug/L			12/18/20 11:02	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.21	ug/L			12/18/20 11:02	1
1,1,2-Trichloroethane	ND		1.0	0.23	ug/L			12/18/20 11:02	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.0	0.31	ug/L			12/18/20 11:02	1
1,1-Dichloroethane	ND		1.0	0.38	ug/L			12/18/20 11:02	1
1,1-Dichloroethene	ND		1.0	0.29	ug/L			12/18/20 11:02	1
1,2,4-Trichlorobenzene	ND		1.0	0.41	ug/L			12/18/20 11:02	1
1,2-Dibromo-3-Chloropropane	ND		1.0	0.39	ug/L			12/18/20 11:02	1
1,2-Dichlorobenzene	ND		1.0	0.79	ug/L			12/18/20 11:02	1
1,2-Dichloroethane	ND		1.0	0.21	ug/L			12/18/20 11:02	1
1,2-Dichloropropane	ND		1.0	0.72	ug/L			12/18/20 11:02	1
1,3-Dichlorobenzene	ND		1.0	0.78	ug/L			12/18/20 11:02	1
1,4-Dichlorobenzene	ND		1.0	0.84	ug/L			12/18/20 11:02	1
2-Butanone (MEK)	ND		10	1.3	ug/L			12/18/20 11:02	1
2-Hexanone	ND		5.0	1.2	ug/L			12/18/20 11:02	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	2.1	ug/L			12/18/20 11:02	1
Acetone	ND		10	3.0	ug/L			12/18/20 11:02	1
Benzene	ND		1.0	0.41	ug/L			12/18/20 11:02	1
Bromodichloromethane	ND		1.0	0.39	ug/L			12/18/20 11:02	1
Bromoform	ND		1.0	0.26	ug/L			12/18/20 11:02	1
Bromomethane	ND		1.0	0.69	ug/L			12/18/20 11:02	1
Carbon disulfide	ND		1.0	0.19	ug/L			12/18/20 11:02	1
Carbon tetrachloride	ND		1.0	0.27	ug/L			12/18/20 11:02	1
Chlorobenzene	ND		1.0	0.75	ug/L			12/18/20 11:02	1
Dibromochloromethane	ND		1.0	0.32	ug/L			12/18/20 11:02	1
Chloroethane	ND		1.0	0.32	ug/L			12/18/20 11:02	1
Chloroform	ND		1.0	0.34	ug/L			12/18/20 11:02	1
Chloromethane	ND		1.0	0.35	ug/L			12/18/20 11:02	1
cis-1,2-Dichloroethene	ND		1.0	0.81	ug/L			12/18/20 11:02	1
cis-1,3-Dichloropropene	ND		1.0	0.36	ug/L			12/18/20 11:02	1
Cyclohexane	ND		1.0	0.18	ug/L			12/18/20 11:02	1
Dichlorodifluoromethane	ND		1.0	0.68	ug/L			12/18/20 11:02	1
Ethylbenzene	ND		1.0	0.74	ug/L			12/18/20 11:02	1
1,2-Dibromoethane	ND		1.0	0.73	ug/L			12/18/20 11:02	1
Isopropylbenzene	ND		1.0	0.79	ug/L			12/18/20 11:02	1
Methyl acetate	ND		2.5	1.3	ug/L			12/18/20 11:02	1
Methyl tert-butyl ether	ND		1.0	0.16	ug/L			12/18/20 11:02	1
Methylcyclohexane	ND		1.0	0.16	ug/L			12/18/20 11:02	1
Methylene Chloride	ND		1.0	0.44	ug/L			12/18/20 11:02	1
Styrene	ND		1.0	0.73	ug/L			12/18/20 11:02	1
Tetrachloroethene	ND		1.0	0.36	ug/L			12/18/20 11:02	1
Toluene	ND		1.0	0.51	ug/L			12/18/20 11:02	1
trans-1,2-Dichloroethene	ND		1.0	0.90	ug/L			12/18/20 11:02	1
trans-1,3-Dichloropropene	ND		1.0	0.37	ug/L			12/18/20 11:02	1
Trichloroethene	ND		1.0	0.46	ug/L			12/18/20 11:02	1
Trichlorofluoromethane	ND		1.0	0.88	ug/L			12/18/20 11:02	1
Vinyl chloride	ND		1.0	0.90	ug/L			12/18/20 11:02	1
Xylenes, Total	ND		2.0	0.66	ug/L			12/18/20 11:02	1

Eurofins TestAmerica, Buffalo

QC Sample Results

Client: LaBella Associates DPC
 Project/Site: Former Emerson Street Landfill Project

Job ID: 480-179432-1

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

Lab Sample ID: MB 480-563775/7

Matrix: Water

Analysis Batch: 563775

Client Sample ID: Method Blank

Prep Type: Total/NA

Tentatively Identified Compound	MB MB		Unit	D	RT	CAS No.	Prepared	Analyzed	Dil Fac
	Est. Result	Qualifier							
1,4-Dioxane	72.9		ug/L		6.00	123-91-1		12/18/20 11:02	1
Tentatively Identified Compound	None		ug/L					12/18/20 11:02	1

Surrogate	MB MB		Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
Toluene-d8 (Surr)	101		80 - 120		12/18/20 11:02	1
1,2-Dichloroethane-d4 (Surr)	102		77 - 120		12/18/20 11:02	1
4-Bromofluorobenzene (Surr)	102		73 - 120		12/18/20 11:02	1
Dibromofluoromethane (Surr)	104		75 - 123		12/18/20 11:02	1

Lab Sample ID: LCS 480-563775/5

Matrix: Water

Analysis Batch: 563775

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1,1,2,2-Tetrachloroethane	25.0	24.4		ug/L		97	76 - 120
1,1,2-Trichloroethane	25.0	25.6		ug/L		102	76 - 122
1,1,2-Trichloro-1,2,2-trifluoroethane	25.0	22.5		ug/L		90	61 - 148
1,1-Dichloroethane	25.0	25.3		ug/L		101	77 - 120
1,1-Dichloroethene	25.0	26.1		ug/L		104	66 - 127
1,2,4-Trichlorobenzene	25.0	25.6		ug/L		102	79 - 122
1,2-Dibromo-3-Chloropropane	25.0	23.8		ug/L		95	56 - 134
1,2-Dichlorobenzene	25.0	25.1		ug/L		100	80 - 124
1,2-Dichloroethane	25.0	25.2		ug/L		101	75 - 120
1,2-Dichloropropane	25.0	24.7		ug/L		99	76 - 120
1,3-Dichlorobenzene	25.0	24.6		ug/L		98	77 - 120
1,4-Dichlorobenzene	25.0	24.6		ug/L		98	80 - 120
2-Butanone (MEK)	125	127		ug/L		102	57 - 140
2-Hexanone	125	126		ug/L		101	65 - 127
4-Methyl-2-pentanone (MIBK)	125	124		ug/L		99	71 - 125
Acetone	125	118		ug/L		94	56 - 142
Benzene	25.0	25.3		ug/L		101	71 - 124
Bromodichloromethane	25.0	26.4		ug/L		106	80 - 122
Bromoform	25.0	25.9		ug/L		104	61 - 132
Bromomethane	25.0	24.8		ug/L		99	55 - 144
Carbon disulfide	25.0	23.8		ug/L		95	59 - 134
Carbon tetrachloride	25.0	25.9		ug/L		104	72 - 134
Chlorobenzene	25.0	25.3		ug/L		101	80 - 120
Dibromochloromethane	25.0	26.6		ug/L		106	75 - 125
Chloroethane	25.0	23.3		ug/L		93	69 - 136
Chloroform	25.0	24.4		ug/L		98	73 - 127
Chloromethane	25.0	22.9		ug/L		92	68 - 124
cis-1,2-Dichloroethene	25.0	25.7		ug/L		103	74 - 124
cis-1,3-Dichloropropene	25.0	25.7		ug/L		103	74 - 124
Cyclohexane	25.0	25.8		ug/L		103	59 - 135
Dichlorodifluoromethane	25.0	24.9		ug/L		100	59 - 135
Ethylbenzene	25.0	25.1		ug/L		100	77 - 123

Eurofins TestAmerica, Buffalo

QC Sample Results

Client: LaBella Associates DPC
 Project/Site: Former Emerson Street Landfill Project

Job ID: 480-179432-1

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

Lab Sample ID: LCS 480-563775/5

Matrix: Water

Analysis Batch: 563775

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,2-Dibromoethane	25.0	25.8		ug/L		103	77 - 120
Isopropylbenzene	25.0	24.7		ug/L		99	77 - 122
Methyl acetate	50.0	49.2		ug/L		98	74 - 133
Methyl tert-butyl ether	25.0	25.3		ug/L		101	77 - 120
Methylcyclohexane	25.0	26.4		ug/L		106	68 - 134
Methylene Chloride	25.0	24.2		ug/L		97	75 - 124
Styrene	25.0	25.4		ug/L		101	80 - 120
Tetrachloroethene	25.0	27.1		ug/L		108	74 - 122
Toluene	25.0	24.8		ug/L		99	80 - 122
trans-1,2-Dichloroethene	25.0	25.5		ug/L		102	73 - 127
trans-1,3-Dichloropropene	25.0	25.5		ug/L		102	80 - 120
Trichloroethene	25.0	26.0		ug/L		104	74 - 123
Trichlorofluoromethane	25.0	26.2		ug/L		105	62 - 150
Vinyl chloride	25.0	24.7		ug/L		99	65 - 133

Surrogate	LCS %Recovery	LCS Qualifier	Limits
Toluene-d8 (Surr)	101		80 - 120
1,2-Dichloroethane-d4 (Surr)	102		77 - 120
4-Bromofluorobenzene (Surr)	104		73 - 120
Dibromofluoromethane (Surr)	106		75 - 123

Method: RSK-175 - Dissolved Gases (GC)

Lab Sample ID: MB 480-563703/3

Matrix: Water

Analysis Batch: 563703

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methane	ND		4.0	1.0	ug/L			12/17/20 16:34	1
Ethane	ND		7.5	1.5	ug/L			12/17/20 16:34	1
Ethene	ND		7.0	1.5	ug/L			12/17/20 16:34	1

Lab Sample ID: LCS 480-563703/4

Matrix: Water

Analysis Batch: 563703

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Methane	19.2	17.8		ug/L		93	85 - 120
Ethane	36.8	34.3		ug/L		93	79 - 120
Ethene	33.7	33.4		ug/L		99	85 - 120

Lab Sample ID: LCSD 480-563703/5

Matrix: Water

Analysis Batch: 563703

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
Methane	19.2	19.0		ug/L		99	85 - 120	6	50
Ethane	36.8	36.3		ug/L		99	79 - 120	6	50
Ethene	33.7	35.2		ug/L		104	85 - 120	5	50

Eurofins TestAmerica, Buffalo

QC Sample Results

Client: LaBella Associates DPC
 Project/Site: Former Emerson Street Landfill Project

Job ID: 480-179432-1

Method: 9056A - Anions, Ion Chromatography

Lab Sample ID: MB 480-563802/28
Matrix: Water
Analysis Batch: 563802

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

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Chloride	ND		0.50	0.28	mg/L			12/18/20 17:22	1
Sulfate	ND		2.0	0.35	mg/L			12/18/20 17:22	1

Lab Sample ID: LCS 480-563802/27
Matrix: Water
Analysis Batch: 563802

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

Analyte	Spike Added	LCS	LCS	Unit	D	%Rec	%Rec Limits
		Result	Qualifier				
Chloride	50.0	49.54		mg/L		99	90 - 110
Sulfate	50.0	49.48		mg/L		99	90 - 110

Method: SM 3500 FE D - Iron, Ferrous and Ferric

Lab Sample ID: MB 480-564507/3
Matrix: Water
Analysis Batch: 564507

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

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Ferrous Iron	ND		0.10	0.075	mg/L			12/23/20 17:25	1

Lab Sample ID: LCS 480-564507/4
Matrix: Water
Analysis Batch: 564507

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

Analyte	Spike Added	LCS	LCS	Unit	D	%Rec	%Rec Limits
		Result	Qualifier				
Ferrous Iron	2.00	1.99		mg/L		99	90 - 110

Lab Sample ID: 480-179432-1 MS
Matrix: Water
Analysis Batch: 564507

Client Sample ID: SBW-20- 35
Prep Type: Total/NA

Analyte	Sample	Sample	Spike Added	MS	MS	Unit	D	%Rec	%Rec Limits
	Result	Qualifier		Result	Qualifier				
Ferrous Iron	0.18	HF	1.00	1.19		mg/L		101	70 - 130

Lab Sample ID: 480-179432-2 MS
Matrix: Water
Analysis Batch: 564507

Client Sample ID: SBW-20- 34
Prep Type: Total/NA

Analyte	Sample	Sample	Spike Added	MS	MS	Unit	D	%Rec	%Rec Limits
	Result	Qualifier		Result	Qualifier				
Ferrous Iron	0.31	HF	1.00	1.35		mg/L		104	70 - 130

Lab Sample ID: 480-179432-1 DU
Matrix: Water
Analysis Batch: 564507

Client Sample ID: SBW-20- 35
Prep Type: Total/NA

Analyte	Sample	Sample	DU	DU	Unit	D	RPD	RPD Limit
	Result	Qualifier		Result				
Ferrous Iron	0.18	HF	0.184		mg/L		0	20

QC Sample Results

Client: LaBella Associates DPC
 Project/Site: Former Emerson Street Landfill Project

Job ID: 480-179432-1

Method: SM 3500 FE D - Iron, Ferrous and Ferric (Continued)

Lab Sample ID: 480-179432-2 DU
 Matrix: Water
 Analysis Batch: 564507

Client Sample ID: SBW-20- 34
 Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	Limit
Ferrous Iron	0.31	HF	0.323		mg/L		4	20

Method: SM 4500 S2 F - Sulfide, Total

Lab Sample ID: MB 480-563739/3
 Matrix: Water
 Analysis Batch: 563739

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfide	ND		1.0	0.67	mg/L			12/17/20 17:37	1

Lab Sample ID: LCS 480-563739/4
 Matrix: Water
 Analysis Batch: 563739

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Sulfide	9.00	9.20		mg/L		102	90 - 110

Lab Sample ID: 480-179432-2 MS
 Matrix: Water
 Analysis Batch: 563739

Client Sample ID: SBW-20- 34
 Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Sulfide	ND		2.30	2.80		mg/L		122	40 - 150

Lab Sample ID: 480-179432-1 DU
 Matrix: Water
 Analysis Batch: 563739

Client Sample ID: SBW-20- 35
 Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	Limit
Sulfide	1.2		1.20		mg/L		0	20

QC Association Summary

Client: LaBella Associates DPC
 Project/Site: Former Emerson Street Landfill Project

Job ID: 480-179432-1

GC/MS VOA

Analysis Batch: 563775

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-179432-1	SBW-20- 35	Total/NA	Water	8260C	
480-179432-2	SBW-20- 34	Total/NA	Water	8260C	
MB 480-563775/7	Method Blank	Total/NA	Water	8260C	
LCS 480-563775/5	Lab Control Sample	Total/NA	Water	8260C	

GC VOA

Analysis Batch: 563703

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-179432-1	SBW-20- 35	Total/NA	Water	RSK-175	
480-179432-2	SBW-20- 34	Total/NA	Water	RSK-175	
MB 480-563703/3	Method Blank	Total/NA	Water	RSK-175	
LCS 480-563703/4	Lab Control Sample	Total/NA	Water	RSK-175	
LCSD 480-563703/5	Lab Control Sample Dup	Total/NA	Water	RSK-175	

General Chemistry

Analysis Batch: 563559

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-179432-1	SBW-20- 35	Total/NA	Water	353.2	
480-179432-2	SBW-20- 34	Total/NA	Water	353.2	

Analysis Batch: 563561

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-179432-1	SBW-20- 35	Total/NA	Water	353.2	
480-179432-2	SBW-20- 34	Total/NA	Water	353.2	

Analysis Batch: 563739

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-179432-1	SBW-20- 35	Total/NA	Water	SM 4500 S2 F	
480-179432-2	SBW-20- 34	Total/NA	Water	SM 4500 S2 F	
MB 480-563739/3	Method Blank	Total/NA	Water	SM 4500 S2 F	
LCS 480-563739/4	Lab Control Sample	Total/NA	Water	SM 4500 S2 F	
480-179432-2 MS	SBW-20- 34	Total/NA	Water	SM 4500 S2 F	
480-179432-1 DU	SBW-20- 35	Total/NA	Water	SM 4500 S2 F	

Analysis Batch: 563802

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-179432-1	SBW-20- 35	Total/NA	Water	9056A	
480-179432-2	SBW-20- 34	Total/NA	Water	9056A	
MB 480-563802/28	Method Blank	Total/NA	Water	9056A	
LCS 480-563802/27	Lab Control Sample	Total/NA	Water	9056A	

Analysis Batch: 564507

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-179432-1	SBW-20- 35	Total/NA	Water	SM 3500 FE D	
480-179432-2	SBW-20- 34	Total/NA	Water	SM 3500 FE D	
MB 480-564507/3	Method Blank	Total/NA	Water	SM 3500 FE D	
LCS 480-564507/4	Lab Control Sample	Total/NA	Water	SM 3500 FE D	
480-179432-1 MS	SBW-20- 35	Total/NA	Water	SM 3500 FE D	
480-179432-2 MS	SBW-20- 34	Total/NA	Water	SM 3500 FE D	
480-179432-1 DU	SBW-20- 35	Total/NA	Water	SM 3500 FE D	

Eurofins TestAmerica, Buffalo

QC Association Summary

Client: LaBella Associates DPC
Project/Site: Former Emerson Street Landfill Project

Job ID: 480-179432-1

General Chemistry (Continued)

Analysis Batch: 564507 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-179432-2 DU	SBW-20- 34	Total/NA	Water	SM 3500 FE D	

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Lab Chronicle

Client: LaBella Associates DPC
 Project/Site: Former Emerson Street Landfill Project

Job ID: 480-179432-1

Client Sample ID: SBW-20- 35

Lab Sample ID: 480-179432-1

Date Collected: 12/14/20 11:14

Matrix: Water

Date Received: 12/16/20 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		4	563775	12/18/20 16:14	CRL	TAL BUF
Total/NA	Analysis	RSK-175		22	563703	12/17/20 18:00	DSC	TAL BUF
Total/NA	Analysis	353.2		1	563559	12/16/20 18:13	ALT	TAL BUF
Total/NA	Analysis	353.2		1	563561	12/16/20 18:13	ALT	TAL BUF
Total/NA	Analysis	9056A		10	563802	12/18/20 17:37	IMZ	TAL BUF
Total/NA	Analysis	SM 3500 FE D		1	564507	12/23/20 17:25	CSS	TAL BUF
Total/NA	Analysis	SM 4500 S2 F		1	563739	12/17/20 17:37	MJB	TAL BUF

Client Sample ID: SBW-20- 34

Lab Sample ID: 480-179432-2

Date Collected: 12/14/20 13:07

Matrix: Water

Date Received: 12/16/20 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		4	563775	12/18/20 16:37	CRL	TAL BUF
Total/NA	Analysis	RSK-175		22	563703	12/17/20 18:19	DSC	TAL BUF
Total/NA	Analysis	353.2		1	563559	12/16/20 18:14	ALT	TAL BUF
Total/NA	Analysis	353.2		1	563561	12/16/20 18:14	ALT	TAL BUF
Total/NA	Analysis	9056A		20	563802	12/18/20 17:51	IMZ	TAL BUF
Total/NA	Analysis	SM 3500 FE D		1	564507	12/23/20 17:25	CSS	TAL BUF
Total/NA	Analysis	SM 4500 S2 F		1	563739	12/17/20 17:37	MJB	TAL BUF

Laboratory References:

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

Accreditation/Certification Summary

Client: LaBella Associates DPC
Project/Site: Former Emerson Street Landfill Project

Job ID: 480-179432-1

Laboratory: Eurofins TestAmerica, Buffalo

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

Authority	Program	Identification Number	Expiration Date
New York	NELAP	10026	04-01-21

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
SM 3500 FE D		Water	Ferrous Iron

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- 2
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- 5
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- 8
- 9
- 10
- 11
- 12
- 13
- 14
- 15

Method Summary

Client: LaBella Associates DPC
Project/Site: Former Emerson Street Landfill Project

Job ID: 480-179432-1

Method	Method Description	Protocol	Laboratory
8260C	Volatile Organic Compounds by GC/MS	SW846	TAL BUF
RSK-175	Dissolved Gases (GC)	RSK	TAL BUF
353.2	Nitrate	EPA	TAL BUF
353.2	Nitrogen, Nitrite	MCAWW	TAL BUF
9056A	Anions, Ion Chromatography	SW846	TAL BUF
SM 3500 FE D	Iron, Ferrous and Ferric	SM	TAL BUF
SM 4500 S2 F	Sulfide, Total	SM	TAL BUF
5030C	Purge and Trap	SW846	TAL BUF

Protocol References:

EPA = US Environmental Protection Agency

MCAWW = "Methods For Chemical Analysis Of Water And Wastes", EPA-600/4-79-020, March 1983 And Subsequent Revisions.

RSK = Sample Prep And Calculations For Dissolved Gas Analysis In Water Samples Using A GC Headspace Equilibration Technique , RSKSOP-175, Rev. 0, 8/11/94, USEPA Research Lab

SM = "Standard Methods For The Examination Of Water And Wastewater"

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

Laboratory References:

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

Sample Summary

Client: LaBella Associates DPC
Project/Site: Former Emerson Street Landfill Project

Job ID: 480-179432-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
480-179432-1	SBW-20- 35	Water	12/14/20 11:14	12/16/20 08:00	
480-179432-2	SBW-20- 34	Water	12/14/20 13:07	12/16/20 08:00	

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Chain of Custody Record

Client Information		Lab PM: Fischer, Brian J		Carrier Tracking No(s): 480-154366-34241.1																																			
Client Contact: Ann Aquilina Barber		E-Mail: Brian.Fischer@Eurofinset.com		Page: Page 1 of 1																																			
Company: LaBella Associates DPC		PWSID:		Job #:																																			
Address: 300 State Street Suite 201		Due Date Requested:		Analysis Requested																																			
City: Rochester		TAT Requested (days): <i>3</i>		Total Number of Containers																																			
State, Zip: NY, 14614		Compliance Project: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		Preservation Codes:																																			
Phone: 585-295-6289(Tel)		PO #: 210173		M - Hexane N - None O - AsNaO2 P - Na2OAS Q - Na2SO4 R - Na2SO3 S - H2SO4 T - TSP Dodecahydrate U - Acetone V - MCAA W - pH 4-5 Z - other (specify)																																			
Email: aabbarber@labellapc.com		WO #: 48016058		Other:																																			
Project Name: Former Emerson Street Landfill Project		SSOW#:		Special Instructions/Note:																																			
Site:		Field Filtered Sample (Yes or No)		 480-179432 Chain of Custody																																			
<table border="1"> <thead> <tr> <th>Sample Identification</th> <th>Sample Date</th> <th>Sample Time</th> <th>Sample Type (C=Comp, G=grab)</th> <th>Matrix (W=water, S=solid, O=soil, BT=Trace, A=AU)</th> </tr> </thead> <tbody> <tr> <td>LAB-SBW-20(35)</td> <td>12/14/20</td> <td>1114</td> <td>G</td> <td>Water</td> </tr> <tr> <td>LAB-SBW-20C</td> <td>12/14/20</td> <td>1307</td> <td>G</td> <td>Water</td> </tr> </tbody> </table>		Sample Identification	Sample Date			Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=soil, BT=Trace, A=AU)	LAB-SBW-20(35)	12/14/20	1114	G	Water	LAB-SBW-20C	12/14/20	1307	G	Water	<table border="1"> <thead> <tr> <th>Perform MS/MSD (Yes or No)</th> <th>9056A_28D - Chloride & Sulfate</th> <th>RSK_175 - Methane, Ethane, Ethene</th> <th>8260C - TCL VOCs + TICs</th> <th>SM4500_S2.F - Sulfide</th> <th>353_2_353_2_Nitrite, Nitrate, Calc</th> <th>3500_FE_D - Ferrous Iron</th> </tr> </thead> <tbody> <tr> <td><input checked="" type="checkbox"/></td> <td><input checked="" type="checkbox"/></td> <td><input checked="" type="checkbox"/></td> <td><input checked="" type="checkbox"/></td> <td><input checked="" type="checkbox"/></td> <td><input checked="" type="checkbox"/></td> <td><input checked="" type="checkbox"/></td> </tr> <tr> <td><input checked="" type="checkbox"/></td> <td><input checked="" type="checkbox"/></td> <td><input checked="" type="checkbox"/></td> <td><input checked="" type="checkbox"/></td> <td><input checked="" type="checkbox"/></td> <td><input checked="" type="checkbox"/></td> <td><input checked="" type="checkbox"/></td> </tr> </tbody> </table>		Perform MS/MSD (Yes or No)	9056A_28D - Chloride & Sulfate	RSK_175 - Methane, Ethane, Ethene	8260C - TCL VOCs + TICs	SM4500_S2.F - Sulfide	353_2_353_2_Nitrite, Nitrate, Calc	3500_FE_D - Ferrous Iron	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
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<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>																																	
Possible Hazard Identification <input type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown <input type="checkbox"/> Radiological		Deliverable Requested: I, II, III, IV, Other (specify)		Sample Disposal (A fee may be assessed if samples are retained longer than 1 month) <input type="checkbox"/> Return To Client <input type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months																																			
Empty Kit Relinquished by: <i>[Signature]</i> Date: 12/15/2020 800		Relinquished by: <i>[Signature]</i> Date: 12/16/20 800		Method of Shipment:																																			
Relinquished by: <i>[Signature]</i> Date: 12/16/20 800		Relinquished by: <i>[Signature]</i> Date: 12/16/20 800		Company: TARD																																			
Custody Seals Intact: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		Custody Seal No.: 2, 3 #1		Cooler Temperature(s) °C and Other Remarks:																																			



Login Sample Receipt Checklist

Client: LaBella Associates DPC

Job Number: 480-179432-1

Login Number: 179432

List Number: 1

Creator: Stopa, Erik S

List Source: Eurofins TestAmerica, Buffalo

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	
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	LABELLA
Samples received within 48 hours of sampling.	True	
Samples requiring field filtration have been filtered in the field.	N/A	
Chlorine Residual checked.	N/A	



ANALYTICAL REPORT

Eurofins TestAmerica, Buffalo
10 Hazelwood Drive
Amherst, NY 14228-2298
Tel: (716)691-2600

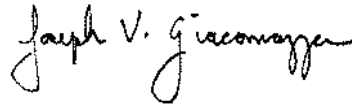
Laboratory Job ID: 480-175602-1

Client Project/Site: Former Emerson Street Landfill Project

For:

LaBella Associates DPC
300 State Street
Suite 201
Rochester, New York 14614

Attn: Ann Aquilina Barber



Authorized for release by:
9/25/2020 4:05:57 PM

Joe Giacomazza, Project Manager I
joe.giacomazza@testamericainc.com

Designee for

Brian Fischer, Manager of Project Management
(716)504-9835

Brian.Fischer@Eurofinset.com

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The test results in this report meet all 2003 NELAC, 2009 TNI, and 2016 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

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.



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Definitions/Glossary

Client: LaBella Associates DPC
Project/Site: Former Emerson Street Landfill Project

Job ID: 480-175602-1

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

GC/MS VOA TICs

Qualifier	Qualifier Description
J	Indicates an Estimated Value for TICs
T	Result is a tentatively identified compound (TIC) and an estimated value.

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

Case Narrative

Client: LaBella Associates DPC
Project/Site: Former Emerson Street Landfill Project

Job ID: 480-175602-1

Job ID: 480-175602-1

Laboratory: Eurofins TestAmerica, Buffalo

Narrative

Job Narrative 480-175602-1

Comments

No additional comments.

Receipt

The samples were received on 9/24/2020 10:30 AM; the samples arrived in good condition, and where required, properly preserved and on ice. The temperature of the cooler at receipt was 2.4° C.

GC/MS VOA

Method 8260C: The continuing calibration verification (CCVIS) associated with batch 480-551230 recovered above the upper control limit for Carbon tetrachloride and Methylcyclohexane. The samples associated with this CCVIS were non-detect or below the reporting limit (RL) for the affected analytes; therefore, the data have been reported. The associated samples are impacted: LAB-SBW-03 (480-175602-1), LAB-SBW-07 (480-175602-2) and TRIP BLANK-01 (480-175602-3).

Method 8260C: The continuing calibration verification (CCVIS) associated with batch 480-551230 recovered above the upper control limit for 1,1,2-Trichloro-1,2,2-trifluoroethane. The sample associated with this CCVIS was non-detect for the affected analyte; therefore, the data have been reported. The associated sample is impacted: TRIP BLANK-01 (480-175602-3).

Method 8260C: The continuing calibration verification (CCVIS) analyzed in 480-551230 was outside the method criteria for the following analyte: 1,1,2-Trichloro-1,2,2-trifluoroethane. As indicated in the reference method, sample analysis may proceed; however, any detection for the affected analyte is considered estimated. The associated samples are: LAB-SBW-03 (480-175602-1) and LAB-SBW-07 (480-175602-2).

Method 8260C: The following samples were diluted to bring the concentration of target analytes within the calibration range: LAB-SBW-03 (480-175602-1) and LAB-SBW-07 (480-175602-2). Elevated reporting limits (RLs) are provided.

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

Detection Summary

Client: LaBella Associates DPC
 Project/Site: Former Emerson Street Landfill Project

Job ID: 480-175602-1

Client Sample ID: LAB-SBW-03

Lab Sample ID: 480-175602-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1,1-Trichloroethane	17		5.0	4.1	ug/L	5		8260C	Total/NA
1,1,2-Trichloro-1,2,2-trifluoroethane	33		5.0	1.6	ug/L	5		8260C	Total/NA
1,1-Dichloroethane	26		5.0	1.9	ug/L	5		8260C	Total/NA
Benzene	4.2	J	5.0	2.1	ug/L	5		8260C	Total/NA
Chloroethane	12		5.0	1.6	ug/L	5		8260C	Total/NA
cis-1,2-Dichloroethene	110		5.0	4.1	ug/L	5		8260C	Total/NA
Methylene Chloride	3.6	J	5.0	2.2	ug/L	5		8260C	Total/NA
Tetrachloroethene	2.0	J	5.0	1.8	ug/L	5		8260C	Total/NA
Toluene	3.1	J	5.0	2.6	ug/L	5		8260C	Total/NA
Vinyl chloride	26		5.0	4.5	ug/L	5		8260C	Total/NA

Client Sample ID: LAB-SBW-07

Lab Sample ID: 480-175602-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1,1-Trichloroethane	380		20	16	ug/L	20		8260C	Total/NA
1,1,2-Trichloro-1,2,2-trifluoroethane	490		20	6.2	ug/L	20		8260C	Total/NA
1,1-Dichloroethane	690		20	7.6	ug/L	20		8260C	Total/NA
1,1-Dichloroethene	18	J	20	5.8	ug/L	20		8260C	Total/NA
Benzene	12	J	20	8.2	ug/L	20		8260C	Total/NA
Chloroethane	28		20	6.4	ug/L	20		8260C	Total/NA
cis-1,2-Dichloroethene	880		20	16	ug/L	20		8260C	Total/NA
Ethylbenzene	23		20	15	ug/L	20		8260C	Total/NA
Methylcyclohexane	7.5	J	20	3.2	ug/L	20		8260C	Total/NA
Methylene Chloride	11	J	20	8.8	ug/L	20		8260C	Total/NA
Tetrachloroethene	8.5	J	20	7.2	ug/L	20		8260C	Total/NA
Toluene	130		20	10	ug/L	20		8260C	Total/NA
Trichloroethene	35		20	9.2	ug/L	20		8260C	Total/NA
Vinyl chloride	490		20	18	ug/L	20		8260C	Total/NA
Xylenes, Total	120		40	13	ug/L	20		8260C	Total/NA

Client Sample ID: TRIP BLANK-01

Lab Sample ID: 480-175602-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Methylene Chloride	0.58	J	1.0	0.44	ug/L	1		8260C	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins TestAmerica, Buffalo

Client Sample Results

Client: LaBella Associates DPC
 Project/Site: Former Emerson Street Landfill Project

Job ID: 480-175602-1

Client Sample ID: LAB-SBW-03

Lab Sample ID: 480-175602-1

Date Collected: 09/23/20 13:40

Matrix: Water

Date Received: 09/24/20 10:30

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	17		5.0	4.1	ug/L			09/25/20 14:46	5
1,1,2,2-Tetrachloroethane	ND		5.0	1.1	ug/L			09/25/20 14:46	5
1,1,2-Trichloroethane	ND		5.0	1.2	ug/L			09/25/20 14:46	5
1,1,2-Trichloro-1,2,2-trifluoroethane	33		5.0	1.6	ug/L			09/25/20 14:46	5
1,1-Dichloroethane	26		5.0	1.9	ug/L			09/25/20 14:46	5
1,1-Dichloroethene	ND		5.0	1.5	ug/L			09/25/20 14:46	5
1,2,4-Trichlorobenzene	ND		5.0	2.1	ug/L			09/25/20 14:46	5
1,2-Dibromo-3-Chloropropane	ND		5.0	2.0	ug/L			09/25/20 14:46	5
1,2-Dichlorobenzene	ND		5.0	4.0	ug/L			09/25/20 14:46	5
1,2-Dichloroethane	ND		5.0	1.1	ug/L			09/25/20 14:46	5
1,2-Dichloropropane	ND		5.0	3.6	ug/L			09/25/20 14:46	5
1,3-Dichlorobenzene	ND		5.0	3.9	ug/L			09/25/20 14:46	5
1,4-Dichlorobenzene	ND		5.0	4.2	ug/L			09/25/20 14:46	5
2-Butanone (MEK)	ND		50	6.6	ug/L			09/25/20 14:46	5
2-Hexanone	ND		25	6.2	ug/L			09/25/20 14:46	5
4-Methyl-2-pentanone (MIBK)	ND		25	11	ug/L			09/25/20 14:46	5
Acetone	ND		50	15	ug/L			09/25/20 14:46	5
Benzene	4.2 J		5.0	2.1	ug/L			09/25/20 14:46	5
Bromodichloromethane	ND		5.0	2.0	ug/L			09/25/20 14:46	5
Bromoform	ND		5.0	1.3	ug/L			09/25/20 14:46	5
Bromomethane	ND		5.0	3.5	ug/L			09/25/20 14:46	5
Carbon disulfide	ND		5.0	0.95	ug/L			09/25/20 14:46	5
Carbon tetrachloride	ND		5.0	1.4	ug/L			09/25/20 14:46	5
Chlorobenzene	ND		5.0	3.8	ug/L			09/25/20 14:46	5
Dibromochloromethane	ND		5.0	1.6	ug/L			09/25/20 14:46	5
Chloroethane	12		5.0	1.6	ug/L			09/25/20 14:46	5
Chloroform	ND		5.0	1.7	ug/L			09/25/20 14:46	5
Chloromethane	ND		5.0	1.8	ug/L			09/25/20 14:46	5
cis-1,2-Dichloroethene	110		5.0	4.1	ug/L			09/25/20 14:46	5
cis-1,3-Dichloropropene	ND		5.0	1.8	ug/L			09/25/20 14:46	5
Cyclohexane	ND		5.0	0.90	ug/L			09/25/20 14:46	5
Dichlorodifluoromethane	ND		5.0	3.4	ug/L			09/25/20 14:46	5
Ethylbenzene	ND		5.0	3.7	ug/L			09/25/20 14:46	5
1,2-Dibromoethane	ND		5.0	3.7	ug/L			09/25/20 14:46	5
Isopropylbenzene	ND		5.0	4.0	ug/L			09/25/20 14:46	5
Methyl acetate	ND		13	6.5	ug/L			09/25/20 14:46	5
Methyl tert-butyl ether	ND		5.0	0.80	ug/L			09/25/20 14:46	5
Methylcyclohexane	ND		5.0	0.80	ug/L			09/25/20 14:46	5
Methylene Chloride	3.6 J		5.0	2.2	ug/L			09/25/20 14:46	5
Styrene	ND		5.0	3.7	ug/L			09/25/20 14:46	5
Tetrachloroethene	2.0 J		5.0	1.8	ug/L			09/25/20 14:46	5
Toluene	3.1 J		5.0	2.6	ug/L			09/25/20 14:46	5
trans-1,2-Dichloroethene	ND		5.0	4.5	ug/L			09/25/20 14:46	5
trans-1,3-Dichloropropene	ND		5.0	1.9	ug/L			09/25/20 14:46	5
Trichloroethene	ND		5.0	2.3	ug/L			09/25/20 14:46	5
Trichlorofluoromethane	ND		5.0	4.4	ug/L			09/25/20 14:46	5
Vinyl chloride	26		5.0	4.5	ug/L			09/25/20 14:46	5
Xylenes, Total	ND		10	3.3	ug/L			09/25/20 14:46	5

Client Sample Results

Client: LaBella Associates DPC
 Project/Site: Former Emerson Street Landfill Project

Job ID: 480-175602-1

Client Sample ID: LAB-SBW-03

Lab Sample ID: 480-175602-1

Date Collected: 09/23/20 13:40

Matrix: Water

Date Received: 09/24/20 10:30

Tentatively Identified Compound	Est. Result	Qualifier	Unit	D	RT	CAS No.	Prepared	Analyzed	Dil Fac
Tentatively Identified Compound	None		ug/L					09/25/20 14:46	5
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	102		80 - 120					09/25/20 14:46	5
1,2-Dichloroethane-d4 (Surr)	109		77 - 120					09/25/20 14:46	5
4-Bromofluorobenzene (Surr)	101		73 - 120					09/25/20 14:46	5
Dibromofluoromethane (Surr)	105		75 - 123					09/25/20 14:46	5

Client Sample ID: LAB-SBW-07

Lab Sample ID: 480-175602-2

Date Collected: 09/23/20 15:10

Matrix: Water

Date Received: 09/24/20 10:30

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	380		20	16	ug/L			09/25/20 15:10	20
1,1,1,2-Tetrachloroethane	ND		20	4.2	ug/L			09/25/20 15:10	20
1,1,2-Trichloroethane	ND		20	4.6	ug/L			09/25/20 15:10	20
1,1,2-Trichloro-1,2,2-trifluoroethane	490		20	6.2	ug/L			09/25/20 15:10	20
1,1-Dichloroethane	690		20	7.6	ug/L			09/25/20 15:10	20
1,1-Dichloroethene	18 J		20	5.8	ug/L			09/25/20 15:10	20
1,2,4-Trichlorobenzene	ND		20	8.2	ug/L			09/25/20 15:10	20
1,2-Dibromo-3-Chloropropane	ND		20	7.8	ug/L			09/25/20 15:10	20
1,2-Dichlorobenzene	ND		20	16	ug/L			09/25/20 15:10	20
1,2-Dichloroethane	ND		20	4.2	ug/L			09/25/20 15:10	20
1,2-Dichloropropane	ND		20	14	ug/L			09/25/20 15:10	20
1,3-Dichlorobenzene	ND		20	16	ug/L			09/25/20 15:10	20
1,4-Dichlorobenzene	ND		20	17	ug/L			09/25/20 15:10	20
2-Butanone (MEK)	ND		200	26	ug/L			09/25/20 15:10	20
2-Hexanone	ND		100	25	ug/L			09/25/20 15:10	20
4-Methyl-2-pentanone (MIBK)	ND		100	42	ug/L			09/25/20 15:10	20
Acetone	ND		200	60	ug/L			09/25/20 15:10	20
Benzene	12 J		20	8.2	ug/L			09/25/20 15:10	20
Bromodichloromethane	ND		20	7.8	ug/L			09/25/20 15:10	20
Bromoform	ND		20	5.2	ug/L			09/25/20 15:10	20
Bromomethane	ND		20	14	ug/L			09/25/20 15:10	20
Carbon disulfide	ND		20	3.8	ug/L			09/25/20 15:10	20
Carbon tetrachloride	ND		20	5.4	ug/L			09/25/20 15:10	20
Chlorobenzene	ND		20	15	ug/L			09/25/20 15:10	20
Dibromochloromethane	ND		20	6.4	ug/L			09/25/20 15:10	20
Chloroethane	28		20	6.4	ug/L			09/25/20 15:10	20
Chloroform	ND		20	6.8	ug/L			09/25/20 15:10	20
Chloromethane	ND		20	7.0	ug/L			09/25/20 15:10	20
cis-1,2-Dichloroethene	880		20	16	ug/L			09/25/20 15:10	20
cis-1,3-Dichloropropene	ND		20	7.2	ug/L			09/25/20 15:10	20
Cyclohexane	ND		20	3.6	ug/L			09/25/20 15:10	20
Dichlorodifluoromethane	ND		20	14	ug/L			09/25/20 15:10	20
Ethylbenzene	23		20	15	ug/L			09/25/20 15:10	20
1,2-Dibromoethane	ND		20	15	ug/L			09/25/20 15:10	20
Isopropylbenzene	ND		20	16	ug/L			09/25/20 15:10	20
Methyl acetate	ND		50	26	ug/L			09/25/20 15:10	20

Eurofins TestAmerica, Buffalo

Client Sample Results

Client: LaBella Associates DPC
 Project/Site: Former Emerson Street Landfill Project

Job ID: 480-175602-1

Client Sample ID: LAB-SBW-07

Lab Sample ID: 480-175602-2

Date Collected: 09/23/20 15:10

Matrix: Water

Date Received: 09/24/20 10:30

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methyl tert-butyl ether	ND		20	3.2	ug/L			09/25/20 15:10	20
Methylcyclohexane	7.5	J	20	3.2	ug/L			09/25/20 15:10	20
Methylene Chloride	11	J	20	8.8	ug/L			09/25/20 15:10	20
Styrene	ND		20	15	ug/L			09/25/20 15:10	20
Tetrachloroethene	8.5	J	20	7.2	ug/L			09/25/20 15:10	20
Toluene	130		20	10	ug/L			09/25/20 15:10	20
trans-1,2-Dichloroethene	ND		20	18	ug/L			09/25/20 15:10	20
trans-1,3-Dichloropropene	ND		20	7.4	ug/L			09/25/20 15:10	20
Trichloroethene	35		20	9.2	ug/L			09/25/20 15:10	20
Trichlorofluoromethane	ND		20	18	ug/L			09/25/20 15:10	20
Vinyl chloride	490		20	18	ug/L			09/25/20 15:10	20
Xylenes, Total	120		40	13	ug/L			09/25/20 15:10	20
Tentatively Identified Compound	Est. Result	Qualifier	Unit	D	RT	CAS No.	Prepared	Analyzed	Dil Fac
Unknown	51	T J	ug/L		2.71			09/25/20 15:10	20
m-Xylene & p-Xylene	84		ug/L		8.95	179601-23-1		09/25/20 15:10	20
o-Xylene	32		ug/L		9.38	95-47-6		09/25/20 15:10	20
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	100		80 - 120					09/25/20 15:10	20
1,2-Dichloroethane-d4 (Surr)	112		77 - 120					09/25/20 15:10	20
4-Bromofluorobenzene (Surr)	102		73 - 120					09/25/20 15:10	20
Dibromofluoromethane (Surr)	103		75 - 123					09/25/20 15:10	20

Client Sample ID: TRIP BLANK-01

Lab Sample ID: 480-175602-3

Date Collected: 09/23/20 00:00

Matrix: Water

Date Received: 09/24/20 10:30

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		1.0	0.82	ug/L			09/25/20 14:22	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.21	ug/L			09/25/20 14:22	1
1,1,2-Trichloroethane	ND		1.0	0.23	ug/L			09/25/20 14:22	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.0	0.31	ug/L			09/25/20 14:22	1
1,1-Dichloroethane	ND		1.0	0.38	ug/L			09/25/20 14:22	1
1,1-Dichloroethene	ND		1.0	0.29	ug/L			09/25/20 14:22	1
1,2,4-Trichlorobenzene	ND		1.0	0.41	ug/L			09/25/20 14:22	1
1,2-Dibromo-3-Chloropropane	ND		1.0	0.39	ug/L			09/25/20 14:22	1
1,2-Dichlorobenzene	ND		1.0	0.79	ug/L			09/25/20 14:22	1
1,2-Dichloroethane	ND		1.0	0.21	ug/L			09/25/20 14:22	1
1,2-Dichloropropane	ND		1.0	0.72	ug/L			09/25/20 14:22	1
1,3-Dichlorobenzene	ND		1.0	0.78	ug/L			09/25/20 14:22	1
1,4-Dichlorobenzene	ND		1.0	0.84	ug/L			09/25/20 14:22	1
2-Butanone (MEK)	ND		10	1.3	ug/L			09/25/20 14:22	1
2-Hexanone	ND		5.0	1.2	ug/L			09/25/20 14:22	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	2.1	ug/L			09/25/20 14:22	1
Acetone	ND		10	3.0	ug/L			09/25/20 14:22	1
Benzene	ND		1.0	0.41	ug/L			09/25/20 14:22	1
Bromodichloromethane	ND		1.0	0.39	ug/L			09/25/20 14:22	1
Bromoform	ND		1.0	0.26	ug/L			09/25/20 14:22	1

Eurofins TestAmerica, Buffalo

Client Sample Results

Client: LaBella Associates DPC
 Project/Site: Former Emerson Street Landfill Project

Job ID: 480-175602-1

Client Sample ID: TRIP BLANK-01

Lab Sample ID: 480-175602-3

Date Collected: 09/23/20 00:00

Matrix: Water

Date Received: 09/24/20 10:30

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bromomethane	ND		1.0	0.69	ug/L			09/25/20 14:22	1
Carbon disulfide	ND		1.0	0.19	ug/L			09/25/20 14:22	1
Carbon tetrachloride	ND		1.0	0.27	ug/L			09/25/20 14:22	1
Chlorobenzene	ND		1.0	0.75	ug/L			09/25/20 14:22	1
Dibromochloromethane	ND		1.0	0.32	ug/L			09/25/20 14:22	1
Chloroethane	ND		1.0	0.32	ug/L			09/25/20 14:22	1
Chloroform	ND		1.0	0.34	ug/L			09/25/20 14:22	1
Chloromethane	ND		1.0	0.35	ug/L			09/25/20 14:22	1
cis-1,2-Dichloroethene	ND		1.0	0.81	ug/L			09/25/20 14:22	1
cis-1,3-Dichloropropene	ND		1.0	0.36	ug/L			09/25/20 14:22	1
Cyclohexane	ND		1.0	0.18	ug/L			09/25/20 14:22	1
Dichlorodifluoromethane	ND		1.0	0.68	ug/L			09/25/20 14:22	1
Ethylbenzene	ND		1.0	0.74	ug/L			09/25/20 14:22	1
1,2-Dibromoethane	ND		1.0	0.73	ug/L			09/25/20 14:22	1
Isopropylbenzene	ND		1.0	0.79	ug/L			09/25/20 14:22	1
Methyl acetate	ND		2.5	1.3	ug/L			09/25/20 14:22	1
Methyl tert-butyl ether	ND		1.0	0.16	ug/L			09/25/20 14:22	1
Methylcyclohexane	ND		1.0	0.16	ug/L			09/25/20 14:22	1
Methylene Chloride	0.58	J	1.0	0.44	ug/L			09/25/20 14:22	1
Styrene	ND		1.0	0.73	ug/L			09/25/20 14:22	1
Tetrachloroethene	ND		1.0	0.36	ug/L			09/25/20 14:22	1
Toluene	ND		1.0	0.51	ug/L			09/25/20 14:22	1
trans-1,2-Dichloroethene	ND		1.0	0.90	ug/L			09/25/20 14:22	1
trans-1,3-Dichloropropene	ND		1.0	0.37	ug/L			09/25/20 14:22	1
Trichloroethene	ND		1.0	0.46	ug/L			09/25/20 14:22	1
Trichlorofluoromethane	ND		1.0	0.88	ug/L			09/25/20 14:22	1
Vinyl chloride	ND		1.0	0.90	ug/L			09/25/20 14:22	1
Xylenes, Total	ND		2.0	0.66	ug/L			09/25/20 14:22	1

Tentatively Identified Compound	Est. Result	Qualifier	Unit	D	RT	CAS No.	Prepared	Analyzed	Dil Fac
Tentatively Identified Compound	None		ug/L					09/25/20 14:22	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	99		80 - 120		09/25/20 14:22	1
1,2-Dichloroethane-d4 (Surr)	117		77 - 120		09/25/20 14:22	1
4-Bromofluorobenzene (Surr)	99		73 - 120		09/25/20 14:22	1
Dibromofluoromethane (Surr)	107		75 - 123		09/25/20 14:22	1

Surrogate Summary

Client: LaBella Associates DPC
Project/Site: Former Emerson Street Landfill Project

Job ID: 480-175602-1

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

Matrix: Water

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)			
		TOL (80-120)	DCA (77-120)	BFB (73-120)	DBFM (75-123)
480-175602-1	LAB-SBW-03	102	109	101	105
480-175602-2	LAB-SBW-07	100	112	102	103
480-175602-3	TRIP BLANK-01	99	117	99	107
LCS 480-551230/5	Lab Control Sample	102	107	103	102
MB 480-551230/7	Method Blank	101	111	101	103

Surrogate Legend

TOL = Toluene-d8 (Surr)

DCA = 1,2-Dichloroethane-d4 (Surr)

BFB = 4-Bromofluorobenzene (Surr)

DBFM = Dibromofluoromethane (Surr)

QC Sample Results

Client: LaBella Associates DPC
 Project/Site: Former Emerson Street Landfill Project

Job ID: 480-175602-1

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

Lab Sample ID: MB 480-551230/7

Matrix: Water

Analysis Batch: 551230

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
1,1,1-Trichloroethane	ND		1.0	0.82	ug/L			09/25/20 13:48	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.21	ug/L			09/25/20 13:48	1
1,1,2-Trichloroethane	ND		1.0	0.23	ug/L			09/25/20 13:48	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.0	0.31	ug/L			09/25/20 13:48	1
1,1-Dichloroethane	ND		1.0	0.38	ug/L			09/25/20 13:48	1
1,1-Dichloroethene	ND		1.0	0.29	ug/L			09/25/20 13:48	1
1,2,4-Trichlorobenzene	ND		1.0	0.41	ug/L			09/25/20 13:48	1
1,2-Dibromo-3-Chloropropane	ND		1.0	0.39	ug/L			09/25/20 13:48	1
1,2-Dichlorobenzene	ND		1.0	0.79	ug/L			09/25/20 13:48	1
1,2-Dichloroethane	ND		1.0	0.21	ug/L			09/25/20 13:48	1
1,2-Dichloropropane	ND		1.0	0.72	ug/L			09/25/20 13:48	1
1,3-Dichlorobenzene	ND		1.0	0.78	ug/L			09/25/20 13:48	1
1,4-Dichlorobenzene	ND		1.0	0.84	ug/L			09/25/20 13:48	1
2-Butanone (MEK)	ND		10	1.3	ug/L			09/25/20 13:48	1
2-Hexanone	ND		5.0	1.2	ug/L			09/25/20 13:48	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	2.1	ug/L			09/25/20 13:48	1
Acetone	ND		10	3.0	ug/L			09/25/20 13:48	1
Benzene	ND		1.0	0.41	ug/L			09/25/20 13:48	1
Bromodichloromethane	ND		1.0	0.39	ug/L			09/25/20 13:48	1
Bromoform	ND		1.0	0.26	ug/L			09/25/20 13:48	1
Bromomethane	ND		1.0	0.69	ug/L			09/25/20 13:48	1
Carbon disulfide	ND		1.0	0.19	ug/L			09/25/20 13:48	1
Carbon tetrachloride	ND		1.0	0.27	ug/L			09/25/20 13:48	1
Chlorobenzene	ND		1.0	0.75	ug/L			09/25/20 13:48	1
Dibromochloromethane	ND		1.0	0.32	ug/L			09/25/20 13:48	1
Chloroethane	ND		1.0	0.32	ug/L			09/25/20 13:48	1
Chloroform	ND		1.0	0.34	ug/L			09/25/20 13:48	1
Chloromethane	ND		1.0	0.35	ug/L			09/25/20 13:48	1
cis-1,2-Dichloroethene	ND		1.0	0.81	ug/L			09/25/20 13:48	1
cis-1,3-Dichloropropene	ND		1.0	0.36	ug/L			09/25/20 13:48	1
Cyclohexane	ND		1.0	0.18	ug/L			09/25/20 13:48	1
Dichlorodifluoromethane	ND		1.0	0.68	ug/L			09/25/20 13:48	1
Ethylbenzene	ND		1.0	0.74	ug/L			09/25/20 13:48	1
1,2-Dibromoethane	ND		1.0	0.73	ug/L			09/25/20 13:48	1
Isopropylbenzene	ND		1.0	0.79	ug/L			09/25/20 13:48	1
Methyl acetate	ND		2.5	1.3	ug/L			09/25/20 13:48	1
Methyl tert-butyl ether	ND		1.0	0.16	ug/L			09/25/20 13:48	1
Methylcyclohexane	ND		1.0	0.16	ug/L			09/25/20 13:48	1
Methylene Chloride	ND		1.0	0.44	ug/L			09/25/20 13:48	1
Styrene	ND		1.0	0.73	ug/L			09/25/20 13:48	1
Tetrachloroethene	ND		1.0	0.36	ug/L			09/25/20 13:48	1
Toluene	ND		1.0	0.51	ug/L			09/25/20 13:48	1
trans-1,2-Dichloroethene	ND		1.0	0.90	ug/L			09/25/20 13:48	1
trans-1,3-Dichloropropene	ND		1.0	0.37	ug/L			09/25/20 13:48	1
Trichloroethene	ND		1.0	0.46	ug/L			09/25/20 13:48	1
Trichlorofluoromethane	ND		1.0	0.88	ug/L			09/25/20 13:48	1
Vinyl chloride	ND		1.0	0.90	ug/L			09/25/20 13:48	1
Xylenes, Total	ND		2.0	0.66	ug/L			09/25/20 13:48	1

Eurofins TestAmerica, Buffalo

QC Sample Results

Client: LaBella Associates DPC
 Project/Site: Former Emerson Street Landfill Project

Job ID: 480-175602-1

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

Lab Sample ID: MB 480-551230/7

Matrix: Water

Analysis Batch: 551230

Client Sample ID: Method Blank

Prep Type: Total/NA

<i>Tentatively Identified Compound</i>	<i>Est. Result</i>	<i>Qualifier</i>	<i>Unit</i>	<i>D</i>	<i>RT</i>	<i>CAS No.</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Dil Fac</i>
<i>Tentatively Identified Compound</i>	<i>None</i>		<i>ug/L</i>					<i>09/25/20 13:48</i>	<i>1</i>

<i>Surrogate</i>	<i>%Recovery</i>	<i>Qualifier</i>	<i>Limits</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Dil Fac</i>
<i>Toluene-d8 (Surr)</i>	<i>101</i>		<i>80 - 120</i>		<i>09/25/20 13:48</i>	<i>1</i>
<i>1,2-Dichloroethane-d4 (Surr)</i>	<i>111</i>		<i>77 - 120</i>		<i>09/25/20 13:48</i>	<i>1</i>
<i>4-Bromofluorobenzene (Surr)</i>	<i>101</i>		<i>73 - 120</i>		<i>09/25/20 13:48</i>	<i>1</i>
<i>Dibromofluoromethane (Surr)</i>	<i>103</i>		<i>75 - 123</i>		<i>09/25/20 13:48</i>	<i>1</i>

Lab Sample ID: LCS 480-551230/5

Matrix: Water

Analysis Batch: 551230

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

<i>Analyte</i>	<i>Spike Added</i>	<i>LCS Result</i>	<i>LCS Qualifier</i>	<i>Unit</i>	<i>D</i>	<i>%Rec</i>	<i>%Rec. Limits</i>
1,1,1-Trichloroethane	25.0	25.2		ug/L		101	73 - 126
1,1,2,2-Tetrachloroethane	25.0	24.4		ug/L		98	76 - 120
1,1,2-Trichloroethane	25.0	24.9		ug/L		99	76 - 122
1,1,2-Trichloro-1,2,2-trifluoroethane	25.0	28.1		ug/L		112	61 - 148
1,1-Dichloroethane	25.0	24.3		ug/L		97	77 - 120
1,1-Dichloroethene	25.0	24.9		ug/L		100	66 - 127
1,2,4-Trichlorobenzene	25.0	25.5		ug/L		102	79 - 122
1,2-Dibromo-3-Chloropropane	25.0	26.9		ug/L		108	56 - 134
1,2-Dichlorobenzene	25.0	25.1		ug/L		100	80 - 124
1,2-Dichloroethane	25.0	25.4		ug/L		102	75 - 120
1,2-Dichloropropane	25.0	24.6		ug/L		98	76 - 120
1,3-Dichlorobenzene	25.0	25.5		ug/L		102	77 - 120
1,4-Dichlorobenzene	25.0	25.2		ug/L		101	80 - 120
2-Butanone (MEK)	125	135		ug/L		108	57 - 140
2-Hexanone	125	130		ug/L		104	65 - 127
4-Methyl-2-pentanone (MIBK)	125	126		ug/L		101	71 - 125
Acetone	125	139		ug/L		111	56 - 142
Benzene	25.0	24.3		ug/L		97	71 - 124
Bromodichloromethane	25.0	26.0		ug/L		104	80 - 122
Bromoform	25.0	27.4		ug/L		110	61 - 132
Bromomethane	25.0	20.3		ug/L		81	55 - 144
Carbon disulfide	25.0	23.3		ug/L		93	59 - 134
Carbon tetrachloride	25.0	27.1		ug/L		109	72 - 134
Chlorobenzene	25.0	25.0		ug/L		100	80 - 120
Dibromochloromethane	25.0	27.8		ug/L		111	75 - 125
Chloroethane	25.0	20.8		ug/L		83	69 - 136
Chloroform	25.0	23.9		ug/L		96	73 - 127
Chloromethane	25.0	18.3		ug/L		73	68 - 124
cis-1,2-Dichloroethene	25.0	24.5		ug/L		98	74 - 124
cis-1,3-Dichloropropene	25.0	26.1		ug/L		104	74 - 124
Cyclohexane	25.0	25.9		ug/L		104	59 - 135
Dichlorodifluoromethane	25.0	19.1		ug/L		77	59 - 135
Ethylbenzene	25.0	25.1		ug/L		100	77 - 123
1,2-Dibromoethane	25.0	24.7		ug/L		99	77 - 120

Eurofins TestAmerica, Buffalo

QC Sample Results

Client: LaBella Associates DPC
 Project/Site: Former Emerson Street Landfill Project

Job ID: 480-175602-1

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

Lab Sample ID: LCS 480-551230/5

Matrix: Water

Analysis Batch: 551230

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS	LCS	Unit	D	%Rec	%Rec. Limits
		Result	Qualifier				
Isopropylbenzene	25.0	26.3		ug/L		105	77 - 122
Methyl acetate	50.0	46.9		ug/L		94	74 - 133
Methyl tert-butyl ether	25.0	24.4		ug/L		98	77 - 120
Methylcyclohexane	25.0	27.4		ug/L		110	68 - 134
Methylene Chloride	25.0	22.7		ug/L		91	75 - 124
Styrene	25.0	26.0		ug/L		104	80 - 120
Tetrachloroethene	25.0	26.0		ug/L		104	74 - 122
Toluene	25.0	24.4		ug/L		98	80 - 122
trans-1,2-Dichloroethene	25.0	23.6		ug/L		94	73 - 127
trans-1,3-Dichloropropene	25.0	26.5		ug/L		106	80 - 120
Trichloroethene	25.0	24.2		ug/L		97	74 - 123
Trichlorofluoromethane	25.0	25.0		ug/L		100	62 - 150
Vinyl chloride	25.0	20.2		ug/L		81	65 - 133

Surrogate	LCS LCS		Limits
	%Recovery	Qualifier	
Toluene-d8 (Surr)	102		80 - 120
1,2-Dichloroethane-d4 (Surr)	107		77 - 120
4-Bromofluorobenzene (Surr)	103		73 - 120
Dibromofluoromethane (Surr)	102		75 - 123

QC Association Summary

Client: LaBella Associates DPC
Project/Site: Former Emerson Street Landfill Project

Job ID: 480-175602-1

GC/MS VOA

Analysis Batch: 551230

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-175602-1	LAB-SBW-03	Total/NA	Water	8260C	
480-175602-2	LAB-SBW-07	Total/NA	Water	8260C	
480-175602-3	TRIP BLANK-01	Total/NA	Water	8260C	
MB 480-551230/7	Method Blank	Total/NA	Water	8260C	
LCS 480-551230/5	Lab Control Sample	Total/NA	Water	8260C	

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Lab Chronicle

Client: LaBella Associates DPC
Project/Site: Former Emerson Street Landfill Project

Job ID: 480-175602-1

Client Sample ID: LAB-SBW-03

Lab Sample ID: 480-175602-1

Date Collected: 09/23/20 13:40

Matrix: Water

Date Received: 09/24/20 10:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		5	551230	09/25/20 14:46	WJD	TAL BUF

Client Sample ID: LAB-SBW-07

Lab Sample ID: 480-175602-2

Date Collected: 09/23/20 15:10

Matrix: Water

Date Received: 09/24/20 10:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		20	551230	09/25/20 15:10	WJD	TAL BUF

Client Sample ID: TRIP BLANK-01

Lab Sample ID: 480-175602-3

Date Collected: 09/23/20 00:00

Matrix: Water

Date Received: 09/24/20 10:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	551230	09/25/20 14:22	WJD	TAL BUF

Laboratory References:

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

Accreditation/Certification Summary

Client: LaBella Associates DPC
Project/Site: Former Emerson Street Landfill Project

Job ID: 480-175602-1

Laboratory: Eurofins TestAmerica, Buffalo

The accreditations/certifications listed below are applicable to this report.

Authority	Program	Identification Number	Expiration Date
New York	NELAP	10026	04-01-21

- 1
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- 12
- 13
- 14
- 15

Method Summary

Client: LaBella Associates DPC
Project/Site: Former Emerson Street Landfill Project

Job ID: 480-175602-1

Method	Method Description	Protocol	Laboratory
8260C	Volatile Organic Compounds by GC/MS	SW846	TAL BUF
5030C	Purge and Trap	SW846	TAL BUF

Protocol References:

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

Laboratory References:

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



Sample Summary

Client: LaBella Associates DPC
Project/Site: Former Emerson Street Landfill Project

Job ID: 480-175602-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
480-175602-1	LAB-SBW-03	Water	09/23/20 13:40	09/24/20 10:30	
480-175602-2	LAB-SBW-07	Water	09/23/20 15:10	09/24/20 10:30	
480-175602-3	TRIP BLANK-01	Water	09/23/20 00:00	09/24/20 10:30	

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Westborough, MA 01581
8 Walkup Dr.
TEL: 508-898-9220
FAX: 508-898-9193

NEW YORK CHAIN OF CUSTODY

Mansfield, MA 02048
320 Forbes Blvd
TEL: 508-822-9300
FAX: 508-822-3288

Service Centers
Mahwah, NJ 07430, 35 Whitney Rd, Suite 5
Albany, NY 12205, 14 Walker Way
Tonawanda, NY 14150, 275 Cooper Ave, Suite 105

Page 1 of 1

Date Rec'd in Lab

ALPHA Job #

Client Information
Client: LABELLA
Address: 300 STATE STREET, WILKINSON, NY 14164
Phone: 585-484-6110
Fax:
Email: ABarber@labellellapc.com

Project Information
Project Name: FESL
Project Location: 1700 EMERSON ST, ROCKSTER, NY 14173
Project # 210173

Deliverables
 ASP-A
 ASP-B
 EQUIS (1 File)
 Other

Billing Information
 Same as Client Info
PO #

(Use Project name as Project #)
Client Manager: ANN. BOYDEN
ALPHAQuote #:
Turn-Around Time
Standard Due Date: 9/25/20
of Days: 1 DAY TAT

Regulatory Requirement
 NY TOGS
 AWQ Standards
 NY Restricted Use
 NY Unrestricted Use
 NYC Sewer Discharge

Disposal Site Information
Please identify below location of applicable disposal facilities.
Disposal Facility:
 NJ NY
 Other:

These samples have been previously analyzed by Alpha
Other project specific requirements/comments:
Please include TICS. 1 DAY TAT
Please specify Metals or TAL.

ANALYSIS
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Sample Filtration
 Done
 Lab to do
 Preservation
 Lab to do
(Please Specify below)
Sample Specific Comments

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection		Sample Matrix	Sampler's Initials	Container Type	Date/Time	Received By:
		Date	Time					
LAB-SBW-03	GW	9/23/20	13:40	GW	ES	V	9/23/20 16:30	Emily DeAnna
LAB-SBW-07	GW	9/23/20	15:10	GW	ES	B	9/24/20 10:30	C Wallace
TRIP-BLANK-01	GW	9/23/20	---	GW	ES			
 480-175602 Chain of Custody								
<p>Preservative Code: P = Plastic A = Amber Glass V = Vial G = Glass B = Bacteria Cup C = Cube O = Other E = Encore D = BOD Bottle O = Other</p>								
<p>Westboro: Certification No: MA935 Mansfield: Certification No: MA015</p>								
<p>Please print clearly, legibly and completely. Samples can not be logged in and turnaround time clock will not start until any ambiguities are resolved. BY EXECUTING THIS COC, THE CLIENT HAS READ AND AGREES TO BE BOUND BY ALPHA'S TERMS & CONDITIONS. (See reverse side.)</p>								

#1204



Login Sample Receipt Checklist

Client: LaBella Associates DPC

Job Number: 480-175602-1

Login Number: 175602

List Source: Eurofins TestAmerica, Buffalo

List Number: 1

Creator: Wallace, Cameron

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	
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	labella
Samples received within 48 hours of sampling.	True	
Samples requiring field filtration have been filtered in the field.	True	
Chlorine Residual checked.	N/A	



**Design Phase Investigation
Laboratory Reports**

Tracer Test Samples



Analytical Report For
LaBella Associates, P.C.

For Lab Project ID

205849

Referencing

Tracer Solution Check

Prepared

Monday, December 14, 2020

Any noncompliant QC parameters or other notes impacting data interpretation are flagged or documented on the final report or are noted below.

Certifies that this report has been approved by the Technical Director or Designee

179 Lake Avenue • Rochester, NY 14608 • (585) 647-2530 • Fax (585) 647-3311 • ELAP ID# 10958



Client: LaBella Associates, P.C.

Project Reference: Tracer Solution Check

Sample Identifier: KBr Solution

Lab Sample ID: 205849-01

Matrix: Water

Date Sampled: 12/11/2020

Date Received: 12/11/2020

Bromide

<u>Analyte</u>	<u>Result</u>	<u>Units</u>	<u>Qualifier</u>	<u>Date Analyzed</u>
Bromide	0.94	mg/L		12/12/2020
Method Reference(s):	EPA 300.0			
Subcontractor ELAP ID:	11148			



Analytical Report Appendix

The reported results relate only to the samples as they have been received by the laboratory.

Each page of this document is part of a multipage report. This document may not be reproduced except in its entirety, without the prior consent of Paradigm Environmental Services, Inc.

All soil/sludge samples have been reported on a dry weight basis, unless qualified "reported as received". Other solids are reported as received.

Low level Volatiles blank reports for soil/solid matrix are based on a nominal 5 gram weight. Sample results and reporting limits are based on actual weight, which may be more or less than 5 grams.

The Chain of Custody provides additional information, including compliance with sample condition requirements upon receipt. Sample condition requirements are defined under the 2003 NELAC Standard, sections 5.5.8.3.1 and 5.5.8.3.2.

NYSDOH ELAP does not certify for all parameters. Paradigm Environmental Services or the indicated subcontracted laboratory does hold certification for all analytes where certification is offered by ELAP unless otherwise specified. Aliquots separated for certain tests, such as TCLP, are indicated on the Chain of Custody and final reports with an "A" suffix.

Data qualifiers are used, when necessary, to provide additional information about the data. This information may be communicated as a flag or as text at the bottom of the report. Please refer to the following list of analyte-specific, frequently used data flags and their meaning:

"<" = Analyzed for but not detected at or above the quantitation limit.

"E" = Result has been estimated, calibration limit exceeded.

"Z" = See case narrative.

"D" = Sample, Laboratory Control Sample, or Matrix Spike Duplicate results above Relative Percent Difference limit.

"M" = Matrix spike recoveries outside QC limits. Matrix bias indicated.

"B" = Method blank contained trace levels of analyte. Refer to included method blank report.

"J" = Result estimated between the quantitation limit and half the quantitation limit.

"L" = Laboratory Control Sample recovery outside accepted QC limits.

"P" = Concentration differs by more than 40% between the primary and secondary analytical columns.

"NC" = Not calculable. Applicable to RPD if sample or duplicate result is non-detect or estimated (see primary report for data flags). Applicable to MS if sample is greater or equal to ten times the spike added. Applicable to sample surrogates or MS if sample dilution is 10x or higher.

"" = Indicates any recoveries outside associated acceptance windows. Surrogate outliers in samples are presumed matrix effects. LCS demonstrates method compliance unless otherwise noted.*

"(1)" = Indicates data from primary column used for QC calculation.

"A" = denotes a parameter for which ELAP does not offer approval as part of their laboratory certification program.

"F" = denotes a parameter for which Paradigm does not carry certification, the results for which should therefore only be used where ELAP certification is not required, such as personal exposure assessment.

This report is part of a multipage document and should only be evaluated in its entirety. The Chain of Custody provides additional sample information, including compliance with the sample condition requirements upon receipt.

GENERAL TERMS AND CONDITIONS

LABORATORY SERVICES

These Terms and Conditions embody the whole agreement of the parties in the absence of a signed and executed contract between the Laboratory (LAB) and Client. They shall supersede all previous communications, representations, or agreements, either verbal or written, between the parties. The LAB specifically rejects all additional, inconsistent, or conflicting terms, whether printed or otherwise set forth in any purchase order or other communication from the Client to the LAB. The invalidity or unenforceability in whole or in part of any provision, term or condition hereof shall not affect in any way the validity or enforceability of the remainder of the Terms and Conditions. No waiver by LAB of any provision, term, or condition hereof or of any breach by or obligation of the Client hereunder shall constitute a waiver of such provision, term, or condition on any other occasion or a waiver of any other breach by or obligation of the Client. This agreement shall be administered and interpreted under the laws of the state which services are procured.

Warranty.

Recognizing that the nature of many samples is unknown and that some may contain potentially hazardous components, LAB warrants only that it will perform testing services, obtain findings, and prepare reports in accordance with generally accepted analytical laboratory principles and practices at the time of performance of services. LAB makes no other warranty, express or implied.

Scope and Compensation.

LAB agrees to perform the services described in the chain of custody to which these terms and conditions are attached. Unless the parties agree in writing to the contrary, the duties of LAB shall not be construed to exceed the services specifically described. LAB will use LAB default method for all tests unless specified otherwise on the Work Order.

Payment terms are net 30 days from the date of invoice. All overdue payments are subject to an interest charge of one and one-half percent (1-1/2%) per month or a portion thereof. Client shall also be responsible for costs of collection, including payment of reasonable attorney fees if such expense is incurred. The prices, unless stated, do not include any sale, use or other taxes. Such taxes will be added to invoice prices when required.

Prices.

Compensation for services performed will be based on the current Lab Analytical Fee Schedule or on quotations agreed to in writing by the parties. Turnaround time based charges are determined from the time of resolution of all work order questions. Testimony, court appearances or data compilation for legal action will be charged separately. Evaluation and reporting of initial screening runs may incur additional fees.

Limitations of Liability.

In the event of any error, omission, or other professional negligence, the sole and exclusive responsibility of LAB shall be to re-perform the deficient work at its own expense and LAB shall have no other liability whatsoever. All claims shall be deemed waived unless made in writing and received by LAB within ninety (90) days following completion of services.

LAB shall have no liability, obligation, or responsibility of any kind for losses, costs, expenses, or other damages (including but not limited to any special, direct, incidental or consequential damages) with respect to LAB's services or results.

All results provided by LAB are strictly for the use of its clients and LAB is in no way responsible for the use of such results by clients or third parties. All reports should be considered in their entirety, and LAB is not responsible for the separation, detachment, or other use of any portion of these reports. Client may not assign the lab report without the written consent of the LAB.

Client covenants and agrees, at its/his/her sole expense, to indemnify, protect, defend, and save harmless the LAB from and against any and all damages, losses, liabilities, obligations, penalties, claims, litigation, demands, defenses, judgments, suits, actions, proceedings, costs, disbursements and/or expenses (including, without limitation attorneys' and experts' fees and disbursements) of any kind whatsoever which may at any time be imposed upon, incurred by or asserted or awarded against client relating to, resulting from or arising out of (a) the breach of this agreement by this client, (b) the negligence of the client in handling, delivering or disclosing any hazardous substance, (c) the violation of the Client of any applicable law, (d) non-compliance by the Client with any environmental permit or (e) a material misrepresentation in disclosing the materials to be tested.

Hazard Disclosure.

Client represents and warrants that any sample delivered to LAB will be preceded or accompanied by complete written disclosure of the presence of any hazardous substances known or suspected by Client. Client further warrants that any sample containing any hazardous substance that is to be delivered to LAB will be packaged, labeled, transported, and delivered properly and in accordance with applicable laws.

Sample Handling.

Prior to LAB's acceptance of any sample (or after any revocation of acceptance), the entire risk of loss or of damage to such sample remains with Client. Samples are accepted when receipt is acknowledged on chain of custody documentation. In no event will LAB have any responsibility for the action or inaction of any carrier shipping or delivering any sample to or from LAB premises.

Client authorizes LAB to proceed with the analysis of samples as received by the laboratory, recognizing that any samples not in compliance with all current DOH-ELAP-NELAP requirements for containers, preservation or holding time will be noted as such on the final report.

Disposal of hazardous waste samples is the responsibility of the Client. If the Client does not wish such samples returned, LAB may add storage and disposal fees to the final invoice. Maximum storage time for samples is 30 days after completion of analysis unless modified by applicable state or federal laws. Client will be required to give the LAB written instructions concerning disposal of these samples.

LAB reserves the absolute right, exercisable at any time, to refuse to receive delivery of, refuse to accept, or revoke acceptance of any sample, which, in the sole judgment of LAB (a) is of unsuitable volume, (b) may be or become unsuitable for or may pose a risk in handling, transport, or processing for any health, safety, environmental or other reason whether or not due to the presence in the sample of any hazardous substance, and whether or not such presence has been disclosed to LAB by Client or (c) if the condition or sample date make the sample unsuitable for analysis.

Legal Responsibility.

LAB is solely responsible for performance of this contract, and no affiliated company, director, officer, employee, or agent shall have any legal responsibility hereunder, whether in contract or tort including negligence.

Assignment.

LAB may assign its performance obligations under this contract to other parties, as it deems necessary. LAB shall disclose to Client any assignee (subcontractor) by ELAP ID # on the submitted final report.

Force Majeure.

LAB shall have no responsibility or liability to the Client for any failure or delay in performance by LAB, which results in whole or in part from any cause or circumstance beyond the reasonable control of LAB. Such causes and circumstances shall include, but not limited to, acts of God, acts or orders of any government authority, strikes or other labor disputes, natural disasters, accidents, wars, civil disturbances, difficulties or delays in transportation, mail or delivery services, inability to obtain sufficient services or supplies from LAB's usual suppliers, or any other cause beyond LAB's reasonable control.

Law.

This contract shall be continued under the laws of the State of New York without regard to its conflicts of laws provision.

This report is part of a multipage document and should only be evaluated in its entirety. The Chain of Custody provides additional sample information, including compliance with the sample condition requirements upon receipt.

1 of 2



CHAIN OF CUSTODY

REPORT TO:		INVOICE TO:		LAB PROJECT ID	
CLIENT: <i>Labella</i>	CLIENT: <i>Same</i>	205849			
ADDRESS: <i>300 State St.</i>	ADDRESS:	Quotation #:			
CITY: STATE: ZIP: <i>14624</i>	CITY: STATE: ZIP:	Email: <i>DNoil@labella.com</i>			
PHONE: <i>295-6611</i>	PHONE:	ATTN: <i>Dan Noil</i>			

PROJECT REFERENCE
Tracer Solution Check

Matrix Codes:

AQ - Aqueous Liquid	WA - Water	DW - Drinking Water	SO - Soil	SD - Solid	WP - Wipe	OL - Oil
NQ - Non-Aqueous Liquid	WG - Groundwater	WW - Wastewater	SL - Sludge	PT - Paint	CK - Caulk	AR - Air

REQUESTED ANALYSIS														
DATE COLLECTED	TIME COLLECTED	COMPOSITE	GRAB	SAMPLE IDENTIFIER	MATRIX	CONTAINER NO.						REMARKS	PARADIGM LAB SAMPLE NUMBER	
<i>12/11/20</i>	<i>15:30</i>		<i>X</i>	<i>KBr Solution</i>	<i>WA</i>	<i>1</i>	<i>X</i>							<i>01</i>

Turnaround Time	Report Supplements	
Availability contingent upon lab approval; additional fees may apply.		
Standard 5 day <input type="checkbox"/>	None Required <input checked="" type="checkbox"/>	None Required <input checked="" type="checkbox"/>
10 day <input type="checkbox"/>	Batch QC <input type="checkbox"/>	Basic EDD <input type="checkbox"/>
Rush 3 day <input type="checkbox"/>	Category A <input type="checkbox"/>	NYSDEC EDD <input type="checkbox"/>
Rush 2 day <input type="checkbox"/>	Category B <input type="checkbox"/>	
Rush 1 day <input type="checkbox"/>		
Date Needed <i>ASAP</i>	Other <input type="checkbox"/>	Other EDD <input type="checkbox"/>
<small>please indicate date needed:</small>	<small>please indicate package needed:</small>	<small>please indicate EDD needed:</small>

Marshall

Sampled By _____ Date/Time _____ Total Cost:

[Signature] 12/11/20 15:35

Relinquished By _____ Date/Time _____

Received By *[Signature]* Date/Time 12/11/2020 15:54 P.I.F.

Received @ Lab By _____ Date/Time _____

17°C 12/11/2020 15:53



Chain of Custody Supplement

Client: LaBella Associates Completed by: Glenn Pezzulo
 Lab Project ID: 205849 Date: 12/11/2020

Sample Condition Requirements
 Per NELAC/ELAP 210/241/242/243/244

Condition	NELAC compliance with the sample condition requirements upon receipt		
	Yes	No	N/A
Container Type	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Comments	_____		
Transferred to method-compliant container	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Headspace (<1 mL)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Comments	_____		
Preservation	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Comments	_____		
Chlorine Absent (<0.10 ppm per test strip)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Comments	_____		
Holding Time	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Comments	_____		
Temperature	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Comments	<u>17°C</u>		
Compliant Sample Quantity/Type	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Comments	_____		



CHAIN OF CUSTODY

1 of 1
L2055672

11148

REPORT TO:		INVOICE TO:	
COMPANY: Paradigm Environmental	COMPANY: Same	LAB PROJECT #:	CLIENT PROJECT #:
ADDRESS: 179 Lake Avenue	ADDRESS:	TURNAROUND TIME: (WORKING DAYS)	
CITY: Rochester STATE: NY ZIP: 14608	CITY: STATE: ZIP:	<input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 5 <input type="checkbox"/> OTHER	
PHONE: FAX:	PHONE: FAX:	Rush Date Due: 12/14/2020 3 PM	
PROJECT NAME/SITE NAME:	ATTN: Reporting	ATTN: Accounts Payable	
COMMENTS: Please email results to reporting@paradigmenv.com			

REQUESTED ANALYSIS

DATE	TIME	COMPOSITE	GRAB	SAMPLE LOCATION/FIELD ID	MATRIX	CONTAINER	REMARKS	PARADIGM LAB SAMPLE NUMBER
1 12/11/2020	15:30		X	205849-01	Water	1 X Bromide		
2								
3								
4								
5								
6								
7								
8								
9								
10								

LAB USE ONLY BELOW THIS LINE

Sample Condition: Per NELAC/ELAP 210/241/242/243/244

Receipt Parameter	NELAC Compliance	
Container Type:	Y <input type="checkbox"/>	N <input type="checkbox"/>
Comments: _____		
Preservation:	Y <input type="checkbox"/>	N <input type="checkbox"/>
Comments: _____		
Holding Time:	Y <input type="checkbox"/>	N <input type="checkbox"/>
Comments: _____		
Temperature:	Y <input type="checkbox"/>	N <input type="checkbox"/>
Comments: _____		

Client

Sampled By: *[Signature]* Date/Time: 12/11/2020 16:00

Relinquished By: *[Signature]* Date/Time: 12/11/20 17:07

Received By: *[Signature]* Date/Time: 12/12/20 02:10

Received @ Lab By: _____ Date/Time: _____

Total Cost:

P.I.F.



Analytical Report For
LaBella Associates, P.C.

For Lab Project ID

205935

Referencing

N/A

Prepared

Tuesday, December 22, 2020

Any noncompliant QC parameters or other notes impacting data interpretation are flagged or documented on the final report or are noted below.

Certifies that this report has been approved by the Technical Director or Designee

179 Lake Avenue • Rochester, NY 14608 • (585) 647-2530 • Fax (585) 647-3311 • ELAP ID# 10958



Client: LaBella Associates, P.C.

Project Reference: N/A

Sample Identifier: LAB-SBW-15 (12172020)

Lab Sample ID: 205935-01

Date Sampled: 12/17/2020

Matrix: Aq Liquid

Date Received: 12/17/2020

Bromide

<u>Analyte</u>	<u>Result</u>	<u>Units</u>	<u>Qualifier</u>	<u>Date Analyzed</u>
Bromide	<0.50	mg/L		12/21/2020
Method Reference(s):	EPA 300.0 Rev 2.1			
Subcontractor ELAP ID:	10709			



Client: LaBella Associates, P.C.

Project Reference: N/A

Sample Identifier: LAB-SBW-16 (12172020)

Lab Sample ID: 205935-02

Date Sampled: 12/17/2020

Matrix: Aq Liquid

Date Received: 12/17/2020

Bromide

<u>Analyte</u>	<u>Result</u>	<u>Units</u>	<u>Qualifier</u>	<u>Date Analyzed</u>
Bromide	<0.50	mg/L		12/21/2020
Method Reference(s):	EPA 300.0 Rev 2.1			
Subcontractor ELAP ID:	10709			



Analytical Report Appendix

The reported results relate only to the samples as they have been received by the laboratory.

Each page of this document is part of a multipage report. This document may not be reproduced except in its entirety, without the prior consent of Paradigm Environmental Services, Inc.

All soil/sludge samples have been reported on a dry weight basis, unless qualified "reported as received". Other solids are reported as received.

Low level Volatiles blank reports for soil/solid matrix are based on a nominal 5 gram weight. Sample results and reporting limits are based on actual weight, which may be more or less than 5 grams.

The Chain of Custody provides additional information, including compliance with sample condition requirements upon receipt. Sample condition requirements are defined under the 2003 NELAC Standard, sections 5.5.8.3.1 and 5.5.8.3.2.

NYSDOH ELAP does not certify for all parameters. Paradigm Environmental Services or the indicated subcontracted laboratory does hold certification for all analytes where certification is offered by ELAP unless otherwise specified. Aliquots separated for certain tests, such as TCLP, are indicated on the Chain of Custody and final reports with an "A" suffix.

Data qualifiers are used, when necessary, to provide additional information about the data. This information may be communicated as a flag or as text at the bottom of the report. Please refer to the following list of analyte-specific, frequently used data flags and their meaning:

"<" = Analyzed for but not detected at or above the quantitation limit.

"E" = Result has been estimated, calibration limit exceeded.

"Z" = See case narrative.

"D" = Sample, Laboratory Control Sample, or Matrix Spike Duplicate results above Relative Percent Difference limit.

"M" = Matrix spike recoveries outside QC limits. Matrix bias indicated.

"B" = Method blank contained trace levels of analyte. Refer to included method blank report.

"J" = Result estimated between the quantitation limit and half the quantitation limit.

"L" = Laboratory Control Sample recovery outside accepted QC limits.

"P" = Concentration differs by more than 40% between the primary and secondary analytical columns.

"NC" = Not calculable. Applicable to RPD if sample or duplicate result is non-detect or estimated (see primary report for data flags). Applicable to MS if sample is greater or equal to ten times the spike added. Applicable to sample surrogates or MS if sample dilution is 10x or higher.

"" = Indicates any recoveries outside associated acceptance windows. Surrogate outliers in samples are presumed matrix effects. LCS demonstrates method compliance unless otherwise noted.*

"(1)" = Indicates data from primary column used for QC calculation.

"A" = denotes a parameter for which ELAP does not offer approval as part of their laboratory certification program.

"F" = denotes a parameter for which Paradigm does not carry certification, the results for which should therefore only be used where ELAP certification is not required, such as personal exposure assessment.

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GENERAL TERMS AND CONDITIONS

LABORATORY SERVICES

These Terms and Conditions embody the whole agreement of the parties in the absence of a signed and executed contract between the Laboratory (LAB) and Client. They shall supersede all previous communications, representations, or agreements, either verbal or written, between the parties. The LAB specifically rejects all additional, inconsistent, or conflicting terms, whether printed or otherwise set forth in any purchase order or other communication from the Client to the LAB. The invalidity or unenforceability in whole or in part of any provision, term or condition hereof shall not affect in any way the validity or enforceability of the remainder of the Terms and Conditions. No waiver by LAB of any provision, term, or condition hereof or of any breach by or obligation of the Client hereunder shall constitute a waiver of such provision, term, or condition on any other occasion or a waiver of any other breach by or obligation of the Client. This agreement shall be administered and interpreted under the laws of the state which services are procured.

Warranty.

Recognizing that the nature of many samples is unknown and that some may contain potentially hazardous components, LAB warrants only that it will perform testing services, obtain findings, and prepare reports in accordance with generally accepted analytical laboratory principles and practices at the time of performance of services. LAB makes no other warranty, express or implied.

Scope and Compensation.

LAB agrees to perform the services described in the chain of custody to which these terms and conditions are attached. Unless the parties agree in writing to the contrary, the duties of LAB shall not be construed to exceed the services specifically described. LAB will use LAB default method for all tests unless specified otherwise on the Work Order.

Payment terms are net 30 days from the date of invoice. All overdue payments are subject to an interest charge of one and one-half percent (1-1/2%) per month or a portion thereof. Client shall also be responsible for costs of collection, including payment of reasonable attorney fees if such expense is incurred. The prices, unless stated, do not include any sale, use or other taxes. Such taxes will be added to invoice prices when required.

Prices.

Compensation for services performed will be based on the current Lab Analytical Fee Schedule or on quotations agreed to in writing by the parties. Turnaround time based charges are determined from the time of resolution of all work order questions. Testimony, court appearances or data compilation for legal action will be charged separately. Evaluation and reporting of initial screening runs may incur additional fees.

Limitations of Liability.

In the event of any error, omission, or other professional negligence, the sole and exclusive responsibility of LAB shall be to re-perform the deficient work at its own expense and LAB shall have no other liability whatsoever. All claims shall be deemed waived unless made in writing and received by LAB within ninety (90) days following completion of services.

LAB shall have no liability, obligation, or responsibility of any kind for losses, costs, expenses, or other damages (including but not limited to any special, direct, incidental or consequential damages) with respect to LAB's services or results.

All results provided by LAB are strictly for the use of its clients and LAB is in no way responsible for the use of such results by clients or third parties. All reports should be considered in their entirety, and LAB is not responsible for the separation, detachment, or other use of any portion of these reports. Client may not assign the lab report without the written consent of the LAB.

Client covenants and agrees, at its/his/her sole expense, to indemnify, protect, defend, and save harmless the LAB from and against any and all damages, losses, liabilities, obligations, penalties, claims, litigation, demands, defenses, judgments, suits, actions, proceedings, costs, disbursements and/or expenses (including, without limitation attorneys' and experts' fees and disbursements) of any kind whatsoever which may at any time be imposed upon, incurred by or asserted or awarded against client relating to, resulting from or arising out of (a) the breach of this agreement by this client, (b) the negligence of the client in handling, delivering or disclosing any hazardous substance, (c) the violation of the Client of any applicable law, (d) non-compliance by the Client with any environmental permit or (e) a material misrepresentation in disclosing the materials to be tested.

Hazard Disclosure.

Client represents and warrants that any sample delivered to LAB will be preceded or accompanied by complete written disclosure of the presence of any hazardous substances known or suspected by Client. Client further warrants that any sample containing any hazardous substance that is to be delivered to LAB will be packaged, labeled, transported, and delivered properly and in accordance with applicable laws.

Sample Handling.

Prior to LAB's acceptance of any sample (or after any revocation of acceptance), the entire risk of loss or of damage to such sample remains with Client. Samples are accepted when receipt is acknowledged on chain of custody documentation. In no event will LAB have any responsibility for the action or inaction of any carrier shipping or delivering any sample to or from LAB premises.

Client authorizes LAB to proceed with the analysis of samples as received by the laboratory, recognizing that any samples not in compliance with all current DOH-ELAP-NELAP requirements for containers, preservation or holding time will be noted as such on the final report.

Disposal of hazardous waste samples is the responsibility of the Client. If the Client does not wish such samples returned, LAB may add storage and disposal fees to the final invoice. Maximum storage time for samples is 30 days after completion of analysis unless modified by applicable state or federal laws. Client will be required to give the LAB written instructions concerning disposal of these samples.

LAB reserves the absolute right, exercisable at any time, to refuse to receive delivery of, refuse to accept, or revoke acceptance of any sample, which, in the sole judgment of LAB (a) is of unsuitable volume, (b) may be or become unsuitable for or may pose a risk in handling, transport, or processing for any health, safety, environmental or other reason whether or not due to the presence in the sample of any hazardous substance, and whether or not such presence has been disclosed to LAB by Client or (c) if the condition or sample date make the sample unsuitable for analysis.

Legal Responsibility.

LAB is solely responsible for performance of this contract, and no affiliated company, director, officer, employee, or agent shall have any legal responsibility hereunder, whether in contract or tort including negligence.

Assignment.

LAB may assign its performance obligations under this contract to other parties, as it deems necessary. LAB shall disclose to Client any assignee (subcontractor) by ELAP ID # on the submitted final report.

Force Majeure.

LAB shall have no responsibility or liability to the Client for any failure or delay in performance by LAB, which results in whole or in part from any cause or circumstance beyond the reasonable control of LAB. Such causes and circumstances shall include, but not limited to, acts of God, acts or orders of any government authority, strikes or other labor disputes, natural disasters, accidents, wars, civil disturbances, difficulties or delays in transportation, mail or delivery services, inability to obtain sufficient services or supplies from LAB's usual suppliers, or any other cause beyond LAB's reasonable control.

Law.

This contract shall be continued under the laws of the State of New York without regard to its conflicts of laws provision.

This report is part of a multipage document and should only be evaluated in its entirety. The Chain of Custody provides additional sample information, including compliance with the sample condition requirements upon receipt.

Report Prepared Tuesday, December 22, 2020



CHAIN OF CUSTODY

REPORT TO:		INVOICE TO:		LAB PROJECT ID
CLIENT: <i>labella associates</i>	CLIENT:	ADDRESS:		<i>205935</i>
ADDRESS: <i>300 state street suite 200</i>	ADDRESS:	CITY: STATE: ZIP:		Quotation #:
CITY: <i>Rahener, NJ</i> STATE: <i>NJ</i> ZIP: <i>14604</i>	CITY: STATE: ZIP:	PHONE:		Email:
PHONE: <i>585-454-8110</i>	PHONE:	ATTN: <i>Dan Noll</i>		
Matrix Codes: AQ - Aqueous Liquid WA - Water DW - Drinking Water SO - Soil SD - Solid WP - Wipe OL - Oil NQ - Non-Aqueous Liquid WG - Groundwater WW - Wastewater SL - Sludge PT - Paint CK - Caulk AR - Air				

PROJECT REFERENCE

REQUESTED ANALYSIS												
DATE COLLECTED	TIME COLLECTED	COMPOSITE	GRAB	SAMPLE IDENTIFIER	MATRIX	CONTAINER NO.					REMARKS	PARADIGM LAB SAMPLE NUMBER
<i>12/17/2020</i>	<i>1103</i>		<input checked="" type="checkbox"/>	<i>LAB-SBW-15 (12172020)</i>	<i>aq liq</i>	<i>1</i>	<i>X</i>					<i>01</i>
<i>12/17/2020</i>	<i>1100</i>		<input checked="" type="checkbox"/>	<i>LAB-SBW-16 (12172020)</i>	<i>aq liq</i>	<i>1</i>	<i>X</i>					<i>02</i>
					<i>du sol. test</i>							
					<i>m 12/17/2020</i>							
											<i>10°C iad started in field</i>	

Turnaround Time	Report Supplements	
Availability contingent upon lab approval; additional fees may apply.		
Standard 5 day <input checked="" type="checkbox"/>	None Required <input type="checkbox"/>	None Required <input type="checkbox"/>
10 day <input type="checkbox"/>	Batch QC <input type="checkbox"/>	Basic EDD <input type="checkbox"/>
Rush 3 day <input checked="" type="checkbox"/>	Category A <input type="checkbox"/>	NYSDEC EDD <input type="checkbox"/>
Rush 2 day <input type="checkbox"/>	Category B <input type="checkbox"/>	
Rush 1 day <input type="checkbox"/>		
Date Needed _____ please indicate date needed:	Other <input type="checkbox"/> please indicate package needed:	Other EDD <input type="checkbox"/> please indicate EDD needed:

<i>[Signature]</i>	<i>12/17/2020 1245</i>	Total Cost: <input type="text"/>
Sampled By	Date/Time	
<i>[Signature]</i>	<i>12/17/2020 1250</i>	P.I.F. <input type="text"/>
Relinquished By	Date/Time	
<i>Emily Faumen</i>	<i>12/17/2020 1250</i>	
Received By	Date/Time	
<i>[Signature]</i>	<i>12/17/2020 1312</i>	
Received @ Lab By	Date/Time	

By signing this form, client agrees to Paradigm Terms and Conditions (reverse).

2062



Chain of Custody Supplement

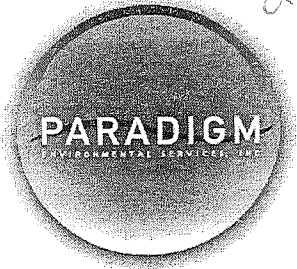
Client: LaBella Completed by: Molly Kait
 Lab Project ID: 205935 Date: 12/17/2020

Sample Condition Requirements
 Per NELAC/ELAP 210/241/242/243/244

Condition	NELAC compliance with the sample condition requirements upon receipt		
	Yes	No	N/A
Container Type	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Comments	_____		
Transferred to method-compliant container	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Headspace (<1 mL)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Comments	_____		
Preservation	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Comments	_____		
Chlorine Absent (<0.10 ppm per test strip)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Comments	_____		
Holding Time	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Comments	_____		
Temperature	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Comments	<u>10° iced started in field</u>		
Compliant Sample Quantity/Type	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Comments	_____		

201218008

179 Lake Avenue, Rochester, NY 14608 Office (585) 647-2530 Fax (585) 647-3311



CHAIN OF CUSTODY

ADIRONDACK: ELAP ID: 1



REPORT TO:				INVOICE TO:				LAB PROJECT #:		CLIENT PROJECT #:	
COMPANY: Paradigm Environmental				COMPANY: Same							
ADDRESS:				ADDRESS:							
CITY:		STATE:		ZIP:		CITY:		STATE:		ZIP:	
PHONE:		FAX:		PHONE:		FAX:		TURNAROUND TIME: (WORKING DAYS)		STD	
ATTN: Reporting				ATTN: Accounts Payable				<input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input checked="" type="checkbox"/> 5		Date Due: 12/28/2020	
PROJECT NAME/SITE NAME:				COMMENTS: Please email results to reporting@paradigmenv.com							

REQUESTED ANALYSIS													
DATE	TIME	COMPOSITE	GRAB	SAMPLE LOCATION/FIELD ID	MATRIX	CONTAINER NUMBER	ANALYSIS	ANALYSIS	ANALYSIS	ANALYSIS	ANALYSIS	REMARKS	PARADIGM Lab SAMPLE NUMBER
1	12/17/2020			205935-01	AQUEOUS Liquid	1	X						
2	6			-02	↓	1	X						
3													
4													
5													
6													
7													
8													
9													
10													

****LAB USE ONLY BELOW THIS LINE****
 Sample Condition: Per NELAC/ELAP 210/241/242/243/244

Receipt Parameter	NELAC Compliance
Container Type: Comments: <i>Not AES. AE 12/15</i>	Y <input type="checkbox"/> N <input type="checkbox"/>
Preservation: Comments:	Y <input type="checkbox"/> N <input type="checkbox"/>
Holding Time: Comments:	Y <input type="checkbox"/> N <input type="checkbox"/>
Temperature: <i>4°C</i> Comments:	Y <input type="checkbox"/> N <input type="checkbox"/>

Client

Sampled By: *Molly Nail* Date/Time: *12/18/2020 0830*

Relinquished By: *Alert* Date/Time: *12/18/2020 2:33pm*

Received By: *Alert* Date/Time: *12/18/2020 2:33pm*

Received @ Lab By: _____ Date/Time: _____

Total Cost:

P.I.F.



PARADIGM
ENVIRONMENTAL SERVICES, INC.

Analytical Report For
LaBella Associates, P.C.

For Lab Project ID

205954

Referencing

N/A

Prepared

Tuesday, December 29, 2020

Any noncompliant QC parameters or other notes impacting data interpretation are flagged or documented on the final report or are noted below.

A handwritten signature in blue ink, appearing to be "J. Smith", is written above a horizontal line.

Certifies that this report has been approved by the Technical Director or Designee

179 Lake Avenue • Rochester, NY 14608 • (585) 647-2530 • Fax (585) 647-3311 • ELAP ID# 10958

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Page 1 of 8

Report Prepared Tuesday, December 29, 2020



Client: LaBella Associates, P.C.

Project Reference: N/A

Sample Identifier: LAB-SBW-15-12182020

Lab Sample ID: 205954-01

Date Sampled: 12/18/2020

Matrix: Groundwater

Date Received: 12/18/2020

Bromide

<u>Analyte</u>	<u>Result</u>	<u>Units</u>	<u>Qualifier</u>	<u>Date Analyzed</u>
Bromide	0.660	mg/L		12/28/2020
Method Reference(s):	EPA 300.0 REV 2.1			
Subcontractor ELAP ID:	10709			



Client: LaBella Associates, P.C.

Project Reference: N/A

Sample Identifier: LAB-SBW-16-12182020

Lab Sample ID: 205954-02

Date Sampled: 12/18/2020

Matrix: Groundwater

Date Received: 12/18/2020

Bromide

<u>Analyte</u>	<u>Result</u>	<u>Units</u>	<u>Qualifier</u>	<u>Date Analyzed</u>
Bromide	1.25	mg/L		12/28/2020
Method Reference(s):	EPA 300.0 REV 2.1			
Subcontractor ELAP ID:	10709			



Analytical Report Appendix

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"E" = Result has been estimated, calibration limit exceeded.

"Z" = See case narrative.

"D" = Sample, Laboratory Control Sample, or Matrix Spike Duplicate results above Relative Percent Difference limit.

"M" = Matrix spike recoveries outside QC limits. Matrix bias indicated.

"B" = Method blank contained trace levels of analyte. Refer to included method blank report.

"J" = Result estimated between the quantitation limit and half the quantitation limit.

"L" = Laboratory Control Sample recovery outside accepted QC limits.

"P" = Concentration differs by more than 40% between the primary and secondary analytical columns.

"NC" = Not calculable. Applicable to RPD if sample or duplicate result is non-detect or estimated (see primary report for data flags). Applicable to MS if sample is greater or equal to ten times the spike added. Applicable to sample surrogates or MS if sample dilution is 10x or higher.

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Warranty.

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Limitations of Liability.

In the event of any error, omission, or other professional negligence, the sole and exclusive responsibility of LAB shall be to re-perform the deficient work at its own expense and LAB shall have no other liability whatsoever. All claims shall be deemed waived unless made in writing and received by LAB within ninety (90) days following completion of services.

LAB shall have no liability, obligation, or responsibility of any kind for losses, costs, expenses, or other damages (including but not limited to any special, direct, incidental or consequential damages) with respect to LAB's services or results.

All results provided by LAB are strictly for the use of its clients and LAB is in no way responsible for the use of such results by clients or third parties. All reports should be considered in their entirety, and LAB is not responsible for the separation, detachment, or other use of any portion of these reports. Client may not assign the lab report without the written consent of the LAB.

Client covenants and agrees, at its/his/her sole expense, to indemnify, protect, defend, and save harmless the LAB from and against any and all damages, losses, liabilities, obligations, penalties, claims, litigation, demands, defenses, judgments, suits, actions, proceedings, costs, disbursements and/or expenses (including, without limitation attorneys' and experts' fees and disbursements) of any kind whatsoever which may at any time be imposed upon, incurred by or asserted or awarded against client relating to, resulting from or arising out of (a) the breach of this agreement by this client, (b) the negligence of the client in handling, delivering or disclosing any hazardous substance, (c) the violation of the Client of any applicable law, (d) non-compliance by the Client with any environmental permit or (e) a material misrepresentation in disclosing the materials to be tested.

Hazard Disclosure.

Client represents and warrants that any sample delivered to LAB will be preceded or accompanied by complete written disclosure of the presence of any hazardous substances known or suspected by Client. Client further warrants that any sample containing any hazardous substance that is to be delivered to LAB will be packaged, labeled, transported, and delivered properly and in accordance with applicable laws.

Sample Handling.

Prior to LAB's acceptance of any sample (or after any revocation of acceptance), the entire risk of loss or of damage to such sample remains with Client. Samples are accepted when receipt is acknowledged on chain of custody documentation. In no event will LAB have any responsibility for the action or inaction of any carrier shipping or delivering any sample to or from LAB premises.

Client authorizes LAB to proceed with the analysis of samples as received by the laboratory, recognizing that any samples not in compliance with all current DOH-ELAP-NELAP requirements for containers, preservation or holding time will be noted as such on the final report.

Disposal of hazardous waste samples is the responsibility of the Client. If the Client does not wish such samples returned, LAB may add storage and disposal fees to the final invoice. Maximum storage time for samples is 30 days after completion of analysis unless modified by applicable state or federal laws. Client will be required to give the LAB written instructions concerning disposal of these samples.

LAB reserves the absolute right, exercisable at any time, to refuse to receive delivery of, refuse to accept, or revoke acceptance of any sample, which, in the sole judgment of LAB (a) is of unsuitable volume, (b) may be or become unsuitable for or may pose a risk in handling, transport, or processing for any health, safety, environmental or other reason whether or not due to the presence in the sample of any hazardous substance, and whether or not such presence has been disclosed to LAB by Client or (c) if the condition or sample date make the sample unsuitable for analysis.

Legal Responsibility.

LAB is solely responsible for performance of this contract, and no affiliated company, director, officer, employee, or agent shall have any legal responsibility hereunder, whether in contract or tort including negligence.

Assignment.

LAB may assign its performance obligations under this contract to other parties, as it deems necessary. LAB shall disclose to Client any assignee (subcontractor) by ELAP ID # on the submitted final report.

Force Majeure.

LAB shall have no responsibility or liability to the Client for any failure or delay in performance by LAB, which results in whole or in part from any cause or circumstance beyond the reasonable control of LAB. Such causes and circumstances shall include, but not limited to, acts of God, acts or orders of any government authority, strikes or other labor disputes, natural disasters, accidents, wars, civil disturbances, difficulties or delays in transportation, mail or delivery services, inability to obtain sufficient services or supplies from LAB's usual suppliers, or any other cause beyond LAB's reasonable control.

Law.

This contract shall be continued under the laws of the State of New York without regard to its conflicts of laws provision.

This report is part of a multipage document and should only be evaluated in its entirety. The Chain of Custody provides additional sample information, including compliance with the sample condition requirements upon receipt.

Report Prepared Tuesday, December 29, 2020

CHAIN OF CUSTODY

182



REPORT TO:				INVOICE TO:					
CLIENT: <u>Wibel & Associates</u>	ADDRESS: <u>300 State St Suite 200</u>	CITY: <u>Rochester</u>	STATE: <u>NY</u>	ZIP: <u>14610</u>	CLIENT: <u>same as report to</u>	ADDRESS: <u></u>	CITY: <u></u>	STATE: <u></u>	ZIP: <u></u>
PHONE: <u>585-454-6100</u>	ATTN: <u>Dan Nail</u>	PHONE: <u></u>	ATTN: <u></u>	LAB PROJECT ID: <u>205954</u>		Quotation #: <u></u>		Email: <u></u>	
PROJECT REFERENCE Matrix Codes: <u></u> AQ - Aqueous Liquid NAQ - Non-Aqueous Liquid					REQUESTED ANALYSIS WA - Water WG - Groundwater DW - Drinking Water WW - Wastewater SO - Soil SL - Sludge SD - Solid PT - Paint WP - Wipe CK - Caulk OL - Oil AR - Air				

DATE COLLECTED	TIME COLLECTED	COMPOSITE	GRADES	SAMPLE IDENTIFIER	MCAOXRIS	NOUMTBAINERS	REMARKS	PARADIGM LAB SAMPLE NUMBER
12/18/2020	1100	<input checked="" type="checkbox"/>	X	LAB-SRW-15-12182020	9W	1	8717 INS, FCL	01
12/18/2020	1105	<input checked="" type="checkbox"/>	X	LAB-SRW-16-12182020	9W	1	4752 MILK	02
							Sci. ed started in field	
							NW 12/18/2020 1259	

Turnaround Time		Report Supplements	
Availability contingent upon lab approval; additional fees may apply.	<input checked="" type="checkbox"/> Standard 5 day	None Required	None Required
	<input type="checkbox"/> 10 day	Batch QC	Basic EDD
	<input type="checkbox"/> Rush 3 day	Category A	NYSDEC EDD
	<input type="checkbox"/> Rush 2 day	Category B	
	<input type="checkbox"/> Rush 1 day	Other	Other EDD
	Date Needed _____	Other EDD	Other EDD

Received @ Lab By: Katherine Toney 12/18/2020 1227

Relinquished By: [Signature] 12/18/2020 1227

Received By: [Signature] 12/18/2020 1227

Received @ Lab By: [Signature] 12/18/2020 1259

Total Cost:

P.L.F. 0.50L test 12/18/20

By signing this form, client agrees to Paradigm Terms and Conditions (reverse).

See additional page for sample conditions.

2012



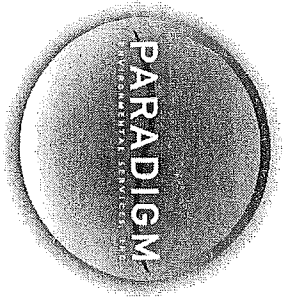
Chain of Custody Supplement

Client: Labella Completed by: Molly Nail
 Lab Project ID: 205954 Date: 12/18/2020

Sample Condition Requirements

Per NELAC/ELAP 210/241/242/243/244

Condition	NELAC compliance with the sample condition requirements upon receipt		
	Yes	No	N/A
Container Type	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Comments	_____		
Transferred to method-compliant container	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Headspace (<1 mL)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Comments	_____		
Preservation	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Comments	_____		
Chlorine Absent (<0.10 ppm per test strip)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Comments	_____		
Holding Time	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Comments	_____		
Temperature	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Comments	_____		
Compliant Sample Quantity/Type	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Comments	_____		



201221018

179 Lake Avenue, Rochester, NY 14608 Office (585) 647-2530 Fax (585) 647-3311

CHAIN OF CUSTODY

ADIRONDACK: ELAP ID: 1

REPORT TO:

INVOICE TO:

COMPANY: Paradigm Environmental

COMPANY: Same

LAB PROJECT #: CLIENT PROJECT:

ADDRESS:

ADDRESS:

CITY:

CITY:

STATE:

STATE:

ZIP:

TURNAROUND TIME: (WORKING DAYS)

PHONE:

FAX:

PHONE:

FAX:

STD

ATTN:

Reporting

ATTN:

Accounts Payable

1 2 3 4 5

COMMENTS:

Please email results to reporting@paradigmenv.com

Date Due: 12/29/2022

REQUESTED ANALYSIS

DATE	TIME	COMPOSITE	GRA B	SAMPLE LOCATION/FIELD ID	MATRIX	CONTAMINANTS	REMARKS	PARADIGM SAMPLE NU
12/15/2020	1100			205954-01	GW	1 X	2717 µs, KCL	
12/15/2020	1105			-02	GW	1 X	4752 µs, KCL	
3								
4								
5								
6								
7								
8								
9								
10								

LAB USE ONLY BELOW THIS LINE

Sample Condition: Per NELAC/ELAP 210/241/242/243/244

Receipt Parameter: _____ NELAC Compliance

Container Type: Y N

Comments: Not AEs At B/B1

Preservation: Y N

Comments: _____

Holding Time: Y N

Comments: _____

Temperature: 6°C Y N

Comments: _____

Client

Sampled By: _____ Date/Time: _____ Total Cost: _____

Relinquished By: _____ Date/Time: _____

Received By: _____ Date/Time: _____ P.I.F.

Received @ Lab By: _____ Date/Time: _____

_____ Date/Time: _____

_____ Date/Time: _____

_____ Date/Time: _____



PARADIGM
ENVIRONMENTAL SERVICES, INC.

Analytical Report For
LaBella Associates, P.C.

For Lab Project ID

205968

Referencing

210173

Prepared

Tuesday, December 29, 2020

Any noncompliant QC parameters or other notes impacting data interpretation are flagged or documented on the final report or are noted below.

A handwritten signature in blue ink, appearing to be "J. J. J.", is written above a horizontal line.

Certifies that this report has been approved by the Technical Director or Designee

179 Lake Avenue • Rochester, NY 14608 • (585) 647-2530 • Fax (585) 647-3311 • ELAP ID# 10958

This report is part of a multipage document and should only be evaluated in its entirety. The Chain of Custody provides additional sample information, including compliance with the sample condition requirements upon receipt.

Report Prepared Tuesday, December 29, 2020

Page 1 of 8



Client: LaBella Associates, P.C.

Project Reference: 210173

Sample Identifier: LBA-SBW-16

Lab Sample ID: 205968-01

Date Sampled: 12/19/2020

Matrix: Groundwater

Date Received: 12/21/2020

Bromide

<u>Analyte</u>	<u>Result</u>	<u>Units</u>	<u>Qualifier</u>	<u>Date Analyzed</u>
Bromide	1.43	mg/L		12/29/2020
Method Reference(s):	EPA 300.0 REV 2.1			
Subcontractor ELAP ID:	10709			



Client: LaBella Associates, P.C.

Project Reference: 210173

Sample Identifier: LBA-SBW-15

Lab Sample ID: 205968-02

Date Sampled: 12/19/2020

Matrix: Groundwater

Date Received: 12/21/2020

Bromide

<u>Analyte</u>	<u>Result</u>	<u>Units</u>	<u>Qualifier</u>	<u>Date Analyzed</u>
Bromide	0.750	mg/L		12/29/2020
Method Reference(s):	EPA 300.0 REV 2.1			
Subcontractor ELAP ID:	10709			



Analytical Report Appendix

The reported results relate only to the samples as they have been received by the laboratory.

Each page of this document is part of a multipage report. This document may not be reproduced except in its entirety, without the prior consent of Paradigm Environmental Services, Inc.

All soil/sludge samples have been reported on a dry weight basis, unless qualified "reported as received". Other solids are reported as received.

Low level Volatiles blank reports for soil/solid matrix are based on a nominal 5 gram weight. Sample results and reporting limits are based on actual weight, which may be more or less than 5 grams.

The Chain of Custody provides additional information, including compliance with sample condition requirements upon receipt. Sample condition requirements are defined under the 2003 NELAC Standard, sections 5.5.8.3.1 and 5.5.8.3.2.

NYSDOH ELAP does not certify for all parameters. Paradigm Environmental Services or the indicated subcontracted laboratory does hold certification for all analytes where certification is offered by ELAP unless otherwise specified. Aliquots separated for certain tests, such as TCLP, are indicated on the Chain of Custody and final reports with an "A" suffix.

Data qualifiers are used, when necessary, to provide additional information about the data. This information may be communicated as a flag or as text at the bottom of the report. Please refer to the following list of analyte-specific, frequently used data flags and their meaning:

"<" = Analyzed for but not detected at or above the quantitation limit.

"E" = Result has been estimated, calibration limit exceeded.

"Z" = See case narrative.

"D" = Sample, Laboratory Control Sample, or Matrix Spike Duplicate results above Relative Percent Difference limit.

"M" = Matrix spike recoveries outside QC limits. Matrix bias indicated.

"B" = Method blank contained trace levels of analyte. Refer to included method blank report.

"J" = Result estimated between the quantitation limit and half the quantitation limit.

"L" = Laboratory Control Sample recovery outside accepted QC limits.

"P" = Concentration differs by more than 40% between the primary and secondary analytical columns.

"NC" = Not calculable. Applicable to RPD if sample or duplicate result is non-detect or estimated (see primary report for data flags). Applicable to MS if sample is greater or equal to ten times the spike added. Applicable to sample surrogates or MS if sample dilution is 10x or higher.

"" = Indicates any recoveries outside associated acceptance windows. Surrogate outliers in samples are presumed matrix effects. LCS demonstrates method compliance unless otherwise noted.*

"(1)" = Indicates data from primary column used for QC calculation.

"A" = denotes a parameter for which ELAP does not offer approval as part of their laboratory certification program.

"F" = denotes a parameter for which Paradigm does not carry certification, the results for which should therefore only be used where ELAP certification is not required, such as personal exposure assessment.

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GENERAL TERMS AND CONDITIONS

LABORATORY SERVICES

These Terms and Conditions embody the whole agreement of the parties in the absence of a signed and executed contract between the Laboratory (LAB) and Client. They shall supersede all previous communications, representations, or agreements, either verbal or written, between the parties. The LAB specifically rejects all additional, inconsistent, or conflicting terms, whether printed or otherwise set forth in any purchase order or other communication from the Client to the LAB. The invalidity or unenforceability in whole or in part of any provision, term or condition hereof shall not affect in any way the validity or enforceability of the remainder of the Terms and Conditions. No waiver by LAB of any provision, term, or condition hereof or of any breach by or obligation of the Client hereunder shall constitute a waiver of such provision, term, or condition on any other occasion or a waiver of any other breach by or obligation of the Client. This agreement shall be administered and interpreted under the laws of the state which services are procured.

Warranty.

Recognizing that the nature of many samples is unknown and that some may contain potentially hazardous components, LAB warrants only that it will perform testing services, obtain findings, and prepare reports in accordance with generally accepted analytical laboratory principles and practices at the time of performance of services. LAB makes no other warranty, express or implied.

Scope and Compensation.

LAB agrees to perform the services described in the chain of custody to which these terms and conditions are attached. Unless the parties agree in writing to the contrary, the duties of LAB shall not be construed to exceed the services specifically described. LAB will use LAB default method for all tests unless specified otherwise on the Work Order.

Payment terms are net 30 days from the date of invoice. All overdue payments are subject to an interest charge of one and one-half percent (1-1/2%) per month or a portion thereof. Client shall also be responsible for costs of collection, including payment of reasonable attorney fees if such expense is incurred. The prices, unless stated, do not include any sale, use or other taxes. Such taxes will be added to invoice prices when required.

Prices.

Compensation for services performed will be based on the current Lab Analytical Fee Schedule or on quotations agreed to in writing by the parties. Turnaround time based charges are determined from the time of resolution of all work order questions. Testimony, court appearances or data compilation for legal action will be charged separately. Evaluation and reporting of initial screening runs may incur additional fees.

Limitations of Liability.

In the event of any error, omission, or other professional negligence, the sole and exclusive responsibility of LAB shall be to re-perform the deficient work at its own expense and LAB shall have no other liability whatsoever. All claims shall be deemed waived unless made in writing and received by LAB within ninety (90) days following completion of services.

LAB shall have no liability, obligation, or responsibility of any kind for losses, costs, expenses, or other damages (including but not limited to any special, direct, incidental or consequential damages) with respect to LAB's services or results.

All results provided by LAB are strictly for the use of its clients and LAB is in no way responsible for the use of such results by clients or third parties. All reports should be considered in their entirety, and LAB is not responsible for the separation, detachment, or other use of any portion of these reports. Client may not assign the lab report without the written consent of the LAB.

Client covenants and agrees, at its/his/her sole expense, to indemnify, protect, defend, and save harmless the LAB from and against any and all damages, losses, liabilities, obligations, penalties, claims, litigation, demands, defenses, judgments, suits, actions, proceedings, costs, disbursements and/or expenses (including, without limitation attorneys' and experts' fees and disbursements) of any kind whatsoever which may at any time be imposed upon, incurred by or asserted or awarded against client relating to, resulting from or arising out of (a) the breach of this agreement by this client, (b) the negligence of the client in handling, delivering or disclosing any hazardous substance, (c) the violation of the Client of any applicable law, (d) non-compliance by the Client with any environmental permit or (e) a material misrepresentation in disclosing the materials to be tested.

Hazard Disclosure.

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Sample Handling.

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Client authorizes LAB to proceed with the analysis of samples as received by the laboratory, recognizing that any samples not in compliance with all current DOH-ELAP-NELAP requirements for containers, preservation or holding time will be noted as such on the final report.

Disposal of hazardous waste samples is the responsibility of the Client. If the Client does not wish such samples returned, LAB may add storage and disposal fees to the final invoice. Maximum storage time for samples is 30 days after completion of analysis unless modified by applicable state or federal laws. Client will be required to give the LAB written instructions concerning disposal of these samples.

LAB reserves the absolute right, exercisable at any time, to refuse to receive delivery of, refuse to accept, or revoke acceptance of any sample, which, in the sole judgment of LAB (a) is of unsuitable volume, (b) may be or become unsuitable for or may pose a risk in handling, transport, or processing for any health, safety, environmental or other reason whether or not due to the presence in the sample of any hazardous substance, and whether or not such presence has been disclosed to LAB by Client or (c) if the condition or sample date make the sample unsuitable for analysis.

Legal Responsibility.

LAB is solely responsible for performance of this contract, and no affiliated company, director, officer, employee, or agent shall have any legal responsibility hereunder, whether in contract or tort including negligence.

Assignment.

LAB may assign its performance obligations under this contract to other parties, as it deems necessary. LAB shall disclose to Client any assignee (subcontractor) by ELAP ID # on the submitted final report.

Force Majeure.

LAB shall have no responsibility or liability to the Client for any failure or delay in performance by LAB, which results in whole or in part from any cause or circumstance beyond the reasonable control of LAB. Such causes and circumstances shall include, but not limited to, acts of God, acts or orders of any government authority, strikes or other labor disputes, natural disasters, accidents, wars, civil disturbances, difficulties or delays in transportation, mail or delivery services, inability to obtain sufficient services or supplies from LAB's usual suppliers, or any other cause beyond LAB's reasonable control.

Law.

This contract shall be continued under the laws of the State of New York without regard to its conflicts of laws provision.

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Report Prepared Tuesday, December 29, 2020

CHAIN OF CUSTODY

1 of 2



REPORT TO: CLIENT: Labella Associates ADDRESS: 300 State St, Suite 200 CITY: Rochester NY ZIP: 14610 PHONE: 585-4574-6110 ATTN: Dan Mall	INVOICE TO: CLIENT: SAMS ADDRESS: CITY: STATE: ZIP: PHONE: ATTN:	LAB PROJECT ID 205968 Quotation #: Email: dmall@labella.com
--	--	--

PROJECT REFERENCE
210173

Matrix Codes: AQ - Aqueous Liquid NQ - Non-Aqueous Liquid WA - Water WG - Groundwater DW - Drinking Water WW - Wastewater SO - Soil SL - Sludge SD - Solid PT - Paint WP - Wipe CK - Caulk OL - Oil AR - Air

DATE COLLECTED	TIME COLLECTED	COMPOSITE	GARB	SAMPLE IDENTIFIER	MATERIALS	CONTAINER	REMARKS	PARADIGM LAB SAMPLE NUMBER
12/19/20	1335	X	X	434-53BW-16 434-53BW-15	WB	X	4617 us 2862 us	01 02
12/19/20	1345	X	X	434-53BW-15	WB	X		

Turnaround Time Availability contingent upon lab approval; additional fees may apply.	Report Supplements
Standard 5 day <input checked="" type="checkbox"/>	None Required <input type="checkbox"/>
10 day <input type="checkbox"/>	Batch QC <input type="checkbox"/>
Rush 3 day <input type="checkbox"/>	Category A <input type="checkbox"/>
Rush 2 day <input type="checkbox"/>	Category B <input type="checkbox"/>
Rush 1 day <input type="checkbox"/>	Other <input type="checkbox"/>

Received By Dan Mall	Date/Time 12/19/20	Total Cost:
Relinquished By P. Mall	Date/Time 12/19/20 1405	
Received @ Lab By 15.c 12/21/2020 09:26	Date/Time 12/21/2020 09:44	P.L.F.

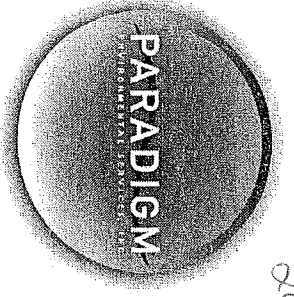


Chain of Custody Supplement

Client: LaBella Associates **Completed by:** Glenn Pezzulo
Lab Project ID: 205968 **Date:** 12/21/2020

Sample Condition Requirements
Per NELAC/ELAP 210/241/242/243/244

Condition	NELAC compliance with the sample condition requirements upon receipt		
	Yes	No	N/A
Container Type	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Comments	_____		
Transferred to method-compliant container	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Headspace (<1 mL)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Comments	_____		
Preservation	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Comments	_____		
Chlorine Absent (<0.10 ppm per test strip)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Comments	_____		
Holding Time	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Comments	_____		
Temperature	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Comments	<u>15°C</u>		
Compliant Sample Quantity/Type	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Comments	_____		



201222007

179 Lake Avenue, Rochester, NY 14608 Office (585) 647-2530 Fax (585) 647-3311

/ F 1

CHAIN OF CUSTODY

ADIRONDACK: ELAP ID

REPORT TO:		INVOICE TO:	
COMPANY: Paradigm Environmental	ADDRESS:	COMPANY: Same	ADDRESS:
CITY:	STATE:	CITY:	STATE:
PHONE:	FAX:	PHONE:	FAX:
ATTN: Reporting	ATTN: Accounts Payable	LAB PROJECT #:	CLIENT PRO
Please email results to reporting@paradigmenv.com		TURNAROUND TIME: (WORKING DAYS)	STD
		1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input checked="" type="checkbox"/> 5	Date Due: 12/30/202

REQUESTED ANALYSIS

DATE	TIME	COMPOSITE	GRA B	SAMPLE LOCATION/FIELD ID	MATRIX	CONCENTRATIONS	REMARKS	PARADIGM LAB SAMPLE NUMBER
12/19/2020	13:35		X	205968-01	Ground Water	1	4617 μ S	
12/19/2020	13:45		X	-02		1	2862 μ S	
3								
4								
5								
6								
7								
8								
9								
10								

LAB USE ONLY BELOW THIS LINE

Sample Condition: Per NELAC/ELAP 210/241/242/243/244

Receipt Parameter: NELAC Compliance

Container Type: Y N

Comments: Not AES. AC 0/20

Preservation: Y N

Comments:

Holding Time: Y N

Comments:

Temperature: 30 C Y N

Comments:

Client

Sampled By: [Signature] Date/Time: 12/22/2020 08:30

Relinquished By: [Signature] Date/Time: 12/22/2020 1:30 PM

Received By: [Signature] Date/Time: 12/22/2020 4:20 PM

Received @ Lab By: [Signature] Date/Time: [Blank]

Total Cost: [Blank]

P.L.F. [Blank]





PARADIGM
ENVIRONMENTAL SERVICES, INC.

Analytical Report For
LaBella Associates, P.C.

For Lab Project ID

205993

Referencing

210173

Prepared

Tuesday, December 29, 2020

Any noncompliant QC parameters or other notes impacting data interpretation are flagged or documented on the final report or are noted below.

A handwritten signature in blue ink, appearing to be "J. P.", is positioned above a horizontal line.

Certifies that this report has been approved by the Technical Director or Designee

179 Lake Avenue • Rochester, NY 14608 • (585) 647-2530 • Fax (585) 647-3311 • ELAP ID# 10958

This report is part of a multipage document and should only be evaluated in its entirety. The Chain of Custody provides additional sample information, including compliance with the sample condition requirements upon receipt.

Page 1 of 12

Report Prepared Tuesday, December 29, 2020



Client: LaBella Associates, P.C.

Project Reference: 210173

Sample Identifier: LBA-SBW-15

Lab Sample ID: 205993-01

Date Sampled: 12/20/2020

Matrix: Groundwater

Date Received: 12/22/2020

Bromide

<u>Analyte</u>	<u>Result</u>	<u>Units</u>	<u>Qualifier</u>	<u>Date Analyzed</u>
Bromide	1.7	mg/L		12/24/2020
Method Reference(s):	EPA 300.0 Rev 2.1			
Subcontractor ELAP ID:	10709			



Client: LaBella Associates, P.C.

Project Reference: 210173

Sample Identifier: LBA-SBW-16

Lab Sample ID: 205993-02

Date Sampled: 12/20/2020

Matrix: Groundwater

Date Received: 12/22/2020

Bromide

<u>Analyte</u>	<u>Result</u>	<u>Units</u>	<u>Qualifier</u>	<u>Date Analyzed</u>
Bromide	1.3	mg/L		12/28/2020
Method Reference(s):	EPA 300.0 Rev 2.1			
Subcontractor ELAP ID:	10709			



Client: LaBella Associates, P.C.

Project Reference: 210173

Sample Identifier: LBA-SBW-15(1)

Lab Sample ID: 205993-03

Date Sampled: 12/21/2020

Matrix: Groundwater

Date Received: 12/22/2020

Bromide

<u>Analyte</u>	<u>Result</u>	<u>Units</u>	<u>Qualifier</u>	<u>Date Analyzed</u>
Bromide	<0.50	mg/L		12/28/2020
Method Reference(s):	EPA 300.0 Rev 2.1			
Subcontractor ELAP ID:	10709			



Client: LaBella Associates, P.C.

Project Reference: 210173

Sample Identifier: LBA-SBW-16(1)

Lab Sample ID: 205993-04

Date Sampled: 12/21/2020

Matrix: Groundwater

Date Received: 12/22/2020

Bromide

<u>Analyte</u>	<u>Result</u>	<u>Units</u>	<u>Qualifier</u>	<u>Date Analyzed</u>
Bromide	1.3	mg/L		12/28/2020
Method Reference(s):	EPA 300.0 Rev 2.1			
Subcontractor ELAP ID:	10709			



Client: LaBella Associates, P.C.

Project Reference: 210173

Sample Identifier: LBA-SBW-15(2)

Lab Sample ID: 205993-05

Date Sampled: 12/22/2020

Matrix: Groundwater

Date Received: 12/22/2020

Bromide

<u>Analyte</u>	<u>Result</u>	<u>Units</u>	<u>Qualifier</u>	<u>Date Analyzed</u>
Bromide	<0.50	mg/L		12/28/2020
Method Reference(s):	EPA 300.0 Rev 2.1			
Subcontractor ELAP ID:	10709			



Client: LaBella Associates, P.C.

Project Reference: 210173

Sample Identifier: LBA-SBW-16(2)

Lab Sample ID: 205993-06

Date Sampled: 12/22/2020

Matrix: Groundwater

Date Received: 12/22/2020

Bromide

<u>Analyte</u>	<u>Result</u>	<u>Units</u>	<u>Qualifier</u>	<u>Date Analyzed</u>
Bromide	1.2	mg/L		12/28/2020
Method Reference(s):	EPA 300.0 Rev 2.1			
Subcontractor ELAP ID:	10709			



Analytical Report Appendix

The reported results relate only to the samples as they have been received by the laboratory.

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All soil/sludge samples have been reported on a dry weight basis, unless qualified "reported as received". Other solids are reported as received.

Low level Volatiles blank reports for soil/solid matrix are based on a nominal 5 gram weight. Sample results and reporting limits are based on actual weight, which may be more or less than 5 grams.

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"E" = Result has been estimated, calibration limit exceeded.

"Z" = See case narrative.

"D" = Sample, Laboratory Control Sample, or Matrix Spike Duplicate results above Relative Percent Difference limit.

"M" = Matrix spike recoveries outside QC limits. Matrix bias indicated.

"B" = Method blank contained trace levels of analyte. Refer to included method blank report.

"J" = Result estimated between the quantitation limit and half the quantitation limit.

"L" = Laboratory Control Sample recovery outside accepted QC limits.

"P" = Concentration differs by more than 40% between the primary and secondary analytical columns.

"NC" = Not calculable. Applicable to RPD if sample or duplicate result is non-detect or estimated (see primary report for data flags). Applicable to MS if sample is greater or equal to ten times the spike added. Applicable to sample surrogates or MS if sample dilution is 10x or higher.

"" = Indicates any recoveries outside associated acceptance windows. Surrogate outliers in samples are presumed matrix effects. LCS demonstrates method compliance unless otherwise noted.*

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LABORATORY SERVICES

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LAB shall have no liability, obligation, or responsibility of any kind for losses, costs, expenses, or other damages (including but not limited to any special, direct, incidental or consequential damages) with respect to LAB's services or results.

All results provided by LAB are strictly for the use of its clients and LAB is in no way responsible for the use of such results by clients or third parties. All reports should be considered in their entirety, and LAB is not responsible for the separation, detachment, or other use of any portion of these reports. Client may not assign the lab report without the written consent of the LAB.

Client covenants and agrees, at its/his/her sole expense, to indemnify, protect, defend, and save harmless the LAB from and against any and all damages, losses, liabilities, obligations, penalties, claims, litigation, demands, defenses, judgments, suits, actions, proceedings, costs, disbursements and/or expenses (including, without limitation attorneys' and experts' fees and disbursements) of any kind whatsoever which may at any time be imposed upon, incurred by or asserted or awarded against client relating to, resulting from or arising out of (a) the breach of this agreement by this client, (b) the negligence of the client in handling, delivering or disclosing any hazardous substance, (c) the violation of the Client of any applicable law, (d) non-compliance by the Client with any environmental permit or (e) a material misrepresentation in disclosing the materials to be tested.

Hazard Disclosure.

Client represents and warrants that any sample delivered to LAB will be preceded or accompanied by complete written disclosure of the presence of any hazardous substances known or suspected by Client. Client further warrants that any sample containing any hazardous substance that is to be delivered to LAB will be packaged, labeled, transported, and delivered properly and in accordance with applicable laws.

Sample Handling.

Prior to LAB's acceptance of any sample (or after any revocation of acceptance), the entire risk of loss or of damage to such sample remains with Client. Samples are accepted when receipt is acknowledged on chain of custody documentation. In no event will LAB have any responsibility for the action or inaction of any carrier shipping or delivering any sample to or from LAB premises.

Client authorizes LAB to proceed with the analysis of samples as received by the laboratory, recognizing that any samples not in compliance with all current DOH-ELAP-NELAP requirements for containers, preservation or holding time will be noted as such on the final report.

Disposal of hazardous waste samples is the responsibility of the Client. If the Client does not wish such samples returned, LAB may add storage and disposal fees to the final invoice. Maximum storage time for samples is 30 days after completion of analysis unless modified by applicable state or federal laws. Client will be required to give the LAB written instructions concerning disposal of these samples.

LAB reserves the absolute right, exercisable at any time, to refuse to receive delivery of, refuse to accept, or revoke acceptance of any sample, which, in the sole judgment of LAB (a) is of unsuitable volume, (b) may be or become unsuitable for or may pose a risk in handling, transport, or processing for any health, safety, environmental or other reason whether or not due to the presence in the sample of any hazardous substance, and whether or not such presence has been disclosed to LAB by Client or (c) if the condition or sample date make the sample unsuitable for analysis.

Legal Responsibility.

LAB is solely responsible for performance of this contract, and no affiliated company, director, officer, employee, or agent shall have any legal responsibility hereunder, whether in contract or tort including negligence.

Assignment.

LAB may assign its performance obligations under this contract to other parties, as it deems necessary. LAB shall disclose to Client any assignee (subcontractor) by ELAP ID # on the submitted final report.

Force Majeure.

LAB shall have no responsibility or liability to the Client for any failure or delay in performance by LAB, which results in whole or in part from any cause or circumstance beyond the reasonable control of LAB. Such causes and circumstances shall include, but not limited to, acts of God, acts or orders of any government authority, strikes or other labor disputes, natural disasters, accidents, wars, civil disturbances, difficulties or delays in transportation, mail or delivery services, inability to obtain sufficient services or supplies from LAB's usual suppliers, or any other cause beyond LAB's reasonable control.

Law.

This contract shall be continued under the laws of the State of New York without regard to its conflicts of laws provision.

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CHAIN OF CUSTODY

1. F 2



PARADIGM

REPORT TO:

INVOICE TO:

LAB PROJECT ID

205993

Quotation #:

Email:

dvaldelabel@paradigm.com

PROJECT REFERENCE 240173

Matrix Codes:
 AQ - Aqueous Liquid
 NA - Non-Aqueous Liquid
 WA - Water
 WG - Groundwater
 DW - Drinking Water
 WW - Wastewater
 SO - Soil
 SL - Sludge
 SD - Solid
 PT - Paint
 WP - Wipe
 CK - Caulk
 OL - Oil
 AR - Air

CLIENT: LABELLA ASSOCIATES
 ADDRESS: 300 STATE ST
 CITY: ROCHESTER STATE: NY ZIP 14614
 PHONE: 585-301-8458
 ATTN: DAN No 11

CLIENT: SAME
 ADDRESS:
 CITY: STATE: ZIP:
 PHONE:
 ATTN:

DATE COLLECTED	TIME COLLECTED	COMPOSITION	GRADES	SAMPLE IDENTIFIER	MAINTENANCE	NO. OF TESTS	REMARKS	PARADIGM LAB SAMPLE NUMBER
12/20/20	1525	X	X	LBA-SBW-15	WG	1	2844 μ S	01
12/20/20	1532	X	X	LBA-SBW-16	WG	1	4700 μ S	02
12/21/20	1520	X	X	LBA-SBW-15(1)	WG	1	2735 μ S	03
12/21/20	1526	X	X	LBA-SBW-16(1)	WG	1	4700 μ S	04
12/22/20	1220	X	X	LBA-SBW-15(2)	WG	1	2823 μ S	05
12/22/20	1225	X	X	LBA-SBW-16(2)	WG	1	4735 μ S	06

Turnaround Time

Standard 5 day

10 day

Rush 3 day

Rush 2 day

Rush 1 day

Date Needed _____

Availability contingent upon lab approval; additional fees may apply.

Report Supplements

None Required

Batch QC

Category A

Category B

Other

None Required

Basic EDD

NYSDEC EDD

Other EDD

Received By: DAN No 11 Date/Time: 12/20/20 1540

Received @ Lab By: [Signature] Date/Time: 12/22/20 1245

Relinquished By: [Signature] Date/Time: 12/22/20 1245

Total Cost: _____

Received By: [Signature] Date/Time: 12/22/20 12:48

Received @ Lab By: [Signature] Date/Time: 12/22/20 12:48

P.I.F.

2 of 2

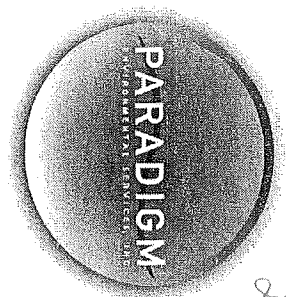


Chain of Custody Supplement

Client: LaBella Associates Completed by: Glenn Pezzulo
 Lab Project ID: 205993 Date: 12/22/2020

Sample Condition Requirements
 Per NELAC/ELAP 210/241/242/243/244

Condition	NELAC compliance with the sample condition requirements upon receipt		
	Yes	No	N/A
Container Type	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Comments	_____		
Transferred to method-compliant container	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Headspace (<1 mL)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Comments	_____		
Preservation	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Comments	_____		
Chlorine Absent (<0.10 ppm per test strip)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Comments	_____		
Holding Time	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Comments	_____		
Temperature	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Comments	<u>2°C iced</u>		
Compliant Sample Quantity/Type	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Comments	_____		



201223010

179 Lake Avenue, Rochester, NY 14608 Office (585) 647-2530 Fax (585) 647-3311

CHAIN OF CUSTODY

ADIRONDACK: ELAPID: 1

1 of 1

REPORT TO: Paradigm Environmental		INVOICE TO: Same	
COMPANY:	Paradigm Environmental	COMPANY:	Same
ADDRESS:		ADDRESS:	
CITY:		CITY:	
STATE:		STATE:	
ZIP:		ZIP:	
PHONE:		PHONE:	
FAX:		FAX:	
ATTN:	Reporting	ATTN:	Accounts Payable
COMMENTS: Please email results to reporting@paradigmenv.com			
LAB PROJECT #:		CLIENT PROJECT:	
TURNDOWN TIME (WORKING DAYS):		LAB PROJECT #:	
ATTN:	Reporting	ATTN:	Accounts Payable
DATE DUE:	12/28/2020	DATE DUE:	12/28/2020

DATE	TIME	COMPOSITE	GRAAB	SAMPLE LOCATION/FIELD ID	MATRIX	CONTAMINANTS	REMARKS	PARADIGM SAMPLE NUMBER
12/20/2020	15:25		X	205993-01	Ground Water	Bromide		
2	15:32			-02			2844 µs	
3	12/21/2020			-03			4700 µs	
4	15:26			-04			2735 µs	
5	12/22/2020			-05			4700 µs	
6	12:25			-06			2823 µs	
7							4735 µs	
8								
9								
10								

****LAB USE ONLY BELOW THIS LINE****

Sample Condition: Per NELAC/ELAP 210/241/242/243/244

Receipt Parameter: NELAC Compliance

Container Type: Y N Not AEs AE 12/23

Preservation: Y N

Holding Time: Y N

Temperature: 6°C Y N

Comments: _____

Client

Sampled By: [Signature] Date/Time: 12/23/2020 08:30

Relinquished By: _____ Date/Time: _____

Received By: [Signature] Date/Time: 12/23/2020

Received @ Lab By: _____ Date/Time: _____

Total Cost:

P.I.F.





PARADIGM
ENVIRONMENTAL SERVICES, INC.

Analytical Report For
LaBella Associates, P.C.

For Lab Project ID

206021

Referencing

210173

Prepared

Friday, January 8, 2021

Any noncompliant QC parameters or other notes impacting data interpretation are flagged or documented on the final report or are noted below.

A handwritten signature in black ink, appearing to read "RR Soil", is positioned above a horizontal line.

Certifies that this report has been approved by the Technical Director or Designee

179 Lake Avenue • Rochester, NY 14608 • (585) 647-2530 • Fax (585) 647-3311 • ELAP ID# 10958



Client: LaBella Associates, P.C.

Project Reference: 210173

Sample Identifier: LBA-SBW-15

Lab Sample ID: 206021-01

Date Sampled: 12/23/2020

Matrix: Groundwater

Date Received: 12/28/2020

Bromide

<u>Analyte</u>	<u>Result</u>	<u>Units</u>	<u>Qualifier</u>	<u>Date Analyzed</u>
Bromide	3.55	mg/L	M	1/7/2021
Method Reference(s):	EPA 300.0			
Subcontractor ELAP ID:	11148			



Client: LaBella Associates, P.C.

Project Reference: 210173

Sample Identifier: LBA-SBW-16

Lab Sample ID: 206021-02

Date Sampled: 12/23/2020

Matrix: Groundwater

Date Received: 12/28/2020

Bromide

<u>Analyte</u>	<u>Result</u>	<u>Units</u>	<u>Qualifier</u>	<u>Date Analyzed</u>
Bromide	3.11	mg/L		1/7/2021
Method Reference(s):	EPA 300.0			
Subcontractor ELAP ID:	11148			



Client: LaBella Associates, P.C.

Project Reference: 210173

Sample Identifier: LBA-SBW-15 (1)

Lab Sample ID: 206021-03

Date Sampled: 12/24/2020

Matrix: Groundwater

Date Received: 12/28/2020

Bromide

<u>Analyte</u>	<u>Result</u>	<u>Units</u>	<u>Qualifier</u>	<u>Date Analyzed</u>
Bromide	3.46	mg/L		1/7/2021
Method Reference(s):	EPA 300.0			
Subcontractor ELAP ID:	11148			



Client: LaBella Associates, P.C.

Project Reference: 210173

Sample Identifier: LBA-SBW-16 (1)

Lab Sample ID: 206021-04

Date Sampled: 12/24/2020

Matrix: Groundwater

Date Received: 12/28/2020

Bromide

<u>Analyte</u>	<u>Result</u>	<u>Units</u>	<u>Qualifier</u>	<u>Date Analyzed</u>
Bromide	2.95	mg/L		1/7/2021
Method Reference(s):	EPA 300.0			
Subcontractor ELAP ID:	11148			



Client: LaBella Associates, P.C.

Project Reference: 210173

Sample Identifier: LBA-SBW-15 (2)

Lab Sample ID: 206021-05

Date Sampled: 12/26/2020

Matrix: Groundwater

Date Received: 12/28/2020

Bromide

<u>Analyte</u>	<u>Result</u>	<u>Units</u>	<u>Qualifier</u>	<u>Date Analyzed</u>
Bromide	3.62	mg/L		1/7/2021
Method Reference(s):	EPA 300.0			
Subcontractor ELAP ID:	11148			



Client: LaBella Associates, P.C.

Project Reference: 210173

Sample Identifier: LBA-SBW-16 (2)

Lab Sample ID: 206021-06

Date Sampled: 12/26/2020

Matrix: Groundwater

Date Received: 12/28/2020

Bromide

<u>Analyte</u>	<u>Result</u>	<u>Units</u>	<u>Qualifier</u>	<u>Date Analyzed</u>
Bromide	2.87	mg/L		1/7/2021
Method Reference(s):	EPA 300.0			
Subcontractor ELAP ID:	11148			



Client: LaBella Associates, P.C.

Project Reference: 210173

Sample Identifier: LBA-SBW-15 (3)

Lab Sample ID: 206021-07

Date Sampled: 12/27/2020

Matrix: Groundwater

Date Received: 12/28/2020

Bromide

<u>Analyte</u>	<u>Result</u>	<u>Units</u>	<u>Qualifier</u>	<u>Date Analyzed</u>
Bromide	3.80	mg/L		1/7/2021
Method Reference(s):	EPA 300.0			
Subcontractor ELAP ID:	11148			



Client: LaBella Associates, P.C.

Project Reference: 210173

Sample Identifier: LBA-SBW-16 (3)

Lab Sample ID: 206021-08

Date Sampled: 12/27/2020

Matrix: Groundwater

Date Received: 12/28/2020

Bromide

<u>Analyte</u>	<u>Result</u>	<u>Units</u>	<u>Qualifier</u>	<u>Date Analyzed</u>
Bromide	3.16	mg/L		1/7/2021
Method Reference(s):	EPA 300.0			
Subcontractor ELAP ID:	11148			



Client: LaBella Associates, P.C.

Project Reference: 210173

Sample Identifier: LBA-SBW-15 (4)

Lab Sample ID: 206021-09

Date Sampled: 12/28/2020

Matrix: Groundwater

Date Received: 12/28/2020

Bromide

<u>Analyte</u>	<u>Result</u>	<u>Units</u>	<u>Qualifier</u>	<u>Date Analyzed</u>
Bromide	1.30	mg/L		12/29/2020
Method Reference(s):	EPA 300.0			
Subcontractor ELAP ID:	11148			



Client: LaBella Associates, P.C.

Project Reference: 210173

Sample Identifier: LBA-SBW-16 (4)

Lab Sample ID: 206021-10

Date Sampled: 12/28/2020

Matrix: Groundwater

Date Received: 12/28/2020

Bromide

<u>Analyte</u>	<u>Result</u>	<u>Units</u>	<u>Qualifier</u>	<u>Date Analyzed</u>
Bromide	0.760	mg/L	M	12/29/2020
Method Reference(s):	EPA 300.0			
Subcontractor ELAP ID:	11148			



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Client covenants and agrees, at its/his/her sole expense, to indemnify, protect, defend, and save harmless the LAB from and against any and all damages, losses, liabilities, obligations, penalties, claims, litigation, demands, defenses, judgments, suits, actions, proceedings, costs, disbursements and/or expenses (including, without limitation attorneys' and experts' fees and disbursements) of any kind whatsoever which may at any time be imposed upon, incurred by or asserted or awarded against client relating to, resulting from or arising out of (a) the breach of this agreement by this client, (b) the negligence of the client in handling, delivering or disclosing any hazardous substance, (c) the violation of the Client of any applicable law, (d) non-compliance by the Client with any environmental permit or (e) a material misrepresentation in disclosing the materials to be tested.

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Client represents and warrants that any sample delivered to LAB will be preceded or accompanied by complete written disclosure of the presence of any hazardous substances known or suspected by Client. Client further warrants that any sample containing any hazardous substance that is to be delivered to LAB will be packaged, labeled, transported, and delivered properly and in accordance with applicable laws.

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Prior to LAB's acceptance of any sample (or after any revocation of acceptance), the entire risk of loss or of damage to such sample remains with Client. Samples are accepted when receipt is acknowledged on chain of custody documentation. In no event will LAB have any responsibility for the action or inaction of any carrier shipping or delivering any sample to or from LAB premises.

Client authorizes LAB to proceed with the analysis of samples as received by the laboratory, recognizing that any samples not in compliance with all current DOH-ELAP-NELAP requirements for containers, preservation or holding time will be noted as such on the final report.

Disposal of hazardous waste samples is the responsibility of the Client. If the Client does not wish such samples returned, LAB may add storage and disposal fees to the final invoice. Maximum storage time for samples is 30 days after completion of analysis unless modified by applicable state or federal laws. Client will be required to give the LAB written instructions concerning disposal of these samples.

LAB reserves the absolute right, exercisable at any time, to refuse to receive delivery of, refuse to accept, or revoke acceptance of any sample, which, in the sole judgment of LAB (a) is of unsuitable volume, (b) may be or become unsuitable for or may pose a risk in handling, transport, or processing for any health, safety, environmental or other reason whether or not due to the presence in the sample of any hazardous substance, and whether or not such presence has been disclosed to LAB by Client or (c) if the condition or sample date make the sample unsuitable for analysis.

Legal Responsibility.

LAB is solely responsible for performance of this contract, and no affiliated company, director, officer, employee, or agent shall have any legal responsibility hereunder, whether in contract or tort including negligence.

Assignment.

LAB may assign its performance obligations under this contract to other parties, as it deems necessary. LAB shall disclose to Client any assignee (subcontractor) by ELAP ID # on the submitted final report.

Force Majeure.

LAB shall have no responsibility or liability to the Client for any failure or delay in performance by LAB, which results in whole or in part from any cause or circumstance beyond the reasonable control of LAB. Such causes and circumstances shall include, but not limited to, acts of God, acts or orders of any government authority, strikes or other labor disputes, natural disasters, accidents, wars, civil disturbances, difficulties or delays in transportation, mail or delivery services, inability to obtain sufficient services or supplies from LAB's usual suppliers, or any other cause beyond LAB's reasonable control.

Law.

This contract shall be continued under the laws of the State of New York without regard to its conflicts of laws provision.

This report is part of a multipage document and should only be evaluated in its entirety. The Chain of Custody provides additional sample information, including compliance with the sample condition requirements upon receipt.

Report Prepared Friday, January 8, 2021



CHAIN OF CUSTODY

REPORT TO:		INVOICE TO:		LAB PROJECT ID
CLIENT: LABELL ASSOCIATES	CLIENT: SAME	206021		
ADDRESS: 300 STATE ST	ADDRESS:	Quotation #:		
CITY: ROCHESTER STATE: NY ZIP: 14614	CITY: STATE: ZIP:	Email: dnoll@labellape.com		
PHONE: 585-301-8458	PHONE:			
ATTN: DAN NOLL	ATTN:			

PROJECT REFERENCE
210173

Matrix Codes:
 AQ - Aqueous Liquid WA - Water DW - Drinking Water SO - Soil SD - Solid WP - Wipe OL - Oil
 NQ - Non-Aqueous Liquid WG - Groundwater WW - Wastewater SL - Sludge PT - Paint CK - Caulk AR - Air

REQUESTED ANALYSIS													
DATE COLLECTED	TIME COLLECTED	COMPOSITE	GRAB	SAMPLE IDENTIFIER	MATRIX	COUNTAINERS						REMARKS	PARADIGM LAB SAMPLE NUMBER
12/23/20	1325		X	LBA-SBW-15	WG	1	X					2758 MS	01
12/23/20	1335		X	LBA-SBW-16	WG	1	X					4699 MS	02
12/24/20	1150		X	LBA-SBW-15 (1)		1	X					2789 MS	03
12/24/20	1200		X	LBA-SBW-16 (1)		1	X					4663 MS	04
12/26/20	1430		X	LBA-SBW-15 (2)		1	X					2935 MS	05
12/26/20	1440		X	LBA-SBW-16 (2)		1	X					4761 MS	06
12/27/20	1430		F	LBA-SBW-15 (3)		1	X					2876 MS	07
12/27/20	1435		F	LBA-SBW-16 (3)		1	X					4740 MS	08
12/28/20	1005		F	LBA-SBW-15 (4)		1	X					2865 MS ? 2-DAY	09
12/28/20	1015		F	LBA-SBW-16 (4)		1	X					4792 MS STAT	10

Turnaround Time	Report Supplements	
Availability contingent upon lab approval; additional fees may apply.		
Standard 5 day <input checked="" type="checkbox"/> ← Except as noted	None Required <input type="checkbox"/>	None Required <input type="checkbox"/>
10 day <input type="checkbox"/>	Batch QC <input type="checkbox"/>	Basic EDD <input type="checkbox"/>
Rush 3 day <input type="checkbox"/>	Category A <input type="checkbox"/>	NYSDEC EDD <input type="checkbox"/>
Rush 2 day <input type="checkbox"/>	Category B <input type="checkbox"/>	
Rush 1 day <input type="checkbox"/>		
Date Needed _____ please indicate date needed:	Other <input type="checkbox"/> please indicate package needed:	Other EDD <input type="checkbox"/> please indicate EDD needed:

DAN NOLL 12/28/20 10:25

Sampled By: [Signature] Date/Time: 12/28/20 10:30

Relinquished By: Emily Faumen Date/Time: 12/28/2020 10:55

Received By: [Signature] Date/Time: 12/28/2020 11:02

Received @ Lab By: [Signature] Date/Time: 12/28/2020 10:58

Total Cost:

P.I.F.

for these samples



2 of 2

Chain of Custody Supplement

Client: LaBella Associates Completed by: Glenn Pezzulo
 Lab Project ID: 206021 Date: 12/28/2020

Sample Condition Requirements

Per NELAC/ELAP 210/241/242/243/244

Condition	NELAC compliance with the sample condition requirements upon receipt		
	Yes	No	N/A
Container Type	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Comments	_____		
Transferred to method-compliant container	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Headspace (<1 mL)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Comments	_____		
Preservation	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Comments	_____		
Chlorine Absent (<0.10 ppm per test strip)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Comments	_____		
Holding Time	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Comments	_____		
Temperature	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Comments	<u>2°C</u>		
Compliant Sample Quantity/Type	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Comments	_____		



CHAIN OF CUSTODY

1 of 1
L2057782 11148

REPORT TO:				INVOICE TO:			
COMPANY:	Paradigm Environmental			COMPANY:	Same		
ADDRESS:	179 Lake Avenue			ADDRESS:			
CITY:	Rochester	STATE:	NY	ZIP:	14608		
PHONE:	FAX:			PHONE:	FAX:		
PROJECT NAME/SITE NAME:				LAB PROJECT #:			
ATTN: Reporting				CLIENT PROJECT #:			
COMMENTS: Please email results to reporting@paradigmenv.com				TURNAROUND TIME: (WORKING DAYS)			
				<input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input checked="" type="checkbox"/> 5 <input type="checkbox"/> 7 <input type="checkbox"/> OTHER			
				Date Due:			

REQUESTED ANALYSIS									
DATE	TIME	COMPOSITE	GRAB	SAMPLE LOCATION/FIELD ID	MATRIX	CONTAINER		REMARKS	PARADIGM LAB SAMPLE NUMBER
1	12/23/2020		X	206021-01	Ground Water	1	X	2758 µS	
2	↓			-02				4699 µS	
3	12/24/2020			-03				2789 µS	
4	↓			-04				4663 µS	
5	12/26/2020			-05				2935 µS	
6	↓			-06				4761 µS	
7	12/27/2020			-07				2876 µS	
8	↓			-08				4740 µS	
9									
10								Reporting Limit 0.1 mg/L	

****LAB USE ONLY BELOW THIS LINE****

Sample Condition: Per NELAC/ELAP 210/241/242/243/244

Receipt Parameter	NELAC Compliance	
Container Type:	Y <input type="checkbox"/>	N <input type="checkbox"/>
Comments:		
Preservation:	Y <input type="checkbox"/>	N <input type="checkbox"/>
Comments:		
Holding Time:	Y <input type="checkbox"/>	N <input type="checkbox"/>
Comments:		
Temperature:	Y <input type="checkbox"/>	N <input type="checkbox"/>
Comments:		

Client

Sampled By	Date/Time
<i>[Signature]</i>	12/28/2020 16:00
Relinquished By	Date/Time
<i>[Signature]</i>	12/28/20 16:00
Received By	Date/Time
<i>[Signature]</i>	12/28/20 00:15
Received @ Lab By	Date/Time

Total Cost:

P.I.F.



CHAIN OF CUSTODY

1 of 1
L2057786 11148

REPORT TO:				INVOICE TO:			
COMPANY:	Paradigm Environmental			COMPANY:	Same		
ADDRESS:	179 Lake Avenue			ADDRESS:			
CITY:	Rochester	STATE:	NY	ZIP:	14608		
PHONE:		FAX:		PHONE:		FAX:	
LAB PROJECT #:				CLIENT PROJECT #:			
TURNAROUND TIME: (WORKING DAYS)				Rush <input type="checkbox"/> STD <input checked="" type="checkbox"/> OTHER <input type="checkbox"/>			
PROJECT NAME/SITE NAME:	ATTN: Reporting			ATTN: Accounts Payable			<input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4 <input checked="" type="checkbox"/> 5
COMMENTS: Please email results to reporting@paradigmenv.com				Date Due: 12/30/2020			

REQUESTED ANALYSIS									
DATE	TIME	COMPOSITE	GRAB	SAMPLE LOCATION/FIELD ID	MATRIX	CONTAINER	Bromide	REMARKS	PARADIGM LAB SAMPLE NUMBER
12/28/2020	10:05		X	206021-09	Ground Water	1	X	2865 µs	
↓	10:15		X	-10	↓	1	X	4792 µs	
3									
4								Reporting Limit	
5								0.1 mg/L	
6									
7									
8									
9									
10									

****LAB USE ONLY BELOW THIS LINE****

Sample Condition: Per NELAC/ELAP 210/241/242/243/244

Receipt Parameter	NELAC Compliance	
Container Type:	Y <input type="checkbox"/>	N <input type="checkbox"/>
Comments: _____		
Preservation:	Y <input type="checkbox"/>	N <input type="checkbox"/>
Comments: _____		
Holding Time:	Y <input type="checkbox"/>	N <input type="checkbox"/>
Comments: _____		
Temperature:	Y <input type="checkbox"/>	N <input type="checkbox"/>
Comments: _____		

Client		Total Cost:
Sampled By	Date/Time	[]
<i>[Signature]</i>	12/28/2020 16:00	
Relinquished By	Date/Time	P.I.F. []
<i>[Signature]</i>	12/28/20 16:00	
Received By	Date/Time	
<i>[Signature]</i>	12/29/20 00:15	
Received @ Lab By	Date/Time	



Analytical Report For
LaBella Associates, P.C.

For Lab Project ID

206032

Referencing

210173 FESL

Prepared

Friday, January 8, 2021

Any noncompliant QC parameters or other notes impacting data interpretation are flagged or documented on the final report or are noted below.

Certifies that this report has been approved by the Technical Director or Designee

179 Lake Avenue • Rochester, NY 14608 • (585) 647-2530 • Fax (585) 647-3311 • ELAP ID# 10958



Client: LaBella Associates, P.C.

Project Reference: 210173 FESL

Sample Identifier: LBA-SBW-15

Lab Sample ID: 206032-01

Date Sampled: 12/29/2020

Matrix: Groundwater

Date Received: 12/29/2020

Bromide

<u>Analyte</u>	<u>Result</u>	<u>Units</u>	<u>Qualifier</u>	<u>Date Analyzed</u>
Bromide	3.65	mg/L		1/7/2021
Method Reference(s):	EPA 300.0			
Subcontractor ELAP ID:	11148			



Client: LaBella Associates, P.C.

Project Reference: 210173 FESL

Sample Identifier: LBA-SBW-16

Lab Sample ID: 206032-02

Date Sampled: 12/29/2020

Matrix: Groundwater

Date Received: 12/29/2020

Bromide

<u>Analyte</u>	<u>Result</u>	<u>Units</u>	<u>Qualifier</u>	<u>Date Analyzed</u>
Bromide	3.12	mg/L		1/7/2021
Method Reference(s):	EPA 300.0			
Subcontractor ELAP ID:	11148			



Analytical Report Appendix

The reported results relate only to the samples as they have been received by the laboratory.

Each page of this document is part of a multipage report. This document may not be reproduced except in its entirety, without the prior consent of Paradigm Environmental Services, Inc.

All soil/sludge samples have been reported on a dry weight basis, unless qualified "reported as received". Other solids are reported as received.

Low level Volatiles blank reports for soil/solid matrix are based on a nominal 5 gram weight. Sample results and reporting limits are based on actual weight, which may be more or less than 5 grams.

The Chain of Custody provides additional information, including compliance with sample condition requirements upon receipt. Sample condition requirements are defined under the 2003 NELAC Standard, sections 5.5.8.3.1 and 5.5.8.3.2.

NYSDOH ELAP does not certify for all parameters. Paradigm Environmental Services or the indicated subcontracted laboratory does hold certification for all analytes where certification is offered by ELAP unless otherwise specified. Aliquots separated for certain tests, such as TCLP, are indicated on the Chain of Custody and final reports with an "A" suffix.

Data qualifiers are used, when necessary, to provide additional information about the data. This information may be communicated as a flag or as text at the bottom of the report. Please refer to the following list of analyte-specific, frequently used data flags and their meaning:

"<" = Analyzed for but not detected at or above the quantitation limit.

"E" = Result has been estimated, calibration limit exceeded.

"Z" = See case narrative.

"D" = Sample, Laboratory Control Sample, or Matrix Spike Duplicate results above Relative Percent Difference limit.

"M" = Matrix spike recoveries outside QC limits. Matrix bias indicated.

"B" = Method blank contained trace levels of analyte. Refer to included method blank report.

"J" = Result estimated between the quantitation limit and half the quantitation limit.

"L" = Laboratory Control Sample recovery outside accepted QC limits.

"P" = Concentration differs by more than 40% between the primary and secondary analytical columns.

"NC" = Not calculable. Applicable to RPD if sample or duplicate result is non-detect or estimated (see primary report for data flags). Applicable to MS if sample is greater or equal to ten times the spike added. Applicable to sample surrogates or MS if sample dilution is 10x or higher.

"" = Indicates any recoveries outside associated acceptance windows. Surrogate outliers in samples are presumed matrix effects. LCS demonstrates method compliance unless otherwise noted.*

"(1)" = Indicates data from primary column used for QC calculation.

"A" = denotes a parameter for which ELAP does not offer approval as part of their laboratory certification program.

"F" = denotes a parameter for which Paradigm does not carry certification, the results for which should therefore only be used where ELAP certification is not required, such as personal exposure assessment.

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GENERAL TERMS AND CONDITIONS

LABORATORY SERVICES

These Terms and Conditions embody the whole agreement of the parties in the absence of a signed and executed contract between the Laboratory (LAB) and Client. They shall supersede all previous communications, representations, or agreements, either verbal or written, between the parties. The LAB specifically rejects all additional, inconsistent, or conflicting terms, whether printed or otherwise set forth in any purchase order or other communication from the Client to the LAB. The invalidity or unenforceability in whole or in part of any provision, term or condition hereof shall not affect in any way the validity or enforceability of the remainder of the Terms and Conditions. No waiver by LAB of any provision, term, or condition hereof or of any breach by or obligation of the Client hereunder shall constitute a waiver of such provision, term, or condition on any other occasion or a waiver of any other breach by or obligation of the Client. This agreement shall be administered and interpreted under the laws of the state which services are procured.

Warranty.

Recognizing that the nature of many samples is unknown and that some may contain potentially hazardous components, LAB warrants only that it will perform testing services, obtain findings, and prepare reports in accordance with generally accepted analytical laboratory principles and practices at the time of performance of services. LAB makes no other warranty, express or implied.

Scope and Compensation.

LAB agrees to perform the services described in the chain of custody to which these terms and conditions are attached. Unless the parties agree in writing to the contrary, the duties of LAB shall not be construed to exceed the services specifically described. LAB will use LAB default method for all tests unless specified otherwise on the Work Order.

Payment terms are net 30 days from the date of invoice. All overdue payments are subject to an interest charge of one and one-half percent (1-1/2%) per month or a portion thereof. Client shall also be responsible for costs of collection, including payment of reasonable attorney fees if such expense is incurred. The prices, unless stated, do not include any sale, use or other taxes. Such taxes will be added to invoice prices when required.

Prices.

Compensation for services performed will be based on the current Lab Analytical Fee Schedule or on quotations agreed to in writing by the parties. Turnaround time based charges are determined from the time of resolution of all work order questions. Testimony, court appearances or data compilation for legal action will be charged separately. Evaluation and reporting of initial screening runs may incur additional fees.

Limitations of Liability.

In the event of any error, omission, or other professional negligence, the sole and exclusive responsibility of LAB shall be to re-perform the deficient work at its own expense and LAB shall have no other liability whatsoever. All claims shall be deemed waived unless made in writing and received by LAB within ninety (90) days following completion of services.

LAB shall have no liability, obligation, or responsibility of any kind for losses, costs, expenses, or other damages (including but not limited to any special, direct, incidental or consequential damages) with respect to LAB's services or results.

All results provided by LAB are strictly for the use of its clients and LAB is in no way responsible for the use of such results by clients or third parties. All reports should be considered in their entirety, and LAB is not responsible for the separation, detachment, or other use of any portion of these reports. Client may not assign the lab report without the written consent of the LAB.

Client covenants and agrees, at its/his/her sole expense, to indemnify, protect, defend, and save harmless the LAB from and against any and all damages, losses, liabilities, obligations, penalties, claims, litigation, demands, defenses, judgments, suits, actions, proceedings, costs, disbursements and/or expenses (including, without limitation attorneys' and experts' fees and disbursements) of any kind whatsoever which may at any time be imposed upon, incurred by or asserted or awarded against client relating to, resulting from or arising out of (a) the breach of this agreement by this client, (b) the negligence of the client in handling, delivering or disclosing any hazardous substance, (c) the violation of the Client of any applicable law, (d) non-compliance by the Client with any environmental permit or (e) a material misrepresentation in disclosing the materials to be tested.

Hazard Disclosure.

Client represents and warrants that any sample delivered to LAB will be preceded or accompanied by complete written disclosure of the presence of any hazardous substances known or suspected by Client. Client further warrants that any sample containing any hazardous substance that is to be delivered to LAB will be packaged, labeled, transported, and delivered properly and in accordance with applicable laws.

Sample Handling.

Prior to LAB's acceptance of any sample (or after any revocation of acceptance), the entire risk of loss or of damage to such sample remains with Client. Samples are accepted when receipt is acknowledged on chain of custody documentation. In no event will LAB have any responsibility for the action or inaction of any carrier shipping or delivering any sample to or from LAB premises.

Client authorizes LAB to proceed with the analysis of samples as received by the laboratory, recognizing that any samples not in compliance with all current DOH-ELAP-NELAP requirements for containers, preservation or holding time will be noted as such on the final report.

Disposal of hazardous waste samples is the responsibility of the Client. If the Client does not wish such samples returned, LAB may add storage and disposal fees to the final invoice. Maximum storage time for samples is 30 days after completion of analysis unless modified by applicable state or federal laws. Client will be required to give the LAB written instructions concerning disposal of these samples.

LAB reserves the absolute right, exercisable at any time, to refuse to receive delivery of, refuse to accept, or revoke acceptance of any sample, which, in the sole judgment of LAB (a) is of unsuitable volume, (b) may be or become unsuitable for or may pose a risk in handling, transport, or processing for any health, safety, environmental or other reason whether or not due to the presence in the sample of any hazardous substance, and whether or not such presence has been disclosed to LAB by Client or (c) if the condition or sample date make the sample unsuitable for analysis.

Legal Responsibility.

LAB is solely responsible for performance of this contract, and no affiliated company, director, officer, employee, or agent shall have any legal responsibility hereunder, whether in contract or tort including negligence.

Assignment.

LAB may assign its performance obligations under this contract to other parties, as it deems necessary. LAB shall disclose to Client any assignee (subcontractor) by ELAP ID # on the submitted final report.

Force Majeure.

LAB shall have no responsibility or liability to the Client for any failure or delay in performance by LAB, which results in whole or in part from any cause or circumstance beyond the reasonable control of LAB. Such causes and circumstances shall include, but not limited to, acts of God, acts or orders of any government authority, strikes or other labor disputes, natural disasters, accidents, wars, civil disturbances, difficulties or delays in transportation, mail or delivery services, inability to obtain sufficient services or supplies from LAB's usual suppliers, or any other cause beyond LAB's reasonable control.

Law.

This contract shall be continued under the laws of the State of New York without regard to its conflicts of laws provision.

This report is part of a multipage document and should only be evaluated in its entirety. The Chain of Custody provides additional sample information, including compliance with the sample condition requirements upon receipt.

Report Prepared Friday, January 8, 2021



CHAIN OF CUSTODY

206032 1 of 2

REPORT TO:			INVOICE TO:			LAB PROJECT ID		
CLIENT:	LaBella Assoc.		CLIENT:	SAME		FESL		
ADDRESS:	300 State St		ADDRESS:			Quotation #:		
CITY:	Rochester	STATE: NY ZIP 14614	CITY:	STATE:	ZIP:	Email:		
PHONE:	585-301-8458		PHONE:			dnoll@labella.com		
ATTN:	DAN Noll		ATTN:					

PROJECT REFERENCE
210173

Matrix Codes:

AQ - Aqueous Liquid	WA - Water	DW - Drinking Water	SO - Soil	SD - Solid	WP - Wipe	OL - Oil
NQ - Non-Aqueous Liquid	WG - Groundwater	WW - Wastewater	SL - Sludge	PT - Paint	CK - Caulk	AR - Air

REQUESTED ANALYSIS														
DATE COLLECTED	TIME COLLECTED	COMPOSITE	GRAB	SAMPLE IDENTIFIER	MATRIX	COUNTAINERS						REMARKS	PARADIGM LAB SAMPLE NUMBER	
12/29/20	1005		X	LBA-SBW-15	WG	1	X						2829 MS	01
12/29/20	1015		X	LBA-SBW-16	WG	1	X						4732 MS	02

Turnaround Time	Report Supplements	
Availability contingent upon lab approval; additional fees may apply.		
Standard 5 day <input checked="" type="checkbox"/>	None Required <input type="checkbox"/>	None Required <input type="checkbox"/>
10 day <input type="checkbox"/>	Batch QC <input type="checkbox"/>	Basic EDD <input type="checkbox"/>
Rush 3 day <input type="checkbox"/>	Category A <input type="checkbox"/>	NYSDEC EDD <input type="checkbox"/>
Rush 2 day <input type="checkbox"/>	Category B <input type="checkbox"/>	
Rush 1 day <input type="checkbox"/>		
Date Needed _____	Other <input type="checkbox"/>	Other EDD <input type="checkbox"/>
<small>please indicate date needed:</small>	<small>please indicate package needed:</small>	<small>please indicate EDD needed:</small>

DAN Noll 12/29/20 1030
 Sampled By _____ Date/Time
 Relinquished By _____ Date/Time
 Received By _____ Date/Time
 Received @ Lab By _____ Date/Time
 G.C 12/29/2020 10:30

Total Cost:

P.I.F.

By signing this form, client agrees to Paradigm Terms and Conditions (reverse).



Chain of Custody Supplement

2 of 2

Client: LaBella Associates Completed by: Glenn Pezzulo
 Lab Project ID: 206032 Date: 12/29/2020

Sample Condition Requirements
 Per NELAC/ELAP 210/241/242/243/244

Condition	NELAC compliance with the sample condition requirements upon receipt		
	Yes	No	N/A
Container Type	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Comments	_____		
Transferred to method-compliant container	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Headspace (<1 mL)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Comments	_____		
Preservation	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Comments	_____		
Chlorine Absent (<0.10 ppm per test strip)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Comments	_____		
Holding Time	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Comments	_____		
Temperature	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Comments	<u>6 °C</u>		
Compliant Sample Quantity/Type	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Comments	_____		

179 Lake Avenue, Rochester, NY 14608 Office (585) 647-2530 Fax (585) 647-3311

CHAIN OF CUSTODY

1 of 1
L2057948

11148



REPORT TO:				INVOICE TO:				
COMPANY:	Paradigm Environmental			COMPANY:	Same			
ADDRESS:	179 Lake Avenue			ADDRESS:				
CITY:	Rochester	STATE:	NY	ZIP:	14608			
PHONE:		FAX:		PHONE:		FAX:		
PROJECT NAME/SITE NAME:	ATTN: Reporting			ATTN: Accounts Payable			LAB PROJECT #:	CLIENT PROJECT #:
COMMENTS: Please email results to reporting@paradigmenv.com				TURNAROUND TIME: (WORKING DAYS)				
				<input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input checked="" type="checkbox"/> 5 <input type="checkbox"/> 7 <input type="checkbox"/> OTHER				
				Date Due:				

REQUESTED ANALYSIS									
DATE	TIME	COMPOSITE	GRAB	SAMPLE LOCATION/FIELD ID	MATRIX	CONTAINER	Bromide	REMARKS	PARADIGM LAB SAMPLE NUMBER
1 12/29/2020	10:05		X	206032-01	Water	1	X		
2 12/29/2020	10:15		X	↓ - 02	↓	1	X		
3									
4								Reporting Limit	
5								0.1 mg/L	
6									
7									
8									
9									
10									

LAB USE ONLY BELOW THIS LINE

Sample Condition: Per NELAC/ELAP 210/241/242/243/244

Receipt Parameter	NELAC Compliance	
Container Type:	Y <input type="checkbox"/>	N <input type="checkbox"/>
Comments:		
Preservation:	Y <input type="checkbox"/>	N <input type="checkbox"/>
Comments:		
Holding Time:	Y <input type="checkbox"/>	N <input type="checkbox"/>
Comments:		
Temperature:	Y <input type="checkbox"/>	N <input type="checkbox"/>
Comments:		

Client		Total Cost:
Sampled By: <i>[Signature]</i>	Date/Time: 12/29/2020 16:00	<input type="text"/>
Relinquished By: <i>[Signature]</i>	Date/Time: 12/29/20 16:45	
Received By: <i>[Signature]</i>	Date/Time: 12/30/20 0020	P.I.F. <input type="text"/>
Received @ Lab By: _____	Date/Time: _____	



Analytical Report For
LaBella Associates, P.C.

For Lab Project ID

206054

Referencing

210173, FESL

Prepared

Monday, January 4, 2021

Any noncompliant QC parameters or other notes impacting data interpretation are flagged or documented on the final report or are noted below.

Certifies that this report has been approved by the Technical Director or Designee

179 Lake Avenue • Rochester, NY 14608 • (585) 647-2530 • Fax (585) 647-3311 • ELAP ID# 10958



Client: LaBella Associates, P.C.

Project Reference: 210173, FESL

Sample Identifier: LBA-SBW-15

Lab Sample ID: 206054-01

Date Sampled: 12/30/2020

Matrix: Groundwater

Date Received: 12/30/2020

Bromide

<u>Analyte</u>	<u>Result</u>	<u>Units</u>	<u>Qualifier</u>	<u>Date Analyzed</u>
Bromide	2.82	mg/L		12/31/2020

Method Reference(s): EPA 300.0

Subcontractor ELAP ID: 11148



Client: LaBella Associates, P.C.

Project Reference: 210173, FESL

Sample Identifier: LBA-SBW-16

Lab Sample ID: 206054-02

Date Sampled: 12/30/2020

Matrix: Groundwater

Date Received: 12/30/2020

Bromide

<u>Analyte</u>	<u>Result</u>	<u>Units</u>	<u>Qualifier</u>	<u>Date Analyzed</u>
Bromide	2.62	mg/L		12/31/2020
Method Reference(s):	EPA 300.0			
Subcontractor ELAP ID:	11148			



Client: LaBella Associates, P.C.

Project Reference: 210173, FESL

Sample Identifier: ML-2

Lab Sample ID: 206054-03

Date Sampled: 12/30/2020

Matrix: Groundwater

Date Received: 12/30/2020

Bromide

<u>Analyte</u>	<u>Result</u>	<u>Units</u>	<u>Qualifier</u>	<u>Date Analyzed</u>
Bromide	23.5	mg/L		12/31/2020
Method Reference(s):	EPA 300.0			
Subcontractor ELAP ID:	11148			



Client: LaBella Associates, P.C.

Project Reference: 210173, FESL

Sample Identifier: IP-2

Lab Sample ID: 206054-04

Date Sampled: 12/30/2020

Matrix: Groundwater

Date Received: 12/30/2020

Bromide

<u>Analyte</u>	<u>Result</u>	<u>Units</u>	<u>Qualifier</u>	<u>Date Analyzed</u>
Bromide	231	mg/L		1/3/2021
Method Reference(s):	EPA 300.0			
Subcontractor ELAP ID:	11148			



Analytical Report Appendix

The reported results relate only to the samples as they have been received by the laboratory.

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All soil/sludge samples have been reported on a dry weight basis, unless qualified "reported as received". Other solids are reported as received.

Low level Volatiles blank reports for soil/solid matrix are based on a nominal 5 gram weight. Sample results and reporting limits are based on actual weight, which may be more or less than 5 grams.

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Data qualifiers are used, when necessary, to provide additional information about the data. This information may be communicated as a flag or as text at the bottom of the report. Please refer to the following list of analyte-specific, frequently used data flags and their meaning:

"<" = Analyzed for but not detected at or above the quantitation limit.

"E" = Result has been estimated, calibration limit exceeded.

"Z" = See case narrative.

"D" = Sample, Laboratory Control Sample, or Matrix Spike Duplicate results above Relative Percent Difference limit.

"M" = Matrix spike recoveries outside QC limits. Matrix bias indicated.

"B" = Method blank contained trace levels of analyte. Refer to included method blank report.

"J" = Result estimated between the quantitation limit and half the quantitation limit.

"L" = Laboratory Control Sample recovery outside accepted QC limits.

"P" = Concentration differs by more than 40% between the primary and secondary analytical columns.

"NC" = Not calculable. Applicable to RPD if sample or duplicate result is non-detect or estimated (see primary report for data flags). Applicable to MS if sample is greater or equal to ten times the spike added. Applicable to sample surrogates or MS if sample dilution is 10x or higher.

"" = Indicates any recoveries outside associated acceptance windows. Surrogate outliers in samples are presumed matrix effects. LCS demonstrates method compliance unless otherwise noted.*

"(1)" = Indicates data from primary column used for QC calculation.

"A" = denotes a parameter for which ELAP does not offer approval as part of their laboratory certification program.

"F" = denotes a parameter for which Paradigm does not carry certification, the results for which should therefore only be used where ELAP certification is not required, such as personal exposure assessment.

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GENERAL TERMS AND CONDITIONS

LABORATORY SERVICES

These Terms and Conditions embody the whole agreement of the parties in the absence of a signed and executed contract between the Laboratory (LAB) and Client. They shall supersede all previous communications, representations, or agreements, either verbal or written, between the parties. The LAB specifically rejects all additional, inconsistent, or conflicting terms, whether printed or otherwise set forth in any purchase order or other communication from the Client to the LAB. The invalidity or unenforceability in whole or in part of any provision, term or condition hereof shall not affect in any way the validity or enforceability of the remainder of the Terms and Conditions. No waiver by LAB of any provision, term, or condition hereof or of any breach by or obligation of the Client hereunder shall constitute a waiver of such provision, term, or condition on any other occasion or a waiver of any other breach by or obligation of the Client. This agreement shall be administered and interpreted under the laws of the state which services are procured.

Warranty.

Recognizing that the nature of many samples is unknown and that some may contain potentially hazardous components, LAB warrants only that it will perform testing services, obtain findings, and prepare reports in accordance with generally accepted analytical laboratory principles and practices at the time of performance of services. LAB makes no other warranty, express or implied.

Scope and Compensation.

LAB agrees to perform the services described in the chain of custody to which these terms and conditions are attached. Unless the parties agree in writing to the contrary, the duties of LAB shall not be construed to exceed the services specifically described. LAB will use LAB default method for all tests unless specified otherwise on the Work Order.

Payment terms are net 30 days from the date of invoice. All overdue payments are subject to an interest charge of one and one-half percent (1-1/2%) per month or a portion thereof. Client shall also be responsible for costs of collection, including payment of reasonable attorney fees if such expense is incurred. The prices, unless stated, do not include any sale, use or other taxes. Such taxes will be added to invoice prices when required.

Prices.

Compensation for services performed will be based on the current Lab Analytical Fee Schedule or on quotations agreed to in writing by the parties. Turnaround time based charges are determined from the time of resolution of all work order questions. Testimony, court appearances or data compilation for legal action will be charged separately. Evaluation and reporting of initial screening runs may incur additional fees.

Limitations of Liability.

In the event of any error, omission, or other professional negligence, the sole and exclusive responsibility of LAB shall be to re-perform the deficient work at its own expense and LAB shall have no other liability whatsoever. All claims shall be deemed waived unless made in writing and received by LAB within ninety (90) days following completion of services.

LAB shall have no liability, obligation, or responsibility of any kind for losses, costs, expenses, or other damages (including but not limited to any special, direct, incidental or consequential damages) with respect to LAB's services or results.

All results provided by LAB are strictly for the use of its clients and LAB is in no way responsible for the use of such results by clients or third parties. All reports should be considered in their entirety, and LAB is not responsible for the separation, detachment, or other use of any portion of these reports. Client may not assign the lab report without the written consent of the LAB.

Client covenants and agrees, at its/his/her sole expense, to indemnify, protect, defend, and save harmless the LAB from and against any and all damages, losses, liabilities, obligations, penalties, claims, litigation, demands, defenses, judgments, suits, actions, proceedings, costs, disbursements and/or expenses (including, without limitation attorneys' and experts' fees and disbursements) of any kind whatsoever which may at any time be imposed upon, incurred by or asserted or awarded against client relating to, resulting from or arising out of (a) the breach of this agreement by this client, (b) the negligence of the client in handling, delivering or disclosing any hazardous substance, (c) the violation of the Client of any applicable law, (d) non-compliance by the Client with any environmental permit or (e) a material misrepresentation in disclosing the materials to be tested.

Hazard Disclosure.

Client represents and warrants that any sample delivered to LAB will be preceded or accompanied by complete written disclosure of the presence of any hazardous substances known or suspected by Client. Client further warrants that any sample containing any hazardous substance that is to be delivered to LAB will be packaged, labeled, transported, and delivered properly and in accordance with applicable laws.

Sample Handling.

Prior to LAB's acceptance of any sample (or after any revocation of acceptance), the entire risk of loss or of damage to such sample remains with Client. Samples are accepted when receipt is acknowledged on chain of custody documentation. In no event will LAB have any responsibility for the action or inaction of any carrier shipping or delivering any sample to or from LAB premises.

Client authorizes LAB to proceed with the analysis of samples as received by the laboratory, recognizing that any samples not in compliance with all current DOH-ELAP-NELAP requirements for containers, preservation or holding time will be noted as such on the final report.

Disposal of hazardous waste samples is the responsibility of the Client. If the Client does not wish such samples returned, LAB may add storage and disposal fees to the final invoice. Maximum storage time for samples is 30 days after completion of analysis unless modified by applicable state or federal laws. Client will be required to give the LAB written instructions concerning disposal of these samples.

LAB reserves the absolute right, exercisable at any time, to refuse to receive delivery of, refuse to accept, or revoke acceptance of any sample, which, in the sole judgment of LAB (a) is of unsuitable volume, (b) may be or become unsuitable for or may pose a risk in handling, transport, or processing for any health, safety, environmental or other reason whether or not due to the presence in the sample of any hazardous substance, and whether or not such presence has been disclosed to LAB by Client or (c) if the condition or sample date make the sample unsuitable for analysis.

Legal Responsibility.

LAB is solely responsible for performance of this contract, and no affiliated company, director, officer, employee, or agent shall have any legal responsibility hereunder, whether in contract or tort including negligence.

Assignment.

LAB may assign its performance obligations under this contract to other parties, as it deems necessary. LAB shall disclose to Client any assignee (subcontractor) by ELAP ID # on the submitted final report.

Force Majeure.

LAB shall have no responsibility or liability to the Client for any failure or delay in performance by LAB, which results in whole or in part from any cause or circumstance beyond the reasonable control of LAB. Such causes and circumstances shall include, but not limited to, acts of God, acts or orders of any government authority, strikes or other labor disputes, natural disasters, accidents, wars, civil disturbances, difficulties or delays in transportation, mail or delivery services, inability to obtain sufficient services or supplies from LAB's usual suppliers, or any other cause beyond LAB's reasonable control.

Law.

This contract shall be continued under the laws of the State of New York without regard to its conflicts of laws provision.

This report is part of a multipage document and should only be evaluated in its entirety. The Chain of Custody provides additional sample information, including compliance with the sample condition requirements upon receipt.



CHAIN OF CUSTODY

206054

1082

REPORT TO:		INVOICE TO:	
CLIENT: <i>LaBella Associates</i>	CLIENT:	LAB PROJECT ID	
ADDRESS: <i>300 State St</i>	ADDRESS:	<i>FESL</i>	
CITY: <i>Rochester</i> STATE: <i>NY</i> ZIP: <i>14610</i>	CITY: STATE: ZIP:	Quotation #:	
PHONE: <i>585-301-8458</i>	PHONE:	Email:	
ATTN: <i>Day Noll</i>	ATTN:		

PROJECT REFERENCE
210173

Matrix Codes:

AQ - Aqueous Liquid	WA - Water	DW - Drinking Water	SO - Soil	SD - Solid	WP - Wipe	OL - Oil
NQ - Non-Aqueous Liquid	WG - Groundwater	WW - Wastewater	SL - Sludge	PT - Paint	CK - Caulk	AR - Air

REQUESTED ANALYSIS										PARADIGM LAB SAMPLE NUMBER		
DATE COLLECTED	TIME COLLECTED	COMPOSITE	GRAB	SAMPLE IDENTIFIER	MATRIX	CONTAINER OF	ANALYSIS	ANALYSIS	ANALYSIS		REMARKS	
<i>12/30/20</i>	<i>1310</i>		<i>X</i>	<i>LBA-SBW-15</i>	<i>WB</i>	<i>1</i>	<i>X</i>				<i>2817 μS</i>	<i>01</i>
<i>12/30/20</i>	<i>1315</i>		<i>X</i>	<i>LBA-SBW-16</i>		<i>1</i>	<i>X</i>				<i>4670 μS</i>	<i>02</i>
<i>12/30/20</i>	<i>1320</i>		<i>X</i>	<i>ML-2</i>		<i>1</i>	<i>X</i>				<i>2214 4034 μS</i>	<i>03</i>
<i>12/30/20</i>	<i>1325</i>		<i>X</i>	<i>IP-2</i>		<i>1</i>	<i>X</i>				<i>4034 2214 μS</i>	<i>04</i>
<i>9°C 12/30/2020 1405</i>												

Turnaround Time	Report Supplements		
Availability contingent upon lab approval; additional fees may apply.			
Standard 5 day <input type="checkbox"/>	None Required <input type="checkbox"/>	None Required <input type="checkbox"/>	None Required <input type="checkbox"/>
10 day <input type="checkbox"/>	Batch QC <input type="checkbox"/>	Basic EDD <input type="checkbox"/>	
Rush 3 day <input type="checkbox"/>	Category A <input type="checkbox"/>	NYSDEC EDD <input type="checkbox"/>	
Rush 2 day <input checked="" type="checkbox"/>	Category B <input type="checkbox"/>		
Rush 1 day <input type="checkbox"/>			
Date Needed _____ please indicate date needed:	Other <input type="checkbox"/> please indicate package needed:	Other EDD <input type="checkbox"/> please indicate EDD needed:	

<i>[Signature]</i>	<i>12/30/2026</i>	<i>1315</i>
Sampled By	Date/Time	
<i>[Signature]</i>	<i>12/30/2020</i>	<i>1400</i>
Relinquished By	Date/Time	
<i>Emily Farman</i>	<i>12/30/2020</i>	<i>1402</i>
Received By	Date/Time	
<i>Molly Noll</i>	<i>12/30/2020</i>	<i>1407</i>
Received @ Lab By	Date/Time	

Total Cost:

P.I.F.

By signing this form, client agrees to Paradigm Terms and Conditions (reverse).

2082



Chain of Custody Supplement

Client: LaBella Completed by: Molly Kail
 Lab Project ID: 206054 Date: 12/30/2020

Sample Condition Requirements
 Per NELAC/ELAP 210/241/242/243/244

Condition	NELAC compliance with the sample condition requirements upon receipt		
	Yes	No	N/A
Container Type	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Comments	_____		
Transferred to method-compliant container	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Headspace (<1 mL)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Comments	_____		
Preservation	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Comments	_____		
Chlorine Absent (<0.10 ppm per test strip)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Comments	_____		
Holding Time	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Comments	_____		
Temperature	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Comments	9°C		
Compliant Sample Quantity/Type	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Comments	_____		

L2058167 1 of 1

11148

179 Lake Avenue, Rochester, NY 14608 Office (585) 647-2530 Fax (585) 647-3311

CHAIN OF CUSTODY



Reush

REPORT TO:				INVOICE TO:			
COMPANY:	Paradigm Environmental			COMPANY:	Same		
ADDRESS:	179 Lake Avenue			ADDRESS:			
CITY:	Rochester	STATE:	NY	ZIP:	14608		
PHONE:				PHONE:			
ATTN:	Reporting			ATTN:	Accounts Payable		
COMMENTS:	Please email results to reporting@paradigmenv.com						

LAB PROJECT #:	CLIENT PROJECT #:
TURNAROUND TIME: (WORKING DAYS)	
<input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input checked="" type="checkbox"/> 5	STD OTHER
Date Due: 1/4/2024	

PROJECT NAME/SITE NAME:

REQUESTED ANALYSIS									
DATE	TIME	COMPOSITE	GRAB	SAMPLE LOCATION/FIELD ID	MATRIX	CONTAINER	REMARKS	PARADIGM LAB SAMPLE NUMBER	
11/23/2020	1310			206054-01	GW	1			
2	1315			02		1			
3	1320			03		1			
4	1325			04		1			
5									
6							Reporting Limit		
7							0.1 mg/L		
8									
9									
10									

LAB USE ONLY BELOW THIS LINE

Sample Condition: Per NELAC/ELAP 210/241/242/243/244

Receipt Parameter	NELAC Compliance	
Container Type:	Y <input type="checkbox"/>	N <input type="checkbox"/>
Preservation:	Y <input type="checkbox"/>	N <input type="checkbox"/>
Holding Time:	Y <input type="checkbox"/>	N <input type="checkbox"/>
Temperature:	Y <input type="checkbox"/>	N <input type="checkbox"/>

Client

Sampled By: *Molly Vail* Date/Time: 12/30/2020 16:00

Relinquished By: *IS Cunningham* Date/Time: 12/30/2020 17:27

Received By: *[Signature]* Date/Time: 12/31/2020 00:50

Received @ Lab By: _____ Date/Time: _____

Total Cost:

P.I.F.



Analytical Report For
LaBella Associates, P.C.

For Lab Project ID

206062

Referencing

N/A

Prepared

Tuesday, January 12, 2021

Any noncompliant QC parameters or other notes impacting data interpretation are flagged or documented on the final report or are noted below.

Certifies that this report has been approved by the Technical Director or Designee

179 Lake Avenue • Rochester, NY 14608 • (585) 647-2530 • Fax (585) 647-3311 • ELAP ID# 10958



Client: LaBella Associates, P.C.

Project Reference: N/A

Sample Identifier: LAB-SBW-15

Lab Sample ID: 206062-01

Matrix: Water

Date Sampled: 12/31/2020

Date Received: 12/31/2020

Bromide

<u>Analyte</u>	<u>Result</u>	<u>Units</u>	<u>Qualifier</u>	<u>Date Analyzed</u>
Bromide	3.2	mg/L		1/8/2021
Method Reference(s):	EPA 300.0			
Subcontractor ELAP ID:	11148			



Client: LaBella Associates, P.C.

Project Reference: N/A

Sample Identifier: LAB-SBW-16

Lab Sample ID: 206062-02

Matrix: Water

Date Sampled: 12/31/2020

Date Received: 12/31/2020

Bromide

<u>Analyte</u>	<u>Result</u>	<u>Units</u>	<u>Qualifier</u>	<u>Date Analyzed</u>
Bromide	2.9	mg/L		1/8/2021
Method Reference(s):	EPA 300.0			
Subcontractor ELAP ID:	11148			



Analytical Report Appendix

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"M" = Matrix spike recoveries outside QC limits. Matrix bias indicated.

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"J" = Result estimated between the quantitation limit and half the quantitation limit.

"L" = Laboratory Control Sample recovery outside accepted QC limits.

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Client covenants and agrees, at its/his/her sole expense, to indemnify, protect, defend, and save harmless the LAB from and against any and all damages, losses, liabilities, obligations, penalties, claims, litigation, demands, defenses, judgments, suits, actions, proceedings, costs, disbursements and/or expenses (including, without limitation attorneys' and experts' fees and disbursements) of any kind whatsoever which may at any time be imposed upon, incurred by or asserted or awarded against client relating to, resulting from or arising out of (a) the breach of this agreement by this client, (b) the negligence of the client in handling, delivering or disclosing any hazardous substance, (c) the violation of the Client of any applicable law, (d) non-compliance by the Client with any environmental permit or (e) a material misrepresentation in disclosing the materials to be tested.

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Law.

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Report Prepared Tuesday, January 12, 2021

1 of 2



CHAIN OF CUSTODY

REPORT TO:		INVOICE TO:		LAB PROJECT ID
CLIENT: <u>LaBell Associates</u>	CLIENT:	206062		
ADDRESS: <u>300 State Street</u>	ADDRESS:	Quotation #:		
CITY: <u>Rochester</u> STATE: <u>NY</u> ZIP: <u>14614</u>	CITY: STATE: ZIP:	Email:		
PHONE: <u>585-301-8458</u>	PHONE:	ATTN: <u>Dan Noll</u>		

PROJECT REFERENCE

Matrix Codes:
 AQ - Aqueous Liquid WA - Water DW - Drinking Water SO - Soil SD - Solid WP - Wipe OL - Oil
 NQ - Non-Aqueous Liquid WG - Groundwater WW - Wastewater SL - Sludge PT - Paint CK - Caulk AR - Air

REQUESTED ANALYSIS											
DATE COLLECTED	TIME COLLECTED	COMPOSITE	GRAB	SAMPLE IDENTIFIER	MATRIX	CONTAINER	NUMBERS	OF	REMARKS	PARADIGM LAB SAMPLE NUMBER	
12/31/20	9:45		X	LAB-SBW-15	W	1	X		2794 μ S	01	
12/31/20	9:50		X	LAB-SBW-16	W	1	X		4720 μ S	02	

Turnaround Time	Report Supplements	
Availability contingent upon lab approval; additional fees may apply.		
Standard 5 day <input checked="" type="checkbox"/>	None Required <input type="checkbox"/>	None Required <input type="checkbox"/>
10 day <input type="checkbox"/>	Batch QC <input type="checkbox"/>	Basic EDD <input type="checkbox"/>
Rush 3 day <input type="checkbox"/>	Category A <input type="checkbox"/>	NYSDEC EDD <input type="checkbox"/>
Rush 2 day <input type="checkbox"/>	Category B <input type="checkbox"/>	
Rush 1 day <input type="checkbox"/>		
Date Needed _____	Other <input type="checkbox"/>	Other EDD <input type="checkbox"/>
<small>please indicate date needed:</small>	<small>please indicate package needed:</small>	<small>please indicate EDD needed:</small>

<u>[Signature]</u>	12/31/20 10:00	Total Cost: <input type="text"/>
Sampled By	Date/Time	
<u>[Signature]</u>	12/31/20	P.I.F. <input type="text"/>
Relinquished By	Date/Time	
<u>[Signature]</u>	12/31/20 10:25	
Received By	Date/Time	
<u>[Signature]</u>	12/31/2020 10:33	
Received @ Lab By	Date/Time	
7°C <u>[Signature]</u>	12/31/2020 10:29	



2 of 2

Chain of Custody Supplement

Client: LaBella Associates Completed by: Glenn Pezzulo
 Lab Project ID: 206062 Date: 12/31/2020

Sample Condition Requirements

Per NELAC/ELAP 210/241/242/243/244

Condition	NELAC compliance with the sample condition requirements upon receipt		
	Yes	No	N/A
Container Type	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Comments	_____		
Transferred to method-compliant container	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Headspace (<1 mL)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Comments	_____ _____		
Preservation	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Comments	_____		
Chlorine Absent (<0.10 ppm per test strip)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Comments	_____		
Holding Time	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Comments	_____		
Temperature	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Comments	7°C		
Compliant Sample Quantity/Type	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Comments	_____		

L2058259
1 of 1



CHAIN OF CUSTODY

11148

REPORT TO:				INVOICE TO:			
COMPANY: Paradigm Environmental		COMPANY: Same		LAB PROJECT #:		CLIENT PROJECT #:	
ADDRESS: 179 Lake Avenue		ADDRESS:					
CITY: Rochester STATE: NY ZIP: 14608		CITY: STATE: ZIP:		TURNAROUND TIME: (WORKING DAYS)			
PHONE: FAX:		PHONE: FAX:		<input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 5 <input type="checkbox"/> 7 <input type="checkbox"/> OTHER			
PROJECT NAME/SITE NAME:		ATTN: Reporting		ATTN: Accounts Payable		Date Due:	
COMMENTS: Please email results to reporting@paradigmenv.com							

REQUESTED ANALYSIS									
DATE	TIME	COMPOSITE	GRAB	SAMPLE LOCATION/FIELD ID	MATRIX	CONTAINER	Blomicle	REMARKS	PARADIGM LAB SAMPLE NUMBER
1 12/31/2020	09:45		X	206062-01	Water	1	X		
2 12/31/2020	09:50		X	1 - 02	Water	1	X		
3									
4								Reporting Limit	
5								0.1 mg/L	
6									
7									
8									
9									
10									

****LAB USE ONLY BELOW THIS LINE****

Sample Condition: Per NELAC/ELAP 210/241/242/243/244

Receipt Parameter	NELAC Compliance	
Container Type:	Y <input type="checkbox"/>	N <input type="checkbox"/>
Comments: _____		
Preservation:	Y <input type="checkbox"/>	N <input type="checkbox"/>
Comments: _____		
Holding Time:	Y <input type="checkbox"/>	N <input type="checkbox"/>
Comments: _____		
Temperature:	Y <input type="checkbox"/>	N <input type="checkbox"/>
Comments: _____		

Client

Sampled By	Date/Time
<i>2P</i>	12/31/2020 11:30
Relinquished By	Date/Time
<i>R Cunningham AAC</i>	12/31/20 11:58
Received By	Date/Time
<i>[Signature]</i>	12/31/20 18:23
Received By	Date/Time
Received @ Lab By	Date/Time

Total Cost:

P.I.F.



Analytical Report For
LaBella Associates, P.C.

For Lab Project ID

210135

Referencing

FESL

Prepared

Tuesday, January 19, 2021

Any noncompliant QC parameters or other notes impacting data interpretation are flagged or documented on the final report or are noted below.

Certifies that this report has been approved by the Technical Director or Designee

179 Lake Avenue • Rochester, NY 14608 • (585) 647-2530 • Fax (585) 647-3311 • ELAP ID# 10958



Client: LaBella Associates, P.C.

Project Reference: FESL

Sample Identifier: LBA-SBW-15

Lab Sample ID: 210135-01

Date Sampled: 1/4/2021

Matrix: Groundwater

Date Received: 1/11/2021

Bromide

<u>Analyte</u>	<u>Result</u>	<u>Units</u>	<u>Qualifier</u>	<u>Date Analyzed</u>
Bromide	3.31	mg/L	M	1/13/2021

Method Reference(s): EPA 300.0

Subcontractor ELAP ID: 11148



Client: LaBella Associates, P.C.

Project Reference: FESL

Sample Identifier: LBA-SBW-16

Lab Sample ID: 210135-02

Date Sampled: 1/4/2021

Matrix: Groundwater

Date Received: 1/11/2021

Bromide

<u>Analyte</u>	<u>Result</u>	<u>Units</u>	<u>Qualifier</u>	<u>Date Analyzed</u>
Bromide	2.87	mg/L		1/13/2021
Method Reference(s):	EPA 300.0			
Subcontractor ELAP ID:	11148			



Client: LaBella Associates, P.C.

Project Reference: FESL

Sample Identifier: LBA-SBW-15

Lab Sample ID: 210135-03

Date Sampled: 1/3/2021

Matrix: Groundwater

Date Received: 1/11/2021

Bromide

<u>Analyte</u>	<u>Result</u>	<u>Units</u>	<u>Qualifier</u>	<u>Date Analyzed</u>
Bromide	3.43	mg/L		1/13/2021
Method Reference(s):	EPA 300.0			
Subcontractor ELAP ID:	11148			



Client: LaBella Associates, P.C.

Project Reference: FESL

Sample Identifier: LBA-SBW-16

Lab Sample ID: 210135-04

Date Sampled: 1/3/2021

Matrix: Groundwater

Date Received: 1/11/2021

Bromide

<u>Analyte</u>	<u>Result</u>	<u>Units</u>	<u>Qualifier</u>	<u>Date Analyzed</u>
Bromide	2.91	mg/L		1/13/2021
Method Reference(s):	EPA 300.0			
Subcontractor ELAP ID:	11148			



Client: LaBella Associates, P.C.

Project Reference: FESL

Sample Identifier: LAB-SBW-15

Lab Sample ID: 210135-05

Date Sampled: 1/5/2021

Matrix: Groundwater

Date Received: 1/11/2021

Bromide

<u>Analyte</u>	<u>Result</u>	<u>Units</u>	<u>Qualifier</u>	<u>Date Analyzed</u>
Bromide	3.80	mg/L		1/13/2021
Method Reference(s):	EPA 300.0			
Subcontractor ELAP ID:	11148			



Client: LaBella Associates, P.C.

Project Reference: FESL

Sample Identifier: LAB-SBW-16

Lab Sample ID: 210135-06

Date Sampled: 1/5/2021

Matrix: Groundwater

Date Received: 1/11/2021

Bromide

<u>Analyte</u>	<u>Result</u>	<u>Units</u>	<u>Qualifier</u>	<u>Date Analyzed</u>
Bromide	2.85	mg/L		1/13/2021
Method Reference(s):	EPA 300.0			
Subcontractor ELAP ID:	11148			



Client: LaBella Associates, P.C.

Project Reference: FESL

Sample Identifier: LAB-SBW-15-01062021

Lab Sample ID: 210135-07

Date Sampled: 1/6/2021

Matrix: Groundwater

Date Received: 1/11/2021

Bromide

<u>Analyte</u>	<u>Result</u>	<u>Units</u>	<u>Qualifier</u>	<u>Date Analyzed</u>
Bromide	3.50	mg/L		1/13/2021
Method Reference(s):	EPA 300.0			
Subcontractor ELAP ID:	11148			



Client: LaBella Associates, P.C.

Project Reference: FESL

Sample Identifier: LAB-SBW-16-01062021

Lab Sample ID: 210135-08

Date Sampled: 1/6/2021

Matrix: Groundwater

Date Received: 1/11/2021

Bromide

<u>Analyte</u>	<u>Result</u>	<u>Units</u>	<u>Qualifier</u>	<u>Date Analyzed</u>
Bromide	2.76	mg/L		1/13/2021
Method Reference(s):	EPA 300.0			
Subcontractor ELAP ID:	11148			



Client: LaBella Associates, P.C.

Project Reference: FESL

Sample Identifier: LAB-SBW-15-01072021

Lab Sample ID: 210135-09

Date Sampled: 1/7/2021

Matrix: Groundwater

Date Received: 1/11/2021

Bromide

<u>Analyte</u>	<u>Result</u>	<u>Units</u>	<u>Qualifier</u>	<u>Date Analyzed</u>
Bromide	3.56	mg/L		1/13/2021
Method Reference(s):	EPA 300.0			
Subcontractor ELAP ID:	11148			



Client: LaBella Associates, P.C.

Project Reference: FESL

Sample Identifier: LAB-SBW-16-01072021

Lab Sample ID: 210135-10

Date Sampled: 1/7/2021

Matrix: Groundwater

Date Received: 1/11/2021

Bromide

<u>Analyte</u>	<u>Result</u>	<u>Units</u>	<u>Qualifier</u>	<u>Date Analyzed</u>
Bromide	3.06	mg/L		1/13/2021
Method Reference(s):	EPA 300.0			
Subcontractor ELAP ID:	11148			



Client: LaBella Associates, P.C.

Project Reference: FESL

Sample Identifier: LAB-SBW-15-01082021

Lab Sample ID: 210135-11

Date Sampled: 1/8/2021

Matrix: Groundwater

Date Received: 1/11/2021

Bromide

<u>Analyte</u>	<u>Result</u>	<u>Units</u>	<u>Qualifier</u>	<u>Date Analyzed</u>
Bromide	3.33	mg/L		1/13/2021
Method Reference(s):	EPA 300.0			
Subcontractor ELAP ID:	11148			



Client: LaBella Associates, P.C.

Project Reference: FESL

Sample Identifier: LAB-SBW-16-01082021

Lab Sample ID: 210135-12

Date Sampled: 1/8/2021

Matrix: Groundwater

Date Received: 1/11/2021

Bromide

<u>Analyte</u>	<u>Result</u>	<u>Units</u>	<u>Qualifier</u>	<u>Date Analyzed</u>
Bromide	3.10	mg/L		1/13/2021
Method Reference(s):	EPA 300.0			
Subcontractor ELAP ID:	11148			



Analytical Report Appendix

The reported results relate only to the samples as they have been received by the laboratory.

Each page of this document is part of a multipage report. This document may not be reproduced except in its entirety, without the prior consent of Paradigm Environmental Services, Inc.

All soil/sludge samples have been reported on a dry weight basis, unless qualified "reported as received". Other solids are reported as received.

Low level Volatiles blank reports for soil/solid matrix are based on a nominal 5 gram weight. Sample results and reporting limits are based on actual weight, which may be more or less than 5 grams.

The Chain of Custody provides additional information, including compliance with sample condition requirements upon receipt. Sample condition requirements are defined under the 2003 NELAC Standard, sections 5.5.8.3.1 and 5.5.8.3.2.

NYSDOH ELAP does not certify for all parameters. Paradigm Environmental Services or the indicated subcontracted laboratory does hold certification for all analytes where certification is offered by ELAP unless otherwise specified. Aliquots separated for certain tests, such as TCLP, are indicated on the Chain of Custody and final reports with an "A" suffix.

Data qualifiers are used, when necessary, to provide additional information about the data. This information may be communicated as a flag or as text at the bottom of the report. Please refer to the following list of analyte-specific, frequently used data flags and their meaning:

"<" = Analyzed for but not detected at or above the quantitation limit.

"E" = Result has been estimated, calibration limit exceeded.

"Z" = See case narrative.

"D" = Sample, Laboratory Control Sample, or Matrix Spike Duplicate results above Relative Percent Difference limit.

"M" = Matrix spike recoveries outside QC limits. Matrix bias indicated.

"B" = Method blank contained trace levels of analyte. Refer to included method blank report.

"J" = Result estimated between the quantitation limit and half the quantitation limit.

"L" = Laboratory Control Sample recovery outside accepted QC limits.

"P" = Concentration differs by more than 40% between the primary and secondary analytical columns.

"NC" = Not calculable. Applicable to RPD if sample or duplicate result is non-detect or estimated (see primary report for data flags). Applicable to MS if sample is greater or equal to ten times the spike added. Applicable to sample surrogates or MS if sample dilution is 10x or higher.

"" = Indicates any recoveries outside associated acceptance windows. Surrogate outliers in samples are presumed matrix effects. LCS demonstrates method compliance unless otherwise noted.*

"(1)" = Indicates data from primary column used for QC calculation.

"A" = denotes a parameter for which ELAP does not offer approval as part of their laboratory certification program.

"F" = denotes a parameter for which Paradigm does not carry certification, the results for which should therefore only be used where ELAP certification is not required, such as personal exposure assessment.

This report is part of a multipage document and should only be evaluated in its entirety. The Chain of Custody provides additional sample information, including compliance with the sample condition requirements upon receipt.

GENERAL TERMS AND CONDITIONS

LABORATORY SERVICES

These Terms and Conditions embody the whole agreement of the parties in the absence of a signed and executed contract between the Laboratory (LAB) and Client. They shall supersede all previous communications, representations, or agreements, either verbal or written, between the parties. The LAB specifically rejects all additional, inconsistent, or conflicting terms, whether printed or otherwise set forth in any purchase order or other communication from the Client to the LAB. The invalidity or unenforceability in whole or in part of any provision, term or condition hereof shall not affect in any way the validity or enforceability of the remainder of the Terms and Conditions. No waiver by LAB of any provision, term, or condition hereof or of any breach by or obligation of the Client hereunder shall constitute a waiver of such provision, term, or condition on any other occasion or a waiver of any other breach by or obligation of the Client. This agreement shall be administered and interpreted under the laws of the state which services are procured.

Warranty.

Recognizing that the nature of many samples is unknown and that some may contain potentially hazardous components, LAB warrants only that it will perform testing services, obtain findings, and prepare reports in accordance with generally accepted analytical laboratory principles and practices at the time of performance of services. LAB makes no other warranty, express or implied.

Scope and Compensation.

LAB agrees to perform the services described in the chain of custody to which these terms and conditions are attached. Unless the parties agree in writing to the contrary, the duties of LAB shall not be construed to exceed the services specifically described. LAB will use LAB default method for all tests unless specified otherwise on the Work Order.

Payment terms are net 30 days from the date of invoice. All overdue payments are subject to an interest charge of one and one-half percent (1-1/2%) per month or a portion thereof. Client shall also be responsible for costs of collection, including payment of reasonable attorney fees if such expense is incurred. The prices, unless stated, do not include any sale, use or other taxes. Such taxes will be added to invoice prices when required.

Prices.

Compensation for services performed will be based on the current Lab Analytical Fee Schedule or on quotations agreed to in writing by the parties. Turnaround time based charges are determined from the time of resolution of all work order questions. Testimony, court appearances or data compilation for legal action will be charged separately. Evaluation and reporting of initial screening runs may incur additional fees.

Limitations of Liability.

In the event of any error, omission, or other professional negligence, the sole and exclusive responsibility of LAB shall be to re-perform the deficient work at its own expense and LAB shall have no other liability whatsoever. All claims shall be deemed waived unless made in writing and received by LAB within ninety (90) days following completion of services.

LAB shall have no liability, obligation, or responsibility of any kind for losses, costs, expenses, or other damages (including but not limited to any special, direct, incidental or consequential damages) with respect to LAB's services or results.

All results provided by LAB are strictly for the use of its clients and LAB is in no way responsible for the use of such results by clients or third parties. All reports should be considered in their entirety, and LAB is not responsible for the separation, detachment, or other use of any portion of these reports. Client may not assign the lab report without the written consent of the LAB.

Client covenants and agrees, at its/his/her sole expense, to indemnify, protect, defend, and save harmless the LAB from and against any and all damages, losses, liabilities, obligations, penalties, claims, litigation, demands, defenses, judgments, suits, actions, proceedings, costs, disbursements and/or expenses (including, without limitation attorneys' and experts' fees and disbursements) of any kind whatsoever which may at any time be imposed upon, incurred by or asserted or awarded against client relating to, resulting from or arising out of (a) the breach of this agreement by this client, (b) the negligence of the client in handling, delivering or disclosing any hazardous substance, (c) the violation of the Client of any applicable law, (d) non-compliance by the Client with any environmental permit or (e) a material misrepresentation in disclosing the materials to be tested.

Hazard Disclosure.

Client represents and warrants that any sample delivered to LAB will be preceded or accompanied by complete written disclosure of the presence of any hazardous substances known or suspected by Client. Client further warrants that any sample containing any hazardous substance that is to be delivered to LAB will be packaged, labeled, transported, and delivered properly and in accordance with applicable laws.

Sample Handling.

Prior to LAB's acceptance of any sample (or after any revocation of acceptance), the entire risk of loss or of damage to such sample remains with Client. Samples are accepted when receipt is acknowledged on chain of custody documentation. In no event will LAB have any responsibility for the action or inaction of any carrier shipping or delivering any sample to or from LAB premises.

Client authorizes LAB to proceed with the analysis of samples as received by the laboratory, recognizing that any samples not in compliance with all current DOH-ELAP-NELAP requirements for containers, preservation or holding time will be noted as such on the final report.

Disposal of hazardous waste samples is the responsibility of the Client. If the Client does not wish such samples returned, LAB may add storage and disposal fees to the final invoice. Maximum storage time for samples is 30 days after completion of analysis unless modified by applicable state or federal laws. Client will be required to give the LAB written instructions concerning disposal of these samples.

LAB reserves the absolute right, exercisable at any time, to refuse to receive delivery of, refuse to accept, or revoke acceptance of any sample, which, in the sole judgment of LAB (a) is of unsuitable volume, (b) may be or become unsuitable for or may pose a risk in handling, transport, or processing for any health, safety, environmental or other reason whether or not due to the presence in the sample of any hazardous substance, and whether or not such presence has been disclosed to LAB by Client or (c) if the condition or sample date make the sample unsuitable for analysis.

Legal Responsibility.

LAB is solely responsible for performance of this contract, and no affiliated company, director, officer, employee, or agent shall have any legal responsibility hereunder, whether in contract or tort including negligence.

Assignment.

LAB may assign its performance obligations under this contract to other parties, as it deems necessary. LAB shall disclose to Client any assignee (subcontractor) by ELAP ID # on the submitted final report.

Force Majeure.

LAB shall have no responsibility or liability to the Client for any failure or delay in performance by LAB, which results in whole or in part from any cause or circumstance beyond the reasonable control of LAB. Such causes and circumstances shall include, but not limited to, acts of God, acts or orders of any government authority, strikes or other labor disputes, natural disasters, accidents, wars, civil disturbances, difficulties or delays in transportation, mail or delivery services, inability to obtain sufficient services or supplies from LAB's usual suppliers, or any other cause beyond LAB's reasonable control.

Law.

This contract shall be continued under the laws of the State of New York without regard to its conflicts of laws provision.

This report is part of a multipage document and should only be evaluated in its entirety. The Chain of Custody provides additional sample information, including compliance with the sample condition requirements upon receipt.

Report Prepared Tuesday, January 19, 2021



CHAIN OF CUSTODY

210135

1 of 3

REPORT TO:			INVOICE TO:		
CLIENT: <u>LaBella Associates</u>	ADDRESS: <u>300 State Street</u>		CITY: <u>Rochester</u>	STATE: <u>NY</u>	ZIP: <u>14614</u>
PHONE: <u>585-301-8458</u>	ATTN: <u>Dan Noll</u>		LAB PROJECT ID: <u>FESL</u>		
Matrix Codes:			Quotation #:		
AQ - Aqueous Liquid	WA - Water	DW - Drinking Water	SO - Soil	SD - Solid	WP - Wipe
NQ - Non-Aqueous Liquid	WG - Groundwater	WW - Wastewater	SL - Sludge	PT - Paint	CK - Caulk
					OL - Oil
					AR - Air

PROJECT REFERENCE

REQUESTED ANALYSIS

DATE COLLECTED	TIME COLLECTED	COMPOSITE	GRAB	SAMPLE IDENTIFIER	MATRIX	COUNTAINERS	REMARKS	PARADIGM LAB SAMPLE NUMBER
1/4/21	13:30		X	LBA-SBW-15	WG	1 X	Hold	2904 μ S
1/4/21	13:35		X	LBA-SBW-16	WG	1 X	Hold	4847 μ S
1/3/21	13:40		X	LBA-SBW-15	WG	1 X	Hold	03
1/3/21	13:47		X	LBA-SBW-16	WG	1 X	Hold	04
							Run all Hold samples on a standard turn per DN / SD of 1/11/21	
							3°C 1/4/21 1616	

Turnaround Time	Report Supplements	
Availability contingent upon lab approval; additional fees may apply.		
Standard 5 day <input type="checkbox"/>	None Required <input type="checkbox"/>	None Required <input type="checkbox"/>
10 day <input type="checkbox"/>	Batch QC <input type="checkbox"/>	Basic EDD <input type="checkbox"/>
Rush 3 day <input type="checkbox"/>	Category A <input type="checkbox"/>	NYSDEC EDD <input type="checkbox"/>
Rush 2 day <input type="checkbox"/>	Category B <input type="checkbox"/>	
Rush 1 day <input type="checkbox"/>		
Date Needed <u>Hold</u>	Other <input type="checkbox"/>	Other EDD <input type="checkbox"/>
<small>please indicate date needed:</small>	<small>please indicate package needed:</small>	<small>please indicate EDD needed:</small>

<u>[Signature]</u>	<u>1/24/1/4/21</u>	<u>13:35</u>	Total Cost: <input type="text"/>
Sampled By	Date/Time		
<u>[Signature]</u>	<u>1/4/21</u>	<u>16:15</u>	P.I.F. <input type="text"/>
Relinquished By	Date/Time		
<u>Emily Farmer</u>	<u>1/4/21</u>	<u>1616</u>	
Received By	Date/Time		
<u>[Signature]</u>	<u>1/11/21</u>	<u>09:31</u>	
Received @ Lab By	Date/Time		

By signing this form, client agrees to Paradigm Terms and Conditions (reverse).

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CHAIN OF CUSTODY

REPORT TO:		INVOICE TO:	
CLIENT: <u>Labelia Associates</u>	CLIENT:	LAB PROJECT ID: <u>210135</u>	
ADDRESS: <u>300 State St suite 200</u>	ADDRESS:	Quotation #:	
CITY: <u>Rochester, NY</u> STATE: <u>NY</u> ZIP: <u>14614</u>	CITY: STATE: ZIP:	Email:	
PHONE: <u>585-454-6100</u>	PHONE:	ATTN: <u>Dan Noil</u>	

PROJECT REFERENCE

Matrix Codes:

AQ - Aqueous Liquid	WA - Water	DW - Drinking Water	SO - Soil	SD - Solid	WP - Wipe	OL - Oil
NQ - Non-Aqueous Liquid	WG - Groundwater	WW - Wastewater	SL - Sludge	PT - Paint	CK - Caulk	AR - Air

REQUESTED ANALYSIS

DATE COLLECTED	TIME COLLECTED	COMPOSITE	GRAB	SAMPLE IDENTIFIER	MATRIX	CONTAINER NUMBER	REMARKS	PARADIGM LAB SAMPLE NUMBER	
1/1/2021	1500		X	LAB-SBW-15	WG	1		05	
1/5/2021	1510		X	LAB-SBW-16				06	
1/6/2021	0940		X	LAB-SBW-15-01062021			HOLD SAMPLES	07	
1/6/2021	0945		X	LAB-SBW-16-01062021				08	
1/7/2021	1103		X	LAB-SBW-15-01072021				09	
1/7/2021	1110		X	LAB-SBW-16-01072021				10	
1/8/2021	1415		X	LAB-SBW-15-01082021				11	
1/8/2021	1420		X	LAB-SBW-16-01082021				12	

per history / visual
6/1/12/11

5°C cool 1/8/21 1521

Turnaround Time	Report Supplements	
Availability contingent upon lab approval; additional fees may apply.		
Standard 5 day <input type="checkbox"/>	None Required <input type="checkbox"/>	None Required <input type="checkbox"/>
10 day <input type="checkbox"/>	Batch QC <input type="checkbox"/>	Basic EDD <input type="checkbox"/>
Rush 3 day <input type="checkbox"/>	Category A <input type="checkbox"/>	NYSDEC EDD <input type="checkbox"/>
Rush 2 day <input type="checkbox"/>	Category B <input type="checkbox"/>	
Rush 1 day <input type="checkbox"/>		
Date Needed _____ <small>please indicate date needed:</small>	Other <input type="checkbox"/> <small>please indicate package needed:</small>	Other EDD <input type="checkbox"/> <small>please indicate EDD needed:</small>

[Signature] 1/05/2021 - 1/08/2021
 Sampled By Date/Time

[Signature] 1/08/2021 1515
 Relinquished By Date/Time

[Signature] 1/8/2021 1515
 Received By Date/Time

[Signature] 1/11/21 09:31
 Received @ Lab By Date/Time

Total Cost:

P.I.F.

By signing this form, client agrees to Paradigm Terms and Conditions (reverse).



3 of 3

Chain of Custody Supplement

Client: LaBella Associates Completed by: Glen Pezzulo
 Lab Project ID: 210135 Date: 1/11/21

Sample Condition Requirements

Per NELAC/ELAP 210/241/242/243/244

Condition	NELAC compliance with the sample condition requirements upon receipt		
	Yes	No	N/A
Container Type	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Comments	_____		
Transferred to method-compliant container	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Headspace (<1 mL)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Comments	_____		
Preservation	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Comments	_____		
Chlorine Absent (<0.10 ppm per test strip)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Comments	_____		
Holding Time	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Comments	_____		
Temperature	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Comments	<u>3°C - 1/4/21</u> <u>5°C iced - 1/8/21</u>		
Compliant Sample Quantity/Type	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Comments	_____		

CHAIN OF CUSTODY

1 of 2
L2101375 11148



REPORT TO:

INVOICE TO:

COMPANY: Paradigm Environmental	COMPANY: Same	LAB PROJECT #:	CLIENT PROJECT #:
ADDRESS: 179 Lake Avenue	ADDRESS:	TURNAROUND TIME: (WORKING DAYS)	
CITY: Rochester STATE: NY ZIP: 14608	CITY: STATE: ZIP:	STD <input checked="" type="checkbox"/> 5 OTHER	
PHONE: FAX:	PHONE: FAX:	Date Due: 1/19/21	
PROJECT NAME/SITE NAME:	ATTN: Reporting	ATTN: Accounts Payable	
COMMENTS: Please email results to reporting@paradigmenv.com			

REQUESTED ANALYSIS

DATE	TIME	COMPOSITE	GRAB	SAMPLE LOCATION/FIELD ID	MATRIX	CONTAINER	REMARKS	PARADIGM LAB SAMPLE NUMBER
1 1/4/21	13:30		X	210135-01	Ground Water	1 X	Reporting Limit	
2 1/4/21	13:35			-02			0.1 mg/L	
3 1/3/21	13:40			-03				
4 1/3/21	13:47			-04				
5 1/5/21	15:00			-05				
6 1/5/21	15:10			-06				
7 1/6/21	09:40			-07				
8 1/6/21	09:45			-08				
9 1/7/21	11:03			-09				
10 1/7/21	11:10			-10				

LAB USE ONLY BELOW THIS LINE

Sample Condition: Per NELAC/ELAP 210/241/242/243/244

Receipt Parameter	NELAC Compliance	
Container Type:	Y <input type="checkbox"/>	N <input type="checkbox"/>
Preservation:	Y <input type="checkbox"/>	N <input type="checkbox"/>
Holding Time:	Y <input type="checkbox"/>	N <input type="checkbox"/>
Temperature:	Y <input type="checkbox"/>	N <input type="checkbox"/>

Client

Sampled By: *[Signature]* Date/Time: 1/11/21 16:00

Relinquished By: *[Signature]* Date/Time: 1/11/21 16:43

Received By: *[Signature]* Date/Time: 1/12/21 00:00

Received @ Lab By: _____ Date/Time: _____

Total Cost:

P.I.F.

CHAIN OF CUSTODY

202
L2101375

11148



REPORT TO:

INVOICE TO:

COMPANY: Paradigm Environmental	COMPANY: Same	LAB PROJECT #:	CLIENT PROJECT #:
ADDRESS: 179 Lake Avenue	ADDRESS:		
CITY: Rochester STATE: NY ZIP: 14608	CITY: STATE: ZIP:	TURNAROUND TIME: (WORKING DAYS)	
PHONE: FAX:	PHONE: FAX:	<input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input checked="" type="checkbox"/> 5 <input type="checkbox"/> OTHER	
PROJECT NAME/SITE NAME:	ATTN: Reporting	ATTN: Accounts Payable	Date Due: 1/19/21
COMMENTS: Please email results to reporting@paradigmenv.com			

REQUESTED ANALYSIS

DATE	TIME	COMPOSITE	GRAB	SAMPLE LOCATION/FIELD ID	MATRIX	CONTAINER	REMARKS	PARADIGM LAB SAMPLE NUMBER
1/8/21	14:15		X	210135-11	Ground Water	1 X	Reporting Limit	
2/1/8/21	14:20		X	↓ -12	↓	1 X	0.1 mg/L	
3								
4								
5								
6								
7								
8								
9								
10								

LAB USE ONLY BELOW THIS LINE

Sample Condition: Per NELAC/ELAP 210/241/242/243/244

Receipt Parameter	NELAC Compliance	
Container Type:	Y <input type="checkbox"/>	N <input type="checkbox"/>
Comments: _____		
Preservation:	Y <input type="checkbox"/>	N <input type="checkbox"/>
Comments: _____		
Holding Time:	Y <input type="checkbox"/>	N <input type="checkbox"/>
Comments: _____		
Temperature:	Y <input type="checkbox"/>	N <input type="checkbox"/>
Comments: _____		

Client

Sampled By: *[Signature]* Date/Time: 1/11/21 16:00

Relinquished By: *[Signature]* Date/Time: 1/11/21 16:43

Received By: *[Signature]* Date/Time: 1/12/21 00:00

Received @ Lab By: _____ Date/Time: _____

Total Cost:

P.I.F.



Analytical Report For
LaBella Associates, P.C.

For Lab Project ID

210186

Referencing

FESL

Prepared

Wednesday, January 20, 2021

Any noncompliant QC parameters or other notes impacting data interpretation are flagged or documented on the final report or are noted below.



Certifies that this report has been approved by the Technical Director or Designee

179 Lake Avenue • Rochester, NY 14608 • (585) 647-2530 • Fax (585) 647-3311 • ELAP ID# 10958



Client: LaBella Associates, P.C.

Project Reference: FESL

Sample Identifier: LAB-SBW-15

Lab Sample ID: 210186-01

Date Sampled: 1/11/2021

Matrix: Groundwater

Date Received: 1/13/2021

Bromide

<u>Analyte</u>	<u>Result</u>	<u>Units</u>	<u>Qualifier</u>	<u>Date Analyzed</u>
Bromide	3.47	mg/L	M	1/17/2021

Method Reference(s): EPA 300.0

Subcontractor ELAP ID: 11148



Client: LaBella Associates, P.C.

Project Reference: FESL

Sample Identifier: LAB-SBW-16

Lab Sample ID: 210186-02

Date Sampled: 1/11/2021

Matrix: Groundwater

Date Received: 1/13/2021

Bromide

<u>Analyte</u>	<u>Result</u>	<u>Units</u>	<u>Qualifier</u>	<u>Date Analyzed</u>
Bromide	3.30	mg/L		1/17/2021
Method Reference(s):	EPA 300.0			
Subcontractor ELAP ID:	11148			



Client: LaBella Associates, P.C.

Project Reference: FESL

Sample Identifier: LAB-SBW-15

Lab Sample ID: 210186-03

Date Sampled: 1/13/2021

Matrix: Groundwater

Date Received: 1/13/2021

Bromide

<u>Analyte</u>	<u>Result</u>	<u>Units</u>	<u>Qualifier</u>	<u>Date Analyzed</u>
Bromide	3.57	mg/L		1/17/2021
Method Reference(s):	EPA 300.0			
Subcontractor ELAP ID:	11148			



Client: LaBella Associates, P.C.

Project Reference: FESL

Sample Identifier: LAB-SBW-16

Lab Sample ID: 210186-04

Date Sampled: 1/13/2021

Matrix: Groundwater

Date Received: 1/13/2021

Bromide

<u>Analyte</u>	<u>Result</u>	<u>Units</u>	<u>Qualifier</u>	<u>Date Analyzed</u>
Bromide	3.42	mg/L		1/17/2021
Method Reference(s):	EPA 300.0			
Subcontractor ELAP ID:	11148			



Analytical Report Appendix

The reported results relate only to the samples as they have been received by the laboratory.

Each page of this document is part of a multipage report. This document may not be reproduced except in its entirety, without the prior consent of Paradigm Environmental Services, Inc.

All soil/sludge samples have been reported on a dry weight basis, unless qualified "reported as received". Other solids are reported as received.

Low level Volatiles blank reports for soil/solid matrix are based on a nominal 5 gram weight. Sample results and reporting limits are based on actual weight, which may be more or less than 5 grams.

The Chain of Custody provides additional information, including compliance with sample condition requirements upon receipt. Sample condition requirements are defined under the 2003 NELAC Standard, sections 5.5.8.3.1 and 5.5.8.3.2.

NYSDOH ELAP does not certify for all parameters. Paradigm Environmental Services or the indicated subcontracted laboratory does hold certification for all analytes where certification is offered by ELAP unless otherwise specified. Aliquots separated for certain tests, such as TCLP, are indicated on the Chain of Custody and final reports with an "A" suffix.

Data qualifiers are used, when necessary, to provide additional information about the data. This information may be communicated as a flag or as text at the bottom of the report. Please refer to the following list of analyte-specific, frequently used data flags and their meaning:

"<" = Analyzed for but not detected at or above the quantitation limit.

"E" = Result has been estimated, calibration limit exceeded.

"Z" = See case narrative.

"D" = Sample, Laboratory Control Sample, or Matrix Spike Duplicate results above Relative Percent Difference limit.

"M" = Matrix spike recoveries outside QC limits. Matrix bias indicated.

"B" = Method blank contained trace levels of analyte. Refer to included method blank report.

"J" = Result estimated between the quantitation limit and half the quantitation limit.

"L" = Laboratory Control Sample recovery outside accepted QC limits.

"P" = Concentration differs by more than 40% between the primary and secondary analytical columns.

"NC" = Not calculable. Applicable to RPD if sample or duplicate result is non-detect or estimated (see primary report for data flags). Applicable to MS if sample is greater or equal to ten times the spike added. Applicable to sample surrogates or MS if sample dilution is 10x or higher.

"" = Indicates any recoveries outside associated acceptance windows. Surrogate outliers in samples are presumed matrix effects. LCS demonstrates method compliance unless otherwise noted.*

"(1)" = Indicates data from primary column used for QC calculation.

"A" = denotes a parameter for which ELAP does not offer approval as part of their laboratory certification program.

"F" = denotes a parameter for which Paradigm does not carry certification, the results for which should therefore only be used where ELAP certification is not required, such as personal exposure assessment.

This report is part of a multipage document and should only be evaluated in its entirety. The Chain of Custody provides additional sample information, including compliance with the sample condition requirements upon receipt.

GENERAL TERMS AND CONDITIONS

LABORATORY SERVICES

These Terms and Conditions embody the whole agreement of the parties in the absence of a signed and executed contract between the Laboratory (LAB) and Client. They shall supersede all previous communications, representations, or agreements, either verbal or written, between the parties. The LAB specifically rejects all additional, inconsistent, or conflicting terms, whether printed or otherwise set forth in any purchase order or other communication from the Client to the LAB. The invalidity or unenforceability in whole or in part of any provision, term or condition hereof shall not affect in any way the validity or enforceability of the remainder of the Terms and Conditions. No waiver by LAB of any provision, term, or condition hereof or of any breach by or obligation of the Client hereunder shall constitute a waiver of such provision, term, or condition on any other occasion or a waiver of any other breach by or obligation of the Client. This agreement shall be administered and interpreted under the laws of the state which services are procured.

Warranty.

Recognizing that the nature of many samples is unknown and that some may contain potentially hazardous components, LAB warrants only that it will perform testing services, obtain findings, and prepare reports in accordance with generally accepted analytical laboratory principles and practices at the time of performance of services. LAB makes no other warranty, express or implied.

Scope and Compensation.

LAB agrees to perform the services described in the chain of custody to which these terms and conditions are attached. Unless the parties agree in writing to the contrary, the duties of LAB shall not be construed to exceed the services specifically described. LAB will use LAB default method for all tests unless specified otherwise on the Work Order.

Payment terms are net 30 days from the date of invoice. All overdue payments are subject to an interest charge of one and one-half percent (1-1/2%) per month or a portion thereof. Client shall also be responsible for costs of collection, including payment of reasonable attorney fees if such expense is incurred. The prices, unless stated, do not include any sale, use or other taxes. Such taxes will be added to invoice prices when required.

Prices.

Compensation for services performed will be based on the current Lab Analytical Fee Schedule or on quotations agreed to in writing by the parties. Turnaround time based charges are determined from the time of resolution of all work order questions. Testimony, court appearances or data compilation for legal action will be charged separately. Evaluation and reporting of initial screening runs may incur additional fees.

Limitations of Liability.

In the event of any error, omission, or other professional negligence, the sole and exclusive responsibility of LAB shall be to re-perform the deficient work at its own expense and LAB shall have no other liability whatsoever. All claims shall be deemed waived unless made in writing and received by LAB within ninety (90) days following completion of services.

LAB shall have no liability, obligation, or responsibility of any kind for losses, costs, expenses, or other damages (including but not limited to any special, direct, incidental or consequential damages) with respect to LAB's services or results.

All results provided by LAB are strictly for the use of its clients and LAB is in no way responsible for the use of such results by clients or third parties. All reports should be considered in their entirety, and LAB is not responsible for the separation, detachment, or other use of any portion of these reports. Client may not assign the lab report without the written consent of the LAB.

Client covenants and agrees, at its/his/her sole expense, to indemnify, protect, defend, and save harmless the LAB from and against any and all damages, losses, liabilities, obligations, penalties, claims, litigation, demands, defenses, judgments, suits, actions, proceedings, costs, disbursements and/or expenses (including, without limitation attorneys' and experts' fees and disbursements) of any kind whatsoever which may at any time be imposed upon, incurred by or asserted or awarded against client relating to, resulting from or arising out of (a) the breach of this agreement by this client, (b) the negligence of the client in handling, delivering or disclosing any hazardous substance, (c) the violation of the Client of any applicable law, (d) non-compliance by the Client with any environmental permit or (e) a material misrepresentation in disclosing the materials to be tested.

Hazard Disclosure.

Client represents and warrants that any sample delivered to LAB will be preceded or accompanied by complete written disclosure of the presence of any hazardous substances known or suspected by Client. Client further warrants that any sample containing any hazardous substance that is to be delivered to LAB will be packaged, labeled, transported, and delivered properly and in accordance with applicable laws.

Sample Handling.

Prior to LAB's acceptance of any sample (or after any revocation of acceptance), the entire risk of loss or of damage to such sample remains with Client. Samples are accepted when receipt is acknowledged on chain of custody documentation. In no event will LAB have any responsibility for the action or inaction of any carrier shipping or delivering any sample to or from LAB premises.

Client authorizes LAB to proceed with the analysis of samples as received by the laboratory, recognizing that any samples not in compliance with all current DOH-ELAP-NELAP requirements for containers, preservation or holding time will be noted as such on the final report.

Disposal of hazardous waste samples is the responsibility of the Client. If the Client does not wish such samples returned, LAB may add storage and disposal fees to the final invoice. Maximum storage time for samples is 30 days after completion of analysis unless modified by applicable state or federal laws. Client will be required to give the LAB written instructions concerning disposal of these samples.

LAB reserves the absolute right, exercisable at any time, to refuse to receive delivery of, refuse to accept, or revoke acceptance of any sample, which, in the sole judgment of LAB (a) is of unsuitable volume, (b) may be or become unsuitable for or may pose a risk in handling, transport, or processing for any health, safety, environmental or other reason whether or not due to the presence in the sample of any hazardous substance, and whether or not such presence has been disclosed to LAB by Client or (c) if the condition or sample date make the sample unsuitable for analysis.

Legal Responsibility.

LAB is solely responsible for performance of this contract, and no affiliated company, director, officer, employee, or agent shall have any legal responsibility hereunder, whether in contract or tort including negligence.

Assignment.

LAB may assign its performance obligations under this contract to other parties, as it deems necessary. LAB shall disclose to Client any assignee (subcontractor) by ELAP ID # on the submitted final report.

Force Majeure.

LAB shall have no responsibility or liability to the Client for any failure or delay in performance by LAB, which results in whole or in part from any cause or circumstance beyond the reasonable control of LAB. Such causes and circumstances shall include, but not limited to, acts of God, acts or orders of any government authority, strikes or other labor disputes, natural disasters, accidents, wars, civil disturbances, difficulties or delays in transportation, mail or delivery services, inability to obtain sufficient services or supplies from LAB's usual suppliers, or any other cause beyond LAB's reasonable control.

Law.

This contract shall be continued under the laws of the State of New York without regard to its conflicts of laws provision.

This report is part of a multipage document and should only be evaluated in its entirety. The Chain of Custody provides additional sample information, including compliance with the sample condition requirements upon receipt.



CHAIN OF CUSTODY

REPORT TO:		INVOICE TO:		LAB PROJECT ID	
CLIENT: <u>LABella associates</u>		CLIENT:		210186	
ADDRESS: <u>300 State Street</u>		ADDRESS:			
CITY: <u>Rochester</u>	STATE: <u>NH</u>	ZIP: <u>14619</u>	CITY:	STATE:	ZIP:
PHONE: <u>585-454-6110</u>			PHONE:		Quotation #:
ATTN: <u>Dan Noll</u>			ATTN:		Email:
Matrix Codes: AQ - Aqueous Liquid WA - Water DW - Drinking Water SO - Soil SD - Solid NQ - Non-Aqueous Liquid WG - Groundwater WW - Wastewater SL - Sludge PT - Paint WP - Wipe CK - Caulk OL - Oil AR - Air					

PROJECT REFERENCE
FLSL

REQUESTED ANALYSIS											
DATE COLLECTED	TIME COLLECTED	COMPOSITE	GRAB	SAMPLE IDENTIFIER	MATRIX	CONTAINER OF				REMARKS	PARADIGM LAB SAMPLE NUMBER
1/11/2021	1550		X	LAB-SBW-15	WG	1	X				01
1/11/2021	1545		X	LAB--SBW-14		1	X				02
1/12/2021	1545		X	LAB-SBW-15			X				
1/12/2021	1550		X	LAB-SBW-16			X				
1/13/2021	0905		X	LAB-SBW-15		1	X				03
1/13/2021	0910		X	LAB-SBW-16		1	X				04
										per history v32=1 GP 1/13/21	

Turnaround Time	Report Supplements	
Availability contingent upon lab approval; additional fees may apply.		
Standard 5 day <input checked="" type="checkbox"/>	None Required <input type="checkbox"/>	None Required <input type="checkbox"/>
10 day <input type="checkbox"/>	Batch QC <input type="checkbox"/>	Basic EDD <input type="checkbox"/>
Rush 3 day <input type="checkbox"/>	Category A <input type="checkbox"/>	NYSDEC EDD <input type="checkbox"/>
Rush 2 day <input type="checkbox"/>	Category B <input type="checkbox"/>	
Rush 1 day <input type="checkbox"/>		
Date Needed _____ please indicate date needed:	Other <input type="checkbox"/> please indicate package needed:	Other EDD <input type="checkbox"/> please indicate EDD needed:

Sampled By Katherine Truong Date/Time 1/11/2021 1545
 Relinquished By Katherine Truong Date/Time 1/12/2021 0930
 Received By Emily Faumen Date/Time 1/13/21 0933
 Received @ Lab By [Signature] Date/Time 1/13/21 09:42
3°C 1/13/21 09:37

Total Cost:

P.I.F.

By signing this form, client agrees to Paradigm Terms and Conditions (reverse).



2 of 2

Chain of Custody Supplement

Client: LaBella Associates Completed by: Glenn Pezzulo
 Lab Project ID: 210186 Date: 1/13/21

Sample Condition Requirements
 Per NELAC/ELAP 210/241/242/243/244

Condition	NELAC compliance with the sample condition requirements upon receipt		
	Yes	No	N/A
Container Type	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Comments	_____		
Transferred to method-compliant container	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Headspace (<1 mL)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Comments	_____		
Preservation	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Comments	_____		
Chlorine Absent (<0.10 ppm per test strip)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Comments	_____		
Holding Time	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Comments	_____		
Temperature	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Comments	<u>3 °C</u>		
Compliant Sample Quantity/Type	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Comments	_____		



CHAIN OF CUSTODY

1 of 1
62101874

11148

REPORT TO:		INVOICE TO:		LAB PROJECT #:	CLIENT PROJECT #:
COMPANY:	Paradigm Environmental	COMPANY:	Same		
ADDRESS:	179 Lake Avenue	ADDRESS:			
CITY:	Rochester STATE: NY ZIP: 14608	CITY:	STATE: ZIP:	TURNAROUND TIME: (WORKING DAYS)	
PHONE:	FAX:	PHONE:	FAX:		
PROJECT NAME/SITE NAME:	ATTN: Reporting	ATTN: Accounts Payable	<input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input checked="" type="checkbox"/> 4 <input type="checkbox"/> 5 <input type="checkbox"/> OTHER		
COMMENTS: Please email results to reporting@paradigmenv.com		Date Due: 1/21/21			

REQUESTED ANALYSIS

DATE	TIME	COMPOSITE	GRAB	SAMPLE LOCATION/FIELD ID	MATRIX	CONTAINER	REMARKS	PARADIGM LAB SAMPLE NUMBER
1/11/21	15:50		X	210186-01	Ground Water	1 X		
2/11/21	15:45		↓	-02	↓	↓		
3/13/21	09:05		↓	-03	↓	↓		
4/13/21	09:10		↓	-04	↓	↓		
5							Reporting Limit	
6							0.1 mg/L	
7								
8								
9								
10								

****LAB USE ONLY BELOW THIS LINE****

Sample Condition: Per NELAC/ELAP 210/241/242/243/244

Receipt Parameter	NELAC Compliance	
Container Type:	Y <input type="checkbox"/>	N <input type="checkbox"/>
Comments:		
Preservation:	Y <input type="checkbox"/>	N <input type="checkbox"/>
Comments:		
Holding Time:	Y <input type="checkbox"/>	N <input type="checkbox"/>
Comments:		
Temperature:	Y <input type="checkbox"/>	N <input type="checkbox"/>
Comments:		

Client		Total Cost:	
Sampled By	Date/Time		
<i>[Signature]</i>	1/13/21 16:00		
Relinquished By	Date/Time		
<i>R Cunningham</i>	1/13/21 16:43		
Received By	Date/Time	P.I.F.	
<i>[Signature]</i>	1/14/21 00:20		
Received @ Lab By	Date/Time		



Analytical Report For
LaBella Associates, P.C.

For Lab Project ID

210255

Referencing

N/A

Prepared

Wednesday, January 20, 2021

Any noncompliant QC parameters or other notes impacting data interpretation are flagged or documented on the final report or are noted below.

Certifies that this report has been approved by the Technical Director or Designee

179 Lake Avenue • Rochester, NY 14608 • (585) 647-2530 • Fax (585) 647-3311 • ELAP ID# 10958



Client: LaBella Associates, P.C.

Project Reference: N/A

Sample Identifier: LAB-SBW-15

Lab Sample ID: 210255-01

Matrix: Groundwater

Date Sampled: 1/15/2021

Date Received: 1/18/2021

Bromide

<u>Analyte</u>	<u>Result</u>	<u>Units</u>	<u>Qualifier</u>	<u>Date Analyzed</u>
Bromide	1.32	mg/L	M	1/19/2021

Method Reference(s): EPA 300.0

Subcontractor ELAP ID: 11148



Client: LaBella Associates, P.C.

Project Reference: N/A

Sample Identifier: LAB-SBW-16

Lab Sample ID: 210255-02

Date Sampled: 1/15/2021

Matrix: Groundwater

Date Received: 1/18/2021

Bromide

<u>Analyte</u>	<u>Result</u>	<u>Units</u>	<u>Qualifier</u>	<u>Date Analyzed</u>
Bromide	0.961	mg/L		1/19/2021
Method Reference(s):	EPA 300.0			
Subcontractor ELAP ID:	11148			



Client: LaBella Associates, P.C.

Project Reference: N/A

Sample Identifier: LAB-SBW-15

Lab Sample ID: 210255-03

Date Sampled: 1/18/2021

Matrix: Groundwater

Date Received: 1/18/2021

Bromide

<u>Analyte</u>	<u>Result</u>	<u>Units</u>	<u>Qualifier</u>	<u>Date Analyzed</u>
Bromide	1.41	mg/L		1/19/2021
Method Reference(s):	EPA 300.0			
Subcontractor ELAP ID:	11148			



Client: LaBella Associates, P.C.

Project Reference: N/A

Sample Identifier: LAB-SBW-16

Lab Sample ID: 210255-04

Date Sampled: 1/18/2021

Matrix: Groundwater

Date Received: 1/18/2021

Bromide

<u>Analyte</u>	<u>Result</u>	<u>Units</u>	<u>Qualifier</u>	<u>Date Analyzed</u>
Bromide	0.946	mg/L		1/19/2021
Method Reference(s):	EPA 300.0			
Subcontractor ELAP ID:	11148			



Analytical Report Appendix

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"M" = Matrix spike recoveries outside QC limits. Matrix bias indicated.

"B" = Method blank contained trace levels of analyte. Refer to included method blank report.

"J" = Result estimated between the quantitation limit and half the quantitation limit.

"L" = Laboratory Control Sample recovery outside accepted QC limits.

"P" = Concentration differs by more than 40% between the primary and secondary analytical columns.

"NC" = Not calculable. Applicable to RPD if sample or duplicate result is non-detect or estimated (see primary report for data flags). Applicable to MS if sample is greater or equal to ten times the spike added. Applicable to sample surrogates or MS if sample dilution is 10x or higher.

"" = Indicates any recoveries outside associated acceptance windows. Surrogate outliers in samples are presumed matrix effects. LCS demonstrates method compliance unless otherwise noted.*

"(1)" = Indicates data from primary column used for QC calculation.

"A" = denotes a parameter for which ELAP does not offer approval as part of their laboratory certification program.

"F" = denotes a parameter for which Paradigm does not carry certification, the results for which should therefore only be used where ELAP certification is not required, such as personal exposure assessment.

This report is part of a multipage document and should only be evaluated in its entirety. The Chain of Custody provides additional sample information, including compliance with the sample condition requirements upon receipt.

GENERAL TERMS AND CONDITIONS

LABORATORY SERVICES

These Terms and Conditions embody the whole agreement of the parties in the absence of a signed and executed contract between the Laboratory (LAB) and Client. They shall supersede all previous communications, representations, or agreements, either verbal or written, between the parties. The LAB specifically rejects all additional, inconsistent, or conflicting terms, whether printed or otherwise set forth in any purchase order or other communication from the Client to the LAB. The invalidity or unenforceability in whole or in part of any provision, term or condition hereof shall not affect in any way the validity or enforceability of the remainder of the Terms and Conditions. No waiver by LAB of any provision, term, or condition hereof or of any breach by or obligation of the Client hereunder shall constitute a waiver of such provision, term, or condition on any other occasion or a waiver of any other breach by or obligation of the Client. This agreement shall be administered and interpreted under the laws of the state which services are procured.

Warranty.

Recognizing that the nature of many samples is unknown and that some may contain potentially hazardous components, LAB warrants only that it will perform testing services, obtain findings, and prepare reports in accordance with generally accepted analytical laboratory principles and practices at the time of performance of services. LAB makes no other warranty, express or implied.

Scope and Compensation.

LAB agrees to perform the services described in the chain of custody to which these terms and conditions are attached. Unless the parties agree in writing to the contrary, the duties of LAB shall not be construed to exceed the services specifically described. LAB will use LAB default method for all tests unless specified otherwise on the Work Order.

Payment terms are net 30 days from the date of invoice. All overdue payments are subject to an interest charge of one and one-half percent (1-1/2%) per month or a portion thereof. Client shall also be responsible for costs of collection, including payment of reasonable attorney fees if such expense is incurred. The prices, unless stated, do not include any sale, use or other taxes. Such taxes will be added to invoice prices when required.

Prices.

Compensation for services performed will be based on the current Lab Analytical Fee Schedule or on quotations agreed to in writing by the parties. Turnaround time based charges are determined from the time of resolution of all work order questions. Testimony, court appearances or data compilation for legal action will be charged separately. Evaluation and reporting of initial screening runs may incur additional fees.

Limitations of Liability.

In the event of any error, omission, or other professional negligence, the sole and exclusive responsibility of LAB shall be to re-perform the deficient work at its own expense and LAB shall have no other liability whatsoever. All claims shall be deemed waived unless made in writing and received by LAB within ninety (90) days following completion of services.

LAB shall have no liability, obligation, or responsibility of any kind for losses, costs, expenses, or other damages (including but not limited to any special, direct, incidental or consequential damages) with respect to LAB's services or results.

All results provided by LAB are strictly for the use of its clients and LAB is in no way responsible for the use of such results by clients or third parties. All reports should be considered in their entirety, and LAB is not responsible for the separation, detachment, or other use of any portion of these reports. Client may not assign the lab report without the written consent of the LAB.

Client covenants and agrees, at its/his/her sole expense, to indemnify, protect, defend, and save harmless the LAB from and against any and all damages, losses, liabilities, obligations, penalties, claims, litigation, demands, defenses, judgments, suits, actions, proceedings, costs, disbursements and/or expenses (including, without limitation attorneys' and experts' fees and disbursements) of any kind whatsoever which may at any time be imposed upon, incurred by or asserted or awarded against client relating to, resulting from or arising out of (a) the breach of this agreement by this client, (b) the negligence of the client in handling, delivering or disclosing any hazardous substance, (c) the violation of the Client of any applicable law, (d) non-compliance by the Client with any environmental permit or (e) a material misrepresentation in disclosing the materials to be tested.

Hazard Disclosure.

Client represents and warrants that any sample delivered to LAB will be preceded or accompanied by complete written disclosure of the presence of any hazardous substances known or suspected by Client. Client further warrants that any sample containing any hazardous substance that is to be delivered to LAB will be packaged, labeled, transported, and delivered properly and in accordance with applicable laws.

Sample Handling.

Prior to LAB's acceptance of any sample (or after any revocation of acceptance), the entire risk of loss or of damage to such sample remains with Client. Samples are accepted when receipt is acknowledged on chain of custody documentation. In no event will LAB have any responsibility for the action or inaction of any carrier shipping or delivering any sample to or from LAB premises.

Client authorizes LAB to proceed with the analysis of samples as received by the laboratory, recognizing that any samples not in compliance with all current DOH-ELAP-NELAP requirements for containers, preservation or holding time will be noted as such on the final report.

Disposal of hazardous waste samples is the responsibility of the Client. If the Client does not wish such samples returned, LAB may add storage and disposal fees to the final invoice. Maximum storage time for samples is 30 days after completion of analysis unless modified by applicable state or federal laws. Client will be required to give the LAB written instructions concerning disposal of these samples.

LAB reserves the absolute right, exercisable at any time, to refuse to receive delivery of, refuse to accept, or revoke acceptance of any sample, which, in the sole judgment of LAB (a) is of unsuitable volume, (b) may be or become unsuitable for or may pose a risk in handling, transport, or processing for any health, safety, environmental or other reason whether or not due to the presence in the sample of any hazardous substance, and whether or not such presence has been disclosed to LAB by Client or (c) if the condition or sample date make the sample unsuitable for analysis.

Legal Responsibility.

LAB is solely responsible for performance of this contract, and no affiliated company, director, officer, employee, or agent shall have any legal responsibility hereunder, whether in contract or tort including negligence.

Assignment.

LAB may assign its performance obligations under this contract to other parties, as it deems necessary. LAB shall disclose to Client any assignee (subcontractor) by ELAP ID # on the submitted final report.

Force Majeure.

LAB shall have no responsibility or liability to the Client for any failure or delay in performance by LAB, which results in whole or in part from any cause or circumstance beyond the reasonable control of LAB. Such causes and circumstances shall include, but not limited to, acts of God, acts or orders of any government authority, strikes or other labor disputes, natural disasters, accidents, wars, civil disturbances, difficulties or delays in transportation, mail or delivery services, inability to obtain sufficient services or supplies from LAB's usual suppliers, or any other cause beyond LAB's reasonable control.

Law.

This contract shall be continued under the laws of the State of New York without regard to its conflicts of laws provision.

This report is part of a multipage document and should only be evaluated in its entirety. The Chain of Custody provides additional sample information, including compliance with the sample condition requirements upon receipt.

1 of 1



CHAIN OF CUSTODY

REPORT TO:		INVOICE TO:		LAB PROJECT ID	
CLIENT: <u>Labella Associates</u>	CLIENT:	ADDRESS:		210255	
ADDRESS: <u>300 State Street Suite 200</u>	ADDRESS:	CITY: STATE: ZIP:		Quotation #:	
CITY: <u>Rochester</u> STATE: <u>NY</u> ZIP: <u>14614</u>	CITY:	PHONE:		Email:	
PHONE: <u>585-454-6100</u>	PHONE:	ATTN:			
ATTN: <u>Dan Nail</u>	ATTN:				
Matrix Codes:					
AQ - Aqueous Liquid	WA - Water	DW - Drinking Water	SO - Soil	SD - Solid	WP - Wipe
NQ - Non-Aqueous Liquid	WG - Groundwater	WW - Wastewater	SL - Sludge	PT - Paint	CK - Caulk
					OL - Oil
					AR - Air

PROJECT REFERENCE

REQUESTED ANALYSIS										
DATE COLLECTED	TIME COLLECTED	COMPONENT	GRAB	SAMPLE IDENTIFIER	MATRIX	COUNTAINERS			REMARKS	PARADIGM LAB SAMPLE NUMBER
1/15/2021	0715		X	LAB-SBW-15	6w	1	X			01
1/15/2021	0720		X	LAB-SBW-16		1	X			02
1/18/2021	0800		X	LAB-SBW-15		1	X			03
1/18/2021	0810		X	LAB-SBW-16		1	X			04
					per history 1/18/21					
									8°C 1/18/2021 1549	

Turnaround Time	Report Supplements	
Availability contingent upon lab approval; additional fees may apply.		
Standard 5 day <input type="checkbox"/>	None Required <input type="checkbox"/>	None Required <input type="checkbox"/>
10 day <input type="checkbox"/>	Batch QC <input type="checkbox"/>	Basic EDD <input type="checkbox"/>
Rush 3 day <input type="checkbox"/>	Category A <input type="checkbox"/>	NYSDEC EDD <input type="checkbox"/>
Rush 2 day <input checked="" type="checkbox"/>	Category B <input type="checkbox"/>	
Rush 1 day <input type="checkbox"/>		
Date Needed _____ please indicate date needed:	Other <input type="checkbox"/> please indicate package needed:	Other EDD <input type="checkbox"/> please indicate EDD needed:

<u>Katherine Mucro</u>	<u>1/18/2021 0830</u>	Total Cost: <input type="text"/>
Sampled By	Date/Time	
<u>Katherine Mucro</u>	<u>1/18/2021 1549</u>	P.I.F. <input type="text"/>
Relinquished By	Date/Time	
<u>Emily Faumen</u>	<u>1/18/2020 548</u>	
Received By	Date/Time	
<u>Dan Nail</u>	<u>1/18/2021 1550</u>	
Received @ Lab By	Date/Time	

By signing this form, client agrees to Paradigm Terms and Conditions (reverse).



Chain of Custody Supplement

2 of 2

Client: Labella Completed by: Molly Vail
 Lab Project ID: 210255 Date: 1/18/21

Sample Condition Requirements

Per NELAC/ELAP 210/241/242/243/244

Condition	NELAC compliance with the sample condition requirements upon receipt		
	Yes	No	N/A
Container Type	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Comments	_____		
Transferred to method-compliant container	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Headspace (<1 mL)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Comments	_____		
Preservation	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Comments	_____		
Chlorine Absent (<0.10 ppm per test strip)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Comments	_____		
Holding Time	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Comments	_____		
Temperature	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Comments	8°C		
Compliant Sample Quantity/Type	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Comments	_____		

L 2102725 *1081*
11148

CHAIN OF CUSTODY



REPORT TO:				INVOICE TO:				
COMPANY:	Paradigm Environmental			COMPANY:	Same			
ADDRESS:	179 Lake Avenue			ADDRESS:				
CITY:	Rochester	STATE:	NY	ZIP:	14608			
PHONE:		FAX:		PHONE:		FAX:		
ATTN:	Reporting			ATTN:	Accounts Payable			
COMMENTS:	Please email results to reporting@paradigmenv.com						LAB PROJECT #:	CLIENT PROJECT #:
PROJECT NAME/SITE NAME:				TURNAROUND TIME: (WORKING DAYS)				
				Rush <input type="checkbox"/> STD <input type="checkbox"/> OTHER <input type="checkbox"/>				
				Date Due: 1/20/21				

REQUESTED ANALYSIS

DATE	TIME	COMPOSITE	GRAB	SAMPLE LOCATION/FIELD ID	MATRIX	CONTAINER	ANALYSIS	REMARKS	PARADIGM LAB SAMPLE NUMBER
1/15/21	0715			210255-01	GW	1	X		
2	↓ 0720			02	GW	1	X		
3	1/18/21 0800			03	GW	1	X		
4	1/18/21 0810			04	GW	1	X	reporting limit 0.1 mg/L	
5									
6									
7									
8									
9									
10									

****LAB USE ONLY BELOW THIS LINE****

Sample Condition: Per NELAC/ELAP 210/241/242/243/244

Receipt Parameter	NELAC Compliance	
Container Type:	Y <input type="checkbox"/>	N <input type="checkbox"/>
Comments:		
Preservation:	Y <input type="checkbox"/>	N <input type="checkbox"/>
Comments:		
Holding Time:	Y <input type="checkbox"/>	N <input type="checkbox"/>
Comments:		
Temperature:	Y <input type="checkbox"/>	N <input type="checkbox"/>
Comments:		

Client	
Sampled By	Date/Time
<i>Molly Vail</i>	1/18/21 1600
Relinquished By	Date/Time
<i>AAC</i>	1/18/21 1700
Received By	Date/Time
<i>[Signature]</i>	1/19/21 0840
Received @ Lab By	Date/Time

Total Cost:

P.I.F.



APPENDIX 2

XDD Treatability Study Report



February 2, 2021

Via e-Mail (dnoll@LaBellaPC.com)

Mr. Dan Noll
LaBella Associates
300 State Street, Suite 201
Rochester, NY 14614

**RE: ZVI Bench-Scale Test Results
Former Emerson Street Landfill, Rochester, New York
XDD Project No. 20029**

Dear Mr. Noll,

XDD ENVIRONMENTAL, LLC (XDD) is pleased to provide LaBella Associates (LaBella) with the results of the bench-scale testing services in support of remedial activities for the Former Emerson Street Landfill (FESL), located in Rochester, New York (Site). The bench-scale testing focused on the evaluation of Zero Valent Iron (ZVI) to primarily address the chlorinated volatile organic compounds (CVOCs) in groundwater at the Site. The bench-scale testing was performed in accordance with the scope of work described in XDD's *"Proposed Scope of Work for Bench Scale Testing Services"* dated August 11, 2020 and revised August 15, 2020, with modifications as noted in this report.

If you have any questions regarding the information presented in this report, please do not hesitate to call me at 603.778.1100.

Sincerely,

XDD Environmental

A handwritten signature in black ink that reads 'Laurel Crawford'.

Laurel Crawford, Project Manager

cc: Richard H. Frappa (GEI Consultants)
Michael Marley (XDD)

ZVI BENCH-SCALE TEST RESULTS

Former Emerson Street Landfill (FESL)
Rochester, New York

Prepared For:

LABELLA ASSOCIATES
300 STATE STREET, SUITE 201
ROCHESTER, NEW YORK 14614

Prepared By:



22 MARIN WAY
STRATHAM, NH 03885
TEL: (603) 778-1100
FAX: (603) 778-2121

February 2, 2021

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1.0 INTRODUCTION

XDD Environmental, LLC (XDD) was retained by LaBella Associates (LaBella) to perform bench-scale testing using zero-valent iron (ZVI) to address primarily chlorinated volatile organic compounds (CVOCs) in groundwater downgradient of the source area at the Former Emerson Street Landfill (FESL), Rochester, New York (Site).

The Site consists of a former landfill impacted with volatile organic compounds (VOCs) in bedrock and overburden and in bedrock groundwater. Based on discussions with LaBella and their technical consultants from GEI Consultants, Inc. (GEI), the proposed remediation strategy includes installation of a permeable reactive barrier (PRB) consisting of ZVI to treat the CVOCs migrating in groundwater within bedrock fractures downgradient of the Site source area.

Pilot testing was previously conducted at the Site in two areas, a total of approximately 28,000 pounds (lbs.) of micro scale ZVI was injected into the two areas using two implementation techniques. The ZVI was applied into a blasted bedrock trench in the western pilot test area, and pneumatically injected in the eastern pilot test area of the Site.

The CVOCs that are considered as contaminants of concern (COCs) for the Site include 1,1-dichloroethane (1,1-DCA), 1,1-dichloroethene (1,1-DCE), cis-1,2-dichloroethene (cis-DCE), trans-1,2-dichloroethene (trans-1,2-DCE), tetrachloroethene (PCE), 1,1,1-trichloroethane (1,1,1-TCA), trichloroethene (TCE), and vinyl chloride. The goal of the bench-scale testing was to evaluate the effectiveness of ZVI in reducing the concentrations of CVOCs amenable to treatment by ZVI, which include the COCs listed above except for 1,1-DCA. 1,1-DCA is a constituent poorly degraded by ZVI and understood to be naturally biodegraded in Site groundwater. As such, monitored natural attenuation (MNA) is a component of the remedy and is anticipated to address 1,1-DCA. For the remainder of this document, any reference to COCs will include those that are targeted for treatment in the bench-scale testing, which include all Site COCs except for 1,1-DCA.

The bench-scale testing evaluated various ZVI amendments in a series of batch and column tests. The general scope of work (SOW) included the following:

1. ZVI Kinetics Batch Test. The kinetics test was conducted with Site groundwater in contact with crushed bedrock in a series of batch reactors. The goals of the kinetics test were to:
 - a. determine the optimal ZVI amendment(s) and dose required to treat the COCs in groundwater in the presence of bedrock, with a goal of achieving a minimum 80

percent (%) reduction in total COCs concentrations compared to the source area COCs concentrations.

- b. The data would also serve to provide some insight into the treatment zone length needed (and column length needed for the column test), in the bedrock, perpendicular to groundwater flow, based on the determined reaction kinetics.

The batch reactor design requires the use of a larger groundwater to bedrock / ZVI weight ratio than an in-situ application (and the column testing) to permit adequate groundwater sample volumes for the required analytical analyses. As such, there is a greater mass of contaminants in the batch reactor than would be present within a pore volume of impacted groundwater entering a treatment trench. Therefore, the measured kinetics in the batch test reactors may be slower to reach an 80% reduction in COCs than may occur in the column test and in the field. The batch test results however provide the relative kinetics, which is refined in the column testing.

2. ZVI Column Test. Column testing was conducted with Site groundwater in contact with crushed bedrock using the ZVI product(s) and dose that demonstrated the best results from the kinetics test. The objectives from this test were to:
 - a. confirm the ZVI product(s) and dose is successful in a column test, which oftentimes more closely resembles Site conditions (i.e., groundwater flow rate and groundwater to bedrock / ZVI weight ratio).
 - b. determine if the change in groundwater geochemistry (i.e., pH, ORP) due to the ZVI could result in undesirable changes in dissolved metals concentrations.
 - c. Provide a more accurate evaluation of the treatment zone length needed in the bedrock, perpendicular to groundwater flow.

1.1 MODIFICATIONS TO ORIGINALLY PROPOSED SCOPE OF WORK

Following discussions with LaBella and GEI, modifications to the original proposed SOW included:

- All certified laboratory analyses were conducted by Alpha Analytical located in Westborough, Massachusetts instead of the originally proposed laboratory, Absolute Resource Associates located in Portsmouth, New Hampshire.
- Ferox Plus Emulsified ZVI (eZVI) from Hepure was used instead of sulfidated ZVI (S-MicroZVI® by Regenesis).
- Kinetics Testing

- The kinetics test was conducted in the presence of bedrock to aid in the distribution of the ZVI in the batch reactors. The batch testing was originally proposed to be conducted in the absence of bedrock.
- The number and frequency of the sampling points for the kinetics test varied depending on interim results. In addition, analyses were not conducted at the final time point for select test conditions (refer to Section 2.3.1).
- Column Testing
 - Two ZVI products were evaluated in the column tests (one treatment condition was originally proposed).
 - In-house gas chromatograph (GC) analyses of VOCs were conducted at the beginning of the column study to obtain real time data to assess when steady state / equilibrium conditions in groundwater in the columns were reached (i.e., after any partitioning between groundwater and bedrock, potential sorption to column materials, and volatile losses had stabilized) (refer to Section 2.4.1).
 - Three sampling intervals were conducted in the column testing (one was originally proposed) (refer to Section 2.4.1).

2.0 EXPERIMENTAL PROCEDURES

2.1 SAMPLE HANDLING

The groundwater and bedrock used in the bench-scale testing was collected by LaBella and shipped to XDD. The groundwater was collected from monitoring well location SBW-07 on September 28, 2020. The samples collected for the bench-scale testing were stored at approximately 4 degrees Celsius (°C) until test setup.

Prior to setting up the tests, a baseline groundwater sample was submitted to Alpha Analytical for VOCs analysis using United States Environmental Protection Agency (EPA) Method 8260. Baseline analytical data showed that chloroethane concentrations in groundwater were lower than typically measured at the Site. Although chloroethane is not considered a COC and has not been shown to be effectively degraded by ZVI, XDD spiked the groundwater used in the batch testing at LaBella's request. The groundwater was spiked with chloroethane to target a final groundwater concentration of approximately 100 micrograms per liter (µg/L) chloroethane. The batch tests confirmed that chloroethane was not degraded by ZVI and as a result, the groundwater used in the subsequent column testing was not spiked with chloroethane after consultation with LaBella and GEI.

Upon receipt at XDD's laboratory, the bedrock was broken up into pieces resembling a fractured bedrock structure. The bedrock pieces used in the batch and column testing were sieved to sizes ranging from 1 millimeter (mm) to 4.8 mm (No. 18 and No. 4 sieve sizes), per direction from LaBella and GEI.

Experimental controls consisted of groundwater and bedrock in the absence of ZVI that were carried through the same procedures as the treated test conditions.

Geochemical parameters, such as pH and oxidation reduction potential (ORP), were measured using an ion selective probe in XDD's in-house laboratory.

2.2 ZVI AMENDMENTS

The following ZVI products that were used in the bench-scale testing were obtained from Hepure:

1. Ferox Flow: 95% ZVI; powder that provides high reactivity and long treatment life; -100/+325 Mesh ZVI (125-micron average particle size)
2. Ferox Target: 95% ZVI; powder that provides high reactivity with a shorter treatment life than Ferox Flow; -325 Mesh ZVI (44-micron average particle size)
3. Ferox Plus Emulsified ZVI (eZVI): 10 - 40% ZVI; nano/micro scale; supplied as a surfactant-stabilized, oil-in-water, injectable slurry; consists of Ferox ZVI with emulsified vegetable oil (EVO), vitamins, and nutrients; designed to stimulate chemical reduction and anaerobic biological reductive pathways.

All three ZVI products were used in the kinetics testing at two dosages for each product. Based on recommendations from the vendor and after consultation with LaBella and GEI, each product was tested at dosages of 1% and 5% (by total weight of groundwater and bedrock in each batch reactor). Based on the kinetics batch test results, the column testing was conducted using one treatment column with 5% Ferox Flow and a second treatment column with 5% Ferox Target (by total weight of groundwater [saturated pore volume] and bedrock in each column).

2.3 ZVI KINETICS BATCH TEST

The kinetics tests were conducted in a series of batch reactors (160-milliliter [mL] borosilicate-glass serum bottles) at 15 °C to simulate field groundwater temperatures. Refer to **Appendix A** for a photograph of the batch reactors. The bottles were first purged with argon to create an anaerobic environment followed by the addition of 25 grams (g) of crushed bedrock and 120 mL of groundwater. Depending on the test condition, ZVI amendments were added as necessary (refer to **Table 1**). The control reactors were set up in the same manner and carried

through same procedures as the amended test conditions but did not contain ZVI. Each reactor was sealed with a Teflon-lined, rubber septum. For each test condition, replicate reactors were set up and sacrificed for each sampling point as shown on **Table 1**. The control reactors were tested in duplicate at each time point for the determination of analytical precision.

2.3.1 TESTING DURATION AND ANALYSES

The sampling points and analyses for the kinetics test are shown on **Table 1**. Interim results were used to refine the analytical time points and test duration, with the goal of having sufficient confidence in the data for projecting meeting the groundwater remedial goals. The kinetics test for the low dose ZVI (1%) was conducted over a period of 13 days and a total of 9 time points (including Day 0). Based on the Day 13 results, the low dose testing was eliminated from further testing. For the high ZVI dose (5%) test conditions, an additional time point at Day 25 was conducted for a total of 10 time points including Day 0.

pH, ORP, and VOCs were measured for all test conditions at each time point. In addition, alkalinity, sulfate, and dissolved gases (methane, ethane, and ethene) were analyzed in the control at Day 0, and the control and high ZVI dose test conditions at the final time point (Day 25). All analyses were conducted by Alpha Analytical with the exception of pH and ORP, which were measured in XDD's laboratory.

2.4 ZVI COLUMN TEST

The column test was conducted using the ZVI product(s) and dose that demonstrated the best results in the kinetics test. After consultation with LaBella and GEI, two treatment columns were set up using Ferox Flow and Ferox Target at 5% (by total weight of groundwater [saturated pore volume] and crushed bedrock) for each column. The control column consisted of groundwater and crushed bedrock only. The column testing was conducted at 15 °C to simulate field groundwater temperatures.

The column testing was conducted using 1-inch ID (nominal) stainless steel (SS 304) columns with sanitary clamp fittings. Based on the kinetics test results, the column lengths were 4 feet (maximum proposed length for both practical implementation at the bench scale and to allow multiples of the 4-foot length to be tested, if needed). The columns were constructed with SS 304 reducers fitted to both ends of the straight column section. Gaskets between the straight column section and reducers consisted of Buna-N¹ fitted with #60 Mesh SS screens to retain the crushed bedrock. All fittings and materials used in the column setup consisted of suitably inert

¹ Buna-N is nitrile rubber which is generally considered to be compatible for VOCs sampling operations.

materials compatible with VOCs sampling/handling. Refer to **Appendix A** for photographs of the columns and associated components.

The control column was set up prior to the ZVI columns to determine the quantity of ZVI to add to each ZVI column. The quantity of soil and groundwater needed to fill the control column was used to calculate the amount of ZVI needed for the ZVI columns, as the 5% dosing is based on the total weight of groundwater [saturated pore volume] and crushed bedrock. The control column was filled with crushed bedrock (total of approximately 740 g) and periodically compacted to eliminate large voids. The column was then purged with nitrogen in an upward flow direction to eliminate air. The initial purge of nitrogen would also establish an anaerobic environment similar to Site conditions (i.e., low ORP) to prevent passivation of the ZVI in the ZVI columns. Groundwater was introduced to the bottom of the control column in an upward flow direction using an InfusionONE Syringe Pump. Once the groundwater exited the top of the column, the pore volume (approximately 190 mL) was recorded and used in the calculations of ZVI to be added to the ZVI columns. The control column was sealed at both ends to prevent drying while the ZVI columns were constructed.

The ZVI columns were constructed in the same manner as the control column but received the ZVI amendments at the calculated dose. There was initial concern that the ZVI would drop to the bottom of the column due to density and the smaller ZVI particle size than the bedrock pieces. Therefore, the bedrock and ZVI was emplaced in 6-inch sections separated by a polypropylene, 5-micron filter. In addition, on both ends of each column, a filter was placed between the SS mesh screens and straight column section to retain any ZVI / fine bedrock particles. The control column was similarly constructed with filters placed every 6 inches and at either end of the column.

The total quantity of ZVI and bedrock needed for each ZVI column was divided into 8 amounts, which was equally distributed over each 6-inch interval throughout the column. Similar to the control column, the ZVI columns were initially purged with nitrogen and an initial pore volume of groundwater was introduced to saturate the columns.

An agreed upon groundwater flow rate of 2 feet per day (ft/day) was simulated during the column testing using a set flow rate on the syringe pumps. At the inlet of each column, a glass, gas-tight syringe was filled with groundwater and inserted into the syringe pump. Similarly, glass, gas-tight syringes were used to collect the effluent groundwater at the outlet of each column (**Appendix A**).

A second pore volume was simultaneously introduced to all three columns. A fluorescent tracer (Fluorescein) was added to the influent groundwater for the control column as a qualitative assessment of whether the flow rate set on the pump equated to the target 2 ft/day velocity for the columns. Fluorescein is not expected to impact the physical or chemical characteristics of the column media. The tracer was observed at the effluent of the control column at the expected 2 ft/day flow rate and therefore, no adjustments to the syringe pump flow rate were made. All subsequent groundwater pore volumes run through the control column did not contain Fluorescein.

2.4.1 TESTING DURATION AND ANALYSES

In-house GC analyses of COCs were conducted at the beginning of the column study to obtain real time data to assess when steady state / equilibrium conditions in groundwater in the columns were reached (i.e., after any partitioning between groundwater and bedrock, potential sorption to column materials, and volatile losses had stabilized). The COCs were measured using a headspace VOCs method following EPA 5021A². Analyses were conducted by filling vials with groundwater, leaving 5 cubic centimeters (cc) of headspace. Standards were prepared in the same manner so that the headspace and water volumes were the same as the samples. Standards were prepared using dilutions of a standard mixture containing the treatability study COCs. Analyses were conducted by removing 100-microliter (μl) samples of headspace by syringe through the septa and injecting directly into a HP5890 GC equipped with a flame ionization detector (FID). ChemStation software was used to calculate response factors and quantitate results. The compound concentrations in the samples were quantified by comparing peak areas to standard calibration curves. Compounds were reported as concentrations that would be present if each compound were completely in the aqueous phase.

The in-house screening level analyses were conducted on the control column effluent at different time points. If the concentrations were relatively consistent between the sampling time points, it was considered that a steady-state condition in the columns had been reached. Once equilibrium conditions had been reached, groundwater continued to be pumped through the columns for eventual collection of the effluents to determine treatment effectiveness.

Treatment effectiveness (i.e., a minimum 80% reduction in total COCs concentrations in the ZVI columns compared to the control) was determined by evaluating the VOCs data from Alpha Analytical. If results from the 4-foot treatment columns indicated inadequate reductions in

² Although EPA Method 5021A is a standard method for the analysis of VOCs, XDD is not a certified laboratory and the results are considered "screening" level.

COCs, an 8-foot treatment scenario would be conducted by injecting the 4-foot column effluents back into the inlet of each column. The treatment simulations and analyses that were conducted are shown on **Table 2**. All analyses were conducted by Alpha Analytical with the exception of pH and ORP, which were measured in XDD's laboratory.

3.0 RESULTS AND DISCUSSION

The results of the ZVI kinetics batch test and ZVI column test are presented and discussed in the following sections.

3.1 ZVI KINETICS BATCH TEST

The kinetics test analytical VOCs results are shown on **Table 3**, pH and ORP data are shown on **Table 4**, and the dissolved gases and wet chemistry (i.e., alkalinity, sulfate, pH, and ORP) results are shown on **Table 5**. Laboratory reports are attached in **Appendix B**.

3.1.1 VOCs RESULTS

The VOCs results for the ZVI kinetics batch test (**Table 3**) show the COCs for the treatability study in bold font at the top of the table and are summed at the bottom. Any remaining detected VOCs are shown below the COCs. The VOCs results are presented by test condition for each time point. The analytical results are discussed below.

- **Baseline and Controls.** Baseline samples were submitted for VOCs analysis upon receiving groundwater from the Site. Prior to setting up the batch reactors, the groundwater was spiked with chloroethane to target a final groundwater concentration of approximately 100 µg/L chloroethane (refer to Section 2.1). The controls are carried through the same procedures and duration of the test as the reactors with ZVI.

When comparing the control results to the baseline results, it is evident that there was a notable difference in COC concentrations between the control samples and the baseline samples. This difference between the baseline data and control samples is not uncommon and is likely attributed to:

- the groundwater used in the controls and ZVI batch reactors was intentionally sampled from a different container than the baseline groundwater. Upon removing groundwater samples from the container for baseline analyses, headspace in the container was created. There was concern for volatilization of VOCs in the container headspace until baseline data was received and the batch reactors could be constructed. Therefore, the groundwater used in the controls and ZVI batch reactors was obtained from a different, full container (i.e., minimal

headspace) that had not yet been opened. As such, the variability between the baseline and control data can be due to variability between sample containers during collection of groundwater via low-flow sampling, and/or volatilization in the container headspace.

- partitioning effects between the bedrock and groundwater in the control reactors (i.e., desorption of COCs in bedrock into the aqueous phase and/or sorption of COCs from groundwater onto bedrock). The baseline groundwater samples were submitted to the lab at the start of the test (i.e., no contact time with bedrock), whereas the controls were submitted to the lab after the bedrock and groundwater had been in contact with one another during the testing.
- volatilization of COCs in the controls upon preparation and throughout the duration of the testing potentially contribute to the discrepancy between the baseline and control samples.

The effects from potential partitioning or volatilization would be expected to be minimal in the controls from the earlier time points (e.g., Day 0, Day 0.5) compared to the controls from later time points. As shown on **Table 3**, there was only a slight decrease in groundwater concentrations in the controls over time.

The controls for all time points were setup and analyzed in duplicate for VOCs. The data show acceptable precisions between duplicate pairs, with relative percent differences of 15% or less.

Since the controls are carried through the same conditions and duration of the testing as the ZVI reactors, the analytical results discussed below for the ZVI treatment conditions are compared to the corresponding controls for each time point. The percent reductions shown on **Table 3** were calculated using the average of the duplicate controls specific to each time point.

- **Ferox Flow.** The percent reductions in groundwater COC concentrations for the Ferox Flow test conditions generally increased with increasing contact time between the groundwater and ZVI / bedrock. This increasing trend in total COCs percent reductions over the duration of the testing is illustrated on **Figure 1**. As expected, the 5% Ferox Flow treatment outperformed the 1% Ferox Flow treatment.

By Day 13 of the test duration, the treatment with 5% Ferox Flow was approaching the treatment goal of 80% reduction in COCs, at 69%. However, the treatment with 1% Ferox Flow resulted in only a 24% reduction in total COCs by Day 13. Therefore, the

treatment using 1% Ferox Flow was eliminated from further testing. The 5% Ferox Flow treatment continued and by Day 25, the reduction in total COCs in groundwater was 88%.

- **Ferox Target.** Similar trends in percent reductions in COCs were observed for the Ferox Target test conditions compared to the Ferox Flow test conditions. The percent reductions in COC concentrations in the Ferox Target test conditions generally increased over the duration of the testing and the 5% Ferox Target treatment outperformed the 1% Ferox Target treatment (**Figure 1**). Treatment with Ferox Target at the 1% and 5% doses resulted in greater percent reductions in COCs compared to the 1% and 5% Ferox Flow test conditions.

By Day 13 of the test duration, the treatment with 5% Ferox Target exceeded the remedial goals, with an 86% reduction in total COCs in groundwater. In comparison, the 1% Ferox Target only resulted in a 45% reduction in total COCs by Day 13. As with the Ferox Flow testing, the treatment using 1% Ferox Target was eliminated from further testing. The 5% Ferox Target treatment resulted in a 99% reduction in total COCs in groundwater by Day 25 of the test.

- **eZVI.** The percent reductions in COC concentrations in the eZVI test conditions showed more variability, and in some cases decreased, over the duration of the testing compared to Ferox Flow and Ferox Target. In particular, the eZVI treatment at the 5% dose generally showed a decreasing trend in COC percent reductions over time, although overall, it outperformed the 1% eZVI treatment. XDD has observed this in previous bench-scale tests in which an oil-based amendment was tested (e.g., Lactoil, EOS PRO). Oil-based amendments such as eZVI can initially cause the contaminants to sorb into the oils, but eventually they are released into the aqueous phase for treatment resulting in greater reductions in the COCs. This was not observed within the test duration in this bench-scale test, indicating that eZVI may not be a practicable treatment option for the Site due to the time (and therefore PRB width) that would be required to reach treatment goals.

3.1.2 PH AND ORP RESULTS

The pH and ORP results for the ZVI kinetics batch test are shown on **Table 4**. The pH in the Ferox Flow and Ferox Target test conditions gradually increased over the duration of the test. This was expected, as it is typical for the pH to be alkaline in a ZVI application. The increase in pH did not appear to hinder the ZVI treatment of the COCs. The pH in the eZVI batch reactors remained relatively constant at slightly above neutral pH ranges. As expected, the pH in the 5%

ZVI test conditions for all three ZVI products were slightly higher compared to the 1% ZVI test conditions.

The ranges in ORP for all ZVI test conditions were favorably negative. A significant reduction in ORP occurred within the first 12 hours of the test (refer to the Day 0.5 ORP values on **Table 4**).

3.1.3 DISSOLVED GASES AND WET CHEMISTRY RESULTS

Dissolved gases and wet chemistry (i.e., alkalinity and sulfate) results at Day 0 and Day 25 are shown on **Table 5**. pH and ORP values are also shown on the table. The dissolved gases in the control decreased from Day 0 to Day 25, likely due to volatilization. Therefore, the results for the ZVI treated reactors are compared to the controls at the Day 25 time point. As would be expected, ZVI degradation end products (ethene and ethane) increased in the ZVI test conditions by Day 25 compared to the control.

Increases in methane and decreases in sulfate were measured in all three ZVI test conditions compared to the control. This is commonly observed in ZVI systems due to the favorable conditions (i.e., anaerobic environment, low ORP) created, and utilization of ZVI as an electron donor, for methanogenic and sulfate-reducing bacteria.

Alkalinity was fairly consistent between the Day 0 and Day 25 controls and its relatively high values are likely due to the dolomitic ($\text{CaMg}(\text{CO}_3)_2$) bedrock that the groundwater is in contact with at the Site. ZVI systems often result in an increase in alkalinity, which can aid in neutralizing acid formation in water. However, the increase in alkalinity that is commonly measured in ZVI systems was not observed by Day 25 in the ZVI treated reactors. Alkalinity remained relatively unchanged in the 5% eZVI test conditions compared to the control at Day 25. In the 5% Ferox Flow and Ferox Target test conditions, alkalinity decreased compared to the control at Day 25. This may be indicative of the precipitation of carbonate minerals.

3.2 ZVI COLUMN TEST

Based on the ZVI kinetics batch test results and after consultation with LaBella and GEI, two ZVI columns were set up using Ferox Flow and Ferox Target at 5% (by total weight of groundwater [saturated pore volume] and crushed bedrock) for each column. Three column testing scenarios were conducted: an initial 4-foot treatment zone (i.e., column length / PRB width) simulation, an 8-foot treatment zone simulation, and a confirmation run of the 4-foot treatment zone. Upon request by LaBella and GEI, the 8-foot ZVI treatment zone was simulated to determine if it would result in a significant improvement in COC reductions compared to the 4-foot treatment scenario. Based on the results of the first two treatment scenarios (4-foot

treatment zone and 8-foot treatment zone), the second, confirmation run of the 4-foot treatment scenario was conducted.

The column test analytical VOCs results for baseline groundwater and the three simulated runs for the columns are shown on **Table 6**. All other analyses (metals, dissolved gases, and wet chemistry [i.e., alkalinity, sulfate, pH, and ORP]) were conducted on the baseline groundwater and the second, confirmation run of the 4-foot treatment scenario, with the results presented on **Table 7**. Laboratory reports are attached in **Appendix B**.

3.2.1 VOCs RESULTS

Prior to starting the column test simulations, in-house GC analyses of COCs were conducted at the beginning of the column study to obtain real time data to assess when steady state / equilibrium conditions in groundwater in the columns were reached (i.e., after any partitioning between groundwater and bedrock, potential sorption to column materials, and volatile losses had stabilized) (refer to Section 2.4.1). The in-house screening level analyses were conducted on the control column effluent at three consecutive sampling time points. The results showed relatively consistent concentrations between the sampling time points. Therefore, it was considered that steady-state conditions were adequately achieved and the first 4-foot treatment scenario was initiated.

The VOCs results (Alpha Analytical) for the three column testing scenarios (4-foot treatment zone, 8-foot treatment zone, and the confirmation 4-foot treatment zone) are shown on **Table 6**. The treatability study COCs are shown in bold font at the top of the table and are summed at the bottom. Any remaining detected VOCs are shown below the COCs. The analytical results are discussed below.

- **Baseline and Controls.** Baseline groundwater samples were re-submitted for VOCs analysis to confirm that the levels of COCs were still significant enough to evaluate ZVI treatment in the column testing, as the groundwater was collected three months prior to the column testing. Results confirmed sufficient COC concentrations to proceed with the column testing.

Similar to the ZVI kinetics batch test, there are differences in COC concentrations between the control samples and the baseline samples (refer to Section 3.1.1). Therefore, the results from the ZVI columns are compared to the control column for each treatment scenario.

- **Ferox Flow.** The 5% Ferox Flow treatment did not result in meeting the treatment goal of 80% reduction in groundwater COCs for any of the treatment scenarios. The initial, 4-foot treatment simulation resulted in percent reductions in total COCs of 64% compared to the control. The 8-foot treatment scenario resulted in only a slight improvement, with a 66% reduction in COCs compared to the corresponding control. The second, confirmation run of the 4-foot treatment scenario resulted in a 73% reduction in total COCs in groundwater.
- **Ferox Target.** Similar to the kinetics batch test results, the Ferox Target column treatment outperformed the Ferox Flow column treatment. The 4-foot column with 5% Ferox Target exceeded the remedial goal with a 91% reduction in total COCs compared to the control. Likewise, the 8-foot treatment simulation and second, confirmation run of the 4-foot treatment simulation resulted in 96% and 98% reductions in groundwater COCs, respectively.

3.2.2 PH AND ORP RESULTS

The pH and ORP results for the ZVI column test are shown on **Table 7**. Consistent with the kinetics batch test measurements, the pH measurements in the Ferox Flow and Ferox Target column effluents were higher compared to the control. Likewise, the ORP was reduced in the ZVI columns compared to the control.

3.2.3 DISSOLVED GASES AND WET CHEMISTRY RESULTS

Similar trends in dissolved gases and wet chemistry results were measured in the ZVI column test compared to the ZVI kinetics batch test. Dissolved gases (methane, ethane, and ethene) were elevated in the ZVI treatment column effluents compared to the control (**Table 7**). Alkalinity decreased and sulfate was only slightly reduced in the ZVI-treated column effluents compared to the control.

3.2.4 METALS RESULTS

The dissolved metals results for the ZVI column test are presented on **Table 7**. In a majority of cases, dissolved metals concentrations in groundwater decreased as a result of ZVI treatment compared to the control. ZVI treatment often results in reductions in dissolved metals concentrations due to precipitation of metal sulfides and / or adsorption to ZVI surfaces. The only metals that remained above New York State Department of Conservation (NYSDEC) Part 703 Groundwater Quality Standards (GQS) following ZVI treatment were magnesium and sodium, which were already present in Site groundwater at concentrations exceeding the standards.

4.0 CONCLUSIONS AND RECOMMENDATIONS

The ZVI bench-scale results for the tested conditions support the following conclusions and recommendations:

- The batch and column testing showed that, for the same dosing, Ferox Target ZVI outperformed the other two ZVI products, Ferox Flow and eZVI, with respect to reducing the COCs targeted for ZVI treatment in groundwater.
 - The 5% Ferox Target met the 80% reduction in groundwater COCs goal by Day 13 of the ZVI kinetics batch test and in all three column simulations tested. The 5% Ferox Flow achieved the 80% reduction goal by Day 25 in the batch testing but did not reach the treatment goal in any of the column tests. The 1% and 5% eZVI dosing did not meet the treatment goals in any of the batch test conditions.
- The following recommendations are provided:
 - If Ferox Target is selected, a loading of 5% would be recommended, by weight of groundwater and if applicable, any native bedrock particles or commercial sand it may be mixed with. It may be prudent to inject the ZVI with commercial sand and / or any bedrock particulates made available through trench blasting to help the ZVI adhere to solid surfaces and also prevent the sinking of ZVI due to its size and density. It is key that the ZVI be distributed relatively evenly throughout the PRB to meet the demonstrated treatment effectiveness of COCs in the columns.
 - A minimum of 4 feet for the PRB width based on a projected uniform groundwater flow velocity through the trench of up to 2 ft/day. If the actual groundwater velocity is higher in sections of the trench, a PRB wider than 4 feet and / or a higher dosing of ZVI might be required. However, these potential conditions were not tested.
- Potential disadvantages of Ferox Target:
 - Ferox Target has a higher cost compared to Ferox Flow on a pound per pound basis. Although the Ferox Flow met the treatment goals by the end of the batch testing, it took longer to reach the goals than the Ferox Target. In the column testing, an 80% reduction in COCs was not achieved with 5% Ferox Flow within a 4 or 8-foot treatment zone. Therefore, the dosage of Ferox Flow or the width of a Ferox Flow PRB that might be required to reach treatment goals would likely be higher (dosage) or the trench wider than for the Ferox Target trench; a cost-benefit analysis could evaluate which PRB may be more cost-effective for the Site. While the data from the column testing did not show the Ferox Flow meeting the 80% COCs reduction goal, the trend in higher COCs reduction with higher dosage achieved in the batch testing does suggest that a higher dose of Ferox Flow could reach the goal.

- Ferox Target can have a relatively shorter longevity compared to Ferox Flow. The actual longevity of a PRB consisting of Ferox Target is site-specific and depends on many factors (i.e., groundwater geochemistry, level of COCs, and any potential for passivation of the ZVI). This would need to be tested in a bench-scale duration long enough (i.e., several months) to accurately extrapolate results. This could also be incorporated into a cost-benefit analysis.
- Other considerations:
 - The increased pH as a result of ZVI treatment did not appear to inhibit the treatment of COCs nor did it result in any undesirable increases in dissolved metals concentrations.
 - The trends in alkalinity and dissolved metals measured in the ZVI bench-scale testing may indicate the potential for precipitation of carbonates and/or metals, potentially causing a reduction in permeability of the ZVI PRB over time. Mineral precipitates were not observed in the ZVI batch reactors nor as a restriction in column groundwater flow during the bench testing. Mineral precipitation and PRB clogging are not expected to be significant in the short or mid-term of PRB operations, but monitoring of the hydraulics through the PRB, as an indicator of reduced permeability, could be used as a metric for rejuvenation of the PRB. There are potential methods for rejuvenating PRBs through chemical flushing, if needed.

Tables

Table 1
Bench Test Setup: ZVI Kinetics Batch Test
Former Emerson Street Landfill
Rochester, New York

ZVI Kinetics Batch Test													
Test Condition		VOCs ^[2] pH and ORP ^[3]									Alkalinity, Sulfate, Dissolved Gases ^[2]		
		Time Points (days)									Time Points (days)		
		0	0.5	1	2	3	4	5	8	13	25	0	25
Baseline groundwater ^[1]		✓											
Baseline groundwater duplicate ^[1]		✓											
Control - groundwater and crushed bedrock (no ZVI)		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Control duplicate		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Hepure Ferox Flow	1% ZVI		✓	✓	✓	✓	✓	✓	✓	✓			
	5% ZVI		✓	✓	✓	✓	✓	✓	✓	✓	✓		✓
Hepure Ferox Target	1% ZVI		✓	✓	✓	✓	✓	✓	✓	✓			
	5% ZVI		✓	✓	✓	✓	✓	✓	✓	✓	✓		✓
Hepure eZVI	1% ZVI		✓	✓	✓	✓	✓	✓	✓	✓			
	5% ZVI		✓	✓	✓	✓	✓	✓	✓	✓	✓		✓

Notes:

ZVI = zero valent iron

VOCs = volatile organic compounds

[1] Baseline sample was submitted prior to test setup to confirm groundwater was impacted with typical levels of VOCs detected at the site.

[2] Analyses were conducted by Alpha Analytical located in Westborough, MA.

[3] pH and ORP measurements were conducted in XDD's laboratory using an Orion 8103BN micro-electrode.

[4] ZVI dosing based on weight percent ZVI / total weight of groundwater and crushed bedrock.

[5] The kinetics test was conducted using 120 mL site groundwater and 25 g of crushed bedrock in batch reactors.

Table 2
Bench Test Setup: ZVI Column Test
Former Emerson Street Landfill
Rochester, New York

ZVI Column Test					
Test Condition		VOCs ^[2]			VOCs, Alkalinity, Sulfate, Dissolved Gases, and Dissolved Metals ^[2] pH and ORP ^[3]
		Sampling Points / Treatment Scenario			Sampling Points / Treatment Scenario
		Column Influent	4-Foot Treatment Effluent	8-Foot Treatment Effluent	4-Foot Treatment Effluent: Second / Confirmation Run
Baseline groundwater ^[1]		✓			✓
Baseline groundwater duplicate ^[1]		✓			
Control - groundwater and crushed bedrock (no ZVI)			✓	✓	✓
Hepure Ferox Flow	5% ZVI		✓	✓	✓
Hepure Ferox Target	5% ZVI		✓	✓	✓

Notes:

ZVI = zero valent iron

VOCs = volatile organic compounds

[1] Baseline sample was submitted prior to test setup to confirm groundwater was impacted with typical levels of VOCs detected at the site.

[2] Analyses were conducted by Alpha Analytical located in Westborough, MA.

[3] pH and ORP measurements were conducted in XDD's laboratory using an Orion 8103BN micro-electrode.

[4] ZVI dosing based on weight percent ZVI / total weight of groundwater and crushed bedrock.

Table 3
ZVI Kinetics Batch Test Results: VOCs
Former Emerson Street Landfill
Rochester, New York

			GROUNDWATER DATA - CONTROLS																		
Analyte	Baseline	Baseline Dup	Day 0	Day 0.5		Day 1		Day 2		Day 3		Day 4		Day 5		Day 8		Day 13		Day 25	
			Control	Control	Control Dup	Control	Control Dup	Control	Control Dup	Control	Control Dup	Control	Control Dup	Control	Control Dup	Control	Control Dup	Control	Control Dup	Control	Control Dup
VOCs ^[1]			(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)
1,1-Dichloroethene	5.6	6.3	11	8.5	8.1	7.8	6.6	8.8	9.1	8.4	8.2	7.1	7.0	8.7	8.2	8.1	8.0	7.5	6.8	6.4	6.7
cis-1,2-Dichloroethene	340	410	770	690	690	690	640	670	700	690	700	600	600	680	680	570	600	550	530	540	620
trans-1,2-Dichloroethene	4.7 J	5.8 J	9.5 J	7.6 J	8.2 J	7.7 J	7.2 J	7.9 J	7.9 J	7.8 J	7.5 J	7.6 J	7.6 J	8.0 J	7.8 J	7.2 J	7.2 J	6.4 J	7.0 J	6.6	6.3 J
Tetrachloroethene	350	440	210	150	150	140	130	140	150	130	130	140	140	140	140	110	100	97	99	81	100
1,1,1-Trichloroethane	160	170	330	270	280	270	230	280	300	300	300	270	270	310	300	250	250	230	220	200	280
Trichloroethene	22	25	29	23	25	23	20	24	25	23	22	21	21	23	23	19	20	18	18	17	21
Vinyl Chloride	200	300	610	490	510	490	390	400	450	380	380	370	370	400	390	370	380	360	350	300	200
Acetone	8.9 J	8.3 J	14 J	19 J	17 J	16 J	16 J	17 J	19 J	29	28	22	17 J	18 J	21	7.9 J	13 J	20 U	25 U	11	5.9 J
Benzene	5.2	5.6	7.4	6.1	6.3	6.1	6.0	5.6	6.2	4.9	4.8	4.6	3.8	3.7	4.0	2.4	3.2	1.8 J	2.3 J	3.0	3.0
2-Butanone	25 U	12 U	25 U	50 U	11 J	11 J	25 U	11 J	25 U	13 J	11 J	20 U	20 U	20 U	20 U	20 U	25 U	20 U	25 U	10 U	20 U
Chloroethane	99	170	230	200	220	220	180	190	210	170	170	100	100	170	170	170	180	180	170	140	88
1,1-Dichloroethane	300	380	720	650	650	660	600	610	650	640	640	590	600	640	630	570	590	540	520	530	590
Dichlorofluoromethane	25 U	12 U	25 U	50 U	25 U	25 U	25 U	25 U	25 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	25 U	20 U	25 U	10 U	20 U
Ethyl Ether	6.3 J	9.2	11 J	12 J	11 J	11 J	11 J	9.6 J	10 J	10	10	6.2 J	5.8 J	10	10	9.2 J	8.8 J	7.7 J	9.0 J	9.5	7.3 J
Freon-113	190	160	390	130	120	110	54	120	140	120	110	110	100	130	120	120	110	93	90	56	89
Toluene	40	31	30	22 J	22	22	22	21	23	14	13	14	10	8.5 J	11	4.7 J	7.7 J	4.3 J	5.5 J	7.5	6.8 J
m/p-Xylene	14	8.2	12 U	25 U	12 U	12 U	12 U	12 U	12 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	12 U	10 U	12 U	5 U	10 U
o-Xylene	10 J	9.4 J	8.8 J	25 U	5.5 J	5.7 J	5.8 J	4.7 J	5.1 J	10 U	10 U	3.4 J	10 U	10 U	10 U	10 U	12 U	10 U	12 U	5 U	10 U
Total Detected COCs	1,572	1,897	1,970	1,639	1,671	1,629	1,424	1,531	1,642	1,539	1,548	1,416	1,416	1,570	1,549	1,334	1,365	1,269	1,231	1,151	1,234

Notes:

ZVI = zero valent iron

COCs = contaminants of concern for the treatability study (denoted in bold)

VOCs = volatile organic compounds

N/A = not applicable; control not detected and treated test reactor either not detected or detected at a concentration below the control reporting limit (RL).

NR = no reduction; indicates an increase in concentration compared to the control, but the sample was not detected at the indicated concentration.

Negative percent reductions indicate an increase in concentration compared to the control.

1. Only detected compounds are shown. VOCs in bold indicate the COCs for the treatability study.

2. Percent reductions were calculated by comparison with the control specific to each time point.

3. For the purposes of this evaluation, the sample RL was used to calculate percent reduction for values that were not detected above the sample RL.

4. Control reactors did not contain ZVI.

µg/L = micrograms per liter

J = indicates an estimated value

U = not detected at the indicated concentration

Table 3
ZVI Kinetics Batch Test Results: VOCs
Former Emerson Street Landfill
Rochester, New York

Analyte	GROUNDWATER DATA - FEROX FLOW LOW (1%)															
	Day 0.5		Day 1		Day 2		Day 3		Day 4		Day 5		Day 8		Day 13	
	Ferox Flow Low (1%)	Percent Reduction ^(2,3)	Ferox Flow Low (1%)	Percent Reduction ^(2,3)	Ferox Flow Low (1%)	Percent Reduction ^(2,3)	Ferox Flow Low (1%)	Percent Reduction ^(2,3)	Ferox Flow Low (1%)	Percent Reduction ^(2,3)	Ferox Flow Low (1%)	Percent Reduction ^(2,3)	Ferox Flow Low (1%)	Percent Reduction ^(2,3)	Ferox Flow Low (1%)	Percent Reduction ^(2,3)
VOCs ⁽¹⁾	(µg/L)	(%)	(µg/L)	(%)	(µg/L)	(%)	(µg/L)	(%)	(µg/L)	(%)	(µg/L)	(%)	(µg/L)	(%)	(µg/L)	(%)
1,1-Dichloroethene	5.8	30	6.3	13	7.8	13	6.7	19	6.4	9	7.4	12	6.4	20	4.9	31
cis-1,2-Dichloroethene	560	19	620	7	690	-1	640	8	580	3	610	10	550	6	520	4
trans-1,2-Dichloroethene	6.4 J	19	7.1 J	5	8.8 J	-11	6.8 J	11	6.5 J	14	6.1 J	23	5.5 J	24	3.9 J	42
Tetrachloroethene	130	13	120	11	140	3	120	8	120	14	100	29	90	14	78	20
1,1,1-Trichloroethane	220	20	230	8	270	7	230	23	190	30	160	48	100	60	42	81
Trichloroethene	19	21	20	7	22	10	18	20	17	19	15	35	11	44	6.8	62
Vinyl Chloride	360	28	400	9	410	4	330	13	340	8	370	6	320	15	300	15
Acetone	29	-61	25	-56	24 J	-33	27	5	16 J	18	18 J	8	16 J	-53	12 J	N/A
Benzene	5.2	16	5.6	7	7.0	-19	5.5	-13	5.5	-31	5.7	-48	5.2	-86	4.7	-129
2-Butanone	13 J	57	12 J	33	12 J	33	15 J	-25	20 U	N/A	12 J	N/A	10 J	N/A	8.5 J	N/A
Chloroethane	180	14	200	0	200	0	160	6	97	3	180	-6	170	3	160	9
1,1-Dichloroethane	560	14	620	2	670	-6	620	3	600	-1	600	6	570	2	550	-4
Dichlorofluoromethane	25 U	N/A	25 U	N/A	25 U	N/A	20 U	N/A	20 U	N/A	20 U	N/A	20 U	N/A	20 U	N/A
Ethyl Ether	9.6 J	17	11 J	0	10 J	-2	9.8 J	2	5.6 J	7	10	0	9.7 J	-8	8.4 J	-1
Freon-113	79	37	88	-7	140	-8	100	13	100	5	110	12	84	27	35	62
Toluene	18	18	20	9	23	-5	18	-33	18	-50	19	-95	17	-174	16	-227
m/p-Xylene	12 U	N/A	12 U	N/A	5.3 J	N/A	10 U	N/A	10 U	N/A	10 U	N/A	10 U	N/A	10 U	N/A
o-Xylene	4.8 J	69	5.5 J	4	6.8 J	-39	4.8 J	N/A	5.0 J	25	4.8 J	N/A	4.4 J	N/A	4.0 J	N/A
Total Detected COCs	1,301	22	1,403	8	1,549	2	1,352	12	1,260	11	1,269	19	1,083	20	956	24

Notes:

ZVI = zero valent iron

COCs = contaminants of concern for the treatability study (denoted in bold)

VOCs = volatile organic compounds

N/A = not applicable; control not detected and treated test reactor either not detected or detected at a concentration below the control reporting limit (RL).

NR = no reduction; indicates an increase in concentration compared to the control, but the sample was not detected at the indicated concentration.

Negative percent reductions indicate an increase in concentration compared to the control.

1. Only detected compounds are shown. VOCs in bold indicate the COCs for the treatability study.

2. Percent reductions were calculated by comparison with the control specific to each time point.

3. For the purposes of this evaluation, the sample RL was used to calculate percent reduction for values that were not detected above the sample RL.

4. Control reactors did not contain ZVI.

µg/L = micrograms per liter

J = indicates an estimated value

U = not detected at the indicated concentration

Table 3
ZVI Kinetics Batch Test Results: VOCs
Former Emerson Street Landfill
Rochester, New York

Analyte	GROUNDWATER DATA - FEROX FLOW HIGH (5%)																	
	Day 0.5		Day 1		Day 2		Day 3		Day 4		Day 5		Day 8		Day 13		Day 25	
	Ferox Flow High (5%)	Percent Reduction ^(2,3)	Ferox Flow High (5%)	Percent Reduction ^(2,3)	Ferox Flow High (5%)	Percent Reduction ^(2,3)	Ferox Flow High (5%)	Percent Reduction ^(2,3)	Ferox Flow High (5%)	Percent Reduction ^(2,3)	Ferox Flow High (5%)	Percent Reduction ^(2,3)	Ferox Flow High (5%)	Percent Reduction ^(2,3)	Ferox Flow High (5%)	Percent Reduction ^(2,3)	Ferox Flow High (5%)	Percent Reduction ^(2,3)
VOCs ^[1]	(µg/L)	(%)	(µg/L)	(%)	(µg/L)	(%)	(µg/L)	(%)	(µg/L)	(%)	(µg/L)	(%)	(µg/L)	(%)	(µg/L)	(%)	(µg/L)	(%)
1,1-Dichloroethene	6.2	25	6.2	14	5.4	40	4.8	42	3.9	45	3.9	54	2.2 J	73	2.5 U	65	2.0 U	69
cis-1,2-Dichloroethene	600	13	600	10	540	21	560	19	500	17	480	29	380	35	230	57	96	83
trans-1,2-Dichloroethene	6.4 J	19	6.3 J	15	5.4 J	32	4.4 J	42	3.8 J	50	2.9 J	63	12 U	NR	12 U	-79	10 U	NR
Tetrachloroethene	110	27	100	26	99	32	82	37	89	36	79	44	55	48	32	67	14	85
1,1,1-Trichloroethane	210	24	200	20	160	45	120	60	88	67	63	79	26	90	12 U	95	10 U	96
Trichloroethene	19	21	18	16	16	35	12	47	10	52	8	63	5.3	73	1.4 J	92	1.3 J	93
Vinyl Chloride	400	20	390	11	320	25	290	24	300	19	290	27	230	39	120	66	26	90
Acetone	30	-67	30	-88	25	-39	33	-16	22	-13	30	-54	23 J	-120	7.5 J	N/A	8.5 J	-1
Benzene	5.6	10	5.7	6	5.3	10	5.4	-11	5.4	-29	5.5	-43	4.8	-71	4.2	-105	4.7	-57
2-Butanone	14 J	54	13 J	28	12 J	33	16 J	-33	11 J	N/A	13 J	N/A	13 J	N/A	25 U	N/A	20 U	N/A
Chloroethane	200	5	190	5	150	25	160	6	97	3	190	-12	150	14	160	9	88	23
1,1-Dichloroethane	610	6	620	2	550	13	610	5	600	-1	600	6	550	5	500	6	520	7
Dichlorofluoromethane	25 U	N/A	25 U	N/A	25 U	N/A	20 U	N/A	20 U	N/A	5.4 J	N/A	25 U	N/A	25 U	N/A	20 U	N/A
Ethyl Ether	10 J	13	11 J	0	8.4 J	14	9.3 J	7	5.7 J	5	9.0 J	10	9.0 J	0	9.0 J	-8	9.4 J	-12
Freon-113	97	22	83	-1	92	29	79	31	77	27	74	41	59	49	14	85	10 U	86
Toluene	18	18	18	18	18	18	15	-11	16	-33	16	-64	14	-126	12	-145	12	-68
m/p-Xylene	12 U	N/A	12 U	N/A	12 U	N/A	10 U	N/A	10 U	N/A	2.8 J	N/A	12 U	N/A	12 U	N/A	2.8 J	N/A
o-Xylene	4.2 J	72	4.2 J	27	4.6 J	6	3.8 J	N/A	4.0 J	40	3.9 J	N/A	12 U	N/A	12 U	N/A	10 U	N/A
Total Detected COCs	1,352	19	1,321	13	1,146	28	1,073	30	995	30	927	41	699	48	383	69	137	88

Notes:

- ZVI = zero valent iron
- COCs = contaminants of concern for the treatability study (denoted in bold)
- VOCs = volatile organic compounds
- N/A = not applicable; control not detected and treated test reactor either not detected or detected at a concentration below the control reporting limit (RL).
- NR = no reduction; indicates an increase in concentration compared to the control, but the sample was not detected at the indicated concentration.
- Negative percent reductions indicate an increase in concentration compared to the control.
- 1. Only detected compounds are shown. VOCs in bold indicate the COCs for the treatability study.
- 2. Percent reductions were calculated by comparison with the control specific to each time point.
- 3. For the purposes of this evaluation, the sample RL was used to calculate percent reduction for values that were not detected above the sample RL.
- 4. Control reactors did not contain ZVI.

µg/L = micrograms per liter
J = indicates an estimated value
U = not detected at the indicated concentration

Table 3
ZVI Kinetics Batch Test Results: VOCs
Former Emerson Street Landfill
Rochester, New York

Analyte	GROUNDWATER DATA - FEROX TARGET LOW (1%)															
	Day 0.5		Day 1		Day 2		Day 3		Day 4		Day 5		Day 8		Day 13	
	Ferox Target Low (1%)	Percent Reduction ^(2,3)	Ferox Target Low (1%)	Percent Reduction ^(2,3)	Ferox Target Low (1%)	Percent Reduction ^(2,3)	Ferox Target Low (1%)	Percent Reduction ^(2,3)	Ferox Target Low (1%)	Percent Reduction ^(2,3)	Ferox Target Low (1%)	Percent Reduction ^(2,3)	Ferox Target Low (1%)	Percent Reduction ^(2,3)	Ferox Target Low (1%)	Percent Reduction ^(2,3)
VOCs ^[1]	(µg/L)	(%)	(µg/L)	(%)	(µg/L)	(%)	(µg/L)	(%)	(µg/L)	(%)	(µg/L)	(%)	(µg/L)	(%)	(µg/L)	(%)
1,1-Dichloroethene	7.0	16	6.3	13	7.3	18	5.1	39	5.2	26	4.5	47	3.5	57	2.0 U	72
cis-1,2-Dichloroethene	600	13	640	4	620	9	580	17	570	5	570	16	490	16	420	22
trans-1,2-Dichloroethene	25 U	-216	7.0 J	6	7.0 J	11	4.4 J	42	5.3 J	30	4.3 J	46	3.3 J	54	10 U	-49
Tetrachloroethene	140	7	120	11	130	10	100	23	120	14	100	29	75	29	58	41
1,1,1-Trichloroethane	150	45	130	48	97	67	51	83	39	86	16	95	12	95	10 U	96
Trichloroethene	20	17	20	7	18	27	14	38	13	38	10	57	6.3	68	2.8	84
Vinyl Chloride	410	18	430	2	340	20	280	26	330	11	320	19	260	31	210	41
Acetone	30 J	-67	22 J	-38	20 J	-11	33	-16	15 J	23	24	-23	22	-111	13 J	N/A
Benzene	6.5	-5	6.8	-12	6.4	-8	6.2	-28	6.4	-52	6.8	-77	5.7	-104	5.5	-168
2-Butanone	50 U	-64	14 J	22	11 J	39	18 J	-50	11 J	N/A	14 J	N/A	14 J	N/A	8.7 J	N/A
Chloroethane	190	10	210	-5	180	10	150	12	100	0	190	-12	150	14	160	9
1,1-Dichloroethane	610	6	650	-3	590	6	590	8	610	-3	620	2	540	7	510	4
Dichlorofluoromethane	50 U	N/A	25 U	N/A	25 U	N/A	20 U	N/A	20 U	N/A	7.4 J	N/A	5.3 J	N/A	20 U	N/A
Ethyl Ether	9.7 J	16	10 J	9	10 J	3	10	0	5.4 J	10	9.6 J	4	8.8 J	2	7.9 J	5
Freon-113	100	20	89	-9	96	26	78	32	84	20	67	46	47	59	7.0 J	92
Toluene	20 J	9	22	0	23	-5	19	-41	21	-75	21	-115	18	-190	18	-267
m/p-Xylene	25 U	N/A	12 U	N/A	12 U	N/A	10 U	N/A	10 U	N/A	10 U	N/A	10 U	N/A	10 U	N/A
o-Xylene	25 U	NR	5.9 J	-3	6.5 J	-33	4.9 J	N/A	5.6 J	16	5.7 J	N/A	4.3 J	N/A	4.6 J	N/A
Total Detected COCs	1,327	20	1,353	11	1,219	23	1,035	33	1,083	24	1,025	34	850	37	691	45

Notes:

ZVI = zero valent iron

COCs = contaminants of concern for the treatability study (denoted in bold)

VOCs = volatile organic compounds

N/A = not applicable; control not detected and treated test reactor either not detected or detected at a concentration below the control reporting limit (RL).

NR = no reduction; indicates an increase in concentration compared to the control, but the sample was not detected at the indicated concentration.

Negative percent reductions indicate an increase in concentration compared to the control.

1. Only detected compounds are shown. VOCs in bold indicate the COCs for the treatability study.

2. Percent reductions were calculated by comparison with the control specific to each time point.

3. For the purposes of this evaluation, the sample RL was used to calculate percent reduction for values that were not detected above the sample RL.

4. Control reactors did not contain ZVI.

µg/L = micrograms per liter

J = indicates an estimated value

U = not detected at the indicated concentration

Table 3
ZVI Kinetics Batch Test Results: VOCs
Former Emerson Street Landfill
Rochester, New York

Analyte	GROUNDWATER DATA - FEROX TARGET HIGH (5%)																	
	Day 0.5		Day 1		Day 2		Day 3		Day 4		Day 5		Day 8		Day 13		Day 25	
	Ferox Target High (5%)	Percent Reduction ^(2,3)	Ferox Target High (5%)	Percent Reduction ^(2,3)	Ferox Target High (5%)	Percent Reduction ^(2,3)	Ferox Target High (5%)	Percent Reduction ^(2,3)	Ferox Target High (5%)	Percent Reduction ^(2,3)	Ferox Target High (5%)	Percent Reduction ^(2,3)	Ferox Target High (5%)	Percent Reduction ^(2,3)	Ferox Target High (5%)	Percent Reduction ^(2,3)	Ferox Target High (5%)	Percent Reduction ^(2,3)
VOCs ^[1]	(µg/L)	(%)	(µg/L)	(%)	(µg/L)	(%)	(µg/L)	(%)	(µg/L)	(%)	(µg/L)	(%)	(µg/L)	(%)	(µg/L)	(%)	(µg/L)	(%)
1,1-Dichloroethene	6.2	25	6.3	13	6.0	33	3.6	57	2.8	60	1.7 J	80	1.4 J	83	2.5 U	65	2.0 U	69
cis-1,2-Dichloroethene	620	10	580	13	570	17	500	28	440	27	360	47	280	52	110	80	11	98
trans-1,2-Dichloroethene	6.7 J	15	5.9 J	21	5.1 J	35	3.4 J	56	10 U	NR	12 U	NR	12 U	NR	12 U	NR	10 U	NR
Tetrachloroethene	110	27	100	26	100	31	79	39	89	36	60	57	41	61	16	84	1.8 J	98
1,1,1-Trichloroethane	120	56	85	66	32	89	12	96	4.5 J	98	12 U	96	10 U	96	12 U	95	10 U	96
Trichloroethene	19	21	18	16	16	35	11	51	9.2	56	6.6	71	4.3	78	1.2 J	93	2.0 U	89
Vinyl Chloride	420	16	340	23	330	22	240	37	230	38	190	52	130	65	44	88	1.8 J	99
Acetone	31	-72	29	-81	30	-67	39	-37	19 J	3	27	-38	29	-178	24 J	-7	34	-302
Benzene	7.5	-21	7.2	-19	7.5	-27	7.4	-53	7.5	-79	7.5	-95	7.3	-161	6.8	-232	7.5	-150
2-Butanone	17 J	44	15 J	17	14 J	22	24	-100	14 J	N/A	18 J	N/A	18 J	N/A	15 J	N/A	25	N/A
Chloroethane	210	0	170	15	180	10	160	6	100	0	200	-18	160	9	170	3	110	4
1,1-Dichloroethane	640	2	620	2	620	2	620	3	610	-3	590	7	540	7	490	8	450	20
Dichlorofluoromethane	25 U	N/A	25 U	N/A	5.9 J	N/A	20 U	N/A	20 U	N/A	7.8 J	N/A	6.8 J	N/A	25 U	N/A	20 U	N/A
Ethyl Ether	11 J	4	8.9 J	19	9.2 J	6	9.9 J	1	5.7 J	5	9.3 J	7	9.4 J	-4	8.6 J	-3	10	-19
Freon-113	80	36	79	4	67	48	43	63	37	65	27	78	5.2 J	95	12 U	87	10 U	86
Toluene	21	5	22	0	24	-9	20	-48	22	-83	21	-115	20	-223	19	-288	20	-180
m/p-Xylene	12 U	N/A	12 U	N/A	10 U	N/A	10 U	N/A	10 U	N/A	12 U	N/A	10 U	N/A	12 U	N/A	10 U	N/A
o-Xylene	5.2 J	66	5.0 J	13	5.9 J	-20	4.9 J	N/A	5.6 J	16	5.1 J	N/A	4.9 J	N/A	4.3 J	N/A	4.7 J	N/A
Total Detected COCs	1,302	22	1,135	26	1,059	33	849	45	776	45	618	60	457	66	171	86	15	99

Notes:

ZVI = zero valent iron

COCs = contaminants of concern for the treatability study (denoted in bold)

VOCs = volatile organic compounds

N/A = not applicable; control not detected and treated test reactor either not detected or detected at a concentration below the control reporting limit (RL).

NR = no reduction; indicates an increase in concentration compared to the control, but the sample was not detected at the indicated concentration.

Negative percent reductions indicate an increase in concentration compared to the control.

1. Only detected compounds are shown. VOCs in bold indicate the COCs for the treatability study.

2. Percent reductions were calculated by comparison with the control specific to each time point.

3. For the purposes of this evaluation, the sample RL was used to calculate percent reduction for values that were not detected above the sample RL.

4. Control reactors did not contain ZVI.

µg/L = micrograms per liter

J = indicates an estimated value

U = not detected at the indicated concentration

Table 3
ZVI Kinetics Batch Test Results: VOCs
Former Emerson Street Landfill
Rochester, New York

Analyte	GROUNDWATER DATA - eZVI LOW (1%)															
	Day 0.5		Day 1		Day 2		Day 3		Day 4		Day 5		Day 8		Day 13	
	eZVI Low (1%)	Percent Reduction ^(2,3)	eZVI Low (1%)	Percent Reduction ^(2,3)	eZVI Low (1%)	Percent Reduction ^(2,3)	eZVI Low (1%)	Percent Reduction ^(2,3)	eZVI Low (1%)	Percent Reduction ^(2,3)	eZVI Low (1%)	Percent Reduction ^(2,3)	eZVI Low (1%)	Percent Reduction ^(2,3)	eZVI Low (1%)	Percent Reduction ^(2,3)
VOCs ^[1]	(µg/L)	(%)	(µg/L)	(%)	(µg/L)	(%)	(µg/L)	(%)	(µg/L)	(%)	(µg/L)	(%)	(µg/L)	(%)	(µg/L)	(%)
1,1-Dichloroethene	50 U	NR	50 U	NR	50 U	NR	9.7 J	-17	7.3 J	-4	9.5 J	-12	5.6 J	30	4.9 J	31
cis-1,2-Dichloroethene	640	7	630	5	640	7	660	5	580	3	680	0	520	11	520	4
trans-1,2-Dichloroethene	250 U	NR	250 U	NR	250 U	NR	50 U	NR	50 U	NR	50 U	NR	62 U	NR	62 U	NR
Tetrachloroethene	220	-47	220	-63	230	-59	230	-77	220	-57	240	-71	190	-81	190	-94
1,1,1-Trichloroethane	220 J	20	180 J	28	210 J	28	150	50	140	48	140	54	60 J	76	18 J	92
Trichloroethene	30 J	-25	28 J	-30	27 J	-10	26	-16	24	-14	27	-17	19	3	17	6
Vinyl Chloride	460	8	470	-7	380	11	360	5	350	5	380	4	320	15	320	10
Acetone	500 U	NR	500 U	NR	500 U	NR	56 J	-96	54 J	-177	53 J	-172	45 J	-331	120 U	N/A
Benzene	50 U	NR	50 U	NR	50 U	NR	6.8 J	-40	6 J	-43	7.0 J	-82	5.4 J	-93	4.9 J	-139
2-Butanone	300 J	-884	340 J	-1789	320 J	-1678	370	-2983	310	-1450	390	-1850	320	-1322	230	-922
Chloroethane	190 J	10	180 J	10	200 J	0	160	6	210	-110	170	0	180	-3	170	3
1,1-Dichloroethane	620	5	600	5	610	3	620	3	560	6	640	-1	540	7	520	2
Dichlorofluoromethane	500 U	N/A	500 U	N/A	500 U	N/A	100 U	N/A	100 U	N/A	100 U	N/A	120 U	N/A	120 U	N/A
Ethyl Ether	250 U	NR	250 U	NR	250 U	NR	50 U	NR	50 U	NR	50 U	NR	62 U	NR	62 U	NR
Freon-113	300	-140	290	-254	350	-169	290	-152	290	-176	310	-148	190	-65	52 J	43
Toluene	250 U	NR	250 U	NR	250 U	NR	30 J	-122	29 J	-142	32	-228	26 J	-319	24 J	-390
m/p-Xylene	250 U	N/A	250 U	N/A	250 U	N/A	50 U	N/A	50 U	N/A	50 U	N/A	62 U	N/A	62 U	N/A
o-Xylene	250 U	NR	250 U	NR	250 U	NR	50 U	N/A	50 U	NR	50 U	N/A	62 U	N/A	62 U	N/A
Total Detected COCs	1,570	5	1,528	0	1,487	6	1,436	7	1,321	7	1,477	5	1,115	17	1,070	14

Notes:

ZVI = zero valent iron

COCs = contaminants of concern for the treatability study (denoted in bold)

VOCs = volatile organic compounds

N/A = not applicable; control not detected and treated test reactor either not detected or detected at a concentration below the control reporting limit (RL).

NR = no reduction; indicates an increase in concentration compared to the control, but the sample was not detected at the indicated concentration.

Negative percent reductions indicate an increase in concentration compared to the control.

1. Only detected compounds are shown. VOCs in bold indicate the COCs for the treatability study.

2. Percent reductions were calculated by comparison with the control specific to each time point.

3. For the purposes of this evaluation, the sample RL was used to calculate percent reduction for values that were not detected above the sample RL.

4. Control reactors did not contain ZVI.

µg/L = micrograms per liter

J = indicates an estimated value

U = not detected at the indicated concentration

Table 3
ZVI Kinetics Batch Test Results: VOCs
Former Emerson Street Landfill
Rochester, New York

Analyte	GROUNDWATER DATA - eZVI High (5%)																	
	Day 0.5		Day 1		Day 2		Day 3		Day 4		Day 5		Day 8		Day 13		Day 25	
	eZVI High (5%)	Percent Reduction ^(2,3)	eZVI High (5%)	Percent Reduction ^(2,3)	eZVI High (5%)	Percent Reduction ^(2,3)	eZVI High (5%)	Percent Reduction ^(2,3)	eZVI High (5%)	Percent Reduction ^(2,3)	eZVI High (5%)	Percent Reduction ^(2,3)	eZVI High (5%)	Percent Reduction ^(2,3)	eZVI High (5%)	Percent Reduction ^(2,3)	eZVI High (5%)	Percent Reduction ^(2,3)
VOCs ⁽¹⁾	(µg/L)	(%)	(µg/L)	(%)	(µg/L)	(%)	(µg/L)	(%)	(µg/L)	(%)	(µg/L)	(%)	(µg/L)	(%)	(µg/L)	(%)	(µg/L)	(%)
1,1-Dichloroethene	20 U	NR	20 U	NR	50 U	NR	5.2 J	37	10 U	NR	5.0 J	41	6.6 J	18	4.2 J	41	50.0 U	NR
cis-1,2-Dichloroethene	300	57	300	55	290	58	410	41	280	53	420	38	460	21	380	30	530	9
trans-1,2-Dichloroethene	100 U	NR	100 U	NR	250 U	NR	50 U	NR	50 U	NR	50 U	NR	62 U	NR	62 U	NR	250 U	NR
Tetrachloroethene	40	73	36	73	51	65	130	0	57	59	110	21	170	-62	120	-22	190	-110
1,1,1-Trichloroethane	32 J	88	36 J	86	250 U	14	91	70	40 J	85	72	76	65	74	62 U	72	250 U	NR
Trichloroethene	8.2 J	NR	7.6 J	65	50 U	NR	15	33	8.3 J	60	14	39	18	8	12	33	25 J	-32
Vinyl Chloride	300	40	310	30	250	41	270	29	230	38	280	29	290	23	240	32	130	48
Acetone	110 J	NR	110 J	-588	500 U	NR	120	-321	85 J	-336	100	-413	58 J	-455	100 J	-344	500 U	NR
Benzene	20 U	NR	20 U	NR	50 U	NR	5.5 J	-13	10 U	NR	4.9 J	-27	6.5 J	-132	4.1 J	-100	50.0 U	NR
2-Butanone	1,300	-4162	1,400	-7678	1,400	-7678	1,500	-12400	1,500	-7400	1,700	-8400	1,100	-4789	780	-3367	410 J	-2633
Chloroethane	140	33	130 J	35	130 J	35	140	18	130	-30	140	18	160	9	140	20	77 J	32
1,1-Dichloroethane	290	55	290	54	300	52	410	36	280	53	400	37	470	19	380	28	530	5
Dichlorofluoromethane	200 U	N/A	200 U	N/A	500 U	N/A	100 U	N/A	100 U	N/A	100 U	N/A	120 U	N/A	120 U	N/A	500 U	N/A
Ethyl Ether	100 U	NR	100 U	NR	250 U	NR	50 U	NR	50 U	NR	50 U	NR	62 U	NR	62 U	NR	250 U	NR
Freon-113	64 J	49	63 J	23	94 J	28	190	-65	85	19	150	-20	200	-74	50 J	45	250 U	NR
Toluene	100 U	NR	100 U	NR	250 U	NR	28 J	-107	50 U	NR	22 J	-126	34 J	-448	24 J	-390	250 U	NR
m/p-Xylene	100 U	N/A	100 U	N/A	250 U	N/A	16 J	-60	50 U	N/A	50 U	N/A	18 J	-64	62 U	N/A	250 U	N/A
o-Xylene	100 U	NR	100 U	NR	250 U	NR	50 U	N/A	50 U	NR	50 U	N/A	62 U	N/A	62 U	N/A	250 U	N/A
Total Detected COCs	680	59	690	55	591	63	921	40	615	57	901	42	1,010	25	756	39	875	27

Notes:

ZVI = zero valent iron

COCs = contaminants of concern for the treatability study (denoted in bold)

VOCs = volatile organic compounds

N/A = not applicable; control not detected and treated test reactor either not detected or detected at a concentration below the control reporting limit (RL).

NR = no reduction; indicates an increase in concentration compared to the control, but the sample was not detected at the indicated concentration.

Negative percent reductions indicate an increase in concentration compared to the control.

1. Only detected compounds are shown. VOCs in bold indicate the COCs for the treatability study.

2. Percent reductions were calculated by comparison with the control specific to each time point.

3. For the purposes of this evaluation, the sample RL was used to calculate percent reduction for values that were not detected above the sample RL.

4. Control reactors did not contain ZVI.

µg/L = micrograms per liter

J = indicates an estimated value

U = not detected at the indicated concentration

Table 4
ZVI Kinetics Batch Test Results: pH and ORP
Former Emerson Street Landfill
Rochester, New York

Test Condition		Day 0		Day 0.5		Day 1		Day 2		Day 3		Day 4		Day 5		Day 8		Day 13		Day 25	
		pH	ORP	pH	ORP	pH	ORP	pH	ORP	pH	ORP	pH	ORP	pH	ORP	pH	ORP	pH	ORP	pH	ORP
		--	(mV)	--	(mV)	--	(mV)	--	(mV)	--	(mV)	--	(mV)	--	(mV)	--	(mV)	--	(mV)	--	(mV)
Baseline		7.4	97																		
Control		7.45	96	7.5	18	7.5	11	7.53	-44	7.69	-67	7.45	-52	7.58	-33	7.42	9	7.54	6	7.46	3
Control Dup		7.46	97	7.49	20	7.49	15	7.54	-37	7.89	-55	7.47	-45	7.55	-22	7.56	14	7.4	2	7.47	2
Ferox Flow	Low (1%)			7.55	-140	7.59	-142	7.66	-249	8.19	-167	7.67	-157	7.69	-166	7.84	-180	8.02	-185	nm	nm
	High (5%)			7.62	-186	7.8	-193	7.86	-289	8.46	-237	8.46	-241	8.7	-245	9.03	-249	9.62	-291	10.19	-231
Ferox Target	Low (1%)			7.83	-237	7.83	-234	7.8	-281	8.6	-258	7.94	-202	8.12	-217	8.34	-255	8.78	-170	nm	nm
	High (5%)			8.22	-296	8.21	-298	8.42	-326	9.1	-313	9.04	-270	9.2	-160	9.33	-317	9.63	-195	10.33	-251
eZVI	Low (1%)			7.63	-185	7.67	-221	7.62	-205	7.76	-201	7.65	-172	7.65	-186	7.67	-185	7.76	-173	nm	nm
	High (5%)			7.94	-274	7.93	-282	7.88	-277	8.31	-268	7.92	-231	8.05	-251	7.93	-254	7.84	-238	7.72	-240

Notes:

ZVI = zero valent iron

mV = millivolts

nm = not measured; low (1%) test conditions eliminated from further testing after evaluating Day 13 COC results.

1. Control reactors did not contain ZVI.

Table 5
ZVI Kinetics Batch Test Results: Dissolved Gases and Wet Chemistry
Former Emerson Street Landfill
Rochester, New York

Analyte	Units	Day 0		Day 25				
		Control	Control Dup	Control	Control Dup	Ferox Flow High (5%)	Ferox Target High (5%)	eZVI High (5%)
Dissolved Gases								
Methane	µg/L	1,400	1,300	48.7	44.3	217	249	206
Ethene	µg/L	133	112	39.1	36.0	125	182	89.0
Ethane	µg/L	8.48	7.38	1.70	1.80	21.3	54.4	19.1
Wet Chemistry								
Alkalinity, Total	mg CaCO ₃ /L	1,190	1,190	1,260	1,300	541	542	1,170
Sulfate	mg/L	10 U	10 U	84	82	47	41	500 U
pH	--	7.45	7.46	7.46	7.47	10.19	10.33	7.72
ORP	mV	96	97	3	2	-231	-251	-240

Notes:

ZVI = zero valent iron

mg/L = milligrams per liter

µg/L = micrograms per liter

mg CaCO₃/L = milligrams calcium carbonate per liter

mV = millivolts

U = not detected at the indicated concentration

1. Control reactors did not contain ZVI.

Table 6
ZVI Column Test Results: VOCs
Former Emerson Street Landfill
Rochester, New York

Analyte	Baseline ^[2]	Baseline Dup ^[2]	4-Foot Treatment					4-Foot Treatment: Second / Confirmation Run					8-Foot Treatment				
			Control ^[3]	Ferox Flow High (5%)	Percent Reduction ^[4,5]	Ferox Target High (5%)	Percent Reduction ^[4,5]	Control ^[2]	Ferox Flow High (5%)	Percent Reduction ^[4,5]	Ferox Target High (5%)	Percent Reduction ^[4,5]	Control ^[2]	Ferox Flow High (5%)	Percent Reduction ^[4,5]	Ferox Target High (5%)	Percent Reduction ^[4,5]
VOCs ^[1]	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(%)	(µg/L)	(%)	(µg/L)	(µg/L)	(%)	(µg/L)	(%)	(µg/L)	(µg/L)	(%)	(µg/L)	(%)
1,1-Dichloroethene	7.8	10	2.5	1.9 U	24	2.1 U	18	2.4	1.2 U	50	1.0 U	58	3.1	1.2 U	61	1.2 U	61
cis-1,2-Dichloroethene	460	630	336	191	43	50	85	310	98	68	11	96	400	180	55	26	94
trans-1,2-Dichloroethene	5.4 J	7.2 J	10 U	9.6 U	N/A	11 U	N/A	2.6 J	6.2 U	NR	5.0 U	NR	3.6 J	6.2 U	NR	6.2 U	NR
Tetrachloroethene	420	76	2.1 U	1.9 U	N/A	2.1 U	N/A	0.50 J	21	-4,100	1.0 U	NR	1.2 U	41	-3,317	1.2 U	N/A
1,1,1-Trichloroethane	220	310	113	9.6 U	92	11 U	91	100	6.2 U	94	5.0 U	95	140	6.2 U	96	6.2 U	96
Trichloroethene	24	17	14	1.9 U	86	2.1 U	85	11	2.2	80	1.0 U	91	14	4.1	71	1.2 U	91
Vinyl Chloride	250	380	193	46	76	7.6	96	79	16	80	1.3 J	98	180	28	84	2.3 J	99
Acetone	12 U	20 U	608	516	15	413	32	12 U	5.9 J	N/A	6.7 J	N/A	13	27	-108	26	-100
Benzene	3.6	3.9	2.1 U	2.3	-9	3.6	-72	1.0 J	2.3	-130	3.4	-240	1.3	2.5	-92	3.2	-146
2-Butanone	12 U	20 U	21 U	19 U	N/A	21 U	N/A	12 U	12 U	N/A	4.8 J	N/A	12 U	12 U	N/A	12 U	N/A
Chloroethane	19	23	15	19	-23	19	-25	9.3	18	-94	16	-72	17	21	-24	20	-18
1,1-Dichloroethane	450	610	420	459	-9	430	-3	260	300	-15	250	4	450	470	-4	350	22
Dichlorofluoromethane	12 U	20 U	21 U	19 U	N/A	21 U	N/A	12 U	12 U	N/A	10 U	N/A	3.1 J	3.5 J	-13	12 U	NR
1,4-Dioxane	180 J	1,000 U	1,049 U	956 U	N/A	1,066 U	N/A	240 J	270 J	-13	300 J	-25	160 J	180 J	-13	180 J	-13
Ethyl Ether	8.0	9.2 J	10 U	9.6 U	N/A	11 U	N/A	8.4	9.1	-8	9.0	-7	9.2	8.6	7	7.8	15
Freon-113	170	370	27	9.6 U	65	11 U	61	53	6.2 U	88	5.0 U	91	55	6.2 U	89	6.2 U	89
Toluene	3.2 J	3.3 J	10 U	9.6 U	N/A	11 U	N/A	6.2 U	2.6 J	N/A	3.1 J	N/A	6.2 U	2.8 J	N/A	3.2 J	N/A
m/p-Xylene	6.2 U	10 U	10 U	9.6 U	N/A	11 U	N/A	2.0 J	6.0 J	-200	7.2	-260	6.2 U	5.5 J	N/A	5.6 J	N/A
o-Xylene	6.2 U	10 U	10 U	9.6 U	N/A	11 U	N/A	6.2 U	2.6 J	N/A	2.3 J	N/A	6.2 U	2.0 J	N/A	2.2 J	N/A
p-Ethyltoluene	5.0 U	8.0 U	8.4 U	7.6 U	N/A	8.6 U	N/A	5.0 U	2.0 J	N/A	3.0 J	N/A	5.0 U	2.0 J	N/A	2.7 J	N/A
1,3,5-Trimethylbenzene	6.2 U	10 U	10 U	9.6 U	N/A	11 U	N/A	6.2 U	2.3 J	N/A	3.3 J	N/A	6.2 U	2.4 J	N/A	2.9 J	N/A
1,2,4-Trimethylbenzene	6.2 U	10 U	10 U	9.6 U	N/A	11 U	N/A	6.2 U	3.8 J	N/A	5.9	N/A	6.2 U	3.4 J	N/A	4.0 J	N/A
Total Detected COCs	1,387	1,430	658	237	64	57	91	506	137	73	12	98	741	253	66	28	96

Notes:

ZVI = zero valent iron

COCs = contaminants of concern for the treatability study (denoted in bold)

N/A = not applicable; control not detected and treated test reactor either not detected or detected at a concentration below the control reporting limit (RL).

NR = no reduction; indicates an increase in concentration compared to the control, but the sample was not detected at the indicated concentration.

Negative percent reductions indicate an increase in concentration compared to the control.

1. Only detected compounds are shown. VOCs in bold indicate the COCs for the treatability study.

2. The baseline and baseline duplicate were collected from different sample containers. The baseline duplicate was the ultimate batch of groundwater used in the column testing.

3. The control column did not contain ZVI.

4. Percent reductions were calculated by comparison with the control specific to each treatment scenario.

5. For the purposes of this evaluation, the sample RL was used to calculate percent reduction for values that were not detected above the sample RL.

VOCs = volatile organic compounds

µg/L = micrograms per liter

J = indicates an estimated value

U = not detected at the indicated concentration

Table 7
ZVI Column Test Results: Metals, Dissolved Gases, and Wet Chemistry
Former Emerson Street Landfill
Rochester, New York

Analyte	Units	Baseline	4-Foot Treatment ^[1]		
			Control ^[2]	Ferox Flow High (5%)	Ferox Target High (5%)
Metals					
Aluminum	mg/L	0.0100 U	0.00918 J	0.00416 J	0.00426 J
Antimony	mg/L	0.00400 U	0.00087 J	0.00063 J	0.00400 U
Arsenic	mg/L	0.00160	0.01440	0.00114	0.00088
Barium	mg/L	1.245	0.1511	0.03226	0.01213
Beryllium	mg/L	0.00050 U	0.00050 U	0.00050 U	0.00050 U
Cadmium	mg/L	0.00020 U	0.00020 U	0.00020 U	0.00020 U
Calcium	mg/L	120	128	7.51	2.41
Chromium	mg/L	0.00100 U	0.00069 J	0.00100 U	0.00100 U
Cobalt	mg/L	0.00141	0.00541	0.00097	0.00062
Copper	mg/L	0.00100 U	0.00130	0.00095 J	0.00066 J
Iron	mg/L	0.144	0.0396 J	0.0704	0.0208 J
Lead	mg/L	0.00100 U	0.01116	0.00100 U	0.00100 U
Magnesium	mg/L	69.5	51.7	57.6	45.0
Manganese	mg/L	0.04689	0.00726	0.00670	0.01371
Mercury	mg/L	0.00020 U	0.00020 U	0.00020 U	0.00020 U
Nickel	mg/L	0.00329	0.09026	0.00338	0.00254
Potassium	mg/L	80.4	96.7	93.3	78.9
Selenium	mg/L	0.00500 U	0.00500 U	0.00500 U	0.00500 U
Silver	mg/L	0.00040 U	0.00040 U	0.00040 U	0.00040 U
Sodium	mg/L	350	347	350	350
Thallium	mg/L	0.00050 U	0.00066 J	0.00016 J	0.00100 U
Vanadium	mg/L	0.00500 U	0.00500 U	0.00500 U	0.00500 U
Zinc	mg/L	0.01000 U	0.01466	0.01000 U	0.01000 U
Dissolved Gases					
Methane	µg/L	261	2.64	174	75.7
Ethene	µg/L	64.9	6.85	56.0	244
Ethane	µg/L	4.10	1.32	70.7	99.5
Wet Chemistry					
Alkalinity, Total	mg CaCO ₃ /L	1,340	943	723	643
Sulfate	mg/L	10 U	43	40	34
pH	--	7.45	7.47	8.83	9.36
ORP	mV	135	230	-167	-247

Notes:

ZVI = zero valent iron

mg/L = milligrams per liter

µg/L = micrograms per liter

mg CaCO₃/L = milligrams calcium carbonate per liter

mV = millivolts

J = indicates an estimated value

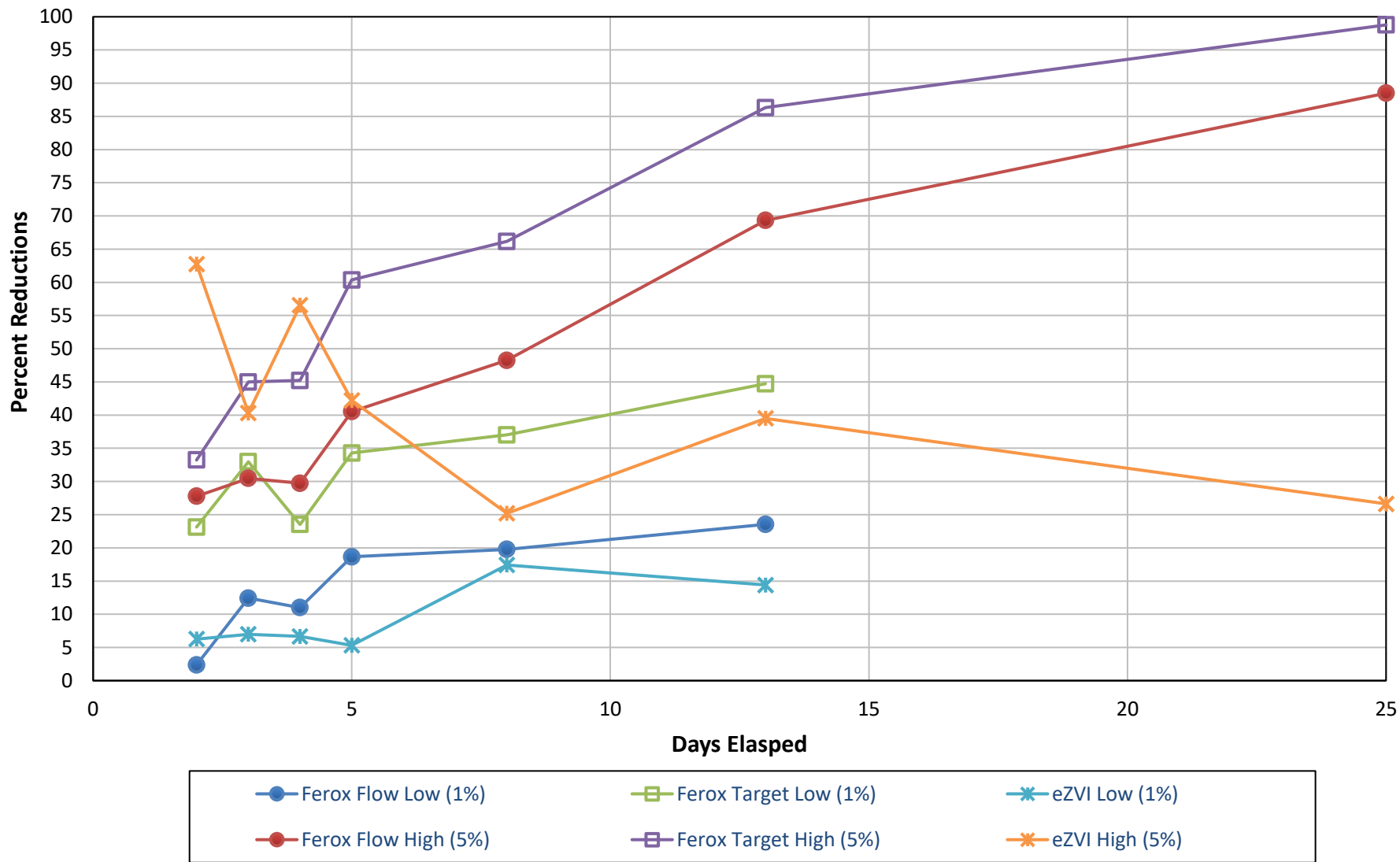
U = not detected at the indicated concentration

1. Analytical samples were collected from the second / confirmation run of the 4-foot treatment.

2. The control column did not contain ZVI.

Figures

Figure 1
ZVI Batch Test Percent Reductions for Total COCs
 Former Emerson Street Landfill
 Rochester, New York



* Percent reductions are for total COCs compared to the control specific to each time point

Appendix A

Photographs



Photo 1. ZVI Kinetics Batch Test – from left to right: Control, 1% Ferox Flow, 5% Ferox Flow, 1% Ferox Target, 5% Ferox Target, 1% eZVI, 5% eZVI



Photo 2. ZVI Column Test – Syringes, syringe pumps, column inlets



Photo 3. ZVI Column Test – 4-foot columns from left to right:
Control, 5% Ferox Flow, 5% Ferox Target

Fluorescein
tracer added to
second pore
volume of
control is
observed in
column effluent

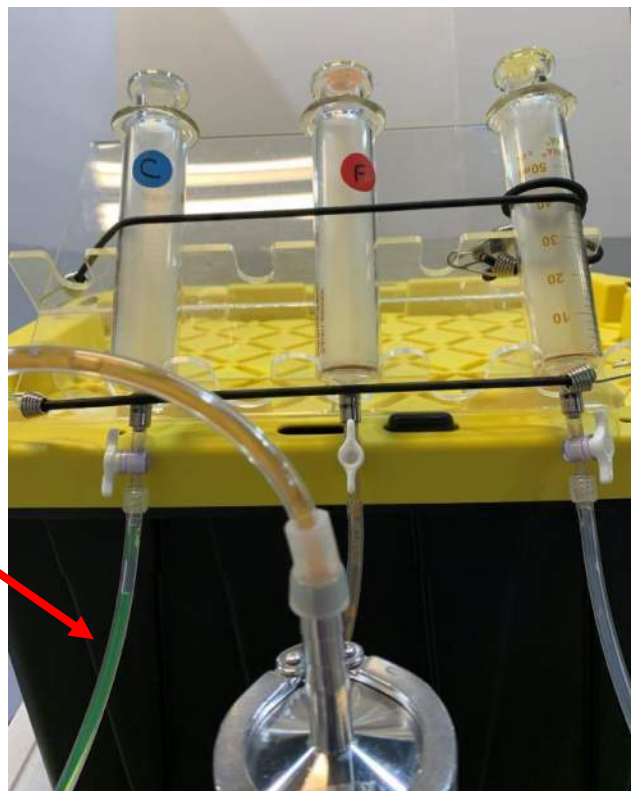


Photo 4. ZVI Column Test – Column outlets from left to right:
Control, 5% Ferox Flow, 5% Ferox Target

Appendix B

Laboratory Analytical Data Reports



ANALYTICAL REPORT

Lab Number:	L2043312
Client:	XDD Environmental Mary Scudieri 22 Marin Way Unit 3 Stratham, NH 03885
ATTN:	Laurel Crawford
Phone:	(603) 778-1100
Project Name:	EMERSON
Project Number:	20029
Report Date:	10/14/20

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Certifications & Approvals: MA (M-MA086), NH NELAP (2064), CT (PH-0574), IL (200077), ME (MA00086), MD (348), NJ (MA935), NY (11148), NC (25700/666), PA (68-03671), RI (LAO00065), TX (T104704476), VT (VT-0935), VA (460195), USDA (Permit #P330-17-00196).

Eight Walkup Drive, Westborough, MA 01581-1019
508-898-9220 (Fax) 508-898-9193 800-624-9220 - www.alphalab.com



Project Name: EMERSON
Project Number: 20029

Lab Number: L2043312
Report Date: 10/14/20

Alpha Sample ID	Client ID	Matrix	Sample Location	Collection Date/Time	Receive Date
L2043312-01	CTRL DO	WATER	ROCHESTER, NY	10/09/20 09:00	10/09/20

Project Name: EMERSON
Project Number: 20029

Lab Number: L2043312
Report Date: 10/14/20

Case Narrative

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

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

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

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

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

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

Project Name: EMERSON
Project Number: 20029

Lab Number: L2043312
Report Date: 10/14/20

Case Narrative (continued)

Report Revision

October 14, 2020: The Volatile Organics reporting list has been amended to include Freon-113.

Report Submission

All non-detect (ND) or estimated concentrations (J-qualified) have been quantitated to the limit noted in the MDL column.

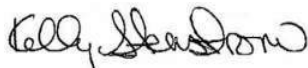
Volatile Organics

L2043312-01: The sample has elevated detection limits due to the dilution required by the sample matrix (foam). Report Submission

All non-detect (ND) or estimated concentrations (J-qualified) have been quantitated to the limit noted in the MDL column.

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

Authorized Signature:

 Kelly Stenstrom

Title: Technical Director/Representative

Date: 10/14/20

ORGANICS

VOLATILES

Project Name: EMERSON
Project Number: 20029

Lab Number: L2043312
Report Date: 10/14/20

SAMPLE RESULTS

Lab ID: L2043312-01 D
 Client ID: CTRL DO
 Sample Location: ROCHESTER, NY

Date Collected: 10/09/20 09:00
 Date Received: 10/09/20
 Field Prep: Not Specified

Sample Depth:

Matrix: Water
 Analytical Method: 1,8260C
 Analytical Date: 10/10/20 22:56
 Analyst: AJK

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methylene chloride	ND		ug/l	12	3.5	5
1,1-Dichloroethane	300		ug/l	12	3.5	5
Chloroform	ND		ug/l	12	3.5	5
Carbon tetrachloride	ND		ug/l	2.5	0.67	5
1,2-Dichloropropane	ND		ug/l	5.0	0.68	5
Dibromochloromethane	ND		ug/l	2.5	0.74	5
1,1,2-Trichloroethane	ND		ug/l	7.5	2.5	5
Tetrachloroethene	350		ug/l	2.5	0.90	5
Chlorobenzene	ND		ug/l	12	3.5	5
Trichlorofluoromethane	ND		ug/l	12	3.5	5
1,2-Dichloroethane	ND		ug/l	2.5	0.66	5
1,1,1-Trichloroethane	160		ug/l	12	3.5	5
Bromodichloromethane	ND		ug/l	2.5	0.96	5
trans-1,3-Dichloropropene	ND		ug/l	2.5	0.82	5
cis-1,3-Dichloropropene	ND		ug/l	2.5	0.72	5
1,3-Dichloropropene, Total	ND		ug/l	2.5	0.72	5
1,1-Dichloropropene	ND		ug/l	12	3.5	5
Bromoform	ND		ug/l	10	3.2	5
1,1,2,2-Tetrachloroethane	ND		ug/l	2.5	0.84	5
Benzene	5.2		ug/l	2.5	0.80	5
Toluene	40		ug/l	12	3.5	5
Ethylbenzene	ND		ug/l	12	3.5	5
Chloromethane	ND		ug/l	12	3.5	5
Bromomethane	ND		ug/l	12	3.5	5
Vinyl chloride	200		ug/l	5.0	0.36	5
Chloroethane	99		ug/l	12	3.5	5
1,1-Dichloroethene	5.6		ug/l	2.5	0.84	5
trans-1,2-Dichloroethene	4.7	J	ug/l	12	3.5	5

Project Name: EMERSON

Lab Number: L2043312

Project Number: 20029

Report Date: 10/14/20

SAMPLE RESULTS

Lab ID: L2043312-01 D

Date Collected: 10/09/20 09:00

Client ID: CTRL DO

Date Received: 10/09/20

Sample Location: ROCHESTER, NY

Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Trichloroethene	22		ug/l	2.5	0.88	5
1,2-Dichlorobenzene	ND		ug/l	12	3.5	5
1,3-Dichlorobenzene	ND		ug/l	12	3.5	5
1,4-Dichlorobenzene	ND		ug/l	12	3.5	5
Methyl tert butyl ether	ND		ug/l	12	3.5	5
p/m-Xylene	14		ug/l	12	3.5	5
o-Xylene	10	J	ug/l	12	3.5	5
Xylenes, Total	24	J	ug/l	12	3.5	5
cis-1,2-Dichloroethene	340		ug/l	12	3.5	5
1,2-Dichloroethene, Total	340	J	ug/l	12	3.5	5
Dibromomethane	ND		ug/l	25	5.0	5
1,2,3-Trichloropropane	ND		ug/l	12	3.5	5
Acrylonitrile	ND		ug/l	25	7.5	5
Styrene	ND		ug/l	12	3.5	5
Dichlorodifluoromethane	ND		ug/l	25	5.0	5
Acetone	8.9	J	ug/l	25	7.3	5
Carbon disulfide	ND		ug/l	25	5.0	5
2-Butanone	ND		ug/l	25	9.7	5
Vinyl acetate	ND		ug/l	25	5.0	5
4-Methyl-2-pentanone	ND		ug/l	25	5.0	5
2-Hexanone	ND		ug/l	25	5.0	5
Bromochloromethane	ND		ug/l	12	3.5	5
2,2-Dichloropropane	ND		ug/l	12	3.5	5
1,2-Dibromoethane	ND		ug/l	10	3.2	5
1,3-Dichloropropane	ND		ug/l	12	3.5	5
1,1,1,2-Tetrachloroethane	ND		ug/l	12	3.5	5
Bromobenzene	ND		ug/l	12	3.5	5
n-Butylbenzene	ND		ug/l	12	3.5	5
sec-Butylbenzene	ND		ug/l	12	3.5	5
tert-Butylbenzene	ND		ug/l	12	3.5	5
o-Chlorotoluene	ND		ug/l	12	3.5	5
p-Chlorotoluene	ND		ug/l	12	3.5	5
1,2-Dibromo-3-chloropropane	ND		ug/l	12	3.5	5
Hexachlorobutadiene	ND		ug/l	12	3.5	5
Isopropylbenzene	ND		ug/l	12	3.5	5
p-Isopropyltoluene	ND		ug/l	12	3.5	5
Naphthalene	ND		ug/l	12	3.5	5

Project Name: EMERSON

Lab Number: L2043312

Project Number: 20029

Report Date: 10/14/20

SAMPLE RESULTS

Lab ID: L2043312-01 D

Date Collected: 10/09/20 09:00

Client ID: CTRL DO

Date Received: 10/09/20

Sample Location: ROCHESTER, NY

Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
n-Propylbenzene	ND		ug/l	12	3.5	5
1,2,3-Trichlorobenzene	ND		ug/l	12	3.5	5
1,2,4-Trichlorobenzene	ND		ug/l	12	3.5	5
1,3,5-Trimethylbenzene	ND		ug/l	12	3.5	5
1,2,4-Trimethylbenzene	ND		ug/l	12	3.5	5
1,4-Dioxane	ND		ug/l	1200	300	5
Freon-113	190		ug/l	12	3.5	5
p-Diethylbenzene	ND		ug/l	10	3.5	5
p-Ethyltoluene	ND		ug/l	10	3.5	5
1,2,4,5-Tetramethylbenzene	ND		ug/l	10	2.7	5
Ethyl ether	6.3	J	ug/l	12	3.5	5
trans-1,4-Dichloro-2-butene	ND		ug/l	12	3.5	5

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	105		70-130
Toluene-d8	104		70-130
4-Bromofluorobenzene	108		70-130
Dibromofluoromethane	91		70-130

Project Name: EMERSON

Lab Number: L2043312

Project Number: 20029

Report Date: 10/14/20

Method Blank Analysis Batch Quality Control

Analytical Method: 1,8260C
 Analytical Date: 10/10/20 15:37
 Analyst: LAC

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 01 Batch: WG1420838-5					
Methylene chloride	ND		ug/l	2.5	0.70
1,1-Dichloroethane	ND		ug/l	2.5	0.70
Chloroform	ND		ug/l	2.5	0.70
Carbon tetrachloride	ND		ug/l	0.50	0.13
1,2-Dichloropropane	ND		ug/l	1.0	0.14
Dibromochloromethane	ND		ug/l	0.50	0.15
1,1,2-Trichloroethane	ND		ug/l	1.5	0.50
Tetrachloroethene	ND		ug/l	0.50	0.18
Chlorobenzene	ND		ug/l	2.5	0.70
Trichlorofluoromethane	ND		ug/l	2.5	0.70
1,2-Dichloroethane	ND		ug/l	0.50	0.13
1,1,1-Trichloroethane	ND		ug/l	2.5	0.70
Bromodichloromethane	ND		ug/l	0.50	0.19
trans-1,3-Dichloropropene	ND		ug/l	0.50	0.16
cis-1,3-Dichloropropene	ND		ug/l	0.50	0.14
1,3-Dichloropropene, Total	ND		ug/l	0.50	0.14
1,1-Dichloropropene	ND		ug/l	2.5	0.70
Bromoform	ND		ug/l	2.0	0.65
1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	0.17
Benzene	ND		ug/l	0.50	0.16
Toluene	ND		ug/l	2.5	0.70
Ethylbenzene	ND		ug/l	2.5	0.70
Chloromethane	ND		ug/l	2.5	0.70
Bromomethane	ND		ug/l	2.5	0.70
Vinyl chloride	ND		ug/l	1.0	0.07
Chloroethane	ND		ug/l	2.5	0.70
1,1-Dichloroethene	ND		ug/l	0.50	0.17
trans-1,2-Dichloroethene	ND		ug/l	2.5	0.70
Trichloroethene	ND		ug/l	0.50	0.18

Project Name: EMERSON

Lab Number: L2043312

Project Number: 20029

Report Date: 10/14/20

Method Blank Analysis Batch Quality Control

Analytical Method: 1,8260C
 Analytical Date: 10/10/20 15:37
 Analyst: LAC

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 01 Batch: WG1420838-5					
1,2-Dichlorobenzene	ND		ug/l	2.5	0.70
1,3-Dichlorobenzene	ND		ug/l	2.5	0.70
1,4-Dichlorobenzene	ND		ug/l	2.5	0.70
Methyl tert butyl ether	ND		ug/l	2.5	0.70
p/m-Xylene	ND		ug/l	2.5	0.70
o-Xylene	ND		ug/l	2.5	0.70
Xylenes, Total	ND		ug/l	2.5	0.70
cis-1,2-Dichloroethene	ND		ug/l	2.5	0.70
1,2-Dichloroethene, Total	ND		ug/l	2.5	0.70
Dibromomethane	ND		ug/l	5.0	1.0
1,2,3-Trichloropropane	ND		ug/l	2.5	0.70
Acrylonitrile	ND		ug/l	5.0	1.5
Styrene	ND		ug/l	2.5	0.70
Dichlorodifluoromethane	ND		ug/l	5.0	1.0
Acetone	ND		ug/l	5.0	1.5
Carbon disulfide	ND		ug/l	5.0	1.0
2-Butanone	ND		ug/l	5.0	1.9
Vinyl acetate	ND		ug/l	5.0	1.0
4-Methyl-2-pentanone	ND		ug/l	5.0	1.0
2-Hexanone	ND		ug/l	5.0	1.0
Bromochloromethane	ND		ug/l	2.5	0.70
2,2-Dichloropropane	ND		ug/l	2.5	0.70
1,2-Dibromoethane	ND		ug/l	2.0	0.65
1,3-Dichloropropane	ND		ug/l	2.5	0.70
1,1,1,2-Tetrachloroethane	ND		ug/l	2.5	0.70
Bromobenzene	ND		ug/l	2.5	0.70
n-Butylbenzene	ND		ug/l	2.5	0.70
sec-Butylbenzene	ND		ug/l	2.5	0.70
tert-Butylbenzene	ND		ug/l	2.5	0.70

Project Name: EMERSON
Project Number: 20029

Lab Number: L2043312
Report Date: 10/14/20

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260C
Analytical Date: 10/10/20 15:37
Analyst: LAC

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 01 Batch: WG1420838-5					
o-Chlorotoluene	ND		ug/l	2.5	0.70
p-Chlorotoluene	ND		ug/l	2.5	0.70
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	0.70
Hexachlorobutadiene	ND		ug/l	2.5	0.70
Isopropylbenzene	ND		ug/l	2.5	0.70
p-Isopropyltoluene	ND		ug/l	2.5	0.70
Naphthalene	ND		ug/l	2.5	0.70
n-Propylbenzene	ND		ug/l	2.5	0.70
1,2,3-Trichlorobenzene	ND		ug/l	2.5	0.70
1,2,4-Trichlorobenzene	ND		ug/l	2.5	0.70
1,3,5-Trimethylbenzene	ND		ug/l	2.5	0.70
1,2,4-Trimethylbenzene	ND		ug/l	2.5	0.70
1,4-Dioxane	ND		ug/l	250	61.
Freon-113	ND		ug/l	2.5	0.70
p-Diethylbenzene	ND		ug/l	2.0	0.70
p-Ethyltoluene	ND		ug/l	2.0	0.70
1,2,4,5-Tetramethylbenzene	ND		ug/l	2.0	0.54
Ethyl ether	ND		ug/l	2.5	0.70
trans-1,4-Dichloro-2-butene	ND		ug/l	2.5	0.70

Surrogate	%Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	106		70-130
Toluene-d8	104		70-130
4-Bromofluorobenzene	110		70-130
Dibromofluoromethane	91		70-130

Lab Control Sample Analysis

Batch Quality Control

Project Name: EMERSON
Project Number: 20029

Lab Number: L2043312
Report Date: 10/14/20

Parameter	LCS		LCSD		%Recovery Limits	RPD	Qual	RPD Limits
	%Recovery	Qual	%Recovery	Qual				
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01 Batch: WG1420838-3 WG1420838-4								
Methylene chloride	92		81		70-130	13		20
1,1-Dichloroethane	93		82		70-130	13		20
Chloroform	96		88		70-130	9		20
Carbon tetrachloride	92		85		63-132	8		20
1,2-Dichloropropane	94		87		70-130	8		20
Dibromochloromethane	110		100		63-130	10		20
1,1,2-Trichloroethane	120		100		70-130	18		20
Tetrachloroethene	100		91		70-130	9		20
Chlorobenzene	100		99		75-130	1		20
Trichlorofluoromethane	98		89		62-150	10		20
1,2-Dichloroethane	96		90		70-130	6		20
1,1,1-Trichloroethane	93		85		67-130	9		20
Bromodichloromethane	99		93		67-130	6		20
trans-1,3-Dichloropropene	120		110		70-130	9		20
cis-1,3-Dichloropropene	98		87		70-130	12		20
1,1-Dichloropropene	88		79		70-130	11		20
Bromoform	110		100		54-136	10		20
1,1,2,2-Tetrachloroethane	120		120		67-130	0		20
Benzene	93		82		70-130	13		20
Toluene	110		98		70-130	12		20
Ethylbenzene	110		100		70-130	10		20
Chloromethane	53	Q	49	Q	64-130	8		20
Bromomethane	63		58		39-139	8		20

Lab Control Sample Analysis

Batch Quality Control

Project Name: EMERSON
Project Number: 20029

Lab Number: L2043312
Report Date: 10/14/20

Parameter	LCS		LCSD		%Recovery Limits	RPD	Qual	RPD Limits
	%Recovery	Qual	%Recovery	Qual				
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01 Batch: WG1420838-3 WG1420838-4								
Vinyl chloride	77		68		55-140	12		20
Chloroethane	93		82		55-138	13		20
1,1-Dichloroethene	84		73		61-145	14		20
trans-1,2-Dichloroethene	90		79		70-130	13		20
Trichloroethene	95		88		70-130	8		20
1,2-Dichlorobenzene	110		100		70-130	10		20
1,3-Dichlorobenzene	110		100		70-130	10		20
1,4-Dichlorobenzene	110		100		70-130	10		20
Methyl tert butyl ether	96		90		63-130	6		20
p/m-Xylene	110		100		70-130	10		20
o-Xylene	110		100		70-130	10		20
cis-1,2-Dichloroethene	94		87		70-130	8		20
Dibromomethane	89		86		70-130	3		20
1,2,3-Trichloropropane	99		96		64-130	3		20
Acrylonitrile	90		82		70-130	9		20
Styrene	110		100		70-130	10		20
Dichlorodifluoromethane	59		54		36-147	9		20
Acetone	95		83		58-148	13		20
Carbon disulfide	89		74		51-130	18		20
2-Butanone	93		88		63-138	6		20
Vinyl acetate	87		84		70-130	4		20
4-Methyl-2-pentanone	120		110		59-130	9		20
2-Hexanone	110		110		57-130	0		20

Lab Control Sample Analysis

Batch Quality Control

Project Name: EMERSON
Project Number: 20029

Lab Number: L2043312
Report Date: 10/14/20

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01 Batch: WG1420838-3 WG1420838-4								
Bromochloromethane	92		90		70-130	2		20
2,2-Dichloropropane	100		95		63-133	5		20
1,2-Dibromoethane	110		100		70-130	10		20
1,3-Dichloropropane	110		100		70-130	10		20
1,1,1,2-Tetrachloroethane	100		99		64-130	1		20
Bromobenzene	110		100		70-130	10		20
n-Butylbenzene	120		110		53-136	9		20
sec-Butylbenzene	110		110		70-130	0		20
tert-Butylbenzene	110		110		70-130	0		20
o-Chlorotoluene	120		110		70-130	9		20
p-Chlorotoluene	120		110		70-130	9		20
1,2-Dibromo-3-chloropropane	100		100		41-144	0		20
Hexachlorobutadiene	110		110		63-130	0		20
Isopropylbenzene	110		100		70-130	10		20
p-Isopropyltoluene	120		100		70-130	18		20
Naphthalene	110		110		70-130	0		20
n-Propylbenzene	120		110		69-130	9		20
1,2,3-Trichlorobenzene	100		100		70-130	0		20
1,2,4-Trichlorobenzene	100		110		70-130	10		20
1,3,5-Trimethylbenzene	110		110		64-130	0		20
1,2,4-Trimethylbenzene	120		110		70-130	9		20
1,4-Dioxane	132		104		56-162	24	Q	20
Freon-113	94		82		70-130	14		20

Lab Control Sample Analysis

Batch Quality Control

Project Name: EMERSON
Project Number: 20029

Lab Number: L2043312
Report Date: 10/14/20

Parameter	LCS		LCSD		%Recovery Limits	RPD	RPD	
	%Recovery	Qual	%Recovery	Qual			Qual	Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01 Batch: WG1420838-3 WG1420838-4								
p-Diethylbenzene	120		110		70-130	9		20
p-Ethyltoluene	120		110		70-130	9		20
1,2,4,5-Tetramethylbenzene	120		110		70-130	9		20
Ethyl ether	93		80		59-134	15		20
trans-1,4-Dichloro-2-butene	110		110		70-130	0		20

Surrogate	LCS		LCSD		Acceptance Criteria
	%Recovery	Qual	%Recovery	Qual	
1,2-Dichloroethane-d4	103		100		70-130
Toluene-d8	114		106		70-130
4-Bromofluorobenzene	110		109		70-130
Dibromofluoromethane	90		88		70-130

Project Name: EMERSON

Project Number: 20029

Sample Receipt and Container Information

Were project specific reporting limits specified?

YES

Cooler Information**Cooler** **Custody Seal**

A Absent

Container Information

Container ID	Container Type	Cooler	Initial pH	Final pH	Temp deg C	Pres	Seal	Frozen Date/Time	Analysis(*)
L2043312-01A	Vial HCl preserved	A	NA		2.3	Y	Absent		NYTCL-8260(14)
L2043312-01B	Vial HCl preserved	A	NA		2.3	Y	Absent		NYTCL-8260(14)
L2043312-01C	Vial HCl preserved	A	NA		2.3	Y	Absent		NYTCL-8260(14)

Project Name: EMERSON
Project Number: 20029

Lab Number: L2043312
Report Date: 10/14/20

GLOSSARY

Acronyms

DL	- Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the limit of quantitation (LOQ). The DL includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)
EDL	- Estimated Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The EDL includes any adjustments from dilutions, concentrations or moisture content, where applicable. The use of EDLs is specific to the analysis of PAHs using Solid-Phase Microextraction (SPME).
EMPC	- Estimated Maximum Possible Concentration: The concentration that results from the signal present at the retention time of an analyte when the ions meet all of the identification criteria except the ion abundance ratio criteria. An EMPC is a worst-case estimate of the concentration.
EPA	- Environmental Protection Agency.
LCS	- Laboratory Control Sample: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.
LCSD	- Laboratory Control Sample Duplicate: Refer to LCS.
LFB	- Laboratory Fortified Blank: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.
LOD	- Limit of Detection: This value represents the level to which a target analyte can reliably be detected for a specific analyte in a specific matrix by a specific method. The LOD includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)
LOQ	- Limit of Quantitation: The value at which an instrument can accurately measure an analyte at a specific concentration. The LOQ includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.) Limit of Quantitation: The value at which an instrument can accurately measure an analyte at a specific concentration. The LOQ includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)
MDL	- Method Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The MDL includes any adjustments from dilutions, concentrations or moisture content, where applicable.
MS	- Matrix Spike Sample: A sample prepared by adding a known mass of target analyte to a specified amount of matrix sample for which an independent estimate of target analyte concentration is available. For Method 332.0, the spike recovery is calculated using the native concentration, including estimated values.
MSD	- Matrix Spike Sample Duplicate: Refer to MS.
NA	- Not Applicable.
NC	- Not Calculated: Term is utilized when one or more of the results utilized in the calculation are non-detect at the parameter's reporting unit.
NDPA/DPA	- N-Nitrosodiphenylamine/Diphenylamine.
NI	- Not Ignitable.
NP	- Non-Plastic: Term is utilized for the analysis of Atterberg Limits in soil.
NR	- No Results: Term is utilized when 'No Target Compounds Requested' is reported for the analysis of Volatile or Semivolatile Organic TIC only requests.
RL	- Reporting Limit: The value at which an instrument can accurately measure an analyte at a specific concentration. The RL includes any adjustments from dilutions, concentrations or moisture content, where applicable.
RPD	- Relative Percent Difference: The results from matrix and/or matrix spike duplicates are primarily designed to assess the precision of analytical results in a given matrix and are expressed as relative percent difference (RPD). Values which are less than five times the reporting limit for any individual parameter are evaluated by utilizing the absolute difference between the values; although the RPD value will be provided in the report.
SRM	- Standard Reference Material: A reference sample of a known or certified value that is of the same or similar matrix as the associated field samples.
STLP	- Semi-dynamic Tank Leaching Procedure per EPA Method 1315.
TEF	- Toxic Equivalency Factors: The values assigned to each dioxin and furan to evaluate their toxicity relative to 2,3,7,8-TCDD.
TEQ	- Toxic Equivalent: The measure of a sample's toxicity derived by multiplying each dioxin and furan by its corresponding TEF and then summing the resulting values.
TIC	- Tentatively Identified Compound: A compound that has been identified to be present and is not part of the target compound list (TCL) for the method and/or program. All TICs are qualitatively identified and reported as estimated concentrations.

Report Format: DU Report with 'J' Qualifiers



Project Name: EMERSON
Project Number: 20029

Lab Number: L2043312
Report Date: 10/14/20

Footnotes

- 1 - The reference for this analyte should be considered modified since this analyte is absent from the target analyte list of the original method.

Terms

Analytical Method: Both the document from which the method originates and the analytical reference method. (Example: EPA 8260B is shown as 1,8260B.) The codes for the reference method documents are provided in the References section of the Addendum.

Difference: With respect to Total Oxidizable Precursor (TOP) Assay analysis, the difference is defined as the Post-Treatment value minus the Pre-Treatment value.

Final pH: As it pertains to Sample Receipt & Container Information section of the report, Final pH reflects pH of container determined after adjustment at the laboratory, if applicable. If no adjustment required, value reflects Initial pH.

Frozen Date/Time: With respect to Volatile Organics in soil, Frozen Date/Time reflects the date/time at which associated Reagent Water-preserved vials were initially frozen. Note: If frozen date/time is beyond 48 hours from sample collection, value will be reflected in 'bold'.

Initial pH: As it pertains to Sample Receipt & Container Information section of the report, Initial pH reflects pH of container determined upon receipt, if applicable.

PAH Total: With respect to Alkylated PAH analyses, the 'PAHs, Total' result is defined as the summation of results for all or a subset of the following compounds: Naphthalene, C1-C4 Naphthalenes, 2-Methylnaphthalene, 1-Methylnaphthalene, Biphenyl, Acenaphthylene, Acenaphthene, Fluorene, C1-C3 Fluorenes, Phenanthrene, C1-C4 Phenanthrenes/Anthracenes, Anthracene, Fluoranthene, Pyrene, C1-C4 Fluoranthenes/Pyrenes, Benz(a)anthracene, Chrysene, C1-C4 Chrysenes, Benzo(b)fluoranthene, Benzo(j)+(k)fluoranthene, Benzo(e)pyrene, Benzo(a)pyrene, Perylene, Indeno(1,2,3-cd)pyrene, Dibenz(ah)+(ac)anthracene, Benzo(g,h,i)perylene. If a 'Total' result is requested, the results of its individual components will also be reported.

PFAS Total: With respect to PFAS analyses, the 'PFAS, Total (5)' result is defined as the summation of results for: PFHpA, PFHxS, PFOA, PFNA and PFOS. If a 'Total' result is requested, the results of its individual components will also be reported.

The target compound Chlordane (CAS No. 57-74-9) is reported for GC ECD analyses. Per EPA, this compound "refers to a mixture of chlordane isomers, other chlorinated hydrocarbons and numerous other components." (Reference: USEPA Toxicological Review of Chlordane, In Support of Summary Information on the Integrated Risk Information System (IRIS), December 1997.)

Total: With respect to Organic analyses, a 'Total' result is defined as the summation of results for individual isomers or Aroclors. If a 'Total' result is requested, the results of its individual components will also be reported. This is applicable to 'Total' results for methods 8260, 8081 and 8082.

Data Qualifiers

- A** - Spectra identified as "Aldol Condensates" are byproducts of the extraction/concentration procedures when acetone is introduced in the process.
- B** - The analyte was detected above the reporting limit in the associated method blank. Flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For MCP-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For DOD-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank AND the analyte was detected above one-half the reporting limit (or above the reporting limit for common lab contaminants) in the associated method blank. For NJ-Air-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte above the reporting limit. For NJ-related projects (excluding Air), flag only applies to associated field samples that have detectable concentrations of the analyte, which was detected above the reporting limit in the associated method blank or above five times the reporting limit for common lab contaminants (Phthalates, Acetone, Methylene Chloride, 2-Butanone).
- C** - Co-elution: The target analyte co-elutes with a known lab standard (i.e. surrogate, internal standards, etc.) for co-extracted analyses.
- D** - Concentration of analyte was quantified from diluted analysis. Flag only applies to field samples that have detectable concentrations of the analyte.
- E** - Concentration of analyte exceeds the range of the calibration curve and/or linear range of the instrument.
- F** - The ratio of quantifier ion response to qualifier ion response falls outside of the laboratory criteria. Results are considered to be an estimated maximum concentration.
- G** - The concentration may be biased high due to matrix interferences (i.e. co-elution) with non-target compound(s). The result should be considered estimated.
- H** - The analysis of pH was performed beyond the regulatory-required holding time of 15 minutes from the time of sample collection.
- I** - The lower value for the two columns has been reported due to obvious interference.
- J** - Estimated value. The Target analyte concentration is below the quantitation limit (RL), but above the Method Detection Limit (MDL) or Estimated Detection Limit (EDL) for SPME-related analyses. This represents an estimated concentration for Tentatively Identified Compounds (TICs).
- M** - Reporting Limit (RL) exceeds the MCP CAM Reporting Limit for this analyte.
- ND** - Not detected at the method detection limit (MDL) for the sample, or estimated detection limit (EDL) for SPME-related analyses.
- NJ** - Presumptive evidence of compound. This represents an estimated concentration for Tentatively Identified Compounds (TICs), where

Report Format: DU Report with 'J' Qualifiers



Project Name: EMERSON
Project Number: 20029

Lab Number: L2043312
Report Date: 10/14/20

Data Qualifiers

the identification is based on a mass spectral library search.

- P** - The RPD between the results for the two columns exceeds the method-specified criteria.
- Q** - The quality control sample exceeds the associated acceptance criteria. For DOD-related projects, LCS and/or Continuing Calibration Standard exceedences are also qualified on all associated sample results. Note: This flag is not applicable for matrix spike recoveries when the sample concentration is greater than 4x the spike added or for batch duplicate RPD when the sample concentrations are less than 5x the RL. (Metals only.)
- R** - Analytical results are from sample re-analysis.
- RE** - Analytical results are from sample re-extraction.
- S** - Analytical results are from modified screening analysis.

Project Name: EMERSON
Project Number: 20029

Lab Number: L2043312
Report Date: 10/14/20

REFERENCES

- 1 Test Methods for Evaluating Solid Waste: Physical/Chemical Methods. EPA SW-846. Third Edition. Updates I - VI, 2018.

LIMITATION OF LIABILITIES

Alpha Analytical performs services with reasonable care and diligence normal to the analytical testing laboratory industry. In the event of an error, the sole and exclusive responsibility of Alpha Analytical shall be to re-perform the work at it's own expense. In no event shall Alpha Analytical be held liable for any incidental, consequential or special damages, including but not limited to, damages in any way connected with the use of, interpretation of, information or analysis provided by Alpha Analytical.

We strongly urge our clients to comply with EPA protocol regarding sample volume, preservation, cooling, containers, sampling procedures, holding time and splitting of samples in the field.



Certification Information

The following analytes are not included in our Primary NELAP Scope of Accreditation:

Westborough Facility

EPA 624/624.1: m/p-xylene, o-xylene, Naphthalene

EPA 8260C: NPW: 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene, Azobenzene; SCM: Iodomethane (methyl iodide), 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene.

EPA 8270D: NPW: Dimethylnaphthalene, 1,4-Diphenylhydrazine; SCM: Dimethylnaphthalene, 1,4-Diphenylhydrazine.

SM4500: NPW: Amenable Cyanide; SCM: Total Phosphorus, TKN, NO₂, NO₃.

Mansfield Facility

SM 2540D: TSS

EPA 8082A: NPW: PCB: 1, 5, 31, 87, 101, 110, 141, 151, 153, 180, 183, 187.

EPA TO-15: Halothane, 2,4,4-Trimethyl-2-pentene, 2,4,4-Trimethyl-1-pentene, Thiophene, 2-Methylthiophene, 3-Methylthiophene, 2-Ethylthiophene, 1,2,3-Trimethylbenzene, Indan, Indene, 1,2,4,5-Tetramethylbenzene, Benzothiophene, 1-Methylnaphthalene.

EPA TO-12 Non-methane organics

EPA 3C Fixed gases

Biological Tissue Matrix: EPA 3050B

The following analytes are included in our Massachusetts DEP Scope of Accreditation

Westborough Facility:

Drinking Water

EPA 300.0: Chloride, Nitrate-N, Fluoride, Sulfate; **EPA 353.2:** Nitrate-N, Nitrite-N; **SM4500NO3-F:** Nitrate-N, Nitrite-N; **SM4500F-C, SM4500CN-CE,**

EPA 180.1, SM2130B, SM4500CI-D, SM2320B, SM2540C, SM4500H-B, SM4500NO2-B

EPA 332: Perchlorate; **EPA 524.2:** THMs and VOCs; **EPA 504.1:** EDB, DBCP.

Microbiology: SM9215B; SM9223-P/A, SM9223B-Colilert-QT, SM9222D.

Non-Potable Water

SM4500H,B, EPA 120.1, SM2510B, SM2540C, SM2320B, SM4500CL-E, SM4500F-BC, SM4500NH3-BH: Ammonia-N and Kjeldahl-N, **EPA 350.1:** Ammonia-N, **LACHAT 10-107-06-1-B:** Ammonia-N, **EPA 351.1, SM4500NO3-F, EPA 353.2:** Nitrate-N, **SM4500P-E, SM4500P-B, E, SM4500SO4-E, SM5220D, EPA 410.4, SM5210B, SM5310C, SM4500CL-D, EPA 1664, EPA 420.1, SM4500-CN-CE, SM2540D, EPA 300:** Chloride, Sulfate, Nitrate.

EPA 624.1: Volatile Halocarbons & Aromatics,

EPA 608.3: Chlordane, Toxaphene, Aldrin, alpha-BHC, beta-BHC, gamma-BHC, delta-BHC, Dieldrin, DDD, DDE, DDT, Endosulfan I, Endosulfan II, Endosulfan sulfate, Endrin, Endrin Aldehyde, Heptachlor, Heptachlor Epoxide, PCBs

EPA 625.1: SVOC (Acid/Base/Neutral Extractables), **EPA 600/4-81-045:** PCB-Oil.

Microbiology: SM9223B-Colilert-QT; Enterolert-QT, SM9221E, EPA 1600, EPA 1603.

Mansfield Facility:

Drinking Water

EPA 200.7: Al, Ba, Cd, Cr, Cu, Fe, Mn, Ni, Na, Ag, Ca, Zn. **EPA 200.8:** Al, Sb, As, Ba, Be, Cd, Cr, Cu, Pb, Mn, Ni, Se, Ag, TL, Zn. **EPA 245.1** Hg.

EPA 522.

Non-Potable Water

EPA 200.7: Al, Sb, As, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Mg, Mn, Mo, Ni, K, Se, Ag, Na, Sr, TL, Ti, V, Zn.

EPA 200.8: Al, Sb, As, Be, Cd, Cr, Cu, Fe, Pb, Mn, Ni, K, Se, Ag, Na, TL, Zn.

EPA 245.1 Hg.

SM2340B

For a complete listing of analytes and methods, please contact your Alpha Project Manager.



CHAIN OF CUSTODY

PAGE 1 OF 1

Date Rec'd in Lab: 10/9/20

ALPHA Job #: L2013312

8 Walkup Drive
Westboro, MA 01581
Tel: 508-896-9220

320 Forbes Blvd
Mansfield, MA 02048
Tel: 508-822-9300

Project Information

Project Name: Emergen
Project Location: Rochester, N.Y.
Project #: Z0029
Project Manager: Laurel Crawford
ALPHA Quote #:

Report Information - Data Deliverables

ADEx EMAIL

Billing Information

Same as Client info PO #: 4697

Client Information

Client: XDD
Address: 22 Main Way #3
Stratham, NH 03885
Phone: 603-778-1100
Email: Lcrawford@xdd-
llc.com
Additional Project Information:
Send invoices to:
apaxdd-llc.com

Turn-Around Time

Standard RUSH (only confirmed if pre-approved!)

Date Due: 1-day (10/12/20)

Regulatory Requirements & Project Information Requirements

Yes No MA MCP Analytical Methods Yes No CT RCP Analytical Methods
 Yes No Matrix Spike Required on this SDG? (Required for MCP Inorganics)
 Yes No GW1 Standards (Info Required for Metals & EPH with Targets)
 Yes No NPDES RGP
 Other State /Fed Program NYS DOH ELAP Criteria

ANALYSIS	VOC: <input checked="" type="checkbox"/> 8260 <input type="checkbox"/> 624 <input type="checkbox"/> 524.2	SAMPLE INFO
	SVOC: <input type="checkbox"/> ABN <input type="checkbox"/> PAH	
METALS: <input type="checkbox"/> MCP 13 <input type="checkbox"/> MCP 14 <input type="checkbox"/> MCP 15	METALS: <input type="checkbox"/> RCRA5 <input type="checkbox"/> RCRA8 <input type="checkbox"/> RCRA6	Filtration
EPH: <input type="checkbox"/> Ranges & Targets <input type="checkbox"/> Ranges Only	VPH: <input type="checkbox"/> Ranges & Targets <input type="checkbox"/> Ranges Only	<input type="checkbox"/> Field
<input type="checkbox"/> PCB	TPH: <input type="checkbox"/> Quant Only <input type="checkbox"/> Fingerprint	<input type="checkbox"/> Lab to do
		Preservation
		<input type="checkbox"/> Lab to do
		Sample Comments

TOTAL # BOTTLES

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection		Sample Matrix	Sampler Initials	
		Date	Time			
43312 01	Ctrl DO	10/9/20	900	GW	LC	X

Container Type
P= Plastic
A= Amber glass
V= Vial
G= Glass
B= Bacteria cup
C= Cube
O= Other
E= Encore
D= BOD Bottle

Preservative
A= None
B= HCl
C= HNO₃
D= H₂SO₄
E= NaOH
F= MeOH
G= NaHSO₄
H= Na₂S₂O₅
I= Ascorbic Acid
J= NH₄Cl
K= Zn Acetate
O= Other

Container Type G
Preservative B

Relinquished By: <u>Laurel Crawford</u>	Date/Time: <u>10/9/20 11:57</u>	Received By: <u>Blair Duggins</u>	Date/Time: <u>10/9/20 11:59</u>
<u>Laurel Crawford</u>	<u>10/9/20 11:30</u>	<u>Blair Duggins</u>	<u>10/9/20 14:30</u>

All samples submitted are subject to Alpha's Terms and Conditions. See reverse side.
FORM NO: 01-01 (rev. 12-Mar-2012)



ANALYTICAL REPORT

Lab Number:	L2043588
Client:	XDD Environmental Mary Scudieri 22 Marin Way Unit 3 Stratham, NH 03885
ATTN:	Laurel Crawford
Phone:	(603) 778-1100
Project Name:	FESL
Project Number:	20029
Report Date:	10/23/20

The original project report/data package is held by Alpha Analytical. This report/data package is paginated and should be reproduced only in its entirety. Alpha Analytical holds no responsibility for results and/or data that are not consistent with the original.

Certifications & Approvals: MA (M-MA086), NH NELAP (2064), CT (PH-0574), IL (200077), ME (MA00086), MD (348), NJ (MA935), NY (11148), NC (25700/666), PA (68-03671), RI (LAO00065), TX (T104704476), VT (VT-0935), VA (460195), USDA (Permit #P330-17-00196).

Eight Walkup Drive, Westborough, MA 01581-1019
508-898-9220 (Fax) 508-898-9193 800-624-9220 - www.alphalab.com



Project Name: FESL
Project Number: 20029

Lab Number: L2043588
Report Date: 10/23/20

Alpha Sample ID	Client ID	Matrix	Sample Location	Collection Date/Time	Receive Date
L2043588-01	CTRL D0	WATER	ROCHESTER, NY	10/12/20 10:00	10/12/20
L2043588-02	CTRL D0 DUP	WATER	ROCHESTER, NY	10/12/20 10:07	10/12/20

Project Name: FESL
Project Number: 20029

Lab Number: L2043588
Report Date: 10/23/20

Case Narrative

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

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

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

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

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

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

Project Name: FESL
Project Number: 20029

Lab Number: L2043588
Report Date: 10/23/20

Case Narrative (continued)

Report Submission


All non-detect (ND) or estimated concentrations (J-qualified) have been quantitated to the limit noted in the MDL column.

Sample Receipt

L2043588-02: The collection date and time on the chain of custody was 12-OCT-20 10:07; however, the collection date/time on the container label was 12-OCT-20 10:10. At the client's request, the collection date/time is reported as 12-OCT-20 10:07.

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

Authorized Signature:

 Kelly Stenstrom

Title: Technical Director/Representative

Date: 10/23/20

ORGANICS

VOLATILES

Project Name: FESL
Project Number: 20029

Lab Number: L2043588
Report Date: 10/23/20

SAMPLE RESULTS

Lab ID: L2043588-01
 Client ID: CTRL D0
 Sample Location: ROCHESTER, NY

Date Collected: 10/12/20 10:00
 Date Received: 10/12/20
 Field Prep: Not Specified

Sample Depth:

Matrix: Water
 Analytical Method: 117,-
 Analytical Date: 10/14/20 21:08
 Analyst: AW

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Dissolved Gases by GC - Mansfield Lab							
Methane	1400		ug/l	2.00	2.00	1	A
Ethene	133		ug/l	0.500	0.500	1	A
Ethane	8.48		ug/l	0.500	0.500	1	A

Project Name: FESL
Project Number: 20029

Lab Number: L2043588
Report Date: 10/23/20

SAMPLE RESULTS

Lab ID: L2043588-02
 Client ID: CTRL D0 DUP
 Sample Location: ROCHESTER, NY

Date Collected: 10/12/20 10:07
 Date Received: 10/12/20
 Field Prep: Not Specified

Sample Depth:

Matrix: Water
 Analytical Method: 117,-
 Analytical Date: 10/14/20 21:24
 Analyst: AW

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Dissolved Gases by GC - Mansfield Lab							
Methane	1300		ug/l	2.00	2.00	1	A
Ethene	112		ug/l	0.500	0.500	1	A
Ethane	7.38		ug/l	0.500	0.500	1	A

Project Name: FESL
Project Number: 20029

Lab Number: L2043588
Report Date: 10/23/20

SAMPLE RESULTS

Lab ID: L2043588-02 D
 Client ID: CTRL D0 DUP
 Sample Location: ROCHESTER, NY

Date Collected: 10/12/20 10:07
 Date Received: 10/12/20
 Field Prep: Not Specified

Sample Depth:

Matrix: Water
 Analytical Method: 1,8260C
 Analytical Date: 10/22/20 03:01
 Analyst: NLK

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methylene chloride	ND		ug/l	6.2	1.8	2.5
1,1-Dichloroethane	380		ug/l	6.2	1.8	2.5
Chloroform	ND		ug/l	6.2	1.8	2.5
Carbon tetrachloride	ND		ug/l	1.2	0.34	2.5
1,2-Dichloropropane	ND		ug/l	2.5	0.34	2.5
Dibromochloromethane	ND		ug/l	1.2	0.37	2.5
1,1,2-Trichloroethane	ND		ug/l	3.8	1.2	2.5
Tetrachloroethene	440		ug/l	1.2	0.45	2.5
Chlorobenzene	ND		ug/l	6.2	1.8	2.5
Trichlorofluoromethane	ND		ug/l	6.2	1.8	2.5
1,2-Dichloroethane	ND		ug/l	1.2	0.33	2.5
1,1,1-Trichloroethane	170		ug/l	6.2	1.8	2.5
Bromodichloromethane	ND		ug/l	1.2	0.48	2.5
trans-1,3-Dichloropropene	ND		ug/l	1.2	0.41	2.5
cis-1,3-Dichloropropene	ND		ug/l	1.2	0.36	2.5
1,3-Dichloropropene, Total	ND		ug/l	1.2	0.36	2.5
1,1-Dichloropropene	ND		ug/l	6.2	1.8	2.5
Bromoform	ND		ug/l	5.0	1.6	2.5
1,1,1,2-Tetrachloroethane	ND		ug/l	1.2	0.42	2.5
Benzene	5.6		ug/l	1.2	0.40	2.5
Toluene	31		ug/l	6.2	1.8	2.5
Ethylbenzene	ND		ug/l	6.2	1.8	2.5
Chloromethane	ND		ug/l	6.2	1.8	2.5
Bromomethane	ND		ug/l	6.2	1.8	2.5
Vinyl chloride	300		ug/l	2.5	0.18	2.5
Chloroethane	170		ug/l	6.2	1.8	2.5
1,1-Dichloroethene	6.3		ug/l	1.2	0.42	2.5
trans-1,2-Dichloroethene	5.8	J	ug/l	6.2	1.8	2.5

Project Name: FESL
Project Number: 20029

Lab Number: L2043588
Report Date: 10/23/20

SAMPLE RESULTS

Lab ID: L2043588-02 D
 Client ID: CTRL D0 DUP
 Sample Location: ROCHESTER, NY

Date Collected: 10/12/20 10:07
 Date Received: 10/12/20
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Trichloroethene	25		ug/l	1.2	0.44	2.5
1,2-Dichlorobenzene	ND		ug/l	6.2	1.8	2.5
1,3-Dichlorobenzene	ND		ug/l	6.2	1.8	2.5
1,4-Dichlorobenzene	ND		ug/l	6.2	1.8	2.5
Methyl tert butyl ether	ND		ug/l	6.2	1.8	2.5
p/m-Xylene	8.2		ug/l	6.2	1.8	2.5
o-Xylene	9.4		ug/l	6.2	1.8	2.5
Xylenes, Total	18		ug/l	6.2	1.8	2.5
cis-1,2-Dichloroethene	410		ug/l	6.2	1.8	2.5
1,2-Dichloroethene, Total	420	J	ug/l	6.2	1.8	2.5
Dibromomethane	ND		ug/l	12	2.5	2.5
1,2,3-Trichloropropane	ND		ug/l	6.2	1.8	2.5
Acrylonitrile	ND		ug/l	12	3.8	2.5
Styrene	ND		ug/l	6.2	1.8	2.5
Dichlorodifluoromethane	ND		ug/l	12	2.5	2.5
Acetone	8.3	J	ug/l	12	3.6	2.5
Carbon disulfide	ND		ug/l	12	2.5	2.5
2-Butanone	ND		ug/l	12	4.8	2.5
Vinyl acetate	ND		ug/l	12	2.5	2.5
4-Methyl-2-pentanone	ND		ug/l	12	2.5	2.5
2-Hexanone	ND		ug/l	12	2.5	2.5
Bromochloromethane	ND		ug/l	6.2	1.8	2.5
2,2-Dichloropropane	ND		ug/l	6.2	1.8	2.5
1,2-Dibromoethane	ND		ug/l	5.0	1.6	2.5
1,3-Dichloropropane	ND		ug/l	6.2	1.8	2.5
1,1,1,2-Tetrachloroethane	ND		ug/l	6.2	1.8	2.5
Bromobenzene	ND		ug/l	6.2	1.8	2.5
n-Butylbenzene	ND		ug/l	6.2	1.8	2.5
sec-Butylbenzene	ND		ug/l	6.2	1.8	2.5
tert-Butylbenzene	ND		ug/l	6.2	1.8	2.5
o-Chlorotoluene	ND		ug/l	6.2	1.8	2.5
p-Chlorotoluene	ND		ug/l	6.2	1.8	2.5
1,2-Dibromo-3-chloropropane	ND		ug/l	6.2	1.8	2.5
Hexachlorobutadiene	ND		ug/l	6.2	1.8	2.5
Isopropylbenzene	ND		ug/l	6.2	1.8	2.5
p-Isopropyltoluene	ND		ug/l	6.2	1.8	2.5
Naphthalene	2.6	J	ug/l	6.2	1.8	2.5

Project Name: FESL
Project Number: 20029

Lab Number: L2043588
Report Date: 10/23/20

SAMPLE RESULTS

Lab ID: L2043588-02 D
 Client ID: CTRL D0 DUP
 Sample Location: ROCHESTER, NY

Date Collected: 10/12/20 10:07
 Date Received: 10/12/20
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
n-Propylbenzene	ND		ug/l	6.2	1.8	2.5
1,2,3-Trichlorobenzene	ND		ug/l	6.2	1.8	2.5
1,2,4-Trichlorobenzene	ND		ug/l	6.2	1.8	2.5
1,3,5-Trimethylbenzene	ND		ug/l	6.2	1.8	2.5
1,2,4-Trimethylbenzene	ND		ug/l	6.2	1.8	2.5
1,4-Dioxane	ND		ug/l	620	150	2.5
Freon-113	160		ug/l	6.2	1.8	2.5
p-Diethylbenzene	ND		ug/l	5.0	1.8	2.5
p-Ethyltoluene	ND		ug/l	5.0	1.8	2.5
1,2,4,5-Tetramethylbenzene	ND		ug/l	5.0	1.4	2.5
Ethyl ether	9.2		ug/l	6.2	1.8	2.5
trans-1,4-Dichloro-2-butene	ND		ug/l	6.2	1.8	2.5

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	95		70-130
Toluene-d8	98		70-130
4-Bromofluorobenzene	100		70-130
Dibromofluoromethane	101		70-130

Project Name: FESL
Project Number: 20029

Lab Number: L2043588
Report Date: 10/23/20

Method Blank Analysis
Batch Quality Control

Analytical Method: 117,-
Analytical Date: 10/14/20 11:19
Analyst: AW

Parameter	Result	Qualifier	Units	RL	MDL	
Dissolved Gases by GC - Mansfield Lab for sample(s): 01-02 Batch: WG1421485-3						
Methane	ND		ug/l	2.00	2.00	A
Ethene	ND		ug/l	0.500	0.500	A
Ethane	ND		ug/l	0.500	0.500	A

Project Name: FESL
Project Number: 20029

Lab Number: L2043588
Report Date: 10/23/20

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260C
Analytical Date: 10/21/20 20:49
Analyst: KJD

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 02 Batch: WG1425217-5					
Methylene chloride	ND		ug/l	2.5	0.70
1,1-Dichloroethane	ND		ug/l	2.5	0.70
Chloroform	ND		ug/l	2.5	0.70
Carbon tetrachloride	ND		ug/l	0.50	0.13
1,2-Dichloropropane	ND		ug/l	1.0	0.14
Dibromochloromethane	ND		ug/l	0.50	0.15
1,1,2-Trichloroethane	ND		ug/l	1.5	0.50
Tetrachloroethene	ND		ug/l	0.50	0.18
Chlorobenzene	ND		ug/l	2.5	0.70
Trichlorofluoromethane	ND		ug/l	2.5	0.70
1,2-Dichloroethane	ND		ug/l	0.50	0.13
1,1,1-Trichloroethane	ND		ug/l	2.5	0.70
Bromodichloromethane	ND		ug/l	0.50	0.19
trans-1,3-Dichloropropene	ND		ug/l	0.50	0.16
cis-1,3-Dichloropropene	ND		ug/l	0.50	0.14
1,3-Dichloropropene, Total	ND		ug/l	0.50	0.14
1,1-Dichloropropene	ND		ug/l	2.5	0.70
Bromoform	ND		ug/l	2.0	0.65
1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	0.17
Benzene	ND		ug/l	0.50	0.16
Toluene	ND		ug/l	2.5	0.70
Ethylbenzene	ND		ug/l	2.5	0.70
Chloromethane	ND		ug/l	2.5	0.70
Bromomethane	ND		ug/l	2.5	0.70
Vinyl chloride	ND		ug/l	1.0	0.07
Chloroethane	ND		ug/l	2.5	0.70
1,1-Dichloroethene	ND		ug/l	0.50	0.17
trans-1,2-Dichloroethene	ND		ug/l	2.5	0.70
Trichloroethene	ND		ug/l	0.50	0.18

Project Name: FESL
Project Number: 20029

Lab Number: L2043588
Report Date: 10/23/20

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260C
Analytical Date: 10/21/20 20:49
Analyst: KJD

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 02 Batch: WG1425217-5					
1,2-Dichlorobenzene	ND		ug/l	2.5	0.70
1,3-Dichlorobenzene	ND		ug/l	2.5	0.70
1,4-Dichlorobenzene	ND		ug/l	2.5	0.70
Methyl tert butyl ether	ND		ug/l	2.5	0.70
p/m-Xylene	ND		ug/l	2.5	0.70
o-Xylene	ND		ug/l	2.5	0.70
Xylenes, Total	ND		ug/l	2.5	0.70
cis-1,2-Dichloroethene	ND		ug/l	2.5	0.70
1,2-Dichloroethene, Total	ND		ug/l	2.5	0.70
Dibromomethane	ND		ug/l	5.0	1.0
1,2,3-Trichloropropane	ND		ug/l	2.5	0.70
Acrylonitrile	ND		ug/l	5.0	1.5
Styrene	ND		ug/l	2.5	0.70
Dichlorodifluoromethane	ND		ug/l	5.0	1.0
Acetone	ND		ug/l	5.0	1.5
Carbon disulfide	ND		ug/l	5.0	1.0
2-Butanone	ND		ug/l	5.0	1.9
Vinyl acetate	ND		ug/l	5.0	1.0
4-Methyl-2-pentanone	ND		ug/l	5.0	1.0
2-Hexanone	ND		ug/l	5.0	1.0
Bromochloromethane	ND		ug/l	2.5	0.70
2,2-Dichloropropane	ND		ug/l	2.5	0.70
1,2-Dibromoethane	ND		ug/l	2.0	0.65
1,3-Dichloropropane	ND		ug/l	2.5	0.70
1,1,1,2-Tetrachloroethane	ND		ug/l	2.5	0.70
Bromobenzene	ND		ug/l	2.5	0.70
n-Butylbenzene	ND		ug/l	2.5	0.70
sec-Butylbenzene	ND		ug/l	2.5	0.70
tert-Butylbenzene	ND		ug/l	2.5	0.70

Project Name: FESL
Project Number: 20029

Lab Number: L2043588
Report Date: 10/23/20

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260C
Analytical Date: 10/21/20 20:49
Analyst: KJD

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 02 Batch: WG1425217-5					
o-Chlorotoluene	ND		ug/l	2.5	0.70
p-Chlorotoluene	ND		ug/l	2.5	0.70
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	0.70
Hexachlorobutadiene	ND		ug/l	2.5	0.70
Isopropylbenzene	ND		ug/l	2.5	0.70
p-Isopropyltoluene	ND		ug/l	2.5	0.70
Naphthalene	ND		ug/l	2.5	0.70
n-Propylbenzene	ND		ug/l	2.5	0.70
1,2,3-Trichlorobenzene	ND		ug/l	2.5	0.70
1,2,4-Trichlorobenzene	ND		ug/l	2.5	0.70
1,3,5-Trimethylbenzene	ND		ug/l	2.5	0.70
1,2,4-Trimethylbenzene	ND		ug/l	2.5	0.70
1,4-Dioxane	ND		ug/l	250	61.
Freon-113	ND		ug/l	2.5	0.70
p-Diethylbenzene	ND		ug/l	2.0	0.70
p-Ethyltoluene	ND		ug/l	2.0	0.70
1,2,4,5-Tetramethylbenzene	ND		ug/l	2.0	0.54
Ethyl ether	ND		ug/l	2.5	0.70
trans-1,4-Dichloro-2-butene	ND		ug/l	2.5	0.70

Surrogate	%Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	97		70-130
Toluene-d8	101		70-130
4-Bromofluorobenzene	101		70-130
Dibromofluoromethane	98		70-130

Lab Control Sample Analysis

Batch Quality Control

Project Name: FESL

Project Number: 20029

Lab Number: L2043588

Report Date: 10/23/20

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits	Column
Dissolved Gases by GC - Mansfield Lab Associated sample(s): 01-02 Batch: WG1421485-2									
Methane	102		-		80-120	-		25	A
Ethene	91		-		80-120	-		25	A
Ethane	91		-		80-120	-		25	A

Lab Control Sample Analysis

Batch Quality Control

Project Name: FESL
Project Number: 20029

Lab Number: L2043588
Report Date: 10/23/20

Parameter	LCS		LCSD		%Recovery Limits	RPD	Qual	RPD Limits
	%Recovery	Qual	%Recovery	Qual				
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 02 Batch: WG1425217-3 WG1425217-4								
Methylene chloride	93		96		70-130	3		20
1,1-Dichloroethane	97		99		70-130	2		20
Chloroform	91		92		70-130	1		20
Carbon tetrachloride	93		94		63-132	1		20
1,2-Dichloropropane	98		98		70-130	0		20
Dibromochloromethane	81		86		63-130	6		20
1,1,2-Trichloroethane	88		94		70-130	7		20
Tetrachloroethene	100		110		70-130	10		20
Chlorobenzene	91		93		75-130	2		20
Trichlorofluoromethane	120		120		62-150	0		20
1,2-Dichloroethane	91		94		70-130	3		20
1,1,1-Trichloroethane	92		92		67-130	0		20
Bromodichloromethane	89		92		67-130	3		20
trans-1,3-Dichloropropene	78		80		70-130	3		20
cis-1,3-Dichloropropene	89		90		70-130	1		20
1,1-Dichloropropene	97		100		70-130	3		20
Bromoform	88		91		54-136	3		20
1,1,1,2,2-Tetrachloroethane	90		94		67-130	4		20
Benzene	96		98		70-130	2		20
Toluene	96		98		70-130	2		20
Ethylbenzene	92		95		70-130	3		20
Chloromethane	110		120		64-130	9		20
Bromomethane	92		93		39-139	1		20

Lab Control Sample Analysis

Batch Quality Control

Project Name: FESL
Project Number: 20029

Lab Number: L2043588
Report Date: 10/23/20

Parameter	LCS		LCSD		%Recovery Limits	RPD	Qual	RPD Limits
	%Recovery	Qual	%Recovery	Qual				
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 02 Batch: WG1425217-3 WG1425217-4								
Vinyl chloride	120		120		55-140	0		20
Chloroethane	120		130		55-138	8		20
1,1-Dichloroethene	85		87		61-145	2		20
trans-1,2-Dichloroethene	97		99		70-130	2		20
Trichloroethene	91		92		70-130	1		20
1,2-Dichlorobenzene	97		100		70-130	3		20
1,3-Dichlorobenzene	96		100		70-130	4		20
1,4-Dichlorobenzene	97		100		70-130	3		20
Methyl tert butyl ether	79		74		63-130	7		20
p/m-Xylene	90		95		70-130	5		20
o-Xylene	90		95		70-130	5		20
cis-1,2-Dichloroethene	97		93		70-130	4		20
Dibromomethane	90		95		70-130	5		20
1,2,3-Trichloropropane	89		92		64-130	3		20
Acrylonitrile	88		90		70-130	2		20
Styrene	90		90		70-130	0		20
Dichlorodifluoromethane	140		140		36-147	0		20
Acetone	83		88		58-148	6		20
Carbon disulfide	96		98		51-130	2		20
2-Butanone	83		81		63-138	2		20
Vinyl acetate	88		89		70-130	1		20
4-Methyl-2-pentanone	84		91		59-130	8		20
2-Hexanone	81		87		57-130	7		20

Lab Control Sample Analysis

Batch Quality Control

Project Name: FESL
Project Number: 20029

Lab Number: L2043588
Report Date: 10/23/20

Parameter	LCS		LCSD		%Recovery Limits	RPD	Qual	RPD Limits
	%Recovery	Qual	%Recovery	Qual				
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 02 Batch: WG1425217-3 WG1425217-4								
Bromochloromethane	92		96		70-130	4		20
2,2-Dichloropropane	100		100		63-133	0		20
1,2-Dibromoethane	88		92		70-130	4		20
1,3-Dichloropropane	130		130		70-130	0		20
1,1,1,2-Tetrachloroethane	89		90		64-130	1		20
Bromobenzene	98		100		70-130	2		20
n-Butylbenzene	91		91		53-136	0		20
sec-Butylbenzene	96		98		70-130	2		20
tert-Butylbenzene	94		95		70-130	1		20
o-Chlorotoluene	96		98		70-130	2		20
p-Chlorotoluene	96		97		70-130	1		20
1,2-Dibromo-3-chloropropane	87		93		41-144	7		20
Hexachlorobutadiene	100		110		63-130	10		20
Isopropylbenzene	99		100		70-130	1		20
p-Isopropyltoluene	93		92		70-130	1		20
Naphthalene	76		83		70-130	9		20
n-Propylbenzene	96		98		69-130	2		20
1,2,3-Trichlorobenzene	92		98		70-130	6		20
1,2,4-Trichlorobenzene	95		98		70-130	3		20
1,3,5-Trimethylbenzene	96		99		64-130	3		20
1,2,4-Trimethylbenzene	97		98		70-130	1		20
1,4-Dioxane	74		76		56-162	3		20
Freon-113	97		99		70-130	2		20

Lab Control Sample Analysis

Batch Quality Control

Project Name: FESL
Project Number: 20029

Lab Number: L2043588
Report Date: 10/23/20

Parameter	LCS		LCSD		%Recovery Limits	RPD	RPD	
	%Recovery	Qual	%Recovery	Qual			Qual	Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 02 Batch: WG1425217-3 WG1425217-4								
p-Diethylbenzene	91		90		70-130	1		20
p-Ethyltoluene	99		100		70-130	1		20
1,2,4,5-Tetramethylbenzene	86		87		70-130	1		20
Ethyl ether	100		110		59-134	10		20
trans-1,4-Dichloro-2-butene	48	Q	44	Q	70-130	9		20

Surrogate	LCS		LCSD		Acceptance Criteria
	%Recovery	Qual	%Recovery	Qual	
1,2-Dichloroethane-d4	99		99		70-130
Toluene-d8	102		102		70-130
4-Bromofluorobenzene	102		102		70-130
Dibromofluoromethane	100		99		70-130

INORGANICS & MISCELLANEOUS

Project Name: FESL
Project Number: 20029

Lab Number: L2043588
Report Date: 10/23/20

SAMPLE RESULTS

Lab ID: L2043588-01
Client ID: CTRL D0
Sample Location: ROCHESTER, NY

Date Collected: 10/12/20 10:00
Date Received: 10/12/20
Field Prep: Not Specified

Sample Depth:
Matrix: Water

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Alkalinity, Total	1190		mg CaCO3/L	5.00	NA	2.5	-	10/15/20 02:08	121,2320B	JA
Sulfate	ND		mg/l	10	1.4	1	10/14/20 15:16	10/14/20 15:16	1,9038	MV



Project Name: FESL
Project Number: 20029

Lab Number: L2043588
Report Date: 10/23/20

SAMPLE RESULTS

Lab ID: L2043588-02
Client ID: CTRL D0 DUP
Sample Location: ROCHESTER, NY

Date Collected: 10/12/20 10:07
Date Received: 10/12/20
Field Prep: Not Specified

Sample Depth:
Matrix: Water

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Alkalinity, Total	1190		mg CaCO3/L	5.00	NA	2.5	-	10/15/20 02:08	121,2320B	JA
Sulfate	ND		mg/l	10	1.4	1	10/14/20 15:16	10/14/20 15:16	1,9038	MV



Project Name: FESL
Project Number: 20029

Lab Number: L2043588
Report Date: 10/23/20

Method Blank Analysis
Batch Quality Control

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab for sample(s): 01-02 Batch: WG1421875-1										
Sulfate	1.6	J	mg/l	10	1.4	1	10/14/20 15:16	10/14/20 15:16	1,9038	MV
General Chemistry - Westborough Lab for sample(s): 01-02 Batch: WG1422243-1										
Alkalinity, Total	ND		mg CaCO3/L	2.00	NA	1	-	10/15/20 02:08	121,2320B	JA

Lab Control Sample Analysis

Batch Quality Control

Project Name: FESL
Project Number: 20029

Lab Number: L2043588
Report Date: 10/23/20

Parameter	LCS		LCSD		%Recovery Limits	RPD	Qual	RPD Limits
	%Recovery	Qual	%Recovery	Qual				
General Chemistry - Westborough Lab Associated sample(s): 01-02 Batch: WG1421875-2								
Sulfate	95		-		90-110	-		
General Chemistry - Westborough Lab Associated sample(s): 01-02 Batch: WG1422243-2								
Alkalinity, Total	104		-		90-110	-		10

Matrix Spike Analysis Batch Quality Control

Project Name: FESL
Project Number: 20029

Lab Number: L2043588
Report Date: 10/23/20

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	MSD Qual	MSD Found	MSD %Recovery	MSD Qual	Recovery Limits	RPD	RPD Qual	RPD Limits
General Chemistry - Westborough Lab Associated sample(s): 01-02 QC Batch ID: WG1421875-4 QC Sample: L2043930-01 Client ID: MS Sample												
Sulfate	22.	50	73	102	-	-	-	-	55-147	-	-	14
General Chemistry - Westborough Lab Associated sample(s): 01-02 QC Batch ID: WG1422243-4 QC Sample: L2044213-02 Client ID: MS Sample												
Alkalinity, Total	34.5	100	138	104	-	-	-	-	86-116	-	-	10

Lab Duplicate Analysis

Batch Quality Control

Project Name: FESL

Project Number: 20029

Lab Number: L2043588

Report Date: 10/23/20

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
General Chemistry - Westborough Lab Associated sample(s): 01-02 QC Batch ID: WG1421875-3 QC Sample: L2043930-01 Client ID: DUP Sample						
Sulfate	22.	23	mg/l	4		14
General Chemistry - Westborough Lab Associated sample(s): 01-02 QC Batch ID: WG1422243-3 QC Sample: L2044213-01 Client ID: DUP Sample						
Alkalinity, Total	6.40	6.50	mg CaCO3/L	2		10

Project Name: FESL**Lab Number:** L2043588**Project Number:** 20029**Report Date:** 10/23/20**Sample Receipt and Container Information**

Were project specific reporting limits specified?

YES

Cooler Information

Cooler	Custody Seal
A	Absent

Container Information

Container ID	Container Type	Cooler	Initial pH	Final pH	Temp deg C	Pres	Seal	Frozen Date/Time	Analysis(*)
L2043588-01A	20ml Vial HCl preserved	A	NA		4.6	Y	Absent		DISSGAS(14)
L2043588-01B	20ml Vial HCl preserved	A	NA		4.6	Y	Absent		DISSGAS(14)
L2043588-01C	Plastic 60ml unpreserved	A	7	7	4.6	Y	Absent		SO4-9038(28)
L2043588-01D	Plastic 250ml unpreserved/No Headspace	A	NA		4.6	Y	Absent		ALK-T-2320(14)
L2043588-02A	Vial HCl preserved	A	NA		4.6	Y	Absent		NYTCL-8260(14)
L2043588-02B	Vial HCl preserved	A	NA		4.6	Y	Absent		NYTCL-8260(14)
L2043588-02C	Vial HCl preserved	A	NA		4.6	Y	Absent		NYTCL-8260(14)
L2043588-02D	20ml Vial HCl preserved	A	NA		4.6	Y	Absent		DISSGAS(14)
L2043588-02E	20ml Vial HCl preserved	A	NA		4.6	Y	Absent		DISSGAS(14)
L2043588-02F	Plastic 60ml unpreserved	A	7	7	4.6	Y	Absent		SO4-9038(28)
L2043588-02G	Plastic 250ml unpreserved/No Headspace	A	NA		4.6	Y	Absent		ALK-T-2320(14)

Project Name: FESL
Project Number: 20029

Lab Number: L2043588
Report Date: 10/23/20

GLOSSARY

Acronyms

DL	- Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the limit of quantitation (LOQ). The DL includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)
EDL	- Estimated Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The EDL includes any adjustments from dilutions, concentrations or moisture content, where applicable. The use of EDLs is specific to the analysis of PAHs using Solid-Phase Microextraction (SPME).
EMPC	- Estimated Maximum Possible Concentration: The concentration that results from the signal present at the retention time of an analyte when the ions meet all of the identification criteria except the ion abundance ratio criteria. An EMPC is a worst-case estimate of the concentration.
EPA	- Environmental Protection Agency.
LCS	- Laboratory Control Sample: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.
LCSD	- Laboratory Control Sample Duplicate: Refer to LCS.
LFB	- Laboratory Fortified Blank: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.
LOD	- Limit of Detection: This value represents the level to which a target analyte can reliably be detected for a specific analyte in a specific matrix by a specific method. The LOD includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)
LOQ	- Limit of Quantitation: The value at which an instrument can accurately measure an analyte at a specific concentration. The LOQ includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.) Limit of Quantitation: The value at which an instrument can accurately measure an analyte at a specific concentration. The LOQ includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)
MDL	- Method Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The MDL includes any adjustments from dilutions, concentrations or moisture content, where applicable.
MS	- Matrix Spike Sample: A sample prepared by adding a known mass of target analyte to a specified amount of matrix sample for which an independent estimate of target analyte concentration is available. For Method 332.0, the spike recovery is calculated using the native concentration, including estimated values.
MSD	- Matrix Spike Sample Duplicate: Refer to MS.
NA	- Not Applicable.
NC	- Not Calculated: Term is utilized when one or more of the results utilized in the calculation are non-detect at the parameter's reporting unit.
NDPA/DPA	- N-Nitrosodiphenylamine/Diphenylamine.
NI	- Not Ignitable.
NP	- Non-Plastic: Term is utilized for the analysis of Atterberg Limits in soil.
NR	- No Results: Term is utilized when 'No Target Compounds Requested' is reported for the analysis of Volatile or Semivolatile Organic TIC only requests.
RL	- Reporting Limit: The value at which an instrument can accurately measure an analyte at a specific concentration. The RL includes any adjustments from dilutions, concentrations or moisture content, where applicable.
RPD	- Relative Percent Difference: The results from matrix and/or matrix spike duplicates are primarily designed to assess the precision of analytical results in a given matrix and are expressed as relative percent difference (RPD). Values which are less than five times the reporting limit for any individual parameter are evaluated by utilizing the absolute difference between the values; although the RPD value will be provided in the report.
SRM	- Standard Reference Material: A reference sample of a known or certified value that is of the same or similar matrix as the associated field samples.
STLP	- Semi-dynamic Tank Leaching Procedure per EPA Method 1315.
TEF	- Toxic Equivalency Factors: The values assigned to each dioxin and furan to evaluate their toxicity relative to 2,3,7,8-TCDD.
TEQ	- Toxic Equivalent: The measure of a sample's toxicity derived by multiplying each dioxin and furan by its corresponding TEF and then summing the resulting values.
TIC	- Tentatively Identified Compound: A compound that has been identified to be present and is not part of the target compound list (TCL) for the method and/or program. All TICs are qualitatively identified and reported as estimated concentrations.

Report Format: DU Report with 'J' Qualifiers



Project Name: FESL
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Footnotes

- 1 - The reference for this analyte should be considered modified since this analyte is absent from the target analyte list of the original method.

Terms

Analytical Method: Both the document from which the method originates and the analytical reference method. (Example: EPA 8260B is shown as 1,8260B.) The codes for the reference method documents are provided in the References section of the Addendum.

Difference: With respect to Total Oxidizable Precursor (TOP) Assay analysis, the difference is defined as the Post-Treatment value minus the Pre-Treatment value.

Final pH: As it pertains to Sample Receipt & Container Information section of the report, Final pH reflects pH of container determined after adjustment at the laboratory, if applicable. If no adjustment required, value reflects Initial pH.

Frozen Date/Time: With respect to Volatile Organics in soil, Frozen Date/Time reflects the date/time at which associated Reagent Water-preserved vials were initially frozen. Note: If frozen date/time is beyond 48 hours from sample collection, value will be reflected in 'bold'.

Initial pH: As it pertains to Sample Receipt & Container Information section of the report, Initial pH reflects pH of container determined upon receipt, if applicable.

PAH Total: With respect to Alkylated PAH analyses, the 'PAHs, Total' result is defined as the summation of results for all or a subset of the following compounds: Naphthalene, C1-C4 Naphthalenes, 2-Methylnaphthalene, 1-Methylnaphthalene, Biphenyl, Acenaphthylene, Acenaphthene, Fluorene, C1-C3 Fluorenes, Phenanthrene, C1-C4 Phenanthrenes/Anthracenes, Anthracene, Fluoranthene, Pyrene, C1-C4 Fluoranthenes/Pyrenes, Benz(a)anthracene, Chrysene, C1-C4 Chrysenes, Benzo(b)fluoranthene, Benzo(j)+(k)fluoranthene, Benzo(e)pyrene, Benzo(a)pyrene, Perylene, Indeno(1,2,3-cd)pyrene, Dibenz(ah)+(ac)anthracene, Benzo(g,h,i)perylene. If a 'Total' result is requested, the results of its individual components will also be reported.

PFAS Total: With respect to PFAS analyses, the 'PFAS, Total (5)' result is defined as the summation of results for: PFHpA, PFHxS, PFOA, PFNA and PFOS. If a 'Total' result is requested, the results of its individual components will also be reported.

The target compound Chlordane (CAS No. 57-74-9) is reported for GC ECD analyses. Per EPA, this compound "refers to a mixture of chlordane isomers, other chlorinated hydrocarbons and numerous other components." (Reference: USEPA Toxicological Review of Chlordane, In Support of Summary Information on the Integrated Risk Information System (IRIS), December 1997.)

Total: With respect to Organic analyses, a 'Total' result is defined as the summation of results for individual isomers or Aroclors. If a 'Total' result is requested, the results of its individual components will also be reported. This is applicable to 'Total' results for methods 8260, 8081 and 8082.

Data Qualifiers

- A** - Spectra identified as "Aldol Condensates" are byproducts of the extraction/concentration procedures when acetone is introduced in the process.
- B** - The analyte was detected above the reporting limit in the associated method blank. Flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For MCP-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For DOD-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank AND the analyte was detected above one-half the reporting limit (or above the reporting limit for common lab contaminants) in the associated method blank. For NJ-Air-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte above the reporting limit. For NJ-related projects (excluding Air), flag only applies to associated field samples that have detectable concentrations of the analyte, which was detected above the reporting limit in the associated method blank or above five times the reporting limit for common lab contaminants (Phthalates, Acetone, Methylene Chloride, 2-Butanone).
- C** - Co-elution: The target analyte co-elutes with a known lab standard (i.e. surrogate, internal standards, etc.) for co-extracted analyses.
- D** - Concentration of analyte was quantified from diluted analysis. Flag only applies to field samples that have detectable concentrations of the analyte.
- E** - Concentration of analyte exceeds the range of the calibration curve and/or linear range of the instrument.
- F** - The ratio of quantifier ion response to qualifier ion response falls outside of the laboratory criteria. Results are considered to be an estimated maximum concentration.
- G** - The concentration may be biased high due to matrix interferences (i.e. co-elution) with non-target compound(s). The result should be considered estimated.
- H** - The analysis of pH was performed beyond the regulatory-required holding time of 15 minutes from the time of sample collection.
- I** - The lower value for the two columns has been reported due to obvious interference.
- J** - Estimated value. The Target analyte concentration is below the quantitation limit (RL), but above the Method Detection Limit (MDL) or Estimated Detection Limit (EDL) for SPME-related analyses. This represents an estimated concentration for Tentatively Identified Compounds (TICs).
- M** - Reporting Limit (RL) exceeds the MCP CAM Reporting Limit for this analyte.
- ND** - Not detected at the method detection limit (MDL) for the sample, or estimated detection limit (EDL) for SPME-related analyses.
- NJ** - Presumptive evidence of compound. This represents an estimated concentration for Tentatively Identified Compounds (TICs), where

Report Format: DU Report with 'J' Qualifiers



Project Name: FESL
Project Number: 20029

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Report Date: 10/23/20

Data Qualifiers

the identification is based on a mass spectral library search.

- P** - The RPD between the results for the two columns exceeds the method-specified criteria.
- Q** - The quality control sample exceeds the associated acceptance criteria. For DOD-related projects, LCS and/or Continuing Calibration Standard exceedences are also qualified on all associated sample results. Note: This flag is not applicable for matrix spike recoveries when the sample concentration is greater than 4x the spike added or for batch duplicate RPD when the sample concentrations are less than 5x the RL. (Metals only.)
- R** - Analytical results are from sample re-analysis.
- RE** - Analytical results are from sample re-extraction.
- S** - Analytical results are from modified screening analysis.

Project Name: FESL
Project Number: 20029

Lab Number: L2043588
Report Date: 10/23/20

REFERENCES

- 1 Test Methods for Evaluating Solid Waste: Physical/Chemical Methods. EPA SW-846. Third Edition. Updates I - VI, 2018.
- 117 Technical Guidance for the Natural Attenuation Indicators: Methane, Ethane, and Ethene, EPA-NE, Revision 1, February 21, 2002 and Sample Preparation & Calculations for Dissolved Gas Analysis in Water Samples using a GC Headspace Equilibration Technique, EPA RSKSOP-175, Revision 2, May 2004.
- 121 Standard Methods for the Examination of Water and Wastewater. APHA-AWWA-WEF. Standard Methods Online.

LIMITATION OF LIABILITIES

Alpha Analytical performs services with reasonable care and diligence normal to the analytical testing laboratory industry. In the event of an error, the sole and exclusive responsibility of Alpha Analytical shall be to re-perform the work at it's own expense. In no event shall Alpha Analytical be held liable for any incidental, consequential or special damages, including but not limited to, damages in any way connected with the use of, interpretation of, information or analysis provided by Alpha Analytical.

We strongly urge our clients to comply with EPA protocol regarding sample volume, preservation, cooling, containers, sampling procedures, holding time and splitting of samples in the field.



Certification Information

The following analytes are not included in our Primary NELAP Scope of Accreditation:

Westborough Facility

EPA 624/624.1: m/p-xylene, o-xylene, Naphthalene

EPA 8260C: NPW: 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene, Azobenzene; SCM: Iodomethane (methyl iodide), 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene.

EPA 8270D: NPW: Dimethylnaphthalene, 1,4-Diphenylhydrazine; SCM: Dimethylnaphthalene, 1,4-Diphenylhydrazine.

SM4500: NPW: Amenable Cyanide; SCM: Total Phosphorus, TKN, NO₂, NO₃.

Mansfield Facility

SM 2540D: TSS

EPA 8082A: NPW: PCB: 1, 5, 31, 87, 101, 110, 141, 151, 153, 180, 183, 187.

EPA TO-15: Halothane, 2,4,4-Trimethyl-2-pentene, 2,4,4-Trimethyl-1-pentene, Thiophene, 2-Methylthiophene, 3-Methylthiophene, 2-Ethylthiophene, 1,2,3-Trimethylbenzene, Indan, Indene, 1,2,4,5-Tetramethylbenzene, Benzothiophene, 1-Methylnaphthalene.

EPA TO-12 Non-methane organics

EPA 3C Fixed gases

Biological Tissue Matrix: EPA 3050B

The following analytes are included in our Massachusetts DEP Scope of Accreditation

Westborough Facility:

Drinking Water

EPA 300.0: Chloride, Nitrate-N, Fluoride, Sulfate; **EPA 353.2:** Nitrate-N, Nitrite-N; **SM4500NO3-F:** Nitrate-N, Nitrite-N; **SM4500F-C, SM4500CN-CE,**

EPA 180.1, SM2130B, SM4500CI-D, SM2320B, SM2540C, SM4500H-B, SM4500NO2-B

EPA 332: Perchlorate; **EPA 524.2:** THMs and VOCs; **EPA 504.1:** EDB, DBCP.

Microbiology: **SM9215B; SM9223-P/A, SM9223B-Colilert-QT, SM9222D.**

Non-Potable Water

SM4500H,B, EPA 120.1, SM2510B, SM2540C, SM2320B, SM4500CL-E, SM4500F-BC, SM4500NH3-BH: Ammonia-N and Kjeldahl-N, **EPA 350.1:** Ammonia-N, **LACHAT 10-107-06-1-B:** Ammonia-N, **EPA 351.1, SM4500NO3-F, EPA 353.2:** Nitrate-N, **SM4500P-E, SM4500P-B, E, SM4500SO4-E, SM5220D, EPA 410.4, SM5210B, SM5310C, SM4500CL-D, EPA 1664, EPA 420.1, SM4500-CN-CE, SM2540D, EPA 300:** Chloride, Sulfate, Nitrate.

EPA 624.1: Volatile Halocarbons & Aromatics,

EPA 608.3: Chlordane, Toxaphene, Aldrin, alpha-BHC, beta-BHC, gamma-BHC, delta-BHC, Dieldrin, DDD, DDE, DDT, Endosulfan I, Endosulfan II, Endosulfan sulfate, Endrin, Endrin Aldehyde, Heptachlor, Heptachlor Epoxide, PCBs

EPA 625.1: SVOC (Acid/Base/Neutral Extractables), **EPA 600/4-81-045:** PCB-Oil.

Microbiology: **SM9223B-Colilert-QT; Enterolert-QT, SM9221E, EPA 1600, EPA 1603.**

Mansfield Facility:

Drinking Water

EPA 200.7: Al, Ba, Cd, Cr, Cu, Fe, Mn, Ni, Na, Ag, Ca, Zn. **EPA 200.8:** Al, Sb, As, Ba, Be, Cd, Cr, Cu, Pb, Mn, Ni, Se, Ag, TL, Zn. **EPA 245.1** Hg.

EPA 522.

Non-Potable Water


EPA 200.7: Al, Sb, As, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Mg, Mn, Mo, Ni, K, Se, Ag, Na, Sr, TL, Ti, V, Zn.

EPA 200.8: Al, Sb, As, Be, Cd, Cr, Cu, Fe, Pb, Mn, Ni, K, Se, Ag, Na, TL, Zn.

EPA 245.1 Hg.

SM2340B

For a complete listing of analytes and methods, please contact your Alpha Project Manager.

 NEW JERSEY CHAIN OF CUSTODY	Service Centers Mahwah, NJ 07430: 35 Whitney Rd, Suite 5 Albany, NY 12205: 14 Walker Way Tonawanda, NY 14150: 275 Cooper Ave, Suite 105	Page 1 of 1	Date Rec'd in Lab 10/12/20	ALPHA Job # L2043588			
	Westborough, MA 01581 8 Walkup Dr. TEL: 508-898-9220 FAX: 508-898-9193	Mansfield, MA 02048 320 Forbes Blvd TEL: 508-822-9300 FAX: 508-822-3288					
Project Information Project Name: FESL Project Location: Rochester, NY Project #: 20029 (Use Project name as Project #) <input type="checkbox"/>		Deliverables <input type="checkbox"/> NJ Full / Reduced <input type="checkbox"/> EQuIS (1 File) <input type="checkbox"/> EQuIS (4 File) <input type="checkbox"/> Other		Billing Information <input checked="" type="checkbox"/> Same as Client Info PO # 4697			
Client Information Client: XDD Address: 22 Marin Way, Unit 3 Stratham, NH 03833 Phone: 603-778-1100 Fax: Email: lcrawford@xdd-llc.com		Regulatory Requirement <input type="checkbox"/> SRS Residential/Non Residential <input type="checkbox"/> SRS Impact to Groundwater <input type="checkbox"/> NJ Ground Water Quality Standards <input type="checkbox"/> NJ IGW SPLP Leachate Criteria <input checked="" type="checkbox"/> Other NYSDOH ELAP		Site Information Is this site impacted by Petroleum? Yes <input type="checkbox"/> Petroleum Product:			
Turn-Around Time Standard <input checked="" type="checkbox"/> Due Date: Rush (only if pre approved) <input type="checkbox"/> # of Days:							
These samples have been previously analyzed by Alpha <input type="checkbox"/>		ANALYSIS					
For EPH, selection is REQUIRED: <input type="checkbox"/> Category 1 <input type="checkbox"/> Category 2	For VOC, selection is REQUIRED: <input type="checkbox"/> 1,4-Dioxane <input type="checkbox"/> 8011	Other project specific requirements/comments: Invoices go to apaxdd-LLC.COM Please specify Metals or TAT.		Sample Filtration <input type="checkbox"/> Done <input type="checkbox"/> Lab to do Preservation <input type="checkbox"/> Lab to do (Please Specify below)			
ALPHA Lab ID (Lab Use Only)	Sample ID	Collection Date Time	Sample Matrix	Sampler's Initials	VOCs Dissolved Gases Alkalinity Sulfate	Total Bottles	
43588-01	Ctrl D0	10/12/2020 10:00	GW	LC		4	
-02	Ctrl D0 dup	10/12/2020 10:07	GW	LC	x x x x	7	
Preservative Code: A = None B = HCl C = HNO ₃ D = H ₂ SO ₄ E = NaOH F = MeOH G = NaHSO ₄ H = Na ₂ S ₂ O ₃ K/E = Zn Ac/NaOH O = Other		Container Code: P = Plastic A = Amber Glass V = Vial G = Glass B = Bacteria Cup C = Cube O = Other E = Encore D = BOD Bottle		Westboro: Certification No: MA935 Mansfield: Certification No: MA015		Container Type: G G P P Preservative: B B A A	
Relinquished By: <i>[Signature]</i>		Date/Time: 10/12/20 1345 10/12/20 2130		Received By: <i>[Signature]</i>		Date/Time: 10/12/20 1345 10/12/20 21:30	
Please print clearly, legibly and completely. Samples can not be logged in and turnaround time clock will not start until any ambiguities are resolved. BY EXECUTING THIS COC, THE CLIENT HAS READ AND AGREES TO BE BOUND BY ALPHA'S TERMS & CONDITIONS .							
Form No: 01-14 (rev. 30-Sept-2013)							



ANALYTICAL REPORT

Lab Number:	L2044697
Client:	XDD Environmental Mary Scudieri 22 Marin Way Unit 3 Stratham, NH 03885
ATTN:	Laurel Crawford
Phone:	(603) 778-1100
Project Name:	FESL
Project Number:	20029
Report Date:	10/29/20

The original project report/data package is held by Alpha Analytical. This report/data package is paginated and should be reproduced only in its entirety. Alpha Analytical holds no responsibility for results and/or data that are not consistent with the original.

Certifications & Approvals: MA (M-MA086), NH NELAP (2064), CT (PH-0574), IL (200077), ME (MA00086), MD (348), NJ (MA935), NY (11148), NC (25700/666), PA (68-03671), RI (LAO00065), TX (T104704476), VT (VT-0935), VA (460195), USDA (Permit #P330-17-00196).

Eight Walkup Drive, Westborough, MA 01581-1019
508-898-9220 (Fax) 508-898-9193 800-624-9220 - www.alphalab.com



Project Name: FESL

Project Number: 20029

Lab Number: L2044697

Report Date: 10/29/20

Alpha Sample ID	Client ID	Matrix	Sample Location	Collection Date/Time	Receive Date
L2044697-01	FLOW LO 0.5	WATER	ROCHESTER, NY	10/15/20 08:10	10/16/20
L2044697-02	FLOW HI 0.5	WATER	ROCHESTER, NY	10/15/20 08:15	10/16/20
L2044697-03	TARGET LO 0.5	WATER	ROCHESTER, NY	10/15/20 08:20	10/16/20
L2044697-04	TARGET HIGH 0.5	WATER	ROCHESTER, NY	10/15/20 08:25	10/16/20
L2044697-05	EZVI LO 0.5	WATER	ROCHESTER, NY	10/15/20 08:30	10/16/20
L2044697-06	EZVI HI 0.5	WATER	ROCHESTER, NY	10/15/20 08:35	10/16/20
L2044697-07	CTRL 0.5	WATER	ROCHESTER, NY	10/15/20 08:40	10/16/20
L2044697-08	CTRL 0.5 DUP	WATER	ROCHESTER, NY	10/15/20 08:45	10/16/20
L2044697-09	CTRL D0 DUP 2	WATER	ROCHESTER, NY	10/14/20 12:00	10/16/20
L2044697-10	FLOW LO D1	WATER	ROCHESTER, NY	10/15/20 14:00	10/16/20
L2044697-11	FLOW HI D1	WATER	ROCHESTER, NY	10/15/20 14:05	10/16/20
L2044697-12	TARGET LO D1	WATER	ROCHESTER, NY	10/15/20 14:10	10/16/20
L2044697-13	TARGET HI D1	WATER	ROCHESTER, NY	10/15/20 14:15	10/16/20
L2044697-14	EZVI LO D1	WATER	ROCHESTER, NY	10/15/20 14:20	10/16/20
L2044697-15	EZVI HI D1	WATER	ROCHESTER, NY	10/15/20 14:25	10/16/20
L2044697-16	CTRL D1	WATER	ROCHESTER, NY	10/15/20 14:30	10/16/20
L2044697-17	CTRL D1 DUP	WATER	ROCHESTER, NY	10/15/20 14:35	10/16/20
L2044697-18	FLOW LO D2	WATER	ROCHESTER, NY	10/16/20 12:30	10/16/20
L2044697-19	FLOW HI D2	WATER	ROCHESTER, NY	10/16/20 12:35	10/16/20
L2044697-20	TARGET LO D2	WATER	ROCHESTER, NY	10/16/20 12:40	10/16/20
L2044697-21	TARGET HI D2	WATER	ROCHESTER, NY	10/16/20 12:45	10/16/20
L2044697-22	EZVI LO D2	WATER	ROCHESTER, NY	10/16/20 12:50	10/16/20
L2044697-23	EZVI HI D2	WATER	ROCHESTER, NY	10/16/20 12:55	10/16/20
L2044697-24	CTRL D2	WATER	ROCHESTER, NY	10/16/20 13:00	10/16/20

Alpha Sample ID	Client ID	Matrix	Sample Location	Collection Date/Time	Receive Date
L2044697-25	CTRL D2 DUP	WATER	ROCHESTER, NY	10/16/20 13:05	10/16/20



Project Name: FESL
Project Number: 20029

Lab Number: L2044697
Report Date: 10/29/20

Case Narrative

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

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

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

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

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

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

Project Name: FESL
Project Number: 20029

Lab Number: L2044697
Report Date: 10/29/20

Case Narrative (continued)

Report Submission

October 29, 2020: This final report includes the results of all requested analyses.

October 20, 2020: This is a preliminary report.

All non-detect (ND) or estimated concentrations (J-qualified) have been quantitated to the limit noted in the MDL column.

Volatile Organics

L2044697-01, -05, -06, -09, -14, and -15 were received in the proper acid-preserved containers; however, upon analysis, the pH was determined to be greater than 2, and thus the method required holding time was exceeded.

L2044697-03, -05, -06, -07, -14, -15, -22, and -23: The sample has elevated detection limits due to the dilution required by the sample matrix.


L2044697-10: Headspace was noted in the sample container utilized for analysis.

L2044697-17: Due to minimal sample volume received, the analysis was performed utilizing a compromised vial.

L2044697-22 and -23: The pH of the sample was greater than two; however, the sample was analyzed within the method required holding time.

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

Authorized Signature:

 Kelly Stenstrom

Title: Technical Director/Representative

Date: 10/29/20

ORGANICS

VOLATILES

Project Name: FESL
Project Number: 20029

Lab Number: L2044697
Report Date: 10/29/20

SAMPLE RESULTS

Lab ID: L2044697-01 D
 Client ID: FLOW LO 0.5
 Sample Location: ROCHESTER, NY

Date Collected: 10/15/20 08:10
 Date Received: 10/16/20
 Field Prep: Not Specified

Sample Depth:

Matrix: Water
 Analytical Method: 1,8260C
 Analytical Date: 10/26/20 21:46
 Analyst: NLK

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methylene chloride	ND		ug/l	12	3.5	5
1,1-Dichloroethane	560		ug/l	12	3.5	5
Chloroform	ND		ug/l	12	3.5	5
Carbon tetrachloride	ND		ug/l	2.5	0.67	5
1,2-Dichloropropane	ND		ug/l	5.0	0.68	5
Dibromochloromethane	ND		ug/l	2.5	0.74	5
1,1,2-Trichloroethane	ND		ug/l	7.5	2.5	5
Tetrachloroethene	130		ug/l	2.5	0.90	5
Chlorobenzene	ND		ug/l	12	3.5	5
Trichlorofluoromethane	ND		ug/l	12	3.5	5
1,2-Dichloroethane	ND		ug/l	2.5	0.66	5
1,1,1-Trichloroethane	220		ug/l	12	3.5	5
Bromodichloromethane	ND		ug/l	2.5	0.96	5
trans-1,3-Dichloropropene	ND		ug/l	2.5	0.82	5
cis-1,3-Dichloropropene	ND		ug/l	2.5	0.72	5
1,3-Dichloropropene, Total	ND		ug/l	2.5	0.72	5
1,1-Dichloropropene	ND		ug/l	12	3.5	5
Bromoform	ND		ug/l	10	3.2	5
1,1,2,2-Tetrachloroethane	ND		ug/l	2.5	0.84	5
Benzene	5.2		ug/l	2.5	0.80	5
Toluene	18		ug/l	12	3.5	5
Ethylbenzene	ND		ug/l	12	3.5	5
Chloromethane	ND		ug/l	12	3.5	5
Bromomethane	ND		ug/l	12	3.5	5
Vinyl chloride	360		ug/l	5.0	0.36	5
Chloroethane	180		ug/l	12	3.5	5
1,1-Dichloroethene	5.8		ug/l	2.5	0.84	5
trans-1,2-Dichloroethene	6.4	J	ug/l	12	3.5	5

Project Name: FESL
Project Number: 20029

Lab Number: L2044697
Report Date: 10/29/20

SAMPLE RESULTS

Lab ID: L2044697-01 D
 Client ID: FLOW LO 0.5
 Sample Location: ROCHESTER, NY

Date Collected: 10/15/20 08:10
 Date Received: 10/16/20
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Trichloroethene	19		ug/l	2.5	0.88	5
1,2-Dichlorobenzene	ND		ug/l	12	3.5	5
1,3-Dichlorobenzene	ND		ug/l	12	3.5	5
1,4-Dichlorobenzene	ND		ug/l	12	3.5	5
Methyl tert butyl ether	ND		ug/l	12	3.5	5
p/m-Xylene	ND		ug/l	12	3.5	5
o-Xylene	4.8	J	ug/l	12	3.5	5
Xylenes, Total	4.8	J	ug/l	12	3.5	5
cis-1,2-Dichloroethene	560		ug/l	12	3.5	5
1,2-Dichloroethene, Total	570	J	ug/l	12	3.5	5
Dibromomethane	ND		ug/l	25	5.0	5
1,2,3-Trichloropropane	ND		ug/l	12	3.5	5
Acrylonitrile	ND		ug/l	25	7.5	5
Styrene	ND		ug/l	12	3.5	5
Dichlorodifluoromethane	ND		ug/l	25	5.0	5
Acetone	29		ug/l	25	7.3	5
Carbon disulfide	ND		ug/l	25	5.0	5
2-Butanone	13	J	ug/l	25	9.7	5
Vinyl acetate	ND		ug/l	25	5.0	5
4-Methyl-2-pentanone	ND		ug/l	25	5.0	5
2-Hexanone	ND		ug/l	25	5.0	5
Bromochloromethane	ND		ug/l	12	3.5	5
2,2-Dichloropropane	ND		ug/l	12	3.5	5
1,2-Dibromoethane	ND		ug/l	10	3.2	5
1,3-Dichloropropane	ND		ug/l	12	3.5	5
1,1,1,2-Tetrachloroethane	ND		ug/l	12	3.5	5
Bromobenzene	ND		ug/l	12	3.5	5
n-Butylbenzene	ND		ug/l	12	3.5	5
sec-Butylbenzene	ND		ug/l	12	3.5	5
tert-Butylbenzene	ND		ug/l	12	3.5	5
o-Chlorotoluene	ND		ug/l	12	3.5	5
p-Chlorotoluene	ND		ug/l	12	3.5	5
1,2-Dibromo-3-chloropropane	ND		ug/l	12	3.5	5
Hexachlorobutadiene	ND		ug/l	12	3.5	5
Isopropylbenzene	ND		ug/l	12	3.5	5
p-Isopropyltoluene	ND		ug/l	12	3.5	5
Naphthalene	ND		ug/l	12	3.5	5

Project Name: FESL
Project Number: 20029

Lab Number: L2044697
Report Date: 10/29/20

SAMPLE RESULTS

Lab ID: L2044697-01 D
 Client ID: FLOW LO 0.5
 Sample Location: ROCHESTER, NY

Date Collected: 10/15/20 08:10
 Date Received: 10/16/20
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
n-Propylbenzene	ND		ug/l	12	3.5	5
1,2,3-Trichlorobenzene	ND		ug/l	12	3.5	5
1,2,4-Trichlorobenzene	ND		ug/l	12	3.5	5
1,3,5-Trimethylbenzene	ND		ug/l	12	3.5	5
1,2,4-Trimethylbenzene	ND		ug/l	12	3.5	5
1,4-Dioxane	ND		ug/l	1200	300	5
Freon-113	79		ug/l	12	3.5	5
p-Diethylbenzene	ND		ug/l	10	3.5	5
p-Ethyltoluene	ND		ug/l	10	3.5	5
1,2,4,5-Tetramethylbenzene	ND		ug/l	10	2.7	5
Ethyl ether	9.6	J	ug/l	12	3.5	5
trans-1,4-Dichloro-2-butene	ND		ug/l	12	3.5	5

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	95		70-130
Toluene-d8	98		70-130
4-Bromofluorobenzene	102		70-130
Dibromofluoromethane	99		70-130

Project Name: FESL
Project Number: 20029

Lab Number: L2044697
Report Date: 10/29/20

SAMPLE RESULTS

Lab ID: L2044697-02 D
 Client ID: FLOW HI 0.5
 Sample Location: ROCHESTER, NY

Date Collected: 10/15/20 08:15
 Date Received: 10/16/20
 Field Prep: Not Specified

Sample Depth:

Matrix: Water
 Analytical Method: 1,8260C
 Analytical Date: 10/26/20 22:09
 Analyst: NLK

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methylene chloride	ND		ug/l	12	3.5	5
1,1-Dichloroethane	610		ug/l	12	3.5	5
Chloroform	ND		ug/l	12	3.5	5
Carbon tetrachloride	ND		ug/l	2.5	0.67	5
1,2-Dichloropropane	ND		ug/l	5.0	0.68	5
Dibromochloromethane	ND		ug/l	2.5	0.74	5
1,1,2-Trichloroethane	ND		ug/l	7.5	2.5	5
Tetrachloroethene	110		ug/l	2.5	0.90	5
Chlorobenzene	ND		ug/l	12	3.5	5
Trichlorofluoromethane	ND		ug/l	12	3.5	5
1,2-Dichloroethane	ND		ug/l	2.5	0.66	5
1,1,1-Trichloroethane	210		ug/l	12	3.5	5
Bromodichloromethane	ND		ug/l	2.5	0.96	5
trans-1,3-Dichloropropene	ND		ug/l	2.5	0.82	5
cis-1,3-Dichloropropene	ND		ug/l	2.5	0.72	5
1,3-Dichloropropene, Total	ND		ug/l	2.5	0.72	5
1,1-Dichloropropene	ND		ug/l	12	3.5	5
Bromoform	ND		ug/l	10	3.2	5
1,1,2,2-Tetrachloroethane	ND		ug/l	2.5	0.84	5
Benzene	5.6		ug/l	2.5	0.80	5
Toluene	18		ug/l	12	3.5	5
Ethylbenzene	ND		ug/l	12	3.5	5
Chloromethane	ND		ug/l	12	3.5	5
Bromomethane	ND		ug/l	12	3.5	5
Vinyl chloride	400		ug/l	5.0	0.36	5
Chloroethane	200		ug/l	12	3.5	5
1,1-Dichloroethene	6.2		ug/l	2.5	0.84	5
trans-1,2-Dichloroethene	6.4	J	ug/l	12	3.5	5

Project Name: FESL
Project Number: 20029

Lab Number: L2044697
Report Date: 10/29/20

SAMPLE RESULTS

Lab ID: L2044697-02 D
 Client ID: FLOW HI 0.5
 Sample Location: ROCHESTER, NY

Date Collected: 10/15/20 08:15
 Date Received: 10/16/20
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Trichloroethene	19		ug/l	2.5	0.88	5
1,2-Dichlorobenzene	ND		ug/l	12	3.5	5
1,3-Dichlorobenzene	ND		ug/l	12	3.5	5
1,4-Dichlorobenzene	ND		ug/l	12	3.5	5
Methyl tert butyl ether	ND		ug/l	12	3.5	5
p/m-Xylene	ND		ug/l	12	3.5	5
o-Xylene	4.2	J	ug/l	12	3.5	5
Xylenes, Total	4.2	J	ug/l	12	3.5	5
cis-1,2-Dichloroethene	600		ug/l	12	3.5	5
1,2-Dichloroethene, Total	610	J	ug/l	12	3.5	5
Dibromomethane	ND		ug/l	25	5.0	5
1,2,3-Trichloropropane	ND		ug/l	12	3.5	5
Acrylonitrile	ND		ug/l	25	7.5	5
Styrene	ND		ug/l	12	3.5	5
Dichlorodifluoromethane	ND		ug/l	25	5.0	5
Acetone	30		ug/l	25	7.3	5
Carbon disulfide	ND		ug/l	25	5.0	5
2-Butanone	14	J	ug/l	25	9.7	5
Vinyl acetate	ND		ug/l	25	5.0	5
4-Methyl-2-pentanone	ND		ug/l	25	5.0	5
2-Hexanone	ND		ug/l	25	5.0	5
Bromochloromethane	ND		ug/l	12	3.5	5
2,2-Dichloropropane	ND		ug/l	12	3.5	5
1,2-Dibromoethane	ND		ug/l	10	3.2	5
1,3-Dichloropropane	ND		ug/l	12	3.5	5
1,1,1,2-Tetrachloroethane	ND		ug/l	12	3.5	5
Bromobenzene	ND		ug/l	12	3.5	5
n-Butylbenzene	ND		ug/l	12	3.5	5
sec-Butylbenzene	ND		ug/l	12	3.5	5
tert-Butylbenzene	ND		ug/l	12	3.5	5
o-Chlorotoluene	ND		ug/l	12	3.5	5
p-Chlorotoluene	ND		ug/l	12	3.5	5
1,2-Dibromo-3-chloropropane	ND		ug/l	12	3.5	5
Hexachlorobutadiene	ND		ug/l	12	3.5	5
Isopropylbenzene	ND		ug/l	12	3.5	5
p-Isopropyltoluene	ND		ug/l	12	3.5	5
Naphthalene	ND		ug/l	12	3.5	5

Project Name: FESL
Project Number: 20029

Lab Number: L2044697
Report Date: 10/29/20

SAMPLE RESULTS

Lab ID: L2044697-02 D
 Client ID: FLOW HI 0.5
 Sample Location: ROCHESTER, NY

Date Collected: 10/15/20 08:15
 Date Received: 10/16/20
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
n-Propylbenzene	ND		ug/l	12	3.5	5
1,2,3-Trichlorobenzene	ND		ug/l	12	3.5	5
1,2,4-Trichlorobenzene	ND		ug/l	12	3.5	5
1,3,5-Trimethylbenzene	ND		ug/l	12	3.5	5
1,2,4-Trimethylbenzene	ND		ug/l	12	3.5	5
1,4-Dioxane	ND		ug/l	1200	300	5
Freon-113	97		ug/l	12	3.5	5
p-Diethylbenzene	ND		ug/l	10	3.5	5
p-Ethyltoluene	ND		ug/l	10	3.5	5
1,2,4,5-Tetramethylbenzene	ND		ug/l	10	2.7	5
Ethyl ether	10	J	ug/l	12	3.5	5
trans-1,4-Dichloro-2-butene	ND		ug/l	12	3.5	5

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	94		70-130
Toluene-d8	97		70-130
4-Bromofluorobenzene	101		70-130
Dibromofluoromethane	99		70-130

Project Name: FESL
Project Number: 20029

Lab Number: L2044697
Report Date: 10/29/20

SAMPLE RESULTS

Lab ID: L2044697-03 D
 Client ID: TARGET LO 0.5
 Sample Location: ROCHESTER, NY

Date Collected: 10/15/20 08:20
 Date Received: 10/16/20
 Field Prep: Not Specified

Sample Depth:

Matrix: Water
 Analytical Method: 1,8260C
 Analytical Date: 10/26/20 22:32
 Analyst: NLK

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methylene chloride	ND		ug/l	25	7.0	10
1,1-Dichloroethane	610		ug/l	25	7.0	10
Chloroform	ND		ug/l	25	7.0	10
Carbon tetrachloride	ND		ug/l	5.0	1.3	10
1,2-Dichloropropane	ND		ug/l	10	1.4	10
Dibromochloromethane	ND		ug/l	5.0	1.5	10
1,1,2-Trichloroethane	ND		ug/l	15	5.0	10
Tetrachloroethene	140		ug/l	5.0	1.8	10
Chlorobenzene	ND		ug/l	25	7.0	10
Trichlorofluoromethane	ND		ug/l	25	7.0	10
1,2-Dichloroethane	ND		ug/l	5.0	1.3	10
1,1,1-Trichloroethane	150		ug/l	25	7.0	10
Bromodichloromethane	ND		ug/l	5.0	1.9	10
trans-1,3-Dichloropropene	ND		ug/l	5.0	1.6	10
cis-1,3-Dichloropropene	ND		ug/l	5.0	1.4	10
1,3-Dichloropropene, Total	ND		ug/l	5.0	1.4	10
1,1-Dichloropropene	ND		ug/l	25	7.0	10
Bromoform	ND		ug/l	20	6.5	10
1,1,1,2-Tetrachloroethane	ND		ug/l	5.0	1.7	10
Benzene	6.5		ug/l	5.0	1.6	10
Toluene	20	J	ug/l	25	7.0	10
Ethylbenzene	ND		ug/l	25	7.0	10
Chloromethane	ND		ug/l	25	7.0	10
Bromomethane	ND		ug/l	25	7.0	10
Vinyl chloride	410		ug/l	10	0.71	10
Chloroethane	190		ug/l	25	7.0	10
1,1-Dichloroethene	7.0		ug/l	5.0	1.7	10
trans-1,2-Dichloroethene	ND		ug/l	25	7.0	10

Project Name: FESL
Project Number: 20029

Lab Number: L2044697
Report Date: 10/29/20

SAMPLE RESULTS

Lab ID: L2044697-03 D
 Client ID: TARGET LO 0.5
 Sample Location: ROCHESTER, NY

Date Collected: 10/15/20 08:20
 Date Received: 10/16/20
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Trichloroethene	20		ug/l	5.0	1.8	10
1,2-Dichlorobenzene	ND		ug/l	25	7.0	10
1,3-Dichlorobenzene	ND		ug/l	25	7.0	10
1,4-Dichlorobenzene	ND		ug/l	25	7.0	10
Methyl tert butyl ether	ND		ug/l	25	7.0	10
p/m-Xylene	ND		ug/l	25	7.0	10
o-Xylene	ND		ug/l	25	7.0	10
Xylenes, Total	ND		ug/l	25	7.0	10
cis-1,2-Dichloroethene	600		ug/l	25	7.0	10
1,2-Dichloroethene, Total	600		ug/l	25	7.0	10
Dibromomethane	ND		ug/l	50	10.	10
1,2,3-Trichloropropane	ND		ug/l	25	7.0	10
Acrylonitrile	ND		ug/l	50	15.	10
Styrene	ND		ug/l	25	7.0	10
Dichlorodifluoromethane	ND		ug/l	50	10.	10
Acetone	30	J	ug/l	50	15.	10
Carbon disulfide	ND		ug/l	50	10.	10
2-Butanone	ND		ug/l	50	19.	10
Vinyl acetate	ND		ug/l	50	10.	10
4-Methyl-2-pentanone	ND		ug/l	50	10.	10
2-Hexanone	ND		ug/l	50	10.	10
Bromochloromethane	ND		ug/l	25	7.0	10
2,2-Dichloropropane	ND		ug/l	25	7.0	10
1,2-Dibromoethane	ND		ug/l	20	6.5	10
1,3-Dichloropropane	ND		ug/l	25	7.0	10
1,1,1,2-Tetrachloroethane	ND		ug/l	25	7.0	10
Bromobenzene	ND		ug/l	25	7.0	10
n-Butylbenzene	ND		ug/l	25	7.0	10
sec-Butylbenzene	ND		ug/l	25	7.0	10
tert-Butylbenzene	ND		ug/l	25	7.0	10
o-Chlorotoluene	ND		ug/l	25	7.0	10
p-Chlorotoluene	ND		ug/l	25	7.0	10
1,2-Dibromo-3-chloropropane	ND		ug/l	25	7.0	10
Hexachlorobutadiene	ND		ug/l	25	7.0	10
Isopropylbenzene	ND		ug/l	25	7.0	10
p-Isopropyltoluene	ND		ug/l	25	7.0	10
Naphthalene	ND		ug/l	25	7.0	10

Project Name: FESL
Project Number: 20029

Lab Number: L2044697
Report Date: 10/29/20

SAMPLE RESULTS

Lab ID: L2044697-03 D
 Client ID: TARGET LO 0.5
 Sample Location: ROCHESTER, NY

Date Collected: 10/15/20 08:20
 Date Received: 10/16/20
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
n-Propylbenzene	ND		ug/l	25	7.0	10
1,2,3-Trichlorobenzene	ND		ug/l	25	7.0	10
1,2,4-Trichlorobenzene	ND		ug/l	25	7.0	10
1,3,5-Trimethylbenzene	ND		ug/l	25	7.0	10
1,2,4-Trimethylbenzene	ND		ug/l	25	7.0	10
1,4-Dioxane	ND		ug/l	2500	610	10
Freon-113	100		ug/l	25	7.0	10
p-Diethylbenzene	ND		ug/l	20	7.0	10
p-Ethyltoluene	ND		ug/l	20	7.0	10
1,2,4,5-Tetramethylbenzene	ND		ug/l	20	5.4	10
Ethyl ether	9.7	J	ug/l	25	7.0	10
trans-1,4-Dichloro-2-butene	ND		ug/l	25	7.0	10

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	95		70-130
Toluene-d8	97		70-130
4-Bromofluorobenzene	101		70-130
Dibromofluoromethane	99		70-130

Project Name: FESL
Project Number: 20029

Lab Number: L2044697
Report Date: 10/29/20

SAMPLE RESULTS

Lab ID: L2044697-04 D
 Client ID: TARGET HIGH 0.5
 Sample Location: ROCHESTER, NY

Date Collected: 10/15/20 08:25
 Date Received: 10/16/20
 Field Prep: Not Specified

Sample Depth:

Matrix: Water
 Analytical Method: 1,8260C
 Analytical Date: 10/26/20 22:56
 Analyst: NLK

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methylene chloride	ND		ug/l	12	3.5	5
1,1-Dichloroethane	640		ug/l	12	3.5	5
Chloroform	ND		ug/l	12	3.5	5
Carbon tetrachloride	ND		ug/l	2.5	0.67	5
1,2-Dichloropropane	ND		ug/l	5.0	0.68	5
Dibromochloromethane	ND		ug/l	2.5	0.74	5
1,1,2-Trichloroethane	ND		ug/l	7.5	2.5	5
Tetrachloroethene	110		ug/l	2.5	0.90	5
Chlorobenzene	ND		ug/l	12	3.5	5
Trichlorofluoromethane	ND		ug/l	12	3.5	5
1,2-Dichloroethane	ND		ug/l	2.5	0.66	5
1,1,1-Trichloroethane	120		ug/l	12	3.5	5
Bromodichloromethane	ND		ug/l	2.5	0.96	5
trans-1,3-Dichloropropene	ND		ug/l	2.5	0.82	5
cis-1,3-Dichloropropene	ND		ug/l	2.5	0.72	5
1,3-Dichloropropene, Total	ND		ug/l	2.5	0.72	5
1,1-Dichloropropene	ND		ug/l	12	3.5	5
Bromoform	ND		ug/l	10	3.2	5
1,1,1,2-Tetrachloroethane	ND		ug/l	2.5	0.84	5
Benzene	7.5		ug/l	2.5	0.80	5
Toluene	21		ug/l	12	3.5	5
Ethylbenzene	ND		ug/l	12	3.5	5
Chloromethane	ND		ug/l	12	3.5	5
Bromomethane	ND		ug/l	12	3.5	5
Vinyl chloride	420		ug/l	5.0	0.36	5
Chloroethane	210		ug/l	12	3.5	5
1,1-Dichloroethene	6.2		ug/l	2.5	0.84	5
trans-1,2-Dichloroethene	6.7	J	ug/l	12	3.5	5

Project Name: FESL
Project Number: 20029

Lab Number: L2044697
Report Date: 10/29/20

SAMPLE RESULTS

Lab ID: L2044697-04 D
 Client ID: TARGET HIGH 0.5
 Sample Location: ROCHESTER, NY

Date Collected: 10/15/20 08:25
 Date Received: 10/16/20
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Trichloroethene	19		ug/l	2.5	0.88	5
1,2-Dichlorobenzene	ND		ug/l	12	3.5	5
1,3-Dichlorobenzene	ND		ug/l	12	3.5	5
1,4-Dichlorobenzene	ND		ug/l	12	3.5	5
Methyl tert butyl ether	ND		ug/l	12	3.5	5
p/m-Xylene	ND		ug/l	12	3.5	5
o-Xylene	5.2	J	ug/l	12	3.5	5
Xylenes, Total	5.2	J	ug/l	12	3.5	5
cis-1,2-Dichloroethene	620		ug/l	12	3.5	5
1,2-Dichloroethene, Total	630	J	ug/l	12	3.5	5
Dibromomethane	ND		ug/l	25	5.0	5
1,2,3-Trichloropropane	ND		ug/l	12	3.5	5
Acrylonitrile	ND		ug/l	25	7.5	5
Styrene	ND		ug/l	12	3.5	5
Dichlorodifluoromethane	ND		ug/l	25	5.0	5
Acetone	31		ug/l	25	7.3	5
Carbon disulfide	ND		ug/l	25	5.0	5
2-Butanone	17	J	ug/l	25	9.7	5
Vinyl acetate	ND		ug/l	25	5.0	5
4-Methyl-2-pentanone	ND		ug/l	25	5.0	5
2-Hexanone	ND		ug/l	25	5.0	5
Bromochloromethane	ND		ug/l	12	3.5	5
2,2-Dichloropropane	ND		ug/l	12	3.5	5
1,2-Dibromoethane	ND		ug/l	10	3.2	5
1,3-Dichloropropane	ND		ug/l	12	3.5	5
1,1,1,2-Tetrachloroethane	ND		ug/l	12	3.5	5
Bromobenzene	ND		ug/l	12	3.5	5
n-Butylbenzene	ND		ug/l	12	3.5	5
sec-Butylbenzene	ND		ug/l	12	3.5	5
tert-Butylbenzene	ND		ug/l	12	3.5	5
o-Chlorotoluene	ND		ug/l	12	3.5	5
p-Chlorotoluene	ND		ug/l	12	3.5	5
1,2-Dibromo-3-chloropropane	ND		ug/l	12	3.5	5
Hexachlorobutadiene	ND		ug/l	12	3.5	5
Isopropylbenzene	ND		ug/l	12	3.5	5
p-Isopropyltoluene	ND		ug/l	12	3.5	5
Naphthalene	ND		ug/l	12	3.5	5

Project Name: FESL
Project Number: 20029

Lab Number: L2044697
Report Date: 10/29/20

SAMPLE RESULTS

Lab ID: L2044697-04 D
 Client ID: TARGET HIGH 0.5
 Sample Location: ROCHESTER, NY

Date Collected: 10/15/20 08:25
 Date Received: 10/16/20
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
n-Propylbenzene	ND		ug/l	12	3.5	5
1,2,3-Trichlorobenzene	ND		ug/l	12	3.5	5
1,2,4-Trichlorobenzene	ND		ug/l	12	3.5	5
1,3,5-Trimethylbenzene	ND		ug/l	12	3.5	5
1,2,4-Trimethylbenzene	ND		ug/l	12	3.5	5
1,4-Dioxane	ND		ug/l	1200	300	5
Freon-113	80		ug/l	12	3.5	5
p-Diethylbenzene	ND		ug/l	10	3.5	5
p-Ethyltoluene	ND		ug/l	10	3.5	5
1,2,4,5-Tetramethylbenzene	ND		ug/l	10	2.7	5
Ethyl ether	11	J	ug/l	12	3.5	5
trans-1,4-Dichloro-2-butene	ND		ug/l	12	3.5	5

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	95		70-130
Toluene-d8	98		70-130
4-Bromofluorobenzene	105		70-130
Dibromofluoromethane	99		70-130

Project Name: FESL
Project Number: 20029

Lab Number: L2044697
Report Date: 10/29/20

SAMPLE RESULTS

Lab ID: L2044697-05 D
 Client ID: EZVI LO 0.5
 Sample Location: ROCHESTER, NY

Date Collected: 10/15/20 08:30
 Date Received: 10/16/20
 Field Prep: Not Specified

Sample Depth:

Matrix: Water
 Analytical Method: 1,8260C
 Analytical Date: 10/27/20 02:01
 Analyst: NLK

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methylene chloride	ND		ug/l	250	70.	100
1,1-Dichloroethane	620		ug/l	250	70.	100
Chloroform	ND		ug/l	250	70.	100
Carbon tetrachloride	ND		ug/l	50	13.	100
1,2-Dichloropropane	ND		ug/l	100	14.	100
Dibromochloromethane	ND		ug/l	50	15.	100
1,1,2-Trichloroethane	ND		ug/l	150	50.	100
Tetrachloroethene	220		ug/l	50	18.	100
Chlorobenzene	ND		ug/l	250	70.	100
Trichlorofluoromethane	ND		ug/l	250	70.	100
1,2-Dichloroethane	ND		ug/l	50	13.	100
1,1,1-Trichloroethane	220	J	ug/l	250	70.	100
Bromodichloromethane	ND		ug/l	50	19.	100
trans-1,3-Dichloropropene	ND		ug/l	50	16.	100
cis-1,3-Dichloropropene	ND		ug/l	50	14.	100
1,3-Dichloropropene, Total	ND		ug/l	50	14.	100
1,1-Dichloropropene	ND		ug/l	250	70.	100
Bromoform	ND		ug/l	200	65.	100
1,1,2,2-Tetrachloroethane	ND		ug/l	50	17.	100
Benzene	ND		ug/l	50	16.	100
Toluene	ND		ug/l	250	70.	100
Ethylbenzene	ND		ug/l	250	70.	100
Chloromethane	ND		ug/l	250	70.	100
Bromomethane	ND		ug/l	250	70.	100
Vinyl chloride	460		ug/l	100	7.1	100
Chloroethane	190	J	ug/l	250	70.	100
1,1-Dichloroethene	ND		ug/l	50	17.	100
trans-1,2-Dichloroethene	ND		ug/l	250	70.	100

Project Name: FESL
Project Number: 20029

Lab Number: L2044697
Report Date: 10/29/20

SAMPLE RESULTS

Lab ID: L2044697-05 D
 Client ID: EZVI LO 0.5
 Sample Location: ROCHESTER, NY

Date Collected: 10/15/20 08:30
 Date Received: 10/16/20
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Trichloroethene	30	J	ug/l	50	18.	100
1,2-Dichlorobenzene	ND		ug/l	250	70.	100
1,3-Dichlorobenzene	ND		ug/l	250	70.	100
1,4-Dichlorobenzene	ND		ug/l	250	70.	100
Methyl tert butyl ether	ND		ug/l	250	70.	100
p/m-Xylene	ND		ug/l	250	70.	100
o-Xylene	ND		ug/l	250	70.	100
Xylenes, Total	ND		ug/l	250	70.	100
cis-1,2-Dichloroethene	640		ug/l	250	70.	100
1,2-Dichloroethene, Total	640		ug/l	250	70.	100
Dibromomethane	ND		ug/l	500	100	100
1,2,3-Trichloropropane	ND		ug/l	250	70.	100
Acrylonitrile	ND		ug/l	500	150	100
Styrene	ND		ug/l	250	70.	100
Dichlorodifluoromethane	ND		ug/l	500	100	100
Acetone	ND		ug/l	500	150	100
Carbon disulfide	ND		ug/l	500	100	100
2-Butanone	300	J	ug/l	500	190	100
Vinyl acetate	ND		ug/l	500	100	100
4-Methyl-2-pentanone	ND		ug/l	500	100	100
2-Hexanone	ND		ug/l	500	100	100
Bromochloromethane	ND		ug/l	250	70.	100
2,2-Dichloropropane	ND		ug/l	250	70.	100
1,2-Dibromoethane	ND		ug/l	200	65.	100
1,3-Dichloropropane	ND		ug/l	250	70.	100
1,1,1,2-Tetrachloroethane	ND		ug/l	250	70.	100
Bromobenzene	ND		ug/l	250	70.	100
n-Butylbenzene	ND		ug/l	250	70.	100
sec-Butylbenzene	ND		ug/l	250	70.	100
tert-Butylbenzene	ND		ug/l	250	70.	100
o-Chlorotoluene	ND		ug/l	250	70.	100
p-Chlorotoluene	ND		ug/l	250	70.	100
1,2-Dibromo-3-chloropropane	ND		ug/l	250	70.	100
Hexachlorobutadiene	ND		ug/l	250	70.	100
Isopropylbenzene	ND		ug/l	250	70.	100
p-Isopropyltoluene	ND		ug/l	250	70.	100
Naphthalene	ND		ug/l	250	70.	100

Project Name: FESL
Project Number: 20029

Lab Number: L2044697
Report Date: 10/29/20

SAMPLE RESULTS

Lab ID: L2044697-05 D
 Client ID: EZVI LO 0.5
 Sample Location: ROCHESTER, NY

Date Collected: 10/15/20 08:30
 Date Received: 10/16/20
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
n-Propylbenzene	ND		ug/l	250	70.	100
1,2,3-Trichlorobenzene	ND		ug/l	250	70.	100
1,2,4-Trichlorobenzene	ND		ug/l	250	70.	100
1,3,5-Trimethylbenzene	ND		ug/l	250	70.	100
1,2,4-Trimethylbenzene	ND		ug/l	250	70.	100
1,4-Dioxane	ND		ug/l	25000	6100	100
Freon-113	300		ug/l	250	70.	100
p-Diethylbenzene	ND		ug/l	200	70.	100
p-Ethyltoluene	ND		ug/l	200	70.	100
1,2,4,5-Tetramethylbenzene	ND		ug/l	200	54.	100
Ethyl ether	ND		ug/l	250	70.	100
trans-1,4-Dichloro-2-butene	ND		ug/l	250	70.	100

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	98		70-130
Toluene-d8	98		70-130
4-Bromofluorobenzene	104		70-130
Dibromofluoromethane	96		70-130

Project Name: FESL
Project Number: 20029

Lab Number: L2044697
Report Date: 10/29/20

SAMPLE RESULTS

Lab ID: L2044697-06 D
 Client ID: EZVI HI 0.5
 Sample Location: ROCHESTER, NY

Date Collected: 10/15/20 08:35
 Date Received: 10/16/20
 Field Prep: Not Specified

Sample Depth:

Matrix: Water
 Analytical Method: 1,8260C
 Analytical Date: 10/27/20 02:24
 Analyst: NLK

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methylene chloride	ND		ug/l	100	28.	40
1,1-Dichloroethane	290		ug/l	100	28.	40
Chloroform	ND		ug/l	100	28.	40
Carbon tetrachloride	ND		ug/l	20	5.4	40
1,2-Dichloropropane	ND		ug/l	40	5.5	40
Dibromochloromethane	ND		ug/l	20	6.0	40
1,1,2-Trichloroethane	ND		ug/l	60	20.	40
Tetrachloroethene	40		ug/l	20	7.2	40
Chlorobenzene	ND		ug/l	100	28.	40
Trichlorofluoromethane	ND		ug/l	100	28.	40
1,2-Dichloroethane	ND		ug/l	20	5.3	40
1,1,1-Trichloroethane	32	J	ug/l	100	28.	40
Bromodichloromethane	ND		ug/l	20	7.7	40
trans-1,3-Dichloropropene	ND		ug/l	20	6.6	40
cis-1,3-Dichloropropene	ND		ug/l	20	5.8	40
1,3-Dichloropropene, Total	ND		ug/l	20	5.8	40
1,1-Dichloropropene	ND		ug/l	100	28.	40
Bromoform	ND		ug/l	80	26.	40
1,1,1,2-Tetrachloroethane	ND		ug/l	20	6.7	40
Benzene	ND		ug/l	20	6.4	40
Toluene	ND		ug/l	100	28.	40
Ethylbenzene	ND		ug/l	100	28.	40
Chloromethane	ND		ug/l	100	28.	40
Bromomethane	ND		ug/l	100	28.	40
Vinyl chloride	300		ug/l	40	2.8	40
Chloroethane	140		ug/l	100	28.	40
1,1-Dichloroethene	ND		ug/l	20	6.8	40
trans-1,2-Dichloroethene	ND		ug/l	100	28.	40

Project Name: FESL
Project Number: 20029

Lab Number: L2044697
Report Date: 10/29/20

SAMPLE RESULTS

Lab ID: L2044697-06 D
 Client ID: EZVI HI 0.5
 Sample Location: ROCHESTER, NY

Date Collected: 10/15/20 08:35
 Date Received: 10/16/20
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Trichloroethene	8.2	J	ug/l	20	7.0	40
1,2-Dichlorobenzene	ND		ug/l	100	28.	40
1,3-Dichlorobenzene	ND		ug/l	100	28.	40
1,4-Dichlorobenzene	ND		ug/l	100	28.	40
Methyl tert butyl ether	ND		ug/l	100	28.	40
p/m-Xylene	ND		ug/l	100	28.	40
o-Xylene	ND		ug/l	100	28.	40
Xylenes, Total	ND		ug/l	100	28.	40
cis-1,2-Dichloroethene	300		ug/l	100	28.	40
1,2-Dichloroethene, Total	300		ug/l	100	28.	40
Dibromomethane	ND		ug/l	200	40.	40
1,2,3-Trichloropropane	ND		ug/l	100	28.	40
Acrylonitrile	ND		ug/l	200	60.	40
Styrene	ND		ug/l	100	28.	40
Dichlorodifluoromethane	ND		ug/l	200	40.	40
Acetone	110	J	ug/l	200	58.	40
Carbon disulfide	ND		ug/l	200	40.	40
2-Butanone	1300		ug/l	200	78.	40
Vinyl acetate	ND		ug/l	200	40.	40
4-Methyl-2-pentanone	ND		ug/l	200	40.	40
2-Hexanone	ND		ug/l	200	40.	40
Bromochloromethane	ND		ug/l	100	28.	40
2,2-Dichloropropane	ND		ug/l	100	28.	40
1,2-Dibromoethane	ND		ug/l	80	26.	40
1,3-Dichloropropane	ND		ug/l	100	28.	40
1,1,1,2-Tetrachloroethane	ND		ug/l	100	28.	40
Bromobenzene	ND		ug/l	100	28.	40
n-Butylbenzene	ND		ug/l	100	28.	40
sec-Butylbenzene	ND		ug/l	100	28.	40
tert-Butylbenzene	ND		ug/l	100	28.	40
o-Chlorotoluene	ND		ug/l	100	28.	40
p-Chlorotoluene	ND		ug/l	100	28.	40
1,2-Dibromo-3-chloropropane	ND		ug/l	100	28.	40
Hexachlorobutadiene	ND		ug/l	100	28.	40
Isopropylbenzene	ND		ug/l	100	28.	40
p-Isopropyltoluene	ND		ug/l	100	28.	40
Naphthalene	ND		ug/l	100	28.	40

Project Name: FESL
Project Number: 20029

Lab Number: L2044697
Report Date: 10/29/20

SAMPLE RESULTS

Lab ID: L2044697-06 D
 Client ID: EZVI HI 0.5
 Sample Location: ROCHESTER, NY

Date Collected: 10/15/20 08:35
 Date Received: 10/16/20
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
n-Propylbenzene	ND		ug/l	100	28.	40
1,2,3-Trichlorobenzene	ND		ug/l	100	28.	40
1,2,4-Trichlorobenzene	ND		ug/l	100	28.	40
1,3,5-Trimethylbenzene	ND		ug/l	100	28.	40
1,2,4-Trimethylbenzene	ND		ug/l	100	28.	40
1,4-Dioxane	ND		ug/l	10000	2400	40
Freon-113	64	J	ug/l	100	28.	40
p-Diethylbenzene	ND		ug/l	80	28.	40
p-Ethyltoluene	ND		ug/l	80	28.	40
1,2,4,5-Tetramethylbenzene	ND		ug/l	80	22.	40
Ethyl ether	ND		ug/l	100	28.	40
trans-1,4-Dichloro-2-butene	ND		ug/l	100	28.	40

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	94		70-130
Toluene-d8	97		70-130
4-Bromofluorobenzene	106		70-130
Dibromofluoromethane	96		70-130

Project Name: FESL
Project Number: 20029

Lab Number: L2044697
Report Date: 10/29/20

SAMPLE RESULTS

Lab ID: L2044697-07 D
 Client ID: CTRL 0.5
 Sample Location: ROCHESTER, NY

Date Collected: 10/15/20 08:40
 Date Received: 10/16/20
 Field Prep: Not Specified

Sample Depth:

Matrix: Water
 Analytical Method: 1,8260C
 Analytical Date: 10/26/20 23:19
 Analyst: NLK

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methylene chloride	ND		ug/l	25	7.0	10
1,1-Dichloroethane	650		ug/l	25	7.0	10
Chloroform	ND		ug/l	25	7.0	10
Carbon tetrachloride	ND		ug/l	5.0	1.3	10
1,2-Dichloropropane	ND		ug/l	10	1.4	10
Dibromochloromethane	ND		ug/l	5.0	1.5	10
1,1,2-Trichloroethane	ND		ug/l	15	5.0	10
Tetrachloroethene	150		ug/l	5.0	1.8	10
Chlorobenzene	ND		ug/l	25	7.0	10
Trichlorofluoromethane	ND		ug/l	25	7.0	10
1,2-Dichloroethane	ND		ug/l	5.0	1.3	10
1,1,1-Trichloroethane	270		ug/l	25	7.0	10
Bromodichloromethane	ND		ug/l	5.0	1.9	10
trans-1,3-Dichloropropene	ND		ug/l	5.0	1.6	10
cis-1,3-Dichloropropene	ND		ug/l	5.0	1.4	10
1,3-Dichloropropene, Total	ND		ug/l	5.0	1.4	10
1,1-Dichloropropene	ND		ug/l	25	7.0	10
Bromoform	ND		ug/l	20	6.5	10
1,1,1,2-Tetrachloroethane	ND		ug/l	5.0	1.7	10
Benzene	6.1		ug/l	5.0	1.6	10
Toluene	22	J	ug/l	25	7.0	10
Ethylbenzene	ND		ug/l	25	7.0	10
Chloromethane	ND		ug/l	25	7.0	10
Bromomethane	ND		ug/l	25	7.0	10
Vinyl chloride	490		ug/l	10	0.71	10
Chloroethane	200		ug/l	25	7.0	10
1,1-Dichloroethene	8.5		ug/l	5.0	1.7	10
trans-1,2-Dichloroethene	7.6	J	ug/l	25	7.0	10

Project Name: FESL
Project Number: 20029

Lab Number: L2044697
Report Date: 10/29/20

SAMPLE RESULTS

Lab ID: L2044697-07 D
 Client ID: CTRL 0.5
 Sample Location: ROCHESTER, NY

Date Collected: 10/15/20 08:40
 Date Received: 10/16/20
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Trichloroethene	23		ug/l	5.0	1.8	10
1,2-Dichlorobenzene	ND		ug/l	25	7.0	10
1,3-Dichlorobenzene	ND		ug/l	25	7.0	10
1,4-Dichlorobenzene	ND		ug/l	25	7.0	10
Methyl tert butyl ether	ND		ug/l	25	7.0	10
p/m-Xylene	ND		ug/l	25	7.0	10
o-Xylene	ND		ug/l	25	7.0	10
Xylenes, Total	ND		ug/l	25	7.0	10
cis-1,2-Dichloroethene	690		ug/l	25	7.0	10
1,2-Dichloroethene, Total	700	J	ug/l	25	7.0	10
Dibromomethane	ND		ug/l	50	10.	10
1,2,3-Trichloropropane	ND		ug/l	25	7.0	10
Acrylonitrile	ND		ug/l	50	15.	10
Styrene	ND		ug/l	25	7.0	10
Dichlorodifluoromethane	ND		ug/l	50	10.	10
Acetone	19	J	ug/l	50	15.	10
Carbon disulfide	ND		ug/l	50	10.	10
2-Butanone	ND		ug/l	50	19.	10
Vinyl acetate	ND		ug/l	50	10.	10
4-Methyl-2-pentanone	ND		ug/l	50	10.	10
2-Hexanone	ND		ug/l	50	10.	10
Bromochloromethane	ND		ug/l	25	7.0	10
2,2-Dichloropropane	ND		ug/l	25	7.0	10
1,2-Dibromoethane	ND		ug/l	20	6.5	10
1,3-Dichloropropane	ND		ug/l	25	7.0	10
1,1,1,2-Tetrachloroethane	ND		ug/l	25	7.0	10
Bromobenzene	ND		ug/l	25	7.0	10
n-Butylbenzene	ND		ug/l	25	7.0	10
sec-Butylbenzene	ND		ug/l	25	7.0	10
tert-Butylbenzene	ND		ug/l	25	7.0	10
o-Chlorotoluene	ND		ug/l	25	7.0	10
p-Chlorotoluene	ND		ug/l	25	7.0	10
1,2-Dibromo-3-chloropropane	ND		ug/l	25	7.0	10
Hexachlorobutadiene	ND		ug/l	25	7.0	10
Isopropylbenzene	ND		ug/l	25	7.0	10
p-Isopropyltoluene	ND		ug/l	25	7.0	10
Naphthalene	ND		ug/l	25	7.0	10

Project Name: FESL
Project Number: 20029

Lab Number: L2044697
Report Date: 10/29/20

SAMPLE RESULTS

Lab ID: L2044697-07 D
 Client ID: CTRL 0.5
 Sample Location: ROCHESTER, NY

Date Collected: 10/15/20 08:40
 Date Received: 10/16/20
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
n-Propylbenzene	ND		ug/l	25	7.0	10
1,2,3-Trichlorobenzene	ND		ug/l	25	7.0	10
1,2,4-Trichlorobenzene	ND		ug/l	25	7.0	10
1,3,5-Trimethylbenzene	ND		ug/l	25	7.0	10
1,2,4-Trimethylbenzene	ND		ug/l	25	7.0	10
1,4-Dioxane	ND		ug/l	2500	610	10
Freon-113	130		ug/l	25	7.0	10
p-Diethylbenzene	ND		ug/l	20	7.0	10
p-Ethyltoluene	ND		ug/l	20	7.0	10
1,2,4,5-Tetramethylbenzene	ND		ug/l	20	5.4	10
Ethyl ether	12	J	ug/l	25	7.0	10
trans-1,4-Dichloro-2-butene	ND		ug/l	25	7.0	10

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	95		70-130
Toluene-d8	98		70-130
4-Bromofluorobenzene	104		70-130
Dibromofluoromethane	98		70-130

Project Name: FESL
Project Number: 20029

Lab Number: L2044697
Report Date: 10/29/20

SAMPLE RESULTS

Lab ID: L2044697-08 D
 Client ID: CTRL 0.5 DUP
 Sample Location: ROCHESTER, NY

Date Collected: 10/15/20 08:45
 Date Received: 10/16/20
 Field Prep: Not Specified

Sample Depth:

Matrix: Water
 Analytical Method: 1,8260C
 Analytical Date: 10/26/20 23:42
 Analyst: NLK

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methylene chloride	ND		ug/l	12	3.5	5
1,1-Dichloroethane	650		ug/l	12	3.5	5
Chloroform	ND		ug/l	12	3.5	5
Carbon tetrachloride	ND		ug/l	2.5	0.67	5
1,2-Dichloropropane	ND		ug/l	5.0	0.68	5
Dibromochloromethane	ND		ug/l	2.5	0.74	5
1,1,2-Trichloroethane	ND		ug/l	7.5	2.5	5
Tetrachloroethene	150		ug/l	2.5	0.90	5
Chlorobenzene	ND		ug/l	12	3.5	5
Trichlorofluoromethane	ND		ug/l	12	3.5	5
1,2-Dichloroethane	ND		ug/l	2.5	0.66	5
1,1,1-Trichloroethane	280		ug/l	12	3.5	5
Bromodichloromethane	ND		ug/l	2.5	0.96	5
trans-1,3-Dichloropropene	ND		ug/l	2.5	0.82	5
cis-1,3-Dichloropropene	ND		ug/l	2.5	0.72	5
1,3-Dichloropropene, Total	ND		ug/l	2.5	0.72	5
1,1-Dichloropropene	ND		ug/l	12	3.5	5
Bromoform	ND		ug/l	10	3.2	5
1,1,2,2-Tetrachloroethane	ND		ug/l	2.5	0.84	5
Benzene	6.3		ug/l	2.5	0.80	5
Toluene	22		ug/l	12	3.5	5
Ethylbenzene	ND		ug/l	12	3.5	5
Chloromethane	ND		ug/l	12	3.5	5
Bromomethane	ND		ug/l	12	3.5	5
Vinyl chloride	510		ug/l	5.0	0.36	5
Chloroethane	220		ug/l	12	3.5	5
1,1-Dichloroethene	8.1		ug/l	2.5	0.84	5
trans-1,2-Dichloroethene	8.2	J	ug/l	12	3.5	5

Project Name: FESL
Project Number: 20029

Lab Number: L2044697
Report Date: 10/29/20

SAMPLE RESULTS

Lab ID: L2044697-08 D
 Client ID: CTRL 0.5 DUP
 Sample Location: ROCHESTER, NY

Date Collected: 10/15/20 08:45
 Date Received: 10/16/20
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Trichloroethene	25		ug/l	2.5	0.88	5
1,2-Dichlorobenzene	ND		ug/l	12	3.5	5
1,3-Dichlorobenzene	ND		ug/l	12	3.5	5
1,4-Dichlorobenzene	ND		ug/l	12	3.5	5
Methyl tert butyl ether	ND		ug/l	12	3.5	5
p/m-Xylene	ND		ug/l	12	3.5	5
o-Xylene	5.5	J	ug/l	12	3.5	5
Xylenes, Total	5.5	J	ug/l	12	3.5	5
cis-1,2-Dichloroethene	690		ug/l	12	3.5	5
1,2-Dichloroethene, Total	700	J	ug/l	12	3.5	5
Dibromomethane	ND		ug/l	25	5.0	5
1,2,3-Trichloropropane	ND		ug/l	12	3.5	5
Acrylonitrile	ND		ug/l	25	7.5	5
Styrene	ND		ug/l	12	3.5	5
Dichlorodifluoromethane	ND		ug/l	25	5.0	5
Acetone	17	J	ug/l	25	7.3	5
Carbon disulfide	ND		ug/l	25	5.0	5
2-Butanone	11	J	ug/l	25	9.7	5
Vinyl acetate	ND		ug/l	25	5.0	5
4-Methyl-2-pentanone	ND		ug/l	25	5.0	5
2-Hexanone	ND		ug/l	25	5.0	5
Bromochloromethane	ND		ug/l	12	3.5	5
2,2-Dichloropropane	ND		ug/l	12	3.5	5
1,2-Dibromoethane	ND		ug/l	10	3.2	5
1,3-Dichloropropane	ND		ug/l	12	3.5	5
1,1,1,2-Tetrachloroethane	ND		ug/l	12	3.5	5
Bromobenzene	ND		ug/l	12	3.5	5
n-Butylbenzene	ND		ug/l	12	3.5	5
sec-Butylbenzene	ND		ug/l	12	3.5	5
tert-Butylbenzene	ND		ug/l	12	3.5	5
o-Chlorotoluene	ND		ug/l	12	3.5	5
p-Chlorotoluene	ND		ug/l	12	3.5	5
1,2-Dibromo-3-chloropropane	ND		ug/l	12	3.5	5
Hexachlorobutadiene	ND		ug/l	12	3.5	5
Isopropylbenzene	ND		ug/l	12	3.5	5
p-Isopropyltoluene	ND		ug/l	12	3.5	5
Naphthalene	ND		ug/l	12	3.5	5

Project Name: FESL
Project Number: 20029

Lab Number: L2044697
Report Date: 10/29/20

SAMPLE RESULTS

Lab ID: L2044697-08 D
 Client ID: CTRL 0.5 DUP
 Sample Location: ROCHESTER, NY

Date Collected: 10/15/20 08:45
 Date Received: 10/16/20
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
n-Propylbenzene	ND		ug/l	12	3.5	5
1,2,3-Trichlorobenzene	ND		ug/l	12	3.5	5
1,2,4-Trichlorobenzene	ND		ug/l	12	3.5	5
1,3,5-Trimethylbenzene	ND		ug/l	12	3.5	5
1,2,4-Trimethylbenzene	ND		ug/l	12	3.5	5
1,4-Dioxane	ND		ug/l	1200	300	5
Freon-113	120		ug/l	12	3.5	5
p-Diethylbenzene	ND		ug/l	10	3.5	5
p-Ethyltoluene	ND		ug/l	10	3.5	5
1,2,4,5-Tetramethylbenzene	ND		ug/l	10	2.7	5
Ethyl ether	11	J	ug/l	12	3.5	5
trans-1,4-Dichloro-2-butene	ND		ug/l	12	3.5	5

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	97		70-130
Toluene-d8	96		70-130
4-Bromofluorobenzene	102		70-130
Dibromofluoromethane	100		70-130

Project Name: FESL
Project Number: 20029

Lab Number: L2044697
Report Date: 10/29/20

SAMPLE RESULTS

Lab ID: L2044697-09 D
 Client ID: CTRL D0 DUP 2
 Sample Location: ROCHESTER, NY

Date Collected: 10/14/20 12:00
 Date Received: 10/16/20
 Field Prep: Not Specified

Sample Depth:

Matrix: Water
 Analytical Method: 1,8260C
 Analytical Date: 10/27/20 00:05
 Analyst: NLK

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methylene chloride	ND		ug/l	12	3.5	5
1,1-Dichloroethane	720		ug/l	12	3.5	5
Chloroform	ND		ug/l	12	3.5	5
Carbon tetrachloride	ND		ug/l	2.5	0.67	5
1,2-Dichloropropane	ND		ug/l	5.0	0.68	5
Dibromochloromethane	ND		ug/l	2.5	0.74	5
1,1,2-Trichloroethane	ND		ug/l	7.5	2.5	5
Tetrachloroethene	210		ug/l	2.5	0.90	5
Chlorobenzene	ND		ug/l	12	3.5	5
Trichlorofluoromethane	ND		ug/l	12	3.5	5
1,2-Dichloroethane	ND		ug/l	2.5	0.66	5
1,1,1-Trichloroethane	330		ug/l	12	3.5	5
Bromodichloromethane	ND		ug/l	2.5	0.96	5
trans-1,3-Dichloropropene	ND		ug/l	2.5	0.82	5
cis-1,3-Dichloropropene	ND		ug/l	2.5	0.72	5
1,3-Dichloropropene, Total	ND		ug/l	2.5	0.72	5
1,1-Dichloropropene	ND		ug/l	12	3.5	5
Bromoform	ND		ug/l	10	3.2	5
1,1,1,2-Tetrachloroethane	ND		ug/l	2.5	0.84	5
Benzene	7.4		ug/l	2.5	0.80	5
Toluene	30		ug/l	12	3.5	5
Ethylbenzene	ND		ug/l	12	3.5	5
Chloromethane	ND		ug/l	12	3.5	5
Bromomethane	ND		ug/l	12	3.5	5
Vinyl chloride	610		ug/l	5.0	0.36	5
Chloroethane	230		ug/l	12	3.5	5
1,1-Dichloroethene	11		ug/l	2.5	0.84	5
trans-1,2-Dichloroethene	9.5	J	ug/l	12	3.5	5

Project Name: FESL
Project Number: 20029

Lab Number: L2044697
Report Date: 10/29/20

SAMPLE RESULTS

Lab ID: L2044697-09 D
 Client ID: CTRL D0 DUP 2
 Sample Location: ROCHESTER, NY

Date Collected: 10/14/20 12:00
 Date Received: 10/16/20
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Trichloroethene	29		ug/l	2.5	0.88	5
1,2-Dichlorobenzene	ND		ug/l	12	3.5	5
1,3-Dichlorobenzene	ND		ug/l	12	3.5	5
1,4-Dichlorobenzene	ND		ug/l	12	3.5	5
Methyl tert butyl ether	ND		ug/l	12	3.5	5
p/m-Xylene	ND		ug/l	12	3.5	5
o-Xylene	8.8	J	ug/l	12	3.5	5
Xylenes, Total	8.8	J	ug/l	12	3.5	5
cis-1,2-Dichloroethene	770		ug/l	12	3.5	5
1,2-Dichloroethene, Total	780	J	ug/l	12	3.5	5
Dibromomethane	ND		ug/l	25	5.0	5
1,2,3-Trichloropropane	ND		ug/l	12	3.5	5
Acrylonitrile	ND		ug/l	25	7.5	5
Styrene	ND		ug/l	12	3.5	5
Dichlorodifluoromethane	ND		ug/l	25	5.0	5
Acetone	14	J	ug/l	25	7.3	5
Carbon disulfide	ND		ug/l	25	5.0	5
2-Butanone	ND		ug/l	25	9.7	5
Vinyl acetate	ND		ug/l	25	5.0	5
4-Methyl-2-pentanone	ND		ug/l	25	5.0	5
2-Hexanone	ND		ug/l	25	5.0	5
Bromochloromethane	ND		ug/l	12	3.5	5
2,2-Dichloropropane	ND		ug/l	12	3.5	5
1,2-Dibromoethane	ND		ug/l	10	3.2	5
1,3-Dichloropropane	ND		ug/l	12	3.5	5
1,1,1,2-Tetrachloroethane	ND		ug/l	12	3.5	5
Bromobenzene	ND		ug/l	12	3.5	5
n-Butylbenzene	ND		ug/l	12	3.5	5
sec-Butylbenzene	ND		ug/l	12	3.5	5
tert-Butylbenzene	ND		ug/l	12	3.5	5
o-Chlorotoluene	ND		ug/l	12	3.5	5
p-Chlorotoluene	ND		ug/l	12	3.5	5
1,2-Dibromo-3-chloropropane	ND		ug/l	12	3.5	5
Hexachlorobutadiene	ND		ug/l	12	3.5	5
Isopropylbenzene	ND		ug/l	12	3.5	5
p-Isopropyltoluene	ND		ug/l	12	3.5	5
Naphthalene	ND		ug/l	12	3.5	5

Project Name: FESL
Project Number: 20029

Lab Number: L2044697
Report Date: 10/29/20

SAMPLE RESULTS

Lab ID: L2044697-09 D
 Client ID: CTRL D0 DUP 2
 Sample Location: ROCHESTER, NY

Date Collected: 10/14/20 12:00
 Date Received: 10/16/20
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
n-Propylbenzene	ND		ug/l	12	3.5	5
1,2,3-Trichlorobenzene	ND		ug/l	12	3.5	5
1,2,4-Trichlorobenzene	ND		ug/l	12	3.5	5
1,3,5-Trimethylbenzene	ND		ug/l	12	3.5	5
1,2,4-Trimethylbenzene	ND		ug/l	12	3.5	5
1,4-Dioxane	ND		ug/l	1200	300	5
Freon-113	390		ug/l	12	3.5	5
p-Diethylbenzene	ND		ug/l	10	3.5	5
p-Ethyltoluene	ND		ug/l	10	3.5	5
1,2,4,5-Tetramethylbenzene	ND		ug/l	10	2.7	5
Ethyl ether	11	J	ug/l	12	3.5	5
trans-1,4-Dichloro-2-butene	ND		ug/l	12	3.5	5

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	92		70-130
Toluene-d8	99		70-130
4-Bromofluorobenzene	102		70-130
Dibromofluoromethane	101		70-130

Project Name: FESL
Project Number: 20029

Lab Number: L2044697
Report Date: 10/29/20

SAMPLE RESULTS

Lab ID: L2044697-10 D
 Client ID: FLOW LO D1
 Sample Location: ROCHESTER, NY

Date Collected: 10/15/20 14:00
 Date Received: 10/16/20
 Field Prep: Not Specified

Sample Depth:

Matrix: Water
 Analytical Method: 1,8260C
 Analytical Date: 10/27/20 00:28
 Analyst: NLK

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methylene chloride	ND		ug/l	12	3.5	5
1,1-Dichloroethane	620		ug/l	12	3.5	5
Chloroform	ND		ug/l	12	3.5	5
Carbon tetrachloride	ND		ug/l	2.5	0.67	5
1,2-Dichloropropane	ND		ug/l	5.0	0.68	5
Dibromochloromethane	ND		ug/l	2.5	0.74	5
1,1,2-Trichloroethane	ND		ug/l	7.5	2.5	5
Tetrachloroethene	120		ug/l	2.5	0.90	5
Chlorobenzene	ND		ug/l	12	3.5	5
Trichlorofluoromethane	ND		ug/l	12	3.5	5
1,2-Dichloroethane	ND		ug/l	2.5	0.66	5
1,1,1-Trichloroethane	230		ug/l	12	3.5	5
Bromodichloromethane	ND		ug/l	2.5	0.96	5
trans-1,3-Dichloropropene	ND		ug/l	2.5	0.82	5
cis-1,3-Dichloropropene	ND		ug/l	2.5	0.72	5
1,3-Dichloropropene, Total	ND		ug/l	2.5	0.72	5
1,1-Dichloropropene	ND		ug/l	12	3.5	5
Bromoform	ND		ug/l	10	3.2	5
1,1,2,2-Tetrachloroethane	ND		ug/l	2.5	0.84	5
Benzene	5.6		ug/l	2.5	0.80	5
Toluene	20		ug/l	12	3.5	5
Ethylbenzene	ND		ug/l	12	3.5	5
Chloromethane	ND		ug/l	12	3.5	5
Bromomethane	ND		ug/l	12	3.5	5
Vinyl chloride	400		ug/l	5.0	0.36	5
Chloroethane	200		ug/l	12	3.5	5
1,1-Dichloroethene	6.3		ug/l	2.5	0.84	5
trans-1,2-Dichloroethene	7.1	J	ug/l	12	3.5	5

Project Name: FESL
Project Number: 20029

Lab Number: L2044697
Report Date: 10/29/20

SAMPLE RESULTS

Lab ID: L2044697-10 D
 Client ID: FLOW LO D1
 Sample Location: ROCHESTER, NY

Date Collected: 10/15/20 14:00
 Date Received: 10/16/20
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Trichloroethene	20		ug/l	2.5	0.88	5
1,2-Dichlorobenzene	ND		ug/l	12	3.5	5
1,3-Dichlorobenzene	ND		ug/l	12	3.5	5
1,4-Dichlorobenzene	ND		ug/l	12	3.5	5
Methyl tert butyl ether	ND		ug/l	12	3.5	5
p/m-Xylene	ND		ug/l	12	3.5	5
o-Xylene	5.5	J	ug/l	12	3.5	5
Xylenes, Total	5.5	J	ug/l	12	3.5	5
cis-1,2-Dichloroethene	620		ug/l	12	3.5	5
1,2-Dichloroethene, Total	630	J	ug/l	12	3.5	5
Dibromomethane	ND		ug/l	25	5.0	5
1,2,3-Trichloropropane	ND		ug/l	12	3.5	5
Acrylonitrile	ND		ug/l	25	7.5	5
Styrene	ND		ug/l	12	3.5	5
Dichlorodifluoromethane	ND		ug/l	25	5.0	5
Acetone	25		ug/l	25	7.3	5
Carbon disulfide	ND		ug/l	25	5.0	5
2-Butanone	12	J	ug/l	25	9.7	5
Vinyl acetate	ND		ug/l	25	5.0	5
4-Methyl-2-pentanone	ND		ug/l	25	5.0	5
2-Hexanone	ND		ug/l	25	5.0	5
Bromochloromethane	ND		ug/l	12	3.5	5
2,2-Dichloropropane	ND		ug/l	12	3.5	5
1,2-Dibromoethane	ND		ug/l	10	3.2	5
1,3-Dichloropropane	ND		ug/l	12	3.5	5
1,1,1,2-Tetrachloroethane	ND		ug/l	12	3.5	5
Bromobenzene	ND		ug/l	12	3.5	5
n-Butylbenzene	ND		ug/l	12	3.5	5
sec-Butylbenzene	ND		ug/l	12	3.5	5
tert-Butylbenzene	ND		ug/l	12	3.5	5
o-Chlorotoluene	ND		ug/l	12	3.5	5
p-Chlorotoluene	ND		ug/l	12	3.5	5
1,2-Dibromo-3-chloropropane	ND		ug/l	12	3.5	5
Hexachlorobutadiene	ND		ug/l	12	3.5	5
Isopropylbenzene	ND		ug/l	12	3.5	5
p-Isopropyltoluene	ND		ug/l	12	3.5	5
Naphthalene	ND		ug/l	12	3.5	5

Project Name: FESL
Project Number: 20029

Lab Number: L2044697
Report Date: 10/29/20

SAMPLE RESULTS

Lab ID: L2044697-10 D
 Client ID: FLOW LO D1
 Sample Location: ROCHESTER, NY

Date Collected: 10/15/20 14:00
 Date Received: 10/16/20
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
n-Propylbenzene	ND		ug/l	12	3.5	5
1,2,3-Trichlorobenzene	ND		ug/l	12	3.5	5
1,2,4-Trichlorobenzene	ND		ug/l	12	3.5	5
1,3,5-Trimethylbenzene	ND		ug/l	12	3.5	5
1,2,4-Trimethylbenzene	ND		ug/l	12	3.5	5
1,4-Dioxane	ND		ug/l	1200	300	5
Freon-113	88		ug/l	12	3.5	5
p-Diethylbenzene	ND		ug/l	10	3.5	5
p-Ethyltoluene	ND		ug/l	10	3.5	5
1,2,4,5-Tetramethylbenzene	ND		ug/l	10	2.7	5
Ethyl ether	11	J	ug/l	12	3.5	5
trans-1,4-Dichloro-2-butene	ND		ug/l	12	3.5	5

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	95		70-130
Toluene-d8	98		70-130
4-Bromofluorobenzene	101		70-130
Dibromofluoromethane	99		70-130

Project Name: FESL
Project Number: 20029

Lab Number: L2044697
Report Date: 10/29/20

SAMPLE RESULTS

Lab ID: L2044697-11 D
 Client ID: FLOW HI D1
 Sample Location: ROCHESTER, NY

Date Collected: 10/15/20 14:05
 Date Received: 10/16/20
 Field Prep: Not Specified

Sample Depth:

Matrix: Water
 Analytical Method: 1,8260C
 Analytical Date: 10/27/20 00:52
 Analyst: NLK

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methylene chloride	ND		ug/l	12	3.5	5
1,1-Dichloroethane	620		ug/l	12	3.5	5
Chloroform	ND		ug/l	12	3.5	5
Carbon tetrachloride	ND		ug/l	2.5	0.67	5
1,2-Dichloropropane	ND		ug/l	5.0	0.68	5
Dibromochloromethane	ND		ug/l	2.5	0.74	5
1,1,2-Trichloroethane	ND		ug/l	7.5	2.5	5
Tetrachloroethene	100		ug/l	2.5	0.90	5
Chlorobenzene	ND		ug/l	12	3.5	5
Trichlorofluoromethane	ND		ug/l	12	3.5	5
1,2-Dichloroethane	ND		ug/l	2.5	0.66	5
1,1,1-Trichloroethane	200		ug/l	12	3.5	5
Bromodichloromethane	ND		ug/l	2.5	0.96	5
trans-1,3-Dichloropropene	ND		ug/l	2.5	0.82	5
cis-1,3-Dichloropropene	ND		ug/l	2.5	0.72	5
1,3-Dichloropropene, Total	ND		ug/l	2.5	0.72	5
1,1-Dichloropropene	ND		ug/l	12	3.5	5
Bromoform	ND		ug/l	10	3.2	5
1,1,2,2-Tetrachloroethane	ND		ug/l	2.5	0.84	5
Benzene	5.7		ug/l	2.5	0.80	5
Toluene	18		ug/l	12	3.5	5
Ethylbenzene	ND		ug/l	12	3.5	5
Chloromethane	ND		ug/l	12	3.5	5
Bromomethane	ND		ug/l	12	3.5	5
Vinyl chloride	390		ug/l	5.0	0.36	5
Chloroethane	190		ug/l	12	3.5	5
1,1-Dichloroethene	6.2		ug/l	2.5	0.84	5
trans-1,2-Dichloroethene	6.3	J	ug/l	12	3.5	5

Project Name: FESL
Project Number: 20029

Lab Number: L2044697
Report Date: 10/29/20

SAMPLE RESULTS

Lab ID: L2044697-11 D
 Client ID: FLOW HI D1
 Sample Location: ROCHESTER, NY

Date Collected: 10/15/20 14:05
 Date Received: 10/16/20
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Trichloroethene	18		ug/l	2.5	0.88	5
1,2-Dichlorobenzene	ND		ug/l	12	3.5	5
1,3-Dichlorobenzene	ND		ug/l	12	3.5	5
1,4-Dichlorobenzene	ND		ug/l	12	3.5	5
Methyl tert butyl ether	ND		ug/l	12	3.5	5
p/m-Xylene	ND		ug/l	12	3.5	5
o-Xylene	4.2	J	ug/l	12	3.5	5
Xylenes, Total	4.2	J	ug/l	12	3.5	5
cis-1,2-Dichloroethene	600		ug/l	12	3.5	5
1,2-Dichloroethene, Total	610	J	ug/l	12	3.5	5
Dibromomethane	ND		ug/l	25	5.0	5
1,2,3-Trichloropropane	ND		ug/l	12	3.5	5
Acrylonitrile	ND		ug/l	25	7.5	5
Styrene	ND		ug/l	12	3.5	5
Dichlorodifluoromethane	ND		ug/l	25	5.0	5
Acetone	30		ug/l	25	7.3	5
Carbon disulfide	ND		ug/l	25	5.0	5
2-Butanone	13	J	ug/l	25	9.7	5
Vinyl acetate	ND		ug/l	25	5.0	5
4-Methyl-2-pentanone	ND		ug/l	25	5.0	5
2-Hexanone	ND		ug/l	25	5.0	5
Bromochloromethane	ND		ug/l	12	3.5	5
2,2-Dichloropropane	ND		ug/l	12	3.5	5
1,2-Dibromoethane	ND		ug/l	10	3.2	5
1,3-Dichloropropane	ND		ug/l	12	3.5	5
1,1,1,2-Tetrachloroethane	ND		ug/l	12	3.5	5
Bromobenzene	ND		ug/l	12	3.5	5
n-Butylbenzene	ND		ug/l	12	3.5	5
sec-Butylbenzene	ND		ug/l	12	3.5	5
tert-Butylbenzene	ND		ug/l	12	3.5	5
o-Chlorotoluene	ND		ug/l	12	3.5	5
p-Chlorotoluene	ND		ug/l	12	3.5	5
1,2-Dibromo-3-chloropropane	ND		ug/l	12	3.5	5
Hexachlorobutadiene	ND		ug/l	12	3.5	5
Isopropylbenzene	ND		ug/l	12	3.5	5
p-Isopropyltoluene	ND		ug/l	12	3.5	5
Naphthalene	ND		ug/l	12	3.5	5

Project Name: FESL
Project Number: 20029

Lab Number: L2044697
Report Date: 10/29/20

SAMPLE RESULTS

Lab ID: L2044697-11 D
 Client ID: FLOW HI D1
 Sample Location: ROCHESTER, NY

Date Collected: 10/15/20 14:05
 Date Received: 10/16/20
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
n-Propylbenzene	ND		ug/l	12	3.5	5
1,2,3-Trichlorobenzene	ND		ug/l	12	3.5	5
1,2,4-Trichlorobenzene	ND		ug/l	12	3.5	5
1,3,5-Trimethylbenzene	ND		ug/l	12	3.5	5
1,2,4-Trimethylbenzene	ND		ug/l	12	3.5	5
1,4-Dioxane	ND		ug/l	1200	300	5
Freon-113	83		ug/l	12	3.5	5
p-Diethylbenzene	ND		ug/l	10	3.5	5
p-Ethyltoluene	ND		ug/l	10	3.5	5
1,2,4,5-Tetramethylbenzene	ND		ug/l	10	2.7	5
Ethyl ether	11	J	ug/l	12	3.5	5
trans-1,4-Dichloro-2-butene	ND		ug/l	12	3.5	5

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	96		70-130
Toluene-d8	97		70-130
4-Bromofluorobenzene	103		70-130
Dibromofluoromethane	101		70-130

Project Name: FESL
Project Number: 20029

Lab Number: L2044697
Report Date: 10/29/20

SAMPLE RESULTS

Lab ID: L2044697-12 D
 Client ID: TAGRET LO D1
 Sample Location: ROCHESTER, NY

Date Collected: 10/15/20 14:10
 Date Received: 10/16/20
 Field Prep: Not Specified

Sample Depth:

Matrix: Water
 Analytical Method: 1,8260C
 Analytical Date: 10/27/20 01:15
 Analyst: NLK

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methylene chloride	ND		ug/l	12	3.5	5
1,1-Dichloroethane	650		ug/l	12	3.5	5
Chloroform	ND		ug/l	12	3.5	5
Carbon tetrachloride	ND		ug/l	2.5	0.67	5
1,2-Dichloropropane	ND		ug/l	5.0	0.68	5
Dibromochloromethane	ND		ug/l	2.5	0.74	5
1,1,2-Trichloroethane	ND		ug/l	7.5	2.5	5
Tetrachloroethene	120		ug/l	2.5	0.90	5
Chlorobenzene	ND		ug/l	12	3.5	5
Trichlorofluoromethane	ND		ug/l	12	3.5	5
1,2-Dichloroethane	ND		ug/l	2.5	0.66	5
1,1,1-Trichloroethane	130		ug/l	12	3.5	5
Bromodichloromethane	ND		ug/l	2.5	0.96	5
trans-1,3-Dichloropropene	ND		ug/l	2.5	0.82	5
cis-1,3-Dichloropropene	ND		ug/l	2.5	0.72	5
1,3-Dichloropropene, Total	ND		ug/l	2.5	0.72	5
1,1-Dichloropropene	ND		ug/l	12	3.5	5
Bromoform	ND		ug/l	10	3.2	5
1,1,2,2-Tetrachloroethane	ND		ug/l	2.5	0.84	5
Benzene	6.8		ug/l	2.5	0.80	5
Toluene	22		ug/l	12	3.5	5
Ethylbenzene	ND		ug/l	12	3.5	5
Chloromethane	ND		ug/l	12	3.5	5
Bromomethane	ND		ug/l	12	3.5	5
Vinyl chloride	430		ug/l	5.0	0.36	5
Chloroethane	210		ug/l	12	3.5	5
1,1-Dichloroethene	6.3		ug/l	2.5	0.84	5
trans-1,2-Dichloroethene	7.0	J	ug/l	12	3.5	5

Project Name: FESL
Project Number: 20029

Lab Number: L2044697
Report Date: 10/29/20

SAMPLE RESULTS

Lab ID: L2044697-12 D
 Client ID: TAGRET LO D1
 Sample Location: ROCHESTER, NY

Date Collected: 10/15/20 14:10
 Date Received: 10/16/20
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Trichloroethene	20		ug/l	2.5	0.88	5
1,2-Dichlorobenzene	ND		ug/l	12	3.5	5
1,3-Dichlorobenzene	ND		ug/l	12	3.5	5
1,4-Dichlorobenzene	ND		ug/l	12	3.5	5
Methyl tert butyl ether	ND		ug/l	12	3.5	5
p/m-Xylene	ND		ug/l	12	3.5	5
o-Xylene	5.9	J	ug/l	12	3.5	5
Xylenes, Total	5.9	J	ug/l	12	3.5	5
cis-1,2-Dichloroethene	640		ug/l	12	3.5	5
1,2-Dichloroethene, Total	650	J	ug/l	12	3.5	5
Dibromomethane	ND		ug/l	25	5.0	5
1,2,3-Trichloropropane	ND		ug/l	12	3.5	5
Acrylonitrile	ND		ug/l	25	7.5	5
Styrene	ND		ug/l	12	3.5	5
Dichlorodifluoromethane	ND		ug/l	25	5.0	5
Acetone	22	J	ug/l	25	7.3	5
Carbon disulfide	ND		ug/l	25	5.0	5
2-Butanone	14	J	ug/l	25	9.7	5
Vinyl acetate	ND		ug/l	25	5.0	5
4-Methyl-2-pentanone	ND		ug/l	25	5.0	5
2-Hexanone	ND		ug/l	25	5.0	5
Bromochloromethane	ND		ug/l	12	3.5	5
2,2-Dichloropropane	ND		ug/l	12	3.5	5
1,2-Dibromoethane	ND		ug/l	10	3.2	5
1,3-Dichloropropane	ND		ug/l	12	3.5	5
1,1,1,2-Tetrachloroethane	ND		ug/l	12	3.5	5
Bromobenzene	ND		ug/l	12	3.5	5
n-Butylbenzene	ND		ug/l	12	3.5	5
sec-Butylbenzene	ND		ug/l	12	3.5	5
tert-Butylbenzene	ND		ug/l	12	3.5	5
o-Chlorotoluene	ND		ug/l	12	3.5	5
p-Chlorotoluene	ND		ug/l	12	3.5	5
1,2-Dibromo-3-chloropropane	ND		ug/l	12	3.5	5
Hexachlorobutadiene	ND		ug/l	12	3.5	5
Isopropylbenzene	ND		ug/l	12	3.5	5
p-Isopropyltoluene	ND		ug/l	12	3.5	5
Naphthalene	ND		ug/l	12	3.5	5

Project Name: FESL
Project Number: 20029

Lab Number: L2044697
Report Date: 10/29/20

SAMPLE RESULTS

Lab ID: L2044697-12 D
 Client ID: TAGRET LO D1
 Sample Location: ROCHESTER, NY

Date Collected: 10/15/20 14:10
 Date Received: 10/16/20
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
n-Propylbenzene	ND		ug/l	12	3.5	5
1,2,3-Trichlorobenzene	ND		ug/l	12	3.5	5
1,2,4-Trichlorobenzene	ND		ug/l	12	3.5	5
1,3,5-Trimethylbenzene	ND		ug/l	12	3.5	5
1,2,4-Trimethylbenzene	ND		ug/l	12	3.5	5
1,4-Dioxane	ND		ug/l	1200	300	5
Freon-113	89		ug/l	12	3.5	5
p-Diethylbenzene	ND		ug/l	10	3.5	5
p-Ethyltoluene	ND		ug/l	10	3.5	5
1,2,4,5-Tetramethylbenzene	ND		ug/l	10	2.7	5
Ethyl ether	10	J	ug/l	12	3.5	5
trans-1,4-Dichloro-2-butene	ND		ug/l	12	3.5	5

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	96		70-130
Toluene-d8	98		70-130
4-Bromofluorobenzene	102		70-130
Dibromofluoromethane	99		70-130

Project Name: FESL
Project Number: 20029

Lab Number: L2044697
Report Date: 10/29/20

SAMPLE RESULTS

Lab ID: L2044697-13 D
 Client ID: TAGRET HI D1
 Sample Location: ROCHESTER, NY

Date Collected: 10/15/20 14:15
 Date Received: 10/16/20
 Field Prep: Not Specified

Sample Depth:

Matrix: Water
 Analytical Method: 1,8260C
 Analytical Date: 10/27/20 09:18
 Analyst: PD

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methylene chloride	ND		ug/l	12	3.5	5
1,1-Dichloroethane	620		ug/l	12	3.5	5
Chloroform	ND		ug/l	12	3.5	5
Carbon tetrachloride	ND		ug/l	2.5	0.67	5
1,2-Dichloropropane	ND		ug/l	5.0	0.68	5
Dibromochloromethane	ND		ug/l	2.5	0.74	5
1,1,2-Trichloroethane	ND		ug/l	7.5	2.5	5
Tetrachloroethene	100		ug/l	2.5	0.90	5
Chlorobenzene	ND		ug/l	12	3.5	5
Trichlorofluoromethane	ND		ug/l	12	3.5	5
1,2-Dichloroethane	ND		ug/l	2.5	0.66	5
1,1,1-Trichloroethane	85		ug/l	12	3.5	5
Bromodichloromethane	ND		ug/l	2.5	0.96	5
trans-1,3-Dichloropropene	ND		ug/l	2.5	0.82	5
cis-1,3-Dichloropropene	ND		ug/l	2.5	0.72	5
1,3-Dichloropropene, Total	ND		ug/l	2.5	0.72	5
1,1-Dichloropropene	ND		ug/l	12	3.5	5
Bromoform	ND		ug/l	10	3.2	5
1,1,2,2-Tetrachloroethane	ND		ug/l	2.5	0.84	5
Benzene	7.2		ug/l	2.5	0.80	5
Toluene	22		ug/l	12	3.5	5
Ethylbenzene	ND		ug/l	12	3.5	5
Chloromethane	ND		ug/l	12	3.5	5
Bromomethane	ND		ug/l	12	3.5	5
Vinyl chloride	340		ug/l	5.0	0.36	5
Chloroethane	170		ug/l	12	3.5	5
1,1-Dichloroethene	6.3		ug/l	2.5	0.84	5
trans-1,2-Dichloroethene	5.9	J	ug/l	12	3.5	5

Project Name: FESL
Project Number: 20029

Lab Number: L2044697
Report Date: 10/29/20

SAMPLE RESULTS

Lab ID: L2044697-13 D
 Client ID: TAGRET HI D1
 Sample Location: ROCHESTER, NY

Date Collected: 10/15/20 14:15
 Date Received: 10/16/20
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Trichloroethene	18		ug/l	2.5	0.88	5
1,2-Dichlorobenzene	ND		ug/l	12	3.5	5
1,3-Dichlorobenzene	ND		ug/l	12	3.5	5
1,4-Dichlorobenzene	ND		ug/l	12	3.5	5
Methyl tert butyl ether	ND		ug/l	12	3.5	5
p/m-Xylene	ND		ug/l	12	3.5	5
o-Xylene	5.0	J	ug/l	12	3.5	5
Xylenes, Total	5.0	J	ug/l	12	3.5	5
cis-1,2-Dichloroethene	580		ug/l	12	3.5	5
1,2-Dichloroethene, Total	590	J	ug/l	12	3.5	5
Dibromomethane	ND		ug/l	25	5.0	5
1,2,3-Trichloropropane	ND		ug/l	12	3.5	5
Acrylonitrile	ND		ug/l	25	7.5	5
Styrene	ND		ug/l	12	3.5	5
Dichlorodifluoromethane	ND		ug/l	25	5.0	5
Acetone	29		ug/l	25	7.3	5
Carbon disulfide	ND		ug/l	25	5.0	5
2-Butanone	15	J	ug/l	25	9.7	5
Vinyl acetate	ND		ug/l	25	5.0	5
4-Methyl-2-pentanone	ND		ug/l	25	5.0	5
2-Hexanone	ND		ug/l	25	5.0	5
Bromochloromethane	ND		ug/l	12	3.5	5
2,2-Dichloropropane	ND		ug/l	12	3.5	5
1,2-Dibromoethane	ND		ug/l	10	3.2	5
1,3-Dichloropropane	ND		ug/l	12	3.5	5
1,1,1,2-Tetrachloroethane	ND		ug/l	12	3.5	5
Bromobenzene	ND		ug/l	12	3.5	5
n-Butylbenzene	ND		ug/l	12	3.5	5
sec-Butylbenzene	ND		ug/l	12	3.5	5
tert-Butylbenzene	ND		ug/l	12	3.5	5
o-Chlorotoluene	ND		ug/l	12	3.5	5
p-Chlorotoluene	ND		ug/l	12	3.5	5
1,2-Dibromo-3-chloropropane	ND		ug/l	12	3.5	5
Hexachlorobutadiene	ND		ug/l	12	3.5	5
Isopropylbenzene	ND		ug/l	12	3.5	5
p-Isopropyltoluene	ND		ug/l	12	3.5	5
Naphthalene	ND		ug/l	12	3.5	5

Project Name: FESL
Project Number: 20029

Lab Number: L2044697
Report Date: 10/29/20

SAMPLE RESULTS

Lab ID: L2044697-13 D
 Client ID: TAGRET HI D1
 Sample Location: ROCHESTER, NY

Date Collected: 10/15/20 14:15
 Date Received: 10/16/20
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
n-Propylbenzene	ND		ug/l	12	3.5	5
1,2,3-Trichlorobenzene	ND		ug/l	12	3.5	5
1,2,4-Trichlorobenzene	ND		ug/l	12	3.5	5
1,3,5-Trimethylbenzene	ND		ug/l	12	3.5	5
1,2,4-Trimethylbenzene	ND		ug/l	12	3.5	5
1,4-Dioxane	ND		ug/l	1200	300	5
Freon-113	79		ug/l	12	3.5	5
p-Diethylbenzene	ND		ug/l	10	3.5	5
p-Ethyltoluene	ND		ug/l	10	3.5	5
1,2,4,5-Tetramethylbenzene	ND		ug/l	10	2.7	5
Ethyl ether	8.9	J	ug/l	12	3.5	5
trans-1,4-Dichloro-2-butene	ND		ug/l	12	3.5	5

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	105		70-130
Toluene-d8	99		70-130
4-Bromofluorobenzene	103		70-130
Dibromofluoromethane	100		70-130

Project Name: FESL
Project Number: 20029

Lab Number: L2044697
Report Date: 10/29/20

SAMPLE RESULTS

Lab ID: L2044697-14 D
 Client ID: EZVI LO D1
 Sample Location: ROCHESTER, NY

Date Collected: 10/15/20 14:20
 Date Received: 10/16/20
 Field Prep: Not Specified

Sample Depth:

Matrix: Water
 Analytical Method: 1,8260C
 Analytical Date: 10/27/20 02:48
 Analyst: NLK

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methylene chloride	ND		ug/l	250	70.	100
1,1-Dichloroethane	600		ug/l	250	70.	100
Chloroform	ND		ug/l	250	70.	100
Carbon tetrachloride	ND		ug/l	50	13.	100
1,2-Dichloropropane	ND		ug/l	100	14.	100
Dibromochloromethane	ND		ug/l	50	15.	100
1,1,2-Trichloroethane	ND		ug/l	150	50.	100
Tetrachloroethene	220		ug/l	50	18.	100
Chlorobenzene	ND		ug/l	250	70.	100
Trichlorofluoromethane	ND		ug/l	250	70.	100
1,2-Dichloroethane	ND		ug/l	50	13.	100
1,1,1-Trichloroethane	180	J	ug/l	250	70.	100
Bromodichloromethane	ND		ug/l	50	19.	100
trans-1,3-Dichloropropene	ND		ug/l	50	16.	100
cis-1,3-Dichloropropene	ND		ug/l	50	14.	100
1,3-Dichloropropene, Total	ND		ug/l	50	14.	100
1,1-Dichloropropene	ND		ug/l	250	70.	100
Bromoform	ND		ug/l	200	65.	100
1,1,2,2-Tetrachloroethane	ND		ug/l	50	17.	100
Benzene	ND		ug/l	50	16.	100
Toluene	ND		ug/l	250	70.	100
Ethylbenzene	ND		ug/l	250	70.	100
Chloromethane	ND		ug/l	250	70.	100
Bromomethane	ND		ug/l	250	70.	100
Vinyl chloride	470		ug/l	100	7.1	100
Chloroethane	180	J	ug/l	250	70.	100
1,1-Dichloroethene	ND		ug/l	50	17.	100
trans-1,2-Dichloroethene	ND		ug/l	250	70.	100

Project Name: FESL
Project Number: 20029

Lab Number: L2044697
Report Date: 10/29/20

SAMPLE RESULTS

Lab ID: L2044697-14 D
 Client ID: EZVI LO D1
 Sample Location: ROCHESTER, NY

Date Collected: 10/15/20 14:20
 Date Received: 10/16/20
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Trichloroethene	28	J	ug/l	50	18.	100
1,2-Dichlorobenzene	ND		ug/l	250	70.	100
1,3-Dichlorobenzene	ND		ug/l	250	70.	100
1,4-Dichlorobenzene	ND		ug/l	250	70.	100
Methyl tert butyl ether	ND		ug/l	250	70.	100
p/m-Xylene	ND		ug/l	250	70.	100
o-Xylene	ND		ug/l	250	70.	100
Xylenes, Total	ND		ug/l	250	70.	100
cis-1,2-Dichloroethene	630		ug/l	250	70.	100
1,2-Dichloroethene, Total	630		ug/l	250	70.	100
Dibromomethane	ND		ug/l	500	100	100
1,2,3-Trichloropropane	ND		ug/l	250	70.	100
Acrylonitrile	ND		ug/l	500	150	100
Styrene	ND		ug/l	250	70.	100
Dichlorodifluoromethane	ND		ug/l	500	100	100
Acetone	ND		ug/l	500	150	100
Carbon disulfide	ND		ug/l	500	100	100
2-Butanone	340	J	ug/l	500	190	100
Vinyl acetate	ND		ug/l	500	100	100
4-Methyl-2-pentanone	ND		ug/l	500	100	100
2-Hexanone	ND		ug/l	500	100	100
Bromochloromethane	ND		ug/l	250	70.	100
2,2-Dichloropropane	ND		ug/l	250	70.	100
1,2-Dibromoethane	ND		ug/l	200	65.	100
1,3-Dichloropropane	ND		ug/l	250	70.	100
1,1,1,2-Tetrachloroethane	ND		ug/l	250	70.	100
Bromobenzene	ND		ug/l	250	70.	100
n-Butylbenzene	ND		ug/l	250	70.	100
sec-Butylbenzene	ND		ug/l	250	70.	100
tert-Butylbenzene	ND		ug/l	250	70.	100
o-Chlorotoluene	ND		ug/l	250	70.	100
p-Chlorotoluene	ND		ug/l	250	70.	100
1,2-Dibromo-3-chloropropane	ND		ug/l	250	70.	100
Hexachlorobutadiene	ND		ug/l	250	70.	100
Isopropylbenzene	ND		ug/l	250	70.	100
p-Isopropyltoluene	ND		ug/l	250	70.	100
Naphthalene	ND		ug/l	250	70.	100

Project Name: FESL
Project Number: 20029

Lab Number: L2044697
Report Date: 10/29/20

SAMPLE RESULTS

Lab ID: L2044697-14 D
 Client ID: EZVI LO D1
 Sample Location: ROCHESTER, NY

Date Collected: 10/15/20 14:20
 Date Received: 10/16/20
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
n-Propylbenzene	ND		ug/l	250	70.	100
1,2,3-Trichlorobenzene	ND		ug/l	250	70.	100
1,2,4-Trichlorobenzene	ND		ug/l	250	70.	100
1,3,5-Trimethylbenzene	ND		ug/l	250	70.	100
1,2,4-Trimethylbenzene	ND		ug/l	250	70.	100
1,4-Dioxane	ND		ug/l	25000	6100	100
Freon-113	290		ug/l	250	70.	100
p-Diethylbenzene	ND		ug/l	200	70.	100
p-Ethyltoluene	ND		ug/l	200	70.	100
1,2,4,5-Tetramethylbenzene	ND		ug/l	200	54.	100
Ethyl ether	ND		ug/l	250	70.	100
trans-1,4-Dichloro-2-butene	ND		ug/l	250	70.	100

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	97		70-130
Toluene-d8	99		70-130
4-Bromofluorobenzene	105		70-130
Dibromofluoromethane	96		70-130

Project Name: FESL
Project Number: 20029

Lab Number: L2044697
Report Date: 10/29/20

SAMPLE RESULTS

Lab ID: L2044697-15 D
 Client ID: EZVI HI D1
 Sample Location: ROCHESTER, NY

Date Collected: 10/15/20 14:25
 Date Received: 10/16/20
 Field Prep: Not Specified

Sample Depth:

Matrix: Water
 Analytical Method: 1,8260C
 Analytical Date: 10/27/20 03:11
 Analyst: NLK

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methylene chloride	ND		ug/l	100	28.	40
1,1-Dichloroethane	290		ug/l	100	28.	40
Chloroform	ND		ug/l	100	28.	40
Carbon tetrachloride	ND		ug/l	20	5.4	40
1,2-Dichloropropane	ND		ug/l	40	5.5	40
Dibromochloromethane	ND		ug/l	20	6.0	40
1,1,2-Trichloroethane	ND		ug/l	60	20.	40
Tetrachloroethene	36		ug/l	20	7.2	40
Chlorobenzene	ND		ug/l	100	28.	40
Trichlorofluoromethane	ND		ug/l	100	28.	40
1,2-Dichloroethane	ND		ug/l	20	5.3	40
1,1,1-Trichloroethane	36	J	ug/l	100	28.	40
Bromodichloromethane	ND		ug/l	20	7.7	40
trans-1,3-Dichloropropene	ND		ug/l	20	6.6	40
cis-1,3-Dichloropropene	ND		ug/l	20	5.8	40
1,3-Dichloropropene, Total	ND		ug/l	20	5.8	40
1,1-Dichloropropene	ND		ug/l	100	28.	40
Bromoform	ND		ug/l	80	26.	40
1,1,1,2-Tetrachloroethane	ND		ug/l	20	6.7	40
Benzene	ND		ug/l	20	6.4	40
Toluene	ND		ug/l	100	28.	40
Ethylbenzene	ND		ug/l	100	28.	40
Chloromethane	ND		ug/l	100	28.	40
Bromomethane	ND		ug/l	100	28.	40
Vinyl chloride	310		ug/l	40	2.8	40
Chloroethane	130		ug/l	100	28.	40
1,1-Dichloroethene	ND		ug/l	20	6.8	40
trans-1,2-Dichloroethene	ND		ug/l	100	28.	40

Project Name: FESL
Project Number: 20029

Lab Number: L2044697
Report Date: 10/29/20

SAMPLE RESULTS

Lab ID: L2044697-15 D
 Client ID: EZVI HI D1
 Sample Location: ROCHESTER, NY

Date Collected: 10/15/20 14:25
 Date Received: 10/16/20
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Trichloroethene	7.6	J	ug/l	20	7.0	40
1,2-Dichlorobenzene	ND		ug/l	100	28.	40
1,3-Dichlorobenzene	ND		ug/l	100	28.	40
1,4-Dichlorobenzene	ND		ug/l	100	28.	40
Methyl tert butyl ether	ND		ug/l	100	28.	40
p/m-Xylene	ND		ug/l	100	28.	40
o-Xylene	ND		ug/l	100	28.	40
Xylenes, Total	ND		ug/l	100	28.	40
cis-1,2-Dichloroethene	300		ug/l	100	28.	40
1,2-Dichloroethene, Total	300		ug/l	100	28.	40
Dibromomethane	ND		ug/l	200	40.	40
1,2,3-Trichloropropane	ND		ug/l	100	28.	40
Acrylonitrile	ND		ug/l	200	60.	40
Styrene	ND		ug/l	100	28.	40
Dichlorodifluoromethane	ND		ug/l	200	40.	40
Acetone	110	J	ug/l	200	58.	40
Carbon disulfide	ND		ug/l	200	40.	40
2-Butanone	1400		ug/l	200	78.	40
Vinyl acetate	ND		ug/l	200	40.	40
4-Methyl-2-pentanone	ND		ug/l	200	40.	40
2-Hexanone	ND		ug/l	200	40.	40
Bromochloromethane	ND		ug/l	100	28.	40
2,2-Dichloropropane	ND		ug/l	100	28.	40
1,2-Dibromoethane	ND		ug/l	80	26.	40
1,3-Dichloropropane	ND		ug/l	100	28.	40
1,1,1,2-Tetrachloroethane	ND		ug/l	100	28.	40
Bromobenzene	ND		ug/l	100	28.	40
n-Butylbenzene	ND		ug/l	100	28.	40
sec-Butylbenzene	ND		ug/l	100	28.	40
tert-Butylbenzene	ND		ug/l	100	28.	40
o-Chlorotoluene	ND		ug/l	100	28.	40
p-Chlorotoluene	ND		ug/l	100	28.	40
1,2-Dibromo-3-chloropropane	ND		ug/l	100	28.	40
Hexachlorobutadiene	ND		ug/l	100	28.	40
Isopropylbenzene	ND		ug/l	100	28.	40
p-Isopropyltoluene	ND		ug/l	100	28.	40
Naphthalene	ND		ug/l	100	28.	40

Project Name: FESL
Project Number: 20029

Lab Number: L2044697
Report Date: 10/29/20

SAMPLE RESULTS

Lab ID: L2044697-15 D
 Client ID: EZVI HI D1
 Sample Location: ROCHESTER, NY

Date Collected: 10/15/20 14:25
 Date Received: 10/16/20
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
n-Propylbenzene	ND		ug/l	100	28.	40
1,2,3-Trichlorobenzene	ND		ug/l	100	28.	40
1,2,4-Trichlorobenzene	ND		ug/l	100	28.	40
1,3,5-Trimethylbenzene	ND		ug/l	100	28.	40
1,2,4-Trimethylbenzene	ND		ug/l	100	28.	40
1,4-Dioxane	ND		ug/l	10000	2400	40
Freon-113	63	J	ug/l	100	28.	40
p-Diethylbenzene	ND		ug/l	80	28.	40
p-Ethyltoluene	ND		ug/l	80	28.	40
1,2,4,5-Tetramethylbenzene	ND		ug/l	80	22.	40
Ethyl ether	ND		ug/l	100	28.	40
trans-1,4-Dichloro-2-butene	ND		ug/l	100	28.	40

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	98		70-130
Toluene-d8	100		70-130
4-Bromofluorobenzene	108		70-130
Dibromofluoromethane	95		70-130

Project Name: FESL
Project Number: 20029

Lab Number: L2044697
Report Date: 10/29/20

SAMPLE RESULTS

Lab ID: L2044697-16 D
 Client ID: CTRL D1
 Sample Location: ROCHESTER, NY

Date Collected: 10/15/20 14:30
 Date Received: 10/16/20
 Field Prep: Not Specified

Sample Depth:

Matrix: Water
 Analytical Method: 1,8260C
 Analytical Date: 10/27/20 01:38
 Analyst: NLK

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methylene chloride	ND		ug/l	12	3.5	5
1,1-Dichloroethane	660		ug/l	12	3.5	5
Chloroform	ND		ug/l	12	3.5	5
Carbon tetrachloride	ND		ug/l	2.5	0.67	5
1,2-Dichloropropane	ND		ug/l	5.0	0.68	5
Dibromochloromethane	ND		ug/l	2.5	0.74	5
1,1,2-Trichloroethane	ND		ug/l	7.5	2.5	5
Tetrachloroethene	140		ug/l	2.5	0.90	5
Chlorobenzene	ND		ug/l	12	3.5	5
Trichlorofluoromethane	ND		ug/l	12	3.5	5
1,2-Dichloroethane	ND		ug/l	2.5	0.66	5
1,1,1-Trichloroethane	270		ug/l	12	3.5	5
Bromodichloromethane	ND		ug/l	2.5	0.96	5
trans-1,3-Dichloropropene	ND		ug/l	2.5	0.82	5
cis-1,3-Dichloropropene	ND		ug/l	2.5	0.72	5
1,3-Dichloropropene, Total	ND		ug/l	2.5	0.72	5
1,1-Dichloropropene	ND		ug/l	12	3.5	5
Bromoform	ND		ug/l	10	3.2	5
1,1,1,2-Tetrachloroethane	ND		ug/l	2.5	0.84	5
Benzene	6.1		ug/l	2.5	0.80	5
Toluene	22		ug/l	12	3.5	5
Ethylbenzene	ND		ug/l	12	3.5	5
Chloromethane	ND		ug/l	12	3.5	5
Bromomethane	ND		ug/l	12	3.5	5
Vinyl chloride	490		ug/l	5.0	0.36	5
Chloroethane	220		ug/l	12	3.5	5
1,1-Dichloroethene	7.8		ug/l	2.5	0.84	5
trans-1,2-Dichloroethene	7.7	J	ug/l	12	3.5	5

Project Name: FESL
Project Number: 20029

Lab Number: L2044697
Report Date: 10/29/20

SAMPLE RESULTS

Lab ID: L2044697-16 D
 Client ID: CTRL D1
 Sample Location: ROCHESTER, NY

Date Collected: 10/15/20 14:30
 Date Received: 10/16/20
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Trichloroethene	23		ug/l	2.5	0.88	5
1,2-Dichlorobenzene	ND		ug/l	12	3.5	5
1,3-Dichlorobenzene	ND		ug/l	12	3.5	5
1,4-Dichlorobenzene	ND		ug/l	12	3.5	5
Methyl tert butyl ether	ND		ug/l	12	3.5	5
p/m-Xylene	ND		ug/l	12	3.5	5
o-Xylene	5.7	J	ug/l	12	3.5	5
Xylenes, Total	5.7	J	ug/l	12	3.5	5
cis-1,2-Dichloroethene	690		ug/l	12	3.5	5
1,2-Dichloroethene, Total	700	J	ug/l	12	3.5	5
Dibromomethane	ND		ug/l	25	5.0	5
1,2,3-Trichloropropane	ND		ug/l	12	3.5	5
Acrylonitrile	ND		ug/l	25	7.5	5
Styrene	ND		ug/l	12	3.5	5
Dichlorodifluoromethane	ND		ug/l	25	5.0	5
Acetone	16	J	ug/l	25	7.3	5
Carbon disulfide	ND		ug/l	25	5.0	5
2-Butanone	11	J	ug/l	25	9.7	5
Vinyl acetate	ND		ug/l	25	5.0	5
4-Methyl-2-pentanone	ND		ug/l	25	5.0	5
2-Hexanone	ND		ug/l	25	5.0	5
Bromochloromethane	ND		ug/l	12	3.5	5
2,2-Dichloropropane	ND		ug/l	12	3.5	5
1,2-Dibromoethane	ND		ug/l	10	3.2	5
1,3-Dichloropropane	ND		ug/l	12	3.5	5
1,1,1,2-Tetrachloroethane	ND		ug/l	12	3.5	5
Bromobenzene	ND		ug/l	12	3.5	5
n-Butylbenzene	ND		ug/l	12	3.5	5
sec-Butylbenzene	ND		ug/l	12	3.5	5
tert-Butylbenzene	ND		ug/l	12	3.5	5
o-Chlorotoluene	ND		ug/l	12	3.5	5
p-Chlorotoluene	ND		ug/l	12	3.5	5
1,2-Dibromo-3-chloropropane	ND		ug/l	12	3.5	5
Hexachlorobutadiene	ND		ug/l	12	3.5	5
Isopropylbenzene	ND		ug/l	12	3.5	5
p-Isopropyltoluene	ND		ug/l	12	3.5	5
Naphthalene	ND		ug/l	12	3.5	5

Project Name: FESL
Project Number: 20029

Lab Number: L2044697
Report Date: 10/29/20

SAMPLE RESULTS

Lab ID: L2044697-16 D
 Client ID: CTRL D1
 Sample Location: ROCHESTER, NY

Date Collected: 10/15/20 14:30
 Date Received: 10/16/20
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
n-Propylbenzene	ND		ug/l	12	3.5	5
1,2,3-Trichlorobenzene	ND		ug/l	12	3.5	5
1,2,4-Trichlorobenzene	ND		ug/l	12	3.5	5
1,3,5-Trimethylbenzene	ND		ug/l	12	3.5	5
1,2,4-Trimethylbenzene	ND		ug/l	12	3.5	5
1,4-Dioxane	ND		ug/l	1200	300	5
Freon-113	110		ug/l	12	3.5	5
p-Diethylbenzene	ND		ug/l	10	3.5	5
p-Ethyltoluene	ND		ug/l	10	3.5	5
1,2,4,5-Tetramethylbenzene	ND		ug/l	10	2.7	5
Ethyl ether	11	J	ug/l	12	3.5	5
trans-1,4-Dichloro-2-butene	ND		ug/l	12	3.5	5

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	96		70-130
Toluene-d8	97		70-130
4-Bromofluorobenzene	101		70-130
Dibromofluoromethane	100		70-130

Project Name: FESL
Project Number: 20029

Lab Number: L2044697
Report Date: 10/29/20

SAMPLE RESULTS

Lab ID: L2044697-17 D
 Client ID: CTRL D1 DUP
 Sample Location: ROCHESTER, NY

Date Collected: 10/15/20 14:35
 Date Received: 10/16/20
 Field Prep: Not Specified

Sample Depth:

Matrix: Water
 Analytical Method: 1,8260C
 Analytical Date: 10/28/20 02:15
 Analyst: NLK

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methylene chloride	ND		ug/l	12	3.5	5
1,1-Dichloroethane	600		ug/l	12	3.5	5
Chloroform	ND		ug/l	12	3.5	5
Carbon tetrachloride	ND		ug/l	2.5	0.67	5
1,2-Dichloropropane	ND		ug/l	5.0	0.68	5
Dibromochloromethane	ND		ug/l	2.5	0.74	5
1,1,2-Trichloroethane	ND		ug/l	7.5	2.5	5
Tetrachloroethene	130		ug/l	2.5	0.90	5
Chlorobenzene	ND		ug/l	12	3.5	5
Trichlorofluoromethane	ND		ug/l	12	3.5	5
1,2-Dichloroethane	ND		ug/l	2.5	0.66	5
1,1,1-Trichloroethane	230		ug/l	12	3.5	5
Bromodichloromethane	ND		ug/l	2.5	0.96	5
trans-1,3-Dichloropropene	ND		ug/l	2.5	0.82	5
cis-1,3-Dichloropropene	ND		ug/l	2.5	0.72	5
1,3-Dichloropropene, Total	ND		ug/l	2.5	0.72	5
1,1-Dichloropropene	ND		ug/l	12	3.5	5
Bromoform	ND		ug/l	10	3.2	5
1,1,1,2-Tetrachloroethane	ND		ug/l	2.5	0.84	5
Benzene	6.0		ug/l	2.5	0.80	5
Toluene	22		ug/l	12	3.5	5
Ethylbenzene	ND		ug/l	12	3.5	5
Chloromethane	ND		ug/l	12	3.5	5
Bromomethane	ND		ug/l	12	3.5	5
Vinyl chloride	390		ug/l	5.0	0.36	5
Chloroethane	180		ug/l	12	3.5	5
1,1-Dichloroethene	6.6		ug/l	2.5	0.84	5
trans-1,2-Dichloroethene	7.2	J	ug/l	12	3.5	5

Project Name: FESL
Project Number: 20029

Lab Number: L2044697
Report Date: 10/29/20

SAMPLE RESULTS

Lab ID: L2044697-17 D
 Client ID: CTRL D1 DUP
 Sample Location: ROCHESTER, NY

Date Collected: 10/15/20 14:35
 Date Received: 10/16/20
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Trichloroethene	20		ug/l	2.5	0.88	5
1,2-Dichlorobenzene	ND		ug/l	12	3.5	5
1,3-Dichlorobenzene	ND		ug/l	12	3.5	5
1,4-Dichlorobenzene	ND		ug/l	12	3.5	5
Methyl tert butyl ether	ND		ug/l	12	3.5	5
p/m-Xylene	ND		ug/l	12	3.5	5
o-Xylene	5.8	J	ug/l	12	3.5	5
Xylenes, Total	5.8	J	ug/l	12	3.5	5
cis-1,2-Dichloroethene	640		ug/l	12	3.5	5
1,2-Dichloroethene, Total	650	J	ug/l	12	3.5	5
Dibromomethane	ND		ug/l	25	5.0	5
1,2,3-Trichloropropane	ND		ug/l	12	3.5	5
Acrylonitrile	ND		ug/l	25	7.5	5
Styrene	ND		ug/l	12	3.5	5
Dichlorodifluoromethane	ND		ug/l	25	5.0	5
Acetone	16	J	ug/l	25	7.3	5
Carbon disulfide	ND		ug/l	25	5.0	5
2-Butanone	ND		ug/l	25	9.7	5
Vinyl acetate	ND		ug/l	25	5.0	5
4-Methyl-2-pentanone	ND		ug/l	25	5.0	5
2-Hexanone	ND		ug/l	25	5.0	5
Bromochloromethane	ND		ug/l	12	3.5	5
2,2-Dichloropropane	ND		ug/l	12	3.5	5
1,2-Dibromoethane	ND		ug/l	10	3.2	5
1,3-Dichloropropane	ND		ug/l	12	3.5	5
1,1,1,2-Tetrachloroethane	ND		ug/l	12	3.5	5
Bromobenzene	ND		ug/l	12	3.5	5
n-Butylbenzene	ND		ug/l	12	3.5	5
sec-Butylbenzene	ND		ug/l	12	3.5	5
tert-Butylbenzene	ND		ug/l	12	3.5	5
o-Chlorotoluene	ND		ug/l	12	3.5	5
p-Chlorotoluene	ND		ug/l	12	3.5	5
1,2-Dibromo-3-chloropropane	ND		ug/l	12	3.5	5
Hexachlorobutadiene	ND		ug/l	12	3.5	5
Isopropylbenzene	ND		ug/l	12	3.5	5
p-Isopropyltoluene	ND		ug/l	12	3.5	5
Naphthalene	ND		ug/l	12	3.5	5

Project Name: FESL
Project Number: 20029

Lab Number: L2044697
Report Date: 10/29/20

SAMPLE RESULTS

Lab ID: L2044697-17 D
 Client ID: CTRL D1 DUP
 Sample Location: ROCHESTER, NY

Date Collected: 10/15/20 14:35
 Date Received: 10/16/20
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
n-Propylbenzene	ND		ug/l	12	3.5	5
1,2,3-Trichlorobenzene	ND		ug/l	12	3.5	5
1,2,4-Trichlorobenzene	ND		ug/l	12	3.5	5
1,3,5-Trimethylbenzene	ND		ug/l	12	3.5	5
1,2,4-Trimethylbenzene	ND		ug/l	12	3.5	5
1,4-Dioxane	ND		ug/l	1200	300	5
Freon-113	54		ug/l	12	3.5	5
p-Diethylbenzene	ND		ug/l	10	3.5	5
p-Ethyltoluene	ND		ug/l	10	3.5	5
1,2,4,5-Tetramethylbenzene	ND		ug/l	10	2.7	5
Ethyl ether	11	J	ug/l	12	3.5	5
trans-1,4-Dichloro-2-butene	ND		ug/l	12	3.5	5

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	94		70-130
Toluene-d8	100		70-130
4-Bromofluorobenzene	101		70-130
Dibromofluoromethane	98		70-130

Project Name: FESL
Project Number: 20029

Lab Number: L2044697
Report Date: 10/29/20

SAMPLE RESULTS

Lab ID: L2044697-18 D
 Client ID: FLOW LO D2
 Sample Location: ROCHESTER, NY

Date Collected: 10/16/20 12:30
 Date Received: 10/16/20
 Field Prep: Not Specified

Sample Depth:

Matrix: Water
 Analytical Method: 1,8260C
 Analytical Date: 10/19/20 22:37
 Analyst: NLK

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methylene chloride	ND		ug/l	12	3.5	5
1,1-Dichloroethane	670		ug/l	12	3.5	5
Chloroform	ND		ug/l	12	3.5	5
Carbon tetrachloride	ND		ug/l	2.5	0.67	5
1,2-Dichloropropane	ND		ug/l	5.0	0.68	5
Dibromochloromethane	ND		ug/l	2.5	0.74	5
1,1,2-Trichloroethane	ND		ug/l	7.5	2.5	5
Tetrachloroethene	140		ug/l	2.5	0.90	5
Chlorobenzene	ND		ug/l	12	3.5	5
Trichlorofluoromethane	ND		ug/l	12	3.5	5
1,2-Dichloroethane	ND		ug/l	2.5	0.66	5
1,1,1-Trichloroethane	270		ug/l	12	3.5	5
Bromodichloromethane	ND		ug/l	2.5	0.96	5
trans-1,3-Dichloropropene	ND		ug/l	2.5	0.82	5
cis-1,3-Dichloropropene	ND		ug/l	2.5	0.72	5
1,3-Dichloropropene, Total	ND		ug/l	2.5	0.72	5
1,1-Dichloropropene	ND		ug/l	12	3.5	5
Bromoform	ND		ug/l	10	3.2	5
1,1,2,2-Tetrachloroethane	ND		ug/l	2.5	0.84	5
Benzene	7.0		ug/l	2.5	0.80	5
Toluene	23		ug/l	12	3.5	5
Ethylbenzene	ND		ug/l	12	3.5	5
Chloromethane	ND		ug/l	12	3.5	5
Bromomethane	ND		ug/l	12	3.5	5
Vinyl chloride	410		ug/l	5.0	0.36	5
Chloroethane	200		ug/l	12	3.5	5
1,1-Dichloroethene	7.8		ug/l	2.5	0.84	5
trans-1,2-Dichloroethene	8.8	J	ug/l	12	3.5	5

Project Name: FESL
Project Number: 20029

Lab Number: L2044697
Report Date: 10/29/20

SAMPLE RESULTS

Lab ID: L2044697-18 D
 Client ID: FLOW LO D2
 Sample Location: ROCHESTER, NY

Date Collected: 10/16/20 12:30
 Date Received: 10/16/20
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Trichloroethene	22		ug/l	2.5	0.88	5
1,2-Dichlorobenzene	ND		ug/l	12	3.5	5
1,3-Dichlorobenzene	ND		ug/l	12	3.5	5
1,4-Dichlorobenzene	ND		ug/l	12	3.5	5
Methyl tert butyl ether	ND		ug/l	12	3.5	5
p/m-Xylene	5.3	J	ug/l	12	3.5	5
o-Xylene	6.8	J	ug/l	12	3.5	5
Xylenes, Total	12	J	ug/l	12	3.5	5
cis-1,2-Dichloroethene	690		ug/l	12	3.5	5
1,2-Dichloroethene, Total	700	J	ug/l	12	3.5	5
Dibromomethane	ND		ug/l	25	5.0	5
1,2,3-Trichloropropane	ND		ug/l	12	3.5	5
Acrylonitrile	ND		ug/l	25	7.5	5
Styrene	ND		ug/l	12	3.5	5
Dichlorodifluoromethane	ND		ug/l	25	5.0	5
Acetone	24	J	ug/l	25	7.3	5
Carbon disulfide	ND		ug/l	25	5.0	5
2-Butanone	12	J	ug/l	25	9.7	5
Vinyl acetate	ND		ug/l	25	5.0	5
4-Methyl-2-pentanone	ND		ug/l	25	5.0	5
2-Hexanone	ND		ug/l	25	5.0	5
Bromochloromethane	ND		ug/l	12	3.5	5
2,2-Dichloropropane	ND		ug/l	12	3.5	5
1,2-Dibromoethane	ND		ug/l	10	3.2	5
1,3-Dichloropropane	ND		ug/l	12	3.5	5
1,1,1,2-Tetrachloroethane	ND		ug/l	12	3.5	5
Bromobenzene	ND		ug/l	12	3.5	5
n-Butylbenzene	ND		ug/l	12	3.5	5
sec-Butylbenzene	ND		ug/l	12	3.5	5
tert-Butylbenzene	ND		ug/l	12	3.5	5
o-Chlorotoluene	ND		ug/l	12	3.5	5
p-Chlorotoluene	ND		ug/l	12	3.5	5
1,2-Dibromo-3-chloropropane	ND		ug/l	12	3.5	5
Hexachlorobutadiene	ND		ug/l	12	3.5	5
Isopropylbenzene	ND		ug/l	12	3.5	5
p-Isopropyltoluene	ND		ug/l	12	3.5	5
Naphthalene	ND		ug/l	12	3.5	5

Project Name: FESL
Project Number: 20029

Lab Number: L2044697
Report Date: 10/29/20

SAMPLE RESULTS

Lab ID: L2044697-18 D
 Client ID: FLOW LO D2
 Sample Location: ROCHESTER, NY

Date Collected: 10/16/20 12:30
 Date Received: 10/16/20
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
n-Propylbenzene	ND		ug/l	12	3.5	5
1,2,3-Trichlorobenzene	ND		ug/l	12	3.5	5
1,2,4-Trichlorobenzene	ND		ug/l	12	3.5	5
1,3,5-Trimethylbenzene	ND		ug/l	12	3.5	5
1,2,4-Trimethylbenzene	ND		ug/l	12	3.5	5
1,4-Dioxane	ND		ug/l	1200	300	5
Freon-113	140		ug/l	12	3.5	5
p-Diethylbenzene	ND		ug/l	10	3.5	5
p-Ethyltoluene	ND		ug/l	10	3.5	5
1,2,4,5-Tetramethylbenzene	ND		ug/l	10	2.7	5
Ethyl ether	10	J	ug/l	12	3.5	5
trans-1,4-Dichloro-2-butene	ND		ug/l	12	3.5	5

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	99		70-130
Toluene-d8	100		70-130
4-Bromofluorobenzene	107		70-130
Dibromofluoromethane	100		70-130

Project Name: FESL
Project Number: 20029

Lab Number: L2044697
Report Date: 10/29/20

SAMPLE RESULTS

Lab ID: L2044697-19 D
 Client ID: FLOW HI D2
 Sample Location: ROCHESTER, NY

Date Collected: 10/16/20 12:35
 Date Received: 10/16/20
 Field Prep: Not Specified

Sample Depth:

Matrix: Water
 Analytical Method: 1,8260C
 Analytical Date: 10/19/20 22:59
 Analyst: NLK

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methylene chloride	ND		ug/l	12	3.5	5
1,1-Dichloroethane	550		ug/l	12	3.5	5
Chloroform	ND		ug/l	12	3.5	5
Carbon tetrachloride	ND		ug/l	2.5	0.67	5
1,2-Dichloropropane	ND		ug/l	5.0	0.68	5
Dibromochloromethane	ND		ug/l	2.5	0.74	5
1,1,2-Trichloroethane	ND		ug/l	7.5	2.5	5
Tetrachloroethene	99		ug/l	2.5	0.90	5
Chlorobenzene	ND		ug/l	12	3.5	5
Trichlorofluoromethane	ND		ug/l	12	3.5	5
1,2-Dichloroethane	ND		ug/l	2.5	0.66	5
1,1,1-Trichloroethane	160		ug/l	12	3.5	5
Bromodichloromethane	ND		ug/l	2.5	0.96	5
trans-1,3-Dichloropropene	ND		ug/l	2.5	0.82	5
cis-1,3-Dichloropropene	ND		ug/l	2.5	0.72	5
1,3-Dichloropropene, Total	ND		ug/l	2.5	0.72	5
1,1-Dichloropropene	ND		ug/l	12	3.5	5
Bromoform	ND		ug/l	10	3.2	5
1,1,2,2-Tetrachloroethane	ND		ug/l	2.5	0.84	5
Benzene	5.3		ug/l	2.5	0.80	5
Toluene	18		ug/l	12	3.5	5
Ethylbenzene	ND		ug/l	12	3.5	5
Chloromethane	ND		ug/l	12	3.5	5
Bromomethane	ND		ug/l	12	3.5	5
Vinyl chloride	320		ug/l	5.0	0.36	5
Chloroethane	150		ug/l	12	3.5	5
1,1-Dichloroethene	5.4		ug/l	2.5	0.84	5
trans-1,2-Dichloroethene	5.4	J	ug/l	12	3.5	5

Project Name: FESL
Project Number: 20029

Lab Number: L2044697
Report Date: 10/29/20

SAMPLE RESULTS

Lab ID: L2044697-19 D
 Client ID: FLOW HI D2
 Sample Location: ROCHESTER, NY

Date Collected: 10/16/20 12:35
 Date Received: 10/16/20
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Trichloroethene	16		ug/l	2.5	0.88	5
1,2-Dichlorobenzene	ND		ug/l	12	3.5	5
1,3-Dichlorobenzene	ND		ug/l	12	3.5	5
1,4-Dichlorobenzene	ND		ug/l	12	3.5	5
Methyl tert butyl ether	ND		ug/l	12	3.5	5
p/m-Xylene	ND		ug/l	12	3.5	5
o-Xylene	4.6	J	ug/l	12	3.5	5
Xylenes, Total	4.6	J	ug/l	12	3.5	5
cis-1,2-Dichloroethene	540		ug/l	12	3.5	5
1,2-Dichloroethene, Total	550	J	ug/l	12	3.5	5
Dibromomethane	ND		ug/l	25	5.0	5
1,2,3-Trichloropropane	ND		ug/l	12	3.5	5
Acrylonitrile	ND		ug/l	25	7.5	5
Styrene	ND		ug/l	12	3.5	5
Dichlorodifluoromethane	ND		ug/l	25	5.0	5
Acetone	25		ug/l	25	7.3	5
Carbon disulfide	ND		ug/l	25	5.0	5
2-Butanone	12	J	ug/l	25	9.7	5
Vinyl acetate	ND		ug/l	25	5.0	5
4-Methyl-2-pentanone	ND		ug/l	25	5.0	5
2-Hexanone	ND		ug/l	25	5.0	5
Bromochloromethane	ND		ug/l	12	3.5	5
2,2-Dichloropropane	ND		ug/l	12	3.5	5
1,2-Dibromoethane	ND		ug/l	10	3.2	5
1,3-Dichloropropane	ND		ug/l	12	3.5	5
1,1,1,2-Tetrachloroethane	ND		ug/l	12	3.5	5
Bromobenzene	ND		ug/l	12	3.5	5
n-Butylbenzene	ND		ug/l	12	3.5	5
sec-Butylbenzene	ND		ug/l	12	3.5	5
tert-Butylbenzene	ND		ug/l	12	3.5	5
o-Chlorotoluene	ND		ug/l	12	3.5	5
p-Chlorotoluene	ND		ug/l	12	3.5	5
1,2-Dibromo-3-chloropropane	ND		ug/l	12	3.5	5
Hexachlorobutadiene	ND		ug/l	12	3.5	5
Isopropylbenzene	ND		ug/l	12	3.5	5
p-Isopropyltoluene	ND		ug/l	12	3.5	5
Naphthalene	ND		ug/l	12	3.5	5

Project Name: FESL
Project Number: 20029

Lab Number: L2044697
Report Date: 10/29/20

SAMPLE RESULTS

Lab ID: L2044697-19 D
 Client ID: FLOW HI D2
 Sample Location: ROCHESTER, NY

Date Collected: 10/16/20 12:35
 Date Received: 10/16/20
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
n-Propylbenzene	ND		ug/l	12	3.5	5
1,2,3-Trichlorobenzene	ND		ug/l	12	3.5	5
1,2,4-Trichlorobenzene	ND		ug/l	12	3.5	5
1,3,5-Trimethylbenzene	ND		ug/l	12	3.5	5
1,2,4-Trimethylbenzene	ND		ug/l	12	3.5	5
1,4-Dioxane	ND		ug/l	1200	300	5
Freon-113	92		ug/l	12	3.5	5
p-Diethylbenzene	ND		ug/l	10	3.5	5
p-Ethyltoluene	ND		ug/l	10	3.5	5
1,2,4,5-Tetramethylbenzene	ND		ug/l	10	2.7	5
Ethyl ether	8.4	J	ug/l	12	3.5	5
trans-1,4-Dichloro-2-butene	ND		ug/l	12	3.5	5

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	100		70-130
Toluene-d8	99		70-130
4-Bromofluorobenzene	103		70-130
Dibromofluoromethane	101		70-130

Project Name: FESL
Project Number: 20029

Lab Number: L2044697
Report Date: 10/29/20

SAMPLE RESULTS

Lab ID: L2044697-20 D
 Client ID: TARGET LO D2
 Sample Location: ROCHESTER, NY

Date Collected: 10/16/20 12:40
 Date Received: 10/16/20
 Field Prep: Not Specified

Sample Depth:

Matrix: Water
 Analytical Method: 1,8260C
 Analytical Date: 10/19/20 23:21
 Analyst: NLK

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methylene chloride	ND		ug/l	12	3.5	5
1,1-Dichloroethane	590		ug/l	12	3.5	5
Chloroform	ND		ug/l	12	3.5	5
Carbon tetrachloride	ND		ug/l	2.5	0.67	5
1,2-Dichloropropane	ND		ug/l	5.0	0.68	5
Dibromochloromethane	ND		ug/l	2.5	0.74	5
1,1,2-Trichloroethane	ND		ug/l	7.5	2.5	5
Tetrachloroethene	130		ug/l	2.5	0.90	5
Chlorobenzene	ND		ug/l	12	3.5	5
Trichlorofluoromethane	ND		ug/l	12	3.5	5
1,2-Dichloroethane	ND		ug/l	2.5	0.66	5
1,1,1-Trichloroethane	97		ug/l	12	3.5	5
Bromodichloromethane	ND		ug/l	2.5	0.96	5
trans-1,3-Dichloropropene	ND		ug/l	2.5	0.82	5
cis-1,3-Dichloropropene	ND		ug/l	2.5	0.72	5
1,3-Dichloropropene, Total	ND		ug/l	2.5	0.72	5
1,1-Dichloropropene	ND		ug/l	12	3.5	5
Bromoform	ND		ug/l	10	3.2	5
1,1,2,2-Tetrachloroethane	ND		ug/l	2.5	0.84	5
Benzene	6.4		ug/l	2.5	0.80	5
Toluene	23		ug/l	12	3.5	5
Ethylbenzene	ND		ug/l	12	3.5	5
Chloromethane	ND		ug/l	12	3.5	5
Bromomethane	ND		ug/l	12	3.5	5
Vinyl chloride	340		ug/l	5.0	0.36	5
Chloroethane	180		ug/l	12	3.5	5
1,1-Dichloroethene	7.3		ug/l	2.5	0.84	5
trans-1,2-Dichloroethene	7.0	J	ug/l	12	3.5	5

Project Name: FESL
Project Number: 20029

Lab Number: L2044697
Report Date: 10/29/20

SAMPLE RESULTS

Lab ID: L2044697-20 D
 Client ID: TARGET LO D2
 Sample Location: ROCHESTER, NY

Date Collected: 10/16/20 12:40
 Date Received: 10/16/20
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Trichloroethene	18		ug/l	2.5	0.88	5
1,2-Dichlorobenzene	ND		ug/l	12	3.5	5
1,3-Dichlorobenzene	ND		ug/l	12	3.5	5
1,4-Dichlorobenzene	ND		ug/l	12	3.5	5
Methyl tert butyl ether	ND		ug/l	12	3.5	5
p/m-Xylene	ND		ug/l	12	3.5	5
o-Xylene	6.5	J	ug/l	12	3.5	5
Xylenes, Total	6.5	J	ug/l	12	3.5	5
cis-1,2-Dichloroethene	620		ug/l	12	3.5	5
1,2-Dichloroethene, Total	630	J	ug/l	12	3.5	5
Dibromomethane	ND		ug/l	25	5.0	5
1,2,3-Trichloropropane	ND		ug/l	12	3.5	5
Acrylonitrile	ND		ug/l	25	7.5	5
Styrene	ND		ug/l	12	3.5	5
Dichlorodifluoromethane	ND		ug/l	25	5.0	5
Acetone	20	J	ug/l	25	7.3	5
Carbon disulfide	ND		ug/l	25	5.0	5
2-Butanone	11	J	ug/l	25	9.7	5
Vinyl acetate	ND		ug/l	25	5.0	5
4-Methyl-2-pentanone	ND		ug/l	25	5.0	5
2-Hexanone	ND		ug/l	25	5.0	5
Bromochloromethane	ND		ug/l	12	3.5	5
2,2-Dichloropropane	ND		ug/l	12	3.5	5
1,2-Dibromoethane	ND		ug/l	10	3.2	5
1,3-Dichloropropane	ND		ug/l	12	3.5	5
1,1,1,2-Tetrachloroethane	ND		ug/l	12	3.5	5
Bromobenzene	ND		ug/l	12	3.5	5
n-Butylbenzene	ND		ug/l	12	3.5	5
sec-Butylbenzene	ND		ug/l	12	3.5	5
tert-Butylbenzene	ND		ug/l	12	3.5	5
o-Chlorotoluene	ND		ug/l	12	3.5	5
p-Chlorotoluene	ND		ug/l	12	3.5	5
1,2-Dibromo-3-chloropropane	ND		ug/l	12	3.5	5
Hexachlorobutadiene	ND		ug/l	12	3.5	5
Isopropylbenzene	ND		ug/l	12	3.5	5
p-Isopropyltoluene	ND		ug/l	12	3.5	5
Naphthalene	ND		ug/l	12	3.5	5

Project Name: FESL
Project Number: 20029

Lab Number: L2044697
Report Date: 10/29/20

SAMPLE RESULTS

Lab ID: L2044697-20 D
 Client ID: TARGET LO D2
 Sample Location: ROCHESTER, NY

Date Collected: 10/16/20 12:40
 Date Received: 10/16/20
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
n-Propylbenzene	ND		ug/l	12	3.5	5
1,2,3-Trichlorobenzene	ND		ug/l	12	3.5	5
1,2,4-Trichlorobenzene	ND		ug/l	12	3.5	5
1,3,5-Trimethylbenzene	ND		ug/l	12	3.5	5
1,2,4-Trimethylbenzene	ND		ug/l	12	3.5	5
1,4-Dioxane	ND		ug/l	1200	300	5
Freon-113	96		ug/l	12	3.5	5
p-Diethylbenzene	ND		ug/l	10	3.5	5
p-Ethyltoluene	ND		ug/l	10	3.5	5
1,2,4,5-Tetramethylbenzene	ND		ug/l	10	2.7	5
Ethyl ether	9.5	J	ug/l	12	3.5	5
trans-1,4-Dichloro-2-butene	ND		ug/l	12	3.5	5

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	95		70-130
Toluene-d8	100		70-130
4-Bromofluorobenzene	102		70-130
Dibromofluoromethane	99		70-130

Project Name: FESL
Project Number: 20029

Lab Number: L2044697
Report Date: 10/29/20

SAMPLE RESULTS

Lab ID: L2044697-21 D
 Client ID: TARGET HI D2
 Sample Location: ROCHESTER, NY

Date Collected: 10/16/20 12:45
 Date Received: 10/16/20
 Field Prep: Not Specified

Sample Depth:

Matrix: Water
 Analytical Method: 1,8260C
 Analytical Date: 10/19/20 23:42
 Analyst: NLK

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methylene chloride	ND		ug/l	10	2.8	4
1,1-Dichloroethane	620		ug/l	10	2.8	4
Chloroform	ND		ug/l	10	2.8	4
Carbon tetrachloride	ND		ug/l	2.0	0.54	4
1,2-Dichloropropane	ND		ug/l	4.0	0.55	4
Dibromochloromethane	ND		ug/l	2.0	0.60	4
1,1,2-Trichloroethane	ND		ug/l	6.0	2.0	4
Tetrachloroethene	100		ug/l	2.0	0.72	4
Chlorobenzene	ND		ug/l	10	2.8	4
Trichlorofluoromethane	ND		ug/l	10	2.8	4
1,2-Dichloroethane	ND		ug/l	2.0	0.53	4
1,1,1-Trichloroethane	32		ug/l	10	2.8	4
Bromodichloromethane	ND		ug/l	2.0	0.77	4
trans-1,3-Dichloropropene	ND		ug/l	2.0	0.66	4
cis-1,3-Dichloropropene	ND		ug/l	2.0	0.58	4
1,3-Dichloropropene, Total	ND		ug/l	2.0	0.58	4
1,1-Dichloropropene	ND		ug/l	10	2.8	4
Bromoform	ND		ug/l	8.0	2.6	4
1,1,2,2-Tetrachloroethane	ND		ug/l	2.0	0.67	4
Benzene	7.5		ug/l	2.0	0.64	4
Toluene	24		ug/l	10	2.8	4
Ethylbenzene	ND		ug/l	10	2.8	4
Chloromethane	ND		ug/l	10	2.8	4
Bromomethane	ND		ug/l	10	2.8	4
Vinyl chloride	330		ug/l	4.0	0.28	4
Chloroethane	180		ug/l	10	2.8	4
1,1-Dichloroethene	6.0		ug/l	2.0	0.68	4
trans-1,2-Dichloroethene	5.1	J	ug/l	10	2.8	4

Project Name: FESL
Project Number: 20029

Lab Number: L2044697
Report Date: 10/29/20

SAMPLE RESULTS

Lab ID: L2044697-21 D
 Client ID: TARGET HI D2
 Sample Location: ROCHESTER, NY

Date Collected: 10/16/20 12:45
 Date Received: 10/16/20
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Trichloroethene	16		ug/l	2.0	0.70	4
1,2-Dichlorobenzene	ND		ug/l	10	2.8	4
1,3-Dichlorobenzene	ND		ug/l	10	2.8	4
1,4-Dichlorobenzene	ND		ug/l	10	2.8	4
Methyl tert butyl ether	ND		ug/l	10	2.8	4
p/m-Xylene	ND		ug/l	10	2.8	4
o-Xylene	5.9	J	ug/l	10	2.8	4
Xylenes, Total	5.9	J	ug/l	10	2.8	4
cis-1,2-Dichloroethene	570		ug/l	10	2.8	4
1,2-Dichloroethene, Total	580	J	ug/l	10	2.8	4
Dibromomethane	ND		ug/l	20	4.0	4
1,2,3-Trichloropropane	ND		ug/l	10	2.8	4
Acrylonitrile	ND		ug/l	20	6.0	4
Styrene	ND		ug/l	10	2.8	4
Dichlorodifluoromethane	5.9	J	ug/l	20	4.0	4
Acetone	30		ug/l	20	5.8	4
Carbon disulfide	ND		ug/l	20	4.0	4
2-Butanone	14	J	ug/l	20	7.8	4
Vinyl acetate	ND		ug/l	20	4.0	4
4-Methyl-2-pentanone	ND		ug/l	20	4.0	4
2-Hexanone	ND		ug/l	20	4.0	4
Bromochloromethane	ND		ug/l	10	2.8	4
2,2-Dichloropropane	ND		ug/l	10	2.8	4
1,2-Dibromoethane	ND		ug/l	8.0	2.6	4
1,3-Dichloropropane	ND		ug/l	10	2.8	4
1,1,1,2-Tetrachloroethane	ND		ug/l	10	2.8	4
Bromobenzene	ND		ug/l	10	2.8	4
n-Butylbenzene	ND		ug/l	10	2.8	4
sec-Butylbenzene	ND		ug/l	10	2.8	4
tert-Butylbenzene	ND		ug/l	10	2.8	4
o-Chlorotoluene	ND		ug/l	10	2.8	4
p-Chlorotoluene	ND		ug/l	10	2.8	4
1,2-Dibromo-3-chloropropane	ND		ug/l	10	2.8	4
Hexachlorobutadiene	ND		ug/l	10	2.8	4
Isopropylbenzene	ND		ug/l	10	2.8	4
p-Isopropyltoluene	ND		ug/l	10	2.8	4
Naphthalene	ND		ug/l	10	2.8	4

Project Name: FESL
Project Number: 20029

Lab Number: L2044697
Report Date: 10/29/20

SAMPLE RESULTS

Lab ID: L2044697-21 D
 Client ID: TARGET HI D2
 Sample Location: ROCHESTER, NY

Date Collected: 10/16/20 12:45
 Date Received: 10/16/20
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
n-Propylbenzene	ND		ug/l	10	2.8	4
1,2,3-Trichlorobenzene	ND		ug/l	10	2.8	4
1,2,4-Trichlorobenzene	ND		ug/l	10	2.8	4
1,3,5-Trimethylbenzene	ND		ug/l	10	2.8	4
1,2,4-Trimethylbenzene	ND		ug/l	10	2.8	4
1,4-Dioxane	ND		ug/l	1000	240	4
Freon-113	67		ug/l	10	2.8	4
p-Diethylbenzene	ND		ug/l	8.0	2.8	4
p-Ethyltoluene	ND		ug/l	8.0	2.8	4
1,2,4,5-Tetramethylbenzene	ND		ug/l	8.0	2.2	4
Ethyl ether	9.2	J	ug/l	10	2.8	4
trans-1,4-Dichloro-2-butene	ND		ug/l	10	2.8	4

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	98		70-130
Toluene-d8	100		70-130
4-Bromofluorobenzene	101		70-130
Dibromofluoromethane	96		70-130

Project Name: FESL
Project Number: 20029

Lab Number: L2044697
Report Date: 10/29/20

SAMPLE RESULTS

Lab ID: L2044697-22 D
 Client ID: EZVI LO D2
 Sample Location: ROCHESTER, NY

Date Collected: 10/16/20 12:50
 Date Received: 10/16/20
 Field Prep: Not Specified

Sample Depth:

Matrix: Water
 Analytical Method: 1,8260C
 Analytical Date: 10/20/20 00:04
 Analyst: NLK

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methylene chloride	ND		ug/l	250	70.	100
1,1-Dichloroethane	610		ug/l	250	70.	100
Chloroform	ND		ug/l	250	70.	100
Carbon tetrachloride	ND		ug/l	50	13.	100
1,2-Dichloropropane	ND		ug/l	100	14.	100
Dibromochloromethane	ND		ug/l	50	15.	100
1,1,2-Trichloroethane	ND		ug/l	150	50.	100
Tetrachloroethene	230		ug/l	50	18.	100
Chlorobenzene	ND		ug/l	250	70.	100
Trichlorofluoromethane	ND		ug/l	250	70.	100
1,2-Dichloroethane	ND		ug/l	50	13.	100
1,1,1-Trichloroethane	210	J	ug/l	250	70.	100
Bromodichloromethane	ND		ug/l	50	19.	100
trans-1,3-Dichloropropene	ND		ug/l	50	16.	100
cis-1,3-Dichloropropene	ND		ug/l	50	14.	100
1,3-Dichloropropene, Total	ND		ug/l	50	14.	100
1,1-Dichloropropene	ND		ug/l	250	70.	100
Bromoform	ND		ug/l	200	65.	100
1,1,2,2-Tetrachloroethane	ND		ug/l	50	17.	100
Benzene	ND		ug/l	50	16.	100
Toluene	ND		ug/l	250	70.	100
Ethylbenzene	ND		ug/l	250	70.	100
Chloromethane	ND		ug/l	250	70.	100
Bromomethane	ND		ug/l	250	70.	100
Vinyl chloride	380		ug/l	100	7.1	100
Chloroethane	200	J	ug/l	250	70.	100
1,1-Dichloroethene	ND		ug/l	50	17.	100
trans-1,2-Dichloroethene	ND		ug/l	250	70.	100

Project Name: FESL
Project Number: 20029

Lab Number: L2044697
Report Date: 10/29/20

SAMPLE RESULTS

Lab ID: L2044697-22 D
 Client ID: EZVI LO D2
 Sample Location: ROCHESTER, NY

Date Collected: 10/16/20 12:50
 Date Received: 10/16/20
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Trichloroethene	27	J	ug/l	50	18.	100
1,2-Dichlorobenzene	ND		ug/l	250	70.	100
1,3-Dichlorobenzene	ND		ug/l	250	70.	100
1,4-Dichlorobenzene	ND		ug/l	250	70.	100
Methyl tert butyl ether	ND		ug/l	250	70.	100
p/m-Xylene	ND		ug/l	250	70.	100
o-Xylene	ND		ug/l	250	70.	100
Xylenes, Total	ND		ug/l	250	70.	100
cis-1,2-Dichloroethene	640		ug/l	250	70.	100
1,2-Dichloroethene, Total	640		ug/l	250	70.	100
Dibromomethane	ND		ug/l	500	100	100
1,2,3-Trichloropropane	ND		ug/l	250	70.	100
Acrylonitrile	ND		ug/l	500	150	100
Styrene	ND		ug/l	250	70.	100
Dichlorodifluoromethane	ND		ug/l	500	100	100
Acetone	ND		ug/l	500	150	100
Carbon disulfide	ND		ug/l	500	100	100
2-Butanone	320	J	ug/l	500	190	100
Vinyl acetate	ND		ug/l	500	100	100
4-Methyl-2-pentanone	ND		ug/l	500	100	100
2-Hexanone	ND		ug/l	500	100	100
Bromochloromethane	ND		ug/l	250	70.	100
2,2-Dichloropropane	ND		ug/l	250	70.	100
1,2-Dibromoethane	ND		ug/l	200	65.	100
1,3-Dichloropropane	ND		ug/l	250	70.	100
1,1,1,2-Tetrachloroethane	ND		ug/l	250	70.	100
Bromobenzene	ND		ug/l	250	70.	100
n-Butylbenzene	ND		ug/l	250	70.	100
sec-Butylbenzene	ND		ug/l	250	70.	100
tert-Butylbenzene	ND		ug/l	250	70.	100
o-Chlorotoluene	ND		ug/l	250	70.	100
p-Chlorotoluene	ND		ug/l	250	70.	100
1,2-Dibromo-3-chloropropane	ND		ug/l	250	70.	100
Hexachlorobutadiene	ND		ug/l	250	70.	100
Isopropylbenzene	ND		ug/l	250	70.	100
p-Isopropyltoluene	ND		ug/l	250	70.	100
Naphthalene	ND		ug/l	250	70.	100

Project Name: FESL
Project Number: 20029

Lab Number: L2044697
Report Date: 10/29/20

SAMPLE RESULTS

Lab ID: L2044697-22 D
 Client ID: EZVI LO D2
 Sample Location: ROCHESTER, NY

Date Collected: 10/16/20 12:50
 Date Received: 10/16/20
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
n-Propylbenzene	ND		ug/l	250	70.	100
1,2,3-Trichlorobenzene	ND		ug/l	250	70.	100
1,2,4-Trichlorobenzene	ND		ug/l	250	70.	100
1,3,5-Trimethylbenzene	ND		ug/l	250	70.	100
1,2,4-Trimethylbenzene	ND		ug/l	250	70.	100
1,4-Dioxane	ND		ug/l	25000	6100	100
Freon-113	350		ug/l	250	70.	100
p-Diethylbenzene	ND		ug/l	200	70.	100
p-Ethyltoluene	ND		ug/l	200	70.	100
1,2,4,5-Tetramethylbenzene	ND		ug/l	200	54.	100
Ethyl ether	ND		ug/l	250	70.	100
trans-1,4-Dichloro-2-butene	ND		ug/l	250	70.	100

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	100		70-130
Toluene-d8	98		70-130
4-Bromofluorobenzene	102		70-130
Dibromofluoromethane	103		70-130

Project Name: FESL
Project Number: 20029

Lab Number: L2044697
Report Date: 10/29/20

SAMPLE RESULTS

Lab ID: L2044697-23 D
 Client ID: EZVI HI D2
 Sample Location: ROCHESTER, NY

Date Collected: 10/16/20 12:55
 Date Received: 10/16/20
 Field Prep: Not Specified

Sample Depth:

Matrix: Water
 Analytical Method: 1,8260C
 Analytical Date: 10/20/20 00:25
 Analyst: NLK

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methylene chloride	ND		ug/l	250	70.	100
1,1-Dichloroethane	300		ug/l	250	70.	100
Chloroform	ND		ug/l	250	70.	100
Carbon tetrachloride	ND		ug/l	50	13.	100
1,2-Dichloropropane	ND		ug/l	100	14.	100
Dibromochloromethane	ND		ug/l	50	15.	100
1,1,2-Trichloroethane	ND		ug/l	150	50.	100
Tetrachloroethene	51		ug/l	50	18.	100
Chlorobenzene	ND		ug/l	250	70.	100
Trichlorofluoromethane	ND		ug/l	250	70.	100
1,2-Dichloroethane	ND		ug/l	50	13.	100
1,1,1-Trichloroethane	ND		ug/l	250	70.	100
Bromodichloromethane	ND		ug/l	50	19.	100
trans-1,3-Dichloropropene	ND		ug/l	50	16.	100
cis-1,3-Dichloropropene	ND		ug/l	50	14.	100
1,3-Dichloropropene, Total	ND		ug/l	50	14.	100
1,1-Dichloropropene	ND		ug/l	250	70.	100
Bromoform	ND		ug/l	200	65.	100
1,1,2,2-Tetrachloroethane	ND		ug/l	50	17.	100
Benzene	ND		ug/l	50	16.	100
Toluene	ND		ug/l	250	70.	100
Ethylbenzene	ND		ug/l	250	70.	100
Chloromethane	ND		ug/l	250	70.	100
Bromomethane	ND		ug/l	250	70.	100
Vinyl chloride	250		ug/l	100	7.1	100
Chloroethane	130	J	ug/l	250	70.	100
1,1-Dichloroethene	ND		ug/l	50	17.	100
trans-1,2-Dichloroethene	ND		ug/l	250	70.	100

Project Name: FESL
Project Number: 20029

Lab Number: L2044697
Report Date: 10/29/20

SAMPLE RESULTS

Lab ID: L2044697-23 D
 Client ID: EZVI HI D2
 Sample Location: ROCHESTER, NY

Date Collected: 10/16/20 12:55
 Date Received: 10/16/20
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Trichloroethene	ND		ug/l	50	18.	100
1,2-Dichlorobenzene	ND		ug/l	250	70.	100
1,3-Dichlorobenzene	ND		ug/l	250	70.	100
1,4-Dichlorobenzene	ND		ug/l	250	70.	100
Methyl tert butyl ether	ND		ug/l	250	70.	100
p/m-Xylene	ND		ug/l	250	70.	100
o-Xylene	ND		ug/l	250	70.	100
Xylenes, Total	ND		ug/l	250	70.	100
cis-1,2-Dichloroethene	290		ug/l	250	70.	100
1,2-Dichloroethene, Total	290		ug/l	250	70.	100
Dibromomethane	ND		ug/l	500	100	100
1,2,3-Trichloropropane	ND		ug/l	250	70.	100
Acrylonitrile	ND		ug/l	500	150	100
Styrene	ND		ug/l	250	70.	100
Dichlorodifluoromethane	ND		ug/l	500	100	100
Acetone	ND		ug/l	500	150	100
Carbon disulfide	ND		ug/l	500	100	100
2-Butanone	1400		ug/l	500	190	100
Vinyl acetate	ND		ug/l	500	100	100
4-Methyl-2-pentanone	ND		ug/l	500	100	100
2-Hexanone	ND		ug/l	500	100	100
Bromochloromethane	ND		ug/l	250	70.	100
2,2-Dichloropropane	ND		ug/l	250	70.	100
1,2-Dibromoethane	ND		ug/l	200	65.	100
1,3-Dichloropropane	ND		ug/l	250	70.	100
1,1,1,2-Tetrachloroethane	ND		ug/l	250	70.	100
Bromobenzene	ND		ug/l	250	70.	100
n-Butylbenzene	ND		ug/l	250	70.	100
sec-Butylbenzene	ND		ug/l	250	70.	100
tert-Butylbenzene	ND		ug/l	250	70.	100
o-Chlorotoluene	ND		ug/l	250	70.	100
p-Chlorotoluene	ND		ug/l	250	70.	100
1,2-Dibromo-3-chloropropane	ND		ug/l	250	70.	100
Hexachlorobutadiene	ND		ug/l	250	70.	100
Isopropylbenzene	ND		ug/l	250	70.	100
p-Isopropyltoluene	ND		ug/l	250	70.	100
Naphthalene	ND		ug/l	250	70.	100

Project Name: FESL
Project Number: 20029

Lab Number: L2044697
Report Date: 10/29/20

SAMPLE RESULTS

Lab ID: L2044697-23 D
 Client ID: EZVI HI D2
 Sample Location: ROCHESTER, NY

Date Collected: 10/16/20 12:55
 Date Received: 10/16/20
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
n-Propylbenzene	ND		ug/l	250	70.	100
1,2,3-Trichlorobenzene	ND		ug/l	250	70.	100
1,2,4-Trichlorobenzene	ND		ug/l	250	70.	100
1,3,5-Trimethylbenzene	ND		ug/l	250	70.	100
1,2,4-Trimethylbenzene	ND		ug/l	250	70.	100
1,4-Dioxane	ND		ug/l	25000	6100	100
Freon-113	94	J	ug/l	250	70.	100
p-Diethylbenzene	ND		ug/l	200	70.	100
p-Ethyltoluene	ND		ug/l	200	70.	100
1,2,4,5-Tetramethylbenzene	ND		ug/l	200	54.	100
Ethyl ether	ND		ug/l	250	70.	100
trans-1,4-Dichloro-2-butene	ND		ug/l	250	70.	100

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	97		70-130
Toluene-d8	96		70-130
4-Bromofluorobenzene	100		70-130
Dibromofluoromethane	96		70-130

Project Name: FESL
Project Number: 20029

Lab Number: L2044697
Report Date: 10/29/20

SAMPLE RESULTS

Lab ID: L2044697-24 D
 Client ID: CTRL D2
 Sample Location: ROCHESTER, NY

Date Collected: 10/16/20 13:00
 Date Received: 10/16/20
 Field Prep: Not Specified

Sample Depth:

Matrix: Water
 Analytical Method: 1,8260C
 Analytical Date: 10/20/20 00:47
 Analyst: NLK

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methylene chloride	ND		ug/l	12	3.5	5
1,1-Dichloroethane	610		ug/l	12	3.5	5
Chloroform	ND		ug/l	12	3.5	5
Carbon tetrachloride	ND		ug/l	2.5	0.67	5
1,2-Dichloropropane	ND		ug/l	5.0	0.68	5
Dibromochloromethane	ND		ug/l	2.5	0.74	5
1,1,2-Trichloroethane	ND		ug/l	7.5	2.5	5
Tetrachloroethene	140		ug/l	2.5	0.90	5
Chlorobenzene	ND		ug/l	12	3.5	5
Trichlorofluoromethane	ND		ug/l	12	3.5	5
1,2-Dichloroethane	ND		ug/l	2.5	0.66	5
1,1,1-Trichloroethane	280		ug/l	12	3.5	5
Bromodichloromethane	ND		ug/l	2.5	0.96	5
trans-1,3-Dichloropropene	ND		ug/l	2.5	0.82	5
cis-1,3-Dichloropropene	ND		ug/l	2.5	0.72	5
1,3-Dichloropropene, Total	ND		ug/l	2.5	0.72	5
1,1-Dichloropropene	ND		ug/l	12	3.5	5
Bromoform	ND		ug/l	10	3.2	5
1,1,1,2-Tetrachloroethane	ND		ug/l	2.5	0.84	5
Benzene	5.6		ug/l	2.5	0.80	5
Toluene	21		ug/l	12	3.5	5
Ethylbenzene	ND		ug/l	12	3.5	5
Chloromethane	ND		ug/l	12	3.5	5
Bromomethane	ND		ug/l	12	3.5	5
Vinyl chloride	400		ug/l	5.0	0.36	5
Chloroethane	190		ug/l	12	3.5	5
1,1-Dichloroethene	8.8		ug/l	2.5	0.84	5
trans-1,2-Dichloroethene	7.9	J	ug/l	12	3.5	5

Project Name: FESL
Project Number: 20029

Lab Number: L2044697
Report Date: 10/29/20

SAMPLE RESULTS

Lab ID: L2044697-24 D
 Client ID: CTRL D2
 Sample Location: ROCHESTER, NY

Date Collected: 10/16/20 13:00
 Date Received: 10/16/20
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Trichloroethene	24		ug/l	2.5	0.88	5
1,2-Dichlorobenzene	ND		ug/l	12	3.5	5
1,3-Dichlorobenzene	ND		ug/l	12	3.5	5
1,4-Dichlorobenzene	ND		ug/l	12	3.5	5
Methyl tert butyl ether	ND		ug/l	12	3.5	5
p/m-Xylene	ND		ug/l	12	3.5	5
o-Xylene	4.7	J	ug/l	12	3.5	5
Xylenes, Total	4.7	J	ug/l	12	3.5	5
cis-1,2-Dichloroethene	670		ug/l	12	3.5	5
1,2-Dichloroethene, Total	680	J	ug/l	12	3.5	5
Dibromomethane	ND		ug/l	25	5.0	5
1,2,3-Trichloropropane	ND		ug/l	12	3.5	5
Acrylonitrile	ND		ug/l	25	7.5	5
Styrene	ND		ug/l	12	3.5	5
Dichlorodifluoromethane	ND		ug/l	25	5.0	5
Acetone	17	J	ug/l	25	7.3	5
Carbon disulfide	ND		ug/l	25	5.0	5
2-Butanone	11	J	ug/l	25	9.7	5
Vinyl acetate	ND		ug/l	25	5.0	5
4-Methyl-2-pentanone	ND		ug/l	25	5.0	5
2-Hexanone	ND		ug/l	25	5.0	5
Bromochloromethane	ND		ug/l	12	3.5	5
2,2-Dichloropropane	ND		ug/l	12	3.5	5
1,2-Dibromoethane	ND		ug/l	10	3.2	5
1,3-Dichloropropane	ND		ug/l	12	3.5	5
1,1,1,2-Tetrachloroethane	ND		ug/l	12	3.5	5
Bromobenzene	ND		ug/l	12	3.5	5
n-Butylbenzene	ND		ug/l	12	3.5	5
sec-Butylbenzene	ND		ug/l	12	3.5	5
tert-Butylbenzene	ND		ug/l	12	3.5	5
o-Chlorotoluene	ND		ug/l	12	3.5	5
p-Chlorotoluene	ND		ug/l	12	3.5	5
1,2-Dibromo-3-chloropropane	ND		ug/l	12	3.5	5
Hexachlorobutadiene	ND		ug/l	12	3.5	5
Isopropylbenzene	ND		ug/l	12	3.5	5
p-Isopropyltoluene	ND		ug/l	12	3.5	5
Naphthalene	ND		ug/l	12	3.5	5

Project Name: FESL
Project Number: 20029

Lab Number: L2044697
Report Date: 10/29/20

SAMPLE RESULTS

Lab ID: L2044697-24 D
 Client ID: CTRL D2
 Sample Location: ROCHESTER, NY

Date Collected: 10/16/20 13:00
 Date Received: 10/16/20
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
n-Propylbenzene	ND		ug/l	12	3.5	5
1,2,3-Trichlorobenzene	ND		ug/l	12	3.5	5
1,2,4-Trichlorobenzene	ND		ug/l	12	3.5	5
1,3,5-Trimethylbenzene	ND		ug/l	12	3.5	5
1,2,4-Trimethylbenzene	ND		ug/l	12	3.5	5
1,4-Dioxane	ND		ug/l	1200	300	5
Freon-113	120		ug/l	12	3.5	5
p-Diethylbenzene	ND		ug/l	10	3.5	5
p-Ethyltoluene	ND		ug/l	10	3.5	5
1,2,4,5-Tetramethylbenzene	ND		ug/l	10	2.7	5
Ethyl ether	9.6	J	ug/l	12	3.5	5
trans-1,4-Dichloro-2-butene	ND		ug/l	12	3.5	5

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	100		70-130
Toluene-d8	99		70-130
4-Bromofluorobenzene	100		70-130
Dibromofluoromethane	98		70-130

Project Name: FESL
Project Number: 20029

Lab Number: L2044697
Report Date: 10/29/20

SAMPLE RESULTS

Lab ID: L2044697-25 D
 Client ID: CTRL D2 DUP
 Sample Location: ROCHESTER, NY

Date Collected: 10/16/20 13:05
 Date Received: 10/16/20
 Field Prep: Not Specified

Sample Depth:

Matrix: Water
 Analytical Method: 1,8260C
 Analytical Date: 10/20/20 01:09
 Analyst: NLK

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methylene chloride	ND		ug/l	12	3.5	5
1,1-Dichloroethane	650		ug/l	12	3.5	5
Chloroform	ND		ug/l	12	3.5	5
Carbon tetrachloride	ND		ug/l	2.5	0.67	5
1,2-Dichloropropane	ND		ug/l	5.0	0.68	5
Dibromochloromethane	ND		ug/l	2.5	0.74	5
1,1,2-Trichloroethane	ND		ug/l	7.5	2.5	5
Tetrachloroethene	150		ug/l	2.5	0.90	5
Chlorobenzene	ND		ug/l	12	3.5	5
Trichlorofluoromethane	ND		ug/l	12	3.5	5
1,2-Dichloroethane	ND		ug/l	2.5	0.66	5
1,1,1-Trichloroethane	300		ug/l	12	3.5	5
Bromodichloromethane	ND		ug/l	2.5	0.96	5
trans-1,3-Dichloropropene	ND		ug/l	2.5	0.82	5
cis-1,3-Dichloropropene	ND		ug/l	2.5	0.72	5
1,3-Dichloropropene, Total	ND		ug/l	2.5	0.72	5
1,1-Dichloropropene	ND		ug/l	12	3.5	5
Bromoform	ND		ug/l	10	3.2	5
1,1,2,2-Tetrachloroethane	ND		ug/l	2.5	0.84	5
Benzene	6.2		ug/l	2.5	0.80	5
Toluene	23		ug/l	12	3.5	5
Ethylbenzene	ND		ug/l	12	3.5	5
Chloromethane	ND		ug/l	12	3.5	5
Bromomethane	ND		ug/l	12	3.5	5
Vinyl chloride	450		ug/l	5.0	0.36	5
Chloroethane	210		ug/l	12	3.5	5
1,1-Dichloroethene	9.1		ug/l	2.5	0.84	5
trans-1,2-Dichloroethene	7.9	J	ug/l	12	3.5	5

Project Name: FESL
Project Number: 20029

Lab Number: L2044697
Report Date: 10/29/20

SAMPLE RESULTS

Lab ID: L2044697-25 D
 Client ID: CTRL D2 DUP
 Sample Location: ROCHESTER, NY

Date Collected: 10/16/20 13:05
 Date Received: 10/16/20
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Trichloroethene	25		ug/l	2.5	0.88	5
1,2-Dichlorobenzene	ND		ug/l	12	3.5	5
1,3-Dichlorobenzene	ND		ug/l	12	3.5	5
1,4-Dichlorobenzene	ND		ug/l	12	3.5	5
Methyl tert butyl ether	ND		ug/l	12	3.5	5
p/m-Xylene	ND		ug/l	12	3.5	5
o-Xylene	5.1	J	ug/l	12	3.5	5
Xylenes, Total	5.1	J	ug/l	12	3.5	5
cis-1,2-Dichloroethene	700		ug/l	12	3.5	5
1,2-Dichloroethene, Total	710	J	ug/l	12	3.5	5
Dibromomethane	ND		ug/l	25	5.0	5
1,2,3-Trichloropropane	ND		ug/l	12	3.5	5
Acrylonitrile	ND		ug/l	25	7.5	5
Styrene	ND		ug/l	12	3.5	5
Dichlorodifluoromethane	ND		ug/l	25	5.0	5
Acetone	19	J	ug/l	25	7.3	5
Carbon disulfide	ND		ug/l	25	5.0	5
2-Butanone	ND		ug/l	25	9.7	5
Vinyl acetate	ND		ug/l	25	5.0	5
4-Methyl-2-pentanone	ND		ug/l	25	5.0	5
2-Hexanone	ND		ug/l	25	5.0	5
Bromochloromethane	ND		ug/l	12	3.5	5
2,2-Dichloropropane	ND		ug/l	12	3.5	5
1,2-Dibromoethane	ND		ug/l	10	3.2	5
1,3-Dichloropropane	ND		ug/l	12	3.5	5
1,1,1,2-Tetrachloroethane	ND		ug/l	12	3.5	5
Bromobenzene	ND		ug/l	12	3.5	5
n-Butylbenzene	ND		ug/l	12	3.5	5
sec-Butylbenzene	ND		ug/l	12	3.5	5
tert-Butylbenzene	ND		ug/l	12	3.5	5
o-Chlorotoluene	ND		ug/l	12	3.5	5
p-Chlorotoluene	ND		ug/l	12	3.5	5
1,2-Dibromo-3-chloropropane	ND		ug/l	12	3.5	5
Hexachlorobutadiene	ND		ug/l	12	3.5	5
Isopropylbenzene	ND		ug/l	12	3.5	5
p-Isopropyltoluene	ND		ug/l	12	3.5	5
Naphthalene	ND		ug/l	12	3.5	5

Project Name: FESL
Project Number: 20029

Lab Number: L2044697
Report Date: 10/29/20

SAMPLE RESULTS

Lab ID: L2044697-25 D
 Client ID: CTRL D2 DUP
 Sample Location: ROCHESTER, NY

Date Collected: 10/16/20 13:05
 Date Received: 10/16/20
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
n-Propylbenzene	ND		ug/l	12	3.5	5
1,2,3-Trichlorobenzene	ND		ug/l	12	3.5	5
1,2,4-Trichlorobenzene	ND		ug/l	12	3.5	5
1,3,5-Trimethylbenzene	ND		ug/l	12	3.5	5
1,2,4-Trimethylbenzene	ND		ug/l	12	3.5	5
1,4-Dioxane	ND		ug/l	1200	300	5
Freon-113	140		ug/l	12	3.5	5
p-Diethylbenzene	ND		ug/l	10	3.5	5
p-Ethyltoluene	ND		ug/l	10	3.5	5
1,2,4,5-Tetramethylbenzene	ND		ug/l	10	2.7	5
Ethyl ether	10	J	ug/l	12	3.5	5
trans-1,4-Dichloro-2-butene	ND		ug/l	12	3.5	5

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	96		70-130
Toluene-d8	99		70-130
4-Bromofluorobenzene	100		70-130
Dibromofluoromethane	100		70-130

Project Name: FESL
Project Number: 20029

Lab Number: L2044697
Report Date: 10/29/20

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260C
Analytical Date: 10/19/20 17:58
Analyst: AJK

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 18-25 Batch: WG1424046-5					
Methylene chloride	ND		ug/l	2.5	0.70
1,1-Dichloroethane	ND		ug/l	2.5	0.70
Chloroform	ND		ug/l	2.5	0.70
Carbon tetrachloride	ND		ug/l	0.50	0.13
1,2-Dichloropropane	ND		ug/l	1.0	0.14
Dibromochloromethane	ND		ug/l	0.50	0.15
1,1,2-Trichloroethane	ND		ug/l	1.5	0.50
Tetrachloroethene	ND		ug/l	0.50	0.18
Chlorobenzene	ND		ug/l	2.5	0.70
Trichlorofluoromethane	ND		ug/l	2.5	0.70
1,2-Dichloroethane	ND		ug/l	0.50	0.13
1,1,1-Trichloroethane	ND		ug/l	2.5	0.70
Bromodichloromethane	ND		ug/l	0.50	0.19
trans-1,3-Dichloropropene	ND		ug/l	0.50	0.16
cis-1,3-Dichloropropene	ND		ug/l	0.50	0.14
1,3-Dichloropropene, Total	ND		ug/l	0.50	0.14
1,1-Dichloropropene	ND		ug/l	2.5	0.70
Bromoform	ND		ug/l	2.0	0.65
1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	0.17
Benzene	ND		ug/l	0.50	0.16
Toluene	ND		ug/l	2.5	0.70
Ethylbenzene	ND		ug/l	2.5	0.70
Chloromethane	ND		ug/l	2.5	0.70
Bromomethane	ND		ug/l	2.5	0.70
Vinyl chloride	ND		ug/l	1.0	0.07
Chloroethane	ND		ug/l	2.5	0.70
1,1-Dichloroethene	ND		ug/l	0.50	0.17
trans-1,2-Dichloroethene	ND		ug/l	2.5	0.70
Trichloroethene	ND		ug/l	0.50	0.18

Project Name: FESL
Project Number: 20029

Lab Number: L2044697
Report Date: 10/29/20

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260C
Analytical Date: 10/19/20 17:58
Analyst: AJK

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 18-25 Batch: WG1424046-5					
1,2-Dichlorobenzene	ND		ug/l	2.5	0.70
1,3-Dichlorobenzene	ND		ug/l	2.5	0.70
1,4-Dichlorobenzene	ND		ug/l	2.5	0.70
Methyl tert butyl ether	ND		ug/l	2.5	0.70
p/m-Xylene	ND		ug/l	2.5	0.70
o-Xylene	ND		ug/l	2.5	0.70
Xylenes, Total	ND		ug/l	2.5	0.70
cis-1,2-Dichloroethene	ND		ug/l	2.5	0.70
1,2-Dichloroethene, Total	ND		ug/l	2.5	0.70
Dibromomethane	ND		ug/l	5.0	1.0
1,2,3-Trichloropropane	ND		ug/l	2.5	0.70
Acrylonitrile	ND		ug/l	5.0	1.5
Styrene	ND		ug/l	2.5	0.70
Dichlorodifluoromethane	ND		ug/l	5.0	1.0
Acetone	ND		ug/l	5.0	1.5
Carbon disulfide	ND		ug/l	5.0	1.0
2-Butanone	ND		ug/l	5.0	1.9
Vinyl acetate	ND		ug/l	5.0	1.0
4-Methyl-2-pentanone	ND		ug/l	5.0	1.0
2-Hexanone	ND		ug/l	5.0	1.0
Bromochloromethane	ND		ug/l	2.5	0.70
2,2-Dichloropropane	ND		ug/l	2.5	0.70
1,2-Dibromoethane	ND		ug/l	2.0	0.65
1,3-Dichloropropane	ND		ug/l	2.5	0.70
1,1,1,2-Tetrachloroethane	ND		ug/l	2.5	0.70
Bromobenzene	ND		ug/l	2.5	0.70
n-Butylbenzene	ND		ug/l	2.5	0.70
sec-Butylbenzene	ND		ug/l	2.5	0.70
tert-Butylbenzene	ND		ug/l	2.5	0.70

Project Name: FESL
Project Number: 20029

Lab Number: L2044697
Report Date: 10/29/20

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260C
Analytical Date: 10/19/20 17:58
Analyst: AJK

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 18-25 Batch: WG1424046-5					
o-Chlorotoluene	ND		ug/l	2.5	0.70
p-Chlorotoluene	ND		ug/l	2.5	0.70
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	0.70
Hexachlorobutadiene	ND		ug/l	2.5	0.70
Isopropylbenzene	ND		ug/l	2.5	0.70
p-Isopropyltoluene	ND		ug/l	2.5	0.70
Naphthalene	ND		ug/l	2.5	0.70
n-Propylbenzene	ND		ug/l	2.5	0.70
1,2,3-Trichlorobenzene	ND		ug/l	2.5	0.70
1,2,4-Trichlorobenzene	ND		ug/l	2.5	0.70
1,3,5-Trimethylbenzene	ND		ug/l	2.5	0.70
1,2,4-Trimethylbenzene	ND		ug/l	2.5	0.70
1,4-Dioxane	ND		ug/l	250	61.
Freon-113	ND		ug/l	2.5	0.70
p-Diethylbenzene	ND		ug/l	2.0	0.70
p-Ethyltoluene	ND		ug/l	2.0	0.70
1,2,4,5-Tetramethylbenzene	ND		ug/l	2.0	0.54
Ethyl ether	ND		ug/l	2.5	0.70
trans-1,4-Dichloro-2-butene	ND		ug/l	2.5	0.70

Surrogate	%Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	99		70-130
Toluene-d8	100		70-130
4-Bromofluorobenzene	100		70-130
Dibromofluoromethane	99		70-130

Project Name: FESL
Project Number: 20029

Lab Number: L2044697
Report Date: 10/29/20

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260C
Analytical Date: 10/26/20 20:13
Analyst: AJK

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 01-12,14-16 Batch: WG1427127-5					
Methylene chloride	ND		ug/l	2.5	0.70
1,1-Dichloroethane	ND		ug/l	2.5	0.70
Chloroform	ND		ug/l	2.5	0.70
Carbon tetrachloride	ND		ug/l	0.50	0.13
1,2-Dichloropropane	ND		ug/l	1.0	0.14
Dibromochloromethane	ND		ug/l	0.50	0.15
1,1,2-Trichloroethane	ND		ug/l	1.5	0.50
Tetrachloroethene	ND		ug/l	0.50	0.18
Chlorobenzene	ND		ug/l	2.5	0.70
Trichlorofluoromethane	ND		ug/l	2.5	0.70
1,2-Dichloroethane	ND		ug/l	0.50	0.13
1,1,1-Trichloroethane	ND		ug/l	2.5	0.70
Bromodichloromethane	ND		ug/l	0.50	0.19
trans-1,3-Dichloropropene	ND		ug/l	0.50	0.16
cis-1,3-Dichloropropene	ND		ug/l	0.50	0.14
1,3-Dichloropropene, Total	ND		ug/l	0.50	0.14
1,1-Dichloropropene	ND		ug/l	2.5	0.70
Bromoform	ND		ug/l	2.0	0.65
1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	0.17
Benzene	ND		ug/l	0.50	0.16
Toluene	ND		ug/l	2.5	0.70
Ethylbenzene	ND		ug/l	2.5	0.70
Chloromethane	ND		ug/l	2.5	0.70
Bromomethane	ND		ug/l	2.5	0.70
Vinyl chloride	ND		ug/l	1.0	0.07
Chloroethane	ND		ug/l	2.5	0.70
1,1-Dichloroethene	ND		ug/l	0.50	0.17
trans-1,2-Dichloroethene	ND		ug/l	2.5	0.70
Trichloroethene	ND		ug/l	0.50	0.18

Project Name: FESL
Project Number: 20029

Lab Number: L2044697
Report Date: 10/29/20

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260C
Analytical Date: 10/26/20 20:13
Analyst: AJK

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 01-12,14-16 Batch: WG1427127-5					
1,2-Dichlorobenzene	ND		ug/l	2.5	0.70
1,3-Dichlorobenzene	ND		ug/l	2.5	0.70
1,4-Dichlorobenzene	ND		ug/l	2.5	0.70
Methyl tert butyl ether	ND		ug/l	2.5	0.70
p/m-Xylene	ND		ug/l	2.5	0.70
o-Xylene	ND		ug/l	2.5	0.70
Xylenes, Total	ND		ug/l	2.5	0.70
cis-1,2-Dichloroethene	ND		ug/l	2.5	0.70
1,2-Dichloroethene, Total	ND		ug/l	2.5	0.70
Dibromomethane	ND		ug/l	5.0	1.0
1,2,3-Trichloropropane	ND		ug/l	2.5	0.70
Acrylonitrile	ND		ug/l	5.0	1.5
Styrene	ND		ug/l	2.5	0.70
Dichlorodifluoromethane	ND		ug/l	5.0	1.0
Acetone	ND		ug/l	5.0	1.5
Carbon disulfide	ND		ug/l	5.0	1.0
2-Butanone	ND		ug/l	5.0	1.9
Vinyl acetate	ND		ug/l	5.0	1.0
4-Methyl-2-pentanone	ND		ug/l	5.0	1.0
2-Hexanone	ND		ug/l	5.0	1.0
Bromochloromethane	ND		ug/l	2.5	0.70
2,2-Dichloropropane	ND		ug/l	2.5	0.70
1,2-Dibromoethane	ND		ug/l	2.0	0.65
1,3-Dichloropropane	ND		ug/l	2.5	0.70
1,1,1,2-Tetrachloroethane	ND		ug/l	2.5	0.70
Bromobenzene	ND		ug/l	2.5	0.70
n-Butylbenzene	ND		ug/l	2.5	0.70
sec-Butylbenzene	ND		ug/l	2.5	0.70
tert-Butylbenzene	ND		ug/l	2.5	0.70

Project Name: FESL
Project Number: 20029

Lab Number: L2044697
Report Date: 10/29/20

**Method Blank Analysis
Batch Quality Control**

Analytical Method: 1,8260C
Analytical Date: 10/26/20 20:13
Analyst: AJK

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 01-12,14-16 Batch: WG1427127-5					
o-Chlorotoluene	ND		ug/l	2.5	0.70
p-Chlorotoluene	ND		ug/l	2.5	0.70
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	0.70
Hexachlorobutadiene	ND		ug/l	2.5	0.70
Isopropylbenzene	ND		ug/l	2.5	0.70
p-Isopropyltoluene	ND		ug/l	2.5	0.70
Naphthalene	ND		ug/l	2.5	0.70
n-Propylbenzene	ND		ug/l	2.5	0.70
1,2,3-Trichlorobenzene	ND		ug/l	2.5	0.70
1,2,4-Trichlorobenzene	ND		ug/l	2.5	0.70
1,3,5-Trimethylbenzene	ND		ug/l	2.5	0.70
1,2,4-Trimethylbenzene	ND		ug/l	2.5	0.70
1,4-Dioxane	ND		ug/l	250	61.
Freon-113	ND		ug/l	2.5	0.70
p-Diethylbenzene	ND		ug/l	2.0	0.70
p-Ethyltoluene	ND		ug/l	2.0	0.70
1,2,4,5-Tetramethylbenzene	ND		ug/l	2.0	0.54
Ethyl ether	ND		ug/l	2.5	0.70
trans-1,4-Dichloro-2-butene	ND		ug/l	2.5	0.70

Surrogate	%Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	94		70-130
Toluene-d8	99		70-130
4-Bromofluorobenzene	101		70-130
Dibromofluoromethane	96		70-130

Project Name: FESL
Project Number: 20029

Lab Number: L2044697
Report Date: 10/29/20

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260C
Analytical Date: 10/27/20 08:56
Analyst: PD

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 13 Batch: WG1427204-5					
Methylene chloride	ND		ug/l	2.5	0.70
1,1-Dichloroethane	ND		ug/l	2.5	0.70
Chloroform	ND		ug/l	2.5	0.70
Carbon tetrachloride	ND		ug/l	0.50	0.13
1,2-Dichloropropane	ND		ug/l	1.0	0.14
Dibromochloromethane	ND		ug/l	0.50	0.15
1,1,2-Trichloroethane	ND		ug/l	1.5	0.50
Tetrachloroethene	ND		ug/l	0.50	0.18
Chlorobenzene	ND		ug/l	2.5	0.70
Trichlorofluoromethane	ND		ug/l	2.5	0.70
1,2-Dichloroethane	ND		ug/l	0.50	0.13
1,1,1-Trichloroethane	ND		ug/l	2.5	0.70
Bromodichloromethane	ND		ug/l	0.50	0.19
trans-1,3-Dichloropropene	ND		ug/l	0.50	0.16
cis-1,3-Dichloropropene	ND		ug/l	0.50	0.14
1,3-Dichloropropene, Total	ND		ug/l	0.50	0.14
1,1-Dichloropropene	ND		ug/l	2.5	0.70
Bromoform	ND		ug/l	2.0	0.65
1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	0.17
Benzene	ND		ug/l	0.50	0.16
Toluene	ND		ug/l	2.5	0.70
Ethylbenzene	ND		ug/l	2.5	0.70
Chloromethane	ND		ug/l	2.5	0.70
Bromomethane	ND		ug/l	2.5	0.70
Vinyl chloride	ND		ug/l	1.0	0.07
Chloroethane	ND		ug/l	2.5	0.70
1,1-Dichloroethene	ND		ug/l	0.50	0.17
trans-1,2-Dichloroethene	ND		ug/l	2.5	0.70
Trichloroethene	ND		ug/l	0.50	0.18

Project Name: FESL
Project Number: 20029

Lab Number: L2044697
Report Date: 10/29/20

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260C
Analytical Date: 10/27/20 08:56
Analyst: PD

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 13 Batch: WG1427204-5					
1,2-Dichlorobenzene	ND		ug/l	2.5	0.70
1,3-Dichlorobenzene	ND		ug/l	2.5	0.70
1,4-Dichlorobenzene	ND		ug/l	2.5	0.70
Methyl tert butyl ether	ND		ug/l	2.5	0.70
p/m-Xylene	ND		ug/l	2.5	0.70
o-Xylene	ND		ug/l	2.5	0.70
Xylenes, Total	ND		ug/l	2.5	0.70
cis-1,2-Dichloroethene	ND		ug/l	2.5	0.70
1,2-Dichloroethene, Total	ND		ug/l	2.5	0.70
Dibromomethane	ND		ug/l	5.0	1.0
1,2,3-Trichloropropane	ND		ug/l	2.5	0.70
Acrylonitrile	ND		ug/l	5.0	1.5
Styrene	ND		ug/l	2.5	0.70
Dichlorodifluoromethane	ND		ug/l	5.0	1.0
Acetone	ND		ug/l	5.0	1.5
Carbon disulfide	ND		ug/l	5.0	1.0
2-Butanone	ND		ug/l	5.0	1.9
Vinyl acetate	ND		ug/l	5.0	1.0
4-Methyl-2-pentanone	ND		ug/l	5.0	1.0
2-Hexanone	ND		ug/l	5.0	1.0
Bromochloromethane	ND		ug/l	2.5	0.70
2,2-Dichloropropane	ND		ug/l	2.5	0.70
1,2-Dibromoethane	ND		ug/l	2.0	0.65
1,3-Dichloropropane	ND		ug/l	2.5	0.70
1,1,1,2-Tetrachloroethane	ND		ug/l	2.5	0.70
Bromobenzene	ND		ug/l	2.5	0.70
n-Butylbenzene	ND		ug/l	2.5	0.70
sec-Butylbenzene	ND		ug/l	2.5	0.70
tert-Butylbenzene	ND		ug/l	2.5	0.70

Project Name: FESL
Project Number: 20029

Lab Number: L2044697
Report Date: 10/29/20

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260C
Analytical Date: 10/27/20 08:56
Analyst: PD

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 13 Batch: WG1427204-5					
o-Chlorotoluene	ND		ug/l	2.5	0.70
p-Chlorotoluene	ND		ug/l	2.5	0.70
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	0.70
Hexachlorobutadiene	ND		ug/l	2.5	0.70
Isopropylbenzene	ND		ug/l	2.5	0.70
p-Isopropyltoluene	ND		ug/l	2.5	0.70
Naphthalene	ND		ug/l	2.5	0.70
n-Propylbenzene	ND		ug/l	2.5	0.70
1,2,3-Trichlorobenzene	ND		ug/l	2.5	0.70
1,2,4-Trichlorobenzene	ND		ug/l	2.5	0.70
1,3,5-Trimethylbenzene	ND		ug/l	2.5	0.70
1,2,4-Trimethylbenzene	ND		ug/l	2.5	0.70
1,4-Dioxane	ND		ug/l	250	61.
Freon-113	ND		ug/l	2.5	0.70
p-Diethylbenzene	ND		ug/l	2.0	0.70
p-Ethyltoluene	ND		ug/l	2.0	0.70
1,2,4,5-Tetramethylbenzene	ND		ug/l	2.0	0.54
Ethyl ether	ND		ug/l	2.5	0.70
trans-1,4-Dichloro-2-butene	ND		ug/l	2.5	0.70

Surrogate	%Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	109		70-130
Toluene-d8	98		70-130
4-Bromofluorobenzene	102		70-130
Dibromofluoromethane	106		70-130

Project Name: FESL
Project Number: 20029

Lab Number: L2044697
Report Date: 10/29/20

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260C
Analytical Date: 10/27/20 19:15
Analyst: AJK

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 17 Batch: WG1427448-5					
Methylene chloride	ND		ug/l	2.5	0.70
1,1-Dichloroethane	ND		ug/l	2.5	0.70
Chloroform	ND		ug/l	2.5	0.70
Carbon tetrachloride	ND		ug/l	0.50	0.13
1,2-Dichloropropane	ND		ug/l	1.0	0.14
Dibromochloromethane	ND		ug/l	0.50	0.15
1,1,2-Trichloroethane	ND		ug/l	1.5	0.50
Tetrachloroethene	ND		ug/l	0.50	0.18
Chlorobenzene	ND		ug/l	2.5	0.70
Trichlorofluoromethane	ND		ug/l	2.5	0.70
1,2-Dichloroethane	ND		ug/l	0.50	0.13
1,1,1-Trichloroethane	ND		ug/l	2.5	0.70
Bromodichloromethane	ND		ug/l	0.50	0.19
trans-1,3-Dichloropropene	ND		ug/l	0.50	0.16
cis-1,3-Dichloropropene	ND		ug/l	0.50	0.14
1,3-Dichloropropene, Total	ND		ug/l	0.50	0.14
1,1-Dichloropropene	ND		ug/l	2.5	0.70
Bromoform	ND		ug/l	2.0	0.65
1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	0.17
Benzene	ND		ug/l	0.50	0.16
Toluene	ND		ug/l	2.5	0.70
Ethylbenzene	ND		ug/l	2.5	0.70
Chloromethane	ND		ug/l	2.5	0.70
Bromomethane	ND		ug/l	2.5	0.70
Vinyl chloride	ND		ug/l	1.0	0.07
Chloroethane	ND		ug/l	2.5	0.70
1,1-Dichloroethene	ND		ug/l	0.50	0.17
trans-1,2-Dichloroethene	ND		ug/l	2.5	0.70
Trichloroethene	ND		ug/l	0.50	0.18

Project Name: FESL
Project Number: 20029

Lab Number: L2044697
Report Date: 10/29/20

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260C
Analytical Date: 10/27/20 19:15
Analyst: AJK

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 17 Batch: WG1427448-5					
1,2-Dichlorobenzene	ND		ug/l	2.5	0.70
1,3-Dichlorobenzene	ND		ug/l	2.5	0.70
1,4-Dichlorobenzene	ND		ug/l	2.5	0.70
Methyl tert butyl ether	ND		ug/l	2.5	0.70
p/m-Xylene	ND		ug/l	2.5	0.70
o-Xylene	ND		ug/l	2.5	0.70
Xylenes, Total	ND		ug/l	2.5	0.70
cis-1,2-Dichloroethene	ND		ug/l	2.5	0.70
1,2-Dichloroethene, Total	ND		ug/l	2.5	0.70
Dibromomethane	ND		ug/l	5.0	1.0
1,2,3-Trichloropropane	ND		ug/l	2.5	0.70
Acrylonitrile	ND		ug/l	5.0	1.5
Styrene	ND		ug/l	2.5	0.70
Dichlorodifluoromethane	ND		ug/l	5.0	1.0
Acetone	ND		ug/l	5.0	1.5
Carbon disulfide	ND		ug/l	5.0	1.0
2-Butanone	ND		ug/l	5.0	1.9
Vinyl acetate	ND		ug/l	5.0	1.0
4-Methyl-2-pentanone	ND		ug/l	5.0	1.0
2-Hexanone	ND		ug/l	5.0	1.0
Bromochloromethane	ND		ug/l	2.5	0.70
2,2-Dichloropropane	ND		ug/l	2.5	0.70
1,2-Dibromoethane	ND		ug/l	2.0	0.65
1,3-Dichloropropane	ND		ug/l	2.5	0.70
1,1,1,2-Tetrachloroethane	ND		ug/l	2.5	0.70
Bromobenzene	ND		ug/l	2.5	0.70
n-Butylbenzene	ND		ug/l	2.5	0.70
sec-Butylbenzene	ND		ug/l	2.5	0.70
tert-Butylbenzene	ND		ug/l	2.5	0.70

Project Name: FESL
Project Number: 20029

Lab Number: L2044697
Report Date: 10/29/20

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260C
Analytical Date: 10/27/20 19:15
Analyst: AJK

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 17 Batch: WG1427448-5					
o-Chlorotoluene	ND		ug/l	2.5	0.70
p-Chlorotoluene	ND		ug/l	2.5	0.70
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	0.70
Hexachlorobutadiene	ND		ug/l	2.5	0.70
Isopropylbenzene	ND		ug/l	2.5	0.70
p-Isopropyltoluene	ND		ug/l	2.5	0.70
Naphthalene	ND		ug/l	2.5	0.70
n-Propylbenzene	ND		ug/l	2.5	0.70
1,2,3-Trichlorobenzene	ND		ug/l	2.5	0.70
1,2,4-Trichlorobenzene	ND		ug/l	2.5	0.70
1,3,5-Trimethylbenzene	ND		ug/l	2.5	0.70
1,2,4-Trimethylbenzene	ND		ug/l	2.5	0.70
1,4-Dioxane	ND		ug/l	250	61.
Freon-113	ND		ug/l	2.5	0.70
p-Diethylbenzene	ND		ug/l	2.0	0.70
p-Ethyltoluene	ND		ug/l	2.0	0.70
1,2,4,5-Tetramethylbenzene	ND		ug/l	2.0	0.54
Ethyl ether	ND		ug/l	2.5	0.70
trans-1,4-Dichloro-2-butene	ND		ug/l	2.5	0.70

Surrogate	%Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	94		70-130
Toluene-d8	101		70-130
4-Bromofluorobenzene	104		70-130
Dibromofluoromethane	95		70-130

Lab Control Sample Analysis

Batch Quality Control

Project Name: FESL
Project Number: 20029

Lab Number: L2044697
Report Date: 10/29/20

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 18-25 Batch: WG1424046-3 WG1424046-4								
Methylene chloride	96		92		70-130	4		20
1,1-Dichloroethane	93		97		70-130	4		20
Chloroform	92		95		70-130	3		20
Carbon tetrachloride	93		96		63-132	3		20
1,2-Dichloropropane	92		97		70-130	5		20
Dibromochloromethane	89		94		63-130	5		20
1,1,2-Trichloroethane	91		95		70-130	4		20
Tetrachloroethene	94		100		70-130	6		20
Chlorobenzene	95		98		75-130	3		20
Trichlorofluoromethane	94		100		62-150	6		20
1,2-Dichloroethane	90		92		70-130	2		20
1,1,1-Trichloroethane	94		100		67-130	6		20
Bromodichloromethane	89		92		67-130	3		20
trans-1,3-Dichloropropene	88		91		70-130	3		20
cis-1,3-Dichloropropene	88		91		70-130	3		20
1,1-Dichloropropene	95		100		70-130	5		20
Bromoform	87		89		54-136	2		20
1,1,1,2,2-Tetrachloroethane	91		92		67-130	1		20
Benzene	94		96		70-130	2		20
Toluene	96		100		70-130	4		20
Ethylbenzene	98		100		70-130	2		20
Chloromethane	90		98		64-130	9		20
Bromomethane	79		80		39-139	1		20

Lab Control Sample Analysis

Batch Quality Control

Project Name: FESL
Project Number: 20029

Lab Number: L2044697
Report Date: 10/29/20

Parameter	LCS		LCSD		%Recovery Limits	RPD	Qual	RPD Limits
	%Recovery	Qual	%Recovery	Qual				
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 18-25 Batch: WG1424046-3 WG1424046-4								
Vinyl chloride	93		100		55-140	7		20
Chloroethane	110		110		55-138	0		20
1,1-Dichloroethene	96		100		61-145	4		20
trans-1,2-Dichloroethene	93		100		70-130	7		20
Trichloroethene	86		97		70-130	12		20
1,2-Dichlorobenzene	96		95		70-130	1		20
1,3-Dichlorobenzene	97		99		70-130	2		20
1,4-Dichlorobenzene	94		94		70-130	0		20
Methyl tert butyl ether	90		88		63-130	2		20
p/m-Xylene	100		105		70-130	5		20
o-Xylene	100		105		70-130	5		20
cis-1,2-Dichloroethene	90		97		70-130	7		20
Dibromomethane	93		95		70-130	2		20
1,2,3-Trichloropropane	94		93		64-130	1		20
Acrylonitrile	91		87		70-130	4		20
Styrene	100		110		70-130	10		20
Dichlorodifluoromethane	96		100		36-147	4		20
Acetone	84		84		58-148	0		20
Carbon disulfide	91		97		51-130	6		20
2-Butanone	97		93		63-138	4		20
Vinyl acetate	84		85		70-130	1		20
4-Methyl-2-pentanone	82		88		59-130	7		20
2-Hexanone	84		77		57-130	9		20

Lab Control Sample Analysis

Batch Quality Control

Project Name: FESL
Project Number: 20029

Lab Number: L2044697
Report Date: 10/29/20

Parameter	LCS		LCSD		%Recovery Limits	RPD	Qual	RPD Limits
	%Recovery	Qual	%Recovery	Qual				
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 18-25 Batch: WG1424046-3 WG1424046-4								
Bromochloromethane	98		94		70-130	4		20
2,2-Dichloropropane	94		98		63-133	4		20
1,2-Dibromoethane	91		96		70-130	5		20
1,3-Dichloropropane	93		96		70-130	3		20
1,1,1,2-Tetrachloroethane	92		96		64-130	4		20
Bromobenzene	92		97		70-130	5		20
n-Butylbenzene	100		100		53-136	0		20
sec-Butylbenzene	100		110		70-130	10		20
tert-Butylbenzene	88		91		70-130	3		20
o-Chlorotoluene	100		100		70-130	0		20
p-Chlorotoluene	98		100		70-130	2		20
1,2-Dibromo-3-chloropropane	78		86		41-144	10		20
Hexachlorobutadiene	93		100		63-130	7		20
Isopropylbenzene	100		100		70-130	0		20
p-Isopropyltoluene	100		100		70-130	0		20
Naphthalene	80		78		70-130	3		20
n-Propylbenzene	100		110		69-130	10		20
1,2,3-Trichlorobenzene	85		88		70-130	3		20
1,2,4-Trichlorobenzene	89		92		70-130	3		20
1,3,5-Trimethylbenzene	100		100		64-130	0		20
1,2,4-Trimethylbenzene	100		100		70-130	0		20
1,4-Dioxane	90		84		56-162	7		20
Freon-113	94		99		70-130	5		20

Lab Control Sample Analysis

Batch Quality Control

Project Name: FESL
Project Number: 20029

Lab Number: L2044697
Report Date: 10/29/20

Parameter	LCS		LCSD		%Recovery Limits	RPD	RPD	
	%Recovery	Qual	%Recovery	Qual			Qual	Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 18-25 Batch: WG1424046-3 WG1424046-4								
p-Diethylbenzene	95		99		70-130	4		20
p-Ethyltoluene	97		100		70-130	3		20
1,2,4,5-Tetramethylbenzene	91		94		70-130	3		20
Ethyl ether	92		93		59-134	1		20
trans-1,4-Dichloro-2-butene	86		85		70-130	1		20

Surrogate	LCS		LCSD		Acceptance Criteria
	%Recovery	Qual	%Recovery	Qual	
1,2-Dichloroethane-d4	96		96		70-130
Toluene-d8	100		100		70-130
4-Bromofluorobenzene	102		100		70-130
Dibromofluoromethane	96		98		70-130

Lab Control Sample Analysis

Batch Quality Control

Project Name: FESL
Project Number: 20029

Lab Number: L2044697
Report Date: 10/29/20

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-12,14-16 Batch: WG1427127-3 WG1427127-4								
Methylene chloride	100		100		70-130	0		20
1,1-Dichloroethane	110		110		70-130	0		20
Chloroform	98		97		70-130	1		20
Carbon tetrachloride	110		100		63-132	10		20
1,2-Dichloropropane	110		110		70-130	0		20
Dibromochloromethane	84		86		63-130	2		20
1,1,2-Trichloroethane	93		97		70-130	4		20
Tetrachloroethene	110		100		70-130	10		20
Chlorobenzene	97		93		75-130	4		20
Trichlorofluoromethane	120		110		62-150	9		20
1,2-Dichloroethane	100		100		70-130	0		20
1,1,1-Trichloroethane	110		100		67-130	10		20
Bromodichloromethane	96		98		67-130	2		20
trans-1,3-Dichloropropene	80		76		70-130	5		20
cis-1,3-Dichloropropene	96		92		70-130	4		20
1,1-Dichloropropene	120		110		70-130	9		20
Bromoform	86		89		54-136	3		20
1,1,2,2-Tetrachloroethane	88		94		67-130	7		20
Benzene	110		100		70-130	10		20
Toluene	100		98		70-130	2		20
Ethylbenzene	100		97		70-130	3		20
Chloromethane	130		130		64-130	0		20
Bromomethane	98		89		39-139	10		20

Lab Control Sample Analysis

Batch Quality Control

Project Name: FESL
Project Number: 20029

Lab Number: L2044697
Report Date: 10/29/20

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-12,14-16 Batch: WG1427127-3 WG1427127-4								
Vinyl chloride	140		120		55-140	15		20
Chloroethane	150	Q	130		55-138	14		20
1,1-Dichloroethene	96		92		61-145	4		20
trans-1,2-Dichloroethene	110		100		70-130	10		20
Trichloroethene	100		99		70-130	1		20
1,2-Dichlorobenzene	99		99		70-130	0		20
1,3-Dichlorobenzene	100		98		70-130	2		20
1,4-Dichlorobenzene	99		98		70-130	1		20
Methyl tert butyl ether	85		71		63-130	18		20
p/m-Xylene	100		95		70-130	5		20
o-Xylene	100		95		70-130	5		20
cis-1,2-Dichloroethene	110		100		70-130	10		20
Dibromomethane	97		99		70-130	2		20
1,2,3-Trichloropropane	87		93		64-130	7		20
Acrylonitrile	95		100		70-130	5		20
Styrene	95		95		70-130	0		20
Dichlorodifluoromethane	180	Q	160	Q	36-147	12		20
Acetone	85		100		58-148	16		20
Carbon disulfide	110		99		51-130	11		20
2-Butanone	90		89		63-138	1		20
Vinyl acetate	92		95		70-130	3		20
4-Methyl-2-pentanone	83		97		59-130	16		20
2-Hexanone	82		91		57-130	10		20

Lab Control Sample Analysis

Batch Quality Control

Project Name: FESL
Project Number: 20029

Lab Number: L2044697
Report Date: 10/29/20

Parameter	LCS		LCSD		%Recovery Limits	RPD	Qual	RPD Limits
	%Recovery	Qual	%Recovery	Qual				
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-12,14-16 Batch: WG1427127-3 WG1427127-4								
Bromochloromethane	98		100		70-130	2		20
2,2-Dichloropropane	110		93		63-133	17		20
1,2-Dibromoethane	88		91		70-130	3		20
1,3-Dichloropropane	130		130		70-130	0		20
1,1,1,2-Tetrachloroethane	93		90		64-130	3		20
Bromobenzene	100		100		70-130	0		20
n-Butylbenzene	100		89		53-136	12		20
sec-Butylbenzene	110		98		70-130	12		20
tert-Butylbenzene	100		97		70-130	3		20
o-Chlorotoluene	100		100		70-130	0		20
p-Chlorotoluene	100		96		70-130	4		20
1,2-Dibromo-3-chloropropane	84		89		41-144	6		20
Hexachlorobutadiene	110		100		63-130	10		20
Isopropylbenzene	110		100		70-130	10		20
p-Isopropyltoluene	100		93		70-130	7		20
Naphthalene	100		86		70-130	15		20
n-Propylbenzene	110		100		69-130	10		20
1,2,3-Trichlorobenzene	91		91		70-130	0		20
1,2,4-Trichlorobenzene	96		93		70-130	3		20
1,3,5-Trimethylbenzene	110		99		64-130	11		20
1,2,4-Trimethylbenzene	120		98		70-130	20		20
1,4-Dioxane	76		76		56-162	0		20
Freon-113	110		97		70-130	13		20

Lab Control Sample Analysis

Batch Quality Control

Project Name: FESL
Project Number: 20029

Lab Number: L2044697
Report Date: 10/29/20

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-12,14-16 Batch: WG1427127-3 WG1427127-4								
p-Diethylbenzene	100		88		70-130	13		20
p-Ethyltoluene	110		98		70-130	12		20
1,2,4,5-Tetramethylbenzene	98		86		70-130	13		20
Ethyl ether	100		110		59-134	10		20
trans-1,4-Dichloro-2-butene	48	Q	43	Q	70-130	11		20

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
1,2-Dichloroethane-d4	96		100		70-130
Toluene-d8	99		100		70-130
4-Bromofluorobenzene	102		102		70-130
Dibromofluoromethane	98		98		70-130

Lab Control Sample Analysis

Batch Quality Control

Project Name: FESL
Project Number: 20029

Lab Number: L2044697
Report Date: 10/29/20

Parameter	LCS		LCSD		%Recovery Limits	RPD	Qual	RPD Limits
	%Recovery	Qual	%Recovery	Qual				
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 13 Batch: WG1427204-3 WG1427204-4								
Methylene chloride	100		97		70-130	3		20
1,1-Dichloroethane	110		100		70-130	10		20
Chloroform	100		100		70-130	0		20
Carbon tetrachloride	96		98		63-132	2		20
1,2-Dichloropropane	99		100		70-130	1		20
Dibromochloromethane	92		94		63-130	2		20
1,1,2-Trichloroethane	94		98		70-130	4		20
Tetrachloroethene	98		98		70-130	0		20
Chlorobenzene	100		100		75-130	0		20
Trichlorofluoromethane	110		110		62-150	0		20
1,2-Dichloroethane	100		100		70-130	0		20
1,1,1-Trichloroethane	98		99		67-130	1		20
Bromodichloromethane	100		100		67-130	0		20
trans-1,3-Dichloropropene	94		92		70-130	2		20
cis-1,3-Dichloropropene	95		94		70-130	1		20
1,1-Dichloropropene	100		99		70-130	1		20
Bromoform	84		92		54-136	9		20
1,1,1,2,2-Tetrachloroethane	90		93		67-130	3		20
Benzene	100		100		70-130	0		20
Toluene	100		100		70-130	0		20
Ethylbenzene	100		100		70-130	0		20
Chloromethane	110		110		64-130	0		20
Bromomethane	100		110		39-139	10		20

Lab Control Sample Analysis

Batch Quality Control

Project Name: FESL
Project Number: 20029

Lab Number: L2044697
Report Date: 10/29/20

Parameter	LCS		LCSD		%Recovery Limits	RPD	Qual	RPD Limits
	%Recovery	Qual	%Recovery	Qual				
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 13 Batch: WG1427204-3 WG1427204-4								
Vinyl chloride	110		100		55-140	10		20
Chloroethane	120		120		55-138	0		20
1,1-Dichloroethene	100		96		61-145	4		20
trans-1,2-Dichloroethene	100		100		70-130	0		20
Trichloroethene	100		100		70-130	0		20
1,2-Dichlorobenzene	95		100		70-130	5		20
1,3-Dichlorobenzene	100		100		70-130	0		20
1,4-Dichlorobenzene	96		98		70-130	2		20
Methyl tert butyl ether	91		93		63-130	2		20
p/m-Xylene	105		105		70-130	0		20
o-Xylene	105		105		70-130	0		20
cis-1,2-Dichloroethene	100		99		70-130	1		20
Dibromomethane	93		98		70-130	5		20
1,2,3-Trichloropropane	91		100		64-130	9		20
Acrylonitrile	92		100		70-130	8		20
Styrene	110		110		70-130	0		20
Dichlorodifluoromethane	110		110		36-147	0		20
Acetone	90		93		58-148	3		20
Carbon disulfide	110		100		51-130	10		20
2-Butanone	97		110		63-138	13		20
Vinyl acetate	90		93		70-130	3		20
4-Methyl-2-pentanone	79		86		59-130	8		20
2-Hexanone	78		83		57-130	6		20

Lab Control Sample Analysis

Batch Quality Control

Project Name: FESL
Project Number: 20029

Lab Number: L2044697
Report Date: 10/29/20

Parameter	LCS		LCSD		%Recovery Limits	RPD	Qual	RPD Limits
	%Recovery	Qual	%Recovery	Qual				
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 13 Batch: WG1427204-3 WG1427204-4								
Bromochloromethane	100		100		70-130	0		20
2,2-Dichloropropane	100		100		63-133	0		20
1,2-Dibromoethane	94		93		70-130	1		20
1,3-Dichloropropane	96		98		70-130	2		20
1,1,1,2-Tetrachloroethane	100		99		64-130	1		20
Bromobenzene	99		100		70-130	1		20
n-Butylbenzene	110		110		53-136	0		20
sec-Butylbenzene	110		110		70-130	0		20
tert-Butylbenzene	88		90		70-130	2		20
o-Chlorotoluene	110		110		70-130	0		20
p-Chlorotoluene	110		110		70-130	0		20
1,2-Dibromo-3-chloropropane	63		72		41-144	13		20
Hexachlorobutadiene	90		88		63-130	2		20
Isopropylbenzene	110		110		70-130	0		20
p-Isopropyltoluene	110		100		70-130	10		20
Naphthalene	47	Q	51	Q	70-130	8		20
n-Propylbenzene	110		110		69-130	0		20
1,2,3-Trichlorobenzene	49	Q	54	Q	70-130	10		20
1,2,4-Trichlorobenzene	68	Q	68	Q	70-130	0		20
1,3,5-Trimethylbenzene	110		110		64-130	0		20
1,2,4-Trimethylbenzene	110		110		70-130	0		20
1,4-Dioxane	80		80		56-162	0		20
Freon-113	100		100		70-130	0		20

Lab Control Sample Analysis Batch Quality Control

Project Name: FESL
Project Number: 20029

Lab Number: L2044697
Report Date: 10/29/20

Parameter	LCS		LCSD		%Recovery Limits	RPD	RPD	
	%Recovery	Qual	%Recovery	Qual			Qual	Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 13 Batch: WG1427204-3 WG1427204-4								
p-Diethylbenzene	100		100		70-130	0		20
p-Ethyltoluene	100		100		70-130	0		20
1,2,4,5-Tetramethylbenzene	90		90		70-130	0		20
Ethyl ether	94		94		59-134	0		20
trans-1,4-Dichloro-2-butene	86		96		70-130	11		20

Surrogate	LCS		LCSD		Acceptance Criteria
	%Recovery	Qual	%Recovery	Qual	
1,2-Dichloroethane-d4	99		100		70-130
Toluene-d8	102		99		70-130
4-Bromofluorobenzene	100		100		70-130
Dibromofluoromethane	100		100		70-130



Lab Control Sample Analysis

Batch Quality Control

Project Name: FESL
Project Number: 20029

Lab Number: L2044697
Report Date: 10/29/20

Parameter	LCS		LCSD		%Recovery Limits	RPD	Qual	RPD Limits
	%Recovery	Qual	%Recovery	Qual				
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 17 Batch: WG1427448-3 WG1427448-4								
Methylene chloride	95		100		70-130	5		20
1,1-Dichloroethane	100		100		70-130	0		20
Chloroform	91		95		70-130	4		20
Carbon tetrachloride	92		96		63-132	4		20
1,2-Dichloropropane	99		100		70-130	1		20
Dibromochloromethane	82		88		63-130	7		20
1,1,2-Trichloroethane	92		99		70-130	7		20
Tetrachloroethene	100		110		70-130	10		20
Chlorobenzene	92		98		75-130	6		20
Trichlorofluoromethane	110		120		62-150	9		20
1,2-Dichloroethane	93		97		70-130	4		20
1,1,1-Trichloroethane	90		97		67-130	7		20
Bromodichloromethane	91		93		67-130	2		20
trans-1,3-Dichloropropene	79		80		70-130	1		20
cis-1,3-Dichloropropene	90		93		70-130	3		20
1,1-Dichloropropene	97		100		70-130	3		20
Bromoform	86		93		54-136	8		20
1,1,1,2,2-Tetrachloroethane	90		98		67-130	9		20
Benzene	98		100		70-130	2		20
Toluene	98		100		70-130	2		20
Ethylbenzene	94		100		70-130	6		20
Chloromethane	120		120		64-130	0		20
Bromomethane	81		74		39-139	9		20

Lab Control Sample Analysis

Batch Quality Control

Project Name: FESL
Project Number: 20029

Lab Number: L2044697
Report Date: 10/29/20

Parameter	LCS		LCSD		%Recovery Limits	RPD	Qual	RPD Limits
	%Recovery	Qual	%Recovery	Qual				
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 17 Batch: WG1427448-3 WG1427448-4								
Vinyl chloride	120		130		55-140	8		20
Chloroethane	120		130		55-138	8		20
1,1-Dichloroethene	83		88		61-145	6		20
trans-1,2-Dichloroethene	96		100		70-130	4		20
Trichloroethene	87		96		70-130	10		20
1,2-Dichlorobenzene	96		100		70-130	4		20
1,3-Dichlorobenzene	98		100		70-130	2		20
1,4-Dichlorobenzene	96		100		70-130	4		20
Methyl tert butyl ether	77		65		63-130	17		20
p/m-Xylene	95		100		70-130	5		20
o-Xylene	95		100		70-130	5		20
cis-1,2-Dichloroethene	98		99		70-130	1		20
Dibromomethane	92		96		70-130	4		20
1,2,3-Trichloropropane	89		96		64-130	8		20
Acrylonitrile	92		94		70-130	2		20
Styrene	90		100		70-130	11		20
Dichlorodifluoromethane	150	Q	170	Q	36-147	13		20
Acetone	85		100		58-148	16		20
Carbon disulfide	94		100		51-130	6		20
2-Butanone	88		88		63-138	0		20
Vinyl acetate	93		94		70-130	1		20
4-Methyl-2-pentanone	88		96		59-130	9		20
2-Hexanone	88		95		57-130	8		20

Lab Control Sample Analysis

Batch Quality Control

Project Name: FESL
Project Number: 20029

Lab Number: L2044697
Report Date: 10/29/20

Parameter	LCS		LCSD		%Recovery Limits	RPD	Qual	RPD Limits
	%Recovery	Qual	%Recovery	Qual				
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 17 Batch: WG1427448-3 WG1427448-4								
Bromochloromethane	95		98		70-130	3		20
2,2-Dichloropropane	99		93		63-133	6		20
1,2-Dibromoethane	91		95		70-130	4		20
1,3-Dichloropropane	140	Q	140	Q	70-130	0		20
1,1,1,2-Tetrachloroethane	91		95		64-130	4		20
Bromobenzene	96		100		70-130	4		20
n-Butylbenzene	91		94		53-136	3		20
sec-Butylbenzene	94		100		70-130	6		20
tert-Butylbenzene	94		100		70-130	6		20
o-Chlorotoluene	96		100		70-130	4		20
p-Chlorotoluene	97		100		70-130	3		20
1,2-Dibromo-3-chloropropane	84		90		41-144	7		20
Hexachlorobutadiene	98		110		63-130	12		20
Isopropylbenzene	98		110		70-130	12		20
p-Isopropyltoluene	92		96		70-130	4		20
Naphthalene	69	Q	75		70-130	8		20
n-Propylbenzene	96		100		69-130	4		20
1,2,3-Trichlorobenzene	78		86		70-130	10		20
1,2,4-Trichlorobenzene	89		94		70-130	5		20
1,3,5-Trimethylbenzene	97		100		64-130	3		20
1,2,4-Trimethylbenzene	96		100		70-130	4		20
1,4-Dioxane	68		76		56-162	11		20
Freon-113	93		100		70-130	7		20

Lab Control Sample Analysis

Batch Quality Control

Project Name: FESL
Project Number: 20029

Lab Number: L2044697
Report Date: 10/29/20

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 17 Batch: WG1427448-3 WG1427448-4								
p-Diethylbenzene	90		94		70-130	4		20
p-Ethyltoluene	98		100		70-130	2		20
1,2,4,5-Tetramethylbenzene	89		90		70-130	1		20
Ethyl ether	100		110		59-134	10		20
trans-1,4-Dichloro-2-butene	51	Q	51	Q	70-130	0		20

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
1,2-Dichloroethane-d4	99		99		70-130
Toluene-d8	102		102		70-130
4-Bromofluorobenzene	101		102		70-130
Dibromofluoromethane	99		98		70-130

Project Name: FESL**Lab Number:** L2044697**Project Number:** 20029**Report Date:** 10/29/20**Sample Receipt and Container Information**

Were project specific reporting limits specified?

YES

Cooler Information

Cooler	Custody Seal
A	Absent

Container Information

Container ID	Container Type	Cooler	Initial pH	Final pH	Temp deg C	Pres	Seal	Frozen Date/Time	Analysis(*)
L2044697-01A	Vial HCl preserved	A	NA		3.7	Y	Absent		NYTCL-8260(14)
L2044697-01B	Vial HCl preserved	A	NA		3.7	Y	Absent		NYTCL-8260(14)
L2044697-02A	Vial HCl preserved	A	NA		3.7	Y	Absent		NYTCL-8260(14)
L2044697-02B	Vial HCl preserved	A	NA		3.7	Y	Absent		NYTCL-8260(14)
L2044697-03A	Vial HCl preserved	A	NA		3.7	Y	Absent		NYTCL-8260(14)
L2044697-03B	Vial HCl preserved	A	NA		3.7	Y	Absent		NYTCL-8260(14)
L2044697-04A	Vial HCl preserved	A	NA		3.7	Y	Absent		NYTCL-8260(14)
L2044697-04B	Vial HCl preserved	A	NA		3.7	Y	Absent		NYTCL-8260(14)
L2044697-05A	Vial HCl preserved	A	NA		3.7	Y	Absent		NYTCL-8260(14)
L2044697-05B	Vial HCl preserved	A	NA		3.7	Y	Absent		NYTCL-8260(14)
L2044697-06A	Vial HCl preserved	A	NA		3.7	Y	Absent		NYTCL-8260(14)
L2044697-06B	Vial HCl preserved	A	NA		3.7	Y	Absent		NYTCL-8260(14)
L2044697-07A	Vial HCl preserved	A	NA		3.7	Y	Absent		NYTCL-8260(14)
L2044697-07B	Vial HCl preserved	A	NA		3.7	Y	Absent		NYTCL-8260(14)
L2044697-08A	Vial HCl preserved	A	NA		3.7	Y	Absent		NYTCL-8260(14)
L2044697-08B	Vial HCl preserved	A	NA		3.7	Y	Absent		NYTCL-8260(14)
L2044697-09A	Vial HCl preserved	A	NA		3.7	Y	Absent		NYTCL-8260(14)
L2044697-09B	Vial HCl preserved	A	NA		3.7	Y	Absent		NYTCL-8260(14)
L2044697-09C	Vial HCl preserved	A	NA		3.7	Y	Absent		NYTCL-8260(14)
L2044697-10A	Vial HCl preserved	A	NA		3.7	Y	Absent		NYTCL-8260(14)
L2044697-10B	Vial HCl preserved	A	NA		3.7	Y	Absent		NYTCL-8260(14)
L2044697-11A	Vial HCl preserved	A	NA		3.7	Y	Absent		NYTCL-8260(14)
L2044697-11B	Vial HCl preserved	A	NA		3.7	Y	Absent		NYTCL-8260(14)

Project Name: FESL**Lab Number:** L2044697**Project Number:** 20029**Report Date:** 10/29/20**Container Information**

Container ID	Container Type	Cooler	Initial pH	Final pH	Temp deg C	Pres	Seal	Frozen Date/Time	Analysis(*)
L2044697-12A	Vial HCl preserved	A	NA		3.7	Y	Absent		NYTCL-8260(14)
L2044697-12B	Vial HCl preserved	A	NA		3.7	Y	Absent		NYTCL-8260(14)
L2044697-13A	Vial HCl preserved	A	NA		3.7	Y	Absent		NYTCL-8260(14)
L2044697-13B	Vial HCl preserved	A	NA		3.7	Y	Absent		NYTCL-8260(14)
L2044697-14A	Vial HCl preserved	A	NA		3.7	Y	Absent		NYTCL-8260(14)
L2044697-14B	Vial HCl preserved	A	NA		3.7	Y	Absent		NYTCL-8260(14)
L2044697-15A	Vial HCl preserved	A	NA		3.7	Y	Absent		NYTCL-8260(14)
L2044697-15B	Vial HCl preserved	A	NA		3.7	Y	Absent		NYTCL-8260(14)
L2044697-16A	Vial HCl preserved	A	NA		3.7	Y	Absent		NYTCL-8260(14)
L2044697-16B	Vial HCl preserved	A	NA		3.7	Y	Absent		NYTCL-8260(14)
L2044697-17A	Vial HCl preserved	A	NA		3.7	Y	Absent		NYTCL-8260(14)
L2044697-17B	Vial HCl preserved	A	NA		3.7	Y	Absent		NYTCL-8260(14)
L2044697-18A	Vial HCl preserved	A	NA		3.7	Y	Absent		NYTCL-8260(14)
L2044697-18B	Vial HCl preserved	A	NA		3.7	Y	Absent		NYTCL-8260(14)
L2044697-19A	Vial HCl preserved	A	NA		3.7	Y	Absent		NYTCL-8260(14)
L2044697-19B	Vial HCl preserved	A	NA		3.7	Y	Absent		NYTCL-8260(14)
L2044697-20A	Vial HCl preserved	A	NA		3.7	Y	Absent		NYTCL-8260(14)
L2044697-20B	Vial HCl preserved	A	NA		3.7	Y	Absent		NYTCL-8260(14)
L2044697-21A	Vial HCl preserved	A	NA		3.7	Y	Absent		NYTCL-8260(14)
L2044697-21B	Vial HCl preserved	A	NA		3.7	Y	Absent		NYTCL-8260(14)
L2044697-22A	Vial HCl preserved	A	NA		3.7	Y	Absent		NYTCL-8260(14)
L2044697-22B	Vial HCl preserved	A	NA		3.7	Y	Absent		NYTCL-8260(14)
L2044697-23A	Vial HCl preserved	A	NA		3.7	Y	Absent		NYTCL-8260(14)
L2044697-23B	Vial HCl preserved	A	NA		3.7	Y	Absent		NYTCL-8260(14)
L2044697-24A	Vial HCl preserved	A	NA		3.7	Y	Absent		NYTCL-8260(14)
L2044697-24B	Vial HCl preserved	A	NA		3.7	Y	Absent		NYTCL-8260(14)
L2044697-25A	Vial HCl preserved	A	NA		3.7	Y	Absent		NYTCL-8260(14)
L2044697-25B	Vial HCl preserved	A	NA		3.7	Y	Absent		NYTCL-8260(14)

Project Name: FESL
Project Number: 20029

Serial_No:10292011:45
Lab Number: L2044697
Report Date: 10/29/20

Container Information

Container ID **Container Type**

Cooler **Initial pH** **Final pH** **Temp deg C** **Pres** **Seal** **Frozen Date/Time** **Analysis(*)**

Project Name: FESL
Project Number: 20029

Lab Number: L2044697
Report Date: 10/29/20

GLOSSARY

Acronyms

DL	- Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the limit of quantitation (LOQ). The DL includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)
EDL	- Estimated Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The EDL includes any adjustments from dilutions, concentrations or moisture content, where applicable. The use of EDLs is specific to the analysis of PAHs using Solid-Phase Microextraction (SPME).
EMPC	- Estimated Maximum Possible Concentration: The concentration that results from the signal present at the retention time of an analyte when the ions meet all of the identification criteria except the ion abundance ratio criteria. An EMPC is a worst-case estimate of the concentration.
EPA	- Environmental Protection Agency.
LCS	- Laboratory Control Sample: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.
LCSD	- Laboratory Control Sample Duplicate: Refer to LCS.
LFB	- Laboratory Fortified Blank: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.
LOD	- Limit of Detection: This value represents the level to which a target analyte can reliably be detected for a specific analyte in a specific matrix by a specific method. The LOD includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)
LOQ	- Limit of Quantitation: The value at which an instrument can accurately measure an analyte at a specific concentration. The LOQ includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.) Limit of Quantitation: The value at which an instrument can accurately measure an analyte at a specific concentration. The LOQ includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)
MDL	- Method Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The MDL includes any adjustments from dilutions, concentrations or moisture content, where applicable.
MS	- Matrix Spike Sample: A sample prepared by adding a known mass of target analyte to a specified amount of matrix sample for which an independent estimate of target analyte concentration is available. For Method 332.0, the spike recovery is calculated using the native concentration, including estimated values.
MSD	- Matrix Spike Sample Duplicate: Refer to MS.
NA	- Not Applicable.
NC	- Not Calculated: Term is utilized when one or more of the results utilized in the calculation are non-detect at the parameter's reporting unit.
NDPA/DPA	- N-Nitrosodiphenylamine/Diphenylamine.
NI	- Not Ignitable.
NP	- Non-Plastic: Term is utilized for the analysis of Atterberg Limits in soil.
NR	- No Results: Term is utilized when 'No Target Compounds Requested' is reported for the analysis of Volatile or Semivolatile Organic TIC only requests.
RL	- Reporting Limit: The value at which an instrument can accurately measure an analyte at a specific concentration. The RL includes any adjustments from dilutions, concentrations or moisture content, where applicable.
RPD	- Relative Percent Difference: The results from matrix and/or matrix spike duplicates are primarily designed to assess the precision of analytical results in a given matrix and are expressed as relative percent difference (RPD). Values which are less than five times the reporting limit for any individual parameter are evaluated by utilizing the absolute difference between the values; although the RPD value will be provided in the report.
SRM	- Standard Reference Material: A reference sample of a known or certified value that is of the same or similar matrix as the associated field samples.
STLP	- Semi-dynamic Tank Leaching Procedure per EPA Method 1315.
TEF	- Toxic Equivalency Factors: The values assigned to each dioxin and furan to evaluate their toxicity relative to 2,3,7,8-TCDD.
TEQ	- Toxic Equivalent: The measure of a sample's toxicity derived by multiplying each dioxin and furan by its corresponding TEF and then summing the resulting values.
TIC	- Tentatively Identified Compound: A compound that has been identified to be present and is not part of the target compound list (TCL) for the method and/or program. All TICs are qualitatively identified and reported as estimated concentrations.

Report Format: DU Report with 'J' Qualifiers



Project Name: FESL
Project Number: 20029

Lab Number: L2044697
Report Date: 10/29/20

Footnotes

- 1 - The reference for this analyte should be considered modified since this analyte is absent from the target analyte list of the original method.

Terms

Analytical Method: Both the document from which the method originates and the analytical reference method. (Example: EPA 8260B is shown as 1,8260B.) The codes for the reference method documents are provided in the References section of the Addendum.

Difference: With respect to Total Oxidizable Precursor (TOP) Assay analysis, the difference is defined as the Post-Treatment value minus the Pre-Treatment value.

Final pH: As it pertains to Sample Receipt & Container Information section of the report, Final pH reflects pH of container determined after adjustment at the laboratory, if applicable. If no adjustment required, value reflects Initial pH.

Frozen Date/Time: With respect to Volatile Organics in soil, Frozen Date/Time reflects the date/time at which associated Reagent Water-preserved vials were initially frozen. Note: If frozen date/time is beyond 48 hours from sample collection, value will be reflected in 'bold'.

Initial pH: As it pertains to Sample Receipt & Container Information section of the report, Initial pH reflects pH of container determined upon receipt, if applicable.

PAH Total: With respect to Alkylated PAH analyses, the 'PAHs, Total' result is defined as the summation of results for all or a subset of the following compounds: Naphthalene, C1-C4 Naphthalenes, 2-Methylnaphthalene, 1-Methylnaphthalene, Biphenyl, Acenaphthylene, Acenaphthene, Fluorene, C1-C3 Fluorenes, Phenanthrene, C1-C4 Phenanthrenes/Anthracenes, Anthracene, Fluoranthene, Pyrene, C1-C4 Fluoranthenes/Pyrenes, Benz(a)anthracene, Chrysene, C1-C4 Chrysenes, Benzo(b)fluoranthene, Benzo(j)+(k)fluoranthene, Benzo(e)pyrene, Benzo(a)pyrene, Perylene, Indeno(1,2,3-cd)pyrene, Dibenz(ah)+(ac)anthracene, Benzo(g,h,i)perylene. If a 'Total' result is requested, the results of its individual components will also be reported.

PFAS Total: With respect to PFAS analyses, the 'PFAS, Total (5)' result is defined as the summation of results for: PFHpA, PFHxS, PFOA, PFNA and PFOS. If a 'Total' result is requested, the results of its individual components will also be reported.

The target compound Chlordane (CAS No. 57-74-9) is reported for GC ECD analyses. Per EPA, this compound "refers to a mixture of chlordane isomers, other chlorinated hydrocarbons and numerous other components." (Reference: USEPA Toxicological Review of Chlordane, In Support of Summary Information on the Integrated Risk Information System (IRIS), December 1997.)

Total: With respect to Organic analyses, a 'Total' result is defined as the summation of results for individual isomers or Aroclors. If a 'Total' result is requested, the results of its individual components will also be reported. This is applicable to 'Total' results for methods 8260, 8081 and 8082.

Data Qualifiers

- A** - Spectra identified as "Aldol Condensates" are byproducts of the extraction/concentration procedures when acetone is introduced in the process.
- B** - The analyte was detected above the reporting limit in the associated method blank. Flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For MCP-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For DOD-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank AND the analyte was detected above one-half the reporting limit (or above the reporting limit for common lab contaminants) in the associated method blank. For NJ-Air-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte above the reporting limit. For NJ-related projects (excluding Air), flag only applies to associated field samples that have detectable concentrations of the analyte, which was detected above the reporting limit in the associated method blank or above five times the reporting limit for common lab contaminants (Phthalates, Acetone, Methylene Chloride, 2-Butanone).
- C** - Co-elution: The target analyte co-elutes with a known lab standard (i.e. surrogate, internal standards, etc.) for co-extracted analyses.
- D** - Concentration of analyte was quantified from diluted analysis. Flag only applies to field samples that have detectable concentrations of the analyte.
- E** - Concentration of analyte exceeds the range of the calibration curve and/or linear range of the instrument.
- F** - The ratio of quantifier ion response to qualifier ion response falls outside of the laboratory criteria. Results are considered to be an estimated maximum concentration.
- G** - The concentration may be biased high due to matrix interferences (i.e. co-elution) with non-target compound(s). The result should be considered estimated.
- H** - The analysis of pH was performed beyond the regulatory-required holding time of 15 minutes from the time of sample collection.
- I** - The lower value for the two columns has been reported due to obvious interference.
- J** - Estimated value. The Target analyte concentration is below the quantitation limit (RL), but above the Method Detection Limit (MDL) or Estimated Detection Limit (EDL) for SPME-related analyses. This represents an estimated concentration for Tentatively Identified Compounds (TICs).
- M** - Reporting Limit (RL) exceeds the MCP CAM Reporting Limit for this analyte.
- ND** - Not detected at the method detection limit (MDL) for the sample, or estimated detection limit (EDL) for SPME-related analyses.
- NJ** - Presumptive evidence of compound. This represents an estimated concentration for Tentatively Identified Compounds (TICs), where

Report Format: DU Report with 'J' Qualifiers



Project Name: FESL
Project Number: 20029

Lab Number: L2044697
Report Date: 10/29/20

Data Qualifiers

the identification is based on a mass spectral library search.

- P** - The RPD between the results for the two columns exceeds the method-specified criteria.
- Q** - The quality control sample exceeds the associated acceptance criteria. For DOD-related projects, LCS and/or Continuing Calibration Standard exceedences are also qualified on all associated sample results. Note: This flag is not applicable for matrix spike recoveries when the sample concentration is greater than 4x the spike added or for batch duplicate RPD when the sample concentrations are less than 5x the RL. (Metals only.)
- R** - Analytical results are from sample re-analysis.
- RE** - Analytical results are from sample re-extraction.
- S** - Analytical results are from modified screening analysis.

Project Name: FESL
Project Number: 20029

Lab Number: L2044697
Report Date: 10/29/20

REFERENCES

- 1 Test Methods for Evaluating Solid Waste: Physical/Chemical Methods. EPA SW-846. Third Edition. Updates I - VI, 2018.

LIMITATION OF LIABILITIES

Alpha Analytical performs services with reasonable care and diligence normal to the analytical testing laboratory industry. In the event of an error, the sole and exclusive responsibility of Alpha Analytical shall be to re-perform the work at it's own expense. In no event shall Alpha Analytical be held liable for any incidental, consequential or special damages, including but not limited to, damages in any way connected with the use of, interpretation of, information or analysis provided by Alpha Analytical.

We strongly urge our clients to comply with EPA protocol regarding sample volume, preservation, cooling, containers, sampling procedures, holding time and splitting of samples in the field.



Certification Information

The following analytes are not included in our Primary NELAP Scope of Accreditation:

Westborough Facility

EPA 624/624.1: m/p-xylene, o-xylene, Naphthalene

EPA 8260C: NPW: 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene, Azobenzene; SCM: Iodomethane (methyl iodide), 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene.

EPA 8270D: NPW: Dimethylnaphthalene, 1,4-Diphenylhydrazine; SCM: Dimethylnaphthalene, 1,4-Diphenylhydrazine.

SM4500: NPW: Amenable Cyanide; SCM: Total Phosphorus, TKN, NO₂, NO₃.

Mansfield Facility

SM 2540D: TSS

EPA 8082A: NPW: PCB: 1, 5, 31, 87, 101, 110, 141, 151, 153, 180, 183, 187.

EPA TO-15: Halothane, 2,4,4-Trimethyl-2-pentene, 2,4,4-Trimethyl-1-pentene, Thiophene, 2-Methylthiophene, 3-Methylthiophene, 2-Ethylthiophene, 1,2,3-Trimethylbenzene, Indan, Indene, 1,2,4,5-Tetramethylbenzene, Benzothiophene, 1-Methylnaphthalene.

EPA TO-12 Non-methane organics

EPA 3C Fixed gases

Biological Tissue Matrix: EPA 3050B

The following analytes are included in our Massachusetts DEP Scope of Accreditation

Westborough Facility:

Drinking Water

EPA 300.0: Chloride, Nitrate-N, Fluoride, Sulfate; **EPA 353.2:** Nitrate-N, Nitrite-N; **SM4500NO3-F:** Nitrate-N, Nitrite-N; **SM4500F-C, SM4500CN-CE,**

EPA 180.1, SM2130B, SM4500CI-D, SM2320B, SM2540C, SM4500H-B, SM4500NO2-B

EPA 332: Perchlorate; **EPA 524.2:** THMs and VOCs; **EPA 504.1:** EDB, DBCP.

Microbiology: **SM9215B; SM9223-P/A, SM9223B-Colilert-QT, SM9222D.**

Non-Potable Water

SM4500H,B, EPA 120.1, SM2510B, SM2540C, SM2320B, SM4500CL-E, SM4500F-BC, SM4500NH3-BH: Ammonia-N and Kjeldahl-N, **EPA 350.1:** Ammonia-N, **LACHAT 10-107-06-1-B:** Ammonia-N, **EPA 351.1, SM4500NO3-F, EPA 353.2:** Nitrate-N, **SM4500P-E, SM4500P-B, E, SM4500SO4-E, SM5220D, EPA 410.4, SM5210B, SM5310C, SM4500CL-D, EPA 1664, EPA 420.1, SM4500-CN-CE, SM2540D, EPA 300:** Chloride, Sulfate, Nitrate.

EPA 624.1: Volatile Halocarbons & Aromatics,

EPA 608.3: Chlordane, Toxaphene, Aldrin, alpha-BHC, beta-BHC, gamma-BHC, delta-BHC, Dieldrin, DDD, DDE, DDT, Endosulfan I, Endosulfan II, Endosulfan sulfate, Endrin, Endrin Aldehyde, Heptachlor, Heptachlor Epoxide, PCBs

EPA 625.1: SVOC (Acid/Base/Neutral Extractables), **EPA 600/4-81-045:** PCB-Oil.

Microbiology: **SM9223B-Colilert-QT; Enterolert-QT, SM9221E, EPA 1600, EPA 1603.**

Mansfield Facility:

Drinking Water

EPA 200.7: Al, Ba, Cd, Cr, Cu, Fe, Mn, Ni, Na, Ag, Ca, Zn. **EPA 200.8:** Al, Sb, As, Ba, Be, Cd, Cr, Cu, Pb, Mn, Ni, Se, Ag, TL, Zn. **EPA 245.1** Hg.

EPA 522.

Non-Potable Water


EPA 200.7: Al, Sb, As, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Mg, Mn, Mo, Ni, K, Se, Ag, Na, Sr, TL, Ti, V, Zn.


EPA 200.8: Al, Sb, As, Be, Cd, Cr, Cu, Fe, Pb, Mn, Ni, K, Se, Ag, Na, TL, Zn.


EPA 245.1 Hg.

SM2340B

For a complete listing of analytes and methods, please contact your Alpha Project Manager.

 NEW JERSEY CHAIN OF CUSTODY Westborough, MA 01581 8 Walkup Dr. TEL: 508-898-9220 FAX: 508-898-9193	Mahwah, NJ 07430: 35 Whitney Rd, Suite 5 Albany, NY 12205: 14 Walker Way Tonawanda, NY 14150: 275 Cooper Ave, Suite 105	Page 1	Date Rec'd in Lab <i>10/16/20</i>	ALPHA Job # <i>2044697</i>			
		of 3					
Mansfield, MA 02048 320 Forbes Blvd TEL: 508-822-9300 FAX: 508-822-3288	Project Information		Deliverables		Billing Information		
Client Information	Project Name: FESL	<input type="checkbox"/> NJ Full / Reduced <input type="checkbox"/> EQuIS (1 File) <input type="checkbox"/> EQuIS (4 File) <input type="checkbox"/> Other		<input checked="" type="checkbox"/> Same as Client Info PO # 4697			
Client: XDD	Project Location: Rochester, NY	<input type="checkbox"/> SRS Residential/Non Residential <input type="checkbox"/> SRS Impact to Groundwater <input type="checkbox"/> NJ Ground Water Quality Standards <input type="checkbox"/> NJ IGW SPLP Leachate Criteria <input checked="" type="checkbox"/> Other NYSDOH ELAP		Site Information Is this site impacted by Petroleum? Yes <input type="checkbox"/> Petroleum Product:			
Address: 22 Marin Way, Unit 3 Stratham, NH 03833 Phone: 603-778-1100	Project # 20029 (Use Project name as Project #) <input type="checkbox"/>	Project Manager: Ashaley Kane ALPHAQuote #: 12788		Turn-Around Time Standard <input checked="" type="checkbox"/> Due Date: Rush (only if pre approved) <input type="checkbox"/> # of Days:			
Fax: Email: lcrawford@xdd-llc.com	These samples have been previously analyzed by Alpha <input type="checkbox"/>		ANALYSIS		Sample Filtration		
For EPH, selection is REQUIRED: <input type="checkbox"/> Category 1 <input type="checkbox"/> Category 2	For VOC, selection is REQUIRED: <input type="checkbox"/> 1,4-Dioxane <input type="checkbox"/> 8011	Other project specific requirements/comments: invoices go to ap@xdd-llc.com * please include Freon-113		<input type="checkbox"/> Done <input type="checkbox"/> Lab to do Preservation <input type="checkbox"/> Lab to do (Please Specify below)			
ALPHA Lab ID (Lab Use Only)	Sample ID	Collection		Sample Matrix	Sampler's Initials	VOCs * Total Bottles	
		Date	Time				
<i>44697-01</i>	Flow Lo 0.5	10/15/2020	8:10	GW	LC	x	
<i>-02</i>	Flow Hi 0.5	10/15/2020	8:15	GW	LC	x	
<i>-03</i>	Target Lo 0.5	10/15/2020	8:20	GW	LC	x	
<i>-04</i>	Target Hi 0.5	10/15/2020	8:25	GW	LC	x	
<i>-05</i>	eZVI Lo 0.5	10/15/2020	8:30	GW	LC	x	
<i>-06</i>	eZVI Hi 0.5	10/15/2020	8:35	GW	LC	x	
<i>-07</i>	Ctrl 0.5	10/15/2020	8:40	GW	LC	x	
<i>-08</i>	Ctrl 0.5 dup	10/15/2020	8:45	GW	LC	x	
<i>-09</i>	Ctrl D0 <i>dup 2</i>	10/14/2020	12:00	GW	LC	x	
<i>4. # -10</i>							
Preservative Code: A = None B = HCl C = HNO ₃ D = H ₂ SO ₄ E = NaOH F = MeOH G = NaHSO ₄ H = Na ₂ S ₂ O ₃ K/E = Zn Ac/NaOH O = Other	Container Code P = Plastic A = Amber Glass V = Vial G = Glass B = Bacteria Cup C = Cube O = Other E = Encore D = BOD Bottle	Westboro: Certification No: MA935 Mansfield: Certification No: MA015	Container Type G		Preservative B		
Relinquished By: <i>LERR BURKE</i> <i>Rob Maesto</i>		Date/Time <i>10/16/20 1:40</i> <i>10/16/20 2:23</i>		Received By: <i>Rob Maesto</i> <i>Alan</i>		Date/Time <i>10/16/20 1340</i> <i>10/16/20 2:23</i>	
Please print clearly, legibly and completely. Samples can not be logged in and turnaround time clock will not start until any ambiguities are resolved. BY EXECUTING THIS COC, THE CLIENT HAS READ AND AGREES TO BE BOUND BY ALPHA'S TERMS & CONDITIONS.							
Form No: 01-14 (rev. 30-Sept-2013)							

 NEW JERSEY CHAIN OF CUSTODY	Service Centers Mahwah, NJ 07430: 35 Whitney Rd, Suite 5 Albany, NY 12205: 14 Walker Way Tonawanda, NY 14150: 275 Cooper Ave, Suite 105	Page <u>2</u> of 3	Date Rec'd in Lab <u>10/16/20</u>	ALPHA Job # <u>L2044697</u>				
	Westborough, MA 01581 8 Walkup Dr. TEL: 508-898-9220 FAX: 508-898-9193	Mansfield, MA 02048 320 Forbes Blvd TEL: 508-822-9300 FAX: 508-822-3288						
Project Information		Deliverables		Billing Information				
Project Name: FESL		<input type="checkbox"/> NJ Full / Reduced <input type="checkbox"/> EQulS (1 File) <input type="checkbox"/> EQulS (4 File) <input type="checkbox"/> Other		<input checked="" type="checkbox"/> Same as Client Info PO# 4697				
Project Location: Rochester, NY								
Project # 20029								
(Use Project name as Project #) <input type="checkbox"/>		Regulatory Requirement		Site Information				
Project Manager: Ashaley Kane		<input type="checkbox"/> SRS Residential/Non Residential <input type="checkbox"/> SRS Impact to Groundwater <input type="checkbox"/> NJ Ground Water Quality Standards <input type="checkbox"/> NJ IGW SPLP Leachate Criteria <input checked="" type="checkbox"/> Other <u>NYSDOH ELAP</u>		Is this site impacted by Petroleum? Yes <input type="checkbox"/> Petroleum Product:				
ALPHAQuote #: 12786								
Turn-Around Time								
Standard <input checked="" type="checkbox"/> Due Date:								
Rush (only if pre approved) <input type="checkbox"/> # of Days:								
Email: lcrawford@xdd-llc.com								
These samples have been previously analyzed by Alpha <input type="checkbox"/>		ANALYSIS		Sample Filtration				
For EPH, selection is REQUIRED:	For VOC, selection is REQUIRED:	Other project specific requirements/comments: invoices go to ap@xdd-llc.com * please include Freon-113		<input type="checkbox"/> Done <input type="checkbox"/> Lab to do Preservation <input type="checkbox"/> Lab to do (Please Specify below)				
<input type="checkbox"/> Category 1 <input type="checkbox"/> Category 2	<input type="checkbox"/> 1,4-Dioxane <input type="checkbox"/> 8011			VOCs*	Total Bottles			
ALPHA Lab ID (Lab Use Only)	Sample ID	Collection		Sample Matrix	Sampler's Initials			Sample Specific Comments
		Date	Time					
<u>44697-10</u>	Flow Lo D1	10/15/2020	14:00	GW	LC	x		
<u>11</u>	Flow Hi D1	10/15/2020	14:05	GW	LC	x		
<u>12</u>	Target Lo D1	10/15/2020	14:10	GW	LC	x		
<u>13</u>	Target Hi D1	10/15/2020	14:15	GW	LC	x		
<u>14</u>	eZVI Lo D1	10/15/2020	14:20	GW	LC	x		
<u>15</u>	eZVI Hi D1	10/15/2020	14:25	GW	LC	x		
<u>16</u>	ctrl D1	10/15/2020	14:30	GW	LC	x		
<u>17</u>	ctrl D1 dup	10/15/2020	14:35	GW	LC	x		
Preservative Code:		Container Code		Westboro: Certification No: MA935		Container Type		Please print clearly, legibly and completely. Samples can not be logged in and turnaround time clock will not start until any ambiguities are resolved. BY EXECUTING THIS COC, THE CLIENT HAS READ AND AGREES TO BE BOUND BY ALPHA'S TERMS & CONDITIONS.
A = None B = HCl C = HNO ₃ D = H ₂ SO ₄ E = NaOH F = MeOH G = NaHSO ₄ H = Na ₂ S ₂ O ₃ K/E = Zn Ac/NaOH O = Other		P = Plastic A = Amber Glass V = Vial G = Glass B = Bacteria Cup C = Cube O = Other E = Encore D = BOD Bottle		Mansfield: Certification No: MA015		G B		
		Relinquished By:		Date/Time		Received By:		Date/Time
		<u>KEP BURICE</u>		<u>10/16/20 1:40p</u>		<u>Rob Maesto</u>		<u>10/16/20 1340</u>
		<u>Rob Maesto</u>		<u>10/16/20 2035</u>		<u>[Signature]</u>		<u>10/16/20 2235</u>

 NEW JERSEY CHAIN OF CUSTODY Westborough, MA 01581 8 Walkup Dr. TEL: 508-898-9220 FAX: 508-898-9193	Service Centers Mahwah, NJ 07430: 35 Whitney Rd, Suite 5 Albany, NY 12205: 14 Walker Way Tonawanda, NY 14150: 275 Cooper Ave, Suite 105	Page 3	Date Rec'd in Lab <i>10/16/20</i>	ALPHA Job # <i>L2044697</i>									
		of 3											
Project Information Project Name: FESL Project Location: Rochester, NY		Deliverables <input type="checkbox"/> NJ Full / Reduced <input type="checkbox"/> EQUIS (1 File) <input type="checkbox"/> EQUIS (4 File) <input type="checkbox"/> Other		Billing Information <input checked="" type="checkbox"/> Same as Client Info PO # 4697									
Client Information Client: XDD Address: 22 Marin Way, Unit 3 Stratham, NH 03833 Phone: 603-778-1100 Fax: Email: lcrawford@xdd-llc.com		Project # 20029 (Use Project name as Project #) <input type="checkbox"/> Project Manager: Ashaley Kane ALPHAQuote #: 12786 Turn-Around Time Standard <input type="checkbox"/> Due Date: Rush (only if pre approved) <input checked="" type="checkbox"/> # of Days: 2 Day		Regulatory Requirement <input type="checkbox"/> SRS Residential/Non Residential <input type="checkbox"/> SRS Impact to Groundwater <input type="checkbox"/> NJ Ground Water Quality Standards <input type="checkbox"/> NJ IGW SPLP Leachate Criteria <input checked="" type="checkbox"/> Other NYSDOH ELAP									
These samples have been previously analyzed by Alpha <input type="checkbox"/> For EPH, selection is REQUIRED: <input type="checkbox"/> Category 1 <input type="checkbox"/> Category 2		For VOC, selection is REQUIRED: <input type="checkbox"/> 1,4-Dioxane <input type="checkbox"/> 8011		Other project specific requirements/comments: invoices go to ap@xdd-llc.com <i>2-Day TAT for just these samples page 3</i> * please include Freon-113									
ANALYSIS		Sample Filtration <input type="checkbox"/> Done <input type="checkbox"/> Lab to do Preservation <input type="checkbox"/> Lab to do (Please Specify below)		Total Bottles									
ALPHA Lab ID (Lab Use Only)		Sample ID				Collection Date Time		Sample Matrix		Sampler's Initials		Sample Specific Comments	
<i>44697-18</i>		Flow Lo D2				10/16/2020 12:30		GW		LC		x	
<i>-19</i>		Flow Hi D2				10/16/2020 12:35		GW		LC		x	
<i>-20</i>		Target Lo D2				10/16/2020 12:40		GW		LC		x	
<i>-21</i>		Target Hi D2				10/16/2020 12:45		GW		LC		x	
<i>-22</i>		eZVI Lo D2				10/16/2020 12:50		GW		LC		x	
<i>-23</i>		eZVI Hi D2				10/16/2020 12:55		GW		LC		x	
<i>-24</i>		ctrl D2				10/16/2020 13:00		GW		LC		x	
<i>-25</i>		ctrl D2 dup				10/16/2020 13:05		GW		LC		x	
Preservative Code: A = None B = HCl C = HNO ₃ D = H ₂ SO ₄ E = NaOH F = MeOH G = NaHSO ₄ H = Na ₂ S ₂ O ₃ K/E = Zn Ac/NaOH O = Other		Container Code P = Plastic A = Amber Glass V = Vial G = Glass B = Bacteria Cup C = Cube O = Other E = Encore D = BOD Bottle		Westboro: Certification No: MA935 Mansfield: Certification No: MA015		Container Type G		Preservative B		Please print clearly, legibly and completely. Samples can not be logged in and turnaround time clock will not start until any ambiguities are resolved. BY EXECUTING THIS COC, THE CLIENT HAS READ AND AGREES TO BE BOUND BY ALPHA'S TERMS & CONDITIONS .			
Relinquished By: <i>KE R. R. MAESTO</i> <i>Rob Maesto</i>		Date/Time <i>10/16/20 1:40</i> <i>10/16/20 2:23</i>		Received By: <i>Rob Maesto</i> <i>Don M</i>		Date/Time <i>10/16/20 1340</i> <i>10/16/20 2:23</i>							



ANALYTICAL REPORT

Lab Number:	L2045017
Client:	XDD Environmental Mary Scudieri 22 Marin Way Unit 3 Stratham, NH 03885
ATTN:	Laurel Crawford
Phone:	(603) 778-1100
Project Name:	FESL
Project Number:	20029
Report Date:	10/23/20

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Certifications & Approvals: MA (M-MA086), NH NELAP (2064), CT (PH-0574), IL (200077), ME (MA00086), MD (348), NJ (MA935), NY (11148), NC (25700/666), PA (68-03671), RI (LAO00065), TX (T104704476), VT (VT-0935), VA (460195), USDA (Permit #P330-17-00196).

Eight Walkup Drive, Westborough, MA 01581-1019
508-898-9220 (Fax) 508-898-9193 800-624-9220 - www.alphalab.com



Project Name: FESL

Project Number: 20029

Lab Number: L2045017

Report Date: 10/23/20

Alpha Sample ID	Client ID	Matrix	Sample Location	Collection Date/Time	Receive Date
L2045017-01	FLOW LO D3	WATER	ROCHESTER, NY	10/17/20 15:00	10/19/20
L2045017-02	FLOW HI D3	WATER	ROCHESTER, NY	10/17/20 15:05	10/19/20
L2045017-03	TARGET LO D3	WATER	ROCHESTER, NY	10/17/20 15:10	10/19/20
L2045017-04	TARGET HI D3	WATER	ROCHESTER, NY	10/17/20 15:15	10/19/20
L2045017-05	EZVI LO D3	WATER	ROCHESTER, NY	10/17/20 15:20	10/19/20
L2045017-06	EZVI HI D3	WATER	ROCHESTER, NY	10/17/20 15:25	10/19/20
L2045017-07	CTRL D3	WATER	ROCHESTER, NY	10/17/20 15:30	10/19/20
L2045017-08	CTRL D3 DUP	WATER	ROCHESTER, NY	10/17/20 15:35	10/19/20
L2045017-09	FLOW LO D4	WATER	ROCHESTER, NY	10/18/20 13:00	10/19/20
L2045017-10	FLOW HI D4	WATER	ROCHESTER, NY	10/18/20 13:05	10/19/20
L2045017-11	TARGET LO D4	WATER	ROCHESTER, NY	10/18/20 13:10	10/19/20
L2045017-12	TARGET HI D4	WATER	ROCHESTER, NY	10/18/20 13:15	10/19/20
L2045017-13	EZVI LO D4	WATER	ROCHESTER, NY	10/18/20 13:20	10/19/20
L2045017-14	EZVI HI D4	WATER	ROCHESTER, NY	10/18/20 13:25	10/19/20
L2045017-15	CTRL D4	WATER	ROCHESTER, NY	10/18/20 13:30	10/19/20
L2045017-16	CTRL D4 DUP	WATER	ROCHESTER, NY	10/18/20 13:35	10/19/20
L2045017-17	FLOW LO D5	WATER	ROCHESTER, NY	10/19/20 13:40	10/19/20
L2045017-18	FLOW HI D5	WATER	ROCHESTER, NY	10/19/20 13:45	10/19/20
L2045017-19	TARGET LO D5	WATER	ROCHESTER, NY	10/19/20 13:50	10/19/20
L2045017-20	TARGET HI D5	WATER	ROCHESTER, NY	10/19/20 13:55	10/19/20
L2045017-21	EZVI LO D5	WATER	ROCHESTER, NY	10/19/20 14:00	10/19/20
L2045017-22	EZVI HI D5	WATER	ROCHESTER, NY	10/19/20 14:05	10/19/20
L2045017-23	CTRL D5	WATER	ROCHESTER, NY	10/19/20 14:10	10/19/20
L2045017-24	CTRL D5 DUP	WATER	ROCHESTER, NY	10/19/20 14:15	10/19/20

Project Name: FESL
Project Number: 20029

Lab Number: L2045017
Report Date: 10/23/20

Case Narrative

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

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

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

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

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

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

Project Name: FESL
Project Number: 20029

Lab Number: L2045017
Report Date: 10/23/20

Case Narrative (continued)

Report Submission

October 23, 2020: This final report includes the results of all requested analyses.

October 20, 2020: This is a preliminary report.

All non-detect (ND) or estimated concentrations (J-qualified) have been quantitated to the limit noted in the MDL column.

Volatile Organics

L2045017-05 and -06: The sample has elevated detection limits due to the dilution required by the sample matrix (white, cloudy).

L2045017-05, -06, and -22: The pH of the sample was greater than two; however, the sample was analyzed within the method required holding time.


L2045017-06: The surrogate recovery was outside the method acceptance criteria for 4-bromofluorobenzene (133%) due to interference with the Internal Standard.

L2045017-06: The analysis was performed utilizing a compromised vial.

L2045017-13, -14, and -21: The sample has elevated detection limits due to the dilution required by the sample matrix (milky, cloudy).

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

Authorized Signature:

 Michelle M. Morris

Title: Technical Director/Representative

Date: 10/23/20

ORGANICS

VOLATILES

Project Name: FESL
Project Number: 20029

Lab Number: L2045017
Report Date: 10/23/20

SAMPLE RESULTS

Lab ID: L2045017-01 D
 Client ID: FLOW LO D3
 Sample Location: ROCHESTER, NY

Date Collected: 10/17/20 15:00
 Date Received: 10/19/20
 Field Prep: Not Specified

Sample Depth:

Matrix: Water
 Analytical Method: 1,8260C
 Analytical Date: 10/22/20 13:29
 Analyst: MKS

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methylene chloride	ND		ug/l	10	2.8	4
1,1-Dichloroethane	620		ug/l	10	2.8	4
Chloroform	ND		ug/l	10	2.8	4
Carbon tetrachloride	ND		ug/l	2.0	0.54	4
1,2-Dichloropropane	ND		ug/l	4.0	0.55	4
Dibromochloromethane	ND		ug/l	2.0	0.60	4
1,1,2-Trichloroethane	ND		ug/l	6.0	2.0	4
Tetrachloroethene	120		ug/l	2.0	0.72	4
Chlorobenzene	ND		ug/l	10	2.8	4
Trichlorofluoromethane	ND		ug/l	10	2.8	4
1,2-Dichloroethane	ND		ug/l	2.0	0.53	4
1,1,1-Trichloroethane	230		ug/l	10	2.8	4
Bromodichloromethane	ND		ug/l	2.0	0.77	4
trans-1,3-Dichloropropene	ND		ug/l	2.0	0.66	4
cis-1,3-Dichloropropene	ND		ug/l	2.0	0.58	4
1,3-Dichloropropene, Total	ND		ug/l	2.0	0.58	4
1,1-Dichloropropene	ND		ug/l	10	2.8	4
Bromoform	ND		ug/l	8.0	2.6	4
1,1,2,2-Tetrachloroethane	ND		ug/l	2.0	0.67	4
Benzene	5.5		ug/l	2.0	0.64	4
Toluene	18		ug/l	10	2.8	4
Ethylbenzene	ND		ug/l	10	2.8	4
Chloromethane	ND		ug/l	10	2.8	4
Bromomethane	ND		ug/l	10	2.8	4
Vinyl chloride	330		ug/l	4.0	0.28	4
Chloroethane	160		ug/l	10	2.8	4
1,1-Dichloroethene	6.7		ug/l	2.0	0.68	4
trans-1,2-Dichloroethene	6.8	J	ug/l	10	2.8	4

Project Name: FESL
Project Number: 20029

Lab Number: L2045017
Report Date: 10/23/20

SAMPLE RESULTS

Lab ID: L2045017-01 D
 Client ID: FLOW LO D3
 Sample Location: ROCHESTER, NY

Date Collected: 10/17/20 15:00
 Date Received: 10/19/20
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Trichloroethene	18		ug/l	2.0	0.70	4
1,2-Dichlorobenzene	ND		ug/l	10	2.8	4
1,3-Dichlorobenzene	ND		ug/l	10	2.8	4
1,4-Dichlorobenzene	ND		ug/l	10	2.8	4
Methyl tert butyl ether	ND		ug/l	10	2.8	4
p/m-Xylene	ND		ug/l	10	2.8	4
o-Xylene	4.8	J	ug/l	10	2.8	4
Xylenes, Total	4.8	J	ug/l	10	2.8	4
cis-1,2-Dichloroethene	640		ug/l	10	2.8	4
1,2-Dichloroethene, Total	650	J	ug/l	10	2.8	4
Dibromomethane	ND		ug/l	20	4.0	4
1,2,3-Trichloropropane	ND		ug/l	10	2.8	4
Acrylonitrile	ND		ug/l	20	6.0	4
Styrene	ND		ug/l	10	2.8	4
Dichlorodifluoromethane	ND		ug/l	20	4.0	4
Acetone	27		ug/l	20	5.8	4
Carbon disulfide	ND		ug/l	20	4.0	4
2-Butanone	15	J	ug/l	20	7.8	4
Vinyl acetate	ND		ug/l	20	4.0	4
4-Methyl-2-pentanone	ND		ug/l	20	4.0	4
2-Hexanone	ND		ug/l	20	4.0	4
Bromochloromethane	ND		ug/l	10	2.8	4
2,2-Dichloropropane	ND		ug/l	10	2.8	4
1,2-Dibromoethane	ND		ug/l	8.0	2.6	4
1,3-Dichloropropane	ND		ug/l	10	2.8	4
1,1,1,2-Tetrachloroethane	ND		ug/l	10	2.8	4
Bromobenzene	ND		ug/l	10	2.8	4
n-Butylbenzene	ND		ug/l	10	2.8	4
sec-Butylbenzene	ND		ug/l	10	2.8	4
tert-Butylbenzene	ND		ug/l	10	2.8	4
o-Chlorotoluene	ND		ug/l	10	2.8	4
p-Chlorotoluene	ND		ug/l	10	2.8	4
1,2-Dibromo-3-chloropropane	ND		ug/l	10	2.8	4
Hexachlorobutadiene	ND		ug/l	10	2.8	4
Isopropylbenzene	ND		ug/l	10	2.8	4
p-Isopropyltoluene	ND		ug/l	10	2.8	4
Naphthalene	ND		ug/l	10	2.8	4

Project Name: FESL
Project Number: 20029

Lab Number: L2045017
Report Date: 10/23/20

SAMPLE RESULTS

Lab ID: L2045017-01 D
 Client ID: FLOW LO D3
 Sample Location: ROCHESTER, NY

Date Collected: 10/17/20 15:00
 Date Received: 10/19/20
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
n-Propylbenzene	ND		ug/l	10	2.8	4
1,2,3-Trichlorobenzene	ND		ug/l	10	2.8	4
1,2,4-Trichlorobenzene	ND		ug/l	10	2.8	4
1,3,5-Trimethylbenzene	ND		ug/l	10	2.8	4
1,2,4-Trimethylbenzene	ND		ug/l	10	2.8	4
1,4-Dioxane	ND		ug/l	1000	240	4
Freon-113	100		ug/l	10	2.8	4
p-Diethylbenzene	ND		ug/l	8.0	2.8	4
p-Ethyltoluene	ND		ug/l	8.0	2.8	4
1,2,4,5-Tetramethylbenzene	ND		ug/l	8.0	2.2	4
Ethyl ether	9.8	J	ug/l	10	2.8	4
trans-1,4-Dichloro-2-butene	ND		ug/l	10	2.8	4

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	108		70-130
Toluene-d8	94		70-130
4-Bromofluorobenzene	95		70-130
Dibromofluoromethane	105		70-130

Project Name: FESL
Project Number: 20029

Lab Number: L2045017
Report Date: 10/23/20

SAMPLE RESULTS

Lab ID: L2045017-02 D
 Client ID: FLOW HI D3
 Sample Location: ROCHESTER, NY

Date Collected: 10/17/20 15:05
 Date Received: 10/19/20
 Field Prep: Not Specified

Sample Depth:

Matrix: Water
 Analytical Method: 1,8260C
 Analytical Date: 10/22/20 13:54
 Analyst: MKS

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methylene chloride	ND		ug/l	10	2.8	4
1,1-Dichloroethane	610		ug/l	10	2.8	4
Chloroform	ND		ug/l	10	2.8	4
Carbon tetrachloride	ND		ug/l	2.0	0.54	4
1,2-Dichloropropane	ND		ug/l	4.0	0.55	4
Dibromochloromethane	ND		ug/l	2.0	0.60	4
1,1,2-Trichloroethane	ND		ug/l	6.0	2.0	4
Tetrachloroethene	82		ug/l	2.0	0.72	4
Chlorobenzene	ND		ug/l	10	2.8	4
Trichlorofluoromethane	ND		ug/l	10	2.8	4
1,2-Dichloroethane	ND		ug/l	2.0	0.53	4
1,1,1-Trichloroethane	120		ug/l	10	2.8	4
Bromodichloromethane	ND		ug/l	2.0	0.77	4
trans-1,3-Dichloropropene	ND		ug/l	2.0	0.66	4
cis-1,3-Dichloropropene	ND		ug/l	2.0	0.58	4
1,3-Dichloropropene, Total	ND		ug/l	2.0	0.58	4
1,1-Dichloropropene	ND		ug/l	10	2.8	4
Bromoform	ND		ug/l	8.0	2.6	4
1,1,1,2,2-Tetrachloroethane	ND		ug/l	2.0	0.67	4
Benzene	5.4		ug/l	2.0	0.64	4
Toluene	15		ug/l	10	2.8	4
Ethylbenzene	ND		ug/l	10	2.8	4
Chloromethane	ND		ug/l	10	2.8	4
Bromomethane	ND		ug/l	10	2.8	4
Vinyl chloride	290		ug/l	4.0	0.28	4
Chloroethane	160		ug/l	10	2.8	4
1,1-Dichloroethene	4.8		ug/l	2.0	0.68	4
trans-1,2-Dichloroethene	4.4	J	ug/l	10	2.8	4

Project Name: FESL
Project Number: 20029

Lab Number: L2045017
Report Date: 10/23/20

SAMPLE RESULTS

Lab ID: L2045017-02 D
 Client ID: FLOW HI D3
 Sample Location: ROCHESTER, NY

Date Collected: 10/17/20 15:05
 Date Received: 10/19/20
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Trichloroethene	12		ug/l	2.0	0.70	4
1,2-Dichlorobenzene	ND		ug/l	10	2.8	4
1,3-Dichlorobenzene	ND		ug/l	10	2.8	4
1,4-Dichlorobenzene	ND		ug/l	10	2.8	4
Methyl tert butyl ether	ND		ug/l	10	2.8	4
p/m-Xylene	ND		ug/l	10	2.8	4
o-Xylene	3.8	J	ug/l	10	2.8	4
Xylenes, Total	3.8	J	ug/l	10	2.8	4
cis-1,2-Dichloroethene	560		ug/l	10	2.8	4
1,2-Dichloroethene, Total	560	J	ug/l	10	2.8	4
Dibromomethane	ND		ug/l	20	4.0	4
1,2,3-Trichloropropane	ND		ug/l	10	2.8	4
Acrylonitrile	ND		ug/l	20	6.0	4
Styrene	ND		ug/l	10	2.8	4
Dichlorodifluoromethane	ND		ug/l	20	4.0	4
Acetone	33		ug/l	20	5.8	4
Carbon disulfide	ND		ug/l	20	4.0	4
2-Butanone	16	J	ug/l	20	7.8	4
Vinyl acetate	ND		ug/l	20	4.0	4
4-Methyl-2-pentanone	ND		ug/l	20	4.0	4
2-Hexanone	ND		ug/l	20	4.0	4
Bromochloromethane	ND		ug/l	10	2.8	4
2,2-Dichloropropane	ND		ug/l	10	2.8	4
1,2-Dibromoethane	ND		ug/l	8.0	2.6	4
1,3-Dichloropropane	ND		ug/l	10	2.8	4
1,1,1,2-Tetrachloroethane	ND		ug/l	10	2.8	4
Bromobenzene	ND		ug/l	10	2.8	4
n-Butylbenzene	ND		ug/l	10	2.8	4
sec-Butylbenzene	ND		ug/l	10	2.8	4
tert-Butylbenzene	ND		ug/l	10	2.8	4
o-Chlorotoluene	ND		ug/l	10	2.8	4
p-Chlorotoluene	ND		ug/l	10	2.8	4
1,2-Dibromo-3-chloropropane	ND		ug/l	10	2.8	4
Hexachlorobutadiene	ND		ug/l	10	2.8	4
Isopropylbenzene	ND		ug/l	10	2.8	4
p-Isopropyltoluene	ND		ug/l	10	2.8	4
Naphthalene	ND		ug/l	10	2.8	4

Project Name: FESL
Project Number: 20029

Lab Number: L2045017
Report Date: 10/23/20

SAMPLE RESULTS

Lab ID: L2045017-02 D
 Client ID: FLOW HI D3
 Sample Location: ROCHESTER, NY

Date Collected: 10/17/20 15:05
 Date Received: 10/19/20
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
n-Propylbenzene	ND		ug/l	10	2.8	4
1,2,3-Trichlorobenzene	ND		ug/l	10	2.8	4
1,2,4-Trichlorobenzene	ND		ug/l	10	2.8	4
1,3,5-Trimethylbenzene	ND		ug/l	10	2.8	4
1,2,4-Trimethylbenzene	ND		ug/l	10	2.8	4
1,4-Dioxane	ND		ug/l	1000	240	4
Freon-113	79		ug/l	10	2.8	4
p-Diethylbenzene	ND		ug/l	8.0	2.8	4
p-Ethyltoluene	ND		ug/l	8.0	2.8	4
1,2,4,5-Tetramethylbenzene	ND		ug/l	8.0	2.2	4
Ethyl ether	9.3	J	ug/l	10	2.8	4
trans-1,4-Dichloro-2-butene	ND		ug/l	10	2.8	4

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	107		70-130
Toluene-d8	95		70-130
4-Bromofluorobenzene	99		70-130
Dibromofluoromethane	104		70-130

Project Name: FESL
Project Number: 20029

Lab Number: L2045017
Report Date: 10/23/20

SAMPLE RESULTS

Lab ID: L2045017-03 D
 Client ID: TARGET LO D3
 Sample Location: ROCHESTER, NY

Date Collected: 10/17/20 15:10
 Date Received: 10/19/20
 Field Prep: Not Specified

Sample Depth:

Matrix: Water
 Analytical Method: 1,8260C
 Analytical Date: 10/22/20 14:19
 Analyst: MKS

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methylene chloride	ND		ug/l	10	2.8	4
1,1-Dichloroethane	590		ug/l	10	2.8	4
Chloroform	ND		ug/l	10	2.8	4
Carbon tetrachloride	ND		ug/l	2.0	0.54	4
1,2-Dichloropropane	ND		ug/l	4.0	0.55	4
Dibromochloromethane	ND		ug/l	2.0	0.60	4
1,1,2-Trichloroethane	ND		ug/l	6.0	2.0	4
Tetrachloroethene	100		ug/l	2.0	0.72	4
Chlorobenzene	ND		ug/l	10	2.8	4
Trichlorofluoromethane	ND		ug/l	10	2.8	4
1,2-Dichloroethane	ND		ug/l	2.0	0.53	4
1,1,1-Trichloroethane	51		ug/l	10	2.8	4
Bromodichloromethane	ND		ug/l	2.0	0.77	4
trans-1,3-Dichloropropene	ND		ug/l	2.0	0.66	4
cis-1,3-Dichloropropene	ND		ug/l	2.0	0.58	4
1,3-Dichloropropene, Total	ND		ug/l	2.0	0.58	4
1,1-Dichloropropene	ND		ug/l	10	2.8	4
Bromoform	ND		ug/l	8.0	2.6	4
1,1,1,2-Tetrachloroethane	ND		ug/l	2.0	0.67	4
Benzene	6.2		ug/l	2.0	0.64	4
Toluene	19		ug/l	10	2.8	4
Ethylbenzene	ND		ug/l	10	2.8	4
Chloromethane	ND		ug/l	10	2.8	4
Bromomethane	ND		ug/l	10	2.8	4
Vinyl chloride	280		ug/l	4.0	0.28	4
Chloroethane	150		ug/l	10	2.8	4
1,1-Dichloroethene	5.1		ug/l	2.0	0.68	4
trans-1,2-Dichloroethene	4.4	J	ug/l	10	2.8	4

Project Name: FESL
Project Number: 20029

Lab Number: L2045017
Report Date: 10/23/20

SAMPLE RESULTS

Lab ID: L2045017-03 D
 Client ID: TARGET LO D3
 Sample Location: ROCHESTER, NY

Date Collected: 10/17/20 15:10
 Date Received: 10/19/20
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Trichloroethene	14		ug/l	2.0	0.70	4
1,2-Dichlorobenzene	ND		ug/l	10	2.8	4
1,3-Dichlorobenzene	ND		ug/l	10	2.8	4
1,4-Dichlorobenzene	ND		ug/l	10	2.8	4
Methyl tert butyl ether	ND		ug/l	10	2.8	4
p/m-Xylene	ND		ug/l	10	2.8	4
o-Xylene	4.9	J	ug/l	10	2.8	4
Xylenes, Total	4.9	J	ug/l	10	2.8	4
cis-1,2-Dichloroethene	580		ug/l	10	2.8	4
1,2-Dichloroethene, Total	580	J	ug/l	10	2.8	4
Dibromomethane	ND		ug/l	20	4.0	4
1,2,3-Trichloropropane	ND		ug/l	10	2.8	4
Acrylonitrile	ND		ug/l	20	6.0	4
Styrene	ND		ug/l	10	2.8	4
Dichlorodifluoromethane	ND		ug/l	20	4.0	4
Acetone	33		ug/l	20	5.8	4
Carbon disulfide	ND		ug/l	20	4.0	4
2-Butanone	18	J	ug/l	20	7.8	4
Vinyl acetate	ND		ug/l	20	4.0	4
4-Methyl-2-pentanone	ND		ug/l	20	4.0	4
2-Hexanone	ND		ug/l	20	4.0	4
Bromochloromethane	ND		ug/l	10	2.8	4
2,2-Dichloropropane	ND		ug/l	10	2.8	4
1,2-Dibromoethane	ND		ug/l	8.0	2.6	4
1,3-Dichloropropane	ND		ug/l	10	2.8	4
1,1,1,2-Tetrachloroethane	ND		ug/l	10	2.8	4
Bromobenzene	ND		ug/l	10	2.8	4
n-Butylbenzene	ND		ug/l	10	2.8	4
sec-Butylbenzene	ND		ug/l	10	2.8	4
tert-Butylbenzene	ND		ug/l	10	2.8	4
o-Chlorotoluene	ND		ug/l	10	2.8	4
p-Chlorotoluene	ND		ug/l	10	2.8	4
1,2-Dibromo-3-chloropropane	ND		ug/l	10	2.8	4
Hexachlorobutadiene	ND		ug/l	10	2.8	4
Isopropylbenzene	ND		ug/l	10	2.8	4
p-Isopropyltoluene	ND		ug/l	10	2.8	4
Naphthalene	ND		ug/l	10	2.8	4

Project Name: FESL
Project Number: 20029

Lab Number: L2045017
Report Date: 10/23/20

SAMPLE RESULTS

Lab ID: L2045017-03 D
 Client ID: TARGET LO D3
 Sample Location: ROCHESTER, NY

Date Collected: 10/17/20 15:10
 Date Received: 10/19/20
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
n-Propylbenzene	ND		ug/l	10	2.8	4
1,2,3-Trichlorobenzene	ND		ug/l	10	2.8	4
1,2,4-Trichlorobenzene	ND		ug/l	10	2.8	4
1,3,5-Trimethylbenzene	ND		ug/l	10	2.8	4
1,2,4-Trimethylbenzene	ND		ug/l	10	2.8	4
1,4-Dioxane	ND		ug/l	1000	240	4
Freon-113	78		ug/l	10	2.8	4
p-Diethylbenzene	ND		ug/l	8.0	2.8	4
p-Ethyltoluene	ND		ug/l	8.0	2.8	4
1,2,4,5-Tetramethylbenzene	ND		ug/l	8.0	2.2	4
Ethyl ether	10		ug/l	10	2.8	4
trans-1,4-Dichloro-2-butene	ND		ug/l	10	2.8	4

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	106		70-130
Toluene-d8	93		70-130
4-Bromofluorobenzene	95		70-130
Dibromofluoromethane	102		70-130

Project Name: FESL
Project Number: 20029

Lab Number: L2045017
Report Date: 10/23/20

SAMPLE RESULTS

Lab ID: L2045017-04 D
 Client ID: TARGET HI D3
 Sample Location: ROCHESTER, NY

Date Collected: 10/17/20 15:15
 Date Received: 10/19/20
 Field Prep: Not Specified

Sample Depth:

Matrix: Water
 Analytical Method: 1,8260C
 Analytical Date: 10/22/20 14:45
 Analyst: MKS

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methylene chloride	ND		ug/l	10	2.8	4
1,1-Dichloroethane	620		ug/l	10	2.8	4
Chloroform	ND		ug/l	10	2.8	4
Carbon tetrachloride	ND		ug/l	2.0	0.54	4
1,2-Dichloropropane	ND		ug/l	4.0	0.55	4
Dibromochloromethane	ND		ug/l	2.0	0.60	4
1,1,2-Trichloroethane	ND		ug/l	6.0	2.0	4
Tetrachloroethene	79		ug/l	2.0	0.72	4
Chlorobenzene	ND		ug/l	10	2.8	4
Trichlorofluoromethane	ND		ug/l	10	2.8	4
1,2-Dichloroethane	ND		ug/l	2.0	0.53	4
1,1,1-Trichloroethane	12		ug/l	10	2.8	4
Bromodichloromethane	ND		ug/l	2.0	0.77	4
trans-1,3-Dichloropropene	ND		ug/l	2.0	0.66	4
cis-1,3-Dichloropropene	ND		ug/l	2.0	0.58	4
1,3-Dichloropropene, Total	ND		ug/l	2.0	0.58	4
1,1-Dichloropropene	ND		ug/l	10	2.8	4
Bromoform	ND		ug/l	8.0	2.6	4
1,1,2,2-Tetrachloroethane	ND		ug/l	2.0	0.67	4
Benzene	7.4		ug/l	2.0	0.64	4
Toluene	20		ug/l	10	2.8	4
Ethylbenzene	ND		ug/l	10	2.8	4
Chloromethane	ND		ug/l	10	2.8	4
Bromomethane	ND		ug/l	10	2.8	4
Vinyl chloride	240		ug/l	4.0	0.28	4
Chloroethane	160		ug/l	10	2.8	4
1,1-Dichloroethene	3.6		ug/l	2.0	0.68	4
trans-1,2-Dichloroethene	3.4	J	ug/l	10	2.8	4

Project Name: FESL
Project Number: 20029

Lab Number: L2045017
Report Date: 10/23/20

SAMPLE RESULTS

Lab ID: L2045017-04 D
 Client ID: TARGET HI D3
 Sample Location: ROCHESTER, NY

Date Collected: 10/17/20 15:15
 Date Received: 10/19/20
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Trichloroethene	11		ug/l	2.0	0.70	4
1,2-Dichlorobenzene	ND		ug/l	10	2.8	4
1,3-Dichlorobenzene	ND		ug/l	10	2.8	4
1,4-Dichlorobenzene	ND		ug/l	10	2.8	4
Methyl tert butyl ether	ND		ug/l	10	2.8	4
p/m-Xylene	ND		ug/l	10	2.8	4
o-Xylene	4.9	J	ug/l	10	2.8	4
Xylenes, Total	4.9	J	ug/l	10	2.8	4
cis-1,2-Dichloroethene	500		ug/l	10	2.8	4
1,2-Dichloroethene, Total	500	J	ug/l	10	2.8	4
Dibromomethane	ND		ug/l	20	4.0	4
1,2,3-Trichloropropane	ND		ug/l	10	2.8	4
Acrylonitrile	ND		ug/l	20	6.0	4
Styrene	ND		ug/l	10	2.8	4
Dichlorodifluoromethane	ND		ug/l	20	4.0	4
Acetone	39		ug/l	20	5.8	4
Carbon disulfide	ND		ug/l	20	4.0	4
2-Butanone	24		ug/l	20	7.8	4
Vinyl acetate	ND		ug/l	20	4.0	4
4-Methyl-2-pentanone	ND		ug/l	20	4.0	4
2-Hexanone	ND		ug/l	20	4.0	4
Bromochloromethane	ND		ug/l	10	2.8	4
2,2-Dichloropropane	ND		ug/l	10	2.8	4
1,2-Dibromoethane	ND		ug/l	8.0	2.6	4
1,3-Dichloropropane	ND		ug/l	10	2.8	4
1,1,1,2-Tetrachloroethane	ND		ug/l	10	2.8	4
Bromobenzene	ND		ug/l	10	2.8	4
n-Butylbenzene	ND		ug/l	10	2.8	4
sec-Butylbenzene	ND		ug/l	10	2.8	4
tert-Butylbenzene	ND		ug/l	10	2.8	4
o-Chlorotoluene	ND		ug/l	10	2.8	4
p-Chlorotoluene	ND		ug/l	10	2.8	4
1,2-Dibromo-3-chloropropane	ND		ug/l	10	2.8	4
Hexachlorobutadiene	ND		ug/l	10	2.8	4
Isopropylbenzene	ND		ug/l	10	2.8	4
p-Isopropyltoluene	ND		ug/l	10	2.8	4
Naphthalene	ND		ug/l	10	2.8	4

Project Name: FESL
Project Number: 20029

Lab Number: L2045017
Report Date: 10/23/20

SAMPLE RESULTS

Lab ID: L2045017-04 D
 Client ID: TARGET HI D3
 Sample Location: ROCHESTER, NY

Date Collected: 10/17/20 15:15
 Date Received: 10/19/20
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
n-Propylbenzene	ND		ug/l	10	2.8	4
1,2,3-Trichlorobenzene	ND		ug/l	10	2.8	4
1,2,4-Trichlorobenzene	ND		ug/l	10	2.8	4
1,3,5-Trimethylbenzene	ND		ug/l	10	2.8	4
1,2,4-Trimethylbenzene	ND		ug/l	10	2.8	4
1,4-Dioxane	ND		ug/l	1000	240	4
Freon-113	43		ug/l	10	2.8	4
p-Diethylbenzene	ND		ug/l	8.0	2.8	4
p-Ethyltoluene	ND		ug/l	8.0	2.8	4
1,2,4,5-Tetramethylbenzene	ND		ug/l	8.0	2.2	4
Ethyl ether	9.9	J	ug/l	10	2.8	4
trans-1,4-Dichloro-2-butene	ND		ug/l	10	2.8	4

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	106		70-130
Toluene-d8	94		70-130
4-Bromofluorobenzene	95		70-130
Dibromofluoromethane	101		70-130

Project Name: FESL
Project Number: 20029

Lab Number: L2045017
Report Date: 10/23/20

SAMPLE RESULTS

Lab ID: L2045017-05 D
 Client ID: EZVI LO D3
 Sample Location: ROCHESTER, NY

Date Collected: 10/17/20 15:20
 Date Received: 10/19/20
 Field Prep: Not Specified

Sample Depth:

Matrix: Water
 Analytical Method: 1,8260C
 Analytical Date: 10/22/20 16:01
 Analyst: MKS

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methylene chloride	ND		ug/l	50	14.	20
1,1-Dichloroethane	620		ug/l	50	14.	20
Chloroform	ND		ug/l	50	14.	20
Carbon tetrachloride	ND		ug/l	10	2.7	20
1,2-Dichloropropane	ND		ug/l	20	2.7	20
Dibromochloromethane	ND		ug/l	10	3.0	20
1,1,2-Trichloroethane	ND		ug/l	30	10.	20
Tetrachloroethene	230		ug/l	10	3.6	20
Chlorobenzene	ND		ug/l	50	14.	20
Trichlorofluoromethane	ND		ug/l	50	14.	20
1,2-Dichloroethane	ND		ug/l	10	2.6	20
1,1,1-Trichloroethane	150		ug/l	50	14.	20
Bromodichloromethane	ND		ug/l	10	3.8	20
trans-1,3-Dichloropropene	ND		ug/l	10	3.3	20
cis-1,3-Dichloropropene	ND		ug/l	10	2.9	20
1,3-Dichloropropene, Total	ND		ug/l	10	2.9	20
1,1-Dichloropropene	ND		ug/l	50	14.	20
Bromoform	ND		ug/l	40	13.	20
1,1,1,2,2-Tetrachloroethane	ND		ug/l	10	3.3	20
Benzene	6.8	J	ug/l	10	3.2	20
Toluene	30	J	ug/l	50	14.	20
Ethylbenzene	ND		ug/l	50	14.	20
Chloromethane	ND		ug/l	50	14.	20
Bromomethane	ND		ug/l	50	14.	20
Vinyl chloride	360		ug/l	20	1.4	20
Chloroethane	160		ug/l	50	14.	20
1,1-Dichloroethene	9.7	J	ug/l	10	3.4	20
trans-1,2-Dichloroethene	ND		ug/l	50	14.	20

Project Name: FESL
Project Number: 20029

Lab Number: L2045017
Report Date: 10/23/20

SAMPLE RESULTS

Lab ID: L2045017-05 D
 Client ID: EZVI LO D3
 Sample Location: ROCHESTER, NY

Date Collected: 10/17/20 15:20
 Date Received: 10/19/20
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Trichloroethene	26		ug/l	10	3.5	20
1,2-Dichlorobenzene	ND		ug/l	50	14.	20
1,3-Dichlorobenzene	ND		ug/l	50	14.	20
1,4-Dichlorobenzene	ND		ug/l	50	14.	20
Methyl tert butyl ether	ND		ug/l	50	14.	20
p/m-Xylene	ND		ug/l	50	14.	20
o-Xylene	ND		ug/l	50	14.	20
Xylenes, Total	ND		ug/l	50	14.	20
cis-1,2-Dichloroethene	660		ug/l	50	14.	20
1,2-Dichloroethene, Total	660		ug/l	50	14.	20
Dibromomethane	ND		ug/l	100	20.	20
1,2,3-Trichloropropane	ND		ug/l	50	14.	20
Acrylonitrile	ND		ug/l	100	30.	20
Styrene	ND		ug/l	50	14.	20
Dichlorodifluoromethane	ND		ug/l	100	20.	20
Acetone	56	J	ug/l	100	29.	20
Carbon disulfide	ND		ug/l	100	20.	20
2-Butanone	370		ug/l	100	39.	20
Vinyl acetate	ND		ug/l	100	20.	20
4-Methyl-2-pentanone	ND		ug/l	100	20.	20
2-Hexanone	ND		ug/l	100	20.	20
Bromochloromethane	ND		ug/l	50	14.	20
2,2-Dichloropropane	ND		ug/l	50	14.	20
1,2-Dibromoethane	ND		ug/l	40	13.	20
1,3-Dichloropropane	ND		ug/l	50	14.	20
1,1,1,2-Tetrachloroethane	ND		ug/l	50	14.	20
Bromobenzene	ND		ug/l	50	14.	20
n-Butylbenzene	ND		ug/l	50	14.	20
sec-Butylbenzene	ND		ug/l	50	14.	20
tert-Butylbenzene	ND		ug/l	50	14.	20
o-Chlorotoluene	ND		ug/l	50	14.	20
p-Chlorotoluene	ND		ug/l	50	14.	20
1,2-Dibromo-3-chloropropane	ND		ug/l	50	14.	20
Hexachlorobutadiene	ND		ug/l	50	14.	20
Isopropylbenzene	ND		ug/l	50	14.	20
p-Isopropyltoluene	ND		ug/l	50	14.	20
Naphthalene	ND		ug/l	50	14.	20

Project Name: FESL
Project Number: 20029

Lab Number: L2045017
Report Date: 10/23/20

SAMPLE RESULTS

Lab ID: L2045017-05 D
 Client ID: EZVI LO D3
 Sample Location: ROCHESTER, NY

Date Collected: 10/17/20 15:20
 Date Received: 10/19/20
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
n-Propylbenzene	ND		ug/l	50	14.	20
1,2,3-Trichlorobenzene	ND		ug/l	50	14.	20
1,2,4-Trichlorobenzene	ND		ug/l	50	14.	20
1,3,5-Trimethylbenzene	ND		ug/l	50	14.	20
1,2,4-Trimethylbenzene	ND		ug/l	50	14.	20
1,4-Dioxane	ND		ug/l	5000	1200	20
Freon-113	290		ug/l	50	14.	20
p-Diethylbenzene	ND		ug/l	40	14.	20
p-Ethyltoluene	ND		ug/l	40	14.	20
1,2,4,5-Tetramethylbenzene	ND		ug/l	40	11.	20
Ethyl ether	ND		ug/l	50	14.	20
trans-1,4-Dichloro-2-butene	ND		ug/l	50	14.	20

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	103		70-130
Toluene-d8	95		70-130
4-Bromofluorobenzene	102		70-130
Dibromofluoromethane	99		70-130

Project Name: FESL
Project Number: 20029

Lab Number: L2045017
Report Date: 10/23/20

SAMPLE RESULTS

Lab ID: L2045017-06 D
 Client ID: EZVI HI D3
 Sample Location: ROCHESTER, NY

Date Collected: 10/17/20 15:25
 Date Received: 10/19/20
 Field Prep: Not Specified

Sample Depth:

Matrix: Water
 Analytical Method: 1,8260C
 Analytical Date: 10/23/20 12:39
 Analyst: PD

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methylene chloride	ND		ug/l	50	14.	20
1,1-Dichloroethane	410		ug/l	50	14.	20
Chloroform	ND		ug/l	50	14.	20
Carbon tetrachloride	ND		ug/l	10	2.7	20
1,2-Dichloropropane	ND		ug/l	20	2.7	20
Dibromochloromethane	ND		ug/l	10	3.0	20
1,1,2-Trichloroethane	ND		ug/l	30	10.	20
Tetrachloroethene	130		ug/l	10	3.6	20
Chlorobenzene	ND		ug/l	50	14.	20
Trichlorofluoromethane	ND		ug/l	50	14.	20
1,2-Dichloroethane	ND		ug/l	10	2.6	20
1,1,1-Trichloroethane	91		ug/l	50	14.	20
Bromodichloromethane	ND		ug/l	10	3.8	20
trans-1,3-Dichloropropene	ND		ug/l	10	3.3	20
cis-1,3-Dichloropropene	ND		ug/l	10	2.9	20
1,3-Dichloropropene, Total	ND		ug/l	10	2.9	20
1,1-Dichloropropene	ND		ug/l	50	14.	20
Bromoform	ND		ug/l	40	13.	20
1,1,1,2-Tetrachloroethane	ND		ug/l	10	3.3	20
Benzene	5.5	J	ug/l	10	3.2	20
Toluene	28	J	ug/l	50	14.	20
Ethylbenzene	ND		ug/l	50	14.	20
Chloromethane	ND		ug/l	50	14.	20
Bromomethane	ND		ug/l	50	14.	20
Vinyl chloride	270		ug/l	20	1.4	20
Chloroethane	140		ug/l	50	14.	20
1,1-Dichloroethene	5.2	J	ug/l	10	3.4	20
trans-1,2-Dichloroethene	ND		ug/l	50	14.	20

Project Name: FESL
Project Number: 20029

Lab Number: L2045017
Report Date: 10/23/20

SAMPLE RESULTS

Lab ID: L2045017-06 D
 Client ID: EZVI HI D3
 Sample Location: ROCHESTER, NY

Date Collected: 10/17/20 15:25
 Date Received: 10/19/20
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Trichloroethene	15		ug/l	10	3.5	20
1,2-Dichlorobenzene	ND		ug/l	50	14.	20
1,3-Dichlorobenzene	ND		ug/l	50	14.	20
1,4-Dichlorobenzene	ND		ug/l	50	14.	20
Methyl tert butyl ether	ND		ug/l	50	14.	20
p/m-Xylene	16	J	ug/l	50	14.	20
o-Xylene	ND		ug/l	50	14.	20
Xylenes, Total	16	J	ug/l	50	14.	20
cis-1,2-Dichloroethene	410		ug/l	50	14.	20
1,2-Dichloroethene, Total	410		ug/l	50	14.	20
Dibromomethane	ND		ug/l	100	20.	20
1,2,3-Trichloropropane	ND		ug/l	50	14.	20
Acrylonitrile	ND		ug/l	100	30.	20
Styrene	ND		ug/l	50	14.	20
Dichlorodifluoromethane	ND		ug/l	100	20.	20
Acetone	120		ug/l	100	29.	20
Carbon disulfide	ND		ug/l	100	20.	20
2-Butanone	1500		ug/l	100	39.	20
Vinyl acetate	ND		ug/l	100	20.	20
4-Methyl-2-pentanone	ND		ug/l	100	20.	20
2-Hexanone	ND		ug/l	100	20.	20
Bromochloromethane	ND		ug/l	50	14.	20
2,2-Dichloropropane	ND		ug/l	50	14.	20
1,2-Dibromoethane	ND		ug/l	40	13.	20
1,3-Dichloropropane	ND		ug/l	50	14.	20
1,1,1,2-Tetrachloroethane	ND		ug/l	50	14.	20
Bromobenzene	ND		ug/l	50	14.	20
n-Butylbenzene	ND		ug/l	50	14.	20
sec-Butylbenzene	ND		ug/l	50	14.	20
tert-Butylbenzene	ND		ug/l	50	14.	20
o-Chlorotoluene	ND		ug/l	50	14.	20
p-Chlorotoluene	ND		ug/l	50	14.	20
1,2-Dibromo-3-chloropropane	ND		ug/l	50	14.	20
Hexachlorobutadiene	ND		ug/l	50	14.	20
Isopropylbenzene	ND		ug/l	50	14.	20
p-Isopropyltoluene	ND		ug/l	50	14.	20
Naphthalene	ND		ug/l	50	14.	20

Project Name: FESL
Project Number: 20029

Lab Number: L2045017
Report Date: 10/23/20

SAMPLE RESULTS

Lab ID: L2045017-06 D
 Client ID: EZVI HI D3
 Sample Location: ROCHESTER, NY

Date Collected: 10/17/20 15:25
 Date Received: 10/19/20
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
n-Propylbenzene	ND		ug/l	50	14.	20
1,2,3-Trichlorobenzene	ND		ug/l	50	14.	20
1,2,4-Trichlorobenzene	ND		ug/l	50	14.	20
1,3,5-Trimethylbenzene	ND		ug/l	50	14.	20
1,2,4-Trimethylbenzene	ND		ug/l	50	14.	20
1,4-Dioxane	ND		ug/l	5000	1200	20
Freon-113	190		ug/l	50	14.	20
p-Diethylbenzene	ND		ug/l	40	14.	20
p-Ethyltoluene	ND		ug/l	40	14.	20
1,2,4,5-Tetramethylbenzene	ND		ug/l	40	11.	20
Ethyl ether	ND		ug/l	50	14.	20
trans-1,4-Dichloro-2-butene	ND		ug/l	50	14.	20

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	101		70-130
Toluene-d8	103		70-130
4-Bromofluorobenzene	133	Q	70-130
Dibromofluoromethane	100		70-130

Project Name: FESL
Project Number: 20029

Lab Number: L2045017
Report Date: 10/23/20

SAMPLE RESULTS

Lab ID: L2045017-07 D
 Client ID: CTRL D3
 Sample Location: ROCHESTER, NY

Date Collected: 10/17/20 15:30
 Date Received: 10/19/20
 Field Prep: Not Specified

Sample Depth:

Matrix: Water
 Analytical Method: 1,8260C
 Analytical Date: 10/22/20 15:10
 Analyst: MKS

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methylene chloride	ND		ug/l	10	2.8	4
1,1-Dichloroethane	640		ug/l	10	2.8	4
Chloroform	ND		ug/l	10	2.8	4
Carbon tetrachloride	ND		ug/l	2.0	0.54	4
1,2-Dichloropropane	ND		ug/l	4.0	0.55	4
Dibromochloromethane	ND		ug/l	2.0	0.60	4
1,1,2-Trichloroethane	ND		ug/l	6.0	2.0	4
Tetrachloroethene	130		ug/l	2.0	0.72	4
Chlorobenzene	ND		ug/l	10	2.8	4
Trichlorofluoromethane	ND		ug/l	10	2.8	4
1,2-Dichloroethane	ND		ug/l	2.0	0.53	4
1,1,1-Trichloroethane	300		ug/l	10	2.8	4
Bromodichloromethane	ND		ug/l	2.0	0.77	4
trans-1,3-Dichloropropene	ND		ug/l	2.0	0.66	4
cis-1,3-Dichloropropene	ND		ug/l	2.0	0.58	4
1,3-Dichloropropene, Total	ND		ug/l	2.0	0.58	4
1,1-Dichloropropene	ND		ug/l	10	2.8	4
Bromoform	ND		ug/l	8.0	2.6	4
1,1,1,2-Tetrachloroethane	ND		ug/l	2.0	0.67	4
Benzene	4.9		ug/l	2.0	0.64	4
Toluene	14		ug/l	10	2.8	4
Ethylbenzene	ND		ug/l	10	2.8	4
Chloromethane	ND		ug/l	10	2.8	4
Bromomethane	ND		ug/l	10	2.8	4
Vinyl chloride	380		ug/l	4.0	0.28	4
Chloroethane	170		ug/l	10	2.8	4
1,1-Dichloroethene	8.4		ug/l	2.0	0.68	4
trans-1,2-Dichloroethene	7.8	J	ug/l	10	2.8	4

Project Name: FESL
Project Number: 20029

Lab Number: L2045017
Report Date: 10/23/20

SAMPLE RESULTS

Lab ID: L2045017-07 D
 Client ID: CTRL D3
 Sample Location: ROCHESTER, NY

Date Collected: 10/17/20 15:30
 Date Received: 10/19/20
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Trichloroethene	23		ug/l	2.0	0.70	4
1,2-Dichlorobenzene	ND		ug/l	10	2.8	4
1,3-Dichlorobenzene	ND		ug/l	10	2.8	4
1,4-Dichlorobenzene	ND		ug/l	10	2.8	4
Methyl tert butyl ether	ND		ug/l	10	2.8	4
p/m-Xylene	ND		ug/l	10	2.8	4
o-Xylene	ND		ug/l	10	2.8	4
Xylenes, Total	ND		ug/l	10	2.8	4
cis-1,2-Dichloroethene	690		ug/l	10	2.8	4
1,2-Dichloroethene, Total	700	J	ug/l	10	2.8	4
Dibromomethane	ND		ug/l	20	4.0	4
1,2,3-Trichloropropane	ND		ug/l	10	2.8	4
Acrylonitrile	ND		ug/l	20	6.0	4
Styrene	ND		ug/l	10	2.8	4
Dichlorodifluoromethane	ND		ug/l	20	4.0	4
Acetone	29		ug/l	20	5.8	4
Carbon disulfide	ND		ug/l	20	4.0	4
2-Butanone	13	J	ug/l	20	7.8	4
Vinyl acetate	ND		ug/l	20	4.0	4
4-Methyl-2-pentanone	ND		ug/l	20	4.0	4
2-Hexanone	ND		ug/l	20	4.0	4
Bromochloromethane	ND		ug/l	10	2.8	4
2,2-Dichloropropane	ND		ug/l	10	2.8	4
1,2-Dibromoethane	ND		ug/l	8.0	2.6	4
1,3-Dichloropropane	ND		ug/l	10	2.8	4
1,1,1,2-Tetrachloroethane	ND		ug/l	10	2.8	4
Bromobenzene	ND		ug/l	10	2.8	4
n-Butylbenzene	ND		ug/l	10	2.8	4
sec-Butylbenzene	ND		ug/l	10	2.8	4
tert-Butylbenzene	ND		ug/l	10	2.8	4
o-Chlorotoluene	ND		ug/l	10	2.8	4
p-Chlorotoluene	ND		ug/l	10	2.8	4
1,2-Dibromo-3-chloropropane	ND		ug/l	10	2.8	4
Hexachlorobutadiene	ND		ug/l	10	2.8	4
Isopropylbenzene	ND		ug/l	10	2.8	4
p-Isopropyltoluene	ND		ug/l	10	2.8	4
Naphthalene	ND		ug/l	10	2.8	4

Project Name: FESL
Project Number: 20029

Lab Number: L2045017
Report Date: 10/23/20

SAMPLE RESULTS

Lab ID: L2045017-07 D
 Client ID: CTRL D3
 Sample Location: ROCHESTER, NY

Date Collected: 10/17/20 15:30
 Date Received: 10/19/20
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
n-Propylbenzene	ND		ug/l	10	2.8	4
1,2,3-Trichlorobenzene	ND		ug/l	10	2.8	4
1,2,4-Trichlorobenzene	ND		ug/l	10	2.8	4
1,3,5-Trimethylbenzene	ND		ug/l	10	2.8	4
1,2,4-Trimethylbenzene	ND		ug/l	10	2.8	4
1,4-Dioxane	ND		ug/l	1000	240	4
Freon-113	120		ug/l	10	2.8	4
p-Diethylbenzene	ND		ug/l	8.0	2.8	4
p-Ethyltoluene	ND		ug/l	8.0	2.8	4
1,2,4,5-Tetramethylbenzene	ND		ug/l	8.0	2.2	4
Ethyl ether	10		ug/l	10	2.8	4
trans-1,4-Dichloro-2-butene	ND		ug/l	10	2.8	4

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	109		70-130
Toluene-d8	93		70-130
4-Bromofluorobenzene	97		70-130
Dibromofluoromethane	103		70-130

Project Name: FESL
Project Number: 20029

Lab Number: L2045017
Report Date: 10/23/20

SAMPLE RESULTS

Lab ID: L2045017-08 D
 Client ID: CTRL D3 DUP
 Sample Location: ROCHESTER, NY

Date Collected: 10/17/20 15:35
 Date Received: 10/19/20
 Field Prep: Not Specified

Sample Depth:

Matrix: Water
 Analytical Method: 1,8260C
 Analytical Date: 10/22/20 15:36
 Analyst: MKS

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methylene chloride	ND		ug/l	10	2.8	4
1,1-Dichloroethane	640		ug/l	10	2.8	4
Chloroform	ND		ug/l	10	2.8	4
Carbon tetrachloride	ND		ug/l	2.0	0.54	4
1,2-Dichloropropane	ND		ug/l	4.0	0.55	4
Dibromochloromethane	ND		ug/l	2.0	0.60	4
1,1,2-Trichloroethane	ND		ug/l	6.0	2.0	4
Tetrachloroethene	130		ug/l	2.0	0.72	4
Chlorobenzene	ND		ug/l	10	2.8	4
Trichlorofluoromethane	ND		ug/l	10	2.8	4
1,2-Dichloroethane	ND		ug/l	2.0	0.53	4
1,1,1-Trichloroethane	300		ug/l	10	2.8	4
Bromodichloromethane	ND		ug/l	2.0	0.77	4
trans-1,3-Dichloropropene	ND		ug/l	2.0	0.66	4
cis-1,3-Dichloropropene	ND		ug/l	2.0	0.58	4
1,3-Dichloropropene, Total	ND		ug/l	2.0	0.58	4
1,1-Dichloropropene	ND		ug/l	10	2.8	4
Bromoform	ND		ug/l	8.0	2.6	4
1,1,2,2-Tetrachloroethane	ND		ug/l	2.0	0.67	4
Benzene	4.8		ug/l	2.0	0.64	4
Toluene	13		ug/l	10	2.8	4
Ethylbenzene	ND		ug/l	10	2.8	4
Chloromethane	ND		ug/l	10	2.8	4
Bromomethane	ND		ug/l	10	2.8	4
Vinyl chloride	380		ug/l	4.0	0.28	4
Chloroethane	170		ug/l	10	2.8	4
1,1-Dichloroethene	8.2		ug/l	2.0	0.68	4
trans-1,2-Dichloroethene	7.5	J	ug/l	10	2.8	4

Project Name: FESL
Project Number: 20029

Lab Number: L2045017
Report Date: 10/23/20

SAMPLE RESULTS

Lab ID: L2045017-08 D
 Client ID: CTRL D3 DUP
 Sample Location: ROCHESTER, NY

Date Collected: 10/17/20 15:35
 Date Received: 10/19/20
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Trichloroethene	22		ug/l	2.0	0.70	4
1,2-Dichlorobenzene	ND		ug/l	10	2.8	4
1,3-Dichlorobenzene	ND		ug/l	10	2.8	4
1,4-Dichlorobenzene	ND		ug/l	10	2.8	4
Methyl tert butyl ether	ND		ug/l	10	2.8	4
p/m-Xylene	ND		ug/l	10	2.8	4
o-Xylene	ND		ug/l	10	2.8	4
Xylenes, Total	ND		ug/l	10	2.8	4
cis-1,2-Dichloroethene	700		ug/l	10	2.8	4
1,2-Dichloroethene, Total	710	J	ug/l	10	2.8	4
Dibromomethane	ND		ug/l	20	4.0	4
1,2,3-Trichloropropane	ND		ug/l	10	2.8	4
Acrylonitrile	ND		ug/l	20	6.0	4
Styrene	ND		ug/l	10	2.8	4
Dichlorodifluoromethane	ND		ug/l	20	4.0	4
Acetone	28		ug/l	20	5.8	4
Carbon disulfide	ND		ug/l	20	4.0	4
2-Butanone	11	J	ug/l	20	7.8	4
Vinyl acetate	ND		ug/l	20	4.0	4
4-Methyl-2-pentanone	ND		ug/l	20	4.0	4
2-Hexanone	ND		ug/l	20	4.0	4
Bromochloromethane	ND		ug/l	10	2.8	4
2,2-Dichloropropane	ND		ug/l	10	2.8	4
1,2-Dibromoethane	ND		ug/l	8.0	2.6	4
1,3-Dichloropropane	ND		ug/l	10	2.8	4
1,1,1,2-Tetrachloroethane	ND		ug/l	10	2.8	4
Bromobenzene	ND		ug/l	10	2.8	4
n-Butylbenzene	ND		ug/l	10	2.8	4
sec-Butylbenzene	ND		ug/l	10	2.8	4
tert-Butylbenzene	ND		ug/l	10	2.8	4
o-Chlorotoluene	ND		ug/l	10	2.8	4
p-Chlorotoluene	ND		ug/l	10	2.8	4
1,2-Dibromo-3-chloropropane	ND		ug/l	10	2.8	4
Hexachlorobutadiene	ND		ug/l	10	2.8	4
Isopropylbenzene	ND		ug/l	10	2.8	4
p-Isopropyltoluene	ND		ug/l	10	2.8	4
Naphthalene	ND		ug/l	10	2.8	4

Project Name: FESL
Project Number: 20029

Lab Number: L2045017
Report Date: 10/23/20

SAMPLE RESULTS

Lab ID: L2045017-08 D
 Client ID: CTRL D3 DUP
 Sample Location: ROCHESTER, NY

Date Collected: 10/17/20 15:35
 Date Received: 10/19/20
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
n-Propylbenzene	ND		ug/l	10	2.8	4
1,2,3-Trichlorobenzene	ND		ug/l	10	2.8	4
1,2,4-Trichlorobenzene	ND		ug/l	10	2.8	4
1,3,5-Trimethylbenzene	ND		ug/l	10	2.8	4
1,2,4-Trimethylbenzene	ND		ug/l	10	2.8	4
1,4-Dioxane	ND		ug/l	1000	240	4
Freon-113	110		ug/l	10	2.8	4
p-Diethylbenzene	ND		ug/l	8.0	2.8	4
p-Ethyltoluene	ND		ug/l	8.0	2.8	4
1,2,4,5-Tetramethylbenzene	ND		ug/l	8.0	2.2	4
Ethyl ether	10		ug/l	10	2.8	4
trans-1,4-Dichloro-2-butene	ND		ug/l	10	2.8	4

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	108		70-130
Toluene-d8	94		70-130
4-Bromofluorobenzene	95		70-130
Dibromofluoromethane	105		70-130

Project Name: FESL
Project Number: 20029

Lab Number: L2045017
Report Date: 10/23/20

SAMPLE RESULTS

Lab ID: L2045017-09 D
 Client ID: FLOW LO D4
 Sample Location: ROCHESTER, NY

Date Collected: 10/18/20 13:00
 Date Received: 10/19/20
 Field Prep: Not Specified

Sample Depth:

Matrix: Water
 Analytical Method: 1,8260C
 Analytical Date: 10/20/20 08:30
 Analyst: PD

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methylene chloride	ND		ug/l	10	2.8	4
1,1-Dichloroethane	600		ug/l	10	2.8	4
Chloroform	ND		ug/l	10	2.8	4
Carbon tetrachloride	ND		ug/l	2.0	0.54	4
1,2-Dichloropropane	ND		ug/l	4.0	0.55	4
Dibromochloromethane	ND		ug/l	2.0	0.60	4
1,1,2-Trichloroethane	ND		ug/l	6.0	2.0	4
Tetrachloroethene	120		ug/l	2.0	0.72	4
Chlorobenzene	ND		ug/l	10	2.8	4
Trichlorofluoromethane	ND		ug/l	10	2.8	4
1,2-Dichloroethane	ND		ug/l	2.0	0.53	4
1,1,1-Trichloroethane	190		ug/l	10	2.8	4
Bromodichloromethane	ND		ug/l	2.0	0.77	4
trans-1,3-Dichloropropene	ND		ug/l	2.0	0.66	4
cis-1,3-Dichloropropene	ND		ug/l	2.0	0.58	4
1,3-Dichloropropene, Total	ND		ug/l	2.0	0.58	4
1,1-Dichloropropene	ND		ug/l	10	2.8	4
Bromoform	ND		ug/l	8.0	2.6	4
1,1,2,2-Tetrachloroethane	ND		ug/l	2.0	0.67	4
Benzene	5.5		ug/l	2.0	0.64	4
Toluene	18		ug/l	10	2.8	4
Ethylbenzene	ND		ug/l	10	2.8	4
Chloromethane	ND		ug/l	10	2.8	4
Bromomethane	ND		ug/l	10	2.8	4
Vinyl chloride	340		ug/l	4.0	0.28	4
Chloroethane	97		ug/l	10	2.8	4
1,1-Dichloroethene	6.4		ug/l	2.0	0.68	4
trans-1,2-Dichloroethene	6.5	J	ug/l	10	2.8	4

Project Name: FESL
Project Number: 20029

Lab Number: L2045017
Report Date: 10/23/20

SAMPLE RESULTS

Lab ID: L2045017-09 D
 Client ID: FLOW LO D4
 Sample Location: ROCHESTER, NY

Date Collected: 10/18/20 13:00
 Date Received: 10/19/20
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Trichloroethene	17		ug/l	2.0	0.70	4
1,2-Dichlorobenzene	ND		ug/l	10	2.8	4
1,3-Dichlorobenzene	ND		ug/l	10	2.8	4
1,4-Dichlorobenzene	ND		ug/l	10	2.8	4
Methyl tert butyl ether	ND		ug/l	10	2.8	4
p/m-Xylene	ND		ug/l	10	2.8	4
o-Xylene	5.0	J	ug/l	10	2.8	4
Xylenes, Total	5.0	J	ug/l	10	2.8	4
cis-1,2-Dichloroethene	580		ug/l	10	2.8	4
1,2-Dichloroethene, Total	590	J	ug/l	10	2.8	4
Dibromomethane	ND		ug/l	20	4.0	4
1,2,3-Trichloropropane	ND		ug/l	10	2.8	4
Acrylonitrile	ND		ug/l	20	6.0	4
Styrene	ND		ug/l	10	2.8	4
Dichlorodifluoromethane	ND		ug/l	20	4.0	4
Acetone	16	J	ug/l	20	5.8	4
Carbon disulfide	ND		ug/l	20	4.0	4
2-Butanone	ND		ug/l	20	7.8	4
Vinyl acetate	ND		ug/l	20	4.0	4
4-Methyl-2-pentanone	ND		ug/l	20	4.0	4
2-Hexanone	ND		ug/l	20	4.0	4
Bromochloromethane	ND		ug/l	10	2.8	4
2,2-Dichloropropane	ND		ug/l	10	2.8	4
1,2-Dibromoethane	ND		ug/l	8.0	2.6	4
1,3-Dichloropropane	ND		ug/l	10	2.8	4
1,1,1,2-Tetrachloroethane	ND		ug/l	10	2.8	4
Bromobenzene	ND		ug/l	10	2.8	4
n-Butylbenzene	ND		ug/l	10	2.8	4
sec-Butylbenzene	ND		ug/l	10	2.8	4
tert-Butylbenzene	ND		ug/l	10	2.8	4
o-Chlorotoluene	ND		ug/l	10	2.8	4
p-Chlorotoluene	ND		ug/l	10	2.8	4
1,2-Dibromo-3-chloropropane	ND		ug/l	10	2.8	4
Hexachlorobutadiene	ND		ug/l	10	2.8	4
Isopropylbenzene	ND		ug/l	10	2.8	4
p-Isopropyltoluene	ND		ug/l	10	2.8	4
Naphthalene	ND		ug/l	10	2.8	4

Project Name: FESL
Project Number: 20029

Lab Number: L2045017
Report Date: 10/23/20

SAMPLE RESULTS

Lab ID: L2045017-09 D
 Client ID: FLOW LO D4
 Sample Location: ROCHESTER, NY

Date Collected: 10/18/20 13:00
 Date Received: 10/19/20
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
n-Propylbenzene	ND		ug/l	10	2.8	4
1,2,3-Trichlorobenzene	ND		ug/l	10	2.8	4
1,2,4-Trichlorobenzene	ND		ug/l	10	2.8	4
1,3,5-Trimethylbenzene	ND		ug/l	10	2.8	4
1,2,4-Trimethylbenzene	ND		ug/l	10	2.8	4
1,4-Dioxane	ND		ug/l	1000	240	4
Freon-113	100		ug/l	10	2.8	4
p-Diethylbenzene	ND		ug/l	8.0	2.8	4
p-Ethyltoluene	ND		ug/l	8.0	2.8	4
1,2,4,5-Tetramethylbenzene	ND		ug/l	8.0	2.2	4
Ethyl ether	5.6	J	ug/l	10	2.8	4
trans-1,4-Dichloro-2-butene	ND		ug/l	10	2.8	4

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	99		70-130
Toluene-d8	96		70-130
4-Bromofluorobenzene	101		70-130
Dibromofluoromethane	101		70-130

Project Name: FESL
Project Number: 20029

Lab Number: L2045017
Report Date: 10/23/20

SAMPLE RESULTS

Lab ID: L2045017-10 D
 Client ID: FLOW HI D4
 Sample Location: ROCHESTER, NY

Date Collected: 10/18/20 13:05
 Date Received: 10/19/20
 Field Prep: Not Specified

Sample Depth:

Matrix: Water
 Analytical Method: 1,8260C
 Analytical Date: 10/20/20 08:53
 Analyst: PD

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methylene chloride	ND		ug/l	10	2.8	4
1,1-Dichloroethane	600		ug/l	10	2.8	4
Chloroform	ND		ug/l	10	2.8	4
Carbon tetrachloride	ND		ug/l	2.0	0.54	4
1,2-Dichloropropane	ND		ug/l	4.0	0.55	4
Dibromochloromethane	ND		ug/l	2.0	0.60	4
1,1,2-Trichloroethane	ND		ug/l	6.0	2.0	4
Tetrachloroethene	89		ug/l	2.0	0.72	4
Chlorobenzene	ND		ug/l	10	2.8	4
Trichlorofluoromethane	ND		ug/l	10	2.8	4
1,2-Dichloroethane	ND		ug/l	2.0	0.53	4
1,1,1-Trichloroethane	88		ug/l	10	2.8	4
Bromodichloromethane	ND		ug/l	2.0	0.77	4
trans-1,3-Dichloropropene	ND		ug/l	2.0	0.66	4
cis-1,3-Dichloropropene	ND		ug/l	2.0	0.58	4
1,3-Dichloropropene, Total	ND		ug/l	2.0	0.58	4
1,1-Dichloropropene	ND		ug/l	10	2.8	4
Bromoform	ND		ug/l	8.0	2.6	4
1,1,1,2-Tetrachloroethane	ND		ug/l	2.0	0.67	4
Benzene	5.4		ug/l	2.0	0.64	4
Toluene	16		ug/l	10	2.8	4
Ethylbenzene	ND		ug/l	10	2.8	4
Chloromethane	ND		ug/l	10	2.8	4
Bromomethane	ND		ug/l	10	2.8	4
Vinyl chloride	300		ug/l	4.0	0.28	4
Chloroethane	97		ug/l	10	2.8	4
1,1-Dichloroethene	3.9		ug/l	2.0	0.68	4
trans-1,2-Dichloroethene	3.8	J	ug/l	10	2.8	4

Project Name: FESL
Project Number: 20029

Lab Number: L2045017
Report Date: 10/23/20

SAMPLE RESULTS

Lab ID: L2045017-10 D
 Client ID: FLOW HI D4
 Sample Location: ROCHESTER, NY

Date Collected: 10/18/20 13:05
 Date Received: 10/19/20
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Trichloroethene	10		ug/l	2.0	0.70	4
1,2-Dichlorobenzene	ND		ug/l	10	2.8	4
1,3-Dichlorobenzene	ND		ug/l	10	2.8	4
1,4-Dichlorobenzene	ND		ug/l	10	2.8	4
Methyl tert butyl ether	ND		ug/l	10	2.8	4
p/m-Xylene	ND		ug/l	10	2.8	4
o-Xylene	4.0	J	ug/l	10	2.8	4
Xylenes, Total	4.0	J	ug/l	10	2.8	4
cis-1,2-Dichloroethene	500		ug/l	10	2.8	4
1,2-Dichloroethene, Total	500	J	ug/l	10	2.8	4
Dibromomethane	ND		ug/l	20	4.0	4
1,2,3-Trichloropropane	ND		ug/l	10	2.8	4
Acrylonitrile	ND		ug/l	20	6.0	4
Styrene	ND		ug/l	10	2.8	4
Dichlorodifluoromethane	ND		ug/l	20	4.0	4
Acetone	22		ug/l	20	5.8	4
Carbon disulfide	ND		ug/l	20	4.0	4
2-Butanone	11	J	ug/l	20	7.8	4
Vinyl acetate	ND		ug/l	20	4.0	4
4-Methyl-2-pentanone	ND		ug/l	20	4.0	4
2-Hexanone	ND		ug/l	20	4.0	4
Bromochloromethane	ND		ug/l	10	2.8	4
2,2-Dichloropropane	ND		ug/l	10	2.8	4
1,2-Dibromoethane	ND		ug/l	8.0	2.6	4
1,3-Dichloropropane	ND		ug/l	10	2.8	4
1,1,1,2-Tetrachloroethane	ND		ug/l	10	2.8	4
Bromobenzene	ND		ug/l	10	2.8	4
n-Butylbenzene	ND		ug/l	10	2.8	4
sec-Butylbenzene	ND		ug/l	10	2.8	4
tert-Butylbenzene	ND		ug/l	10	2.8	4
o-Chlorotoluene	ND		ug/l	10	2.8	4
p-Chlorotoluene	ND		ug/l	10	2.8	4
1,2-Dibromo-3-chloropropane	ND		ug/l	10	2.8	4
Hexachlorobutadiene	ND		ug/l	10	2.8	4
Isopropylbenzene	ND		ug/l	10	2.8	4
p-Isopropyltoluene	ND		ug/l	10	2.8	4
Naphthalene	ND		ug/l	10	2.8	4

Project Name: FESL
Project Number: 20029

Lab Number: L2045017
Report Date: 10/23/20

SAMPLE RESULTS

Lab ID: L2045017-10 D
 Client ID: FLOW HI D4
 Sample Location: ROCHESTER, NY

Date Collected: 10/18/20 13:05
 Date Received: 10/19/20
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
n-Propylbenzene	ND		ug/l	10	2.8	4
1,2,3-Trichlorobenzene	ND		ug/l	10	2.8	4
1,2,4-Trichlorobenzene	ND		ug/l	10	2.8	4
1,3,5-Trimethylbenzene	ND		ug/l	10	2.8	4
1,2,4-Trimethylbenzene	ND		ug/l	10	2.8	4
1,4-Dioxane	ND		ug/l	1000	240	4
Freon-113	77		ug/l	10	2.8	4
p-Diethylbenzene	ND		ug/l	8.0	2.8	4
p-Ethyltoluene	ND		ug/l	8.0	2.8	4
1,2,4,5-Tetramethylbenzene	ND		ug/l	8.0	2.2	4
Ethyl ether	5.7	J	ug/l	10	2.8	4
trans-1,4-Dichloro-2-butene	ND		ug/l	10	2.8	4

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	102		70-130
Toluene-d8	97		70-130
4-Bromofluorobenzene	98		70-130
Dibromofluoromethane	102		70-130

Project Name: FESL
Project Number: 20029

Lab Number: L2045017
Report Date: 10/23/20

SAMPLE RESULTS

Lab ID: L2045017-11 D
 Client ID: TARGET LO D4
 Sample Location: ROCHESTER, NY

Date Collected: 10/18/20 13:10
 Date Received: 10/19/20
 Field Prep: Not Specified

Sample Depth:

Matrix: Water
 Analytical Method: 1,8260C
 Analytical Date: 10/20/20 09:17
 Analyst: PD

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methylene chloride	ND		ug/l	10	2.8	4
1,1-Dichloroethane	610		ug/l	10	2.8	4
Chloroform	ND		ug/l	10	2.8	4
Carbon tetrachloride	ND		ug/l	2.0	0.54	4
1,2-Dichloropropane	ND		ug/l	4.0	0.55	4
Dibromochloromethane	ND		ug/l	2.0	0.60	4
1,1,2-Trichloroethane	ND		ug/l	6.0	2.0	4
Tetrachloroethene	120		ug/l	2.0	0.72	4
Chlorobenzene	ND		ug/l	10	2.8	4
Trichlorofluoromethane	ND		ug/l	10	2.8	4
1,2-Dichloroethane	ND		ug/l	2.0	0.53	4
1,1,1-Trichloroethane	39		ug/l	10	2.8	4
Bromodichloromethane	ND		ug/l	2.0	0.77	4
trans-1,3-Dichloropropene	ND		ug/l	2.0	0.66	4
cis-1,3-Dichloropropene	ND		ug/l	2.0	0.58	4
1,3-Dichloropropene, Total	ND		ug/l	2.0	0.58	4
1,1-Dichloropropene	ND		ug/l	10	2.8	4
Bromoform	ND		ug/l	8.0	2.6	4
1,1,1,2-Tetrachloroethane	ND		ug/l	2.0	0.67	4
Benzene	6.4		ug/l	2.0	0.64	4
Toluene	21		ug/l	10	2.8	4
Ethylbenzene	ND		ug/l	10	2.8	4
Chloromethane	ND		ug/l	10	2.8	4
Bromomethane	ND		ug/l	10	2.8	4
Vinyl chloride	330		ug/l	4.0	0.28	4
Chloroethane	100		ug/l	10	2.8	4
1,1-Dichloroethene	5.2		ug/l	2.0	0.68	4
trans-1,2-Dichloroethene	5.3	J	ug/l	10	2.8	4

Project Name: FESL
Project Number: 20029

Lab Number: L2045017
Report Date: 10/23/20

SAMPLE RESULTS

Lab ID: L2045017-11 D
 Client ID: TARGET LO D4
 Sample Location: ROCHESTER, NY

Date Collected: 10/18/20 13:10
 Date Received: 10/19/20
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Trichloroethene	13		ug/l	2.0	0.70	4
1,2-Dichlorobenzene	ND		ug/l	10	2.8	4
1,3-Dichlorobenzene	ND		ug/l	10	2.8	4
1,4-Dichlorobenzene	ND		ug/l	10	2.8	4
Methyl tert butyl ether	ND		ug/l	10	2.8	4
p/m-Xylene	ND		ug/l	10	2.8	4
o-Xylene	5.6	J	ug/l	10	2.8	4
Xylenes, Total	5.6	J	ug/l	10	2.8	4
cis-1,2-Dichloroethene	570		ug/l	10	2.8	4
1,2-Dichloroethene, Total	580	J	ug/l	10	2.8	4
Dibromomethane	ND		ug/l	20	4.0	4
1,2,3-Trichloropropane	ND		ug/l	10	2.8	4
Acrylonitrile	ND		ug/l	20	6.0	4
Styrene	ND		ug/l	10	2.8	4
Dichlorodifluoromethane	ND		ug/l	20	4.0	4
Acetone	15	J	ug/l	20	5.8	4
Carbon disulfide	ND		ug/l	20	4.0	4
2-Butanone	11	J	ug/l	20	7.8	4
Vinyl acetate	ND		ug/l	20	4.0	4
4-Methyl-2-pentanone	ND		ug/l	20	4.0	4
2-Hexanone	ND		ug/l	20	4.0	4
Bromochloromethane	ND		ug/l	10	2.8	4
2,2-Dichloropropane	ND		ug/l	10	2.8	4
1,2-Dibromoethane	ND		ug/l	8.0	2.6	4
1,3-Dichloropropane	ND		ug/l	10	2.8	4
1,1,1,2-Tetrachloroethane	ND		ug/l	10	2.8	4
Bromobenzene	ND		ug/l	10	2.8	4
n-Butylbenzene	ND		ug/l	10	2.8	4
sec-Butylbenzene	ND		ug/l	10	2.8	4
tert-Butylbenzene	ND		ug/l	10	2.8	4
o-Chlorotoluene	ND		ug/l	10	2.8	4
p-Chlorotoluene	ND		ug/l	10	2.8	4
1,2-Dibromo-3-chloropropane	ND		ug/l	10	2.8	4
Hexachlorobutadiene	ND		ug/l	10	2.8	4
Isopropylbenzene	ND		ug/l	10	2.8	4
p-Isopropyltoluene	ND		ug/l	10	2.8	4
Naphthalene	ND		ug/l	10	2.8	4

Project Name: FESL
Project Number: 20029

Lab Number: L2045017
Report Date: 10/23/20

SAMPLE RESULTS

Lab ID: L2045017-11 D
 Client ID: TARGET LO D4
 Sample Location: ROCHESTER, NY

Date Collected: 10/18/20 13:10
 Date Received: 10/19/20
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
n-Propylbenzene	ND		ug/l	10	2.8	4
1,2,3-Trichlorobenzene	ND		ug/l	10	2.8	4
1,2,4-Trichlorobenzene	ND		ug/l	10	2.8	4
1,3,5-Trimethylbenzene	ND		ug/l	10	2.8	4
1,2,4-Trimethylbenzene	ND		ug/l	10	2.8	4
1,4-Dioxane	ND		ug/l	1000	240	4
Freon-113	84		ug/l	10	2.8	4
p-Diethylbenzene	ND		ug/l	8.0	2.8	4
p-Ethyltoluene	ND		ug/l	8.0	2.8	4
1,2,4,5-Tetramethylbenzene	ND		ug/l	8.0	2.2	4
Ethyl ether	5.4	J	ug/l	10	2.8	4
trans-1,4-Dichloro-2-butene	ND		ug/l	10	2.8	4

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	101		70-130
Toluene-d8	95		70-130
4-Bromofluorobenzene	97		70-130
Dibromofluoromethane	102		70-130

Project Name: FESL
Project Number: 20029

Lab Number: L2045017
Report Date: 10/23/20

SAMPLE RESULTS

Lab ID: L2045017-12 D
 Client ID: TARGET HI D4
 Sample Location: ROCHESTER, NY

Date Collected: 10/18/20 13:15
 Date Received: 10/19/20
 Field Prep: Not Specified

Sample Depth:

Matrix: Water
 Analytical Method: 1,8260C
 Analytical Date: 10/20/20 09:40
 Analyst: PD

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methylene chloride	ND		ug/l	10	2.8	4
1,1-Dichloroethane	610		ug/l	10	2.8	4
Chloroform	ND		ug/l	10	2.8	4
Carbon tetrachloride	ND		ug/l	2.0	0.54	4
1,2-Dichloropropane	ND		ug/l	4.0	0.55	4
Dibromochloromethane	ND		ug/l	2.0	0.60	4
1,1,2-Trichloroethane	ND		ug/l	6.0	2.0	4
Tetrachloroethene	89		ug/l	2.0	0.72	4
Chlorobenzene	ND		ug/l	10	2.8	4
Trichlorofluoromethane	ND		ug/l	10	2.8	4
1,2-Dichloroethane	ND		ug/l	2.0	0.53	4
1,1,1-Trichloroethane	4.5	J	ug/l	10	2.8	4
Bromodichloromethane	ND		ug/l	2.0	0.77	4
trans-1,3-Dichloropropene	ND		ug/l	2.0	0.66	4
cis-1,3-Dichloropropene	ND		ug/l	2.0	0.58	4
1,3-Dichloropropene, Total	ND		ug/l	2.0	0.58	4
1,1-Dichloropropene	ND		ug/l	10	2.8	4
Bromoform	ND		ug/l	8.0	2.6	4
1,1,2,2-Tetrachloroethane	ND		ug/l	2.0	0.67	4
Benzene	7.5		ug/l	2.0	0.64	4
Toluene	22		ug/l	10	2.8	4
Ethylbenzene	ND		ug/l	10	2.8	4
Chloromethane	ND		ug/l	10	2.8	4
Bromomethane	ND		ug/l	10	2.8	4
Vinyl chloride	230		ug/l	4.0	0.28	4
Chloroethane	100		ug/l	10	2.8	4
1,1-Dichloroethene	2.8		ug/l	2.0	0.68	4
trans-1,2-Dichloroethene	ND		ug/l	10	2.8	4

Project Name: FESL
Project Number: 20029

Lab Number: L2045017
Report Date: 10/23/20

SAMPLE RESULTS

Lab ID: L2045017-12 D
 Client ID: TARGET HI D4
 Sample Location: ROCHESTER, NY

Date Collected: 10/18/20 13:15
 Date Received: 10/19/20
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Trichloroethene	9.2		ug/l	2.0	0.70	4
1,2-Dichlorobenzene	ND		ug/l	10	2.8	4
1,3-Dichlorobenzene	ND		ug/l	10	2.8	4
1,4-Dichlorobenzene	ND		ug/l	10	2.8	4
Methyl tert butyl ether	ND		ug/l	10	2.8	4
p/m-Xylene	ND		ug/l	10	2.8	4
o-Xylene	5.6	J	ug/l	10	2.8	4
Xylenes, Total	5.6	J	ug/l	10	2.8	4
cis-1,2-Dichloroethene	440		ug/l	10	2.8	4
1,2-Dichloroethene, Total	440		ug/l	10	2.8	4
Dibromomethane	ND		ug/l	20	4.0	4
1,2,3-Trichloropropane	ND		ug/l	10	2.8	4
Acrylonitrile	ND		ug/l	20	6.0	4
Styrene	ND		ug/l	10	2.8	4
Dichlorodifluoromethane	ND		ug/l	20	4.0	4
Acetone	19	J	ug/l	20	5.8	4
Carbon disulfide	ND		ug/l	20	4.0	4
2-Butanone	14	J	ug/l	20	7.8	4
Vinyl acetate	ND		ug/l	20	4.0	4
4-Methyl-2-pentanone	ND		ug/l	20	4.0	4
2-Hexanone	ND		ug/l	20	4.0	4
Bromochloromethane	ND		ug/l	10	2.8	4
2,2-Dichloropropane	ND		ug/l	10	2.8	4
1,2-Dibromoethane	ND		ug/l	8.0	2.6	4
1,3-Dichloropropane	ND		ug/l	10	2.8	4
1,1,1,2-Tetrachloroethane	ND		ug/l	10	2.8	4
Bromobenzene	ND		ug/l	10	2.8	4
n-Butylbenzene	ND		ug/l	10	2.8	4
sec-Butylbenzene	ND		ug/l	10	2.8	4
tert-Butylbenzene	ND		ug/l	10	2.8	4
o-Chlorotoluene	ND		ug/l	10	2.8	4
p-Chlorotoluene	ND		ug/l	10	2.8	4
1,2-Dibromo-3-chloropropane	ND		ug/l	10	2.8	4
Hexachlorobutadiene	ND		ug/l	10	2.8	4
Isopropylbenzene	ND		ug/l	10	2.8	4
p-Isopropyltoluene	ND		ug/l	10	2.8	4
Naphthalene	ND		ug/l	10	2.8	4

Project Name: FESL
Project Number: 20029

Lab Number: L2045017
Report Date: 10/23/20

SAMPLE RESULTS

Lab ID: L2045017-12 D
 Client ID: TARGET HI D4
 Sample Location: ROCHESTER, NY

Date Collected: 10/18/20 13:15
 Date Received: 10/19/20
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
n-Propylbenzene	ND		ug/l	10	2.8	4
1,2,3-Trichlorobenzene	ND		ug/l	10	2.8	4
1,2,4-Trichlorobenzene	ND		ug/l	10	2.8	4
1,3,5-Trimethylbenzene	ND		ug/l	10	2.8	4
1,2,4-Trimethylbenzene	ND		ug/l	10	2.8	4
1,4-Dioxane	ND		ug/l	1000	240	4
Freon-113	37		ug/l	10	2.8	4
p-Diethylbenzene	ND		ug/l	8.0	2.8	4
p-Ethyltoluene	ND		ug/l	8.0	2.8	4
1,2,4,5-Tetramethylbenzene	ND		ug/l	8.0	2.2	4
Ethyl ether	5.7	J	ug/l	10	2.8	4
trans-1,4-Dichloro-2-butene	ND		ug/l	10	2.8	4

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	102		70-130
Toluene-d8	96		70-130
4-Bromofluorobenzene	98		70-130
Dibromofluoromethane	100		70-130

Project Name: FESL
Project Number: 20029

Lab Number: L2045017
Report Date: 10/23/20

SAMPLE RESULTS

Lab ID: L2045017-13 D
 Client ID: EZVI LO D4
 Sample Location: ROCHESTER, NY

Date Collected: 10/18/20 13:20
 Date Received: 10/19/20
 Field Prep: Not Specified

Sample Depth:

Matrix: Water
 Analytical Method: 1,8260C
 Analytical Date: 10/20/20 08:25
 Analyst: PD

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methylene chloride	ND		ug/l	50	14.	20
1,1-Dichloroethane	560		ug/l	50	14.	20
Chloroform	ND		ug/l	50	14.	20
Carbon tetrachloride	ND		ug/l	10	2.7	20
1,2-Dichloropropane	ND		ug/l	20	2.7	20
Dibromochloromethane	ND		ug/l	10	3.0	20
1,1,2-Trichloroethane	ND		ug/l	30	10.	20
Tetrachloroethene	220		ug/l	10	3.6	20
Chlorobenzene	ND		ug/l	50	14.	20
Trichlorofluoromethane	ND		ug/l	50	14.	20
1,2-Dichloroethane	ND		ug/l	10	2.6	20
1,1,1-Trichloroethane	140		ug/l	50	14.	20
Bromodichloromethane	ND		ug/l	10	3.8	20
trans-1,3-Dichloropropene	ND		ug/l	10	3.3	20
cis-1,3-Dichloropropene	ND		ug/l	10	2.9	20
1,3-Dichloropropene, Total	ND		ug/l	10	2.9	20
1,1-Dichloropropene	ND		ug/l	50	14.	20
Bromoform	ND		ug/l	40	13.	20
1,1,1,2-Tetrachloroethane	ND		ug/l	10	3.3	20
Benzene	6.0	J	ug/l	10	3.2	20
Toluene	29	J	ug/l	50	14.	20
Ethylbenzene	ND		ug/l	50	14.	20
Chloromethane	ND		ug/l	50	14.	20
Bromomethane	ND		ug/l	50	14.	20
Vinyl chloride	350		ug/l	20	1.4	20
Chloroethane	210		ug/l	50	14.	20
1,1-Dichloroethene	7.3	J	ug/l	10	3.4	20
trans-1,2-Dichloroethene	ND		ug/l	50	14.	20

Project Name: FESL
Project Number: 20029

Lab Number: L2045017
Report Date: 10/23/20

SAMPLE RESULTS

Lab ID: L2045017-13 D
 Client ID: EZVI LO D4
 Sample Location: ROCHESTER, NY

Date Collected: 10/18/20 13:20
 Date Received: 10/19/20
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Trichloroethene	24		ug/l	10	3.5	20
1,2-Dichlorobenzene	ND		ug/l	50	14.	20
1,3-Dichlorobenzene	ND		ug/l	50	14.	20
1,4-Dichlorobenzene	ND		ug/l	50	14.	20
Methyl tert butyl ether	ND		ug/l	50	14.	20
p/m-Xylene	ND		ug/l	50	14.	20
o-Xylene	ND		ug/l	50	14.	20
Xylenes, Total	ND		ug/l	50	14.	20
cis-1,2-Dichloroethene	580		ug/l	50	14.	20
1,2-Dichloroethene, Total	580		ug/l	50	14.	20
Dibromomethane	ND		ug/l	100	20.	20
1,2,3-Trichloropropane	ND		ug/l	50	14.	20
Acrylonitrile	ND		ug/l	100	30.	20
Styrene	ND		ug/l	50	14.	20
Dichlorodifluoromethane	ND		ug/l	100	20.	20
Acetone	54	J	ug/l	100	29.	20
Carbon disulfide	ND		ug/l	100	20.	20
2-Butanone	310		ug/l	100	39.	20
Vinyl acetate	ND		ug/l	100	20.	20
4-Methyl-2-pentanone	ND		ug/l	100	20.	20
2-Hexanone	ND		ug/l	100	20.	20
Bromochloromethane	ND		ug/l	50	14.	20
2,2-Dichloropropane	ND		ug/l	50	14.	20
1,2-Dibromoethane	ND		ug/l	40	13.	20
1,3-Dichloropropane	ND		ug/l	50	14.	20
1,1,1,2-Tetrachloroethane	ND		ug/l	50	14.	20
Bromobenzene	ND		ug/l	50	14.	20
n-Butylbenzene	ND		ug/l	50	14.	20
sec-Butylbenzene	ND		ug/l	50	14.	20
tert-Butylbenzene	ND		ug/l	50	14.	20
o-Chlorotoluene	ND		ug/l	50	14.	20
p-Chlorotoluene	ND		ug/l	50	14.	20
1,2-Dibromo-3-chloropropane	ND		ug/l	50	14.	20
Hexachlorobutadiene	ND		ug/l	50	14.	20
Isopropylbenzene	ND		ug/l	50	14.	20
p-Isopropyltoluene	ND		ug/l	50	14.	20
Naphthalene	ND		ug/l	50	14.	20

Project Name: FESL
Project Number: 20029

Lab Number: L2045017
Report Date: 10/23/20

SAMPLE RESULTS

Lab ID: L2045017-13 D
 Client ID: EZVI LO D4
 Sample Location: ROCHESTER, NY

Date Collected: 10/18/20 13:20
 Date Received: 10/19/20
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
n-Propylbenzene	ND		ug/l	50	14.	20
1,2,3-Trichlorobenzene	ND		ug/l	50	14.	20
1,2,4-Trichlorobenzene	ND		ug/l	50	14.	20
1,3,5-Trimethylbenzene	ND		ug/l	50	14.	20
1,2,4-Trimethylbenzene	ND		ug/l	50	14.	20
1,4-Dioxane	ND		ug/l	5000	1200	20
Freon-113	290		ug/l	50	14.	20
p-Diethylbenzene	ND		ug/l	40	14.	20
p-Ethyltoluene	ND		ug/l	40	14.	20
1,2,4,5-Tetramethylbenzene	ND		ug/l	40	11.	20
Ethyl ether	ND		ug/l	50	14.	20
trans-1,4-Dichloro-2-butene	ND		ug/l	50	14.	20

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	101		70-130
Toluene-d8	102		70-130
4-Bromofluorobenzene	114		70-130
Dibromofluoromethane	96		70-130

Project Name: FESL
Project Number: 20029

Lab Number: L2045017
Report Date: 10/23/20

SAMPLE RESULTS

Lab ID: L2045017-14 D
 Client ID: EZVI HI D4
 Sample Location: ROCHESTER, NY

Date Collected: 10/18/20 13:25
 Date Received: 10/19/20
 Field Prep: Not Specified

Sample Depth:

Matrix: Water
 Analytical Method: 1,8260C
 Analytical Date: 10/20/20 08:47
 Analyst: PD

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methylene chloride	ND		ug/l	50	14.	20
1,1-Dichloroethane	280		ug/l	50	14.	20
Chloroform	ND		ug/l	50	14.	20
Carbon tetrachloride	ND		ug/l	10	2.7	20
1,2-Dichloropropane	ND		ug/l	20	2.7	20
Dibromochloromethane	ND		ug/l	10	3.0	20
1,1,2-Trichloroethane	ND		ug/l	30	10.	20
Tetrachloroethene	57		ug/l	10	3.6	20
Chlorobenzene	ND		ug/l	50	14.	20
Trichlorofluoromethane	ND		ug/l	50	14.	20
1,2-Dichloroethane	ND		ug/l	10	2.6	20
1,1,1-Trichloroethane	40	J	ug/l	50	14.	20
Bromodichloromethane	ND		ug/l	10	3.8	20
trans-1,3-Dichloropropene	ND		ug/l	10	3.3	20
cis-1,3-Dichloropropene	ND		ug/l	10	2.9	20
1,3-Dichloropropene, Total	ND		ug/l	10	2.9	20
1,1-Dichloropropene	ND		ug/l	50	14.	20
Bromoform	ND		ug/l	40	13.	20
1,1,2,2-Tetrachloroethane	ND		ug/l	10	3.3	20
Benzene	ND		ug/l	10	3.2	20
Toluene	ND		ug/l	50	14.	20
Ethylbenzene	ND		ug/l	50	14.	20
Chloromethane	ND		ug/l	50	14.	20
Bromomethane	ND		ug/l	50	14.	20
Vinyl chloride	230		ug/l	20	1.4	20
Chloroethane	130		ug/l	50	14.	20
1,1-Dichloroethene	ND		ug/l	10	3.4	20
trans-1,2-Dichloroethene	ND		ug/l	50	14.	20

Project Name: FESL
Project Number: 20029

Lab Number: L2045017
Report Date: 10/23/20

SAMPLE RESULTS

Lab ID: L2045017-14 D
 Client ID: EZVI HI D4
 Sample Location: ROCHESTER, NY

Date Collected: 10/18/20 13:25
 Date Received: 10/19/20
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Trichloroethene	8.3	J	ug/l	10	3.5	20
1,2-Dichlorobenzene	ND		ug/l	50	14.	20
1,3-Dichlorobenzene	ND		ug/l	50	14.	20
1,4-Dichlorobenzene	ND		ug/l	50	14.	20
Methyl tert butyl ether	ND		ug/l	50	14.	20
p/m-Xylene	ND		ug/l	50	14.	20
o-Xylene	ND		ug/l	50	14.	20
Xylenes, Total	ND		ug/l	50	14.	20
cis-1,2-Dichloroethene	280		ug/l	50	14.	20
1,2-Dichloroethene, Total	280		ug/l	50	14.	20
Dibromomethane	ND		ug/l	100	20.	20
1,2,3-Trichloropropane	ND		ug/l	50	14.	20
Acrylonitrile	ND		ug/l	100	30.	20
Styrene	ND		ug/l	50	14.	20
Dichlorodifluoromethane	ND		ug/l	100	20.	20
Acetone	85	J	ug/l	100	29.	20
Carbon disulfide	ND		ug/l	100	20.	20
2-Butanone	1500		ug/l	100	39.	20
Vinyl acetate	ND		ug/l	100	20.	20
4-Methyl-2-pentanone	ND		ug/l	100	20.	20
2-Hexanone	ND		ug/l	100	20.	20
Bromochloromethane	ND		ug/l	50	14.	20
2,2-Dichloropropane	ND		ug/l	50	14.	20
1,2-Dibromoethane	ND		ug/l	40	13.	20
1,3-Dichloropropane	ND		ug/l	50	14.	20
1,1,1,2-Tetrachloroethane	ND		ug/l	50	14.	20
Bromobenzene	ND		ug/l	50	14.	20
n-Butylbenzene	ND		ug/l	50	14.	20
sec-Butylbenzene	ND		ug/l	50	14.	20
tert-Butylbenzene	ND		ug/l	50	14.	20
o-Chlorotoluene	ND		ug/l	50	14.	20
p-Chlorotoluene	ND		ug/l	50	14.	20
1,2-Dibromo-3-chloropropane	ND		ug/l	50	14.	20
Hexachlorobutadiene	ND		ug/l	50	14.	20
Isopropylbenzene	ND		ug/l	50	14.	20
p-Isopropyltoluene	ND		ug/l	50	14.	20
Naphthalene	ND		ug/l	50	14.	20

Project Name: FESL
Project Number: 20029

Lab Number: L2045017
Report Date: 10/23/20

SAMPLE RESULTS

Lab ID: L2045017-14 D
 Client ID: EZVI HI D4
 Sample Location: ROCHESTER, NY

Date Collected: 10/18/20 13:25
 Date Received: 10/19/20
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
n-Propylbenzene	ND		ug/l	50	14.	20
1,2,3-Trichlorobenzene	ND		ug/l	50	14.	20
1,2,4-Trichlorobenzene	ND		ug/l	50	14.	20
1,3,5-Trimethylbenzene	ND		ug/l	50	14.	20
1,2,4-Trimethylbenzene	ND		ug/l	50	14.	20
1,4-Dioxane	ND		ug/l	5000	1200	20
Freon-113	85		ug/l	50	14.	20
p-Diethylbenzene	ND		ug/l	40	14.	20
p-Ethyltoluene	ND		ug/l	40	14.	20
1,2,4,5-Tetramethylbenzene	ND		ug/l	40	11.	20
Ethyl ether	ND		ug/l	50	14.	20
trans-1,4-Dichloro-2-butene	ND		ug/l	50	14.	20

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	96		70-130
Toluene-d8	100		70-130
4-Bromofluorobenzene	119		70-130
Dibromofluoromethane	97		70-130

Project Name: FESL
Project Number: 20029

Lab Number: L2045017
Report Date: 10/23/20

SAMPLE RESULTS

Lab ID: L2045017-15 D
 Client ID: CTRL D4
 Sample Location: ROCHESTER, NY

Date Collected: 10/18/20 13:30
 Date Received: 10/19/20
 Field Prep: Not Specified

Sample Depth:

Matrix: Water
 Analytical Method: 1,8260C
 Analytical Date: 10/20/20 10:03
 Analyst: PD

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methylene chloride	ND		ug/l	10	2.8	4
1,1-Dichloroethane	590		ug/l	10	2.8	4
Chloroform	ND		ug/l	10	2.8	4
Carbon tetrachloride	ND		ug/l	2.0	0.54	4
1,2-Dichloropropane	ND		ug/l	4.0	0.55	4
Dibromochloromethane	ND		ug/l	2.0	0.60	4
1,1,2-Trichloroethane	ND		ug/l	6.0	2.0	4
Tetrachloroethene	140		ug/l	2.0	0.72	4
Chlorobenzene	ND		ug/l	10	2.8	4
Trichlorofluoromethane	ND		ug/l	10	2.8	4
1,2-Dichloroethane	ND		ug/l	2.0	0.53	4
1,1,1-Trichloroethane	270		ug/l	10	2.8	4
Bromodichloromethane	ND		ug/l	2.0	0.77	4
trans-1,3-Dichloropropene	ND		ug/l	2.0	0.66	4
cis-1,3-Dichloropropene	ND		ug/l	2.0	0.58	4
1,3-Dichloropropene, Total	ND		ug/l	2.0	0.58	4
1,1-Dichloropropene	ND		ug/l	10	2.8	4
Bromoform	ND		ug/l	8.0	2.6	4
1,1,1,2-Tetrachloroethane	ND		ug/l	2.0	0.67	4
Benzene	4.6		ug/l	2.0	0.64	4
Toluene	14		ug/l	10	2.8	4
Ethylbenzene	ND		ug/l	10	2.8	4
Chloromethane	ND		ug/l	10	2.8	4
Bromomethane	ND		ug/l	10	2.8	4
Vinyl chloride	370		ug/l	4.0	0.28	4
Chloroethane	100		ug/l	10	2.8	4
1,1-Dichloroethene	7.1		ug/l	2.0	0.68	4
trans-1,2-Dichloroethene	7.6	J	ug/l	10	2.8	4

Project Name: FESL
Project Number: 20029

Lab Number: L2045017
Report Date: 10/23/20

SAMPLE RESULTS

Lab ID: L2045017-15 D
 Client ID: CTRL D4
 Sample Location: ROCHESTER, NY

Date Collected: 10/18/20 13:30
 Date Received: 10/19/20
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Trichloroethene	21		ug/l	2.0	0.70	4
1,2-Dichlorobenzene	ND		ug/l	10	2.8	4
1,3-Dichlorobenzene	ND		ug/l	10	2.8	4
1,4-Dichlorobenzene	ND		ug/l	10	2.8	4
Methyl tert butyl ether	ND		ug/l	10	2.8	4
p/m-Xylene	ND		ug/l	10	2.8	4
o-Xylene	3.4	J	ug/l	10	2.8	4
Xylenes, Total	3.4	J	ug/l	10	2.8	4
cis-1,2-Dichloroethene	600		ug/l	10	2.8	4
1,2-Dichloroethene, Total	610	J	ug/l	10	2.8	4
Dibromomethane	ND		ug/l	20	4.0	4
1,2,3-Trichloropropane	ND		ug/l	10	2.8	4
Acrylonitrile	ND		ug/l	20	6.0	4
Styrene	ND		ug/l	10	2.8	4
Dichlorodifluoromethane	ND		ug/l	20	4.0	4
Acetone	22		ug/l	20	5.8	4
Carbon disulfide	ND		ug/l	20	4.0	4
2-Butanone	ND		ug/l	20	7.8	4
Vinyl acetate	ND		ug/l	20	4.0	4
4-Methyl-2-pentanone	ND		ug/l	20	4.0	4
2-Hexanone	ND		ug/l	20	4.0	4
Bromochloromethane	ND		ug/l	10	2.8	4
2,2-Dichloropropane	ND		ug/l	10	2.8	4
1,2-Dibromoethane	ND		ug/l	8.0	2.6	4
1,3-Dichloropropane	ND		ug/l	10	2.8	4
1,1,1,2-Tetrachloroethane	ND		ug/l	10	2.8	4
Bromobenzene	ND		ug/l	10	2.8	4
n-Butylbenzene	ND		ug/l	10	2.8	4
sec-Butylbenzene	ND		ug/l	10	2.8	4
tert-Butylbenzene	ND		ug/l	10	2.8	4
o-Chlorotoluene	ND		ug/l	10	2.8	4
p-Chlorotoluene	ND		ug/l	10	2.8	4
1,2-Dibromo-3-chloropropane	ND		ug/l	10	2.8	4
Hexachlorobutadiene	ND		ug/l	10	2.8	4
Isopropylbenzene	ND		ug/l	10	2.8	4
p-Isopropyltoluene	ND		ug/l	10	2.8	4
Naphthalene	ND		ug/l	10	2.8	4

Project Name: FESL
Project Number: 20029

Lab Number: L2045017
Report Date: 10/23/20

SAMPLE RESULTS

Lab ID: L2045017-15 D
 Client ID: CTRL D4
 Sample Location: ROCHESTER, NY

Date Collected: 10/18/20 13:30
 Date Received: 10/19/20
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
n-Propylbenzene	ND		ug/l	10	2.8	4
1,2,3-Trichlorobenzene	ND		ug/l	10	2.8	4
1,2,4-Trichlorobenzene	ND		ug/l	10	2.8	4
1,3,5-Trimethylbenzene	ND		ug/l	10	2.8	4
1,2,4-Trimethylbenzene	ND		ug/l	10	2.8	4
1,4-Dioxane	ND		ug/l	1000	240	4
Freon-113	110		ug/l	10	2.8	4
p-Diethylbenzene	ND		ug/l	8.0	2.8	4
p-Ethyltoluene	ND		ug/l	8.0	2.8	4
1,2,4,5-Tetramethylbenzene	ND		ug/l	8.0	2.2	4
Ethyl ether	6.2	J	ug/l	10	2.8	4
trans-1,4-Dichloro-2-butene	ND		ug/l	10	2.8	4

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	100		70-130
Toluene-d8	97		70-130
4-Bromofluorobenzene	97		70-130
Dibromofluoromethane	102		70-130

Project Name: FESL
Project Number: 20029

Lab Number: L2045017
Report Date: 10/23/20

SAMPLE RESULTS

Lab ID: L2045017-16 D
 Client ID: CTRL D4 DUP
 Sample Location: ROCHESTER, NY

Date Collected: 10/18/20 13:35
 Date Received: 10/19/20
 Field Prep: Not Specified

Sample Depth:

Matrix: Water
 Analytical Method: 1,8260C
 Analytical Date: 10/20/20 10:26
 Analyst: PD

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methylene chloride	ND		ug/l	10	2.8	4
1,1-Dichloroethane	600		ug/l	10	2.8	4
Chloroform	ND		ug/l	10	2.8	4
Carbon tetrachloride	ND		ug/l	2.0	0.54	4
1,2-Dichloropropane	ND		ug/l	4.0	0.55	4
Dibromochloromethane	ND		ug/l	2.0	0.60	4
1,1,2-Trichloroethane	ND		ug/l	6.0	2.0	4
Tetrachloroethene	140		ug/l	2.0	0.72	4
Chlorobenzene	ND		ug/l	10	2.8	4
Trichlorofluoromethane	ND		ug/l	10	2.8	4
1,2-Dichloroethane	ND		ug/l	2.0	0.53	4
1,1,1-Trichloroethane	270		ug/l	10	2.8	4
Bromodichloromethane	ND		ug/l	2.0	0.77	4
trans-1,3-Dichloropropene	ND		ug/l	2.0	0.66	4
cis-1,3-Dichloropropene	ND		ug/l	2.0	0.58	4
1,3-Dichloropropene, Total	ND		ug/l	2.0	0.58	4
1,1-Dichloropropene	ND		ug/l	10	2.8	4
Bromoform	ND		ug/l	8.0	2.6	4
1,1,1,2-Tetrachloroethane	ND		ug/l	2.0	0.67	4
Benzene	3.8		ug/l	2.0	0.64	4
Toluene	10		ug/l	10	2.8	4
Ethylbenzene	ND		ug/l	10	2.8	4
Chloromethane	ND		ug/l	10	2.8	4
Bromomethane	ND		ug/l	10	2.8	4
Vinyl chloride	370		ug/l	4.0	0.28	4
Chloroethane	100		ug/l	10	2.8	4
1,1-Dichloroethene	7.0		ug/l	2.0	0.68	4
trans-1,2-Dichloroethene	7.6	J	ug/l	10	2.8	4

Project Name: FESL
Project Number: 20029

Lab Number: L2045017
Report Date: 10/23/20

SAMPLE RESULTS

Lab ID: L2045017-16 D
 Client ID: CTRL D4 DUP
 Sample Location: ROCHESTER, NY

Date Collected: 10/18/20 13:35
 Date Received: 10/19/20
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Trichloroethene	21		ug/l	2.0	0.70	4
1,2-Dichlorobenzene	ND		ug/l	10	2.8	4
1,3-Dichlorobenzene	ND		ug/l	10	2.8	4
1,4-Dichlorobenzene	ND		ug/l	10	2.8	4
Methyl tert butyl ether	ND		ug/l	10	2.8	4
p/m-Xylene	ND		ug/l	10	2.8	4
o-Xylene	ND		ug/l	10	2.8	4
Xylenes, Total	ND		ug/l	10	2.8	4
cis-1,2-Dichloroethene	600		ug/l	10	2.8	4
1,2-Dichloroethene, Total	610	J	ug/l	10	2.8	4
Dibromomethane	ND		ug/l	20	4.0	4
1,2,3-Trichloropropane	ND		ug/l	10	2.8	4
Acrylonitrile	ND		ug/l	20	6.0	4
Styrene	ND		ug/l	10	2.8	4
Dichlorodifluoromethane	ND		ug/l	20	4.0	4
Acetone	17	J	ug/l	20	5.8	4
Carbon disulfide	ND		ug/l	20	4.0	4
2-Butanone	ND		ug/l	20	7.8	4
Vinyl acetate	ND		ug/l	20	4.0	4
4-Methyl-2-pentanone	ND		ug/l	20	4.0	4
2-Hexanone	ND		ug/l	20	4.0	4
Bromochloromethane	ND		ug/l	10	2.8	4
2,2-Dichloropropane	ND		ug/l	10	2.8	4
1,2-Dibromoethane	ND		ug/l	8.0	2.6	4
1,3-Dichloropropane	ND		ug/l	10	2.8	4
1,1,1,2-Tetrachloroethane	ND		ug/l	10	2.8	4
Bromobenzene	ND		ug/l	10	2.8	4
n-Butylbenzene	ND		ug/l	10	2.8	4
sec-Butylbenzene	ND		ug/l	10	2.8	4
tert-Butylbenzene	ND		ug/l	10	2.8	4
o-Chlorotoluene	ND		ug/l	10	2.8	4
p-Chlorotoluene	ND		ug/l	10	2.8	4
1,2-Dibromo-3-chloropropane	ND		ug/l	10	2.8	4
Hexachlorobutadiene	ND		ug/l	10	2.8	4
Isopropylbenzene	ND		ug/l	10	2.8	4
p-Isopropyltoluene	ND		ug/l	10	2.8	4
Naphthalene	ND		ug/l	10	2.8	4

Project Name: FESL
Project Number: 20029

Lab Number: L2045017
Report Date: 10/23/20

SAMPLE RESULTS

Lab ID: L2045017-16 D
 Client ID: CTRL D4 DUP
 Sample Location: ROCHESTER, NY

Date Collected: 10/18/20 13:35
 Date Received: 10/19/20
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
n-Propylbenzene	ND		ug/l	10	2.8	4
1,2,3-Trichlorobenzene	ND		ug/l	10	2.8	4
1,2,4-Trichlorobenzene	ND		ug/l	10	2.8	4
1,3,5-Trimethylbenzene	ND		ug/l	10	2.8	4
1,2,4-Trimethylbenzene	ND		ug/l	10	2.8	4
1,4-Dioxane	ND		ug/l	1000	240	4
Freon-113	100		ug/l	10	2.8	4
p-Diethylbenzene	ND		ug/l	8.0	2.8	4
p-Ethyltoluene	ND		ug/l	8.0	2.8	4
1,2,4,5-Tetramethylbenzene	ND		ug/l	8.0	2.2	4
Ethyl ether	5.8	J	ug/l	10	2.8	4
trans-1,4-Dichloro-2-butene	ND		ug/l	10	2.8	4

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	102		70-130
Toluene-d8	96		70-130
4-Bromofluorobenzene	97		70-130
Dibromofluoromethane	102		70-130

Project Name: FESL
Project Number: 20029

Lab Number: L2045017
Report Date: 10/23/20

SAMPLE RESULTS

Lab ID: L2045017-17 D
 Client ID: FLOW LO D5
 Sample Location: ROCHESTER, NY

Date Collected: 10/19/20 13:40
 Date Received: 10/19/20
 Field Prep: Not Specified

Sample Depth:

Matrix: Water
 Analytical Method: 1,8260C
 Analytical Date: 10/20/20 09:08
 Analyst: PD

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methylene chloride	ND		ug/l	10	2.8	4
1,1-Dichloroethane	600		ug/l	10	2.8	4
Chloroform	ND		ug/l	10	2.8	4
Carbon tetrachloride	ND		ug/l	2.0	0.54	4
1,2-Dichloropropane	ND		ug/l	4.0	0.55	4
Dibromochloromethane	ND		ug/l	2.0	0.60	4
1,1,2-Trichloroethane	ND		ug/l	6.0	2.0	4
Tetrachloroethene	100		ug/l	2.0	0.72	4
Chlorobenzene	ND		ug/l	10	2.8	4
Trichlorofluoromethane	ND		ug/l	10	2.8	4
1,2-Dichloroethane	ND		ug/l	2.0	0.53	4
1,1,1-Trichloroethane	160		ug/l	10	2.8	4
Bromodichloromethane	ND		ug/l	2.0	0.77	4
trans-1,3-Dichloropropene	ND		ug/l	2.0	0.66	4
cis-1,3-Dichloropropene	ND		ug/l	2.0	0.58	4
1,3-Dichloropropene, Total	ND		ug/l	2.0	0.58	4
1,1-Dichloropropene	ND		ug/l	10	2.8	4
Bromoform	ND		ug/l	8.0	2.6	4
1,1,2,2-Tetrachloroethane	ND		ug/l	2.0	0.67	4
Benzene	5.7		ug/l	2.0	0.64	4
Toluene	19		ug/l	10	2.8	4
Ethylbenzene	ND		ug/l	10	2.8	4
Chloromethane	ND		ug/l	10	2.8	4
Bromomethane	ND		ug/l	10	2.8	4
Vinyl chloride	370		ug/l	4.0	0.28	4
Chloroethane	180		ug/l	10	2.8	4
1,1-Dichloroethene	7.4		ug/l	2.0	0.68	4
trans-1,2-Dichloroethene	6.1	J	ug/l	10	2.8	4

Project Name: FESL
Project Number: 20029

Lab Number: L2045017
Report Date: 10/23/20

SAMPLE RESULTS

Lab ID: L2045017-17 D
 Client ID: FLOW LO D5
 Sample Location: ROCHESTER, NY

Date Collected: 10/19/20 13:40
 Date Received: 10/19/20
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Trichloroethene	15		ug/l	2.0	0.70	4
1,2-Dichlorobenzene	ND		ug/l	10	2.8	4
1,3-Dichlorobenzene	ND		ug/l	10	2.8	4
1,4-Dichlorobenzene	ND		ug/l	10	2.8	4
Methyl tert butyl ether	ND		ug/l	10	2.8	4
p/m-Xylene	ND		ug/l	10	2.8	4
o-Xylene	4.8	J	ug/l	10	2.8	4
Xylenes, Total	4.8	J	ug/l	10	2.8	4
cis-1,2-Dichloroethene	610		ug/l	10	2.8	4
1,2-Dichloroethene, Total	620	J	ug/l	10	2.8	4
Dibromomethane	ND		ug/l	20	4.0	4
1,2,3-Trichloropropane	ND		ug/l	10	2.8	4
Acrylonitrile	ND		ug/l	20	6.0	4
Styrene	ND		ug/l	10	2.8	4
Dichlorodifluoromethane	ND		ug/l	20	4.0	4
Acetone	18	J	ug/l	20	5.8	4
Carbon disulfide	ND		ug/l	20	4.0	4
2-Butanone	12	J	ug/l	20	7.8	4
Vinyl acetate	ND		ug/l	20	4.0	4
4-Methyl-2-pentanone	ND		ug/l	20	4.0	4
2-Hexanone	ND		ug/l	20	4.0	4
Bromochloromethane	ND		ug/l	10	2.8	4
2,2-Dichloropropane	ND		ug/l	10	2.8	4
1,2-Dibromoethane	ND		ug/l	8.0	2.6	4
1,3-Dichloropropane	ND		ug/l	10	2.8	4
1,1,1,2-Tetrachloroethane	ND		ug/l	10	2.8	4
Bromobenzene	ND		ug/l	10	2.8	4
n-Butylbenzene	ND		ug/l	10	2.8	4
sec-Butylbenzene	ND		ug/l	10	2.8	4
tert-Butylbenzene	ND		ug/l	10	2.8	4
o-Chlorotoluene	ND		ug/l	10	2.8	4
p-Chlorotoluene	ND		ug/l	10	2.8	4
1,2-Dibromo-3-chloropropane	ND		ug/l	10	2.8	4
Hexachlorobutadiene	ND		ug/l	10	2.8	4
Isopropylbenzene	ND		ug/l	10	2.8	4
p-Isopropyltoluene	ND		ug/l	10	2.8	4
Naphthalene	ND		ug/l	10	2.8	4

Project Name: FESL
Project Number: 20029

Lab Number: L2045017
Report Date: 10/23/20

SAMPLE RESULTS

Lab ID: L2045017-17 D
 Client ID: FLOW LO D5
 Sample Location: ROCHESTER, NY

Date Collected: 10/19/20 13:40
 Date Received: 10/19/20
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
n-Propylbenzene	ND		ug/l	10	2.8	4
1,2,3-Trichlorobenzene	ND		ug/l	10	2.8	4
1,2,4-Trichlorobenzene	ND		ug/l	10	2.8	4
1,3,5-Trimethylbenzene	ND		ug/l	10	2.8	4
1,2,4-Trimethylbenzene	ND		ug/l	10	2.8	4
1,4-Dioxane	ND		ug/l	1000	240	4
Freon-113	110		ug/l	10	2.8	4
p-Diethylbenzene	ND		ug/l	8.0	2.8	4
p-Ethyltoluene	ND		ug/l	8.0	2.8	4
1,2,4,5-Tetramethylbenzene	ND		ug/l	8.0	2.2	4
Ethyl ether	10		ug/l	10	2.8	4
trans-1,4-Dichloro-2-butene	ND		ug/l	10	2.8	4

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	98		70-130
Toluene-d8	97		70-130
4-Bromofluorobenzene	101		70-130
Dibromofluoromethane	102		70-130

Project Name: FESL
Project Number: 20029

Lab Number: L2045017
Report Date: 10/23/20

SAMPLE RESULTS

Lab ID: L2045017-18 D
 Client ID: FLOW HI D5
 Sample Location: ROCHESTER, NY

Date Collected: 10/19/20 13:45
 Date Received: 10/19/20
 Field Prep: Not Specified

Sample Depth:

Matrix: Water
 Analytical Method: 1,8260C
 Analytical Date: 10/20/20 09:30
 Analyst: PD

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methylene chloride	ND		ug/l	10	2.8	4
1,1-Dichloroethane	600		ug/l	10	2.8	4
Chloroform	ND		ug/l	10	2.8	4
Carbon tetrachloride	ND		ug/l	2.0	0.54	4
1,2-Dichloropropane	ND		ug/l	4.0	0.55	4
Dibromochloromethane	ND		ug/l	2.0	0.60	4
1,1,2-Trichloroethane	ND		ug/l	6.0	2.0	4
Tetrachloroethene	79		ug/l	2.0	0.72	4
Chlorobenzene	ND		ug/l	10	2.8	4
Trichlorofluoromethane	ND		ug/l	10	2.8	4
1,2-Dichloroethane	ND		ug/l	2.0	0.53	4
1,1,1-Trichloroethane	63		ug/l	10	2.8	4
Bromodichloromethane	ND		ug/l	2.0	0.77	4
trans-1,3-Dichloropropene	ND		ug/l	2.0	0.66	4
cis-1,3-Dichloropropene	ND		ug/l	2.0	0.58	4
1,3-Dichloropropene, Total	ND		ug/l	2.0	0.58	4
1,1-Dichloropropene	ND		ug/l	10	2.8	4
Bromoform	ND		ug/l	8.0	2.6	4
1,1,1,2-Tetrachloroethane	ND		ug/l	2.0	0.67	4
Benzene	5.5		ug/l	2.0	0.64	4
Toluene	16		ug/l	10	2.8	4
Ethylbenzene	ND		ug/l	10	2.8	4
Chloromethane	ND		ug/l	10	2.8	4
Bromomethane	ND		ug/l	10	2.8	4
Vinyl chloride	290		ug/l	4.0	0.28	4
Chloroethane	190		ug/l	10	2.8	4
1,1-Dichloroethene	3.9		ug/l	2.0	0.68	4
trans-1,2-Dichloroethene	2.9	J	ug/l	10	2.8	4

Project Name: FESL
Project Number: 20029

Lab Number: L2045017
Report Date: 10/23/20

SAMPLE RESULTS

Lab ID: L2045017-18 D
 Client ID: FLOW HI D5
 Sample Location: ROCHESTER, NY

Date Collected: 10/19/20 13:45
 Date Received: 10/19/20
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Trichloroethene	8.4		ug/l	2.0	0.70	4
1,2-Dichlorobenzene	ND		ug/l	10	2.8	4
1,3-Dichlorobenzene	ND		ug/l	10	2.8	4
1,4-Dichlorobenzene	ND		ug/l	10	2.8	4
Methyl tert butyl ether	ND		ug/l	10	2.8	4
p/m-Xylene	2.8	J	ug/l	10	2.8	4
o-Xylene	3.9	J	ug/l	10	2.8	4
Xylenes, Total	6.7	J	ug/l	10	2.8	4
cis-1,2-Dichloroethene	480		ug/l	10	2.8	4
1,2-Dichloroethene, Total	480	J	ug/l	10	2.8	4
Dibromomethane	ND		ug/l	20	4.0	4
1,2,3-Trichloropropane	ND		ug/l	10	2.8	4
Acrylonitrile	ND		ug/l	20	6.0	4
Styrene	ND		ug/l	10	2.8	4
Dichlorodifluoromethane	5.4	J	ug/l	20	4.0	4
Acetone	30		ug/l	20	5.8	4
Carbon disulfide	ND		ug/l	20	4.0	4
2-Butanone	13	J	ug/l	20	7.8	4
Vinyl acetate	ND		ug/l	20	4.0	4
4-Methyl-2-pentanone	ND		ug/l	20	4.0	4
2-Hexanone	ND		ug/l	20	4.0	4
Bromochloromethane	ND		ug/l	10	2.8	4
2,2-Dichloropropane	ND		ug/l	10	2.8	4
1,2-Dibromoethane	ND		ug/l	8.0	2.6	4
1,3-Dichloropropane	ND		ug/l	10	2.8	4
1,1,1,2-Tetrachloroethane	ND		ug/l	10	2.8	4
Bromobenzene	ND		ug/l	10	2.8	4
n-Butylbenzene	ND		ug/l	10	2.8	4
sec-Butylbenzene	ND		ug/l	10	2.8	4
tert-Butylbenzene	ND		ug/l	10	2.8	4
o-Chlorotoluene	ND		ug/l	10	2.8	4
p-Chlorotoluene	ND		ug/l	10	2.8	4
1,2-Dibromo-3-chloropropane	ND		ug/l	10	2.8	4
Hexachlorobutadiene	ND		ug/l	10	2.8	4
Isopropylbenzene	ND		ug/l	10	2.8	4
p-Isopropyltoluene	ND		ug/l	10	2.8	4
Naphthalene	ND		ug/l	10	2.8	4

Project Name: FESL
Project Number: 20029

Lab Number: L2045017
Report Date: 10/23/20

SAMPLE RESULTS

Lab ID: L2045017-18 D
 Client ID: FLOW HI D5
 Sample Location: ROCHESTER, NY

Date Collected: 10/19/20 13:45
 Date Received: 10/19/20
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
n-Propylbenzene	ND		ug/l	10	2.8	4
1,2,3-Trichlorobenzene	ND		ug/l	10	2.8	4
1,2,4-Trichlorobenzene	ND		ug/l	10	2.8	4
1,3,5-Trimethylbenzene	ND		ug/l	10	2.8	4
1,2,4-Trimethylbenzene	ND		ug/l	10	2.8	4
1,4-Dioxane	ND		ug/l	1000	240	4
Freon-113	74		ug/l	10	2.8	4
p-Diethylbenzene	ND		ug/l	8.0	2.8	4
p-Ethyltoluene	ND		ug/l	8.0	2.8	4
1,2,4,5-Tetramethylbenzene	ND		ug/l	8.0	2.2	4
Ethyl ether	9.0	J	ug/l	10	2.8	4
trans-1,4-Dichloro-2-butene	ND		ug/l	10	2.8	4

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	95		70-130
Toluene-d8	98		70-130
4-Bromofluorobenzene	101		70-130
Dibromofluoromethane	102		70-130

Project Name: FESL
Project Number: 20029

Lab Number: L2045017
Report Date: 10/23/20

SAMPLE RESULTS

Lab ID: L2045017-19 D
 Client ID: TARGET LO D5
 Sample Location: ROCHESTER, NY

Date Collected: 10/19/20 13:50
 Date Received: 10/19/20
 Field Prep: Not Specified

Sample Depth:

Matrix: Water
 Analytical Method: 1,8260C
 Analytical Date: 10/20/20 09:52
 Analyst: PD

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methylene chloride	ND		ug/l	10	2.8	4
1,1-Dichloroethane	620		ug/l	10	2.8	4
Chloroform	ND		ug/l	10	2.8	4
Carbon tetrachloride	ND		ug/l	2.0	0.54	4
1,2-Dichloropropane	ND		ug/l	4.0	0.55	4
Dibromochloromethane	ND		ug/l	2.0	0.60	4
1,1,2-Trichloroethane	ND		ug/l	6.0	2.0	4
Tetrachloroethene	100		ug/l	2.0	0.72	4
Chlorobenzene	ND		ug/l	10	2.8	4
Trichlorofluoromethane	ND		ug/l	10	2.8	4
1,2-Dichloroethane	ND		ug/l	2.0	0.53	4
1,1,1-Trichloroethane	16		ug/l	10	2.8	4
Bromodichloromethane	ND		ug/l	2.0	0.77	4
trans-1,3-Dichloropropene	ND		ug/l	2.0	0.66	4
cis-1,3-Dichloropropene	ND		ug/l	2.0	0.58	4
1,3-Dichloropropene, Total	ND		ug/l	2.0	0.58	4
1,1-Dichloropropene	ND		ug/l	10	2.8	4
Bromoform	ND		ug/l	8.0	2.6	4
1,1,2,2-Tetrachloroethane	ND		ug/l	2.0	0.67	4
Benzene	6.8		ug/l	2.0	0.64	4
Toluene	21		ug/l	10	2.8	4
Ethylbenzene	ND		ug/l	10	2.8	4
Chloromethane	ND		ug/l	10	2.8	4
Bromomethane	ND		ug/l	10	2.8	4
Vinyl chloride	320		ug/l	4.0	0.28	4
Chloroethane	190		ug/l	10	2.8	4
1,1-Dichloroethene	4.5		ug/l	2.0	0.68	4
trans-1,2-Dichloroethene	4.3	J	ug/l	10	2.8	4

Project Name: FESL
Project Number: 20029

Lab Number: L2045017
Report Date: 10/23/20

SAMPLE RESULTS

Lab ID: L2045017-19 D
 Client ID: TARGET LO D5
 Sample Location: ROCHESTER, NY

Date Collected: 10/19/20 13:50
 Date Received: 10/19/20
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Trichloroethene	10		ug/l	2.0	0.70	4
1,2-Dichlorobenzene	ND		ug/l	10	2.8	4
1,3-Dichlorobenzene	ND		ug/l	10	2.8	4
1,4-Dichlorobenzene	ND		ug/l	10	2.8	4
Methyl tert butyl ether	ND		ug/l	10	2.8	4
p/m-Xylene	ND		ug/l	10	2.8	4
o-Xylene	5.7	J	ug/l	10	2.8	4
Xylenes, Total	5.7	J	ug/l	10	2.8	4
cis-1,2-Dichloroethene	570		ug/l	10	2.8	4
1,2-Dichloroethene, Total	570	J	ug/l	10	2.8	4
Dibromomethane	ND		ug/l	20	4.0	4
1,2,3-Trichloropropane	ND		ug/l	10	2.8	4
Acrylonitrile	ND		ug/l	20	6.0	4
Styrene	ND		ug/l	10	2.8	4
Dichlorodifluoromethane	7.4	J	ug/l	20	4.0	4
Acetone	24		ug/l	20	5.8	4
Carbon disulfide	ND		ug/l	20	4.0	4
2-Butanone	14	J	ug/l	20	7.8	4
Vinyl acetate	ND		ug/l	20	4.0	4
4-Methyl-2-pentanone	ND		ug/l	20	4.0	4
2-Hexanone	ND		ug/l	20	4.0	4
Bromochloromethane	ND		ug/l	10	2.8	4
2,2-Dichloropropane	ND		ug/l	10	2.8	4
1,2-Dibromoethane	ND		ug/l	8.0	2.6	4
1,3-Dichloropropane	ND		ug/l	10	2.8	4
1,1,1,2-Tetrachloroethane	ND		ug/l	10	2.8	4
Bromobenzene	ND		ug/l	10	2.8	4
n-Butylbenzene	ND		ug/l	10	2.8	4
sec-Butylbenzene	ND		ug/l	10	2.8	4
tert-Butylbenzene	ND		ug/l	10	2.8	4
o-Chlorotoluene	ND		ug/l	10	2.8	4
p-Chlorotoluene	ND		ug/l	10	2.8	4
1,2-Dibromo-3-chloropropane	ND		ug/l	10	2.8	4
Hexachlorobutadiene	ND		ug/l	10	2.8	4
Isopropylbenzene	ND		ug/l	10	2.8	4
p-Isopropyltoluene	ND		ug/l	10	2.8	4
Naphthalene	ND		ug/l	10	2.8	4

Project Name: FESL
Project Number: 20029

Lab Number: L2045017
Report Date: 10/23/20

SAMPLE RESULTS

Lab ID: L2045017-19 D
 Client ID: TARGET LO D5
 Sample Location: ROCHESTER, NY

Date Collected: 10/19/20 13:50
 Date Received: 10/19/20
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
n-Propylbenzene	ND		ug/l	10	2.8	4
1,2,3-Trichlorobenzene	ND		ug/l	10	2.8	4
1,2,4-Trichlorobenzene	ND		ug/l	10	2.8	4
1,3,5-Trimethylbenzene	ND		ug/l	10	2.8	4
1,2,4-Trimethylbenzene	ND		ug/l	10	2.8	4
1,4-Dioxane	ND		ug/l	1000	240	4
Freon-113	67		ug/l	10	2.8	4
p-Diethylbenzene	ND		ug/l	8.0	2.8	4
p-Ethyltoluene	ND		ug/l	8.0	2.8	4
1,2,4,5-Tetramethylbenzene	ND		ug/l	8.0	2.2	4
Ethyl ether	9.6	J	ug/l	10	2.8	4
trans-1,4-Dichloro-2-butene	ND		ug/l	10	2.8	4

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	97		70-130
Toluene-d8	99		70-130
4-Bromofluorobenzene	101		70-130
Dibromofluoromethane	97		70-130

Project Name: FESL
Project Number: 20029

Lab Number: L2045017
Report Date: 10/23/20

SAMPLE RESULTS

Lab ID: L2045017-20 D
 Client ID: TARGET HI D5
 Sample Location: ROCHESTER, NY

Date Collected: 10/19/20 13:55
 Date Received: 10/19/20
 Field Prep: Not Specified

Sample Depth:

Matrix: Water
 Analytical Method: 1,8260C
 Analytical Date: 10/20/20 10:13
 Analyst: PD

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methylene chloride	ND		ug/l	12	3.5	5
1,1-Dichloroethane	590		ug/l	12	3.5	5
Chloroform	ND		ug/l	12	3.5	5
Carbon tetrachloride	ND		ug/l	2.5	0.67	5
1,2-Dichloropropane	ND		ug/l	5.0	0.68	5
Dibromochloromethane	ND		ug/l	2.5	0.74	5
1,1,2-Trichloroethane	ND		ug/l	7.5	2.5	5
Tetrachloroethene	60		ug/l	2.5	0.90	5
Chlorobenzene	ND		ug/l	12	3.5	5
Trichlorofluoromethane	ND		ug/l	12	3.5	5
1,2-Dichloroethane	ND		ug/l	2.5	0.66	5
1,1,1-Trichloroethane	ND		ug/l	12	3.5	5
Bromodichloromethane	ND		ug/l	2.5	0.96	5
trans-1,3-Dichloropropene	ND		ug/l	2.5	0.82	5
cis-1,3-Dichloropropene	ND		ug/l	2.5	0.72	5
1,3-Dichloropropene, Total	ND		ug/l	2.5	0.72	5
1,1-Dichloropropene	ND		ug/l	12	3.5	5
Bromoform	ND		ug/l	10	3.2	5
1,1,2,2-Tetrachloroethane	ND		ug/l	2.5	0.84	5
Benzene	7.5		ug/l	2.5	0.80	5
Toluene	21		ug/l	12	3.5	5
Ethylbenzene	ND		ug/l	12	3.5	5
Chloromethane	ND		ug/l	12	3.5	5
Bromomethane	ND		ug/l	12	3.5	5
Vinyl chloride	190		ug/l	5.0	0.36	5
Chloroethane	200		ug/l	12	3.5	5
1,1-Dichloroethene	1.7	J	ug/l	2.5	0.84	5
trans-1,2-Dichloroethene	ND		ug/l	12	3.5	5

Project Name: FESL
Project Number: 20029

Lab Number: L2045017
Report Date: 10/23/20

SAMPLE RESULTS

Lab ID: L2045017-20 D
 Client ID: TARGET HI D5
 Sample Location: ROCHESTER, NY

Date Collected: 10/19/20 13:55
 Date Received: 10/19/20
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Trichloroethene	6.6		ug/l	2.5	0.88	5
1,2-Dichlorobenzene	ND		ug/l	12	3.5	5
1,3-Dichlorobenzene	ND		ug/l	12	3.5	5
1,4-Dichlorobenzene	ND		ug/l	12	3.5	5
Methyl tert butyl ether	ND		ug/l	12	3.5	5
p/m-Xylene	ND		ug/l	12	3.5	5
o-Xylene	5.1	J	ug/l	12	3.5	5
Xylenes, Total	5.1	J	ug/l	12	3.5	5
cis-1,2-Dichloroethene	360		ug/l	12	3.5	5
1,2-Dichloroethene, Total	360		ug/l	12	3.5	5
Dibromomethane	ND		ug/l	25	5.0	5
1,2,3-Trichloropropane	ND		ug/l	12	3.5	5
Acrylonitrile	ND		ug/l	25	7.5	5
Styrene	ND		ug/l	12	3.5	5
Dichlorodifluoromethane	7.8	J	ug/l	25	5.0	5
Acetone	27		ug/l	25	7.3	5
Carbon disulfide	ND		ug/l	25	5.0	5
2-Butanone	18	J	ug/l	25	9.7	5
Vinyl acetate	ND		ug/l	25	5.0	5
4-Methyl-2-pentanone	ND		ug/l	25	5.0	5
2-Hexanone	ND		ug/l	25	5.0	5
Bromochloromethane	ND		ug/l	12	3.5	5
2,2-Dichloropropane	ND		ug/l	12	3.5	5
1,2-Dibromoethane	ND		ug/l	10	3.2	5
1,3-Dichloropropane	ND		ug/l	12	3.5	5
1,1,1,2-Tetrachloroethane	ND		ug/l	12	3.5	5
Bromobenzene	ND		ug/l	12	3.5	5
n-Butylbenzene	ND		ug/l	12	3.5	5
sec-Butylbenzene	ND		ug/l	12	3.5	5
tert-Butylbenzene	ND		ug/l	12	3.5	5
o-Chlorotoluene	ND		ug/l	12	3.5	5
p-Chlorotoluene	ND		ug/l	12	3.5	5
1,2-Dibromo-3-chloropropane	ND		ug/l	12	3.5	5
Hexachlorobutadiene	ND		ug/l	12	3.5	5
Isopropylbenzene	ND		ug/l	12	3.5	5
p-Isopropyltoluene	ND		ug/l	12	3.5	5
Naphthalene	ND		ug/l	12	3.5	5

Project Name: FESL
Project Number: 20029

Lab Number: L2045017
Report Date: 10/23/20

SAMPLE RESULTS

Lab ID: L2045017-20 D
 Client ID: TARGET HI D5
 Sample Location: ROCHESTER, NY

Date Collected: 10/19/20 13:55
 Date Received: 10/19/20
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
n-Propylbenzene	ND		ug/l	12	3.5	5
1,2,3-Trichlorobenzene	ND		ug/l	12	3.5	5
1,2,4-Trichlorobenzene	ND		ug/l	12	3.5	5
1,3,5-Trimethylbenzene	ND		ug/l	12	3.5	5
1,2,4-Trimethylbenzene	ND		ug/l	12	3.5	5
1,4-Dioxane	ND		ug/l	1200	300	5
Freon-113	27		ug/l	12	3.5	5
p-Diethylbenzene	ND		ug/l	10	3.5	5
p-Ethyltoluene	ND		ug/l	10	3.5	5
1,2,4,5-Tetramethylbenzene	ND		ug/l	10	2.7	5
Ethyl ether	9.3	J	ug/l	12	3.5	5
trans-1,4-Dichloro-2-butene	ND		ug/l	12	3.5	5

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	98		70-130
Toluene-d8	99		70-130
4-Bromofluorobenzene	102		70-130
Dibromofluoromethane	99		70-130

Project Name: FESL
Project Number: 20029

Lab Number: L2045017
Report Date: 10/23/20

SAMPLE RESULTS

Lab ID: L2045017-21 D
 Client ID: EZVI LO D5
 Sample Location: ROCHESTER, NY

Date Collected: 10/19/20 14:00
 Date Received: 10/19/20
 Field Prep: Not Specified

Sample Depth:

Matrix: Water
 Analytical Method: 1,8260C
 Analytical Date: 10/20/20 08:40
 Analyst: PD

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methylene chloride	ND		ug/l	50	14.	20
1,1-Dichloroethane	640		ug/l	50	14.	20
Chloroform	ND		ug/l	50	14.	20
Carbon tetrachloride	ND		ug/l	10	2.7	20
1,2-Dichloropropane	ND		ug/l	20	2.7	20
Dibromochloromethane	ND		ug/l	10	3.0	20
1,1,2-Trichloroethane	ND		ug/l	30	10.	20
Tetrachloroethene	240		ug/l	10	3.6	20
Chlorobenzene	ND		ug/l	50	14.	20
Trichlorofluoromethane	ND		ug/l	50	14.	20
1,2-Dichloroethane	ND		ug/l	10	2.6	20
1,1,1-Trichloroethane	140		ug/l	50	14.	20
Bromodichloromethane	ND		ug/l	10	3.8	20
trans-1,3-Dichloropropene	ND		ug/l	10	3.3	20
cis-1,3-Dichloropropene	ND		ug/l	10	2.9	20
1,3-Dichloropropene, Total	ND		ug/l	10	2.9	20
1,1-Dichloropropene	ND		ug/l	50	14.	20
Bromoform	ND		ug/l	40	13.	20
1,1,1,2-Tetrachloroethane	ND		ug/l	10	3.3	20
Benzene	7.0	J	ug/l	10	3.2	20
Toluene	32	J	ug/l	50	14.	20
Ethylbenzene	ND		ug/l	50	14.	20
Chloromethane	ND		ug/l	50	14.	20
Bromomethane	ND		ug/l	50	14.	20
Vinyl chloride	380		ug/l	20	1.4	20
Chloroethane	170		ug/l	50	14.	20
1,1-Dichloroethene	9.5	J	ug/l	10	3.4	20
trans-1,2-Dichloroethene	ND		ug/l	50	14.	20

Project Name: FESL
Project Number: 20029

Lab Number: L2045017
Report Date: 10/23/20

SAMPLE RESULTS

Lab ID: L2045017-21 D
 Client ID: EZVI LO D5
 Sample Location: ROCHESTER, NY

Date Collected: 10/19/20 14:00
 Date Received: 10/19/20
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Trichloroethene	27		ug/l	10	3.5	20
1,2-Dichlorobenzene	ND		ug/l	50	14.	20
1,3-Dichlorobenzene	ND		ug/l	50	14.	20
1,4-Dichlorobenzene	ND		ug/l	50	14.	20
Methyl tert butyl ether	ND		ug/l	50	14.	20
p/m-Xylene	ND		ug/l	50	14.	20
o-Xylene	ND		ug/l	50	14.	20
Xylenes, Total	ND		ug/l	50	14.	20
cis-1,2-Dichloroethene	680		ug/l	50	14.	20
1,2-Dichloroethene, Total	680		ug/l	50	14.	20
Dibromomethane	ND		ug/l	100	20.	20
1,2,3-Trichloropropane	ND		ug/l	50	14.	20
Acrylonitrile	ND		ug/l	100	30.	20
Styrene	ND		ug/l	50	14.	20
Dichlorodifluoromethane	ND		ug/l	100	20.	20
Acetone	53	J	ug/l	100	29.	20
Carbon disulfide	ND		ug/l	100	20.	20
2-Butanone	390		ug/l	100	39.	20
Vinyl acetate	ND		ug/l	100	20.	20
4-Methyl-2-pentanone	ND		ug/l	100	20.	20
2-Hexanone	ND		ug/l	100	20.	20
Bromochloromethane	ND		ug/l	50	14.	20
2,2-Dichloropropane	ND		ug/l	50	14.	20
1,2-Dibromoethane	ND		ug/l	40	13.	20
1,3-Dichloropropane	ND		ug/l	50	14.	20
1,1,1,2-Tetrachloroethane	ND		ug/l	50	14.	20
Bromobenzene	ND		ug/l	50	14.	20
n-Butylbenzene	ND		ug/l	50	14.	20
sec-Butylbenzene	ND		ug/l	50	14.	20
tert-Butylbenzene	ND		ug/l	50	14.	20
o-Chlorotoluene	ND		ug/l	50	14.	20
p-Chlorotoluene	ND		ug/l	50	14.	20
1,2-Dibromo-3-chloropropane	ND		ug/l	50	14.	20
Hexachlorobutadiene	ND		ug/l	50	14.	20
Isopropylbenzene	ND		ug/l	50	14.	20
p-Isopropyltoluene	ND		ug/l	50	14.	20
Naphthalene	ND		ug/l	50	14.	20

Project Name: FESL
Project Number: 20029

Lab Number: L2045017
Report Date: 10/23/20

SAMPLE RESULTS

Lab ID: L2045017-21 D
 Client ID: EZVI LO D5
 Sample Location: ROCHESTER, NY

Date Collected: 10/19/20 14:00
 Date Received: 10/19/20
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
n-Propylbenzene	ND		ug/l	50	14.	20
1,2,3-Trichlorobenzene	ND		ug/l	50	14.	20
1,2,4-Trichlorobenzene	ND		ug/l	50	14.	20
1,3,5-Trimethylbenzene	ND		ug/l	50	14.	20
1,2,4-Trimethylbenzene	ND		ug/l	50	14.	20
1,4-Dioxane	ND		ug/l	5000	1200	20
Freon-113	310		ug/l	50	14.	20
p-Diethylbenzene	ND		ug/l	40	14.	20
p-Ethyltoluene	ND		ug/l	40	14.	20
1,2,4,5-Tetramethylbenzene	ND		ug/l	40	11.	20
Ethyl ether	ND		ug/l	50	14.	20
trans-1,4-Dichloro-2-butene	ND		ug/l	50	14.	20

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	102		70-130
Toluene-d8	97		70-130
4-Bromofluorobenzene	102		70-130
Dibromofluoromethane	99		70-130

Project Name: FESL
Project Number: 20029

Lab Number: L2045017
Report Date: 10/23/20

SAMPLE RESULTS

Lab ID: L2045017-22 D
 Client ID: EZVI HI D5
 Sample Location: ROCHESTER, NY

Date Collected: 10/19/20 14:05
 Date Received: 10/19/20
 Field Prep: Not Specified

Sample Depth:

Matrix: Water
 Analytical Method: 1,8260C
 Analytical Date: 10/20/20 09:06
 Analyst: PD

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methylene chloride	ND		ug/l	50	14.	20
1,1-Dichloroethane	400		ug/l	50	14.	20
Chloroform	ND		ug/l	50	14.	20
Carbon tetrachloride	ND		ug/l	10	2.7	20
1,2-Dichloropropane	ND		ug/l	20	2.7	20
Dibromochloromethane	ND		ug/l	10	3.0	20
1,1,2-Trichloroethane	ND		ug/l	30	10.	20
Tetrachloroethene	110		ug/l	10	3.6	20
Chlorobenzene	ND		ug/l	50	14.	20
Trichlorofluoromethane	ND		ug/l	50	14.	20
1,2-Dichloroethane	ND		ug/l	10	2.6	20
1,1,1-Trichloroethane	72		ug/l	50	14.	20
Bromodichloromethane	ND		ug/l	10	3.8	20
trans-1,3-Dichloropropene	ND		ug/l	10	3.3	20
cis-1,3-Dichloropropene	ND		ug/l	10	2.9	20
1,3-Dichloropropene, Total	ND		ug/l	10	2.9	20
1,1-Dichloropropene	ND		ug/l	50	14.	20
Bromoform	ND		ug/l	40	13.	20
1,1,1,2,2-Tetrachloroethane	ND		ug/l	10	3.3	20
Benzene	4.9	J	ug/l	10	3.2	20
Toluene	22	J	ug/l	50	14.	20
Ethylbenzene	ND		ug/l	50	14.	20
Chloromethane	ND		ug/l	50	14.	20
Bromomethane	ND		ug/l	50	14.	20
Vinyl chloride	280		ug/l	20	1.4	20
Chloroethane	140		ug/l	50	14.	20
1,1-Dichloroethene	5.0	J	ug/l	10	3.4	20
trans-1,2-Dichloroethene	ND		ug/l	50	14.	20

Project Name: FESL
Project Number: 20029

Lab Number: L2045017
Report Date: 10/23/20

SAMPLE RESULTS

Lab ID: L2045017-22 D
 Client ID: EZVI HI D5
 Sample Location: ROCHESTER, NY

Date Collected: 10/19/20 14:05
 Date Received: 10/19/20
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Trichloroethene	14		ug/l	10	3.5	20
1,2-Dichlorobenzene	ND		ug/l	50	14.	20
1,3-Dichlorobenzene	ND		ug/l	50	14.	20
1,4-Dichlorobenzene	ND		ug/l	50	14.	20
Methyl tert butyl ether	ND		ug/l	50	14.	20
p/m-Xylene	ND		ug/l	50	14.	20
o-Xylene	ND		ug/l	50	14.	20
Xylenes, Total	ND		ug/l	50	14.	20
cis-1,2-Dichloroethene	420		ug/l	50	14.	20
1,2-Dichloroethene, Total	420		ug/l	50	14.	20
Dibromomethane	ND		ug/l	100	20.	20
1,2,3-Trichloropropane	ND		ug/l	50	14.	20
Acrylonitrile	ND		ug/l	100	30.	20
Styrene	ND		ug/l	50	14.	20
Dichlorodifluoromethane	ND		ug/l	100	20.	20
Acetone	100		ug/l	100	29.	20
Carbon disulfide	ND		ug/l	100	20.	20
2-Butanone	1700		ug/l	100	39.	20
Vinyl acetate	ND		ug/l	100	20.	20
4-Methyl-2-pentanone	ND		ug/l	100	20.	20
2-Hexanone	ND		ug/l	100	20.	20
Bromochloromethane	ND		ug/l	50	14.	20
2,2-Dichloropropane	ND		ug/l	50	14.	20
1,2-Dibromoethane	ND		ug/l	40	13.	20
1,3-Dichloropropane	ND		ug/l	50	14.	20
1,1,1,2-Tetrachloroethane	ND		ug/l	50	14.	20
Bromobenzene	ND		ug/l	50	14.	20
n-Butylbenzene	ND		ug/l	50	14.	20
sec-Butylbenzene	ND		ug/l	50	14.	20
tert-Butylbenzene	ND		ug/l	50	14.	20
o-Chlorotoluene	ND		ug/l	50	14.	20
p-Chlorotoluene	ND		ug/l	50	14.	20
1,2-Dibromo-3-chloropropane	ND		ug/l	50	14.	20
Hexachlorobutadiene	ND		ug/l	50	14.	20
Isopropylbenzene	ND		ug/l	50	14.	20
p-Isopropyltoluene	ND		ug/l	50	14.	20
Naphthalene	ND		ug/l	50	14.	20

Project Name: FESL
Project Number: 20029

Lab Number: L2045017
Report Date: 10/23/20

SAMPLE RESULTS

Lab ID: L2045017-22 D
 Client ID: EZVI HI D5
 Sample Location: ROCHESTER, NY

Date Collected: 10/19/20 14:05
 Date Received: 10/19/20
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
n-Propylbenzene	ND		ug/l	50	14.	20
1,2,3-Trichlorobenzene	ND		ug/l	50	14.	20
1,2,4-Trichlorobenzene	ND		ug/l	50	14.	20
1,3,5-Trimethylbenzene	ND		ug/l	50	14.	20
1,2,4-Trimethylbenzene	ND		ug/l	50	14.	20
1,4-Dioxane	ND		ug/l	5000	1200	20
Freon-113	150		ug/l	50	14.	20
p-Diethylbenzene	ND		ug/l	40	14.	20
p-Ethyltoluene	ND		ug/l	40	14.	20
1,2,4,5-Tetramethylbenzene	ND		ug/l	40	11.	20
Ethyl ether	ND		ug/l	50	14.	20
trans-1,4-Dichloro-2-butene	ND		ug/l	50	14.	20

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	105		70-130
Toluene-d8	97		70-130
4-Bromofluorobenzene	111		70-130
Dibromofluoromethane	100		70-130

Project Name: FESL
Project Number: 20029

Lab Number: L2045017
Report Date: 10/23/20

SAMPLE RESULTS

Lab ID: L2045017-23 D
 Client ID: CTRL D5
 Sample Location: ROCHESTER, NY

Date Collected: 10/19/20 14:10
 Date Received: 10/19/20
 Field Prep: Not Specified

Sample Depth:

Matrix: Water
 Analytical Method: 1,8260C
 Analytical Date: 10/20/20 09:31
 Analyst: PD

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methylene chloride	ND		ug/l	10	2.8	4
1,1-Dichloroethane	640		ug/l	10	2.8	4
Chloroform	ND		ug/l	10	2.8	4
Carbon tetrachloride	ND		ug/l	2.0	0.54	4
1,2-Dichloropropane	ND		ug/l	4.0	0.55	4
Dibromochloromethane	ND		ug/l	2.0	0.60	4
1,1,2-Trichloroethane	ND		ug/l	6.0	2.0	4
Tetrachloroethene	140		ug/l	2.0	0.72	4
Chlorobenzene	ND		ug/l	10	2.8	4
Trichlorofluoromethane	ND		ug/l	10	2.8	4
1,2-Dichloroethane	ND		ug/l	2.0	0.53	4
1,1,1-Trichloroethane	310		ug/l	10	2.8	4
Bromodichloromethane	ND		ug/l	2.0	0.77	4
trans-1,3-Dichloropropene	ND		ug/l	2.0	0.66	4
cis-1,3-Dichloropropene	ND		ug/l	2.0	0.58	4
1,3-Dichloropropene, Total	ND		ug/l	2.0	0.58	4
1,1-Dichloropropene	ND		ug/l	10	2.8	4
Bromoform	ND		ug/l	8.0	2.6	4
1,1,2,2-Tetrachloroethane	ND		ug/l	2.0	0.67	4
Benzene	3.7		ug/l	2.0	0.64	4
Toluene	8.5	J	ug/l	10	2.8	4
Ethylbenzene	ND		ug/l	10	2.8	4
Chloromethane	ND		ug/l	10	2.8	4
Bromomethane	ND		ug/l	10	2.8	4
Vinyl chloride	400		ug/l	4.0	0.28	4
Chloroethane	170		ug/l	10	2.8	4
1,1-Dichloroethene	8.7		ug/l	2.0	0.68	4
trans-1,2-Dichloroethene	8.0	J	ug/l	10	2.8	4

Project Name: FESL
Project Number: 20029

Lab Number: L2045017
Report Date: 10/23/20

SAMPLE RESULTS

Lab ID: L2045017-23 D
 Client ID: CTRL D5
 Sample Location: ROCHESTER, NY

Date Collected: 10/19/20 14:10
 Date Received: 10/19/20
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Trichloroethene	23		ug/l	2.0	0.70	4
1,2-Dichlorobenzene	ND		ug/l	10	2.8	4
1,3-Dichlorobenzene	ND		ug/l	10	2.8	4
1,4-Dichlorobenzene	ND		ug/l	10	2.8	4
Methyl tert butyl ether	ND		ug/l	10	2.8	4
p/m-Xylene	ND		ug/l	10	2.8	4
o-Xylene	ND		ug/l	10	2.8	4
Xylenes, Total	ND		ug/l	10	2.8	4
cis-1,2-Dichloroethene	680		ug/l	10	2.8	4
1,2-Dichloroethene, Total	690	J	ug/l	10	2.8	4
Dibromomethane	ND		ug/l	20	4.0	4
1,2,3-Trichloropropane	ND		ug/l	10	2.8	4
Acrylonitrile	ND		ug/l	20	6.0	4
Styrene	ND		ug/l	10	2.8	4
Dichlorodifluoromethane	ND		ug/l	20	4.0	4
Acetone	18	J	ug/l	20	5.8	4
Carbon disulfide	ND		ug/l	20	4.0	4
2-Butanone	ND		ug/l	20	7.8	4
Vinyl acetate	ND		ug/l	20	4.0	4
4-Methyl-2-pentanone	ND		ug/l	20	4.0	4
2-Hexanone	ND		ug/l	20	4.0	4
Bromochloromethane	ND		ug/l	10	2.8	4
2,2-Dichloropropane	ND		ug/l	10	2.8	4
1,2-Dibromoethane	ND		ug/l	8.0	2.6	4
1,3-Dichloropropane	ND		ug/l	10	2.8	4
1,1,1,2-Tetrachloroethane	ND		ug/l	10	2.8	4
Bromobenzene	ND		ug/l	10	2.8	4
n-Butylbenzene	ND		ug/l	10	2.8	4
sec-Butylbenzene	ND		ug/l	10	2.8	4
tert-Butylbenzene	ND		ug/l	10	2.8	4
o-Chlorotoluene	ND		ug/l	10	2.8	4
p-Chlorotoluene	ND		ug/l	10	2.8	4
1,2-Dibromo-3-chloropropane	ND		ug/l	10	2.8	4
Hexachlorobutadiene	ND		ug/l	10	2.8	4
Isopropylbenzene	ND		ug/l	10	2.8	4
p-Isopropyltoluene	ND		ug/l	10	2.8	4
Naphthalene	ND		ug/l	10	2.8	4

Project Name: FESL
Project Number: 20029

Lab Number: L2045017
Report Date: 10/23/20

SAMPLE RESULTS

Lab ID: L2045017-23 D
 Client ID: CTRL D5
 Sample Location: ROCHESTER, NY

Date Collected: 10/19/20 14:10
 Date Received: 10/19/20
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
n-Propylbenzene	ND		ug/l	10	2.8	4
1,2,3-Trichlorobenzene	ND		ug/l	10	2.8	4
1,2,4-Trichlorobenzene	ND		ug/l	10	2.8	4
1,3,5-Trimethylbenzene	ND		ug/l	10	2.8	4
1,2,4-Trimethylbenzene	ND		ug/l	10	2.8	4
1,4-Dioxane	ND		ug/l	1000	240	4
Freon-113	130		ug/l	10	2.8	4
p-Diethylbenzene	ND		ug/l	8.0	2.8	4
p-Ethyltoluene	ND		ug/l	8.0	2.8	4
1,2,4,5-Tetramethylbenzene	ND		ug/l	8.0	2.2	4
Ethyl ether	10		ug/l	10	2.8	4
trans-1,4-Dichloro-2-butene	ND		ug/l	10	2.8	4

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	103		70-130
Toluene-d8	95		70-130
4-Bromofluorobenzene	98		70-130
Dibromofluoromethane	102		70-130

Project Name: FESL
Project Number: 20029

Lab Number: L2045017
Report Date: 10/23/20

SAMPLE RESULTS

Lab ID: L2045017-24 D
 Client ID: CTRL D5 DUP
 Sample Location: ROCHESTER, NY

Date Collected: 10/19/20 14:15
 Date Received: 10/19/20
 Field Prep: Not Specified

Sample Depth:

Matrix: Water
 Analytical Method: 1,8260C
 Analytical Date: 10/20/20 09:57
 Analyst: PD

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methylene chloride	ND		ug/l	10	2.8	4
1,1-Dichloroethane	630		ug/l	10	2.8	4
Chloroform	ND		ug/l	10	2.8	4
Carbon tetrachloride	ND		ug/l	2.0	0.54	4
1,2-Dichloropropane	ND		ug/l	4.0	0.55	4
Dibromochloromethane	ND		ug/l	2.0	0.60	4
1,1,2-Trichloroethane	ND		ug/l	6.0	2.0	4
Tetrachloroethene	140		ug/l	2.0	0.72	4
Chlorobenzene	ND		ug/l	10	2.8	4
Trichlorofluoromethane	ND		ug/l	10	2.8	4
1,2-Dichloroethane	ND		ug/l	2.0	0.53	4
1,1,1-Trichloroethane	300		ug/l	10	2.8	4
Bromodichloromethane	ND		ug/l	2.0	0.77	4
trans-1,3-Dichloropropene	ND		ug/l	2.0	0.66	4
cis-1,3-Dichloropropene	ND		ug/l	2.0	0.58	4
1,3-Dichloropropene, Total	ND		ug/l	2.0	0.58	4
1,1-Dichloropropene	ND		ug/l	10	2.8	4
Bromoform	ND		ug/l	8.0	2.6	4
1,1,2,2-Tetrachloroethane	ND		ug/l	2.0	0.67	4
Benzene	4.0		ug/l	2.0	0.64	4
Toluene	11		ug/l	10	2.8	4
Ethylbenzene	ND		ug/l	10	2.8	4
Chloromethane	ND		ug/l	10	2.8	4
Bromomethane	ND		ug/l	10	2.8	4
Vinyl chloride	390		ug/l	4.0	0.28	4
Chloroethane	170		ug/l	10	2.8	4
1,1-Dichloroethene	8.2		ug/l	2.0	0.68	4
trans-1,2-Dichloroethene	7.8	J	ug/l	10	2.8	4

Project Name: FESL
Project Number: 20029

Lab Number: L2045017
Report Date: 10/23/20

SAMPLE RESULTS

Lab ID: L2045017-24 D
 Client ID: CTRL D5 DUP
 Sample Location: ROCHESTER, NY

Date Collected: 10/19/20 14:15
 Date Received: 10/19/20
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Trichloroethene	23		ug/l	2.0	0.70	4
1,2-Dichlorobenzene	ND		ug/l	10	2.8	4
1,3-Dichlorobenzene	ND		ug/l	10	2.8	4
1,4-Dichlorobenzene	ND		ug/l	10	2.8	4
Methyl tert butyl ether	ND		ug/l	10	2.8	4
p/m-Xylene	ND		ug/l	10	2.8	4
o-Xylene	ND		ug/l	10	2.8	4
Xylenes, Total	ND		ug/l	10	2.8	4
cis-1,2-Dichloroethene	680		ug/l	10	2.8	4
1,2-Dichloroethene, Total	690	J	ug/l	10	2.8	4
Dibromomethane	ND		ug/l	20	4.0	4
1,2,3-Trichloropropane	ND		ug/l	10	2.8	4
Acrylonitrile	ND		ug/l	20	6.0	4
Styrene	ND		ug/l	10	2.8	4
Dichlorodifluoromethane	ND		ug/l	20	4.0	4
Acetone	21		ug/l	20	5.8	4
Carbon disulfide	ND		ug/l	20	4.0	4
2-Butanone	ND		ug/l	20	7.8	4
Vinyl acetate	ND		ug/l	20	4.0	4
4-Methyl-2-pentanone	ND		ug/l	20	4.0	4
2-Hexanone	ND		ug/l	20	4.0	4
Bromochloromethane	ND		ug/l	10	2.8	4
2,2-Dichloropropane	ND		ug/l	10	2.8	4
1,2-Dibromoethane	ND		ug/l	8.0	2.6	4
1,3-Dichloropropane	ND		ug/l	10	2.8	4
1,1,1,2-Tetrachloroethane	ND		ug/l	10	2.8	4
Bromobenzene	ND		ug/l	10	2.8	4
n-Butylbenzene	ND		ug/l	10	2.8	4
sec-Butylbenzene	ND		ug/l	10	2.8	4
tert-Butylbenzene	ND		ug/l	10	2.8	4
o-Chlorotoluene	ND		ug/l	10	2.8	4
p-Chlorotoluene	ND		ug/l	10	2.8	4
1,2-Dibromo-3-chloropropane	ND		ug/l	10	2.8	4
Hexachlorobutadiene	ND		ug/l	10	2.8	4
Isopropylbenzene	ND		ug/l	10	2.8	4
p-Isopropyltoluene	ND		ug/l	10	2.8	4
Naphthalene	ND		ug/l	10	2.8	4

Project Name: FESL
Project Number: 20029

Lab Number: L2045017
Report Date: 10/23/20

SAMPLE RESULTS

Lab ID: L2045017-24 D
 Client ID: CTRL D5 DUP
 Sample Location: ROCHESTER, NY

Date Collected: 10/19/20 14:15
 Date Received: 10/19/20
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
n-Propylbenzene	ND		ug/l	10	2.8	4
1,2,3-Trichlorobenzene	ND		ug/l	10	2.8	4
1,2,4-Trichlorobenzene	ND		ug/l	10	2.8	4
1,3,5-Trimethylbenzene	ND		ug/l	10	2.8	4
1,2,4-Trimethylbenzene	ND		ug/l	10	2.8	4
1,4-Dioxane	ND		ug/l	1000	240	4
Freon-113	120		ug/l	10	2.8	4
p-Diethylbenzene	ND		ug/l	8.0	2.8	4
p-Ethyltoluene	ND		ug/l	8.0	2.8	4
1,2,4,5-Tetramethylbenzene	ND		ug/l	8.0	2.2	4
Ethyl ether	10		ug/l	10	2.8	4
trans-1,4-Dichloro-2-butene	ND		ug/l	10	2.8	4

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	103		70-130
Toluene-d8	95		70-130
4-Bromofluorobenzene	96		70-130
Dibromofluoromethane	102		70-130

Project Name: FESL
Project Number: 20029

Lab Number: L2045017
Report Date: 10/23/20

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260C
Analytical Date: 10/20/20 08:07
Analyst: PD

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 09-12,15-16 Batch: WG1424140-5					
Methylene chloride	ND		ug/l	2.5	0.70
1,1-Dichloroethane	ND		ug/l	2.5	0.70
Chloroform	ND		ug/l	2.5	0.70
Carbon tetrachloride	ND		ug/l	0.50	0.13
1,2-Dichloropropane	ND		ug/l	1.0	0.14
Dibromochloromethane	ND		ug/l	0.50	0.15
1,1,2-Trichloroethane	ND		ug/l	1.5	0.50
Tetrachloroethene	ND		ug/l	0.50	0.18
Chlorobenzene	ND		ug/l	2.5	0.70
Trichlorofluoromethane	ND		ug/l	2.5	0.70
1,2-Dichloroethane	ND		ug/l	0.50	0.13
1,1,1-Trichloroethane	ND		ug/l	2.5	0.70
Bromodichloromethane	ND		ug/l	0.50	0.19
trans-1,3-Dichloropropene	ND		ug/l	0.50	0.16
cis-1,3-Dichloropropene	ND		ug/l	0.50	0.14
1,3-Dichloropropene, Total	ND		ug/l	0.50	0.14
1,1-Dichloropropene	ND		ug/l	2.5	0.70
Bromoform	ND		ug/l	2.0	0.65
1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	0.17
Benzene	ND		ug/l	0.50	0.16
Toluene	ND		ug/l	2.5	0.70
Ethylbenzene	ND		ug/l	2.5	0.70
Chloromethane	ND		ug/l	2.5	0.70
Bromomethane	ND		ug/l	2.5	0.70
Vinyl chloride	ND		ug/l	1.0	0.07
Chloroethane	ND		ug/l	2.5	0.70
1,1-Dichloroethene	ND		ug/l	0.50	0.17
trans-1,2-Dichloroethene	ND		ug/l	2.5	0.70
Trichloroethene	ND		ug/l	0.50	0.18

Project Name: FESL
Project Number: 20029

Lab Number: L2045017
Report Date: 10/23/20

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260C
Analytical Date: 10/20/20 08:07
Analyst: PD

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 09-12,15-16 Batch: WG1424140-5					
1,2-Dichlorobenzene	ND		ug/l	2.5	0.70
1,3-Dichlorobenzene	ND		ug/l	2.5	0.70
1,4-Dichlorobenzene	ND		ug/l	2.5	0.70
Methyl tert butyl ether	ND		ug/l	2.5	0.70
p/m-Xylene	ND		ug/l	2.5	0.70
o-Xylene	ND		ug/l	2.5	0.70
Xylenes, Total	ND		ug/l	2.5	0.70
cis-1,2-Dichloroethene	ND		ug/l	2.5	0.70
1,2-Dichloroethene, Total	ND		ug/l	2.5	0.70
Dibromomethane	ND		ug/l	5.0	1.0
1,2,3-Trichloropropane	ND		ug/l	2.5	0.70
Acrylonitrile	ND		ug/l	5.0	1.5
Styrene	ND		ug/l	2.5	0.70
Dichlorodifluoromethane	ND		ug/l	5.0	1.0
Acetone	ND		ug/l	5.0	1.5
Carbon disulfide	ND		ug/l	5.0	1.0
2-Butanone	ND		ug/l	5.0	1.9
Vinyl acetate	ND		ug/l	5.0	1.0
4-Methyl-2-pentanone	ND		ug/l	5.0	1.0
2-Hexanone	ND		ug/l	5.0	1.0
Bromochloromethane	ND		ug/l	2.5	0.70
2,2-Dichloropropane	ND		ug/l	2.5	0.70
1,2-Dibromoethane	ND		ug/l	2.0	0.65
1,3-Dichloropropane	ND		ug/l	2.5	0.70
1,1,1,2-Tetrachloroethane	ND		ug/l	2.5	0.70
Bromobenzene	ND		ug/l	2.5	0.70
n-Butylbenzene	ND		ug/l	2.5	0.70
sec-Butylbenzene	ND		ug/l	2.5	0.70
tert-Butylbenzene	ND		ug/l	2.5	0.70

Project Name: FESL
Project Number: 20029

Lab Number: L2045017
Report Date: 10/23/20

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260C
Analytical Date: 10/20/20 08:07
Analyst: PD

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 09-12,15-16 Batch: WG1424140-5					
o-Chlorotoluene	ND		ug/l	2.5	0.70
p-Chlorotoluene	ND		ug/l	2.5	0.70
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	0.70
Hexachlorobutadiene	ND		ug/l	2.5	0.70
Isopropylbenzene	ND		ug/l	2.5	0.70
p-Isopropyltoluene	ND		ug/l	2.5	0.70
Naphthalene	ND		ug/l	2.5	0.70
n-Propylbenzene	ND		ug/l	2.5	0.70
1,2,3-Trichlorobenzene	ND		ug/l	2.5	0.70
1,2,4-Trichlorobenzene	ND		ug/l	2.5	0.70
1,3,5-Trimethylbenzene	ND		ug/l	2.5	0.70
1,2,4-Trimethylbenzene	ND		ug/l	2.5	0.70
1,4-Dioxane	ND		ug/l	250	61.
Freon-113	ND		ug/l	2.5	0.70
p-Diethylbenzene	ND		ug/l	2.0	0.70
p-Ethyltoluene	ND		ug/l	2.0	0.70
1,2,4,5-Tetramethylbenzene	ND		ug/l	2.0	0.54
Ethyl ether	ND		ug/l	2.5	0.70
trans-1,4-Dichloro-2-butene	ND		ug/l	2.5	0.70

Surrogate	%Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	101		70-130
Toluene-d8	95		70-130
4-Bromofluorobenzene	99		70-130
Dibromofluoromethane	98		70-130

Project Name: FESL
Project Number: 20029

Lab Number: L2045017
Report Date: 10/23/20

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260C
Analytical Date: 10/20/20 08:15
Analyst: PD

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 21-24 Batch: WG1424143-5					
Methylene chloride	ND		ug/l	2.5	0.70
1,1-Dichloroethane	ND		ug/l	2.5	0.70
Chloroform	ND		ug/l	2.5	0.70
Carbon tetrachloride	ND		ug/l	0.50	0.13
1,2-Dichloropropane	ND		ug/l	1.0	0.14
Dibromochloromethane	ND		ug/l	0.50	0.15
1,1,2-Trichloroethane	ND		ug/l	1.5	0.50
Tetrachloroethene	ND		ug/l	0.50	0.18
Chlorobenzene	ND		ug/l	2.5	0.70
Trichlorofluoromethane	ND		ug/l	2.5	0.70
1,2-Dichloroethane	ND		ug/l	0.50	0.13
1,1,1-Trichloroethane	ND		ug/l	2.5	0.70
Bromodichloromethane	ND		ug/l	0.50	0.19
trans-1,3-Dichloropropene	ND		ug/l	0.50	0.16
cis-1,3-Dichloropropene	ND		ug/l	0.50	0.14
1,3-Dichloropropene, Total	ND		ug/l	0.50	0.14
1,1-Dichloropropene	ND		ug/l	2.5	0.70
Bromoform	ND		ug/l	2.0	0.65
1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	0.17
Benzene	ND		ug/l	0.50	0.16
Toluene	ND		ug/l	2.5	0.70
Ethylbenzene	ND		ug/l	2.5	0.70
Chloromethane	ND		ug/l	2.5	0.70
Bromomethane	ND		ug/l	2.5	0.70
Vinyl chloride	ND		ug/l	1.0	0.07
Chloroethane	ND		ug/l	2.5	0.70
1,1-Dichloroethene	ND		ug/l	0.50	0.17
trans-1,2-Dichloroethene	ND		ug/l	2.5	0.70
Trichloroethene	ND		ug/l	0.50	0.18

Project Name: FESL
Project Number: 20029

Lab Number: L2045017
Report Date: 10/23/20

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260C
Analytical Date: 10/20/20 08:15
Analyst: PD

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 21-24 Batch: WG1424143-5					
1,2-Dichlorobenzene	ND		ug/l	2.5	0.70
1,3-Dichlorobenzene	ND		ug/l	2.5	0.70
1,4-Dichlorobenzene	ND		ug/l	2.5	0.70
Methyl tert butyl ether	ND		ug/l	2.5	0.70
p/m-Xylene	ND		ug/l	2.5	0.70
o-Xylene	ND		ug/l	2.5	0.70
Xylenes, Total	ND		ug/l	2.5	0.70
cis-1,2-Dichloroethene	ND		ug/l	2.5	0.70
1,2-Dichloroethene, Total	ND		ug/l	2.5	0.70
Dibromomethane	ND		ug/l	5.0	1.0
1,2,3-Trichloropropane	ND		ug/l	2.5	0.70
Acrylonitrile	ND		ug/l	5.0	1.5
Styrene	ND		ug/l	2.5	0.70
Dichlorodifluoromethane	ND		ug/l	5.0	1.0
Acetone	ND		ug/l	5.0	1.5
Carbon disulfide	ND		ug/l	5.0	1.0
2-Butanone	ND		ug/l	5.0	1.9
Vinyl acetate	ND		ug/l	5.0	1.0
4-Methyl-2-pentanone	ND		ug/l	5.0	1.0
2-Hexanone	ND		ug/l	5.0	1.0
Bromochloromethane	ND		ug/l	2.5	0.70
2,2-Dichloropropane	ND		ug/l	2.5	0.70
1,2-Dibromoethane	ND		ug/l	2.0	0.65
1,3-Dichloropropane	ND		ug/l	2.5	0.70
1,1,1,2-Tetrachloroethane	ND		ug/l	2.5	0.70
Bromobenzene	ND		ug/l	2.5	0.70
n-Butylbenzene	ND		ug/l	2.5	0.70
sec-Butylbenzene	ND		ug/l	2.5	0.70
tert-Butylbenzene	ND		ug/l	2.5	0.70

Project Name: FESL
Project Number: 20029

Lab Number: L2045017
Report Date: 10/23/20

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260C
Analytical Date: 10/20/20 08:15
Analyst: PD

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 21-24 Batch: WG1424143-5					
o-Chlorotoluene	ND		ug/l	2.5	0.70
p-Chlorotoluene	ND		ug/l	2.5	0.70
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	0.70
Hexachlorobutadiene	ND		ug/l	2.5	0.70
Isopropylbenzene	ND		ug/l	2.5	0.70
p-Isopropyltoluene	ND		ug/l	2.5	0.70
Naphthalene	ND		ug/l	2.5	0.70
n-Propylbenzene	ND		ug/l	2.5	0.70
1,2,3-Trichlorobenzene	ND		ug/l	2.5	0.70
1,2,4-Trichlorobenzene	ND		ug/l	2.5	0.70
1,3,5-Trimethylbenzene	ND		ug/l	2.5	0.70
1,2,4-Trimethylbenzene	ND		ug/l	2.5	0.70
1,4-Dioxane	ND		ug/l	250	61.
Freon-113	ND		ug/l	2.5	0.70
p-Diethylbenzene	ND		ug/l	2.0	0.70
p-Ethyltoluene	ND		ug/l	2.0	0.70
1,2,4,5-Tetramethylbenzene	ND		ug/l	2.0	0.54
Ethyl ether	ND		ug/l	2.5	0.70
trans-1,4-Dichloro-2-butene	ND		ug/l	2.5	0.70

Surrogate	%Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	101		70-130
Toluene-d8	96		70-130
4-Bromofluorobenzene	98		70-130
Dibromofluoromethane	98		70-130

Project Name: FESL
Project Number: 20029

Lab Number: L2045017
Report Date: 10/23/20

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260C
Analytical Date: 10/20/20 08:04
Analyst: PD

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 13-14,17-20 Batch: WG1424148-5					
Methylene chloride	ND		ug/l	2.5	0.70
1,1-Dichloroethane	ND		ug/l	2.5	0.70
Chloroform	ND		ug/l	2.5	0.70
Carbon tetrachloride	ND		ug/l	0.50	0.13
1,2-Dichloropropane	ND		ug/l	1.0	0.14
Dibromochloromethane	ND		ug/l	0.50	0.15
1,1,2-Trichloroethane	ND		ug/l	1.5	0.50
Tetrachloroethene	ND		ug/l	0.50	0.18
Chlorobenzene	ND		ug/l	2.5	0.70
Trichlorofluoromethane	ND		ug/l	2.5	0.70
1,2-Dichloroethane	ND		ug/l	0.50	0.13
1,1,1-Trichloroethane	ND		ug/l	2.5	0.70
Bromodichloromethane	ND		ug/l	0.50	0.19
trans-1,3-Dichloropropene	ND		ug/l	0.50	0.16
cis-1,3-Dichloropropene	ND		ug/l	0.50	0.14
1,3-Dichloropropene, Total	ND		ug/l	0.50	0.14
1,1-Dichloropropene	ND		ug/l	2.5	0.70
Bromoform	ND		ug/l	2.0	0.65
1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	0.17
Benzene	ND		ug/l	0.50	0.16
Toluene	ND		ug/l	2.5	0.70
Ethylbenzene	ND		ug/l	2.5	0.70
Chloromethane	ND		ug/l	2.5	0.70
Bromomethane	ND		ug/l	2.5	0.70
Vinyl chloride	ND		ug/l	1.0	0.07
Chloroethane	ND		ug/l	2.5	0.70
1,1-Dichloroethene	ND		ug/l	0.50	0.17
trans-1,2-Dichloroethene	ND		ug/l	2.5	0.70
Trichloroethene	ND		ug/l	0.50	0.18

Project Name: FESL
Project Number: 20029

Lab Number: L2045017
Report Date: 10/23/20

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260C
Analytical Date: 10/20/20 08:04
Analyst: PD

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 13-14,17-20 Batch: WG1424148-5					
1,2-Dichlorobenzene	ND		ug/l	2.5	0.70
1,3-Dichlorobenzene	ND		ug/l	2.5	0.70
1,4-Dichlorobenzene	ND		ug/l	2.5	0.70
Methyl tert butyl ether	ND		ug/l	2.5	0.70
p/m-Xylene	ND		ug/l	2.5	0.70
o-Xylene	ND		ug/l	2.5	0.70
Xylenes, Total	ND		ug/l	2.5	0.70
cis-1,2-Dichloroethene	ND		ug/l	2.5	0.70
1,2-Dichloroethene, Total	ND		ug/l	2.5	0.70
Dibromomethane	ND		ug/l	5.0	1.0
1,2,3-Trichloropropane	ND		ug/l	2.5	0.70
Acrylonitrile	ND		ug/l	5.0	1.5
Styrene	ND		ug/l	2.5	0.70
Dichlorodifluoromethane	ND		ug/l	5.0	1.0
Acetone	ND		ug/l	5.0	1.5
Carbon disulfide	ND		ug/l	5.0	1.0
2-Butanone	ND		ug/l	5.0	1.9
Vinyl acetate	ND		ug/l	5.0	1.0
4-Methyl-2-pentanone	ND		ug/l	5.0	1.0
2-Hexanone	ND		ug/l	5.0	1.0
Bromochloromethane	ND		ug/l	2.5	0.70
2,2-Dichloropropane	ND		ug/l	2.5	0.70
1,2-Dibromoethane	ND		ug/l	2.0	0.65
1,3-Dichloropropane	ND		ug/l	2.5	0.70
1,1,1,2-Tetrachloroethane	ND		ug/l	2.5	0.70
Bromobenzene	ND		ug/l	2.5	0.70
n-Butylbenzene	ND		ug/l	2.5	0.70
sec-Butylbenzene	ND		ug/l	2.5	0.70
tert-Butylbenzene	ND		ug/l	2.5	0.70

Project Name: FESL
Project Number: 20029

Lab Number: L2045017
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Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260C
Analytical Date: 10/20/20 08:04
Analyst: PD

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 13-14,17-20 Batch: WG1424148-5					
o-Chlorotoluene	ND		ug/l	2.5	0.70
p-Chlorotoluene	ND		ug/l	2.5	0.70
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	0.70
Hexachlorobutadiene	ND		ug/l	2.5	0.70
Isopropylbenzene	ND		ug/l	2.5	0.70
p-Isopropyltoluene	ND		ug/l	2.5	0.70
Naphthalene	ND		ug/l	2.5	0.70
n-Propylbenzene	ND		ug/l	2.5	0.70
1,2,3-Trichlorobenzene	ND		ug/l	2.5	0.70
1,2,4-Trichlorobenzene	ND		ug/l	2.5	0.70
1,3,5-Trimethylbenzene	ND		ug/l	2.5	0.70
1,2,4-Trimethylbenzene	ND		ug/l	2.5	0.70
1,4-Dioxane	ND		ug/l	250	61.
Freon-113	ND		ug/l	2.5	0.70
p-Diethylbenzene	ND		ug/l	2.0	0.70
p-Ethyltoluene	ND		ug/l	2.0	0.70
1,2,4,5-Tetramethylbenzene	ND		ug/l	2.0	0.54
Ethyl ether	ND		ug/l	2.5	0.70
trans-1,4-Dichloro-2-butene	ND		ug/l	2.5	0.70

Surrogate	%Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	99		70-130
Toluene-d8	100		70-130
4-Bromofluorobenzene	102		70-130
Dibromofluoromethane	99		70-130

Project Name: FESL
Project Number: 20029

Lab Number: L2045017
Report Date: 10/23/20

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260C
Analytical Date: 10/22/20 10:30
Analyst: PD

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 01-05,07-08 Batch: WG1425368-5					
Methylene chloride	ND		ug/l	2.5	0.70
1,1-Dichloroethane	ND		ug/l	2.5	0.70
Chloroform	ND		ug/l	2.5	0.70
Carbon tetrachloride	ND		ug/l	0.50	0.13
1,2-Dichloropropane	ND		ug/l	1.0	0.14
Dibromochloromethane	ND		ug/l	0.50	0.15
1,1,2-Trichloroethane	ND		ug/l	1.5	0.50
Tetrachloroethene	ND		ug/l	0.50	0.18
Chlorobenzene	ND		ug/l	2.5	0.70
Trichlorofluoromethane	ND		ug/l	2.5	0.70
1,2-Dichloroethane	ND		ug/l	0.50	0.13
1,1,1-Trichloroethane	ND		ug/l	2.5	0.70
Bromodichloromethane	ND		ug/l	0.50	0.19
trans-1,3-Dichloropropene	ND		ug/l	0.50	0.16
cis-1,3-Dichloropropene	ND		ug/l	0.50	0.14
1,3-Dichloropropene, Total	ND		ug/l	0.50	0.14
1,1-Dichloropropene	ND		ug/l	2.5	0.70
Bromoform	ND		ug/l	2.0	0.65
1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	0.17
Benzene	ND		ug/l	0.50	0.16
Toluene	ND		ug/l	2.5	0.70
Ethylbenzene	ND		ug/l	2.5	0.70
Chloromethane	ND		ug/l	2.5	0.70
Bromomethane	ND		ug/l	2.5	0.70
Vinyl chloride	ND		ug/l	1.0	0.07
Chloroethane	ND		ug/l	2.5	0.70
1,1-Dichloroethene	ND		ug/l	0.50	0.17
trans-1,2-Dichloroethene	ND		ug/l	2.5	0.70
Trichloroethene	ND		ug/l	0.50	0.18

Project Name: FESL
Project Number: 20029

Lab Number: L2045017
Report Date: 10/23/20

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260C
Analytical Date: 10/22/20 10:30
Analyst: PD

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 01-05,07-08 Batch: WG1425368-5					
1,2-Dichlorobenzene	ND		ug/l	2.5	0.70
1,3-Dichlorobenzene	ND		ug/l	2.5	0.70
1,4-Dichlorobenzene	ND		ug/l	2.5	0.70
Methyl tert butyl ether	ND		ug/l	2.5	0.70
p/m-Xylene	ND		ug/l	2.5	0.70
o-Xylene	ND		ug/l	2.5	0.70
Xylenes, Total	ND		ug/l	2.5	0.70
cis-1,2-Dichloroethene	ND		ug/l	2.5	0.70
1,2-Dichloroethene, Total	ND		ug/l	2.5	0.70
Dibromomethane	ND		ug/l	5.0	1.0
1,2,3-Trichloropropane	ND		ug/l	2.5	0.70
Acrylonitrile	ND		ug/l	5.0	1.5
Styrene	ND		ug/l	2.5	0.70
Dichlorodifluoromethane	ND		ug/l	5.0	1.0
Acetone	ND		ug/l	5.0	1.5
Carbon disulfide	ND		ug/l	5.0	1.0
2-Butanone	ND		ug/l	5.0	1.9
Vinyl acetate	ND		ug/l	5.0	1.0
4-Methyl-2-pentanone	ND		ug/l	5.0	1.0
2-Hexanone	ND		ug/l	5.0	1.0
Bromochloromethane	ND		ug/l	2.5	0.70
2,2-Dichloropropane	ND		ug/l	2.5	0.70
1,2-Dibromoethane	ND		ug/l	2.0	0.65
1,3-Dichloropropane	ND		ug/l	2.5	0.70
1,1,1,2-Tetrachloroethane	ND		ug/l	2.5	0.70
Bromobenzene	ND		ug/l	2.5	0.70
n-Butylbenzene	ND		ug/l	2.5	0.70
sec-Butylbenzene	ND		ug/l	2.5	0.70
tert-Butylbenzene	ND		ug/l	2.5	0.70

Project Name: FESL
Project Number: 20029

Lab Number: L2045017
Report Date: 10/23/20

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260C
Analytical Date: 10/22/20 10:30
Analyst: PD

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 01-05,07-08 Batch: WG1425368-5					
o-Chlorotoluene	ND		ug/l	2.5	0.70
p-Chlorotoluene	ND		ug/l	2.5	0.70
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	0.70
Hexachlorobutadiene	ND		ug/l	2.5	0.70
Isopropylbenzene	ND		ug/l	2.5	0.70
p-Isopropyltoluene	ND		ug/l	2.5	0.70
Naphthalene	ND		ug/l	2.5	0.70
n-Propylbenzene	ND		ug/l	2.5	0.70
1,2,3-Trichlorobenzene	ND		ug/l	2.5	0.70
1,2,4-Trichlorobenzene	ND		ug/l	2.5	0.70
1,3,5-Trimethylbenzene	ND		ug/l	2.5	0.70
1,2,4-Trimethylbenzene	ND		ug/l	2.5	0.70
1,4-Dioxane	ND		ug/l	250	61.
Freon-113	ND		ug/l	2.5	0.70
p-Diethylbenzene	ND		ug/l	2.0	0.70
p-Ethyltoluene	ND		ug/l	2.0	0.70
1,2,4,5-Tetramethylbenzene	ND		ug/l	2.0	0.54
Ethyl ether	ND		ug/l	2.5	0.70
trans-1,4-Dichloro-2-butene	ND		ug/l	2.5	0.70

Surrogate	%Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	104		70-130
Toluene-d8	95		70-130
4-Bromofluorobenzene	98		70-130
Dibromofluoromethane	98		70-130

Project Name: FESL
Project Number: 20029

Lab Number: L2045017
Report Date: 10/23/20

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260C
Analytical Date: 10/23/20 08:38
Analyst: PD

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 06 Batch: WG1425677-5					
Methylene chloride	ND		ug/l	2.5	0.70
1,1-Dichloroethane	ND		ug/l	2.5	0.70
Chloroform	ND		ug/l	2.5	0.70
Carbon tetrachloride	ND		ug/l	0.50	0.13
1,2-Dichloropropane	ND		ug/l	1.0	0.14
Dibromochloromethane	ND		ug/l	0.50	0.15
1,1,2-Trichloroethane	ND		ug/l	1.5	0.50
Tetrachloroethene	ND		ug/l	0.50	0.18
Chlorobenzene	ND		ug/l	2.5	0.70
Trichlorofluoromethane	ND		ug/l	2.5	0.70
1,2-Dichloroethane	ND		ug/l	0.50	0.13
1,1,1-Trichloroethane	ND		ug/l	2.5	0.70
Bromodichloromethane	ND		ug/l	0.50	0.19
trans-1,3-Dichloropropene	ND		ug/l	0.50	0.16
cis-1,3-Dichloropropene	ND		ug/l	0.50	0.14
1,3-Dichloropropene, Total	ND		ug/l	0.50	0.14
1,1-Dichloropropene	ND		ug/l	2.5	0.70
Bromoform	ND		ug/l	2.0	0.65
1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	0.17
Benzene	ND		ug/l	0.50	0.16
Toluene	ND		ug/l	2.5	0.70
Ethylbenzene	ND		ug/l	2.5	0.70
Chloromethane	ND		ug/l	2.5	0.70
Bromomethane	ND		ug/l	2.5	0.70
Vinyl chloride	ND		ug/l	1.0	0.07
Chloroethane	ND		ug/l	2.5	0.70
1,1-Dichloroethene	ND		ug/l	0.50	0.17
trans-1,2-Dichloroethene	ND		ug/l	2.5	0.70
Trichloroethene	ND		ug/l	0.50	0.18

Project Name: FESL
Project Number: 20029

Lab Number: L2045017
Report Date: 10/23/20

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260C
Analytical Date: 10/23/20 08:38
Analyst: PD

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 06 Batch: WG1425677-5					
1,2-Dichlorobenzene	ND		ug/l	2.5	0.70
1,3-Dichlorobenzene	ND		ug/l	2.5	0.70
1,4-Dichlorobenzene	ND		ug/l	2.5	0.70
Methyl tert butyl ether	ND		ug/l	2.5	0.70
p/m-Xylene	ND		ug/l	2.5	0.70
o-Xylene	ND		ug/l	2.5	0.70
Xylenes, Total	ND		ug/l	2.5	0.70
cis-1,2-Dichloroethene	ND		ug/l	2.5	0.70
1,2-Dichloroethene, Total	ND		ug/l	2.5	0.70
Dibromomethane	ND		ug/l	5.0	1.0
1,2,3-Trichloropropane	ND		ug/l	2.5	0.70
Acrylonitrile	ND		ug/l	5.0	1.5
Styrene	ND		ug/l	2.5	0.70
Dichlorodifluoromethane	ND		ug/l	5.0	1.0
Acetone	ND		ug/l	5.0	1.5
Carbon disulfide	ND		ug/l	5.0	1.0
2-Butanone	ND		ug/l	5.0	1.9
Vinyl acetate	ND		ug/l	5.0	1.0
4-Methyl-2-pentanone	ND		ug/l	5.0	1.0
2-Hexanone	ND		ug/l	5.0	1.0
Bromochloromethane	ND		ug/l	2.5	0.70
2,2-Dichloropropane	ND		ug/l	2.5	0.70
1,2-Dibromoethane	ND		ug/l	2.0	0.65
1,3-Dichloropropane	ND		ug/l	2.5	0.70
1,1,1,2-Tetrachloroethane	ND		ug/l	2.5	0.70
Bromobenzene	ND		ug/l	2.5	0.70
n-Butylbenzene	ND		ug/l	2.5	0.70
sec-Butylbenzene	ND		ug/l	2.5	0.70
tert-Butylbenzene	ND		ug/l	2.5	0.70

Project Name: FESL
Project Number: 20029

Lab Number: L2045017
Report Date: 10/23/20

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260C
Analytical Date: 10/23/20 08:38
Analyst: PD

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 06 Batch: WG1425677-5					
o-Chlorotoluene	ND		ug/l	2.5	0.70
p-Chlorotoluene	ND		ug/l	2.5	0.70
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	0.70
Hexachlorobutadiene	ND		ug/l	2.5	0.70
Isopropylbenzene	ND		ug/l	2.5	0.70
p-Isopropyltoluene	ND		ug/l	2.5	0.70
Naphthalene	ND		ug/l	2.5	0.70
n-Propylbenzene	ND		ug/l	2.5	0.70
1,2,3-Trichlorobenzene	ND		ug/l	2.5	0.70
1,2,4-Trichlorobenzene	ND		ug/l	2.5	0.70
1,3,5-Trimethylbenzene	ND		ug/l	2.5	0.70
1,2,4-Trimethylbenzene	ND		ug/l	2.5	0.70
1,4-Dioxane	ND		ug/l	250	61.
Freon-113	ND		ug/l	2.5	0.70
p-Diethylbenzene	ND		ug/l	2.0	0.70
p-Ethyltoluene	ND		ug/l	2.0	0.70
1,2,4,5-Tetramethylbenzene	ND		ug/l	2.0	0.54
Ethyl ether	ND		ug/l	2.5	0.70
trans-1,4-Dichloro-2-butene	ND		ug/l	2.5	0.70

Surrogate	%Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	104		70-130
Toluene-d8	99		70-130
4-Bromofluorobenzene	102		70-130
Dibromofluoromethane	101		70-130

Lab Control Sample Analysis

Batch Quality Control

Project Name: FESL
Project Number: 20029

Lab Number: L2045017
Report Date: 10/23/20

Parameter	LCS		LCSD		%Recovery Limits	RPD	Qual	RPD Limits
	%Recovery	Qual	%Recovery	Qual				
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 09-12,15-16 Batch: WG1424140-3 WG1424140-4								
Methylene chloride	94		96		70-130	2		20
1,1-Dichloroethane	100		100		70-130	0		20
Chloroform	96		97		70-130	1		20
Carbon tetrachloride	110		110		63-132	0		20
1,2-Dichloropropane	100		100		70-130	0		20
Dibromochloromethane	91		92		63-130	1		20
1,1,2-Trichloroethane	86		88		70-130	2		20
Tetrachloroethene	110		110		70-130	0		20
Chlorobenzene	94		96		75-130	2		20
Trichlorofluoromethane	87		87		62-150	0		20
1,2-Dichloroethane	100		100		70-130	0		20
1,1,1-Trichloroethane	100		100		67-130	0		20
Bromodichloromethane	97		98		67-130	1		20
trans-1,3-Dichloropropene	84		83		70-130	1		20
cis-1,3-Dichloropropene	96		96		70-130	0		20
1,1-Dichloropropene	98		100		70-130	2		20
Bromoform	99		93		54-136	6		20
1,1,1,2-Tetrachloroethane	83		83		67-130	0		20
Benzene	96		99		70-130	3		20
Toluene	96		98		70-130	2		20
Ethylbenzene	95		96		70-130	1		20
Chloromethane	140	Q	140	Q	64-130	0		20
Bromomethane	76		79		39-139	4		20

Lab Control Sample Analysis

Batch Quality Control

Project Name: FESL
Project Number: 20029

Lab Number: L2045017
Report Date: 10/23/20

Parameter	LCS		LCSD		%Recovery Limits	RPD	Qual	RPD Limits
	%Recovery	Qual	%Recovery	Qual				
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 09-12,15-16 Batch: WG1424140-3 WG1424140-4								
Vinyl chloride	100		100		55-140	0		20
Chloroethane	63		67		55-138	6		20
1,1-Dichloroethene	83		84		61-145	1		20
trans-1,2-Dichloroethene	100		100		70-130	0		20
Trichloroethene	94		97		70-130	3		20
1,2-Dichlorobenzene	100		100		70-130	0		20
1,3-Dichlorobenzene	100		100		70-130	0		20
1,4-Dichlorobenzene	100		100		70-130	0		20
Methyl tert butyl ether	86		78		63-130	10		20
p/m-Xylene	95		95		70-130	0		20
o-Xylene	95		95		70-130	0		20
cis-1,2-Dichloroethene	99		100		70-130	1		20
Dibromomethane	90		89		70-130	1		20
1,2,3-Trichloropropane	86		86		64-130	0		20
Acrylonitrile	110		100		70-130	10		20
Styrene	95		95		70-130	0		20
Dichlorodifluoromethane	150	Q	150	Q	36-147	0		20
Acetone	91		88		58-148	3		20
Carbon disulfide	94		93		51-130	1		20
2-Butanone	89		89		63-138	0		20
Vinyl acetate	92		91		70-130	1		20
4-Methyl-2-pentanone	96		93		59-130	3		20
2-Hexanone	90		89		57-130	1		20

Lab Control Sample Analysis

Batch Quality Control

Project Name: FESL
Project Number: 20029

Lab Number: L2045017
Report Date: 10/23/20

Parameter	LCS		LCSD		%Recovery Limits	RPD	Qual	RPD Limits
	%Recovery	Qual	%Recovery	Qual				
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 09-12,15-16 Batch: WG1424140-3 WG1424140-4								
Bromochloromethane	100		100		70-130	0		20
2,2-Dichloropropane	110		110		63-133	0		20
1,2-Dibromoethane	90		92		70-130	2		20
1,3-Dichloropropane	130		130		70-130	0		20
1,1,1,2-Tetrachloroethane	100		100		64-130	0		20
Bromobenzene	100		100		70-130	0		20
n-Butylbenzene	89		87		53-136	2		20
sec-Butylbenzene	95		94		70-130	1		20
tert-Butylbenzene	98		96		70-130	2		20
o-Chlorotoluene	97		99		70-130	2		20
p-Chlorotoluene	97		100		70-130	3		20
1,2-Dibromo-3-chloropropane	100		100		41-144	0		20
Hexachlorobutadiene	120		120		63-130	0		20
Isopropylbenzene	100		100		70-130	0		20
p-Isopropyltoluene	95		94		70-130	1		20
Naphthalene	98		89		70-130	10		20
n-Propylbenzene	94		94		69-130	0		20
1,2,3-Trichlorobenzene	110		100		70-130	10		20
1,2,4-Trichlorobenzene	110		100		70-130	10		20
1,3,5-Trimethylbenzene	99		100		64-130	1		20
1,2,4-Trimethylbenzene	100		100		70-130	0		20
1,4-Dioxane	86		76		56-162	12		20
Freon-113	98		98		70-130	0		20

Lab Control Sample Analysis

Batch Quality Control

Project Name: FESL
Project Number: 20029

Lab Number: L2045017
Report Date: 10/23/20

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 09-12,15-16 Batch: WG1424140-3 WG1424140-4								
p-Diethylbenzene	94		92		70-130	2		20
p-Ethyltoluene	100		100		70-130	0		20
1,2,4,5-Tetramethylbenzene	99		93		70-130	6		20
Ethyl ether	60		62		59-134	3		20
trans-1,4-Dichloro-2-butene	50	Q	42	Q	70-130	17		20

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
1,2-Dichloroethane-d4	104		102		70-130
Toluene-d8	99		99		70-130
4-Bromofluorobenzene	100		100		70-130
Dibromofluoromethane	100		100		70-130

Lab Control Sample Analysis

Batch Quality Control

Project Name: FESL
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Lab Number: L2045017
Report Date: 10/23/20

Parameter	LCS		LCSD		%Recovery Limits	RPD	Qual	RPD Limits
	%Recovery	Qual	%Recovery	Qual				
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 21-24 Batch: WG1424143-3 WG1424143-4								
Methylene chloride	98		99		70-130	1		20
1,1-Dichloroethane	100		100		70-130	0		20
Chloroform	110		100		70-130	10		20
Carbon tetrachloride	110		110		63-132	0		20
1,2-Dichloropropane	100		100		70-130	0		20
Dibromochloromethane	90		92		63-130	2		20
1,1,2-Trichloroethane	86		91		70-130	6		20
Tetrachloroethene	110		100		70-130	10		20
Chlorobenzene	100		100		75-130	0		20
Trichlorofluoromethane	110		110		62-150	0		20
1,2-Dichloroethane	110		110		70-130	0		20
1,1,1-Trichloroethane	110		110		67-130	0		20
Bromodichloromethane	100		100		67-130	0		20
trans-1,3-Dichloropropene	93		96		70-130	3		20
cis-1,3-Dichloropropene	99		100		70-130	1		20
1,1-Dichloropropene	100		110		70-130	10		20
Bromoform	84		88		54-136	5		20
1,1,1,2-Tetrachloroethane	81		86		67-130	6		20
Benzene	100		100		70-130	0		20
Toluene	100		100		70-130	0		20
Ethylbenzene	99		100		70-130	1		20
Chloromethane	88		95		64-130	8		20
Bromomethane	53		57		39-139	7		20

Lab Control Sample Analysis

Batch Quality Control

Project Name: FESL
Project Number: 20029

Lab Number: L2045017
Report Date: 10/23/20

Parameter	LCS		LCSD		%Recovery Limits	RPD	Qual	RPD Limits
	%Recovery	Qual	%Recovery	Qual				
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 21-24 Batch: WG1424143-3 WG1424143-4								
Vinyl chloride	94		99		55-140	5		20
Chloroethane	110		110		55-138	0		20
1,1-Dichloroethene	100		100		61-145	0		20
trans-1,2-Dichloroethene	100		100		70-130	0		20
Trichloroethene	100		100		70-130	0		20
1,2-Dichlorobenzene	98		98		70-130	0		20
1,3-Dichlorobenzene	100		99		70-130	1		20
1,4-Dichlorobenzene	100		99		70-130	1		20
Methyl tert butyl ether	97		100		63-130	3		20
p/m-Xylene	100		100		70-130	0		20
o-Xylene	100		100		70-130	0		20
cis-1,2-Dichloroethene	100		100		70-130	0		20
Dibromomethane	91		100		70-130	9		20
1,2,3-Trichloropropane	84		92		64-130	9		20
Acrylonitrile	95		99		70-130	4		20
Styrene	100		100		70-130	0		20
Dichlorodifluoromethane	88		90		36-147	2		20
Acetone	98		110		58-148	12		20
Carbon disulfide	100		100		51-130	0		20
2-Butanone	92		95		63-138	3		20
Vinyl acetate	95		100		70-130	5		20
4-Methyl-2-pentanone	79		84		59-130	6		20
2-Hexanone	79		88		57-130	11		20

Lab Control Sample Analysis

Batch Quality Control

Project Name: FESL
Project Number: 20029

Lab Number: L2045017
Report Date: 10/23/20

Parameter	LCS		LCSD		%Recovery Limits	RPD	Qual	RPD Limits
	%Recovery	Qual	%Recovery	Qual				
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 21-24 Batch: WG1424143-3 WG1424143-4								
Bromochloromethane	110		110		70-130	0		20
2,2-Dichloropropane	120		120		63-133	0		20
1,2-Dibromoethane	88		92		70-130	4		20
1,3-Dichloropropane	92		96		70-130	4		20
1,1,1,2-Tetrachloroethane	97		99		64-130	2		20
Bromobenzene	98		98		70-130	0		20
n-Butylbenzene	98		96		53-136	2		20
sec-Butylbenzene	97		96		70-130	1		20
tert-Butylbenzene	97		96		70-130	1		20
o-Chlorotoluene	100		98		70-130	2		20
p-Chlorotoluene	98		96		70-130	2		20
1,2-Dibromo-3-chloropropane	73		77		41-144	5		20
Hexachlorobutadiene	100		100		63-130	0		20
Isopropylbenzene	97		96		70-130	1		20
p-Isopropyltoluene	98		96		70-130	2		20
Naphthalene	85		92		70-130	8		20
n-Propylbenzene	98		96		69-130	2		20
1,2,3-Trichlorobenzene	95		99		70-130	4		20
1,2,4-Trichlorobenzene	100		100		70-130	0		20
1,3,5-Trimethylbenzene	98		96		64-130	2		20
1,2,4-Trimethylbenzene	99		98		70-130	1		20
1,4-Dioxane	90		112		56-162	22	Q	20
Freon-113	110		110		70-130	0		20

Lab Control Sample Analysis

Batch Quality Control

Project Name: FESL
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Report Date: 10/23/20

Parameter	LCS		LCSD		%Recovery Limits	RPD	RPD	
	%Recovery	Qual	%Recovery	Qual			Qual	Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 21-24 Batch: WG1424143-3 WG1424143-4								
p-Diethylbenzene	98		95		70-130	3		20
p-Ethyltoluene	99		96		70-130	3		20
1,2,4,5-Tetramethylbenzene	98		99		70-130	1		20
Ethyl ether	97		98		59-134	1		20
trans-1,4-Dichloro-2-butene	59	Q	63	Q	70-130	7		20

Surrogate	LCS		LCSD		Acceptance Criteria
	%Recovery	Qual	%Recovery	Qual	
1,2-Dichloroethane-d4	104		107		70-130
Toluene-d8	96		95		70-130
4-Bromofluorobenzene	96		95		70-130
Dibromofluoromethane	97		96		70-130

Lab Control Sample Analysis

Batch Quality Control

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Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 13-14,17-20 Batch: WG1424148-3 WG1424148-4								
Methylene chloride	110		98		70-130	12		20
1,1-Dichloroethane	110		97		70-130	13		20
Chloroform	100		94		70-130	6		20
Carbon tetrachloride	100		94		63-132	6		20
1,2-Dichloropropane	100		96		70-130	4		20
Dibromochloromethane	94		94		63-130	0		20
1,1,2-Trichloroethane	96		98		70-130	2		20
Tetrachloroethene	110		96		70-130	14		20
Chlorobenzene	110		100		75-130	10		20
Trichlorofluoromethane	110		100		62-150	10		20
1,2-Dichloroethane	96		93		70-130	3		20
1,1,1-Trichloroethane	100		96		67-130	4		20
Bromodichloromethane	100		93		67-130	7		20
trans-1,3-Dichloropropene	96		92		70-130	4		20
cis-1,3-Dichloropropene	98		92		70-130	6		20
1,1-Dichloropropene	110		98		70-130	12		20
Bromoform	92		95		54-136	3		20
1,1,2,2-Tetrachloroethane	93		96		67-130	3		20
Benzene	110		98		70-130	12		20
Toluene	110		100		70-130	10		20
Ethylbenzene	110		100		70-130	10		20
Chloromethane	110		100		64-130	10		20
Bromomethane	100		88		39-139	13		20

Lab Control Sample Analysis

Batch Quality Control

Project Name: FESL
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Lab Number: L2045017
Report Date: 10/23/20

Parameter	LCS		LCSD		%Recovery Limits	RPD	Qual	RPD Limits
	%Recovery	Qual	%Recovery	Qual				
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 13-14,17-20 Batch: WG1424148-3 WG1424148-4								
Vinyl chloride	120		100		55-140	18		20
Chloroethane	130		120		55-138	8		20
1,1-Dichloroethene	110		97		61-145	13		20
trans-1,2-Dichloroethene	110		97		70-130	13		20
Trichloroethene	100		96		70-130	4		20
1,2-Dichlorobenzene	100		99		70-130	1		20
1,3-Dichlorobenzene	110		100		70-130	10		20
1,4-Dichlorobenzene	110		97		70-130	13		20
Methyl tert butyl ether	91		91		63-130	0		20
p/m-Xylene	120		105		70-130	13		20
o-Xylene	115		105		70-130	9		20
cis-1,2-Dichloroethene	100		96		70-130	4		20
Dibromomethane	99		94		70-130	5		20
1,2,3-Trichloropropane	91		93		64-130	2		20
Acrylonitrile	86		94		70-130	9		20
Styrene	120		110		70-130	9		20
Dichlorodifluoromethane	120		100		36-147	18		20
Acetone	78		90		58-148	14		20
Carbon disulfide	110		100		51-130	10		20
2-Butanone	88		95		63-138	8		20
Vinyl acetate	87		85		70-130	2		20
4-Methyl-2-pentanone	75		86		59-130	14		20
2-Hexanone	79		82		57-130	4		20

Lab Control Sample Analysis

Batch Quality Control

Project Name: FESL
Project Number: 20029

Lab Number: L2045017
Report Date: 10/23/20

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 13-14,17-20 Batch: WG1424148-3 WG1424148-4								
Bromochloromethane	100		97		70-130	3		20
2,2-Dichloropropane	110		98		63-133	12		20
1,2-Dibromoethane	95		95		70-130	0		20
1,3-Dichloropropane	100		97		70-130	3		20
1,1,1,2-Tetrachloroethane	100		98		64-130	2		20
Bromobenzene	100		98		70-130	2		20
n-Butylbenzene	120		100		53-136	18		20
sec-Butylbenzene	120		100		70-130	18		20
tert-Butylbenzene	98		90		70-130	9		20
o-Chlorotoluene	120		100		70-130	18		20
p-Chlorotoluene	110		100		70-130	10		20
1,2-Dibromo-3-chloropropane	82		80		41-144	2		20
Hexachlorobutadiene	100		96		63-130	4		20
Isopropylbenzene	120		100		70-130	18		20
p-Isopropyltoluene	120		100		70-130	18		20
Naphthalene	81		80		70-130	1		20
n-Propylbenzene	120		100		69-130	18		20
1,2,3-Trichlorobenzene	88		86		70-130	2		20
1,2,4-Trichlorobenzene	97		91		70-130	6		20
1,3,5-Trimethylbenzene	120		100		64-130	18		20
1,2,4-Trimethylbenzene	120		100		70-130	18		20
1,4-Dioxane	86		88		56-162	2		20
Freon-113	110		100		70-130	10		20

Lab Control Sample Analysis

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Project Name: FESL
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Parameter	LCS		LCSD		%Recovery Limits	RPD	RPD	
	%Recovery	Qual	%Recovery	Qual			Qual	Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 13-14,17-20 Batch: WG1424148-3 WG1424148-4								
p-Diethylbenzene	110		100		70-130	10		20
p-Ethyltoluene	120		100		70-130	18		20
1,2,4,5-Tetramethylbenzene	110		97		70-130	13		20
Ethyl ether	96		93		59-134	3		20
trans-1,4-Dichloro-2-butene	91		91		70-130	0		20

Surrogate	LCS		LCSD		Acceptance Criteria
	%Recovery	Qual	%Recovery	Qual	
1,2-Dichloroethane-d4	90		92		70-130
Toluene-d8	102		101		70-130
4-Bromofluorobenzene	100		102		70-130
Dibromofluoromethane	97		95		70-130

Lab Control Sample Analysis

Batch Quality Control

Project Name: FESL
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Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-05,07-08 Batch: WG1425368-3 WG1425368-4								
Methylene chloride	100		110		70-130	10		20
1,1-Dichloroethane	110		110		70-130	0		20
Chloroform	110		110		70-130	0		20
Carbon tetrachloride	110		120		63-132	9		20
1,2-Dichloropropane	100		110		70-130	10		20
Dibromochloromethane	100		100		63-130	0		20
1,1,2-Trichloroethane	95		95		70-130	0		20
Tetrachloroethene	100		110		70-130	10		20
Chlorobenzene	100		100		75-130	0		20
Trichlorofluoromethane	110		120		62-150	9		20
1,2-Dichloroethane	120		120		70-130	0		20
1,1,1-Trichloroethane	110		120		67-130	9		20
Bromodichloromethane	110		110		67-130	0		20
trans-1,3-Dichloropropene	100		100		70-130	0		20
cis-1,3-Dichloropropene	110		110		70-130	0		20
1,1-Dichloropropene	110		110		70-130	0		20
Bromoform	95		100		54-136	5		20
1,1,1,2,2-Tetrachloroethane	92		95		67-130	3		20
Benzene	100		110		70-130	10		20
Toluene	100		100		70-130	0		20
Ethylbenzene	99		100		70-130	1		20
Chloromethane	87		100		64-130	14		20
Bromomethane	51		60		39-139	16		20

Lab Control Sample Analysis

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Project Name: FESL
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Report Date: 10/23/20

Parameter	LCS		LCSD		%Recovery Limits	RPD	Qual	RPD Limits
	%Recovery	Qual	%Recovery	Qual				
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-05,07-08 Batch: WG1425368-3 WG1425368-4								
Vinyl chloride	100		110		55-140	10		20
Chloroethane	110		120		55-138	9		20
1,1-Dichloroethene	100		110		61-145	10		20
trans-1,2-Dichloroethene	100		110		70-130	10		20
Trichloroethene	100		110		70-130	10		20
1,2-Dichlorobenzene	96		100		70-130	4		20
1,3-Dichlorobenzene	96		100		70-130	4		20
1,4-Dichlorobenzene	96		100		70-130	4		20
Methyl tert butyl ether	110		110		63-130	0		20
p/m-Xylene	100		105		70-130	5		20
o-Xylene	100		105		70-130	5		20
cis-1,2-Dichloroethene	110		110		70-130	0		20
Dibromomethane	100		100		70-130	0		20
1,2,3-Trichloropropane	96		97		64-130	1		20
Acrylonitrile	110		110		70-130	0		20
Styrene	100		105		70-130	5		20
Dichlorodifluoromethane	95		110		36-147	15		20
Acetone	140		150	Q	58-148	7		20
Carbon disulfide	99		110		51-130	11		20
2-Butanone	120		110		63-138	9		20
Vinyl acetate	110		110		70-130	0		20
4-Methyl-2-pentanone	95		93		59-130	2		20
2-Hexanone	120		99		57-130	19		20

Lab Control Sample Analysis

Batch Quality Control

Project Name: FESL
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Lab Number: L2045017
Report Date: 10/23/20

Parameter	LCS		LCSD		%Recovery Limits	RPD	Qual	RPD Limits
	%Recovery	Qual	%Recovery	Qual				
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-05,07-08 Batch: WG1425368-3 WG1425368-4								
Bromochloromethane	110		120		70-130	9		20
2,2-Dichloropropane	120		130		63-133	8		20
1,2-Dibromoethane	99		99		70-130	0		20
1,3-Dichloropropane	100		100		70-130	0		20
1,1,1,2-Tetrachloroethane	100		100		64-130	0		20
Bromobenzene	98		100		70-130	2		20
n-Butylbenzene	91		100		53-136	9		20
sec-Butylbenzene	91		100		70-130	9		20
tert-Butylbenzene	93		100		70-130	7		20
o-Chlorotoluene	100		100		70-130	0		20
p-Chlorotoluene	95		100		70-130	5		20
1,2-Dibromo-3-chloropropane	89		84		41-144	6		20
Hexachlorobutadiene	87		98		63-130	12		20
Isopropylbenzene	94		100		70-130	6		20
p-Isopropyltoluene	92		100		70-130	8		20
Naphthalene	86		90		70-130	5		20
n-Propylbenzene	94		100		69-130	6		20
1,2,3-Trichlorobenzene	86		96		70-130	11		20
1,2,4-Trichlorobenzene	93		97		70-130	4		20
1,3,5-Trimethylbenzene	93		100		64-130	7		20
1,2,4-Trimethylbenzene	94		100		70-130	6		20
1,4-Dioxane	96		114		56-162	17		20
Freon-113	100		120		70-130	18		20

Lab Control Sample Analysis

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Project Name: FESL
Project Number: 20029

Lab Number: L2045017
Report Date: 10/23/20

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-05,07-08 Batch: WG1425368-3 WG1425368-4								
p-Diethylbenzene	91		100		70-130	9		20
p-Ethyltoluene	94		100		70-130	6		20
1,2,4,5-Tetramethylbenzene	92		100		70-130	8		20
Ethyl ether	110		110		59-134	0		20
trans-1,4-Dichloro-2-butene	75		83		70-130	10		20

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
1,2-Dichloroethane-d4	104		107		70-130
Toluene-d8	96		95		70-130
4-Bromofluorobenzene	96		98		70-130
Dibromofluoromethane	101		100		70-130

Lab Control Sample Analysis

Batch Quality Control

Project Name: FESL
Project Number: 20029

Lab Number: L2045017
Report Date: 10/23/20

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 06 Batch: WG1425677-3 WG1425677-4								
Methylene chloride	97		99		70-130	2		20
1,1-Dichloroethane	96		98		70-130	2		20
Chloroform	93		95		70-130	2		20
Carbon tetrachloride	90		91		63-132	1		20
1,2-Dichloropropane	94		94		70-130	0		20
Dibromochloromethane	94		94		63-130	0		20
1,1,2-Trichloroethane	99		99		70-130	0		20
Tetrachloroethene	95		93		70-130	2		20
Chlorobenzene	98		98		75-130	0		20
Trichlorofluoromethane	96		95		62-150	1		20
1,2-Dichloroethane	96		96		70-130	0		20
1,1,1-Trichloroethane	92		93		67-130	1		20
Bromodichloromethane	93		94		67-130	1		20
trans-1,3-Dichloropropene	91		94		70-130	3		20
cis-1,3-Dichloropropene	91		92		70-130	1		20
1,1-Dichloropropene	93		94		70-130	1		20
Bromoform	86		87		54-136	1		20
1,1,1,2,2-Tetrachloroethane	96		94		67-130	2		20
Benzene	96		95		70-130	1		20
Toluene	98		98		70-130	0		20
Ethylbenzene	100		100		70-130	0		20
Chloromethane	100		100		64-130	0		20
Bromomethane	89		88		39-139	1		20

Lab Control Sample Analysis

Batch Quality Control

Project Name: FESL
Project Number: 20029

Lab Number: L2045017
Report Date: 10/23/20

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 06 Batch: WG1425677-3 WG1425677-4								
Vinyl chloride	100		98		55-140	2		20
Chloroethane	110		100		55-138	10		20
1,1-Dichloroethene	94		94		61-145	0		20
trans-1,2-Dichloroethene	92		92		70-130	0		20
Trichloroethene	93		93		70-130	0		20
1,2-Dichlorobenzene	100		97		70-130	3		20
1,3-Dichlorobenzene	100		99		70-130	1		20
1,4-Dichlorobenzene	98		96		70-130	2		20
Methyl tert butyl ether	92		89		63-130	3		20
p/m-Xylene	105		105		70-130	0		20
o-Xylene	105		100		70-130	5		20
cis-1,2-Dichloroethene	97		92		70-130	5		20
Dibromomethane	96		96		70-130	0		20
1,2,3-Trichloropropane	99		93		64-130	6		20
Acrylonitrile	97		98		70-130	1		20
Styrene	105		105		70-130	0		20
Dichlorodifluoromethane	110		110		36-147	0		20
Acetone	110		100		58-148	10		20
Carbon disulfide	97		97		51-130	0		20
2-Butanone	110		110		63-138	0		20
Vinyl acetate	88		89		70-130	1		20
4-Methyl-2-pentanone	87		82		59-130	6		20
2-Hexanone	85		87		57-130	2		20

Lab Control Sample Analysis

Batch Quality Control

Project Name: FESL
Project Number: 20029

Lab Number: L2045017
Report Date: 10/23/20

Parameter	LCS		LCSD		%Recovery Limits	RPD	Qual	RPD Limits
	%Recovery	Qual	%Recovery	Qual				
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 06 Batch: WG1425677-3 WG1425677-4								
Bromochloromethane	100		94		70-130	6		20
2,2-Dichloropropane	98		99		63-133	1		20
1,2-Dibromoethane	94		96		70-130	2		20
1,3-Dichloropropane	100		96		70-130	4		20
1,1,1,2-Tetrachloroethane	97		95		64-130	2		20
Bromobenzene	96		95		70-130	1		20
n-Butylbenzene	100		100		53-136	0		20
sec-Butylbenzene	100		100		70-130	0		20
tert-Butylbenzene	90		85		70-130	6		20
o-Chlorotoluene	100		100		70-130	0		20
p-Chlorotoluene	100		100		70-130	0		20
1,2-Dibromo-3-chloropropane	82		75		41-144	9		20
Hexachlorobutadiene	90		88		63-130	2		20
Isopropylbenzene	100		100		70-130	0		20
p-Isopropyltoluene	100		100		70-130	0		20
Naphthalene	75		73		70-130	3		20
n-Propylbenzene	100		100		69-130	0		20
1,2,3-Trichlorobenzene	78		79		70-130	1		20
1,2,4-Trichlorobenzene	88		85		70-130	3		20
1,3,5-Trimethylbenzene	110		100		64-130	10		20
1,2,4-Trimethylbenzene	110		100		70-130	10		20
1,4-Dioxane	98		86		56-162	13		20
Freon-113	98		99		70-130	1		20

Lab Control Sample Analysis

Batch Quality Control

Project Name: FESL
Project Number: 20029

Lab Number: L2045017
Report Date: 10/23/20

Parameter	LCS		LCSD		%Recovery Limits	RPD	RPD	
	%Recovery	Qual	%Recovery	Qual			Qual	Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 06 Batch: WG1425677-3 WG1425677-4								
p-Diethylbenzene	100		99		70-130	1		20
p-Ethyltoluene	100		100		70-130	0		20
1,2,4,5-Tetramethylbenzene	96		92		70-130	4		20
Ethyl ether	95		95		59-134	0		20
trans-1,4-Dichloro-2-butene	90		94		70-130	4		20

Surrogate	LCS		LCSD		Acceptance Criteria
	%Recovery	Qual	%Recovery	Qual	
1,2-Dichloroethane-d4	98		98		70-130
Toluene-d8	103		103		70-130
4-Bromofluorobenzene	103		101		70-130
Dibromofluoromethane	97		97		70-130

Project Name: FESL**Lab Number:** L2045017**Project Number:** 20029**Report Date:** 10/23/20**Sample Receipt and Container Information**

Were project specific reporting limits specified?

YES

Cooler Information

Cooler	Custody Seal
A	Absent

Container Information

Container ID	Container Type	Cooler	Initial pH	Final pH	Temp deg C	Pres	Seal	Frozen Date/Time	Analysis(*)
L2045017-01A	Vial HCl preserved	A	NA		3.2	Y	Absent		NYTCL-8260(14)
L2045017-01B	Vial HCl preserved	A	NA		3.2	Y	Absent		NYTCL-8260(14)
L2045017-02A	Vial HCl preserved	A	NA		3.2	Y	Absent		NYTCL-8260(14)
L2045017-02B	Vial HCl preserved	A	NA		3.2	Y	Absent		NYTCL-8260(14)
L2045017-03A	Vial HCl preserved	A	NA		3.2	Y	Absent		NYTCL-8260(14)
L2045017-03B	Vial HCl preserved	A	NA		3.2	Y	Absent		NYTCL-8260(14)
L2045017-04A	Vial HCl preserved	A	NA		3.2	Y	Absent		NYTCL-8260(14)
L2045017-04B	Vial HCl preserved	A	NA		3.2	Y	Absent		NYTCL-8260(14)
L2045017-05A	Vial HCl preserved	A	NA		3.2	Y	Absent		NYTCL-8260(14)
L2045017-05B	Vial HCl preserved	A	NA		3.2	Y	Absent		NYTCL-8260(14)
L2045017-06A	Vial HCl preserved	A	NA		3.2	Y	Absent		NYTCL-8260(14)
L2045017-06B	Vial HCl preserved	A	NA		3.2	Y	Absent		NYTCL-8260(14)
L2045017-07A	Vial HCl preserved	A	NA		3.2	Y	Absent		NYTCL-8260(14)
L2045017-07B	Vial HCl preserved	A	NA		3.2	Y	Absent		NYTCL-8260(14)
L2045017-08A	Vial HCl preserved	A	NA		3.2	Y	Absent		NYTCL-8260(14)
L2045017-08B	Vial HCl preserved	A	NA		3.2	Y	Absent		NYTCL-8260(14)
L2045017-09A	Vial HCl preserved	A	NA		3.2	Y	Absent		NYTCL-8260(14)
L2045017-09B	Vial HCl preserved	A	NA		3.2	Y	Absent		NYTCL-8260(14)
L2045017-10A	Vial HCl preserved	A	NA		3.2	Y	Absent		NYTCL-8260(14)
L2045017-10B	Vial HCl preserved	A	NA		3.2	Y	Absent		NYTCL-8260(14)
L2045017-11A	Vial HCl preserved	A	NA		3.2	Y	Absent		NYTCL-8260(14)
L2045017-11B	Vial HCl preserved	A	NA		3.2	Y	Absent		NYTCL-8260(14)
L2045017-12A	Vial HCl preserved	A	NA		3.2	Y	Absent		NYTCL-8260(14)

Project Name: FESL**Lab Number:** L2045017**Project Number:** 20029**Report Date:** 10/23/20**Container Information**

Container ID	Container Type	Cooler	Initial pH	Final pH	Temp deg C	Pres	Seal	Frozen Date/Time	Analysis(*)
L2045017-12B	Vial HCl preserved	A	NA		3.2	Y	Absent		NYTCL-8260(14)
L2045017-13A	Vial HCl preserved	A	NA		3.2	Y	Absent		NYTCL-8260(14)
L2045017-13B	Vial HCl preserved	A	NA		3.2	Y	Absent		NYTCL-8260(14)
L2045017-14A	Vial HCl preserved	A	NA		3.2	Y	Absent		NYTCL-8260(14)
L2045017-14B	Vial HCl preserved	A	NA		3.2	Y	Absent		NYTCL-8260(14)
L2045017-15A	Vial HCl preserved	A	NA		3.2	Y	Absent		NYTCL-8260(14)
L2045017-15B	Vial HCl preserved	A	NA		3.2	Y	Absent		NYTCL-8260(14)
L2045017-16A	Vial HCl preserved	A	NA		3.2	Y	Absent		NYTCL-8260(14)
L2045017-16B	Vial HCl preserved	A	NA		3.2	Y	Absent		NYTCL-8260(14)
L2045017-17A	Vial HCl preserved	A	NA		3.2	Y	Absent		NYTCL-8260(14)
L2045017-17B	Vial HCl preserved	A	NA		3.2	Y	Absent		NYTCL-8260(14)
L2045017-18A	Vial HCl preserved	A	NA		3.2	Y	Absent		NYTCL-8260(14)
L2045017-18B	Vial HCl preserved	A	NA		3.2	Y	Absent		NYTCL-8260(14)
L2045017-19A	Vial HCl preserved	A	NA		3.2	Y	Absent		NYTCL-8260(14)
L2045017-19B	Vial HCl preserved	A	NA		3.2	Y	Absent		NYTCL-8260(14)
L2045017-20A	Vial HCl preserved	A	NA		3.2	Y	Absent		NYTCL-8260(14)
L2045017-20B	Vial HCl preserved	A	NA		3.2	Y	Absent		NYTCL-8260(14)
L2045017-21A	Vial HCl preserved	A	NA		3.2	Y	Absent		NYTCL-8260(14)
L2045017-21B	Vial HCl preserved	A	NA		3.2	Y	Absent		NYTCL-8260(14)
L2045017-22A	Vial HCl preserved	A	NA		3.2	Y	Absent		NYTCL-8260(14)
L2045017-22B	Vial HCl preserved	A	NA		3.2	Y	Absent		NYTCL-8260(14)
L2045017-23A	Vial HCl preserved	A	NA		3.2	Y	Absent		NYTCL-8260(14)
L2045017-23B	Vial HCl preserved	A	NA		3.2	Y	Absent		NYTCL-8260(14)
L2045017-24A	Vial HCl preserved	A	NA		3.2	Y	Absent		NYTCL-8260(14)
L2045017-24B	Vial HCl preserved	A	NA		3.2	Y	Absent		NYTCL-8260(14)

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GLOSSARY

Acronyms

DL	- Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the limit of quantitation (LOQ). The DL includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)
EDL	- Estimated Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The EDL includes any adjustments from dilutions, concentrations or moisture content, where applicable. The use of EDLs is specific to the analysis of PAHs using Solid-Phase Microextraction (SPME).
EMPC	- Estimated Maximum Possible Concentration: The concentration that results from the signal present at the retention time of an analyte when the ions meet all of the identification criteria except the ion abundance ratio criteria. An EMPC is a worst-case estimate of the concentration.
EPA	- Environmental Protection Agency.
LCS	- Laboratory Control Sample: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.
LCSD	- Laboratory Control Sample Duplicate: Refer to LCS.
LFB	- Laboratory Fortified Blank: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.
LOD	- Limit of Detection: This value represents the level to which a target analyte can reliably be detected for a specific analyte in a specific matrix by a specific method. The LOD includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)
LOQ	- Limit of Quantitation: The value at which an instrument can accurately measure an analyte at a specific concentration. The LOQ includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.) Limit of Quantitation: The value at which an instrument can accurately measure an analyte at a specific concentration. The LOQ includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)
MDL	- Method Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The MDL includes any adjustments from dilutions, concentrations or moisture content, where applicable.
MS	- Matrix Spike Sample: A sample prepared by adding a known mass of target analyte to a specified amount of matrix sample for which an independent estimate of target analyte concentration is available. For Method 332.0, the spike recovery is calculated using the native concentration, including estimated values.
MSD	- Matrix Spike Sample Duplicate: Refer to MS.
NA	- Not Applicable.
NC	- Not Calculated: Term is utilized when one or more of the results utilized in the calculation are non-detect at the parameter's reporting unit.
NDPA/DPA	- N-Nitrosodiphenylamine/Diphenylamine.
NI	- Not Ignitable.
NP	- Non-Plastic: Term is utilized for the analysis of Atterberg Limits in soil.
NR	- No Results: Term is utilized when 'No Target Compounds Requested' is reported for the analysis of Volatile or Semivolatile Organic TIC only requests.
RL	- Reporting Limit: The value at which an instrument can accurately measure an analyte at a specific concentration. The RL includes any adjustments from dilutions, concentrations or moisture content, where applicable.
RPD	- Relative Percent Difference: The results from matrix and/or matrix spike duplicates are primarily designed to assess the precision of analytical results in a given matrix and are expressed as relative percent difference (RPD). Values which are less than five times the reporting limit for any individual parameter are evaluated by utilizing the absolute difference between the values; although the RPD value will be provided in the report.
SRM	- Standard Reference Material: A reference sample of a known or certified value that is of the same or similar matrix as the associated field samples.
STLP	- Semi-dynamic Tank Leaching Procedure per EPA Method 1315.
TEF	- Toxic Equivalency Factors: The values assigned to each dioxin and furan to evaluate their toxicity relative to 2,3,7,8-TCDD.
TEQ	- Toxic Equivalent: The measure of a sample's toxicity derived by multiplying each dioxin and furan by its corresponding TEF and then summing the resulting values.
TIC	- Tentatively Identified Compound: A compound that has been identified to be present and is not part of the target compound list (TCL) for the method and/or program. All TICs are qualitatively identified and reported as estimated concentrations.

Report Format: DU Report with 'J' Qualifiers



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Footnotes

- 1 - The reference for this analyte should be considered modified since this analyte is absent from the target analyte list of the original method.

Terms

Analytical Method: Both the document from which the method originates and the analytical reference method. (Example: EPA 8260B is shown as 1,8260B.) The codes for the reference method documents are provided in the References section of the Addendum.

Difference: With respect to Total Oxidizable Precursor (TOP) Assay analysis, the difference is defined as the Post-Treatment value minus the Pre-Treatment value.

Final pH: As it pertains to Sample Receipt & Container Information section of the report, Final pH reflects pH of container determined after adjustment at the laboratory, if applicable. If no adjustment required, value reflects Initial pH.

Frozen Date/Time: With respect to Volatile Organics in soil, Frozen Date/Time reflects the date/time at which associated Reagent Water-preserved vials were initially frozen. Note: If frozen date/time is beyond 48 hours from sample collection, value will be reflected in 'bold'.

Initial pH: As it pertains to Sample Receipt & Container Information section of the report, Initial pH reflects pH of container determined upon receipt, if applicable.

PAH Total: With respect to Alkylated PAH analyses, the 'PAHs, Total' result is defined as the summation of results for all or a subset of the following compounds: Naphthalene, C1-C4 Naphthalenes, 2-Methylnaphthalene, 1-Methylnaphthalene, Biphenyl, Acenaphthylene, Acenaphthene, Fluorene, C1-C3 Fluorenes, Phenanthrene, C1-C4 Phenanthrenes/Anthracenes, Anthracene, Fluoranthene, Pyrene, C1-C4 Fluoranthenes/Pyrenes, Benz(a)anthracene, Chrysene, C1-C4 Chrysenes, Benzo(b)fluoranthene, Benzo(j)+(k)fluoranthene, Benzo(e)pyrene, Benzo(a)pyrene, Perylene, Indeno(1,2,3-cd)pyrene, Dibenz(ah)+(ac)anthracene, Benzo(g,h,i)perylene. If a 'Total' result is requested, the results of its individual components will also be reported.

PFAS Total: With respect to PFAS analyses, the 'PFAS, Total (5)' result is defined as the summation of results for: PFHpA, PFHxS, PFOA, PFNA and PFOS. If a 'Total' result is requested, the results of its individual components will also be reported.

The target compound Chlordane (CAS No. 57-74-9) is reported for GC ECD analyses. Per EPA, this compound "refers to a mixture of chlordane isomers, other chlorinated hydrocarbons and numerous other components." (Reference: USEPA Toxicological Review of Chlordane, In Support of Summary Information on the Integrated Risk Information System (IRIS), December 1997.)

Total: With respect to Organic analyses, a 'Total' result is defined as the summation of results for individual isomers or Aroclors. If a 'Total' result is requested, the results of its individual components will also be reported. This is applicable to 'Total' results for methods 8260, 8081 and 8082.

Data Qualifiers

- A** - Spectra identified as "Aldol Condensates" are byproducts of the extraction/concentration procedures when acetone is introduced in the process.
- B** - The analyte was detected above the reporting limit in the associated method blank. Flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For MCP-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For DOD-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank AND the analyte was detected above one-half the reporting limit (or above the reporting limit for common lab contaminants) in the associated method blank. For NJ-Air-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte above the reporting limit. For NJ-related projects (excluding Air), flag only applies to associated field samples that have detectable concentrations of the analyte, which was detected above the reporting limit in the associated method blank or above five times the reporting limit for common lab contaminants (Phthalates, Acetone, Methylene Chloride, 2-Butanone).
- C** - Co-elution: The target analyte co-elutes with a known lab standard (i.e. surrogate, internal standards, etc.) for co-extracted analyses.
- D** - Concentration of analyte was quantified from diluted analysis. Flag only applies to field samples that have detectable concentrations of the analyte.
- E** - Concentration of analyte exceeds the range of the calibration curve and/or linear range of the instrument.
- F** - The ratio of quantifier ion response to qualifier ion response falls outside of the laboratory criteria. Results are considered to be an estimated maximum concentration.
- G** - The concentration may be biased high due to matrix interferences (i.e. co-elution) with non-target compound(s). The result should be considered estimated.
- H** - The analysis of pH was performed beyond the regulatory-required holding time of 15 minutes from the time of sample collection.
- I** - The lower value for the two columns has been reported due to obvious interference.
- J** - Estimated value. The Target analyte concentration is below the quantitation limit (RL), but above the Method Detection Limit (MDL) or Estimated Detection Limit (EDL) for SPME-related analyses. This represents an estimated concentration for Tentatively Identified Compounds (TICs).
- M** - Reporting Limit (RL) exceeds the MCP CAM Reporting Limit for this analyte.
- ND** - Not detected at the method detection limit (MDL) for the sample, or estimated detection limit (EDL) for SPME-related analyses.
- NJ** - Presumptive evidence of compound. This represents an estimated concentration for Tentatively Identified Compounds (TICs), where

Report Format: DU Report with 'J' Qualifiers



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Data Qualifiers

the identification is based on a mass spectral library search.

- P** - The RPD between the results for the two columns exceeds the method-specified criteria.
- Q** - The quality control sample exceeds the associated acceptance criteria. For DOD-related projects, LCS and/or Continuing Calibration Standard exceedences are also qualified on all associated sample results. Note: This flag is not applicable for matrix spike recoveries when the sample concentration is greater than 4x the spike added or for batch duplicate RPD when the sample concentrations are less than 5x the RL. (Metals only.)
- R** - Analytical results are from sample re-analysis.
- RE** - Analytical results are from sample re-extraction.
- S** - Analytical results are from modified screening analysis.

Project Name: FESL
Project Number: 20029

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Report Date: 10/23/20

REFERENCES

- 1 Test Methods for Evaluating Solid Waste: Physical/Chemical Methods. EPA SW-846. Third Edition. Updates I - VI, 2018.

LIMITATION OF LIABILITIES

Alpha Analytical performs services with reasonable care and diligence normal to the analytical testing laboratory industry. In the event of an error, the sole and exclusive responsibility of Alpha Analytical shall be to re-perform the work at it's own expense. In no event shall Alpha Analytical be held liable for any incidental, consequential or special damages, including but not limited to, damages in any way connected with the use of, interpretation of, information or analysis provided by Alpha Analytical.

We strongly urge our clients to comply with EPA protocol regarding sample volume, preservation, cooling, containers, sampling procedures, holding time and splitting of samples in the field.



Certification Information

The following analytes are not included in our Primary NELAP Scope of Accreditation:

Westborough Facility

EPA 624/624.1: m/p-xylene, o-xylene, Naphthalene

EPA 8260C: NPW: 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene, Azobenzene; SCM: Iodomethane (methyl iodide), 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene.

EPA 8270D: NPW: Dimethylnaphthalene, 1,4-Diphenylhydrazine; SCM: Dimethylnaphthalene, 1,4-Diphenylhydrazine.

SM4500: NPW: Amenable Cyanide; SCM: Total Phosphorus, TKN, NO₂, NO₃.

Mansfield Facility

SM 2540D: TSS

EPA 8082A: NPW: PCB: 1, 5, 31, 87, 101, 110, 141, 151, 153, 180, 183, 187.

EPA TO-15: Halothane, 2,4,4-Trimethyl-2-pentene, 2,4,4-Trimethyl-1-pentene, Thiophene, 2-Methylthiophene, 3-Methylthiophene, 2-Ethylthiophene, 1,2,3-Trimethylbenzene, Indan, Indene, 1,2,4,5-Tetramethylbenzene, Benzothiophene, 1-Methylnaphthalene.

EPA TO-12 Non-methane organics

EPA 3C Fixed gases

Biological Tissue Matrix: EPA 3050B

The following analytes are included in our Massachusetts DEP Scope of Accreditation

Westborough Facility:

Drinking Water

EPA 300.0: Chloride, Nitrate-N, Fluoride, Sulfate; **EPA 353.2:** Nitrate-N, Nitrite-N; **SM4500NO3-F:** Nitrate-N, Nitrite-N; **SM4500F-C, SM4500CN-CE,**

EPA 180.1, SM2130B, SM4500CI-D, SM2320B, SM2540C, SM4500H-B, SM4500NO2-B

EPA 332: Perchlorate; **EPA 524.2:** THMs and VOCs; **EPA 504.1:** EDB, DBCP.

Microbiology: SM9215B; SM9223-P/A, SM9223B-Colilert-QT, SM9222D.

Non-Potable Water

SM4500H,B, EPA 120.1, SM2510B, SM2540C, SM2320B, SM4500CL-E, SM4500F-BC, SM4500NH3-BH: Ammonia-N and Kjeldahl-N, **EPA 350.1:** Ammonia-N, **LACHAT 10-107-06-1-B:** Ammonia-N, **EPA 351.1, SM4500NO3-F, EPA 353.2:** Nitrate-N, **SM4500P-E, SM4500P-B, E, SM4500SO4-E, SM5220D, EPA 410.4, SM5210B, SM5310C, SM4500CL-D, EPA 1664, EPA 420.1, SM4500-CN-CE, SM2540D, EPA 300:** Chloride, Sulfate, Nitrate.

EPA 624.1: Volatile Halocarbons & Aromatics,

EPA 608.3: Chlordane, Toxaphene, Aldrin, alpha-BHC, beta-BHC, gamma-BHC, delta-BHC, Dieldrin, DDD, DDE, DDT, Endosulfan I, Endosulfan II, Endosulfan sulfate, Endrin, Endrin Aldehyde, Heptachlor, Heptachlor Epoxide, PCBs

EPA 625.1: SVOC (Acid/Base/Neutral Extractables), **EPA 600/4-81-045:** PCB-Oil.

Microbiology: SM9223B-Colilert-QT; Enterolert-QT, SM9221E, EPA 1600, EPA 1603.

Mansfield Facility:

Drinking Water

EPA 200.7: Al, Ba, Cd, Cr, Cu, Fe, Mn, Ni, Na, Ag, Ca, Zn. **EPA 200.8:** Al, Sb, As, Ba, Be, Cd, Cr, Cu, Pb, Mn, Ni, Se, Ag, TL, Zn. **EPA 245.1** Hg.

EPA 522.

Non-Potable Water


EPA 200.7: Al, Sb, As, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Mg, Mn, Mo, Ni, K, Se, Ag, Na, Sr, TL, Ti, V, Zn.

EPA 200.8: Al, Sb, As, Be, Cd, Cr, Cu, Fe, Pb, Mn, Ni, K, Se, Ag, Na, TL, Zn.

EPA 245.1 Hg.


SM2340B


For a complete listing of analytes and methods, please contact your Alpha Project Manager.

 NEW JERSEY CHAIN OF CUSTODY	Service Centers Mahwah, NJ 07430: 35 Whitney Rd, Suite 5 Albany, NY 12205: 14 Walker Way Tonawanda, NY 14150: 275 Cooper Ave, Suite 105	Page 1 of 3	Date Rec'd in Lab <i>10/19/20</i>	ALPHA Job # <i>62045017</i>	
	Westborough, MA 01581 8 Walkup Dr. TEL: 508-898-9220 FAX: 508-898-9193	Mansfield, MA 02048 320 Forbes Blvd TEL: 508-822-9300 FAX: 508-822-3288	Project Information Project Name: FESL Project Location: Rochester, NY Project #: 20029 (Use Project name as Project #) <input type="checkbox"/>		Deliverables <input type="checkbox"/> NJ Full / Reduced <input type="checkbox"/> EQulS (1 File) <input type="checkbox"/> EQulS (4 File) <input type="checkbox"/> Other
	Client Information Client: XDD Address: 22 Marin Way, Unit 3 Stratham, NH 03833 Phone: 603-778-1100 Fax: Email: lcrawford@xdd-llc.com		Regulatory Requirement <input type="checkbox"/> SRS Residential/Non Residential <input type="checkbox"/> SRS Impact to Groundwater <input type="checkbox"/> NJ Ground Water Quality Standards <input type="checkbox"/> NJ IGW SPLP Leachate Criteria <input checked="" type="checkbox"/> Other NYSDOH ELAP		Billing Information <input checked="" type="checkbox"/> Same as Client Info PO# 4697
Turn-Around Time Standard <input checked="" type="checkbox"/> Due Date: Rush (only if pre approved) <input type="checkbox"/> # of Days:		Site Information Is this site impacted by Petroleum? Yes <input type="checkbox"/> Petroleum Product:		ANALYSIS	
These samples have been previously analyzed by Alpha <input type="checkbox"/>		Other project specific requirements/comments: invoices go to ap@xdd-llc.com * please include Freon-113 <i>Standard TAT for these samples</i>		Sample Filtration <input type="checkbox"/> Done <input type="checkbox"/> Lab to do Preservation <input type="checkbox"/> Lab to do (Please Specify below)	
For EPH, selection is REQUIRED: <input type="checkbox"/> Category 1 <input type="checkbox"/> Category 2	For VOC, selection is REQUIRED: <input type="checkbox"/> 1,4-Dioxane <input type="checkbox"/> 8011	ALPHA Lab ID (Lab Use Only) Sample ID Collection Date Time Sample Matrix Sampler's Initials		Sample Specific Comments	
Preservative Code: A = None B = HCl C = HNO ₃ D = H ₂ SO ₄ E = NaOH F = MeOH G = NaHSO ₄ H = Na ₂ S ₂ O ₃ K/E = Zn Ac/NaOH O = Other		Container Code: P = Plastic A = Amber Glass V = Vial G = Glass B = Bacteria Cup C = Cube O = Other E = Encore D = BOD Bottle		Westboro: Certification No: MA935 Mansfield: Certification No: MA015	
Relinquished By: <i>HERRI BURKE</i> <i>TGCGT AAC</i>		Date/Time: <i>10/19/20 2:15</i> <i>10/19/20 1850</i>	Received By: <i>TGCGT AAC</i> <i>Will M ✓</i>	Date/Time: <i>10/19/20 1415</i> <i>10/19/20 1850</i>	
Form No: 01-14 (rev. 30-Sept-2013)					

total Bottles

Please print clearly, legibly and completely. Samples can not be logged in and turnaround time clock will not start until any ambiguities are resolved. BY EXECUTING THIS COC, THE CLIENT HAS READ AND AGREES TO BE BOUND BY ALPHA'S [TERMS & CONDITIONS.](#)

 ALPHA ANALYTICAL <small>Westborough, MA 01581 8 Walkup Dr. TEL: 508-898-9220 FAX: 508-898-9193</small>	NEW JERSEY CHAIN OF CUSTODY <small>Mansfield, MA 02048 320 Forbes Blvd TEL: 508-822-9300 FAX: 508-822-3288</small>	Service Centers Mahwah, NJ 07430: 35 Whitney Rd, Suite 5 Albany, NY 12205: 14 Walker Way Tonawanda, NY 14150: 275 Cooper Ave, Suite 105	Page <u>2</u>	Date Rec'd in Lab <u>10/19/20</u>	ALPHA Job # <u>L2045017</u>		
			of 3				
Client Information		Project Information		Deliverables		Billing Information	
Client: XDD		Project Name: FESL		<input type="checkbox"/> NJ Full / Reduced <input type="checkbox"/> EQulS (1 File) <input type="checkbox"/> EQulS (4 File) <input type="checkbox"/> Other		<input checked="" type="checkbox"/> Same as Client Info PO # 4697	
Address: 22 Marin Way, Unit 3 Stratham, NH 03833		Project Location: Rochester, NY		Regulatory Requirement <input type="checkbox"/> SRS Residential/Non Residential <input type="checkbox"/> SRS Impact to Groundwater <input type="checkbox"/> NJ Ground Water Quality Standards <input type="checkbox"/> NJ IGW SPLP Leachate Criteria <input checked="" type="checkbox"/> Other <u>NYSDOH ELAP</u>		Site Information Is this site impacted by Petroleum? Yes <input type="checkbox"/> Petroleum Product:	
Phone: 603-778-1100		Project # 20029 (Use Project name as Project #) <input type="checkbox"/>					
Fax:		Turn-Around Time		ANALYSIS VOCs *		Sample Filtration <input type="checkbox"/> Done <input type="checkbox"/> Lab to do Preservation <input type="checkbox"/> Lab to do (Please Specify below)	
Email: lcrawford@xdd-llc.com		Standard <input type="checkbox"/> Due Date: Rush (only if pre approved) <input checked="" type="checkbox"/> # of Days: <u>1 Day</u>					
These samples have been previously analyzed by Alpha <input type="checkbox"/> For EPH, selection is REQUIRED: <input type="checkbox"/> Category 1 <input type="checkbox"/> Category 2		For VOC, selection is REQUIRED: <input type="checkbox"/> 1,4-Dioxane <input type="checkbox"/> 8011		Other project specific requirements/comments: invoices go to ap@xdd-llc.com * please include Freon-113 <u>1-Day TAT for those</u>		Sample Specific Comments	
ALPHA Lab ID (Lab Use Only)		Sample ID		Collection			
				Date Time			
<u>45017-09</u>		Flow Lo D4		10/18/2020 13:00		GW LC x	
<u>-10</u>		Flow Hi D4		10/18/2020 13:05		GW LC x	
<u>-11</u>		Target Lo D4		10/18/2020 13:10		GW LC x	
<u>-12</u>		Target Hi D4		10/18/2020 13:15		GW LC x	
<u>-13</u>		eZVI Lo D4		10/18/2020 13:20		GW LC x	
<u>-14</u>		eZVI Hi D4		10/18/2020 13:25		GW LC x	
<u>-15</u>		ctrl D4		10/18/2020 13:30		GW LC x	
<u>-16</u>		ctrl D4 dup		10/18/2020 13:35		GW LC x	
Preservative Code: A = None B = HCl C = HNO ₃ D = H ₂ SO ₄ E = NaOH F = MeOH G = NaHSO ₄ H = Na ₂ S ₂ O ₃ K/E = Zn Ac/NaOH O = Other		Container Code: P = Plastic A = Amber Glass V = Vial G = Glass B = Bacteria Cup C = Cube O = Other E = Encore D = BOD Bottle		Westboro: Certification No: MA935 Mansfield: Certification No: MA015		Container Type: G Preservative: B	
Relinquished By: <u>KERRI BURKE</u> <u>TGAG & AAG</u>		Date/Time: <u>10/19/20 2:15</u> <u>10/19/20 1:30</u>		Received By: <u>TGAG & AAG</u> <u>Allen</u>		Date/Time: <u>10-19-20 1415</u> <u>10/19/20 1850</u>	
Please print clearly, legibly and completely. Samples can not be logged in and turnaround time clock will not start until any ambiguities are resolved. BY EXECUTING THIS COC, THE CLIENT HAS READ AND AGREES TO BE BOUND BY ALPHA'S TERMS & CONDITIONS.							
Form No: 01-14 (rev. 30-Sept-2013)							

 NEW JERSEY CHAIN OF CUSTODY	Service Centers Mahwah, NJ 07430: 35 Whitney Rd, Suite 5 Albany, NY 12205: 14 Walker Way Tonawanda, NY 14150: 275 Cooper Ave, Suite 105	Page 3 of 3	Date Rec'd in Lab 10/19/20	ALPHA Job # L2045017						
	Westborough, MA 01581 8 Walkup Dr. TEL: 508-898-9220 FAX: 508-898-9193	Mansfield, MA 02048 320 Forbes Blvd TEL: 508-822-9300 FAX: 508-822-3288	Project Information		Deliverables	Billing Information				
Client Information Client: XDD Address: 22 Marin Way, Unit 3 Stratham, NH 03833 Phone: 603-778-1100 Fax: Email: lcrawford@xdd-llc.com		Project Name: FESL Project Location: Rochester, NY Project #: 20029 (Use Project name as Project #) <input type="checkbox"/>		<input type="checkbox"/> NJ Full / Reduced <input type="checkbox"/> EQuIS (1 File) <input type="checkbox"/> EQuIS (4 File) <input type="checkbox"/> Other	<input checked="" type="checkbox"/> Same as Client Info PO# 4697					
Project Manager: Ashaley Kane ALPHAQuote #: 12786		Regulatory Requirement <input type="checkbox"/> SRS Residential/Non Residential <input type="checkbox"/> SRS Impact to Groundwater <input type="checkbox"/> NJ Ground Water Quality Standards <input type="checkbox"/> NJ IGW SPLP Leachate Criteria <input checked="" type="checkbox"/> Other NYSDOH ELAP		Site Information Is this site impacted by Petroleum? Yes <input type="checkbox"/> Petroleum Product:						
Turn-Around Time Standard <input type="checkbox"/> Due Date: Rush (only if pre approved) <input checked="" type="checkbox"/> # of Days: 1 Day		These samples have been previously analyzed by Alpha <input type="checkbox"/>		ANALYSIS						
For EPH, selection is REQUIRED: <input type="checkbox"/> Category 1 <input type="checkbox"/> Category 2	For VOC, selection is REQUIRED: <input type="checkbox"/> 1,4-Dioxane <input type="checkbox"/> 8011	Other project specific requirements/comments: invoices go to ap@xdd-llc.com * please include Freon-113 <i>1-Day TAT for these</i>		Sample Filtration <input type="checkbox"/> Done <input type="checkbox"/> Lab to do Preservation <input type="checkbox"/> Lab to do (Please Specify below)						
ALPHA Lab ID (Lab Use Only)	Sample ID	Collection		Sample Matrix	Sampler's Initials	VOCs*		Sample Specific Comments	Total Bottles	
		Date	Time							
45017-17	Flow Lo D5	10/19/2020	13:40	GW	LC	x				2
-18	Flow Hi D5	10/19/2020	13:45	GW	LC	x				2
-19	Target Lo D5	10/19/2020	13:50	GW	LC	x				2
-20	Target Hi D5	10/19/2020	13:55	GW	LC	x				2
-21	eZVI Lo D5	10/19/2020	14:00	GW	LC	x				2
-22	eZVI Hi D5	10/19/2020	14:05	GW	LC	x				2
-23	ctrl D5	10/19/2020	14:10	GW	LC	x				2
-24	ctrl D5 dup	10/19/2020	14:15	GW	LC	x				2
Preservative Code: A = None B = HCl C = HNO ₃ D = H ₂ SO ₄ E = NaOH F = MeOH G = NaHSO ₄ H = Na ₂ S ₂ O ₃ K/E = Zn Ac/NaOH O = Other		Container Code: P = Plastic A = Amber Glass V = Vial G = Glass B = Bacteria Cup C = Cube O = Other E = Encore D = BOD Bottle		Westboro: Certification No: MA935 Mansfield: Certification No: MA015		Container Type G		Preservative B		Please print clearly, legibly and completely. Samples can not be logged in and turnaround time clock will not start until any ambiguities are resolved. BY EXECUTING THIS COC, THE CLIENT HAS READ AND AGREES TO BE BOUND BY ALPHA'S TERMS & CONDITIONS.
Relinquished By:		Date/Time		Received By:		Date/Time				
KERRI BURKE TGA MS		10/19/20 2:15 10/19/20 1850		TGA AAC Wren		10-19-20 1415 10/19/20 1852				
Form No: 01-14 (rev. 30-Sept-2013)										



ANALYTICAL REPORT

Lab Number:	L2045902
Client:	XDD Environmental Mary Scudieri 22 Marin Way Unit 3 Stratham, NH 03885
ATTN:	Laurel Crawford
Phone:	(603) 778-1100
Project Name:	FESL
Project Number:	20029
Report Date:	10/23/20

The original project report/data package is held by Alpha Analytical. This report/data package is paginated and should be reproduced only in its entirety. Alpha Analytical holds no responsibility for results and/or data that are not consistent with the original.

Certifications & Approvals: MA (M-MA086), NH NELAP (2064), CT (PH-0574), IL (200077), ME (MA00086), MD (348), NJ (MA935), NY (11148), NC (25700/666), PA (68-03671), RI (LAO00065), TX (T104704476), VT (VT-0935), VA (460195), USDA (Permit #P330-17-00196).

Eight Walkup Drive, Westborough, MA 01581-1019
508-898-9220 (Fax) 508-898-9193 800-624-9220 - www.alphalab.com



Project Name: FESL
Project Number: 20029

Lab Number: L2045902
Report Date: 10/23/20

Alpha Sample ID	Client ID	Matrix	Sample Location	Collection Date/Time	Receive Date
L2045902-01	FLOW LO D8	WATER	ROCHESTER, NY	10/22/20 11:25	10/22/20
L2045902-02	FLOW HI D8	WATER	ROCHESTER, NY	10/22/20 11:30	10/22/20
L2045902-03	TARGET LO D8	WATER	ROCHESTER, NY	10/22/20 11:35	10/22/20
L2045902-04	TARGET HI D8	WATER	ROCHESTER, NY	10/22/20 11:40	10/22/20
L2045902-05	EZVI LO D8	WATER	ROCHESTER, NY	10/22/20 11:45	10/22/20
L2045902-06	EZVI HI D8	WATER	ROCHESTER, NY	10/22/20 11:50	10/22/20
L2045902-07	CTRL D8	WATER	ROCHESTER, NY	10/22/20 11:55	10/22/20
L2045902-08	CTRL D8 DUP	WATER	ROCHESTER, NY	10/22/20 12:00	10/22/20

Project Name: FESL
Project Number: 20029

Lab Number: L2045902
Report Date: 10/23/20

Case Narrative

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

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

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

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

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

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

Project Name: FESL
Project Number: 20029

Lab Number: L2045902
Report Date: 10/23/20

Case Narrative (continued)

Report Submission

All non-detect (ND) or estimated concentrations (J-qualified) have been quantitated to the limit noted in the MDL column.

Volatile Organics

L2045902-05 and -06: The pH of the sample was greater than two; however, the sample was analyzed within the method required holding time.

L2045902-05 and -06: The sample has elevated detection limits due to the dilution required by the sample matrix (white, cloudy).

L2045902-06: The surrogate recovery is outside the method acceptance criteria for 4-bromofluorobenzene (136%) due to interference with the Internal Standard.

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

Authorized Signature:  Melissa Sturgis

Title: Technical Director/Representative

Date: 10/23/20

ORGANICS

VOLATILES

Project Name: FESL
Project Number: 20029

Lab Number: L2045902
Report Date: 10/23/20

SAMPLE RESULTS

Lab ID: L2045902-01 D
 Client ID: FLOW LO D8
 Sample Location: ROCHESTER, NY

Date Collected: 10/22/20 11:25
 Date Received: 10/22/20
 Field Prep: Not Specified

Sample Depth:

Matrix: Water
 Analytical Method: 1,8260C
 Analytical Date: 10/23/20 09:00
 Analyst: PD

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methylene chloride	ND		ug/l	10	2.8	4
1,1-Dichloroethane	570		ug/l	10	2.8	4
Chloroform	ND		ug/l	10	2.8	4
Carbon tetrachloride	ND		ug/l	2.0	0.54	4
1,2-Dichloropropane	ND		ug/l	4.0	0.55	4
Dibromochloromethane	ND		ug/l	2.0	0.60	4
1,1,2-Trichloroethane	ND		ug/l	6.0	2.0	4
Tetrachloroethene	90		ug/l	2.0	0.72	4
Chlorobenzene	ND		ug/l	10	2.8	4
Trichlorofluoromethane	ND		ug/l	10	2.8	4
1,2-Dichloroethane	ND		ug/l	2.0	0.53	4
1,1,1-Trichloroethane	100		ug/l	10	2.8	4
Bromodichloromethane	ND		ug/l	2.0	0.77	4
trans-1,3-Dichloropropene	ND		ug/l	2.0	0.66	4
cis-1,3-Dichloropropene	ND		ug/l	2.0	0.58	4
1,3-Dichloropropene, Total	ND		ug/l	2.0	0.58	4
1,1-Dichloropropene	ND		ug/l	10	2.8	4
Bromoform	ND		ug/l	8.0	2.6	4
1,1,1,2-Tetrachloroethane	ND		ug/l	2.0	0.67	4
Benzene	5.2		ug/l	2.0	0.64	4
Toluene	17		ug/l	10	2.8	4
Ethylbenzene	ND		ug/l	10	2.8	4
Chloromethane	ND		ug/l	10	2.8	4
Bromomethane	ND		ug/l	10	2.8	4
Vinyl chloride	320		ug/l	4.0	0.28	4
Chloroethane	170		ug/l	10	2.8	4
1,1-Dichloroethene	6.4		ug/l	2.0	0.68	4
trans-1,2-Dichloroethene	5.5	J	ug/l	10	2.8	4

Project Name: FESL
Project Number: 20029

Lab Number: L2045902
Report Date: 10/23/20

SAMPLE RESULTS

Lab ID: L2045902-01 D
 Client ID: FLOW LO D8
 Sample Location: ROCHESTER, NY

Date Collected: 10/22/20 11:25
 Date Received: 10/22/20
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Trichloroethene	11		ug/l	2.0	0.70	4
1,2-Dichlorobenzene	ND		ug/l	10	2.8	4
1,3-Dichlorobenzene	ND		ug/l	10	2.8	4
1,4-Dichlorobenzene	ND		ug/l	10	2.8	4
Methyl tert butyl ether	ND		ug/l	10	2.8	4
p/m-Xylene	ND		ug/l	10	2.8	4
o-Xylene	4.4	J	ug/l	10	2.8	4
Xylenes, Total	4.4	J	ug/l	10	2.8	4
cis-1,2-Dichloroethene	550		ug/l	10	2.8	4
1,2-Dichloroethene, Total	560	J	ug/l	10	2.8	4
Dibromomethane	ND		ug/l	20	4.0	4
1,2,3-Trichloropropane	ND		ug/l	10	2.8	4
Acrylonitrile	ND		ug/l	20	6.0	4
Styrene	ND		ug/l	10	2.8	4
Dichlorodifluoromethane	ND		ug/l	20	4.0	4
Acetone	16	J	ug/l	20	5.8	4
Carbon disulfide	ND		ug/l	20	4.0	4
2-Butanone	10	J	ug/l	20	7.8	4
Vinyl acetate	ND		ug/l	20	4.0	4
4-Methyl-2-pentanone	ND		ug/l	20	4.0	4
2-Hexanone	ND		ug/l	20	4.0	4
Bromochloromethane	ND		ug/l	10	2.8	4
2,2-Dichloropropane	ND		ug/l	10	2.8	4
1,2-Dibromoethane	ND		ug/l	8.0	2.6	4
1,3-Dichloropropane	ND		ug/l	10	2.8	4
1,1,1,2-Tetrachloroethane	ND		ug/l	10	2.8	4
Bromobenzene	ND		ug/l	10	2.8	4
n-Butylbenzene	ND		ug/l	10	2.8	4
sec-Butylbenzene	ND		ug/l	10	2.8	4
tert-Butylbenzene	ND		ug/l	10	2.8	4
o-Chlorotoluene	ND		ug/l	10	2.8	4
p-Chlorotoluene	ND		ug/l	10	2.8	4
1,2-Dibromo-3-chloropropane	ND		ug/l	10	2.8	4
Hexachlorobutadiene	ND		ug/l	10	2.8	4
Isopropylbenzene	ND		ug/l	10	2.8	4
p-Isopropyltoluene	ND		ug/l	10	2.8	4
Naphthalene	ND		ug/l	10	2.8	4

Project Name: FESL
Project Number: 20029

Lab Number: L2045902
Report Date: 10/23/20

SAMPLE RESULTS

Lab ID: L2045902-01 D
 Client ID: FLOW LO D8
 Sample Location: ROCHESTER, NY

Date Collected: 10/22/20 11:25
 Date Received: 10/22/20
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
n-Propylbenzene	ND		ug/l	10	2.8	4
1,2,3-Trichlorobenzene	ND		ug/l	10	2.8	4
1,2,4-Trichlorobenzene	ND		ug/l	10	2.8	4
1,3,5-Trimethylbenzene	ND		ug/l	10	2.8	4
1,2,4-Trimethylbenzene	ND		ug/l	10	2.8	4
1,4-Dioxane	ND		ug/l	1000	240	4
Freon-113	84		ug/l	10	2.8	4
p-Diethylbenzene	ND		ug/l	8.0	2.8	4
p-Ethyltoluene	ND		ug/l	8.0	2.8	4
1,2,4,5-Tetramethylbenzene	ND		ug/l	8.0	2.2	4
Ethyl ether	9.7	J	ug/l	10	2.8	4
trans-1,4-Dichloro-2-butene	ND		ug/l	10	2.8	4

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	101		70-130
Toluene-d8	100		70-130
4-Bromofluorobenzene	101		70-130
Dibromofluoromethane	104		70-130

Project Name: FESL
Project Number: 20029

Lab Number: L2045902
Report Date: 10/23/20

SAMPLE RESULTS

Lab ID: L2045902-02 D
 Client ID: FLOW HI D8
 Sample Location: ROCHESTER, NY

Date Collected: 10/22/20 11:30
 Date Received: 10/22/20
 Field Prep: Not Specified

Sample Depth:

Matrix: Water
 Analytical Method: 1,8260C
 Analytical Date: 10/23/20 09:22
 Analyst: PD

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methylene chloride	ND		ug/l	12	3.5	5
1,1-Dichloroethane	550		ug/l	12	3.5	5
Chloroform	ND		ug/l	12	3.5	5
Carbon tetrachloride	ND		ug/l	2.5	0.67	5
1,2-Dichloropropane	ND		ug/l	5.0	0.68	5
Dibromochloromethane	ND		ug/l	2.5	0.74	5
1,1,2-Trichloroethane	ND		ug/l	7.5	2.5	5
Tetrachloroethene	55		ug/l	2.5	0.90	5
Chlorobenzene	ND		ug/l	12	3.5	5
Trichlorofluoromethane	ND		ug/l	12	3.5	5
1,2-Dichloroethane	ND		ug/l	2.5	0.66	5
1,1,1-Trichloroethane	26		ug/l	12	3.5	5
Bromodichloromethane	ND		ug/l	2.5	0.96	5
trans-1,3-Dichloropropene	ND		ug/l	2.5	0.82	5
cis-1,3-Dichloropropene	ND		ug/l	2.5	0.72	5
1,3-Dichloropropene, Total	ND		ug/l	2.5	0.72	5
1,1-Dichloropropene	ND		ug/l	12	3.5	5
Bromoform	ND		ug/l	10	3.2	5
1,1,1,2-Tetrachloroethane	ND		ug/l	2.5	0.84	5
Benzene	4.8		ug/l	2.5	0.80	5
Toluene	14		ug/l	12	3.5	5
Ethylbenzene	ND		ug/l	12	3.5	5
Chloromethane	ND		ug/l	12	3.5	5
Bromomethane	ND		ug/l	12	3.5	5
Vinyl chloride	230		ug/l	5.0	0.36	5
Chloroethane	150		ug/l	12	3.5	5
1,1-Dichloroethene	2.2	J	ug/l	2.5	0.84	5
trans-1,2-Dichloroethene	ND		ug/l	12	3.5	5

Project Name: FESL
Project Number: 20029

Lab Number: L2045902
Report Date: 10/23/20

SAMPLE RESULTS

Lab ID: L2045902-02 D
 Client ID: FLOW HI D8
 Sample Location: ROCHESTER, NY

Date Collected: 10/22/20 11:30
 Date Received: 10/22/20
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Trichloroethene	5.3		ug/l	2.5	0.88	5
1,2-Dichlorobenzene	ND		ug/l	12	3.5	5
1,3-Dichlorobenzene	ND		ug/l	12	3.5	5
1,4-Dichlorobenzene	ND		ug/l	12	3.5	5
Methyl tert butyl ether	ND		ug/l	12	3.5	5
p/m-Xylene	ND		ug/l	12	3.5	5
o-Xylene	ND		ug/l	12	3.5	5
Xylenes, Total	ND		ug/l	12	3.5	5
cis-1,2-Dichloroethene	380		ug/l	12	3.5	5
1,2-Dichloroethene, Total	380		ug/l	12	3.5	5
Dibromomethane	ND		ug/l	25	5.0	5
1,2,3-Trichloropropane	ND		ug/l	12	3.5	5
Acrylonitrile	ND		ug/l	25	7.5	5
Styrene	ND		ug/l	12	3.5	5
Dichlorodifluoromethane	ND		ug/l	25	5.0	5
Acetone	23	J	ug/l	25	7.3	5
Carbon disulfide	ND		ug/l	25	5.0	5
2-Butanone	13	J	ug/l	25	9.7	5
Vinyl acetate	ND		ug/l	25	5.0	5
4-Methyl-2-pentanone	ND		ug/l	25	5.0	5
2-Hexanone	ND		ug/l	25	5.0	5
Bromochloromethane	ND		ug/l	12	3.5	5
2,2-Dichloropropane	ND		ug/l	12	3.5	5
1,2-Dibromoethane	ND		ug/l	10	3.2	5
1,3-Dichloropropane	ND		ug/l	12	3.5	5
1,1,1,2-Tetrachloroethane	ND		ug/l	12	3.5	5
Bromobenzene	ND		ug/l	12	3.5	5
n-Butylbenzene	ND		ug/l	12	3.5	5
sec-Butylbenzene	ND		ug/l	12	3.5	5
tert-Butylbenzene	ND		ug/l	12	3.5	5
o-Chlorotoluene	ND		ug/l	12	3.5	5
p-Chlorotoluene	ND		ug/l	12	3.5	5
1,2-Dibromo-3-chloropropane	ND		ug/l	12	3.5	5
Hexachlorobutadiene	ND		ug/l	12	3.5	5
Isopropylbenzene	ND		ug/l	12	3.5	5
p-Isopropyltoluene	ND		ug/l	12	3.5	5
Naphthalene	ND		ug/l	12	3.5	5

Project Name: FESL
Project Number: 20029

Lab Number: L2045902
Report Date: 10/23/20

SAMPLE RESULTS

Lab ID: L2045902-02 D
 Client ID: FLOW HI D8
 Sample Location: ROCHESTER, NY

Date Collected: 10/22/20 11:30
 Date Received: 10/22/20
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
n-Propylbenzene	ND		ug/l	12	3.5	5
1,2,3-Trichlorobenzene	ND		ug/l	12	3.5	5
1,2,4-Trichlorobenzene	ND		ug/l	12	3.5	5
1,3,5-Trimethylbenzene	ND		ug/l	12	3.5	5
1,2,4-Trimethylbenzene	ND		ug/l	12	3.5	5
1,4-Dioxane	ND		ug/l	1200	300	5
Freon-113	59		ug/l	12	3.5	5
p-Diethylbenzene	ND		ug/l	10	3.5	5
p-Ethyltoluene	ND		ug/l	10	3.5	5
1,2,4,5-Tetramethylbenzene	ND		ug/l	10	2.7	5
Ethyl ether	9.0	J	ug/l	12	3.5	5
trans-1,4-Dichloro-2-butene	ND		ug/l	12	3.5	5

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	104		70-130
Toluene-d8	99		70-130
4-Bromofluorobenzene	101		70-130
Dibromofluoromethane	101		70-130

Project Name: FESL
Project Number: 20029

Lab Number: L2045902
Report Date: 10/23/20

SAMPLE RESULTS

Lab ID: L2045902-03 D
 Client ID: TARGET LO D8
 Sample Location: ROCHESTER, NY

Date Collected: 10/22/20 11:35
 Date Received: 10/22/20
 Field Prep: Not Specified

Sample Depth:

Matrix: Water
 Analytical Method: 1,8260C
 Analytical Date: 10/23/20 09:43
 Analyst: PD

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methylene chloride	ND		ug/l	10	2.8	4
1,1-Dichloroethane	540		ug/l	10	2.8	4
Chloroform	ND		ug/l	10	2.8	4
Carbon tetrachloride	ND		ug/l	2.0	0.54	4
1,2-Dichloropropane	ND		ug/l	4.0	0.55	4
Dibromochloromethane	ND		ug/l	2.0	0.60	4
1,1,2-Trichloroethane	ND		ug/l	6.0	2.0	4
Tetrachloroethene	75		ug/l	2.0	0.72	4
Chlorobenzene	ND		ug/l	10	2.8	4
Trichlorofluoromethane	ND		ug/l	10	2.8	4
1,2-Dichloroethane	ND		ug/l	2.0	0.53	4
1,1,1-Trichloroethane	12		ug/l	10	2.8	4
Bromodichloromethane	ND		ug/l	2.0	0.77	4
trans-1,3-Dichloropropene	ND		ug/l	2.0	0.66	4
cis-1,3-Dichloropropene	ND		ug/l	2.0	0.58	4
1,3-Dichloropropene, Total	ND		ug/l	2.0	0.58	4
1,1-Dichloropropene	ND		ug/l	10	2.8	4
Bromoform	ND		ug/l	8.0	2.6	4
1,1,1,2-Tetrachloroethane	ND		ug/l	2.0	0.67	4
Benzene	5.7		ug/l	2.0	0.64	4
Toluene	18		ug/l	10	2.8	4
Ethylbenzene	ND		ug/l	10	2.8	4
Chloromethane	ND		ug/l	10	2.8	4
Bromomethane	ND		ug/l	10	2.8	4
Vinyl chloride	260		ug/l	4.0	0.28	4
Chloroethane	150		ug/l	10	2.8	4
1,1-Dichloroethene	3.5		ug/l	2.0	0.68	4
trans-1,2-Dichloroethene	3.3	J	ug/l	10	2.8	4

Project Name: FESL
Project Number: 20029

Lab Number: L2045902
Report Date: 10/23/20

SAMPLE RESULTS

Lab ID: L2045902-03 D
 Client ID: TARGET LO D8
 Sample Location: ROCHESTER, NY

Date Collected: 10/22/20 11:35
 Date Received: 10/22/20
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Trichloroethene	6.3		ug/l	2.0	0.70	4
1,2-Dichlorobenzene	ND		ug/l	10	2.8	4
1,3-Dichlorobenzene	ND		ug/l	10	2.8	4
1,4-Dichlorobenzene	ND		ug/l	10	2.8	4
Methyl tert butyl ether	ND		ug/l	10	2.8	4
p/m-Xylene	ND		ug/l	10	2.8	4
o-Xylene	4.3	J	ug/l	10	2.8	4
Xylenes, Total	4.3	J	ug/l	10	2.8	4
cis-1,2-Dichloroethene	490		ug/l	10	2.8	4
1,2-Dichloroethene, Total	490	J	ug/l	10	2.8	4
Dibromomethane	ND		ug/l	20	4.0	4
1,2,3-Trichloropropane	ND		ug/l	10	2.8	4
Acrylonitrile	ND		ug/l	20	6.0	4
Styrene	ND		ug/l	10	2.8	4
Dichlorodifluoromethane	5.3	J	ug/l	20	4.0	4
Acetone	22		ug/l	20	5.8	4
Carbon disulfide	ND		ug/l	20	4.0	4
2-Butanone	14	J	ug/l	20	7.8	4
Vinyl acetate	ND		ug/l	20	4.0	4
4-Methyl-2-pentanone	ND		ug/l	20	4.0	4
2-Hexanone	ND		ug/l	20	4.0	4
Bromochloromethane	ND		ug/l	10	2.8	4
2,2-Dichloropropane	ND		ug/l	10	2.8	4
1,2-Dibromoethane	ND		ug/l	8.0	2.6	4
1,3-Dichloropropane	ND		ug/l	10	2.8	4
1,1,1,2-Tetrachloroethane	ND		ug/l	10	2.8	4
Bromobenzene	ND		ug/l	10	2.8	4
n-Butylbenzene	ND		ug/l	10	2.8	4
sec-Butylbenzene	ND		ug/l	10	2.8	4
tert-Butylbenzene	ND		ug/l	10	2.8	4
o-Chlorotoluene	ND		ug/l	10	2.8	4
p-Chlorotoluene	ND		ug/l	10	2.8	4
1,2-Dibromo-3-chloropropane	ND		ug/l	10	2.8	4
Hexachlorobutadiene	ND		ug/l	10	2.8	4
Isopropylbenzene	ND		ug/l	10	2.8	4
p-Isopropyltoluene	ND		ug/l	10	2.8	4
Naphthalene	ND		ug/l	10	2.8	4

Project Name: FESL
Project Number: 20029

Lab Number: L2045902
Report Date: 10/23/20

SAMPLE RESULTS

Lab ID: L2045902-03 D
 Client ID: TARGET LO D8
 Sample Location: ROCHESTER, NY

Date Collected: 10/22/20 11:35
 Date Received: 10/22/20
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
n-Propylbenzene	ND		ug/l	10	2.8	4
1,2,3-Trichlorobenzene	ND		ug/l	10	2.8	4
1,2,4-Trichlorobenzene	ND		ug/l	10	2.8	4
1,3,5-Trimethylbenzene	ND		ug/l	10	2.8	4
1,2,4-Trimethylbenzene	ND		ug/l	10	2.8	4
1,4-Dioxane	ND		ug/l	1000	240	4
Freon-113	47		ug/l	10	2.8	4
p-Diethylbenzene	ND		ug/l	8.0	2.8	4
p-Ethyltoluene	ND		ug/l	8.0	2.8	4
1,2,4,5-Tetramethylbenzene	ND		ug/l	8.0	2.2	4
Ethyl ether	8.8	J	ug/l	10	2.8	4
trans-1,4-Dichloro-2-butene	ND		ug/l	10	2.8	4

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	102		70-130
Toluene-d8	99		70-130
4-Bromofluorobenzene	102		70-130
Dibromofluoromethane	101		70-130

Project Name: FESL
Project Number: 20029

Lab Number: L2045902
Report Date: 10/23/20

SAMPLE RESULTS

Lab ID: L2045902-04 D
 Client ID: TARGET HI D8
 Sample Location: ROCHESTER, NY

Date Collected: 10/22/20 11:40
 Date Received: 10/22/20
 Field Prep: Not Specified

Sample Depth:

Matrix: Water
 Analytical Method: 1,8260C
 Analytical Date: 10/23/20 10:05
 Analyst: PD

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methylene chloride	ND		ug/l	10	2.8	4
1,1-Dichloroethane	540		ug/l	10	2.8	4
Chloroform	ND		ug/l	10	2.8	4
Carbon tetrachloride	ND		ug/l	2.0	0.54	4
1,2-Dichloropropane	ND		ug/l	4.0	0.55	4
Dibromochloromethane	ND		ug/l	2.0	0.60	4
1,1,2-Trichloroethane	ND		ug/l	6.0	2.0	4
Tetrachloroethene	41		ug/l	2.0	0.72	4
Chlorobenzene	ND		ug/l	10	2.8	4
Trichlorofluoromethane	ND		ug/l	10	2.8	4
1,2-Dichloroethane	ND		ug/l	2.0	0.53	4
1,1,1-Trichloroethane	ND		ug/l	10	2.8	4
Bromodichloromethane	ND		ug/l	2.0	0.77	4
trans-1,3-Dichloropropene	ND		ug/l	2.0	0.66	4
cis-1,3-Dichloropropene	ND		ug/l	2.0	0.58	4
1,3-Dichloropropene, Total	ND		ug/l	2.0	0.58	4
1,1-Dichloropropene	ND		ug/l	10	2.8	4
Bromoform	ND		ug/l	8.0	2.6	4
1,1,1,2-Tetrachloroethane	ND		ug/l	2.0	0.67	4
Benzene	7.3		ug/l	2.0	0.64	4
Toluene	20		ug/l	10	2.8	4
Ethylbenzene	ND		ug/l	10	2.8	4
Chloromethane	ND		ug/l	10	2.8	4
Bromomethane	ND		ug/l	10	2.8	4
Vinyl chloride	130		ug/l	4.0	0.28	4
Chloroethane	160		ug/l	10	2.8	4
1,1-Dichloroethene	1.4	J	ug/l	2.0	0.68	4
trans-1,2-Dichloroethene	ND		ug/l	10	2.8	4

Project Name: FESL
Project Number: 20029

Lab Number: L2045902
Report Date: 10/23/20

SAMPLE RESULTS

Lab ID: L2045902-04 D
 Client ID: TARGET HI D8
 Sample Location: ROCHESTER, NY

Date Collected: 10/22/20 11:40
 Date Received: 10/22/20
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Trichloroethene	4.3		ug/l	2.0	0.70	4
1,2-Dichlorobenzene	ND		ug/l	10	2.8	4
1,3-Dichlorobenzene	ND		ug/l	10	2.8	4
1,4-Dichlorobenzene	ND		ug/l	10	2.8	4
Methyl tert butyl ether	ND		ug/l	10	2.8	4
p/m-Xylene	ND		ug/l	10	2.8	4
o-Xylene	4.9	J	ug/l	10	2.8	4
Xylenes, Total	4.9	J	ug/l	10	2.8	4
cis-1,2-Dichloroethene	280		ug/l	10	2.8	4
1,2-Dichloroethene, Total	280		ug/l	10	2.8	4
Dibromomethane	ND		ug/l	20	4.0	4
1,2,3-Trichloropropane	ND		ug/l	10	2.8	4
Acrylonitrile	ND		ug/l	20	6.0	4
Styrene	ND		ug/l	10	2.8	4
Dichlorodifluoromethane	6.8	J	ug/l	20	4.0	4
Acetone	29		ug/l	20	5.8	4
Carbon disulfide	ND		ug/l	20	4.0	4
2-Butanone	18	J	ug/l	20	7.8	4
Vinyl acetate	ND		ug/l	20	4.0	4
4-Methyl-2-pentanone	ND		ug/l	20	4.0	4
2-Hexanone	ND		ug/l	20	4.0	4
Bromochloromethane	ND		ug/l	10	2.8	4
2,2-Dichloropropane	ND		ug/l	10	2.8	4
1,2-Dibromoethane	ND		ug/l	8.0	2.6	4
1,3-Dichloropropane	ND		ug/l	10	2.8	4
1,1,1,2-Tetrachloroethane	ND		ug/l	10	2.8	4
Bromobenzene	ND		ug/l	10	2.8	4
n-Butylbenzene	ND		ug/l	10	2.8	4
sec-Butylbenzene	ND		ug/l	10	2.8	4
tert-Butylbenzene	ND		ug/l	10	2.8	4
o-Chlorotoluene	ND		ug/l	10	2.8	4
p-Chlorotoluene	ND		ug/l	10	2.8	4
1,2-Dibromo-3-chloropropane	ND		ug/l	10	2.8	4
Hexachlorobutadiene	ND		ug/l	10	2.8	4
Isopropylbenzene	ND		ug/l	10	2.8	4
p-Isopropyltoluene	ND		ug/l	10	2.8	4
Naphthalene	ND		ug/l	10	2.8	4

Project Name: FESL
Project Number: 20029

Lab Number: L2045902
Report Date: 10/23/20

SAMPLE RESULTS

Lab ID: L2045902-04 D
 Client ID: TARGET HI D8
 Sample Location: ROCHESTER, NY

Date Collected: 10/22/20 11:40
 Date Received: 10/22/20
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
n-Propylbenzene	ND		ug/l	10	2.8	4
1,2,3-Trichlorobenzene	ND		ug/l	10	2.8	4
1,2,4-Trichlorobenzene	ND		ug/l	10	2.8	4
1,3,5-Trimethylbenzene	ND		ug/l	10	2.8	4
1,2,4-Trimethylbenzene	ND		ug/l	10	2.8	4
1,4-Dioxane	ND		ug/l	1000	240	4
Freon-113	5.2	J	ug/l	10	2.8	4
p-Diethylbenzene	ND		ug/l	8.0	2.8	4
p-Ethyltoluene	ND		ug/l	8.0	2.8	4
1,2,4,5-Tetramethylbenzene	ND		ug/l	8.0	2.2	4
Ethyl ether	9.4	J	ug/l	10	2.8	4
trans-1,4-Dichloro-2-butene	ND		ug/l	10	2.8	4

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	102		70-130
Toluene-d8	100		70-130
4-Bromofluorobenzene	104		70-130
Dibromofluoromethane	98		70-130

Project Name: FESL
Project Number: 20029

Lab Number: L2045902
Report Date: 10/23/20

SAMPLE RESULTS

Lab ID: L2045902-05 D
 Client ID: EZVI LO D8
 Sample Location: ROCHESTER, NY

Date Collected: 10/22/20 11:45
 Date Received: 10/22/20
 Field Prep: Not Specified

Sample Depth:

Matrix: Water
 Analytical Method: 1,8260C
 Analytical Date: 10/23/20 11:11
 Analyst: PD

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methylene chloride	ND		ug/l	62	18.	25
1,1-Dichloroethane	540		ug/l	62	18.	25
Chloroform	ND		ug/l	62	18.	25
Carbon tetrachloride	ND		ug/l	12	3.4	25
1,2-Dichloropropane	ND		ug/l	25	3.4	25
Dibromochloromethane	ND		ug/l	12	3.7	25
1,1,2-Trichloroethane	ND		ug/l	38	12.	25
Tetrachloroethene	190		ug/l	12	4.5	25
Chlorobenzene	ND		ug/l	62	18.	25
Trichlorofluoromethane	ND		ug/l	62	18.	25
1,2-Dichloroethane	ND		ug/l	12	3.3	25
1,1,1-Trichloroethane	60	J	ug/l	62	18.	25
Bromodichloromethane	ND		ug/l	12	4.8	25
trans-1,3-Dichloropropene	ND		ug/l	12	4.1	25
cis-1,3-Dichloropropene	ND		ug/l	12	3.6	25
1,3-Dichloropropene, Total	ND		ug/l	12	3.6	25
1,1-Dichloropropene	ND		ug/l	62	18.	25
Bromoform	ND		ug/l	50	16.	25
1,1,1,2,2-Tetrachloroethane	ND		ug/l	12	4.2	25
Benzene	5.4	J	ug/l	12	4.0	25
Toluene	26	J	ug/l	62	18.	25
Ethylbenzene	ND		ug/l	62	18.	25
Chloromethane	ND		ug/l	62	18.	25
Bromomethane	ND		ug/l	62	18.	25
Vinyl chloride	320		ug/l	25	1.8	25
Chloroethane	180		ug/l	62	18.	25
1,1-Dichloroethene	5.6	J	ug/l	12	4.2	25
trans-1,2-Dichloroethene	ND		ug/l	62	18.	25

Project Name: FESL
Project Number: 20029

Lab Number: L2045902
Report Date: 10/23/20

SAMPLE RESULTS

Lab ID: L2045902-05 D
 Client ID: EZVI LO D8
 Sample Location: ROCHESTER, NY

Date Collected: 10/22/20 11:45
 Date Received: 10/22/20
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Trichloroethene	19		ug/l	12	4.4	25
1,2-Dichlorobenzene	ND		ug/l	62	18.	25
1,3-Dichlorobenzene	ND		ug/l	62	18.	25
1,4-Dichlorobenzene	ND		ug/l	62	18.	25
Methyl tert butyl ether	ND		ug/l	62	18.	25
p/m-Xylene	ND		ug/l	62	18.	25
o-Xylene	ND		ug/l	62	18.	25
Xylenes, Total	ND		ug/l	62	18.	25
cis-1,2-Dichloroethene	520		ug/l	62	18.	25
1,2-Dichloroethene, Total	520		ug/l	62	18.	25
Dibromomethane	ND		ug/l	120	25.	25
1,2,3-Trichloropropane	ND		ug/l	62	18.	25
Acrylonitrile	ND		ug/l	120	38.	25
Styrene	ND		ug/l	62	18.	25
Dichlorodifluoromethane	ND		ug/l	120	25.	25
Acetone	45	J	ug/l	120	36.	25
Carbon disulfide	ND		ug/l	120	25.	25
2-Butanone	320		ug/l	120	48.	25
Vinyl acetate	ND		ug/l	120	25.	25
4-Methyl-2-pentanone	ND		ug/l	120	25.	25
2-Hexanone	ND		ug/l	120	25.	25
Bromochloromethane	ND		ug/l	62	18.	25
2,2-Dichloropropane	ND		ug/l	62	18.	25
1,2-Dibromoethane	ND		ug/l	50	16.	25
1,3-Dichloropropane	ND		ug/l	62	18.	25
1,1,1,2-Tetrachloroethane	ND		ug/l	62	18.	25
Bromobenzene	ND		ug/l	62	18.	25
n-Butylbenzene	ND		ug/l	62	18.	25
sec-Butylbenzene	ND		ug/l	62	18.	25
tert-Butylbenzene	ND		ug/l	62	18.	25
o-Chlorotoluene	ND		ug/l	62	18.	25
p-Chlorotoluene	ND		ug/l	62	18.	25
1,2-Dibromo-3-chloropropane	ND		ug/l	62	18.	25
Hexachlorobutadiene	ND		ug/l	62	18.	25
Isopropylbenzene	ND		ug/l	62	18.	25
p-Isopropyltoluene	ND		ug/l	62	18.	25
Naphthalene	ND		ug/l	62	18.	25

Project Name: FESL
Project Number: 20029

Lab Number: L2045902
Report Date: 10/23/20

SAMPLE RESULTS

Lab ID: L2045902-05 D
 Client ID: EZVI LO D8
 Sample Location: ROCHESTER, NY

Date Collected: 10/22/20 11:45
 Date Received: 10/22/20
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
n-Propylbenzene	ND		ug/l	62	18.	25
1,2,3-Trichlorobenzene	ND		ug/l	62	18.	25
1,2,4-Trichlorobenzene	ND		ug/l	62	18.	25
1,3,5-Trimethylbenzene	ND		ug/l	62	18.	25
1,2,4-Trimethylbenzene	ND		ug/l	62	18.	25
1,4-Dioxane	ND		ug/l	6200	1500	25
Freon-113	190		ug/l	62	18.	25
p-Diethylbenzene	ND		ug/l	50	18.	25
p-Ethyltoluene	ND		ug/l	50	18.	25
1,2,4,5-Tetramethylbenzene	ND		ug/l	50	14.	25
Ethyl ether	ND		ug/l	62	18.	25
trans-1,4-Dichloro-2-butene	ND		ug/l	62	18.	25

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	107		70-130
Toluene-d8	101		70-130
4-Bromofluorobenzene	104		70-130
Dibromofluoromethane	101		70-130

Project Name: FESL
Project Number: 20029

Lab Number: L2045902
Report Date: 10/23/20

SAMPLE RESULTS

Lab ID: L2045902-06 D
 Client ID: EZVI HI D8
 Sample Location: ROCHESTER, NY

Date Collected: 10/22/20 11:50
 Date Received: 10/22/20
 Field Prep: Not Specified

Sample Depth:

Matrix: Water
 Analytical Method: 1,8260C
 Analytical Date: 10/23/20 11:33
 Analyst: PD

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methylene chloride	ND		ug/l	62	18.	25
1,1-Dichloroethane	470		ug/l	62	18.	25
Chloroform	ND		ug/l	62	18.	25
Carbon tetrachloride	ND		ug/l	12	3.4	25
1,2-Dichloropropane	ND		ug/l	25	3.4	25
Dibromochloromethane	ND		ug/l	12	3.7	25
1,1,2-Trichloroethane	ND		ug/l	38	12.	25
Tetrachloroethene	170		ug/l	12	4.5	25
Chlorobenzene	ND		ug/l	62	18.	25
Trichlorofluoromethane	ND		ug/l	62	18.	25
1,2-Dichloroethane	ND		ug/l	12	3.3	25
1,1,1-Trichloroethane	65		ug/l	62	18.	25
Bromodichloromethane	ND		ug/l	12	4.8	25
trans-1,3-Dichloropropene	ND		ug/l	12	4.1	25
cis-1,3-Dichloropropene	ND		ug/l	12	3.6	25
1,3-Dichloropropene, Total	ND		ug/l	12	3.6	25
1,1-Dichloropropene	ND		ug/l	62	18.	25
Bromoform	ND		ug/l	50	16.	25
1,1,2,2-Tetrachloroethane	ND		ug/l	12	4.2	25
Benzene	6.5	J	ug/l	12	4.0	25
Toluene	34	J	ug/l	62	18.	25
Ethylbenzene	ND		ug/l	62	18.	25
Chloromethane	ND		ug/l	62	18.	25
Bromomethane	ND		ug/l	62	18.	25
Vinyl chloride	290		ug/l	25	1.8	25
Chloroethane	160		ug/l	62	18.	25
1,1-Dichloroethene	6.6	J	ug/l	12	4.2	25
trans-1,2-Dichloroethene	ND		ug/l	62	18.	25

Project Name: FESL
Project Number: 20029

Lab Number: L2045902
Report Date: 10/23/20

SAMPLE RESULTS

Lab ID: L2045902-06 D
 Client ID: EZVI HI D8
 Sample Location: ROCHESTER, NY

Date Collected: 10/22/20 11:50
 Date Received: 10/22/20
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Trichloroethene	18		ug/l	12	4.4	25
1,2-Dichlorobenzene	ND		ug/l	62	18.	25
1,3-Dichlorobenzene	ND		ug/l	62	18.	25
1,4-Dichlorobenzene	ND		ug/l	62	18.	25
Methyl tert butyl ether	ND		ug/l	62	18.	25
p/m-Xylene	18	J	ug/l	62	18.	25
o-Xylene	ND		ug/l	62	18.	25
Xylenes, Total	18	J	ug/l	62	18.	25
cis-1,2-Dichloroethene	460		ug/l	62	18.	25
1,2-Dichloroethene, Total	460		ug/l	62	18.	25
Dibromomethane	ND		ug/l	120	25.	25
1,2,3-Trichloropropane	ND		ug/l	62	18.	25
Acrylonitrile	ND		ug/l	120	38.	25
Styrene	ND		ug/l	62	18.	25
Dichlorodifluoromethane	ND		ug/l	120	25.	25
Acetone	58	J	ug/l	120	36.	25
Carbon disulfide	ND		ug/l	120	25.	25
2-Butanone	1100		ug/l	120	48.	25
Vinyl acetate	ND		ug/l	120	25.	25
4-Methyl-2-pentanone	ND		ug/l	120	25.	25
2-Hexanone	ND		ug/l	120	25.	25
Bromochloromethane	ND		ug/l	62	18.	25
2,2-Dichloropropane	ND		ug/l	62	18.	25
1,2-Dibromoethane	ND		ug/l	50	16.	25
1,3-Dichloropropane	ND		ug/l	62	18.	25
1,1,1,2-Tetrachloroethane	ND		ug/l	62	18.	25
Bromobenzene	ND		ug/l	62	18.	25
n-Butylbenzene	ND		ug/l	62	18.	25
sec-Butylbenzene	ND		ug/l	62	18.	25
tert-Butylbenzene	ND		ug/l	62	18.	25
o-Chlorotoluene	ND		ug/l	62	18.	25
p-Chlorotoluene	ND		ug/l	62	18.	25
1,2-Dibromo-3-chloropropane	ND		ug/l	62	18.	25
Hexachlorobutadiene	ND		ug/l	62	18.	25
Isopropylbenzene	ND		ug/l	62	18.	25
p-Isopropyltoluene	ND		ug/l	62	18.	25
Naphthalene	ND		ug/l	62	18.	25

Project Name: FESL
Project Number: 20029

Lab Number: L2045902
Report Date: 10/23/20

SAMPLE RESULTS

Lab ID: L2045902-06 D
 Client ID: EZVI HI D8
 Sample Location: ROCHESTER, NY

Date Collected: 10/22/20 11:50
 Date Received: 10/22/20
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
n-Propylbenzene	ND		ug/l	62	18.	25
1,2,3-Trichlorobenzene	ND		ug/l	62	18.	25
1,2,4-Trichlorobenzene	ND		ug/l	62	18.	25
1,3,5-Trimethylbenzene	ND		ug/l	62	18.	25
1,2,4-Trimethylbenzene	ND		ug/l	62	18.	25
1,4-Dioxane	ND		ug/l	6200	1500	25
Freon-113	200		ug/l	62	18.	25
p-Diethylbenzene	ND		ug/l	50	18.	25
p-Ethyltoluene	ND		ug/l	50	18.	25
1,2,4,5-Tetramethylbenzene	ND		ug/l	50	14.	25
Ethyl ether	ND		ug/l	62	18.	25
trans-1,4-Dichloro-2-butene	ND		ug/l	62	18.	25

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	100		70-130
Toluene-d8	103		70-130
4-Bromofluorobenzene	136	Q	70-130
Dibromofluoromethane	101		70-130

Project Name: FESL
Project Number: 20029

Lab Number: L2045902
Report Date: 10/23/20

SAMPLE RESULTS

Lab ID: L2045902-07 D
 Client ID: CTRL D8
 Sample Location: ROCHESTER, NY

Date Collected: 10/22/20 11:55
 Date Received: 10/22/20
 Field Prep: Not Specified

Sample Depth:

Matrix: Water
 Analytical Method: 1,8260C
 Analytical Date: 10/23/20 10:27
 Analyst: PD

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methylene chloride	ND		ug/l	10	2.8	4
1,1-Dichloroethane	570		ug/l	10	2.8	4
Chloroform	ND		ug/l	10	2.8	4
Carbon tetrachloride	ND		ug/l	2.0	0.54	4
1,2-Dichloropropane	ND		ug/l	4.0	0.55	4
Dibromochloromethane	ND		ug/l	2.0	0.60	4
1,1,2-Trichloroethane	ND		ug/l	6.0	2.0	4
Tetrachloroethene	110		ug/l	2.0	0.72	4
Chlorobenzene	ND		ug/l	10	2.8	4
Trichlorofluoromethane	ND		ug/l	10	2.8	4
1,2-Dichloroethane	ND		ug/l	2.0	0.53	4
1,1,1-Trichloroethane	250		ug/l	10	2.8	4
Bromodichloromethane	ND		ug/l	2.0	0.77	4
trans-1,3-Dichloropropene	ND		ug/l	2.0	0.66	4
cis-1,3-Dichloropropene	ND		ug/l	2.0	0.58	4
1,3-Dichloropropene, Total	ND		ug/l	2.0	0.58	4
1,1-Dichloropropene	ND		ug/l	10	2.8	4
Bromoform	ND		ug/l	8.0	2.6	4
1,1,2,2-Tetrachloroethane	ND		ug/l	2.0	0.67	4
Benzene	2.4		ug/l	2.0	0.64	4
Toluene	4.7	J	ug/l	10	2.8	4
Ethylbenzene	ND		ug/l	10	2.8	4
Chloromethane	ND		ug/l	10	2.8	4
Bromomethane	ND		ug/l	10	2.8	4
Vinyl chloride	370		ug/l	4.0	0.28	4
Chloroethane	170		ug/l	10	2.8	4
1,1-Dichloroethene	8.1		ug/l	2.0	0.68	4
trans-1,2-Dichloroethene	7.2	J	ug/l	10	2.8	4

Project Name: FESL
Project Number: 20029

Lab Number: L2045902
Report Date: 10/23/20

SAMPLE RESULTS

Lab ID: L2045902-07 D
 Client ID: CTRL D8
 Sample Location: ROCHESTER, NY

Date Collected: 10/22/20 11:55
 Date Received: 10/22/20
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Trichloroethene	19		ug/l	2.0	0.70	4
1,2-Dichlorobenzene	ND		ug/l	10	2.8	4
1,3-Dichlorobenzene	ND		ug/l	10	2.8	4
1,4-Dichlorobenzene	ND		ug/l	10	2.8	4
Methyl tert butyl ether	ND		ug/l	10	2.8	4
p/m-Xylene	ND		ug/l	10	2.8	4
o-Xylene	ND		ug/l	10	2.8	4
Xylenes, Total	ND		ug/l	10	2.8	4
cis-1,2-Dichloroethene	570		ug/l	10	2.8	4
1,2-Dichloroethene, Total	580	J	ug/l	10	2.8	4
Dibromomethane	ND		ug/l	20	4.0	4
1,2,3-Trichloropropane	ND		ug/l	10	2.8	4
Acrylonitrile	ND		ug/l	20	6.0	4
Styrene	ND		ug/l	10	2.8	4
Dichlorodifluoromethane	ND		ug/l	20	4.0	4
Acetone	7.9	J	ug/l	20	5.8	4
Carbon disulfide	ND		ug/l	20	4.0	4
2-Butanone	ND		ug/l	20	7.8	4
Vinyl acetate	ND		ug/l	20	4.0	4
4-Methyl-2-pentanone	ND		ug/l	20	4.0	4
2-Hexanone	ND		ug/l	20	4.0	4
Bromochloromethane	ND		ug/l	10	2.8	4
2,2-Dichloropropane	ND		ug/l	10	2.8	4
1,2-Dibromoethane	ND		ug/l	8.0	2.6	4
1,3-Dichloropropane	ND		ug/l	10	2.8	4
1,1,1,2-Tetrachloroethane	ND		ug/l	10	2.8	4
Bromobenzene	ND		ug/l	10	2.8	4
n-Butylbenzene	ND		ug/l	10	2.8	4
sec-Butylbenzene	ND		ug/l	10	2.8	4
tert-Butylbenzene	ND		ug/l	10	2.8	4
o-Chlorotoluene	ND		ug/l	10	2.8	4
p-Chlorotoluene	ND		ug/l	10	2.8	4
1,2-Dibromo-3-chloropropane	ND		ug/l	10	2.8	4
Hexachlorobutadiene	ND		ug/l	10	2.8	4
Isopropylbenzene	ND		ug/l	10	2.8	4
p-Isopropyltoluene	ND		ug/l	10	2.8	4
Naphthalene	ND		ug/l	10	2.8	4

Project Name: FESL
Project Number: 20029

Lab Number: L2045902
Report Date: 10/23/20

SAMPLE RESULTS

Lab ID: L2045902-07 D
 Client ID: CTRL D8
 Sample Location: ROCHESTER, NY

Date Collected: 10/22/20 11:55
 Date Received: 10/22/20
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
n-Propylbenzene	ND		ug/l	10	2.8	4
1,2,3-Trichlorobenzene	ND		ug/l	10	2.8	4
1,2,4-Trichlorobenzene	ND		ug/l	10	2.8	4
1,3,5-Trimethylbenzene	ND		ug/l	10	2.8	4
1,2,4-Trimethylbenzene	ND		ug/l	10	2.8	4
1,4-Dioxane	ND		ug/l	1000	240	4
Freon-113	120		ug/l	10	2.8	4
p-Diethylbenzene	ND		ug/l	8.0	2.8	4
p-Ethyltoluene	ND		ug/l	8.0	2.8	4
1,2,4,5-Tetramethylbenzene	ND		ug/l	8.0	2.2	4
Ethyl ether	9.2	J	ug/l	10	2.8	4
trans-1,4-Dichloro-2-butene	ND		ug/l	10	2.8	4

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	104		70-130
Toluene-d8	99		70-130
4-Bromofluorobenzene	99		70-130
Dibromofluoromethane	105		70-130

Project Name: FESL
Project Number: 20029

Lab Number: L2045902
Report Date: 10/23/20

SAMPLE RESULTS

Lab ID: L2045902-08 D
 Client ID: CTRL D8 DUP
 Sample Location: ROCHESTER, NY

Date Collected: 10/22/20 12:00
 Date Received: 10/22/20
 Field Prep: Not Specified

Sample Depth:

Matrix: Water
 Analytical Method: 1,8260C
 Analytical Date: 10/23/20 10:49
 Analyst: PD

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methylene chloride	ND		ug/l	12	3.5	5
1,1-Dichloroethane	590		ug/l	12	3.5	5
Chloroform	ND		ug/l	12	3.5	5
Carbon tetrachloride	ND		ug/l	2.5	0.67	5
1,2-Dichloropropane	ND		ug/l	5.0	0.68	5
Dibromochloromethane	ND		ug/l	2.5	0.74	5
1,1,2-Trichloroethane	ND		ug/l	7.5	2.5	5
Tetrachloroethene	100		ug/l	2.5	0.90	5
Chlorobenzene	ND		ug/l	12	3.5	5
Trichlorofluoromethane	ND		ug/l	12	3.5	5
1,2-Dichloroethane	ND		ug/l	2.5	0.66	5
1,1,1-Trichloroethane	250		ug/l	12	3.5	5
Bromodichloromethane	ND		ug/l	2.5	0.96	5
trans-1,3-Dichloropropene	ND		ug/l	2.5	0.82	5
cis-1,3-Dichloropropene	ND		ug/l	2.5	0.72	5
1,3-Dichloropropene, Total	ND		ug/l	2.5	0.72	5
1,1-Dichloropropene	ND		ug/l	12	3.5	5
Bromoform	ND		ug/l	10	3.2	5
1,1,1,2-Tetrachloroethane	ND		ug/l	2.5	0.84	5
Benzene	3.2		ug/l	2.5	0.80	5
Toluene	7.7	J	ug/l	12	3.5	5
Ethylbenzene	ND		ug/l	12	3.5	5
Chloromethane	ND		ug/l	12	3.5	5
Bromomethane	ND		ug/l	12	3.5	5
Vinyl chloride	380		ug/l	5.0	0.36	5
Chloroethane	180		ug/l	12	3.5	5
1,1-Dichloroethene	8.0		ug/l	2.5	0.84	5
trans-1,2-Dichloroethene	7.2	J	ug/l	12	3.5	5

Project Name: FESL
Project Number: 20029

Lab Number: L2045902
Report Date: 10/23/20

SAMPLE RESULTS

Lab ID: L2045902-08 D
 Client ID: CTRL D8 DUP
 Sample Location: ROCHESTER, NY

Date Collected: 10/22/20 12:00
 Date Received: 10/22/20
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Trichloroethene	20		ug/l	2.5	0.88	5
1,2-Dichlorobenzene	ND		ug/l	12	3.5	5
1,3-Dichlorobenzene	ND		ug/l	12	3.5	5
1,4-Dichlorobenzene	ND		ug/l	12	3.5	5
Methyl tert butyl ether	ND		ug/l	12	3.5	5
p/m-Xylene	ND		ug/l	12	3.5	5
o-Xylene	ND		ug/l	12	3.5	5
Xylenes, Total	ND		ug/l	12	3.5	5
cis-1,2-Dichloroethene	600		ug/l	12	3.5	5
1,2-Dichloroethene, Total	610	J	ug/l	12	3.5	5
Dibromomethane	ND		ug/l	25	5.0	5
1,2,3-Trichloropropane	ND		ug/l	12	3.5	5
Acrylonitrile	ND		ug/l	25	7.5	5
Styrene	ND		ug/l	12	3.5	5
Dichlorodifluoromethane	ND		ug/l	25	5.0	5
Acetone	13	J	ug/l	25	7.3	5
Carbon disulfide	ND		ug/l	25	5.0	5
2-Butanone	ND		ug/l	25	9.7	5
Vinyl acetate	ND		ug/l	25	5.0	5
4-Methyl-2-pentanone	ND		ug/l	25	5.0	5
2-Hexanone	ND		ug/l	25	5.0	5
Bromochloromethane	ND		ug/l	12	3.5	5
2,2-Dichloropropane	ND		ug/l	12	3.5	5
1,2-Dibromoethane	ND		ug/l	10	3.2	5
1,3-Dichloropropane	ND		ug/l	12	3.5	5
1,1,1,2-Tetrachloroethane	ND		ug/l	12	3.5	5
Bromobenzene	ND		ug/l	12	3.5	5
n-Butylbenzene	ND		ug/l	12	3.5	5
sec-Butylbenzene	ND		ug/l	12	3.5	5
tert-Butylbenzene	ND		ug/l	12	3.5	5
o-Chlorotoluene	ND		ug/l	12	3.5	5
p-Chlorotoluene	ND		ug/l	12	3.5	5
1,2-Dibromo-3-chloropropane	ND		ug/l	12	3.5	5
Hexachlorobutadiene	ND		ug/l	12	3.5	5
Isopropylbenzene	ND		ug/l	12	3.5	5
p-Isopropyltoluene	ND		ug/l	12	3.5	5
Naphthalene	ND		ug/l	12	3.5	5

Project Name: FESL
Project Number: 20029

Lab Number: L2045902
Report Date: 10/23/20

SAMPLE RESULTS

Lab ID: L2045902-08 D
 Client ID: CTRL D8 DUP
 Sample Location: ROCHESTER, NY

Date Collected: 10/22/20 12:00
 Date Received: 10/22/20
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
n-Propylbenzene	ND		ug/l	12	3.5	5
1,2,3-Trichlorobenzene	ND		ug/l	12	3.5	5
1,2,4-Trichlorobenzene	ND		ug/l	12	3.5	5
1,3,5-Trimethylbenzene	ND		ug/l	12	3.5	5
1,2,4-Trimethylbenzene	ND		ug/l	12	3.5	5
1,4-Dioxane	ND		ug/l	1200	300	5
Freon-113	110		ug/l	12	3.5	5
p-Diethylbenzene	ND		ug/l	10	3.5	5
p-Ethyltoluene	ND		ug/l	10	3.5	5
1,2,4,5-Tetramethylbenzene	ND		ug/l	10	2.7	5
Ethyl ether	8.8	J	ug/l	12	3.5	5
trans-1,4-Dichloro-2-butene	ND		ug/l	12	3.5	5

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	105		70-130
Toluene-d8	98		70-130
4-Bromofluorobenzene	100		70-130
Dibromofluoromethane	103		70-130

Project Name: FESL
Project Number: 20029

Lab Number: L2045902
Report Date: 10/23/20

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260C
Analytical Date: 10/23/20 08:38
Analyst: PD

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 01-08 Batch: WG1425677-5					
Methylene chloride	ND		ug/l	2.5	0.70
1,1-Dichloroethane	ND		ug/l	2.5	0.70
Chloroform	ND		ug/l	2.5	0.70
Carbon tetrachloride	ND		ug/l	0.50	0.13
1,2-Dichloropropane	ND		ug/l	1.0	0.14
Dibromochloromethane	ND		ug/l	0.50	0.15
1,1,2-Trichloroethane	ND		ug/l	1.5	0.50
Tetrachloroethene	ND		ug/l	0.50	0.18
Chlorobenzene	ND		ug/l	2.5	0.70
Trichlorofluoromethane	ND		ug/l	2.5	0.70
1,2-Dichloroethane	ND		ug/l	0.50	0.13
1,1,1-Trichloroethane	ND		ug/l	2.5	0.70
Bromodichloromethane	ND		ug/l	0.50	0.19
trans-1,3-Dichloropropene	ND		ug/l	0.50	0.16
cis-1,3-Dichloropropene	ND		ug/l	0.50	0.14
1,3-Dichloropropene, Total	ND		ug/l	0.50	0.14
1,1-Dichloropropene	ND		ug/l	2.5	0.70
Bromoform	ND		ug/l	2.0	0.65
1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	0.17
Benzene	ND		ug/l	0.50	0.16
Toluene	ND		ug/l	2.5	0.70
Ethylbenzene	ND		ug/l	2.5	0.70
Chloromethane	ND		ug/l	2.5	0.70
Bromomethane	ND		ug/l	2.5	0.70
Vinyl chloride	ND		ug/l	1.0	0.07
Chloroethane	ND		ug/l	2.5	0.70
1,1-Dichloroethene	ND		ug/l	0.50	0.17
trans-1,2-Dichloroethene	ND		ug/l	2.5	0.70
Trichloroethene	ND		ug/l	0.50	0.18

Project Name: FESL
Project Number: 20029

Lab Number: L2045902
Report Date: 10/23/20

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260C
Analytical Date: 10/23/20 08:38
Analyst: PD

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 01-08 Batch: WG1425677-5					
1,2-Dichlorobenzene	ND		ug/l	2.5	0.70
1,3-Dichlorobenzene	ND		ug/l	2.5	0.70
1,4-Dichlorobenzene	ND		ug/l	2.5	0.70
Methyl tert butyl ether	ND		ug/l	2.5	0.70
p/m-Xylene	ND		ug/l	2.5	0.70
o-Xylene	ND		ug/l	2.5	0.70
Xylenes, Total	ND		ug/l	2.5	0.70
cis-1,2-Dichloroethene	ND		ug/l	2.5	0.70
1,2-Dichloroethene, Total	ND		ug/l	2.5	0.70
Dibromomethane	ND		ug/l	5.0	1.0
1,2,3-Trichloropropane	ND		ug/l	2.5	0.70
Acrylonitrile	ND		ug/l	5.0	1.5
Styrene	ND		ug/l	2.5	0.70
Dichlorodifluoromethane	ND		ug/l	5.0	1.0
Acetone	ND		ug/l	5.0	1.5
Carbon disulfide	ND		ug/l	5.0	1.0
2-Butanone	ND		ug/l	5.0	1.9
Vinyl acetate	ND		ug/l	5.0	1.0
4-Methyl-2-pentanone	ND		ug/l	5.0	1.0
2-Hexanone	ND		ug/l	5.0	1.0
Bromochloromethane	ND		ug/l	2.5	0.70
2,2-Dichloropropane	ND		ug/l	2.5	0.70
1,2-Dibromoethane	ND		ug/l	2.0	0.65
1,3-Dichloropropane	ND		ug/l	2.5	0.70
1,1,1,2-Tetrachloroethane	ND		ug/l	2.5	0.70
Bromobenzene	ND		ug/l	2.5	0.70
n-Butylbenzene	ND		ug/l	2.5	0.70
sec-Butylbenzene	ND		ug/l	2.5	0.70
tert-Butylbenzene	ND		ug/l	2.5	0.70

Project Name: FESL
Project Number: 20029

Lab Number: L2045902
Report Date: 10/23/20

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260C
Analytical Date: 10/23/20 08:38
Analyst: PD

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 01-08 Batch: WG1425677-5					
o-Chlorotoluene	ND		ug/l	2.5	0.70
p-Chlorotoluene	ND		ug/l	2.5	0.70
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	0.70
Hexachlorobutadiene	ND		ug/l	2.5	0.70
Isopropylbenzene	ND		ug/l	2.5	0.70
p-Isopropyltoluene	ND		ug/l	2.5	0.70
Naphthalene	ND		ug/l	2.5	0.70
n-Propylbenzene	ND		ug/l	2.5	0.70
1,2,3-Trichlorobenzene	ND		ug/l	2.5	0.70
1,2,4-Trichlorobenzene	ND		ug/l	2.5	0.70
1,3,5-Trimethylbenzene	ND		ug/l	2.5	0.70
1,2,4-Trimethylbenzene	ND		ug/l	2.5	0.70
1,4-Dioxane	ND		ug/l	250	61.
Freon-113	ND		ug/l	2.5	0.70
p-Diethylbenzene	ND		ug/l	2.0	0.70
p-Ethyltoluene	ND		ug/l	2.0	0.70
1,2,4,5-Tetramethylbenzene	ND		ug/l	2.0	0.54
Ethyl ether	ND		ug/l	2.5	0.70
trans-1,4-Dichloro-2-butene	ND		ug/l	2.5	0.70

Surrogate	%Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	104		70-130
Toluene-d8	99		70-130
4-Bromofluorobenzene	102		70-130
Dibromofluoromethane	101		70-130

Lab Control Sample Analysis

Batch Quality Control

Project Name: FESL
Project Number: 20029

Lab Number: L2045902
Report Date: 10/23/20

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-08 Batch: WG1425677-3 WG1425677-4								
Methylene chloride	97		99		70-130	2		20
1,1-Dichloroethane	96		98		70-130	2		20
Chloroform	93		95		70-130	2		20
Carbon tetrachloride	90		91		63-132	1		20
1,2-Dichloropropane	94		94		70-130	0		20
Dibromochloromethane	94		94		63-130	0		20
1,1,2-Trichloroethane	99		99		70-130	0		20
Tetrachloroethene	95		93		70-130	2		20
Chlorobenzene	98		98		75-130	0		20
Trichlorofluoromethane	96		95		62-150	1		20
1,2-Dichloroethane	96		96		70-130	0		20
1,1,1-Trichloroethane	92		93		67-130	1		20
Bromodichloromethane	93		94		67-130	1		20
trans-1,3-Dichloropropene	91		94		70-130	3		20
cis-1,3-Dichloropropene	91		92		70-130	1		20
1,1-Dichloropropene	93		94		70-130	1		20
Bromoform	86		87		54-136	1		20
1,1,2,2-Tetrachloroethane	96		94		67-130	2		20
Benzene	96		95		70-130	1		20
Toluene	98		98		70-130	0		20
Ethylbenzene	100		100		70-130	0		20
Chloromethane	100		100		64-130	0		20
Bromomethane	89		88		39-139	1		20

Lab Control Sample Analysis

Batch Quality Control

Project Name: FESL
Project Number: 20029

Lab Number: L2045902
Report Date: 10/23/20

Parameter	LCS		LCSD		%Recovery Limits	RPD	Qual	RPD Limits
	%Recovery	Qual	%Recovery	Qual				
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-08 Batch: WG1425677-3 WG1425677-4								
Vinyl chloride	100		98		55-140	2		20
Chloroethane	110		100		55-138	10		20
1,1-Dichloroethene	94		94		61-145	0		20
trans-1,2-Dichloroethene	92		92		70-130	0		20
Trichloroethene	93		93		70-130	0		20
1,2-Dichlorobenzene	100		97		70-130	3		20
1,3-Dichlorobenzene	100		99		70-130	1		20
1,4-Dichlorobenzene	98		96		70-130	2		20
Methyl tert butyl ether	92		89		63-130	3		20
p/m-Xylene	105		105		70-130	0		20
o-Xylene	105		100		70-130	5		20
cis-1,2-Dichloroethene	97		92		70-130	5		20
Dibromomethane	96		96		70-130	0		20
1,2,3-Trichloropropane	99		93		64-130	6		20
Acrylonitrile	97		98		70-130	1		20
Styrene	105		105		70-130	0		20
Dichlorodifluoromethane	110		110		36-147	0		20
Acetone	110		100		58-148	10		20
Carbon disulfide	97		97		51-130	0		20
2-Butanone	110		110		63-138	0		20
Vinyl acetate	88		89		70-130	1		20
4-Methyl-2-pentanone	87		82		59-130	6		20
2-Hexanone	85		87		57-130	2		20

Lab Control Sample Analysis

Batch Quality Control

Project Name: FESL
Project Number: 20029

Lab Number: L2045902
Report Date: 10/23/20

Parameter	LCS		LCSD		%Recovery Limits	RPD	Qual	RPD Limits
	%Recovery	Qual	%Recovery	Qual				
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-08 Batch: WG1425677-3 WG1425677-4								
Bromochloromethane	100		94		70-130	6		20
2,2-Dichloropropane	98		99		63-133	1		20
1,2-Dibromoethane	94		96		70-130	2		20
1,3-Dichloropropane	100		96		70-130	4		20
1,1,1,2-Tetrachloroethane	97		95		64-130	2		20
Bromobenzene	96		95		70-130	1		20
n-Butylbenzene	100		100		53-136	0		20
sec-Butylbenzene	100		100		70-130	0		20
tert-Butylbenzene	90		85		70-130	6		20
o-Chlorotoluene	100		100		70-130	0		20
p-Chlorotoluene	100		100		70-130	0		20
1,2-Dibromo-3-chloropropane	82		75		41-144	9		20
Hexachlorobutadiene	90		88		63-130	2		20
Isopropylbenzene	100		100		70-130	0		20
p-Isopropyltoluene	100		100		70-130	0		20
Naphthalene	75		73		70-130	3		20
n-Propylbenzene	100		100		69-130	0		20
1,2,3-Trichlorobenzene	78		79		70-130	1		20
1,2,4-Trichlorobenzene	88		85		70-130	3		20
1,3,5-Trimethylbenzene	110		100		64-130	10		20
1,2,4-Trimethylbenzene	110		100		70-130	10		20
1,4-Dioxane	98		86		56-162	13		20
Freon-113	98		99		70-130	1		20

Lab Control Sample Analysis

Batch Quality Control

Project Name: FESL
Project Number: 20029

Lab Number: L2045902
Report Date: 10/23/20

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-08 Batch: WG1425677-3 WG1425677-4								
p-Diethylbenzene	100		99		70-130	1		20
p-Ethyltoluene	100		100		70-130	0		20
1,2,4,5-Tetramethylbenzene	96		92		70-130	4		20
Ethyl ether	95		95		59-134	0		20
trans-1,4-Dichloro-2-butene	90		94		70-130	4		20

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
1,2-Dichloroethane-d4	98		98		70-130
Toluene-d8	103		103		70-130
4-Bromofluorobenzene	103		101		70-130
Dibromofluoromethane	97		97		70-130

Project Name: FESL**Lab Number:** L2045902**Project Number:** 20029**Report Date:** 10/23/20**Sample Receipt and Container Information**

Were project specific reporting limits specified?

YES

Cooler Information**Cooler** **Custody Seal**

A Absent

Container Information

Container ID	Container Type	Cooler	Initial pH	Final pH	Temp deg C	Pres	Seal	Frozen Date/Time	Analysis(*)
L2045902-01A	Vial HCl preserved	A	NA		2.9	Y	Absent		NYTCL-8260(14)
L2045902-01B	Vial HCl preserved	A	NA		2.9	Y	Absent		NYTCL-8260(14)
L2045902-02A	Vial HCl preserved	A	NA		2.9	Y	Absent		NYTCL-8260(14)
L2045902-02B	Vial HCl preserved	A	NA		2.9	Y	Absent		NYTCL-8260(14)
L2045902-03A	Vial HCl preserved	A	NA		2.9	Y	Absent		NYTCL-8260(14)
L2045902-03B	Vial HCl preserved	A	NA		2.9	Y	Absent		NYTCL-8260(14)
L2045902-04A	Vial HCl preserved	A	NA		2.9	Y	Absent		NYTCL-8260(14)
L2045902-04B	Vial HCl preserved	A	NA		2.9	Y	Absent		NYTCL-8260(14)
L2045902-05A	Vial HCl preserved	A	NA		2.9	Y	Absent		NYTCL-8260(14)
L2045902-05B	Vial HCl preserved	A	NA		2.9	Y	Absent		NYTCL-8260(14)
L2045902-06A	Vial HCl preserved	A	NA		2.9	Y	Absent		NYTCL-8260(14)
L2045902-06B	Vial HCl preserved	A	NA		2.9	Y	Absent		NYTCL-8260(14)
L2045902-07A	Vial HCl preserved	A	NA		2.9	Y	Absent		NYTCL-8260(14)
L2045902-07B	Vial HCl preserved	A	NA		2.9	Y	Absent		NYTCL-8260(14)
L2045902-08A	Vial HCl preserved	A	NA		2.9	Y	Absent		NYTCL-8260(14)
L2045902-08B	Vial HCl preserved	A	NA		2.9	Y	Absent		NYTCL-8260(14)

Project Name: FESL
Project Number: 20029

Lab Number: L2045902
Report Date: 10/23/20

GLOSSARY

Acronyms

DL	- Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the limit of quantitation (LOQ). The DL includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)
EDL	- Estimated Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The EDL includes any adjustments from dilutions, concentrations or moisture content, where applicable. The use of EDLs is specific to the analysis of PAHs using Solid-Phase Microextraction (SPME).
EMPC	- Estimated Maximum Possible Concentration: The concentration that results from the signal present at the retention time of an analyte when the ions meet all of the identification criteria except the ion abundance ratio criteria. An EMPC is a worst-case estimate of the concentration.
EPA	- Environmental Protection Agency.
LCS	- Laboratory Control Sample: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.
LCSD	- Laboratory Control Sample Duplicate: Refer to LCS.
LFB	- Laboratory Fortified Blank: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.
LOD	- Limit of Detection: This value represents the level to which a target analyte can reliably be detected for a specific analyte in a specific matrix by a specific method. The LOD includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)
LOQ	- Limit of Quantitation: The value at which an instrument can accurately measure an analyte at a specific concentration. The LOQ includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.) Limit of Quantitation: The value at which an instrument can accurately measure an analyte at a specific concentration. The LOQ includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)
MDL	- Method Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The MDL includes any adjustments from dilutions, concentrations or moisture content, where applicable.
MS	- Matrix Spike Sample: A sample prepared by adding a known mass of target analyte to a specified amount of matrix sample for which an independent estimate of target analyte concentration is available. For Method 332.0, the spike recovery is calculated using the native concentration, including estimated values.
MSD	- Matrix Spike Sample Duplicate: Refer to MS.
NA	- Not Applicable.
NC	- Not Calculated: Term is utilized when one or more of the results utilized in the calculation are non-detect at the parameter's reporting unit.
NDPA/DPA	- N-Nitrosodiphenylamine/Diphenylamine.
NI	- Not Ignitable.
NP	- Non-Plastic: Term is utilized for the analysis of Atterberg Limits in soil.
NR	- No Results: Term is utilized when 'No Target Compounds Requested' is reported for the analysis of Volatile or Semivolatile Organic TIC only requests.
RL	- Reporting Limit: The value at which an instrument can accurately measure an analyte at a specific concentration. The RL includes any adjustments from dilutions, concentrations or moisture content, where applicable.
RPD	- Relative Percent Difference: The results from matrix and/or matrix spike duplicates are primarily designed to assess the precision of analytical results in a given matrix and are expressed as relative percent difference (RPD). Values which are less than five times the reporting limit for any individual parameter are evaluated by utilizing the absolute difference between the values; although the RPD value will be provided in the report.
SRM	- Standard Reference Material: A reference sample of a known or certified value that is of the same or similar matrix as the associated field samples.
STLP	- Semi-dynamic Tank Leaching Procedure per EPA Method 1315.
TEF	- Toxic Equivalency Factors: The values assigned to each dioxin and furan to evaluate their toxicity relative to 2,3,7,8-TCDD.
TEQ	- Toxic Equivalent: The measure of a sample's toxicity derived by multiplying each dioxin and furan by its corresponding TEF and then summing the resulting values.
TIC	- Tentatively Identified Compound: A compound that has been identified to be present and is not part of the target compound list (TCL) for the method and/or program. All TICs are qualitatively identified and reported as estimated concentrations.

Report Format: DU Report with 'J' Qualifiers



Project Name: FESL
Project Number: 20029

Lab Number: L2045902
Report Date: 10/23/20

Footnotes

- 1 - The reference for this analyte should be considered modified since this analyte is absent from the target analyte list of the original method.

Terms

Analytical Method: Both the document from which the method originates and the analytical reference method. (Example: EPA 8260B is shown as 1,8260B.) The codes for the reference method documents are provided in the References section of the Addendum.

Difference: With respect to Total Oxidizable Precursor (TOP) Assay analysis, the difference is defined as the Post-Treatment value minus the Pre-Treatment value.

Final pH: As it pertains to Sample Receipt & Container Information section of the report, Final pH reflects pH of container determined after adjustment at the laboratory, if applicable. If no adjustment required, value reflects Initial pH.

Frozen Date/Time: With respect to Volatile Organics in soil, Frozen Date/Time reflects the date/time at which associated Reagent Water-preserved vials were initially frozen. Note: If frozen date/time is beyond 48 hours from sample collection, value will be reflected in 'bold'.

Initial pH: As it pertains to Sample Receipt & Container Information section of the report, Initial pH reflects pH of container determined upon receipt, if applicable.

PAH Total: With respect to Alkylated PAH analyses, the 'PAHs, Total' result is defined as the summation of results for all or a subset of the following compounds: Naphthalene, C1-C4 Naphthalenes, 2-Methylnaphthalene, 1-Methylnaphthalene, Biphenyl, Acenaphthylene, Acenaphthene, Fluorene, C1-C3 Fluorenes, Phenanthrene, C1-C4 Phenanthrenes/Anthracenes, Anthracene, Fluoranthene, Pyrene, C1-C4 Fluoranthenes/Pyrenes, Benz(a)anthracene, Chrysene, C1-C4 Chrysenes, Benzo(b)fluoranthene, Benzo(j)+(k)fluoranthene, Benzo(e)pyrene, Benzo(a)pyrene, Perylene, Indeno(1,2,3-cd)pyrene, Dibenz(ah)+(ac)anthracene, Benzo(g,h,i)perylene. If a 'Total' result is requested, the results of its individual components will also be reported.

PFAS Total: With respect to PFAS analyses, the 'PFAS, Total (5)' result is defined as the summation of results for: PFHpA, PFHxS, PFOA, PFNA and PFOS. If a 'Total' result is requested, the results of its individual components will also be reported.

The target compound Chlordane (CAS No. 57-74-9) is reported for GC ECD analyses. Per EPA, this compound "refers to a mixture of chlordane isomers, other chlorinated hydrocarbons and numerous other components." (Reference: USEPA Toxicological Review of Chlordane, In Support of Summary Information on the Integrated Risk Information System (IRIS), December 1997.)

Total: With respect to Organic analyses, a 'Total' result is defined as the summation of results for individual isomers or Aroclors. If a 'Total' result is requested, the results of its individual components will also be reported. This is applicable to 'Total' results for methods 8260, 8081 and 8082.

Data Qualifiers

- A** - Spectra identified as "Aldol Condensates" are byproducts of the extraction/concentration procedures when acetone is introduced in the process.
- B** - The analyte was detected above the reporting limit in the associated method blank. Flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For MCP-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For DOD-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank AND the analyte was detected above one-half the reporting limit (or above the reporting limit for common lab contaminants) in the associated method blank. For NJ-Air-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte above the reporting limit. For NJ-related projects (excluding Air), flag only applies to associated field samples that have detectable concentrations of the analyte, which was detected above the reporting limit in the associated method blank or above five times the reporting limit for common lab contaminants (Phthalates, Acetone, Methylene Chloride, 2-Butanone).
- C** - Co-elution: The target analyte co-elutes with a known lab standard (i.e. surrogate, internal standards, etc.) for co-extracted analyses.
- D** - Concentration of analyte was quantified from diluted analysis. Flag only applies to field samples that have detectable concentrations of the analyte.
- E** - Concentration of analyte exceeds the range of the calibration curve and/or linear range of the instrument.
- F** - The ratio of quantifier ion response to qualifier ion response falls outside of the laboratory criteria. Results are considered to be an estimated maximum concentration.
- G** - The concentration may be biased high due to matrix interferences (i.e. co-elution) with non-target compound(s). The result should be considered estimated.
- H** - The analysis of pH was performed beyond the regulatory-required holding time of 15 minutes from the time of sample collection.
- I** - The lower value for the two columns has been reported due to obvious interference.
- J** - Estimated value. The Target analyte concentration is below the quantitation limit (RL), but above the Method Detection Limit (MDL) or Estimated Detection Limit (EDL) for SPME-related analyses. This represents an estimated concentration for Tentatively Identified Compounds (TICs).
- M** - Reporting Limit (RL) exceeds the MCP CAM Reporting Limit for this analyte.
- ND** - Not detected at the method detection limit (MDL) for the sample, or estimated detection limit (EDL) for SPME-related analyses.
- NJ** - Presumptive evidence of compound. This represents an estimated concentration for Tentatively Identified Compounds (TICs), where

Report Format: DU Report with 'J' Qualifiers



Project Name: FESL
Project Number: 20029

Lab Number: L2045902
Report Date: 10/23/20

Data Qualifiers

the identification is based on a mass spectral library search.

- P** - The RPD between the results for the two columns exceeds the method-specified criteria.
- Q** - The quality control sample exceeds the associated acceptance criteria. For DOD-related projects, LCS and/or Continuing Calibration Standard exceedences are also qualified on all associated sample results. Note: This flag is not applicable for matrix spike recoveries when the sample concentration is greater than 4x the spike added or for batch duplicate RPD when the sample concentrations are less than 5x the RL. (Metals only.)
- R** - Analytical results are from sample re-analysis.
- RE** - Analytical results are from sample re-extraction.
- S** - Analytical results are from modified screening analysis.

Project Name: FESL
Project Number: 20029

Lab Number: L2045902
Report Date: 10/23/20

REFERENCES

- 1 Test Methods for Evaluating Solid Waste: Physical/Chemical Methods. EPA SW-846. Third Edition. Updates I - VI, 2018.

LIMITATION OF LIABILITIES

Alpha Analytical performs services with reasonable care and diligence normal to the analytical testing laboratory industry. In the event of an error, the sole and exclusive responsibility of Alpha Analytical shall be to re-perform the work at it's own expense. In no event shall Alpha Analytical be held liable for any incidental, consequential or special damages, including but not limited to, damages in any way connected with the use of, interpretation of, information or analysis provided by Alpha Analytical.

We strongly urge our clients to comply with EPA protocol regarding sample volume, preservation, cooling, containers, sampling procedures, holding time and splitting of samples in the field.



Certification Information

The following analytes are not included in our Primary NELAP Scope of Accreditation:

Westborough Facility

EPA 624/624.1: m/p-xylene, o-xylene, Naphthalene

EPA 8260C: NPW: 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene, Azobenzene; SCM: Iodomethane (methyl iodide), 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene.

EPA 8270D: NPW: Dimethylnaphthalene, 1,4-Diphenylhydrazine; SCM: Dimethylnaphthalene, 1,4-Diphenylhydrazine.

SM4500: NPW: Amenable Cyanide; SCM: Total Phosphorus, TKN, NO₂, NO₃.

Mansfield Facility

SM 2540D: TSS

EPA 8082A: NPW: PCB: 1, 5, 31, 87, 101, 110, 141, 151, 153, 180, 183, 187.

EPA TO-15: Halothane, 2,4,4-Trimethyl-2-pentene, 2,4,4-Trimethyl-1-pentene, Thiophene, 2-Methylthiophene, 3-Methylthiophene, 2-Ethylthiophene, 1,2,3-Trimethylbenzene, Indan, Indene, 1,2,4,5-Tetramethylbenzene, Benzothiophene, 1-Methylnaphthalene.

EPA TO-12 Non-methane organics

EPA 3C Fixed gases

Biological Tissue Matrix: EPA 3050B

The following analytes are included in our Massachusetts DEP Scope of Accreditation

Westborough Facility:

Drinking Water

EPA 300.0: Chloride, Nitrate-N, Fluoride, Sulfate; **EPA 353.2:** Nitrate-N, Nitrite-N; **SM4500NO3-F:** Nitrate-N, Nitrite-N; **SM4500F-C, SM4500CN-CE,**

EPA 180.1, SM2130B, SM4500CI-D, SM2320B, SM2540C, SM4500H-B, SM4500NO2-B

EPA 332: Perchlorate; **EPA 524.2:** THMs and VOCs; **EPA 504.1:** EDB, DBCP.

Microbiology: SM9215B; SM9223-P/A, SM9223B-Colilert-QT, SM9222D.

Non-Potable Water

SM4500H,B, EPA 120.1, SM2510B, SM2540C, SM2320B, SM4500CL-E, SM4500F-BC, SM4500NH3-BH: Ammonia-N and Kjeldahl-N, **EPA 350.1:** Ammonia-N, **LACHAT 10-107-06-1-B:** Ammonia-N, **EPA 351.1, SM4500NO3-F, EPA 353.2:** Nitrate-N, **SM4500P-E, SM4500P-B, E, SM4500SO4-E, SM5220D, EPA 410.4, SM5210B, SM5310C, SM4500CL-D, EPA 1664, EPA 420.1, SM4500-CN-CE, SM2540D, EPA 300:** Chloride, Sulfate, Nitrate.

EPA 624.1: Volatile Halocarbons & Aromatics,

EPA 608.3: Chlordane, Toxaphene, Aldrin, alpha-BHC, beta-BHC, gamma-BHC, delta-BHC, Dieldrin, DDD, DDE, DDT, Endosulfan I, Endosulfan II, Endosulfan sulfate, Endrin, Endrin Aldehyde, Heptachlor, Heptachlor Epoxide, PCBs

EPA 625.1: SVOC (Acid/Base/Neutral Extractables), **EPA 600/4-81-045:** PCB-Oil.

Microbiology: SM9223B-Colilert-QT; Enterolert-QT, SM9221E, EPA 1600, EPA 1603.

Mansfield Facility:

Drinking Water

EPA 200.7: Al, Ba, Cd, Cr, Cu, Fe, Mn, Ni, Na, Ag, Ca, Zn. **EPA 200.8:** Al, Sb, As, Ba, Be, Cd, Cr, Cu, Pb, Mn, Ni, Se, Ag, TL, Zn. **EPA 245.1** Hg.

EPA 522.

Non-Potable Water


EPA 200.7: Al, Sb, As, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Mg, Mn, Mo, Ni, K, Se, Ag, Na, Sr, TL, Ti, V, Zn.

EPA 200.8: Al, Sb, As, Be, Cd, Cr, Cu, Fe, Pb, Mn, Ni, K, Se, Ag, Na, TL, Zn.

EPA 245.1 Hg.

SM2340B

For a complete listing of analytes and methods, please contact your Alpha Project Manager.

 ALPHA ANALYTICAL <small>ANALYTICAL CORPORATION</small>	NEW JERSEY CHAIN OF CUSTODY	Service Centers Mahwah, NJ 07430: 35 Whitney Rd, Suite 5 Albany, NY 12205: 14 Walker Way Tonawanda, NY 14150: 275 Cooper Ave, Suite 105	Page 1 of 1	Date Rec'd in Lab 10/22/20	ALPHA Job # L 2045902								
		Westborough, MA 01581 8 Walkup Dr. TEL: 508-898-9220 FAX: 508-898-9193	Mansfield, MA 02048 320 Forbes Blvd TEL: 508-822-9300 FAX: 508-822-3288	Project Information	Deliverables	Billing Information							
Client Information		Project Name: FESL Project Location: Rochester, NY Project #: 20029 (Use Project name as Project #) <input type="checkbox"/>	Project Manager: Ashaley Kane ALPHAQuote #: 12786	<input type="checkbox"/> NJ Full / Reduced <input type="checkbox"/> EQuIS (1 File) <input type="checkbox"/> EQuIS (4 File) <input type="checkbox"/> Other	<input checked="" type="checkbox"/> Same as Client Info PO # 4697								
Client: XDD Address: 22 Marin Way, Unit 3 Stratham, NH 03833 Phone: 603-778-1100 Fax: Email: lcrawford@xdd-llc.com	Turn-Around Time Standard <input type="checkbox"/> Due Date: 10/23/20 EOD Rush (only if pre approved) <input checked="" type="checkbox"/> # of Days: 1 Day	Regulatory Requirement <input type="checkbox"/> SRS Residential/Non Residential <input type="checkbox"/> SRS Impact to Groundwater <input type="checkbox"/> NJ Ground Water Quality Standards <input type="checkbox"/> NJ IGW SPLP Leachate Criteria <input checked="" type="checkbox"/> Other NYSDOH ELAP	Site Information Is this site impacted by Petroleum? Yes <input type="checkbox"/> Petroleum Product:										
These samples have been previously analyzed by Alpha <input type="checkbox"/>		For EPH, selection is REQUIRED: <input type="checkbox"/> Category 1 <input type="checkbox"/> Category 2		For VOC, selection is REQUIRED: <input type="checkbox"/> 1,4-Dioxane <input type="checkbox"/> 8011		Other project specific requirements/comments: invoices go to ap@xdd-llc.com * please include Freon-113		ANALYSIS		Sample Filtration <input type="checkbox"/> Done <input type="checkbox"/> Lab to do Preservation <input type="checkbox"/> Lab to do (Please Specify below)	Total Bottles		
ALPHA Lab ID (Lab Use Only)	Sample ID	Collection Date Time	Sample Matrix	Sampler's Initials	VOCs*							Sample Specific Comments	
45902-01	Flow Lo D8	10/22/2020 11:25	GW	LC	x								2
02	Flow Hi D8	10/22/2020 11:30	GW	LC	x								2
03	Target Lo D8	10/22/2020 11:35	GW	LC	x								2
04	Target Hi D8	10/22/2020 11:40	GW	LC	x								2
05	eZVI Lo D8	10/22/2020 11:45	GW	LC	x								2
06	eZVI Hi D8	10/22/2020 11:50	GW	LC	x								2
07	Ctrl D8	10/22/2020 11:55	GW	LC	x								2
08	Ctrl D8 dup	10/22/2020 12:00	GW	LC	x								2
Preservative Code: A = None B = HCl C = HNO ₃ D = H ₂ SO ₄ E = NaOH F = MeOH G = NaHSO ₄ H = Na ₂ S ₂ O ₃ K/E = Zn Ac/NaOH O = Other	Container Code P = Plastic A = Amber Glass V = Vial G = Glass B = Bacteria Cup C = Cube O = Other E = Encore D = BOD Bottle	Westboro: Certification No: MA935 Mansfield: Certification No: MA015	Container Type G	Preservative B							Please print clearly, legibly and completely. Samples can not be logged in and turnaround time clock will not start until any ambiguities are resolved. BY EXECUTING THIS COC, THE CLIENT HAS READ AND AGREES TO BE BOUND BY ALPHA'S TERMS & CONDITIONS .		
Relinquished By: <i>Rob Maestro</i>		Date/Time: 10/22/20 1438	Received By: <i>Rob Maestro</i>		Date/Time: 10/22/20 1938								
Relinquished By: <i>Rob Maestro</i>		Date/Time: 10/22/20 2600	Received By: <i>Rob Maestro</i>		Date/Time: 10/22/20 2600								



ANALYTICAL REPORT

Lab Number:	L2046766
Client:	XDD Environmental Mary Scudieri 22 Marin Way Unit 3 Stratham, NH 03885
ATTN:	Laurel Crawford
Phone:	(603) 778-1100
Project Name:	FESL
Project Number:	20029
Report Date:	10/29/20

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Certifications & Approvals: MA (M-MA086), NH NELAP (2064), CT (PH-0574), IL (200077), ME (MA00086), MD (348), NJ (MA935), NY (11148), NC (25700/666), PA (68-03671), RI (LAO00065), TX (T104704476), VT (VT-0935), VA (460195), USDA (Permit #P330-17-00196).

Eight Walkup Drive, Westborough, MA 01581-1019
508-898-9220 (Fax) 508-898-9193 800-624-9220 - www.alphalab.com



Project Name: FESL
Project Number: 20029

Lab Number: L2046766
Report Date: 10/29/20

Alpha Sample ID	Client ID	Matrix	Sample Location	Collection Date/Time	Receive Date
L2046766-01	FLOW LO D13	WATER	ROCHESTER, NY	10/27/20 11:25	10/27/20
L2046766-02	FLOW HI D13	WATER	ROCHESTER, NY	10/27/20 11:30	10/27/20
L2046766-03	TARGET LO D13	WATER	ROCHESTER, NY	10/27/20 11:35	10/27/20
L2046766-04	TARGET HI D13	WATER	ROCHESTER, NY	10/27/20 11:40	10/27/20
L2046766-05	EZVI LO D13	WATER	ROCHESTER, NY	10/27/20 11:45	10/27/20
L2046766-06	EZVI HI D13	WATER	ROCHESTER, NY	10/27/20 11:50	10/27/20
L2046766-07	CTRL D13	WATER	ROCHESTER, NY	10/27/20 11:55	10/27/20
L2046766-08	CTRL D13 DUP	WATER	ROCHESTER, NY	10/27/20 12:00	10/27/20

Project Name: FESL
Project Number: 20029

Lab Number: L2046766
Report Date: 10/29/20

Case Narrative

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

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

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

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

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

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

Project Name: FESL
Project Number: 20029

Lab Number: L2046766
Report Date: 10/29/20

Case Narrative (continued)

Report Submission

All non-detect (ND) or estimated concentrations (J-qualified) have been quantitated to the limit noted in the MDL column.

Volatile Organics

L2046766-05 and -06: The pH of the sample was greater than two; however, the sample was analyzed within the method required holding time.

L2046766-05 and -06: The sample has elevated detection limits due to the dilution required by the sample matrix (white, cloudy).

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

Authorized Signature:  Melissa Sturgis

Title: Technical Director/Representative

Date: 10/29/20

ORGANICS

VOLATILES

Project Name: FESL
Project Number: 20029

Lab Number: L2046766
Report Date: 10/29/20

SAMPLE RESULTS

Lab ID: L2046766-01 D
 Client ID: FLOW LO D13
 Sample Location: ROCHESTER, NY

Date Collected: 10/27/20 11:25
 Date Received: 10/27/20
 Field Prep: Not Specified

Sample Depth:

Matrix: Water
 Analytical Method: 1,8260C
 Analytical Date: 10/28/20 14:12
 Analyst: NLK

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methylene chloride	ND		ug/l	10	2.8	4
1,1-Dichloroethane	550		ug/l	10	2.8	4
Chloroform	ND		ug/l	10	2.8	4
Carbon tetrachloride	ND		ug/l	2.0	0.54	4
1,2-Dichloropropane	ND		ug/l	4.0	0.55	4
Dibromochloromethane	ND		ug/l	2.0	0.60	4
1,1,2-Trichloroethane	ND		ug/l	6.0	2.0	4
Tetrachloroethene	78		ug/l	2.0	0.72	4
Chlorobenzene	ND		ug/l	10	2.8	4
Trichlorofluoromethane	ND		ug/l	10	2.8	4
1,2-Dichloroethane	ND		ug/l	2.0	0.53	4
1,1,1-Trichloroethane	42		ug/l	10	2.8	4
Bromodichloromethane	ND		ug/l	2.0	0.77	4
trans-1,3-Dichloropropene	ND		ug/l	2.0	0.66	4
cis-1,3-Dichloropropene	ND		ug/l	2.0	0.58	4
1,3-Dichloropropene, Total	ND		ug/l	2.0	0.58	4
1,1-Dichloropropene	ND		ug/l	10	2.8	4
Bromoform	ND		ug/l	8.0	2.6	4
1,1,2,2-Tetrachloroethane	ND		ug/l	2.0	0.67	4
Benzene	4.7		ug/l	2.0	0.64	4
Toluene	16		ug/l	10	2.8	4
Ethylbenzene	ND		ug/l	10	2.8	4
Chloromethane	ND		ug/l	10	2.8	4
Bromomethane	ND		ug/l	10	2.8	4
Vinyl chloride	300		ug/l	4.0	0.28	4
Chloroethane	160		ug/l	10	2.8	4
1,1-Dichloroethene	4.9		ug/l	2.0	0.68	4
trans-1,2-Dichloroethene	3.9	J	ug/l	10	2.8	4

Project Name: FESL
Project Number: 20029

Lab Number: L2046766
Report Date: 10/29/20

SAMPLE RESULTS

Lab ID: L2046766-01 D
 Client ID: FLOW LO D13
 Sample Location: ROCHESTER, NY

Date Collected: 10/27/20 11:25
 Date Received: 10/27/20
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Trichloroethene	6.8		ug/l	2.0	0.70	4
1,2-Dichlorobenzene	ND		ug/l	10	2.8	4
1,3-Dichlorobenzene	ND		ug/l	10	2.8	4
1,4-Dichlorobenzene	ND		ug/l	10	2.8	4
Methyl tert butyl ether	ND		ug/l	10	2.8	4
p/m-Xylene	ND		ug/l	10	2.8	4
o-Xylene	4.0	J	ug/l	10	2.8	4
Xylenes, Total	4.0	J	ug/l	10	2.8	4
cis-1,2-Dichloroethene	520		ug/l	10	2.8	4
1,2-Dichloroethene, Total	520	J	ug/l	10	2.8	4
Dibromomethane	ND		ug/l	20	4.0	4
1,2,3-Trichloropropane	ND		ug/l	10	2.8	4
Acrylonitrile	ND		ug/l	20	6.0	4
Styrene	ND		ug/l	10	2.8	4
Dichlorodifluoromethane	ND		ug/l	20	4.0	4
Acetone	12	J	ug/l	20	5.8	4
Carbon disulfide	ND		ug/l	20	4.0	4
2-Butanone	8.5	J	ug/l	20	7.8	4
Vinyl acetate	ND		ug/l	20	4.0	4
4-Methyl-2-pentanone	ND		ug/l	20	4.0	4
2-Hexanone	ND		ug/l	20	4.0	4
Bromochloromethane	ND		ug/l	10	2.8	4
2,2-Dichloropropane	ND		ug/l	10	2.8	4
1,2-Dibromoethane	ND		ug/l	8.0	2.6	4
1,3-Dichloropropane	ND		ug/l	10	2.8	4
1,1,1,2-Tetrachloroethane	ND		ug/l	10	2.8	4
Bromobenzene	ND		ug/l	10	2.8	4
n-Butylbenzene	ND		ug/l	10	2.8	4
sec-Butylbenzene	ND		ug/l	10	2.8	4
tert-Butylbenzene	ND		ug/l	10	2.8	4
o-Chlorotoluene	ND		ug/l	10	2.8	4
p-Chlorotoluene	ND		ug/l	10	2.8	4
1,2-Dibromo-3-chloropropane	ND		ug/l	10	2.8	4
Hexachlorobutadiene	ND		ug/l	10	2.8	4
Isopropylbenzene	ND		ug/l	10	2.8	4
p-Isopropyltoluene	ND		ug/l	10	2.8	4
Naphthalene	ND		ug/l	10	2.8	4

Project Name: FESL
Project Number: 20029

Lab Number: L2046766
Report Date: 10/29/20

SAMPLE RESULTS

Lab ID: L2046766-01 D
 Client ID: FLOW LO D13
 Sample Location: ROCHESTER, NY

Date Collected: 10/27/20 11:25
 Date Received: 10/27/20
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
n-Propylbenzene	ND		ug/l	10	2.8	4
1,2,3-Trichlorobenzene	ND		ug/l	10	2.8	4
1,2,4-Trichlorobenzene	ND		ug/l	10	2.8	4
1,3,5-Trimethylbenzene	ND		ug/l	10	2.8	4
1,2,4-Trimethylbenzene	ND		ug/l	10	2.8	4
1,4-Dioxane	ND		ug/l	1000	240	4
Freon-113	35		ug/l	10	2.8	4
p-Diethylbenzene	ND		ug/l	8.0	2.8	4
p-Ethyltoluene	ND		ug/l	8.0	2.8	4
1,2,4,5-Tetramethylbenzene	ND		ug/l	8.0	2.2	4
Ethyl ether	8.4	J	ug/l	10	2.8	4
trans-1,4-Dichloro-2-butene	ND		ug/l	10	2.8	4

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	96		70-130
Toluene-d8	100		70-130
4-Bromofluorobenzene	95		70-130
Dibromofluoromethane	97		70-130

Project Name: FESL
Project Number: 20029

Lab Number: L2046766
Report Date: 10/29/20

SAMPLE RESULTS

Lab ID: L2046766-02 D
 Client ID: FLOW HI D13
 Sample Location: ROCHESTER, NY

Date Collected: 10/27/20 11:30
 Date Received: 10/27/20
 Field Prep: Not Specified

Sample Depth:

Matrix: Water
 Analytical Method: 1,8260C
 Analytical Date: 10/28/20 14:38
 Analyst: NLK

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methylene chloride	ND		ug/l	12	3.5	5
1,1-Dichloroethane	500		ug/l	12	3.5	5
Chloroform	ND		ug/l	12	3.5	5
Carbon tetrachloride	ND		ug/l	2.5	0.67	5
1,2-Dichloropropane	ND		ug/l	5.0	0.68	5
Dibromochloromethane	ND		ug/l	2.5	0.74	5
1,1,2-Trichloroethane	ND		ug/l	7.5	2.5	5
Tetrachloroethene	32		ug/l	2.5	0.90	5
Chlorobenzene	ND		ug/l	12	3.5	5
Trichlorofluoromethane	ND		ug/l	12	3.5	5
1,2-Dichloroethane	ND		ug/l	2.5	0.66	5
1,1,1-Trichloroethane	ND		ug/l	12	3.5	5
Bromodichloromethane	ND		ug/l	2.5	0.96	5
trans-1,3-Dichloropropene	ND		ug/l	2.5	0.82	5
cis-1,3-Dichloropropene	ND		ug/l	2.5	0.72	5
1,3-Dichloropropene, Total	ND		ug/l	2.5	0.72	5
1,1-Dichloropropene	ND		ug/l	12	3.5	5
Bromoform	ND		ug/l	10	3.2	5
1,1,1,2-Tetrachloroethane	ND		ug/l	2.5	0.84	5
Benzene	4.2		ug/l	2.5	0.80	5
Toluene	12		ug/l	12	3.5	5
Ethylbenzene	ND		ug/l	12	3.5	5
Chloromethane	ND		ug/l	12	3.5	5
Bromomethane	ND		ug/l	12	3.5	5
Vinyl chloride	120		ug/l	5.0	0.36	5
Chloroethane	160		ug/l	12	3.5	5
1,1-Dichloroethene	ND		ug/l	2.5	0.84	5
trans-1,2-Dichloroethene	ND		ug/l	12	3.5	5

Project Name: FESL
Project Number: 20029

Lab Number: L2046766
Report Date: 10/29/20

SAMPLE RESULTS

Lab ID: L2046766-02 D
 Client ID: FLOW HI D13
 Sample Location: ROCHESTER, NY

Date Collected: 10/27/20 11:30
 Date Received: 10/27/20
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Trichloroethene	1.4	J	ug/l	2.5	0.88	5
1,2-Dichlorobenzene	ND		ug/l	12	3.5	5
1,3-Dichlorobenzene	ND		ug/l	12	3.5	5
1,4-Dichlorobenzene	ND		ug/l	12	3.5	5
Methyl tert butyl ether	ND		ug/l	12	3.5	5
p/m-Xylene	ND		ug/l	12	3.5	5
o-Xylene	ND		ug/l	12	3.5	5
Xylenes, Total	ND		ug/l	12	3.5	5
cis-1,2-Dichloroethene	230		ug/l	12	3.5	5
1,2-Dichloroethene, Total	230		ug/l	12	3.5	5
Dibromomethane	ND		ug/l	25	5.0	5
1,2,3-Trichloropropane	ND		ug/l	12	3.5	5
Acrylonitrile	ND		ug/l	25	7.5	5
Styrene	ND		ug/l	12	3.5	5
Dichlorodifluoromethane	ND		ug/l	25	5.0	5
Acetone	7.5	J	ug/l	25	7.3	5
Carbon disulfide	ND		ug/l	25	5.0	5
2-Butanone	ND		ug/l	25	9.7	5
Vinyl acetate	ND		ug/l	25	5.0	5
4-Methyl-2-pentanone	ND		ug/l	25	5.0	5
2-Hexanone	ND		ug/l	25	5.0	5
Bromochloromethane	ND		ug/l	12	3.5	5
2,2-Dichloropropane	ND		ug/l	12	3.5	5
1,2-Dibromoethane	ND		ug/l	10	3.2	5
1,3-Dichloropropane	ND		ug/l	12	3.5	5
1,1,1,2-Tetrachloroethane	ND		ug/l	12	3.5	5
Bromobenzene	ND		ug/l	12	3.5	5
n-Butylbenzene	ND		ug/l	12	3.5	5
sec-Butylbenzene	ND		ug/l	12	3.5	5
tert-Butylbenzene	ND		ug/l	12	3.5	5
o-Chlorotoluene	ND		ug/l	12	3.5	5
p-Chlorotoluene	ND		ug/l	12	3.5	5
1,2-Dibromo-3-chloropropane	ND		ug/l	12	3.5	5
Hexachlorobutadiene	ND		ug/l	12	3.5	5
Isopropylbenzene	ND		ug/l	12	3.5	5
p-Isopropyltoluene	ND		ug/l	12	3.5	5
Naphthalene	ND		ug/l	12	3.5	5

Project Name: FESL
Project Number: 20029

Lab Number: L2046766
Report Date: 10/29/20

SAMPLE RESULTS

Lab ID: L2046766-02 D
 Client ID: FLOW HI D13
 Sample Location: ROCHESTER, NY

Date Collected: 10/27/20 11:30
 Date Received: 10/27/20
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
n-Propylbenzene	ND		ug/l	12	3.5	5
1,2,3-Trichlorobenzene	ND		ug/l	12	3.5	5
1,2,4-Trichlorobenzene	ND		ug/l	12	3.5	5
1,3,5-Trimethylbenzene	ND		ug/l	12	3.5	5
1,2,4-Trimethylbenzene	ND		ug/l	12	3.5	5
1,4-Dioxane	ND		ug/l	1200	300	5
Freon-113	14		ug/l	12	3.5	5
p-Diethylbenzene	ND		ug/l	10	3.5	5
p-Ethyltoluene	ND		ug/l	10	3.5	5
1,2,4,5-Tetramethylbenzene	ND		ug/l	10	2.7	5
Ethyl ether	9.0	J	ug/l	12	3.5	5
trans-1,4-Dichloro-2-butene	ND		ug/l	12	3.5	5

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	97		70-130
Toluene-d8	102		70-130
4-Bromofluorobenzene	94		70-130
Dibromofluoromethane	99		70-130

Project Name: FESL
Project Number: 20029

Lab Number: L2046766
Report Date: 10/29/20

SAMPLE RESULTS

Lab ID: L2046766-03 D
 Client ID: TARGET LO D13
 Sample Location: ROCHESTER, NY

Date Collected: 10/27/20 11:35
 Date Received: 10/27/20
 Field Prep: Not Specified

Sample Depth:

Matrix: Water
 Analytical Method: 1,8260C
 Analytical Date: 10/28/20 15:03
 Analyst: AJK

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methylene chloride	ND		ug/l	10	2.8	4
1,1-Dichloroethane	510		ug/l	10	2.8	4
Chloroform	ND		ug/l	10	2.8	4
Carbon tetrachloride	ND		ug/l	2.0	0.54	4
1,2-Dichloropropane	ND		ug/l	4.0	0.55	4
Dibromochloromethane	ND		ug/l	2.0	0.60	4
1,1,2-Trichloroethane	ND		ug/l	6.0	2.0	4
Tetrachloroethene	58		ug/l	2.0	0.72	4
Chlorobenzene	ND		ug/l	10	2.8	4
Trichlorofluoromethane	ND		ug/l	10	2.8	4
1,2-Dichloroethane	ND		ug/l	2.0	0.53	4
1,1,1-Trichloroethane	ND		ug/l	10	2.8	4
Bromodichloromethane	ND		ug/l	2.0	0.77	4
trans-1,3-Dichloropropene	ND		ug/l	2.0	0.66	4
cis-1,3-Dichloropropene	ND		ug/l	2.0	0.58	4
1,3-Dichloropropene, Total	ND		ug/l	2.0	0.58	4
1,1-Dichloropropene	ND		ug/l	10	2.8	4
Bromoform	ND		ug/l	8.0	2.6	4
1,1,1,2-Tetrachloroethane	ND		ug/l	2.0	0.67	4
Benzene	5.5		ug/l	2.0	0.64	4
Toluene	18		ug/l	10	2.8	4
Ethylbenzene	ND		ug/l	10	2.8	4
Chloromethane	7.1	J	ug/l	10	2.8	4
Bromomethane	ND		ug/l	10	2.8	4
Vinyl chloride	210		ug/l	4.0	0.28	4
Chloroethane	160		ug/l	10	2.8	4
1,1-Dichloroethene	ND		ug/l	2.0	0.68	4
trans-1,2-Dichloroethene	ND		ug/l	10	2.8	4

Project Name: FESL
Project Number: 20029

Lab Number: L2046766
Report Date: 10/29/20

SAMPLE RESULTS

Lab ID: L2046766-03 D
 Client ID: TARGET LO D13
 Sample Location: ROCHESTER, NY

Date Collected: 10/27/20 11:35
 Date Received: 10/27/20
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Trichloroethene	2.8		ug/l	2.0	0.70	4
1,2-Dichlorobenzene	ND		ug/l	10	2.8	4
1,3-Dichlorobenzene	ND		ug/l	10	2.8	4
1,4-Dichlorobenzene	ND		ug/l	10	2.8	4
Methyl tert butyl ether	ND		ug/l	10	2.8	4
p/m-Xylene	ND		ug/l	10	2.8	4
o-Xylene	4.6	J	ug/l	10	2.8	4
Xylenes, Total	4.6	J	ug/l	10	2.8	4
cis-1,2-Dichloroethene	420		ug/l	10	2.8	4
1,2-Dichloroethene, Total	420		ug/l	10	2.8	4
Dibromomethane	ND		ug/l	20	4.0	4
1,2,3-Trichloropropane	ND		ug/l	10	2.8	4
Acrylonitrile	ND		ug/l	20	6.0	4
Styrene	ND		ug/l	10	2.8	4
Dichlorodifluoromethane	ND		ug/l	20	4.0	4
Acetone	13	J	ug/l	20	5.8	4
Carbon disulfide	ND		ug/l	20	4.0	4
2-Butanone	8.7	J	ug/l	20	7.8	4
Vinyl acetate	ND		ug/l	20	4.0	4
4-Methyl-2-pentanone	ND		ug/l	20	4.0	4
2-Hexanone	ND		ug/l	20	4.0	4
Bromochloromethane	ND		ug/l	10	2.8	4
2,2-Dichloropropane	ND		ug/l	10	2.8	4
1,2-Dibromoethane	ND		ug/l	8.0	2.6	4
1,3-Dichloropropane	ND		ug/l	10	2.8	4
1,1,1,2-Tetrachloroethane	ND		ug/l	10	2.8	4
Bromobenzene	ND		ug/l	10	2.8	4
n-Butylbenzene	ND		ug/l	10	2.8	4
sec-Butylbenzene	ND		ug/l	10	2.8	4
tert-Butylbenzene	ND		ug/l	10	2.8	4
o-Chlorotoluene	ND		ug/l	10	2.8	4
p-Chlorotoluene	ND		ug/l	10	2.8	4
1,2-Dibromo-3-chloropropane	ND		ug/l	10	2.8	4
Hexachlorobutadiene	ND		ug/l	10	2.8	4
Isopropylbenzene	ND		ug/l	10	2.8	4
p-Isopropyltoluene	ND		ug/l	10	2.8	4
Naphthalene	ND		ug/l	10	2.8	4

Project Name: FESL
Project Number: 20029

Lab Number: L2046766
Report Date: 10/29/20

SAMPLE RESULTS

Lab ID: L2046766-03 D
 Client ID: TARGET LO D13
 Sample Location: ROCHESTER, NY

Date Collected: 10/27/20 11:35
 Date Received: 10/27/20
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
n-Propylbenzene	ND		ug/l	10	2.8	4
1,2,3-Trichlorobenzene	ND		ug/l	10	2.8	4
1,2,4-Trichlorobenzene	ND		ug/l	10	2.8	4
1,3,5-Trimethylbenzene	ND		ug/l	10	2.8	4
1,2,4-Trimethylbenzene	ND		ug/l	10	2.8	4
1,4-Dioxane	ND		ug/l	1000	240	4
Freon-113	7.0	J	ug/l	10	2.8	4
p-Diethylbenzene	ND		ug/l	8.0	2.8	4
p-Ethyltoluene	ND		ug/l	8.0	2.8	4
1,2,4,5-Tetramethylbenzene	ND		ug/l	8.0	2.2	4
Ethyl ether	7.9	J	ug/l	10	2.8	4
trans-1,4-Dichloro-2-butene	ND		ug/l	10	2.8	4

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	95		70-130
Toluene-d8	102		70-130
4-Bromofluorobenzene	93		70-130
Dibromofluoromethane	96		70-130

Project Name: FESL
Project Number: 20029

Lab Number: L2046766
Report Date: 10/29/20

SAMPLE RESULTS

Lab ID: L2046766-04 D
 Client ID: TARGET HI D13
 Sample Location: ROCHESTER, NY

Date Collected: 10/27/20 11:40
 Date Received: 10/27/20
 Field Prep: Not Specified

Sample Depth:

Matrix: Water
 Analytical Method: 1,8260C
 Analytical Date: 10/28/20 15:29
 Analyst: AJK

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methylene chloride	ND		ug/l	12	3.5	5
1,1-Dichloroethane	490		ug/l	12	3.5	5
Chloroform	ND		ug/l	12	3.5	5
Carbon tetrachloride	ND		ug/l	2.5	0.67	5
1,2-Dichloropropane	ND		ug/l	5.0	0.68	5
Dibromochloromethane	ND		ug/l	2.5	0.74	5
1,1,2-Trichloroethane	ND		ug/l	7.5	2.5	5
Tetrachloroethene	16		ug/l	2.5	0.90	5
Chlorobenzene	ND		ug/l	12	3.5	5
Trichlorofluoromethane	ND		ug/l	12	3.5	5
1,2-Dichloroethane	ND		ug/l	2.5	0.66	5
1,1,1-Trichloroethane	ND		ug/l	12	3.5	5
Bromodichloromethane	ND		ug/l	2.5	0.96	5
trans-1,3-Dichloropropene	ND		ug/l	2.5	0.82	5
cis-1,3-Dichloropropene	ND		ug/l	2.5	0.72	5
1,3-Dichloropropene, Total	ND		ug/l	2.5	0.72	5
1,1-Dichloropropene	ND		ug/l	12	3.5	5
Bromoform	ND		ug/l	10	3.2	5
1,1,1,2-Tetrachloroethane	ND		ug/l	2.5	0.84	5
Benzene	6.8		ug/l	2.5	0.80	5
Toluene	19		ug/l	12	3.5	5
Ethylbenzene	ND		ug/l	12	3.5	5
Chloromethane	14		ug/l	12	3.5	5
Bromomethane	ND		ug/l	12	3.5	5
Vinyl chloride	44		ug/l	5.0	0.36	5
Chloroethane	170		ug/l	12	3.5	5
1,1-Dichloroethene	ND		ug/l	2.5	0.84	5
trans-1,2-Dichloroethene	ND		ug/l	12	3.5	5

Project Name: FESL
Project Number: 20029

Lab Number: L2046766
Report Date: 10/29/20

SAMPLE RESULTS

Lab ID: L2046766-04 D
 Client ID: TARGET HI D13
 Sample Location: ROCHESTER, NY

Date Collected: 10/27/20 11:40
 Date Received: 10/27/20
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Trichloroethene	1.2	J	ug/l	2.5	0.88	5
1,2-Dichlorobenzene	ND		ug/l	12	3.5	5
1,3-Dichlorobenzene	ND		ug/l	12	3.5	5
1,4-Dichlorobenzene	ND		ug/l	12	3.5	5
Methyl tert butyl ether	ND		ug/l	12	3.5	5
p/m-Xylene	ND		ug/l	12	3.5	5
o-Xylene	4.3	J	ug/l	12	3.5	5
Xylenes, Total	4.3	J	ug/l	12	3.5	5
cis-1,2-Dichloroethene	110		ug/l	12	3.5	5
1,2-Dichloroethene, Total	110		ug/l	12	3.5	5
Dibromomethane	ND		ug/l	25	5.0	5
1,2,3-Trichloropropane	ND		ug/l	12	3.5	5
Acrylonitrile	ND		ug/l	25	7.5	5
Styrene	ND		ug/l	12	3.5	5
Dichlorodifluoromethane	ND		ug/l	25	5.0	5
Acetone	24	J	ug/l	25	7.3	5
Carbon disulfide	ND		ug/l	25	5.0	5
2-Butanone	15	J	ug/l	25	9.7	5
Vinyl acetate	ND		ug/l	25	5.0	5
4-Methyl-2-pentanone	ND		ug/l	25	5.0	5
2-Hexanone	ND		ug/l	25	5.0	5
Bromochloromethane	ND		ug/l	12	3.5	5
2,2-Dichloropropane	ND		ug/l	12	3.5	5
1,2-Dibromoethane	ND		ug/l	10	3.2	5
1,3-Dichloropropane	ND		ug/l	12	3.5	5
1,1,1,2-Tetrachloroethane	ND		ug/l	12	3.5	5
Bromobenzene	ND		ug/l	12	3.5	5
n-Butylbenzene	ND		ug/l	12	3.5	5
sec-Butylbenzene	ND		ug/l	12	3.5	5
tert-Butylbenzene	ND		ug/l	12	3.5	5
o-Chlorotoluene	ND		ug/l	12	3.5	5
p-Chlorotoluene	ND		ug/l	12	3.5	5
1,2-Dibromo-3-chloropropane	ND		ug/l	12	3.5	5
Hexachlorobutadiene	ND		ug/l	12	3.5	5
Isopropylbenzene	ND		ug/l	12	3.5	5
p-Isopropyltoluene	ND		ug/l	12	3.5	5
Naphthalene	ND		ug/l	12	3.5	5

Project Name: FESL
Project Number: 20029

Lab Number: L2046766
Report Date: 10/29/20

SAMPLE RESULTS

Lab ID: L2046766-04 D
 Client ID: TARGET HI D13
 Sample Location: ROCHESTER, NY

Date Collected: 10/27/20 11:40
 Date Received: 10/27/20
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
n-Propylbenzene	ND		ug/l	12	3.5	5
1,2,3-Trichlorobenzene	ND		ug/l	12	3.5	5
1,2,4-Trichlorobenzene	ND		ug/l	12	3.5	5
1,3,5-Trimethylbenzene	ND		ug/l	12	3.5	5
1,2,4-Trimethylbenzene	ND		ug/l	12	3.5	5
1,4-Dioxane	ND		ug/l	1200	300	5
Freon-113	ND		ug/l	12	3.5	5
p-Diethylbenzene	ND		ug/l	10	3.5	5
p-Ethyltoluene	ND		ug/l	10	3.5	5
1,2,4,5-Tetramethylbenzene	ND		ug/l	10	2.7	5
Ethyl ether	8.6	J	ug/l	12	3.5	5
trans-1,4-Dichloro-2-butene	ND		ug/l	12	3.5	5

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	99		70-130
Toluene-d8	103		70-130
4-Bromofluorobenzene	93		70-130
Dibromofluoromethane	97		70-130

Project Name: FESL
Project Number: 20029

Lab Number: L2046766
Report Date: 10/29/20

SAMPLE RESULTS

Lab ID: L2046766-05 D
 Client ID: EZVI LO D13
 Sample Location: ROCHESTER, NY

Date Collected: 10/27/20 11:45
 Date Received: 10/27/20
 Field Prep: Not Specified

Sample Depth:

Matrix: Water
 Analytical Method: 1,8260C
 Analytical Date: 10/28/20 16:45
 Analyst: AJK

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methylene chloride	ND		ug/l	62	18.	25
1,1-Dichloroethane	520		ug/l	62	18.	25
Chloroform	ND		ug/l	62	18.	25
Carbon tetrachloride	ND		ug/l	12	3.4	25
1,2-Dichloropropane	ND		ug/l	25	3.4	25
Dibromochloromethane	ND		ug/l	12	3.7	25
1,1,2-Trichloroethane	ND		ug/l	38	12.	25
Tetrachloroethene	190		ug/l	12	4.5	25
Chlorobenzene	ND		ug/l	62	18.	25
Trichlorofluoromethane	ND		ug/l	62	18.	25
1,2-Dichloroethane	ND		ug/l	12	3.3	25
1,1,1-Trichloroethane	18	J	ug/l	62	18.	25
Bromodichloromethane	ND		ug/l	12	4.8	25
trans-1,3-Dichloropropene	ND		ug/l	12	4.1	25
cis-1,3-Dichloropropene	ND		ug/l	12	3.6	25
1,3-Dichloropropene, Total	ND		ug/l	12	3.6	25
1,1-Dichloropropene	ND		ug/l	62	18.	25
Bromoform	ND		ug/l	50	16.	25
1,1,1,2,2-Tetrachloroethane	ND		ug/l	12	4.2	25
Benzene	4.9	J	ug/l	12	4.0	25
Toluene	24	J	ug/l	62	18.	25
Ethylbenzene	ND		ug/l	62	18.	25
Chloromethane	ND		ug/l	62	18.	25
Bromomethane	ND		ug/l	62	18.	25
Vinyl chloride	320		ug/l	25	1.8	25
Chloroethane	170		ug/l	62	18.	25
1,1-Dichloroethene	4.9	J	ug/l	12	4.2	25
trans-1,2-Dichloroethene	ND		ug/l	62	18.	25

Project Name: FESL
Project Number: 20029

Lab Number: L2046766
Report Date: 10/29/20

SAMPLE RESULTS

Lab ID: L2046766-05 D
 Client ID: EZVI LO D13
 Sample Location: ROCHESTER, NY

Date Collected: 10/27/20 11:45
 Date Received: 10/27/20
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Trichloroethene	17		ug/l	12	4.4	25
1,2-Dichlorobenzene	ND		ug/l	62	18.	25
1,3-Dichlorobenzene	ND		ug/l	62	18.	25
1,4-Dichlorobenzene	ND		ug/l	62	18.	25
Methyl tert butyl ether	ND		ug/l	62	18.	25
p/m-Xylene	ND		ug/l	62	18.	25
o-Xylene	ND		ug/l	62	18.	25
Xylenes, Total	ND		ug/l	62	18.	25
cis-1,2-Dichloroethene	520		ug/l	62	18.	25
1,2-Dichloroethene, Total	520		ug/l	62	18.	25
Dibromomethane	ND		ug/l	120	25.	25
1,2,3-Trichloropropane	ND		ug/l	62	18.	25
Acrylonitrile	ND		ug/l	120	38.	25
Styrene	ND		ug/l	62	18.	25
Dichlorodifluoromethane	ND		ug/l	120	25.	25
Acetone	ND		ug/l	120	36.	25
Carbon disulfide	ND		ug/l	120	25.	25
2-Butanone	230		ug/l	120	48.	25
Vinyl acetate	ND		ug/l	120	25.	25
4-Methyl-2-pentanone	ND		ug/l	120	25.	25
2-Hexanone	ND		ug/l	120	25.	25
Bromochloromethane	ND		ug/l	62	18.	25
2,2-Dichloropropane	ND		ug/l	62	18.	25
1,2-Dibromoethane	ND		ug/l	50	16.	25
1,3-Dichloropropane	ND		ug/l	62	18.	25
1,1,1,2-Tetrachloroethane	ND		ug/l	62	18.	25
Bromobenzene	ND		ug/l	62	18.	25
n-Butylbenzene	ND		ug/l	62	18.	25
sec-Butylbenzene	ND		ug/l	62	18.	25
tert-Butylbenzene	ND		ug/l	62	18.	25
o-Chlorotoluene	ND		ug/l	62	18.	25
p-Chlorotoluene	ND		ug/l	62	18.	25
1,2-Dibromo-3-chloropropane	ND		ug/l	62	18.	25
Hexachlorobutadiene	ND		ug/l	62	18.	25
Isopropylbenzene	ND		ug/l	62	18.	25
p-Isopropyltoluene	ND		ug/l	62	18.	25
Naphthalene	ND		ug/l	62	18.	25

Project Name: FESL
Project Number: 20029

Lab Number: L2046766
Report Date: 10/29/20

SAMPLE RESULTS

Lab ID: L2046766-05 D
 Client ID: EZVI LO D13
 Sample Location: ROCHESTER, NY

Date Collected: 10/27/20 11:45
 Date Received: 10/27/20
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
n-Propylbenzene	ND		ug/l	62	18.	25
1,2,3-Trichlorobenzene	ND		ug/l	62	18.	25
1,2,4-Trichlorobenzene	ND		ug/l	62	18.	25
1,3,5-Trimethylbenzene	ND		ug/l	62	18.	25
1,2,4-Trimethylbenzene	ND		ug/l	62	18.	25
1,4-Dioxane	ND		ug/l	6200	1500	25
Freon-113	52	J	ug/l	62	18.	25
p-Diethylbenzene	ND		ug/l	50	18.	25
p-Ethyltoluene	ND		ug/l	50	18.	25
1,2,4,5-Tetramethylbenzene	ND		ug/l	50	14.	25
Ethyl ether	ND		ug/l	62	18.	25
trans-1,4-Dichloro-2-butene	ND		ug/l	62	18.	25

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	96		70-130
Toluene-d8	103		70-130
4-Bromofluorobenzene	100		70-130
Dibromofluoromethane	98		70-130

Project Name: FESL
Project Number: 20029

Lab Number: L2046766
Report Date: 10/29/20

SAMPLE RESULTS

Lab ID: L2046766-06 D
 Client ID: EZVI HI D13
 Sample Location: ROCHESTER, NY

Date Collected: 10/27/20 11:50
 Date Received: 10/27/20
 Field Prep: Not Specified

Sample Depth:

Matrix: Water
 Analytical Method: 1,8260C
 Analytical Date: 10/28/20 17:10
 Analyst: AJK

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methylene chloride	ND		ug/l	62	18.	25
1,1-Dichloroethane	380		ug/l	62	18.	25
Chloroform	ND		ug/l	62	18.	25
Carbon tetrachloride	ND		ug/l	12	3.4	25
1,2-Dichloropropane	ND		ug/l	25	3.4	25
Dibromochloromethane	ND		ug/l	12	3.7	25
1,1,2-Trichloroethane	ND		ug/l	38	12.	25
Tetrachloroethene	120		ug/l	12	4.5	25
Chlorobenzene	ND		ug/l	62	18.	25
Trichlorofluoromethane	ND		ug/l	62	18.	25
1,2-Dichloroethane	ND		ug/l	12	3.3	25
1,1,1-Trichloroethane	ND		ug/l	62	18.	25
Bromodichloromethane	ND		ug/l	12	4.8	25
trans-1,3-Dichloropropene	ND		ug/l	12	4.1	25
cis-1,3-Dichloropropene	ND		ug/l	12	3.6	25
1,3-Dichloropropene, Total	ND		ug/l	12	3.6	25
1,1-Dichloropropene	ND		ug/l	62	18.	25
Bromoform	ND		ug/l	50	16.	25
1,1,1,2,2-Tetrachloroethane	ND		ug/l	12	4.2	25
Benzene	4.1	J	ug/l	12	4.0	25
Toluene	24	J	ug/l	62	18.	25
Ethylbenzene	ND		ug/l	62	18.	25
Chloromethane	ND		ug/l	62	18.	25
Bromomethane	ND		ug/l	62	18.	25
Vinyl chloride	240		ug/l	25	1.8	25
Chloroethane	140		ug/l	62	18.	25
1,1-Dichloroethene	4.2	J	ug/l	12	4.2	25
trans-1,2-Dichloroethene	ND		ug/l	62	18.	25

Project Name: FESL
Project Number: 20029

Lab Number: L2046766
Report Date: 10/29/20

SAMPLE RESULTS

Lab ID: L2046766-06 D
 Client ID: EZVI HI D13
 Sample Location: ROCHESTER, NY

Date Collected: 10/27/20 11:50
 Date Received: 10/27/20
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Trichloroethene	12		ug/l	12	4.4	25
1,2-Dichlorobenzene	ND		ug/l	62	18.	25
1,3-Dichlorobenzene	ND		ug/l	62	18.	25
1,4-Dichlorobenzene	ND		ug/l	62	18.	25
Methyl tert butyl ether	ND		ug/l	62	18.	25
p/m-Xylene	ND		ug/l	62	18.	25
o-Xylene	ND		ug/l	62	18.	25
Xylenes, Total	ND		ug/l	62	18.	25
cis-1,2-Dichloroethene	380		ug/l	62	18.	25
1,2-Dichloroethene, Total	380		ug/l	62	18.	25
Dibromomethane	ND		ug/l	120	25.	25
1,2,3-Trichloropropane	ND		ug/l	62	18.	25
Acrylonitrile	ND		ug/l	120	38.	25
Styrene	ND		ug/l	62	18.	25
Dichlorodifluoromethane	ND		ug/l	120	25.	25
Acetone	100	J	ug/l	120	36.	25
Carbon disulfide	ND		ug/l	120	25.	25
2-Butanone	780		ug/l	120	48.	25
Vinyl acetate	ND		ug/l	120	25.	25
4-Methyl-2-pentanone	ND		ug/l	120	25.	25
2-Hexanone	ND		ug/l	120	25.	25
Bromochloromethane	ND		ug/l	62	18.	25
2,2-Dichloropropane	ND		ug/l	62	18.	25
1,2-Dibromoethane	ND		ug/l	50	16.	25
1,3-Dichloropropane	ND		ug/l	62	18.	25
1,1,1,2-Tetrachloroethane	ND		ug/l	62	18.	25
Bromobenzene	ND		ug/l	62	18.	25
n-Butylbenzene	ND		ug/l	62	18.	25
sec-Butylbenzene	ND		ug/l	62	18.	25
tert-Butylbenzene	ND		ug/l	62	18.	25
o-Chlorotoluene	ND		ug/l	62	18.	25
p-Chlorotoluene	ND		ug/l	62	18.	25
1,2-Dibromo-3-chloropropane	ND		ug/l	62	18.	25
Hexachlorobutadiene	ND		ug/l	62	18.	25
Isopropylbenzene	ND		ug/l	62	18.	25
p-Isopropyltoluene	ND		ug/l	62	18.	25
Naphthalene	ND		ug/l	62	18.	25

Project Name: FESL
Project Number: 20029

Lab Number: L2046766
Report Date: 10/29/20

SAMPLE RESULTS

Lab ID: L2046766-06 D
 Client ID: EZVI HI D13
 Sample Location: ROCHESTER, NY

Date Collected: 10/27/20 11:50
 Date Received: 10/27/20
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
n-Propylbenzene	ND		ug/l	62	18.	25
1,2,3-Trichlorobenzene	ND		ug/l	62	18.	25
1,2,4-Trichlorobenzene	ND		ug/l	62	18.	25
1,3,5-Trimethylbenzene	ND		ug/l	62	18.	25
1,2,4-Trimethylbenzene	ND		ug/l	62	18.	25
1,4-Dioxane	ND		ug/l	6200	1500	25
Freon-113	50	J	ug/l	62	18.	25
p-Diethylbenzene	ND		ug/l	50	18.	25
p-Ethyltoluene	ND		ug/l	50	18.	25
1,2,4,5-Tetramethylbenzene	ND		ug/l	50	14.	25
Ethyl ether	ND		ug/l	62	18.	25
trans-1,4-Dichloro-2-butene	ND		ug/l	62	18.	25

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	97		70-130
Toluene-d8	105		70-130
4-Bromofluorobenzene	105		70-130
Dibromofluoromethane	99		70-130

Project Name: FESL
Project Number: 20029

Lab Number: L2046766
Report Date: 10/29/20

SAMPLE RESULTS

Lab ID: L2046766-07 D
 Client ID: CTRL D13
 Sample Location: ROCHESTER, NY

Date Collected: 10/27/20 11:55
 Date Received: 10/27/20
 Field Prep: Not Specified

Sample Depth:

Matrix: Water
 Analytical Method: 1,8260C
 Analytical Date: 10/28/20 15:54
 Analyst: AJK

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methylene chloride	ND		ug/l	10	2.8	4
1,1-Dichloroethane	540		ug/l	10	2.8	4
Chloroform	ND		ug/l	10	2.8	4
Carbon tetrachloride	ND		ug/l	2.0	0.54	4
1,2-Dichloropropane	ND		ug/l	4.0	0.55	4
Dibromochloromethane	ND		ug/l	2.0	0.60	4
1,1,2-Trichloroethane	ND		ug/l	6.0	2.0	4
Tetrachloroethene	97		ug/l	2.0	0.72	4
Chlorobenzene	ND		ug/l	10	2.8	4
Trichlorofluoromethane	ND		ug/l	10	2.8	4
1,2-Dichloroethane	ND		ug/l	2.0	0.53	4
1,1,1-Trichloroethane	230		ug/l	10	2.8	4
Bromodichloromethane	ND		ug/l	2.0	0.77	4
trans-1,3-Dichloropropene	ND		ug/l	2.0	0.66	4
cis-1,3-Dichloropropene	ND		ug/l	2.0	0.58	4
1,3-Dichloropropene, Total	ND		ug/l	2.0	0.58	4
1,1-Dichloropropene	ND		ug/l	10	2.8	4
Bromoform	ND		ug/l	8.0	2.6	4
1,1,1,2,2-Tetrachloroethane	ND		ug/l	2.0	0.67	4
Benzene	1.8	J	ug/l	2.0	0.64	4
Toluene	4.3	J	ug/l	10	2.8	4
Ethylbenzene	ND		ug/l	10	2.8	4
Chloromethane	ND		ug/l	10	2.8	4
Bromomethane	ND		ug/l	10	2.8	4
Vinyl chloride	360		ug/l	4.0	0.28	4
Chloroethane	180		ug/l	10	2.8	4
1,1-Dichloroethene	7.5		ug/l	2.0	0.68	4
trans-1,2-Dichloroethene	6.4	J	ug/l	10	2.8	4

Project Name: FESL
Project Number: 20029

Lab Number: L2046766
Report Date: 10/29/20

SAMPLE RESULTS

Lab ID: L2046766-07 D
 Client ID: CTRL D13
 Sample Location: ROCHESTER, NY

Date Collected: 10/27/20 11:55
 Date Received: 10/27/20
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Trichloroethene	18		ug/l	2.0	0.70	4
1,2-Dichlorobenzene	ND		ug/l	10	2.8	4
1,3-Dichlorobenzene	ND		ug/l	10	2.8	4
1,4-Dichlorobenzene	ND		ug/l	10	2.8	4
Methyl tert butyl ether	ND		ug/l	10	2.8	4
p/m-Xylene	ND		ug/l	10	2.8	4
o-Xylene	ND		ug/l	10	2.8	4
Xylenes, Total	ND		ug/l	10	2.8	4
cis-1,2-Dichloroethene	550		ug/l	10	2.8	4
1,2-Dichloroethene, Total	560	J	ug/l	10	2.8	4
Dibromomethane	ND		ug/l	20	4.0	4
1,2,3-Trichloropropane	ND		ug/l	10	2.8	4
Acrylonitrile	ND		ug/l	20	6.0	4
Styrene	ND		ug/l	10	2.8	4
Dichlorodifluoromethane	ND		ug/l	20	4.0	4
Acetone	ND		ug/l	20	5.8	4
Carbon disulfide	ND		ug/l	20	4.0	4
2-Butanone	ND		ug/l	20	7.8	4
Vinyl acetate	ND		ug/l	20	4.0	4
4-Methyl-2-pentanone	ND		ug/l	20	4.0	4
2-Hexanone	ND		ug/l	20	4.0	4
Bromochloromethane	ND		ug/l	10	2.8	4
2,2-Dichloropropane	ND		ug/l	10	2.8	4
1,2-Dibromoethane	ND		ug/l	8.0	2.6	4
1,3-Dichloropropane	ND		ug/l	10	2.8	4
1,1,1,2-Tetrachloroethane	ND		ug/l	10	2.8	4
Bromobenzene	ND		ug/l	10	2.8	4
n-Butylbenzene	ND		ug/l	10	2.8	4
sec-Butylbenzene	ND		ug/l	10	2.8	4
tert-Butylbenzene	ND		ug/l	10	2.8	4
o-Chlorotoluene	ND		ug/l	10	2.8	4
p-Chlorotoluene	ND		ug/l	10	2.8	4
1,2-Dibromo-3-chloropropane	ND		ug/l	10	2.8	4
Hexachlorobutadiene	ND		ug/l	10	2.8	4
Isopropylbenzene	ND		ug/l	10	2.8	4
p-Isopropyltoluene	ND		ug/l	10	2.8	4
Naphthalene	ND		ug/l	10	2.8	4

Project Name: FESL
Project Number: 20029

Lab Number: L2046766
Report Date: 10/29/20

SAMPLE RESULTS

Lab ID: L2046766-07 D
 Client ID: CTRL D13
 Sample Location: ROCHESTER, NY

Date Collected: 10/27/20 11:55
 Date Received: 10/27/20
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
n-Propylbenzene	ND		ug/l	10	2.8	4
1,2,3-Trichlorobenzene	ND		ug/l	10	2.8	4
1,2,4-Trichlorobenzene	ND		ug/l	10	2.8	4
1,3,5-Trimethylbenzene	ND		ug/l	10	2.8	4
1,2,4-Trimethylbenzene	ND		ug/l	10	2.8	4
1,4-Dioxane	ND		ug/l	1000	240	4
Freon-113	93		ug/l	10	2.8	4
p-Diethylbenzene	ND		ug/l	8.0	2.8	4
p-Ethyltoluene	ND		ug/l	8.0	2.8	4
1,2,4,5-Tetramethylbenzene	ND		ug/l	8.0	2.2	4
Ethyl ether	7.7	J	ug/l	10	2.8	4
trans-1,4-Dichloro-2-butene	ND		ug/l	10	2.8	4

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	98		70-130
Toluene-d8	101		70-130
4-Bromofluorobenzene	96		70-130
Dibromofluoromethane	97		70-130

Project Name: FESL
Project Number: 20029

Lab Number: L2046766
Report Date: 10/29/20

SAMPLE RESULTS

Lab ID: L2046766-08 D
 Client ID: CTRL D13 DUP
 Sample Location: ROCHESTER, NY

Date Collected: 10/27/20 12:00
 Date Received: 10/27/20
 Field Prep: Not Specified

Sample Depth:

Matrix: Water
 Analytical Method: 1,8260C
 Analytical Date: 10/28/20 16:20
 Analyst: AJK

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methylene chloride	ND		ug/l	12	3.5	5
1,1-Dichloroethane	520		ug/l	12	3.5	5
Chloroform	ND		ug/l	12	3.5	5
Carbon tetrachloride	ND		ug/l	2.5	0.67	5
1,2-Dichloropropane	ND		ug/l	5.0	0.68	5
Dibromochloromethane	ND		ug/l	2.5	0.74	5
1,1,2-Trichloroethane	ND		ug/l	7.5	2.5	5
Tetrachloroethene	99		ug/l	2.5	0.90	5
Chlorobenzene	ND		ug/l	12	3.5	5
Trichlorofluoromethane	ND		ug/l	12	3.5	5
1,2-Dichloroethane	ND		ug/l	2.5	0.66	5
1,1,1-Trichloroethane	220		ug/l	12	3.5	5
Bromodichloromethane	ND		ug/l	2.5	0.96	5
trans-1,3-Dichloropropene	ND		ug/l	2.5	0.82	5
cis-1,3-Dichloropropene	ND		ug/l	2.5	0.72	5
1,3-Dichloropropene, Total	ND		ug/l	2.5	0.72	5
1,1-Dichloropropene	ND		ug/l	12	3.5	5
Bromoform	ND		ug/l	10	3.2	5
1,1,1,2-Tetrachloroethane	ND		ug/l	2.5	0.84	5
Benzene	2.3	J	ug/l	2.5	0.80	5
Toluene	5.5	J	ug/l	12	3.5	5
Ethylbenzene	ND		ug/l	12	3.5	5
Chloromethane	ND		ug/l	12	3.5	5
Bromomethane	ND		ug/l	12	3.5	5
Vinyl chloride	350		ug/l	5.0	0.36	5
Chloroethane	170		ug/l	12	3.5	5
1,1-Dichloroethene	6.8		ug/l	2.5	0.84	5
trans-1,2-Dichloroethene	7.0	J	ug/l	12	3.5	5

Project Name: FESL
Project Number: 20029

Lab Number: L2046766
Report Date: 10/29/20

SAMPLE RESULTS

Lab ID: L2046766-08 D
 Client ID: CTRL D13 DUP
 Sample Location: ROCHESTER, NY

Date Collected: 10/27/20 12:00
 Date Received: 10/27/20
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Trichloroethene	18		ug/l	2.5	0.88	5
1,2-Dichlorobenzene	ND		ug/l	12	3.5	5
1,3-Dichlorobenzene	ND		ug/l	12	3.5	5
1,4-Dichlorobenzene	ND		ug/l	12	3.5	5
Methyl tert butyl ether	ND		ug/l	12	3.5	5
p/m-Xylene	ND		ug/l	12	3.5	5
o-Xylene	ND		ug/l	12	3.5	5
Xylenes, Total	ND		ug/l	12	3.5	5
cis-1,2-Dichloroethene	530		ug/l	12	3.5	5
1,2-Dichloroethene, Total	540	J	ug/l	12	3.5	5
Dibromomethane	ND		ug/l	25	5.0	5
1,2,3-Trichloropropane	ND		ug/l	12	3.5	5
Acrylonitrile	ND		ug/l	25	7.5	5
Styrene	ND		ug/l	12	3.5	5
Dichlorodifluoromethane	ND		ug/l	25	5.0	5
Acetone	ND		ug/l	25	7.3	5
Carbon disulfide	ND		ug/l	25	5.0	5
2-Butanone	ND		ug/l	25	9.7	5
Vinyl acetate	ND		ug/l	25	5.0	5
4-Methyl-2-pentanone	ND		ug/l	25	5.0	5
2-Hexanone	ND		ug/l	25	5.0	5
Bromochloromethane	ND		ug/l	12	3.5	5
2,2-Dichloropropane	ND		ug/l	12	3.5	5
1,2-Dibromoethane	ND		ug/l	10	3.2	5
1,3-Dichloropropane	ND		ug/l	12	3.5	5
1,1,1,2-Tetrachloroethane	ND		ug/l	12	3.5	5
Bromobenzene	ND		ug/l	12	3.5	5
n-Butylbenzene	ND		ug/l	12	3.5	5
sec-Butylbenzene	ND		ug/l	12	3.5	5
tert-Butylbenzene	ND		ug/l	12	3.5	5
o-Chlorotoluene	ND		ug/l	12	3.5	5
p-Chlorotoluene	ND		ug/l	12	3.5	5
1,2-Dibromo-3-chloropropane	ND		ug/l	12	3.5	5
Hexachlorobutadiene	ND		ug/l	12	3.5	5
Isopropylbenzene	ND		ug/l	12	3.5	5
p-Isopropyltoluene	ND		ug/l	12	3.5	5
Naphthalene	ND		ug/l	12	3.5	5

Project Name: FESL
Project Number: 20029

Lab Number: L2046766
Report Date: 10/29/20

SAMPLE RESULTS

Lab ID: L2046766-08 D
 Client ID: CTRL D13 DUP
 Sample Location: ROCHESTER, NY

Date Collected: 10/27/20 12:00
 Date Received: 10/27/20
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
n-Propylbenzene	ND		ug/l	12	3.5	5
1,2,3-Trichlorobenzene	ND		ug/l	12	3.5	5
1,2,4-Trichlorobenzene	ND		ug/l	12	3.5	5
1,3,5-Trimethylbenzene	ND		ug/l	12	3.5	5
1,2,4-Trimethylbenzene	ND		ug/l	12	3.5	5
1,4-Dioxane	ND		ug/l	1200	300	5
Freon-113	90		ug/l	12	3.5	5
p-Diethylbenzene	ND		ug/l	10	3.5	5
p-Ethyltoluene	ND		ug/l	10	3.5	5
1,2,4,5-Tetramethylbenzene	ND		ug/l	10	2.7	5
Ethyl ether	9.0	J	ug/l	12	3.5	5
trans-1,4-Dichloro-2-butene	ND		ug/l	12	3.5	5

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	97		70-130
Toluene-d8	101		70-130
4-Bromofluorobenzene	93		70-130
Dibromofluoromethane	98		70-130

Project Name: FESL
Project Number: 20029

Lab Number: L2046766
Report Date: 10/29/20

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260C
Analytical Date: 10/28/20 08:49
Analyst: PD

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 01-08 Batch: WG1427536-5					
Methylene chloride	ND		ug/l	2.5	0.70
1,1-Dichloroethane	ND		ug/l	2.5	0.70
Chloroform	ND		ug/l	2.5	0.70
Carbon tetrachloride	ND		ug/l	0.50	0.13
1,2-Dichloropropane	ND		ug/l	1.0	0.14
Dibromochloromethane	ND		ug/l	0.50	0.15
1,1,2-Trichloroethane	ND		ug/l	1.5	0.50
Tetrachloroethene	ND		ug/l	0.50	0.18
Chlorobenzene	ND		ug/l	2.5	0.70
Trichlorofluoromethane	ND		ug/l	2.5	0.70
1,2-Dichloroethane	ND		ug/l	0.50	0.13
1,1,1-Trichloroethane	ND		ug/l	2.5	0.70
Bromodichloromethane	ND		ug/l	0.50	0.19
trans-1,3-Dichloropropene	ND		ug/l	0.50	0.16
cis-1,3-Dichloropropene	ND		ug/l	0.50	0.14
1,3-Dichloropropene, Total	ND		ug/l	0.50	0.14
1,1-Dichloropropene	ND		ug/l	2.5	0.70
Bromoform	ND		ug/l	2.0	0.65
1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	0.17
Benzene	ND		ug/l	0.50	0.16
Toluene	ND		ug/l	2.5	0.70
Ethylbenzene	ND		ug/l	2.5	0.70
Chloromethane	ND		ug/l	2.5	0.70
Bromomethane	ND		ug/l	2.5	0.70
Vinyl chloride	ND		ug/l	1.0	0.07
Chloroethane	ND		ug/l	2.5	0.70
1,1-Dichloroethene	ND		ug/l	0.50	0.17
trans-1,2-Dichloroethene	ND		ug/l	2.5	0.70
Trichloroethene	ND		ug/l	0.50	0.18

Project Name: FESL
Project Number: 20029

Lab Number: L2046766
Report Date: 10/29/20

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260C
Analytical Date: 10/28/20 08:49
Analyst: PD

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 01-08 Batch: WG1427536-5					
1,2-Dichlorobenzene	ND		ug/l	2.5	0.70
1,3-Dichlorobenzene	ND		ug/l	2.5	0.70
1,4-Dichlorobenzene	ND		ug/l	2.5	0.70
Methyl tert butyl ether	ND		ug/l	2.5	0.70
p/m-Xylene	ND		ug/l	2.5	0.70
o-Xylene	ND		ug/l	2.5	0.70
Xylenes, Total	ND		ug/l	2.5	0.70
cis-1,2-Dichloroethene	ND		ug/l	2.5	0.70
1,2-Dichloroethene, Total	ND		ug/l	2.5	0.70
Dibromomethane	ND		ug/l	5.0	1.0
1,2,3-Trichloropropane	ND		ug/l	2.5	0.70
Acrylonitrile	ND		ug/l	5.0	1.5
Styrene	ND		ug/l	2.5	0.70
Dichlorodifluoromethane	ND		ug/l	5.0	1.0
Acetone	ND		ug/l	5.0	1.5
Carbon disulfide	ND		ug/l	5.0	1.0
2-Butanone	ND		ug/l	5.0	1.9
Vinyl acetate	ND		ug/l	5.0	1.0
4-Methyl-2-pentanone	ND		ug/l	5.0	1.0
2-Hexanone	ND		ug/l	5.0	1.0
Bromochloromethane	ND		ug/l	2.5	0.70
2,2-Dichloropropane	ND		ug/l	2.5	0.70
1,2-Dibromoethane	ND		ug/l	2.0	0.65
1,3-Dichloropropane	ND		ug/l	2.5	0.70
1,1,1,2-Tetrachloroethane	ND		ug/l	2.5	0.70
Bromobenzene	ND		ug/l	2.5	0.70
n-Butylbenzene	ND		ug/l	2.5	0.70
sec-Butylbenzene	ND		ug/l	2.5	0.70
tert-Butylbenzene	ND		ug/l	2.5	0.70

Project Name: FESL
Project Number: 20029

Lab Number: L2046766
Report Date: 10/29/20

**Method Blank Analysis
Batch Quality Control**

Analytical Method: 1,8260C
Analytical Date: 10/28/20 08:49
Analyst: PD

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 01-08 Batch: WG1427536-5					
o-Chlorotoluene	ND		ug/l	2.5	0.70
p-Chlorotoluene	ND		ug/l	2.5	0.70
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	0.70
Hexachlorobutadiene	ND		ug/l	2.5	0.70
Isopropylbenzene	ND		ug/l	2.5	0.70
p-Isopropyltoluene	ND		ug/l	2.5	0.70
Naphthalene	ND		ug/l	2.5	0.70
n-Propylbenzene	ND		ug/l	2.5	0.70
1,2,3-Trichlorobenzene	ND		ug/l	2.5	0.70
1,2,4-Trichlorobenzene	ND		ug/l	2.5	0.70
1,3,5-Trimethylbenzene	ND		ug/l	2.5	0.70
1,2,4-Trimethylbenzene	ND		ug/l	2.5	0.70
1,4-Dioxane	ND		ug/l	250	61.
Freon-113	ND		ug/l	2.5	0.70
p-Diethylbenzene	ND		ug/l	2.0	0.70
p-Ethyltoluene	ND		ug/l	2.0	0.70
1,2,4,5-Tetramethylbenzene	ND		ug/l	2.0	0.54
Ethyl ether	ND		ug/l	2.5	0.70
trans-1,4-Dichloro-2-butene	ND		ug/l	2.5	0.70

Surrogate	%Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	96		70-130
Toluene-d8	93		70-130
4-Bromofluorobenzene	94		70-130
Dibromofluoromethane	99		70-130

Lab Control Sample Analysis

Batch Quality Control

Project Name: FESL
Project Number: 20029

Lab Number: L2046766
Report Date: 10/29/20

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-08 Batch: WG1427536-3 WG1427536-4								
Methylene chloride	110		100		70-130	10		20
1,1-Dichloroethane	110		100		70-130	10		20
Chloroform	110		110		70-130	0		20
Carbon tetrachloride	120		110		63-132	9		20
1,2-Dichloropropane	100		100		70-130	0		20
Dibromochloromethane	100		99		63-130	1		20
1,1,2-Trichloroethane	93		95		70-130	2		20
Tetrachloroethene	100		98		70-130	2		20
Chlorobenzene	97		96		75-130	1		20
Trichlorofluoromethane	110		100		62-150	10		20
1,2-Dichloroethane	110		100		70-130	10		20
1,1,1-Trichloroethane	110		100		67-130	10		20
Bromodichloromethane	110		110		67-130	0		20
trans-1,3-Dichloropropene	93		91		70-130	2		20
cis-1,3-Dichloropropene	100		100		70-130	0		20
1,1-Dichloropropene	100		98		70-130	2		20
Bromoform	100		100		54-136	0		20
1,1,2,2-Tetrachloroethane	88		89		67-130	1		20
Benzene	110		100		70-130	10		20
Toluene	98		96		70-130	2		20
Ethylbenzene	98		95		70-130	3		20
Chloromethane	100		100		64-130	0		20
Bromomethane	120		110		39-139	9		20

Lab Control Sample Analysis

Batch Quality Control

Project Name: FESL
Project Number: 20029

Lab Number: L2046766
Report Date: 10/29/20

Parameter	LCS		LCSD		%Recovery Limits	RPD	Qual	RPD Limits
	%Recovery	Qual	%Recovery	Qual				
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-08 Batch: WG1427536-3 WG1427536-4								
Vinyl chloride	120		110		55-140	9		20
Chloroethane	150	Q	140	Q	55-138	7		20
1,1-Dichloroethene	110		98		61-145	12		20
trans-1,2-Dichloroethene	110		100		70-130	10		20
Trichloroethene	110		110		70-130	0		20
1,2-Dichlorobenzene	95		97		70-130	2		20
1,3-Dichlorobenzene	100		99		70-130	1		20
1,4-Dichlorobenzene	96		98		70-130	2		20
Methyl tert butyl ether	100		100		63-130	0		20
p/m-Xylene	100		95		70-130	5		20
o-Xylene	95		95		70-130	0		20
cis-1,2-Dichloroethene	110		100		70-130	10		20
Dibromomethane	110		110		70-130	0		20
1,2,3-Trichloropropane	84		88		64-130	5		20
Acrylonitrile	100		100		70-130	0		20
Styrene	95		95		70-130	0		20
Dichlorodifluoromethane	91		82		36-147	10		20
Acetone	110		110		58-148	0		20
Carbon disulfide	110		99		51-130	11		20
2-Butanone	110		110		63-138	0		20
Vinyl acetate	110		100		70-130	10		20
4-Methyl-2-pentanone	88		90		59-130	2		20
2-Hexanone	82		86		57-130	5		20

Lab Control Sample Analysis

Batch Quality Control

Project Name: FESL
Project Number: 20029

Lab Number: L2046766
Report Date: 10/29/20

Parameter	LCS		LCSD		%Recovery Limits	RPD	Qual	RPD Limits
	%Recovery	Qual	%Recovery	Qual				
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-08 Batch: WG1427536-3 WG1427536-4								
Bromochloromethane	120		110		70-130	9		20
2,2-Dichloropropane	120		110		63-133	9		20
1,2-Dibromoethane	94		92		70-130	2		20
1,3-Dichloropropane	92		93		70-130	1		20
1,1,1,2-Tetrachloroethane	97		96		64-130	1		20
Bromobenzene	96		97		70-130	1		20
n-Butylbenzene	95		94		53-136	1		20
sec-Butylbenzene	93		92		70-130	1		20
tert-Butylbenzene	95		93		70-130	2		20
o-Chlorotoluene	93		93		70-130	0		20
p-Chlorotoluene	93		92		70-130	1		20
1,2-Dibromo-3-chloropropane	86		85		41-144	1		20
Hexachlorobutadiene	100		100		63-130	0		20
Isopropylbenzene	96		95		70-130	1		20
p-Isopropyltoluene	120		110		70-130	9		20
Naphthalene	88		89		70-130	1		20
n-Propylbenzene	95		93		69-130	2		20
1,2,3-Trichlorobenzene	90		96		70-130	6		20
1,2,4-Trichlorobenzene	94		95		70-130	1		20
1,3,5-Trimethylbenzene	92		91		64-130	1		20
1,2,4-Trimethylbenzene	94		93		70-130	1		20
1,4-Dioxane	84		82		56-162	2		20
Freon-113	110		100		70-130	10		20

Lab Control Sample Analysis

Batch Quality Control

Project Name: FESL
Project Number: 20029

Lab Number: L2046766
Report Date: 10/29/20

Parameter	LCS		LCSD		%Recovery Limits	RPD	RPD	
	%Recovery	Qual	%Recovery	Qual			Qual	Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-08 Batch: WG1427536-3 WG1427536-4								
p-Diethylbenzene	95		92		70-130	3		20
p-Ethyltoluene	94		94		70-130	0		20
1,2,4,5-Tetramethylbenzene	92		91		70-130	1		20
Ethyl ether	100		97		59-134	3		20
trans-1,4-Dichloro-2-butene	90		89		70-130	1		20

Surrogate	LCS		LCSD		Acceptance Criteria
	%Recovery	Qual	%Recovery	Qual	
1,2-Dichloroethane-d4	94		93		70-130
Toluene-d8	90		88		70-130
4-Bromofluorobenzene	92		90		70-130
Dibromofluoromethane	100		98		70-130

Project Name: FESL**Lab Number:** L2046766**Project Number:** 20029**Report Date:** 10/29/20**Sample Receipt and Container Information**

Were project specific reporting limits specified?

YES

Cooler Information

Cooler	Custody Seal
A	Absent

Container Information

Container ID	Container Type	Cooler	Initial pH	Final pH	Temp deg C	Pres	Seal	Frozen Date/Time	Analysis(*)
L2046766-01A	Vial HCl preserved	A	NA		2.6	Y	Absent		NYTCL-8260(14)
L2046766-01B	Vial HCl preserved	A	NA		2.6	Y	Absent		NYTCL-8260(14)
L2046766-02A	Vial HCl preserved	A	NA		2.6	Y	Absent		NYTCL-8260(14)
L2046766-02B	Vial HCl preserved	A	NA		2.6	Y	Absent		NYTCL-8260(14)
L2046766-03A	Vial HCl preserved	A	NA		2.6	Y	Absent		NYTCL-8260(14)
L2046766-03B	Vial HCl preserved	A	NA		2.6	Y	Absent		NYTCL-8260(14)
L2046766-04A	Vial HCl preserved	A	NA		2.6	Y	Absent		NYTCL-8260(14)
L2046766-04B	Vial HCl preserved	A	NA		2.6	Y	Absent		NYTCL-8260(14)
L2046766-05A	Vial HCl preserved	A	NA		2.6	Y	Absent		NYTCL-8260(14)
L2046766-05B	Vial HCl preserved	A	NA		2.6	Y	Absent		NYTCL-8260(14)
L2046766-06A	Vial HCl preserved	A	NA		2.6	Y	Absent		NYTCL-8260(14)
L2046766-06B	Vial HCl preserved	A	NA		2.6	Y	Absent		NYTCL-8260(14)
L2046766-07A	Vial HCl preserved	A	NA		2.6	Y	Absent		NYTCL-8260(14)
L2046766-07B	Vial HCl preserved	A	NA		2.6	Y	Absent		NYTCL-8260(14)
L2046766-08A	Vial HCl preserved	A	NA		2.6	Y	Absent		NYTCL-8260(14)
L2046766-08B	Vial HCl preserved	A	NA		2.6	Y	Absent		NYTCL-8260(14)

Project Name: FESL
Project Number: 20029

Lab Number: L2046766
Report Date: 10/29/20

GLOSSARY

Acronyms

DL	- Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the limit of quantitation (LOQ). The DL includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)
EDL	- Estimated Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The EDL includes any adjustments from dilutions, concentrations or moisture content, where applicable. The use of EDLs is specific to the analysis of PAHs using Solid-Phase Microextraction (SPME).
EMPC	- Estimated Maximum Possible Concentration: The concentration that results from the signal present at the retention time of an analyte when the ions meet all of the identification criteria except the ion abundance ratio criteria. An EMPC is a worst-case estimate of the concentration.
EPA	- Environmental Protection Agency.
LCS	- Laboratory Control Sample: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.
LCSD	- Laboratory Control Sample Duplicate: Refer to LCS.
LFB	- Laboratory Fortified Blank: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.
LOD	- Limit of Detection: This value represents the level to which a target analyte can reliably be detected for a specific analyte in a specific matrix by a specific method. The LOD includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)
LOQ	- Limit of Quantitation: The value at which an instrument can accurately measure an analyte at a specific concentration. The LOQ includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.) Limit of Quantitation: The value at which an instrument can accurately measure an analyte at a specific concentration. The LOQ includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)
MDL	- Method Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The MDL includes any adjustments from dilutions, concentrations or moisture content, where applicable.
MS	- Matrix Spike Sample: A sample prepared by adding a known mass of target analyte to a specified amount of matrix sample for which an independent estimate of target analyte concentration is available. For Method 332.0, the spike recovery is calculated using the native concentration, including estimated values.
MSD	- Matrix Spike Sample Duplicate: Refer to MS.
NA	- Not Applicable.
NC	- Not Calculated: Term is utilized when one or more of the results utilized in the calculation are non-detect at the parameter's reporting unit.
NDPA/DPA	- N-Nitrosodiphenylamine/Diphenylamine.
NI	- Not Ignitable.
NP	- Non-Plastic: Term is utilized for the analysis of Atterberg Limits in soil.
NR	- No Results: Term is utilized when 'No Target Compounds Requested' is reported for the analysis of Volatile or Semivolatile Organic TIC only requests.
RL	- Reporting Limit: The value at which an instrument can accurately measure an analyte at a specific concentration. The RL includes any adjustments from dilutions, concentrations or moisture content, where applicable.
RPD	- Relative Percent Difference: The results from matrix and/or matrix spike duplicates are primarily designed to assess the precision of analytical results in a given matrix and are expressed as relative percent difference (RPD). Values which are less than five times the reporting limit for any individual parameter are evaluated by utilizing the absolute difference between the values; although the RPD value will be provided in the report.
SRM	- Standard Reference Material: A reference sample of a known or certified value that is of the same or similar matrix as the associated field samples.
STLP	- Semi-dynamic Tank Leaching Procedure per EPA Method 1315.
TEF	- Toxic Equivalency Factors: The values assigned to each dioxin and furan to evaluate their toxicity relative to 2,3,7,8-TCDD.
TEQ	- Toxic Equivalent: The measure of a sample's toxicity derived by multiplying each dioxin and furan by its corresponding TEF and then summing the resulting values.
TIC	- Tentatively Identified Compound: A compound that has been identified to be present and is not part of the target compound list (TCL) for the method and/or program. All TICs are qualitatively identified and reported as estimated concentrations.

Report Format: DU Report with 'J' Qualifiers



Project Name: FESL
Project Number: 20029

Lab Number: L2046766
Report Date: 10/29/20

Footnotes

- 1 - The reference for this analyte should be considered modified since this analyte is absent from the target analyte list of the original method.

Terms

Analytical Method: Both the document from which the method originates and the analytical reference method. (Example: EPA 8260B is shown as 1,8260B.) The codes for the reference method documents are provided in the References section of the Addendum.

Difference: With respect to Total Oxidizable Precursor (TOP) Assay analysis, the difference is defined as the Post-Treatment value minus the Pre-Treatment value.

Final pH: As it pertains to Sample Receipt & Container Information section of the report, Final pH reflects pH of container determined after adjustment at the laboratory, if applicable. If no adjustment required, value reflects Initial pH.

Frozen Date/Time: With respect to Volatile Organics in soil, Frozen Date/Time reflects the date/time at which associated Reagent Water-preserved vials were initially frozen. Note: If frozen date/time is beyond 48 hours from sample collection, value will be reflected in 'bold'.

Initial pH: As it pertains to Sample Receipt & Container Information section of the report, Initial pH reflects pH of container determined upon receipt, if applicable.

PAH Total: With respect to Alkylated PAH analyses, the 'PAHs, Total' result is defined as the summation of results for all or a subset of the following compounds: Naphthalene, C1-C4 Naphthalenes, 2-Methylnaphthalene, 1-Methylnaphthalene, Biphenyl, Acenaphthylene, Acenaphthene, Fluorene, C1-C3 Fluorenes, Phenanthrene, C1-C4 Phenanthrenes/Anthracenes, Anthracene, Fluoranthene, Pyrene, C1-C4 Fluoranthenes/Pyrenes, Benz(a)anthracene, Chrysene, C1-C4 Chrysenes, Benzo(b)fluoranthene, Benzo(j)+(k)fluoranthene, Benzo(e)pyrene, Benzo(a)pyrene, Perylene, Indeno(1,2,3-cd)pyrene, Dibenz(ah)+(ac)anthracene, Benzo(g,h,i)perylene. If a 'Total' result is requested, the results of its individual components will also be reported.

PFAS Total: With respect to PFAS analyses, the 'PFAS, Total (5)' result is defined as the summation of results for: PFHpA, PFHxS, PFOA, PFNA and PFOS. If a 'Total' result is requested, the results of its individual components will also be reported.

The target compound Chlordane (CAS No. 57-74-9) is reported for GC ECD analyses. Per EPA, this compound "refers to a mixture of chlordane isomers, other chlorinated hydrocarbons and numerous other components." (Reference: USEPA Toxicological Review of Chlordane, In Support of Summary Information on the Integrated Risk Information System (IRIS), December 1997.)

Total: With respect to Organic analyses, a 'Total' result is defined as the summation of results for individual isomers or Aroclors. If a 'Total' result is requested, the results of its individual components will also be reported. This is applicable to 'Total' results for methods 8260, 8081 and 8082.

Data Qualifiers

- A** - Spectra identified as "Aldol Condensates" are byproducts of the extraction/concentration procedures when acetone is introduced in the process.
- B** - The analyte was detected above the reporting limit in the associated method blank. Flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For MCP-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For DOD-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank AND the analyte was detected above one-half the reporting limit (or above the reporting limit for common lab contaminants) in the associated method blank. For NJ-Air-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte above the reporting limit. For NJ-related projects (excluding Air), flag only applies to associated field samples that have detectable concentrations of the analyte, which was detected above the reporting limit in the associated method blank or above five times the reporting limit for common lab contaminants (Phthalates, Acetone, Methylene Chloride, 2-Butanone).
- C** - Co-elution: The target analyte co-elutes with a known lab standard (i.e. surrogate, internal standards, etc.) for co-extracted analyses.
- D** - Concentration of analyte was quantified from diluted analysis. Flag only applies to field samples that have detectable concentrations of the analyte.
- E** - Concentration of analyte exceeds the range of the calibration curve and/or linear range of the instrument.
- F** - The ratio of quantifier ion response to qualifier ion response falls outside of the laboratory criteria. Results are considered to be an estimated maximum concentration.
- G** - The concentration may be biased high due to matrix interferences (i.e. co-elution) with non-target compound(s). The result should be considered estimated.
- H** - The analysis of pH was performed beyond the regulatory-required holding time of 15 minutes from the time of sample collection.
- I** - The lower value for the two columns has been reported due to obvious interference.
- J** - Estimated value. The Target analyte concentration is below the quantitation limit (RL), but above the Method Detection Limit (MDL) or Estimated Detection Limit (EDL) for SPME-related analyses. This represents an estimated concentration for Tentatively Identified Compounds (TICs).
- M** - Reporting Limit (RL) exceeds the MCP CAM Reporting Limit for this analyte.
- ND** - Not detected at the method detection limit (MDL) for the sample, or estimated detection limit (EDL) for SPME-related analyses.
- NJ** - Presumptive evidence of compound. This represents an estimated concentration for Tentatively Identified Compounds (TICs), where

Report Format: DU Report with 'J' Qualifiers



Project Name: FESL
Project Number: 20029

Lab Number: L2046766
Report Date: 10/29/20

Data Qualifiers

the identification is based on a mass spectral library search.

- P** - The RPD between the results for the two columns exceeds the method-specified criteria.
- Q** - The quality control sample exceeds the associated acceptance criteria. For DOD-related projects, LCS and/or Continuing Calibration Standard exceedences are also qualified on all associated sample results. Note: This flag is not applicable for matrix spike recoveries when the sample concentration is greater than 4x the spike added or for batch duplicate RPD when the sample concentrations are less than 5x the RL. (Metals only.)
- R** - Analytical results are from sample re-analysis.
- RE** - Analytical results are from sample re-extraction.
- S** - Analytical results are from modified screening analysis.

Project Name: FESL
Project Number: 20029

Lab Number: L2046766
Report Date: 10/29/20

REFERENCES

- 1 Test Methods for Evaluating Solid Waste: Physical/Chemical Methods. EPA SW-846. Third Edition. Updates I - VI, 2018.

LIMITATION OF LIABILITIES

Alpha Analytical performs services with reasonable care and diligence normal to the analytical testing laboratory industry. In the event of an error, the sole and exclusive responsibility of Alpha Analytical shall be to re-perform the work at it's own expense. In no event shall Alpha Analytical be held liable for any incidental, consequential or special damages, including but not limited to, damages in any way connected with the use of, interpretation of, information or analysis provided by Alpha Analytical.

We strongly urge our clients to comply with EPA protocol regarding sample volume, preservation, cooling, containers, sampling procedures, holding time and splitting of samples in the field.



Certification Information

The following analytes are not included in our Primary NELAP Scope of Accreditation:

Westborough Facility

EPA 624/624.1: m/p-xylene, o-xylene, Naphthalene

EPA 8260C: NPW: 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene, Azobenzene; SCM: Iodomethane (methyl iodide), 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene.

EPA 8270D: NPW: Dimethylnaphthalene, 1,4-Diphenylhydrazine; SCM: Dimethylnaphthalene, 1,4-Diphenylhydrazine.

SM4500: NPW: Amenable Cyanide; SCM: Total Phosphorus, TKN, NO₂, NO₃.

Mansfield Facility

SM 2540D: TSS

EPA 8082A: NPW: PCB: 1, 5, 31, 87, 101, 110, 141, 151, 153, 180, 183, 187.

EPA TO-15: Halothane, 2,4,4-Trimethyl-2-pentene, 2,4,4-Trimethyl-1-pentene, Thiophene, 2-Methylthiophene,

3-Methylthiophene, 2-Ethylthiophene, 1,2,3-Trimethylbenzene, Indan, Indene, 1,2,4,5-Tetramethylbenzene, Benzothiophene, 1-Methylnaphthalene.

EPA TO-12 Non-methane organics

EPA 3C Fixed gases

Biological Tissue Matrix: EPA 3050B

The following analytes are included in our Massachusetts DEP Scope of Accreditation

Westborough Facility:

Drinking Water

EPA 300.0: Chloride, Nitrate-N, Fluoride, Sulfate; **EPA 353.2:** Nitrate-N, Nitrite-N; **SM4500NO3-F:** Nitrate-N, Nitrite-N; **SM4500F-C, SM4500CN-CE,**

EPA 180.1, SM2130B, SM4500CI-D, SM2320B, SM2540C, SM4500H-B, SM4500NO2-B

EPA 332: Perchlorate; **EPA 524.2:** THMs and VOCs; **EPA 504.1:** EDB, DBCP.

Microbiology: **SM9215B; SM9223-P/A, SM9223B-Colilert-QT, SM9222D.**

Non-Potable Water

SM4500H,B, EPA 120.1, SM2510B, SM2540C, SM2320B, SM4500CL-E, SM4500F-BC, SM4500NH3-BH: Ammonia-N and Kjeldahl-N, **EPA 350.1:** Ammonia-N, **LACHAT 10-107-06-1-B:** Ammonia-N, **EPA 351.1, SM4500NO3-F, EPA 353.2:** Nitrate-N, **SM4500P-E, SM4500P-B, E, SM4500SO4-E, SM5220D, EPA 410.4, SM5210B, SM5310C, SM4500CL-D, EPA 1664, EPA 420.1, SM4500-CN-CE, SM2540D, EPA 300:** Chloride, Sulfate, Nitrate.

EPA 624.1: Volatile Halocarbons & Aromatics,

EPA 608.3: Chlordane, Toxaphene, Aldrin, alpha-BHC, beta-BHC, gamma-BHC, delta-BHC, Dieldrin, DDD, DDE, DDT, Endosulfan I, Endosulfan II, Endosulfan sulfate, Endrin, Endrin Aldehyde, Heptachlor, Heptachlor Epoxide, PCBs

EPA 625.1: SVOC (Acid/Base/Neutral Extractables), **EPA 600/4-81-045:** PCB-Oil.

Microbiology: **SM9223B-Colilert-QT; Enterolert-QT, SM9221E, EPA 1600, EPA 1603.**

Mansfield Facility:

Drinking Water

EPA 200.7: Al, Ba, Cd, Cr, Cu, Fe, Mn, Ni, Na, Ag, Ca, Zn. **EPA 200.8:** Al, Sb, As, Ba, Be, Cd, Cr, Cu, Pb, Mn, Ni, Se, Ag, TL, Zn. **EPA 245.1** Hg.

EPA 522.

Non-Potable Water


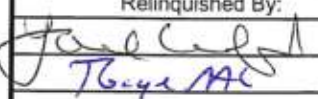
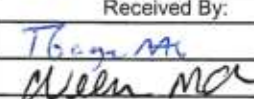
EPA 200.7: Al, Sb, As, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Mg, Mn, Mo, Ni, K, Se, Ag, Na, Sr, TL, Ti, V, Zn.

EPA 200.8: Al, Sb, As, Be, Cd, Cr, Cu, Fe, Pb, Mn, Ni, K, Se, Ag, Na, TL, Zn.

EPA 245.1 Hg.

SM2340B

For a complete listing of analytes and methods, please contact your Alpha Project Manager.

 ALPHA ANALYTICAL Westborough, MA 01581 8 Walkup Dr. TEL: 508-898-9220 FAX: 508-898-9193	NEW JERSEY CHAIN OF CUSTODY Mansfield, MA 02048 320 Forbes Blvd TEL: 508-822-9300 FAX: 508-822-3288	Service Centers Mahwah, NJ 07430: 35 Whitney Rd, Suite 5 Albany, NY 12205: 14 Walker Way Tonawanda, NY 14150: 275 Cooper Ave, Suite 105	Page 1 of 1	Date Rec'd in Lab 10/27/20	ALPHA Job # L248786						
		Project Information Project Name: FESL Project Location: Rochester, NY Project #: 20029 (Use Project name as Project #) <input type="checkbox"/>		Deliverables <input type="checkbox"/> NJ Full / Reduced <input type="checkbox"/> EQuIS (1 File) <input type="checkbox"/> EQuIS (4 File) <input type="checkbox"/> Other		Billing Information <input checked="" type="checkbox"/> Same as Client Info PO # 4697					
Client Information Client: XDD Address: 22 Marin Way, Unit 3 Stratham, NH 03833 Phone: 603-778-1100 Fax: Email: lcrawford@xdd-llc.com		Project Manager: Ashaley Kane ALPHAQuote #: 12786 Turn-Around Time Standard <input type="checkbox"/> Due Date: 10/29/20 EOD Rush (only if pre approved) <input checked="" type="checkbox"/> # of Days: 2 Day		Regulatory Requirement <input type="checkbox"/> SRS Residential/Non Residential <input type="checkbox"/> SRS Impact to Groundwater <input type="checkbox"/> NJ Ground Water Quality Standards <input type="checkbox"/> NJ IGW SPLP Leachate Criteria <input checked="" type="checkbox"/> Other NYSDOH ELAP		Site Information Is this site impacted by Petroleum? Yes <input type="checkbox"/> Petroleum Product:					
These samples have been previously analyzed by Alpha <input type="checkbox"/>											
For EPH, selection is REQUIRED: <input type="checkbox"/> Category 1 <input type="checkbox"/> Category 2		For VOC, selection is REQUIRED: <input type="checkbox"/> 1,4-Dioxane <input type="checkbox"/> 8011		Other project specific requirements/comments: invoices go to ap@xdd-llc.com * please include Freon-113		ANALYSIS VOCs *					
Sample Filtration <input type="checkbox"/> Done <input type="checkbox"/> Lab to do Preservation <input type="checkbox"/> Lab to do (Please Specify below)		Sample Specific Comments				Total Bottles					
ALPHA Lab ID (Lab Use Only)	Sample ID	Collection		Sample Matrix	Sampler's Initials						
		Date	Time								
46786-01	Flow Lo D13	10/27/2020	11:25	GW	LC	x					2
-02	Flow Hi D13	10/27/2020	11:30	GW	LC	x					2
-03	Target Lo D13	10/27/2020	11:35	GW	LC	x					2
-04	Target Hi D13	10/27/2020	11:40	GW	LC	x					2
-05	eZVI Lo D13	10/27/2020	11:45	GW	LC	x					2
-06	eZVI Hi D13	10/27/2020	11:50	GW	LC	x					2
-07	Ctrl D13	10/27/2020	11:55	GW	LC	x					2
-08	Ctrl D13 dup	10/27/2020	12:00	GW	LC	x					2
Preservative Code: A = None B = HCl C = HNO ₃ D = H ₂ SO ₄ E = NaOH F = MeOH G = NaHSO ₄ H = Na ₂ S ₂ O ₃ K/E = Zn Ac/NaOH O = Other		Container Code P = Plastic A = Amber Glass V = Vial G = Glass B = Bacteria Cup C = Cube O = Other E = Encore D = BOD Bottle		Westboro: Certification No: MA935 Mansfield: Certification No: MA015		Container Type G		Preservative B		Please print clearly, legibly and completely. Samples can not be logged in and turnaround time clock will not start until any ambiguities are resolved. BY EXECUTING THIS COC, THE CLIENT HAS READ AND AGREES TO BE BOUND BY ALPHA'S TERMS & CONDITIONS.	
Relinquished By: 		Date/Time 10/27/20 1502 10.27.20 1910		Received By: 		Date/Time 10/27/20 1910					
Form No: 01-14 (rev. 30-Sept-2013)											



ANALYTICAL REPORT

Lab Number:	L2049310
Client:	XDD Environmental Mary Scudieri 22 Marin Way Unit 3 Stratham, NH 03885
ATTN:	Laurel Crawford
Phone:	(603) 778-1100
Project Name:	FESL
Project Number:	20029
Report Date:	11/16/20

The original project report/data package is held by Alpha Analytical. This report/data package is paginated and should be reproduced only in its entirety. Alpha Analytical holds no responsibility for results and/or data that are not consistent with the original.

Certifications & Approvals: MA (M-MA086), NH NELAP (2064), CT (PH-0574), IL (200077), ME (MA00086), MD (348), NJ (MA935), NY (11148), NC (25700/666), PA (68-03671), RI (LAO00065), TX (T104704476), VT (VT-0935), VA (460195), USDA (Permit #P330-17-00196).

Eight Walkup Drive, Westborough, MA 01581-1019
508-898-9220 (Fax) 508-898-9193 800-624-9220 - www.alphalab.com



Project Name: FESL
Project Number: 20029

Lab Number: L2049310
Report Date: 11/16/20

Alpha Sample ID	Client ID	Matrix	Sample Location	Collection Date/Time	Receive Date
L2049310-01	CTRL D25	WATER	ROCHESTER, NY	11/09/20 09:20	11/09/20
L2049310-02	CTRL D25 DUP	WATER	ROCHESTER, NY	11/09/20 09:25	11/09/20
L2049310-03	FLOW HI D25	WATER	ROCHESTER, NY	11/09/20 09:30	11/09/20
L2049310-04	TARGET HI D25	WATER	ROCHESTER, NY	11/09/20 09:35	11/09/20
L2049310-05	EZVI HI D25	WATER	ROCHESTER, NY	11/09/20 09:40	11/09/20

Project Name: FESL
Project Number: 20029

Lab Number: L2049310
Report Date: 11/16/20

Case Narrative

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

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

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

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

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

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

Project Name: FESL
Project Number: 20029

Lab Number: L2049310
Report Date: 11/16/20

Case Narrative (continued)

Report Submission

November 16, 2020: This final report includes the results of all requested analyses.

November 12, 2020: This is a preliminary report.

All non-detect (ND) or estimated concentrations (J-qualified) have been quantitated to the limit noted in the MDL column.

Volatile Organics

L2049310-01 and -01D2: The analysis was performed utilizing a compromised vial.

L2049310-05: The pH of the sample was greater than two; however, the sample was analyzed within the method required holding time.

L2049310-05: The sample has elevated detection limits due to the dilution required by the sample matrix (cloudy).

Dissolved Gases

L2049310-02: The sample was collected in pre-preserved vials; however, the pH of the sample was determined to be greater than two.

Sulfate

L2049310-05: The sample has an elevated detection limit due to the dilution required by the sample matrix.

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

Authorized Signature:  Melissa Sturgis

Title: Technical Director/Representative

Date: 11/16/20

ORGANICS

VOLATILES

Project Name: FESL
Project Number: 20029

Lab Number: L2049310
Report Date: 11/16/20

SAMPLE RESULTS

Lab ID: L2049310-01
 Client ID: CTRL D25
 Sample Location: ROCHESTER, NY

Date Collected: 11/09/20 09:20
 Date Received: 11/09/20
 Field Prep: Not Specified

Sample Depth:

Matrix: Water
 Analytical Method: 117,-
 Analytical Date: 11/11/20 08:07
 Analyst: AW

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Dissolved Gases by GC - Mansfield Lab							
Methane	48.7		ug/l	2.00	2.00	1	A
Ethene	39.1		ug/l	0.500	0.500	1	A
Ethane	1.70		ug/l	0.500	0.500	1	A

Project Name: FESL
Project Number: 20029

Lab Number: L2049310
Report Date: 11/16/20

SAMPLE RESULTS

Lab ID: L2049310-01 D2
 Client ID: CTRL D25
 Sample Location: ROCHESTER, NY

Date Collected: 11/09/20 09:20
 Date Received: 11/09/20
 Field Prep: Not Specified

Sample Depth:

Matrix: Water
 Analytical Method: 1,8260C
 Analytical Date: 11/12/20 02:21
 Analyst: NLK

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methylene chloride	ND		ug/l	5.0	1.4	2
1,1-Dichloroethane	550	E	ug/l	5.0	1.4	2
Chloroform	ND		ug/l	5.0	1.4	2
Carbon tetrachloride	ND		ug/l	1.0	0.27	2
1,2-Dichloropropane	ND		ug/l	2.0	0.27	2
Dibromochloromethane	ND		ug/l	1.0	0.30	2
1,1,2-Trichloroethane	ND		ug/l	3.0	1.0	2
Tetrachloroethene	81		ug/l	1.0	0.36	2
Chlorobenzene	ND		ug/l	5.0	1.4	2
Trichlorofluoromethane	ND		ug/l	5.0	1.4	2
1,2-Dichloroethane	ND		ug/l	1.0	0.26	2
1,1,1-Trichloroethane	200		ug/l	5.0	1.4	2
Bromodichloromethane	ND		ug/l	1.0	0.38	2
trans-1,3-Dichloropropene	ND		ug/l	1.0	0.33	2
cis-1,3-Dichloropropene	ND		ug/l	1.0	0.29	2
1,3-Dichloropropene, Total	ND		ug/l	1.0	0.29	2
1,1-Dichloropropene	ND		ug/l	5.0	1.4	2
Bromoform	ND		ug/l	4.0	1.3	2
1,1,1,2,2-Tetrachloroethane	ND		ug/l	1.0	0.33	2
Benzene	3.0		ug/l	1.0	0.32	2
Toluene	7.5		ug/l	5.0	1.4	2
Ethylbenzene	ND		ug/l	5.0	1.4	2
Chloromethane	ND		ug/l	5.0	1.4	2
Bromomethane	ND		ug/l	5.0	1.4	2
Vinyl chloride	300		ug/l	2.0	0.14	2
Chloroethane	140		ug/l	5.0	1.4	2
1,1-Dichloroethene	6.4		ug/l	1.0	0.34	2
trans-1,2-Dichloroethene	6.6		ug/l	5.0	1.4	2

Project Name: FESL
Project Number: 20029

Lab Number: L2049310
Report Date: 11/16/20

SAMPLE RESULTS

Lab ID: L2049310-01 D2
 Client ID: CTRL D25
 Sample Location: ROCHESTER, NY

Date Collected: 11/09/20 09:20
 Date Received: 11/09/20
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Trichloroethene	17		ug/l	1.0	0.35	2
1,2-Dichlorobenzene	ND		ug/l	5.0	1.4	2
1,3-Dichlorobenzene	ND		ug/l	5.0	1.4	2
1,4-Dichlorobenzene	ND		ug/l	5.0	1.4	2
Methyl tert butyl ether	ND		ug/l	5.0	1.4	2
p/m-Xylene	ND		ug/l	5.0	1.4	2
o-Xylene	ND		ug/l	5.0	1.4	2
Xylenes, Total	ND		ug/l	5.0	1.4	2
cis-1,2-Dichloroethene	560	E	ug/l	5.0	1.4	2
Dibromomethane	ND		ug/l	10	2.0	2
1,2,3-Trichloropropane	ND		ug/l	5.0	1.4	2
Acrylonitrile	ND		ug/l	10	3.0	2
Styrene	ND		ug/l	5.0	1.4	2
Dichlorodifluoromethane	ND		ug/l	10	2.0	2
Acetone	11		ug/l	10	2.9	2
Carbon disulfide	ND		ug/l	10	2.0	2
2-Butanone	ND		ug/l	10	3.9	2
Vinyl acetate	ND		ug/l	10	2.0	2
4-Methyl-2-pentanone	ND		ug/l	10	2.0	2
2-Hexanone	ND		ug/l	10	2.0	2
Bromochloromethane	ND		ug/l	5.0	1.4	2
2,2-Dichloropropane	ND		ug/l	5.0	1.4	2
1,2-Dibromoethane	ND		ug/l	4.0	1.3	2
1,3-Dichloropropane	ND		ug/l	5.0	1.4	2
1,1,1,2-Tetrachloroethane	ND		ug/l	5.0	1.4	2
Bromobenzene	ND		ug/l	5.0	1.4	2
n-Butylbenzene	ND		ug/l	5.0	1.4	2
sec-Butylbenzene	ND		ug/l	5.0	1.4	2
tert-Butylbenzene	ND		ug/l	5.0	1.4	2
o-Chlorotoluene	ND		ug/l	5.0	1.4	2
p-Chlorotoluene	ND		ug/l	5.0	1.4	2
1,2-Dibromo-3-chloropropane	ND		ug/l	5.0	1.4	2
Hexachlorobutadiene	ND		ug/l	5.0	1.4	2
Isopropylbenzene	ND		ug/l	5.0	1.4	2
p-Isopropyltoluene	ND		ug/l	5.0	1.4	2
Naphthalene	ND		ug/l	5.0	1.4	2
n-Propylbenzene	ND		ug/l	5.0	1.4	2

Project Name: FESL
Project Number: 20029

Lab Number: L2049310
Report Date: 11/16/20

SAMPLE RESULTS

Lab ID: L2049310-01 D2
 Client ID: CTRL D25
 Sample Location: ROCHESTER, NY

Date Collected: 11/09/20 09:20
 Date Received: 11/09/20
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
1,2,3-Trichlorobenzene	ND		ug/l	5.0	1.4	2
1,2,4-Trichlorobenzene	ND		ug/l	5.0	1.4	2
1,3,5-Trimethylbenzene	ND		ug/l	5.0	1.4	2
1,2,4-Trimethylbenzene	ND		ug/l	5.0	1.4	2
1,4-Dioxane	190	J	ug/l	500	120	2
Freon-113	56		ug/l	5.0	1.4	2
p-Diethylbenzene	ND		ug/l	4.0	1.4	2
p-Ethyltoluene	ND		ug/l	4.0	1.4	2
1,2,4,5-Tetramethylbenzene	ND		ug/l	4.0	1.1	2
Ethyl ether	9.5		ug/l	5.0	1.4	2
trans-1,4-Dichloro-2-butene	ND		ug/l	5.0	1.4	2

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	103		70-130
Toluene-d8	99		70-130
4-Bromofluorobenzene	104		70-130
Dibromofluoromethane	102		70-130

Project Name: FESL
Project Number: 20029

Lab Number: L2049310
Report Date: 11/16/20

SAMPLE RESULTS

Lab ID: L2049310-01 D
 Client ID: CTRL D25
 Sample Location: ROCHESTER, NY

Date Collected: 11/09/20 09:20
 Date Received: 11/09/20
 Field Prep: Not Specified

Sample Depth:

Matrix: Water
 Analytical Method: 1,8260C
 Analytical Date: 11/12/20 01:59
 Analyst: NLK

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
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Volatile Organics by GC/MS - Westborough Lab						
1,1-Dichloroethane	530		ug/l	10	2.8	4
cis-1,2-Dichloroethene	540		ug/l	10	2.8	4
1,2-Dichloroethene, Total	550		ug/l	5.0	1.4	4

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	109		70-130
Toluene-d8	100		70-130
4-Bromofluorobenzene	102		70-130
Dibromofluoromethane	102		70-130

Project Name: FESL
Project Number: 20029

Lab Number: L2049310
Report Date: 11/16/20

SAMPLE RESULTS

Lab ID: L2049310-02
 Client ID: CTRL D25 DUP
 Sample Location: ROCHESTER, NY

Date Collected: 11/09/20 09:25
 Date Received: 11/09/20
 Field Prep: Not Specified

Sample Depth:

Matrix: Water
 Analytical Method: 117,-
 Analytical Date: 11/11/20 08:24
 Analyst: AW

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Dissolved Gases by GC - Mansfield Lab							
Methane	44.3		ug/l	2.00	2.00	1	A
Ethene	36.0		ug/l	0.500	0.500	1	A
Ethane	1.80		ug/l	0.500	0.500	1	A

Project Name: FESL
Project Number: 20029

Lab Number: L2049310
Report Date: 11/16/20

SAMPLE RESULTS

Lab ID: L2049310-02 D
 Client ID: CTRL D25 DUP
 Sample Location: ROCHESTER, NY

Date Collected: 11/09/20 09:25
 Date Received: 11/09/20
 Field Prep: Not Specified

Sample Depth:

Matrix: Water
 Analytical Method: 1,8260C
 Analytical Date: 11/11/20 05:39
 Analyst: NLK

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methylene chloride	ND		ug/l	10	2.8	4
1,1-Dichloroethane	590		ug/l	10	2.8	4
Chloroform	ND		ug/l	10	2.8	4
Carbon tetrachloride	ND		ug/l	2.0	0.54	4
1,2-Dichloropropane	ND		ug/l	4.0	0.55	4
Dibromochloromethane	ND		ug/l	2.0	0.60	4
1,1,2-Trichloroethane	ND		ug/l	6.0	2.0	4
Tetrachloroethene	100		ug/l	2.0	0.72	4
Chlorobenzene	ND		ug/l	10	2.8	4
Trichlorofluoromethane	ND		ug/l	10	2.8	4
1,2-Dichloroethane	ND		ug/l	2.0	0.53	4
1,1,1-Trichloroethane	280		ug/l	10	2.8	4
Bromodichloromethane	ND		ug/l	2.0	0.77	4
trans-1,3-Dichloropropene	ND		ug/l	2.0	0.66	4
cis-1,3-Dichloropropene	ND		ug/l	2.0	0.58	4
1,3-Dichloropropene, Total	ND		ug/l	2.0	0.58	4
1,1-Dichloropropene	ND		ug/l	10	2.8	4
Bromoform	ND		ug/l	8.0	2.6	4
1,1,1,2,2-Tetrachloroethane	ND		ug/l	2.0	0.67	4
Benzene	3.0		ug/l	2.0	0.64	4
Toluene	6.8	J	ug/l	10	2.8	4
Ethylbenzene	ND		ug/l	10	2.8	4
Chloromethane	ND		ug/l	10	2.8	4
Bromomethane	ND		ug/l	10	2.8	4
Vinyl chloride	200		ug/l	4.0	0.28	4
Chloroethane	88		ug/l	10	2.8	4
1,1-Dichloroethene	6.7		ug/l	2.0	0.68	4
trans-1,2-Dichloroethene	6.3	J	ug/l	10	2.8	4

Project Name: FESL
Project Number: 20029

Lab Number: L2049310
Report Date: 11/16/20

SAMPLE RESULTS

Lab ID: L2049310-02 D
 Client ID: CTRL D25 DUP
 Sample Location: ROCHESTER, NY

Date Collected: 11/09/20 09:25
 Date Received: 11/09/20
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Trichloroethene	21		ug/l	2.0	0.70	4
1,2-Dichlorobenzene	ND		ug/l	10	2.8	4
1,3-Dichlorobenzene	ND		ug/l	10	2.8	4
1,4-Dichlorobenzene	ND		ug/l	10	2.8	4
Methyl tert butyl ether	ND		ug/l	10	2.8	4
p/m-Xylene	ND		ug/l	10	2.8	4
o-Xylene	ND		ug/l	10	2.8	4
Xylenes, Total	ND		ug/l	10	2.8	4
cis-1,2-Dichloroethene	620		ug/l	10	2.8	4
1,2-Dichloroethene, Total	630	J	ug/l	10	2.8	4
Dibromomethane	ND		ug/l	20	4.0	4
1,2,3-Trichloropropane	ND		ug/l	10	2.8	4
Acrylonitrile	ND		ug/l	20	6.0	4
Styrene	ND		ug/l	10	2.8	4
Dichlorodifluoromethane	ND		ug/l	20	4.0	4
Acetone	5.9	J	ug/l	20	5.8	4
Carbon disulfide	ND		ug/l	20	4.0	4
2-Butanone	ND		ug/l	20	7.8	4
Vinyl acetate	ND		ug/l	20	4.0	4
4-Methyl-2-pentanone	ND		ug/l	20	4.0	4
2-Hexanone	ND		ug/l	20	4.0	4
Bromochloromethane	ND		ug/l	10	2.8	4
2,2-Dichloropropane	ND		ug/l	10	2.8	4
1,2-Dibromoethane	ND		ug/l	8.0	2.6	4
1,3-Dichloropropane	ND		ug/l	10	2.8	4
1,1,1,2-Tetrachloroethane	ND		ug/l	10	2.8	4
Bromobenzene	ND		ug/l	10	2.8	4
n-Butylbenzene	ND		ug/l	10	2.8	4
sec-Butylbenzene	ND		ug/l	10	2.8	4
tert-Butylbenzene	ND		ug/l	10	2.8	4
o-Chlorotoluene	ND		ug/l	10	2.8	4
p-Chlorotoluene	ND		ug/l	10	2.8	4
1,2-Dibromo-3-chloropropane	ND		ug/l	10	2.8	4
Hexachlorobutadiene	ND		ug/l	10	2.8	4
Isopropylbenzene	ND		ug/l	10	2.8	4
p-Isopropyltoluene	ND		ug/l	10	2.8	4
Naphthalene	ND		ug/l	10	2.8	4

Project Name: FESL
Project Number: 20029

Lab Number: L2049310
Report Date: 11/16/20

SAMPLE RESULTS

Lab ID: L2049310-02 D
 Client ID: CTRL D25 DUP
 Sample Location: ROCHESTER, NY

Date Collected: 11/09/20 09:25
 Date Received: 11/09/20
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
n-Propylbenzene	ND		ug/l	10	2.8	4
1,2,3-Trichlorobenzene	ND		ug/l	10	2.8	4
1,2,4-Trichlorobenzene	ND		ug/l	10	2.8	4
1,3,5-Trimethylbenzene	ND		ug/l	10	2.8	4
1,2,4-Trimethylbenzene	ND		ug/l	10	2.8	4
1,4-Dioxane	ND		ug/l	1000	240	4
Freon-113	89		ug/l	10	2.8	4
p-Diethylbenzene	ND		ug/l	8.0	2.8	4
p-Ethyltoluene	ND		ug/l	8.0	2.8	4
1,2,4,5-Tetramethylbenzene	ND		ug/l	8.0	2.2	4
Ethyl ether	7.3	J	ug/l	10	2.8	4
trans-1,4-Dichloro-2-butene	ND		ug/l	10	2.8	4

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	106		70-130
Toluene-d8	97		70-130
4-Bromofluorobenzene	101		70-130
Dibromofluoromethane	99		70-130

Project Name: FESL
Project Number: 20029

Lab Number: L2049310
Report Date: 11/16/20

SAMPLE RESULTS

Lab ID: L2049310-03
 Client ID: FLOW HI D25
 Sample Location: ROCHESTER, NY

Date Collected: 11/09/20 09:30
 Date Received: 11/09/20
 Field Prep: Not Specified

Sample Depth:
 Matrix: Water
 Analytical Method: 117,-
 Analytical Date: 11/11/20 08:42
 Analyst: AW

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Dissolved Gases by GC - Mansfield Lab							
Methane	217		ug/l	2.00	2.00	1	A
Ethene	125		ug/l	0.500	0.500	1	A
Ethane	21.3		ug/l	0.500	0.500	1	A

Project Name: FESL
Project Number: 20029

Lab Number: L2049310
Report Date: 11/16/20

SAMPLE RESULTS

Lab ID: L2049310-03 D
 Client ID: FLOW HI D25
 Sample Location: ROCHESTER, NY

Date Collected: 11/09/20 09:30
 Date Received: 11/09/20
 Field Prep: Not Specified

Sample Depth:

Matrix: Water
 Analytical Method: 1,8260C
 Analytical Date: 11/11/20 06:05
 Analyst: NLK

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methylene chloride	ND		ug/l	10	2.8	4
1,1-Dichloroethane	520		ug/l	10	2.8	4
Chloroform	ND		ug/l	10	2.8	4
Carbon tetrachloride	ND		ug/l	2.0	0.54	4
1,2-Dichloropropane	ND		ug/l	4.0	0.55	4
Dibromochloromethane	ND		ug/l	2.0	0.60	4
1,1,2-Trichloroethane	ND		ug/l	6.0	2.0	4
Tetrachloroethene	14		ug/l	2.0	0.72	4
Chlorobenzene	ND		ug/l	10	2.8	4
Trichlorofluoromethane	ND		ug/l	10	2.8	4
1,2-Dichloroethane	ND		ug/l	2.0	0.53	4
1,1,1-Trichloroethane	ND		ug/l	10	2.8	4
Bromodichloromethane	ND		ug/l	2.0	0.77	4
trans-1,3-Dichloropropene	ND		ug/l	2.0	0.66	4
cis-1,3-Dichloropropene	ND		ug/l	2.0	0.58	4
1,3-Dichloropropene, Total	ND		ug/l	2.0	0.58	4
1,1-Dichloropropene	ND		ug/l	10	2.8	4
Bromoform	ND		ug/l	8.0	2.6	4
1,1,2,2-Tetrachloroethane	ND		ug/l	2.0	0.67	4
Benzene	4.7		ug/l	2.0	0.64	4
Toluene	12		ug/l	10	2.8	4
Ethylbenzene	ND		ug/l	10	2.8	4
Chloromethane	ND		ug/l	10	2.8	4
Bromomethane	ND		ug/l	10	2.8	4
Vinyl chloride	26		ug/l	4.0	0.28	4
Chloroethane	88		ug/l	10	2.8	4
1,1-Dichloroethene	ND		ug/l	2.0	0.68	4
trans-1,2-Dichloroethene	ND		ug/l	10	2.8	4

Project Name: FESL
Project Number: 20029

Lab Number: L2049310
Report Date: 11/16/20

SAMPLE RESULTS

Lab ID: L2049310-03 D
 Client ID: FLOW HI D25
 Sample Location: ROCHESTER, NY

Date Collected: 11/09/20 09:30
 Date Received: 11/09/20
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Trichloroethene	1.3	J	ug/l	2.0	0.70	4
1,2-Dichlorobenzene	ND		ug/l	10	2.8	4
1,3-Dichlorobenzene	ND		ug/l	10	2.8	4
1,4-Dichlorobenzene	ND		ug/l	10	2.8	4
Methyl tert butyl ether	ND		ug/l	10	2.8	4
p/m-Xylene	2.8	J	ug/l	10	2.8	4
o-Xylene	ND		ug/l	10	2.8	4
Xylenes, Total	2.8	J	ug/l	10	2.8	4
cis-1,2-Dichloroethene	96		ug/l	10	2.8	4
1,2-Dichloroethene, Total	96		ug/l	10	2.8	4
Dibromomethane	ND		ug/l	20	4.0	4
1,2,3-Trichloropropane	ND		ug/l	10	2.8	4
Acrylonitrile	ND		ug/l	20	6.0	4
Styrene	ND		ug/l	10	2.8	4
Dichlorodifluoromethane	ND		ug/l	20	4.0	4
Acetone	8.5	J	ug/l	20	5.8	4
Carbon disulfide	ND		ug/l	20	4.0	4
2-Butanone	ND		ug/l	20	7.8	4
Vinyl acetate	ND		ug/l	20	4.0	4
4-Methyl-2-pentanone	ND		ug/l	20	4.0	4
2-Hexanone	ND		ug/l	20	4.0	4
Bromochloromethane	ND		ug/l	10	2.8	4
2,2-Dichloropropane	ND		ug/l	10	2.8	4
1,2-Dibromoethane	ND		ug/l	8.0	2.6	4
1,3-Dichloropropane	ND		ug/l	10	2.8	4
1,1,1,2-Tetrachloroethane	ND		ug/l	10	2.8	4
Bromobenzene	ND		ug/l	10	2.8	4
n-Butylbenzene	ND		ug/l	10	2.8	4
sec-Butylbenzene	ND		ug/l	10	2.8	4
tert-Butylbenzene	ND		ug/l	10	2.8	4
o-Chlorotoluene	ND		ug/l	10	2.8	4
p-Chlorotoluene	ND		ug/l	10	2.8	4
1,2-Dibromo-3-chloropropane	ND		ug/l	10	2.8	4
Hexachlorobutadiene	ND		ug/l	10	2.8	4
Isopropylbenzene	ND		ug/l	10	2.8	4
p-Isopropyltoluene	ND		ug/l	10	2.8	4
Naphthalene	ND		ug/l	10	2.8	4

Project Name: FESL
Project Number: 20029

Lab Number: L2049310
Report Date: 11/16/20

SAMPLE RESULTS

Lab ID: L2049310-03 D
 Client ID: FLOW HI D25
 Sample Location: ROCHESTER, NY

Date Collected: 11/09/20 09:30
 Date Received: 11/09/20
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
n-Propylbenzene	ND		ug/l	10	2.8	4
1,2,3-Trichlorobenzene	ND		ug/l	10	2.8	4
1,2,4-Trichlorobenzene	ND		ug/l	10	2.8	4
1,3,5-Trimethylbenzene	ND		ug/l	10	2.8	4
1,2,4-Trimethylbenzene	ND		ug/l	10	2.8	4
1,4-Dioxane	ND		ug/l	1000	240	4
Freon-113	ND		ug/l	10	2.8	4
p-Diethylbenzene	ND		ug/l	8.0	2.8	4
p-Ethyltoluene	ND		ug/l	8.0	2.8	4
1,2,4,5-Tetramethylbenzene	ND		ug/l	8.0	2.2	4
Ethyl ether	9.4	J	ug/l	10	2.8	4
trans-1,4-Dichloro-2-butene	ND		ug/l	10	2.8	4

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	106		70-130
Toluene-d8	96		70-130
4-Bromofluorobenzene	103		70-130
Dibromofluoromethane	96		70-130

Project Name: FESL
Project Number: 20029

Lab Number: L2049310
Report Date: 11/16/20

SAMPLE RESULTS

Lab ID: L2049310-04
 Client ID: TARGET HI D25
 Sample Location: ROCHESTER, NY

Date Collected: 11/09/20 09:35
 Date Received: 11/09/20
 Field Prep: Not Specified

Sample Depth:

Matrix: Water
 Analytical Method: 117,-
 Analytical Date: 11/11/20 09:00
 Analyst: AW

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Dissolved Gases by GC - Mansfield Lab							
Methane	249		ug/l	2.00	2.00	1	A
Ethene	182		ug/l	0.500	0.500	1	A
Ethane	54.4		ug/l	0.500	0.500	1	A

Project Name: FESL
Project Number: 20029

Lab Number: L2049310
Report Date: 11/16/20

SAMPLE RESULTS

Lab ID: L2049310-04 D
 Client ID: TARGET HI D25
 Sample Location: ROCHESTER, NY

Date Collected: 11/09/20 09:35
 Date Received: 11/09/20
 Field Prep: Not Specified

Sample Depth:

Matrix: Water
 Analytical Method: 1,8260C
 Analytical Date: 11/11/20 06:32
 Analyst: NLK

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methylene chloride	ND		ug/l	10	2.8	4
1,1-Dichloroethane	450		ug/l	10	2.8	4
Chloroform	ND		ug/l	10	2.8	4
Carbon tetrachloride	ND		ug/l	2.0	0.54	4
1,2-Dichloropropane	ND		ug/l	4.0	0.55	4
Dibromochloromethane	ND		ug/l	2.0	0.60	4
1,1,2-Trichloroethane	ND		ug/l	6.0	2.0	4
Tetrachloroethene	1.8	J	ug/l	2.0	0.72	4
Chlorobenzene	ND		ug/l	10	2.8	4
Trichlorofluoromethane	ND		ug/l	10	2.8	4
1,2-Dichloroethane	ND		ug/l	2.0	0.53	4
1,1,1-Trichloroethane	ND		ug/l	10	2.8	4
Bromodichloromethane	ND		ug/l	2.0	0.77	4
trans-1,3-Dichloropropene	ND		ug/l	2.0	0.66	4
cis-1,3-Dichloropropene	ND		ug/l	2.0	0.58	4
1,3-Dichloropropene, Total	ND		ug/l	2.0	0.58	4
1,1-Dichloropropene	ND		ug/l	10	2.8	4
Bromoform	ND		ug/l	8.0	2.6	4
1,1,1,2,2-Tetrachloroethane	ND		ug/l	2.0	0.67	4
Benzene	7.5		ug/l	2.0	0.64	4
Toluene	20		ug/l	10	2.8	4
Ethylbenzene	ND		ug/l	10	2.8	4
Chloromethane	ND		ug/l	10	2.8	4
Bromomethane	ND		ug/l	10	2.8	4
Vinyl chloride	1.8	J	ug/l	4.0	0.28	4
Chloroethane	110		ug/l	10	2.8	4
1,1-Dichloroethene	ND		ug/l	2.0	0.68	4
trans-1,2-Dichloroethene	ND		ug/l	10	2.8	4

Project Name: FESL
Project Number: 20029

Lab Number: L2049310
Report Date: 11/16/20

SAMPLE RESULTS

Lab ID: L2049310-04 D
 Client ID: TARGET HI D25
 Sample Location: ROCHESTER, NY

Date Collected: 11/09/20 09:35
 Date Received: 11/09/20
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Trichloroethene	ND		ug/l	2.0	0.70	4
1,2-Dichlorobenzene	ND		ug/l	10	2.8	4
1,3-Dichlorobenzene	ND		ug/l	10	2.8	4
1,4-Dichlorobenzene	ND		ug/l	10	2.8	4
Methyl tert butyl ether	ND		ug/l	10	2.8	4
p/m-Xylene	ND		ug/l	10	2.8	4
o-Xylene	4.7	J	ug/l	10	2.8	4
Xylenes, Total	4.7	J	ug/l	10	2.8	4
cis-1,2-Dichloroethene	11		ug/l	10	2.8	4
1,2-Dichloroethene, Total	11		ug/l	10	2.8	4
Dibromomethane	ND		ug/l	20	4.0	4
1,2,3-Trichloropropane	ND		ug/l	10	2.8	4
Acrylonitrile	ND		ug/l	20	6.0	4
Styrene	ND		ug/l	10	2.8	4
Dichlorodifluoromethane	ND		ug/l	20	4.0	4
Acetone	34		ug/l	20	5.8	4
Carbon disulfide	ND		ug/l	20	4.0	4
2-Butanone	25		ug/l	20	7.8	4
Vinyl acetate	ND		ug/l	20	4.0	4
4-Methyl-2-pentanone	ND		ug/l	20	4.0	4
2-Hexanone	ND		ug/l	20	4.0	4
Bromochloromethane	ND		ug/l	10	2.8	4
2,2-Dichloropropane	ND		ug/l	10	2.8	4
1,2-Dibromoethane	ND		ug/l	8.0	2.6	4
1,3-Dichloropropane	ND		ug/l	10	2.8	4
1,1,1,2-Tetrachloroethane	ND		ug/l	10	2.8	4
Bromobenzene	ND		ug/l	10	2.8	4
n-Butylbenzene	ND		ug/l	10	2.8	4
sec-Butylbenzene	ND		ug/l	10	2.8	4
tert-Butylbenzene	ND		ug/l	10	2.8	4
o-Chlorotoluene	ND		ug/l	10	2.8	4
p-Chlorotoluene	ND		ug/l	10	2.8	4
1,2-Dibromo-3-chloropropane	ND		ug/l	10	2.8	4
Hexachlorobutadiene	ND		ug/l	10	2.8	4
Isopropylbenzene	ND		ug/l	10	2.8	4
p-Isopropyltoluene	ND		ug/l	10	2.8	4
Naphthalene	ND		ug/l	10	2.8	4

Project Name: FESL
Project Number: 20029

Lab Number: L2049310
Report Date: 11/16/20

SAMPLE RESULTS

Lab ID: L2049310-04 D
 Client ID: TARGET HI D25
 Sample Location: ROCHESTER, NY

Date Collected: 11/09/20 09:35
 Date Received: 11/09/20
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
n-Propylbenzene	ND		ug/l	10	2.8	4
1,2,3-Trichlorobenzene	ND		ug/l	10	2.8	4
1,2,4-Trichlorobenzene	ND		ug/l	10	2.8	4
1,3,5-Trimethylbenzene	ND		ug/l	10	2.8	4
1,2,4-Trimethylbenzene	ND		ug/l	10	2.8	4
1,4-Dioxane	ND		ug/l	1000	240	4
Freon-113	ND		ug/l	10	2.8	4
p-Diethylbenzene	ND		ug/l	8.0	2.8	4
p-Ethyltoluene	ND		ug/l	8.0	2.8	4
1,2,4,5-Tetramethylbenzene	ND		ug/l	8.0	2.2	4
Ethyl ether	10		ug/l	10	2.8	4
trans-1,4-Dichloro-2-butene	ND		ug/l	10	2.8	4

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	104		70-130
Toluene-d8	91		70-130
4-Bromofluorobenzene	103		70-130
Dibromofluoromethane	81		70-130

Project Name: FESL
Project Number: 20029

Lab Number: L2049310
Report Date: 11/16/20

SAMPLE RESULTS

Lab ID: L2049310-05
 Client ID: EZVI HI D25
 Sample Location: ROCHESTER, NY

Date Collected: 11/09/20 09:40
 Date Received: 11/09/20
 Field Prep: Not Specified

Sample Depth:

Matrix: Water
 Analytical Method: 117,-
 Analytical Date: 11/11/20 09:17
 Analyst: AW

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Dissolved Gases by GC - Mansfield Lab							
Methane	206		ug/l	2.00	2.00	1	A
Ethene	89.0		ug/l	0.500	0.500	1	A
Ethane	19.1		ug/l	0.500	0.500	1	A

Project Name: FESL
Project Number: 20029

Lab Number: L2049310
Report Date: 11/16/20

SAMPLE RESULTS

Lab ID: L2049310-05 D
 Client ID: EZVI HI D25
 Sample Location: ROCHESTER, NY

Date Collected: 11/09/20 09:40
 Date Received: 11/09/20
 Field Prep: Not Specified

Sample Depth:

Matrix: Water
 Analytical Method: 1,8260C
 Analytical Date: 11/11/20 06:58
 Analyst: NLK

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methylene chloride	ND		ug/l	250	70.	100
1,1-Dichloroethane	530		ug/l	250	70.	100
Chloroform	ND		ug/l	250	70.	100
Carbon tetrachloride	ND		ug/l	50	13.	100
1,2-Dichloropropane	ND		ug/l	100	14.	100
Dibromochloromethane	ND		ug/l	50	15.	100
1,1,2-Trichloroethane	ND		ug/l	150	50.	100
Tetrachloroethene	190		ug/l	50	18.	100
Chlorobenzene	ND		ug/l	250	70.	100
Trichlorofluoromethane	ND		ug/l	250	70.	100
1,2-Dichloroethane	ND		ug/l	50	13.	100
1,1,1-Trichloroethane	ND		ug/l	250	70.	100
Bromodichloromethane	ND		ug/l	50	19.	100
trans-1,3-Dichloropropene	ND		ug/l	50	16.	100
cis-1,3-Dichloropropene	ND		ug/l	50	14.	100
1,3-Dichloropropene, Total	ND		ug/l	50	14.	100
1,1-Dichloropropene	ND		ug/l	250	70.	100
Bromoform	ND		ug/l	200	65.	100
1,1,2,2-Tetrachloroethane	ND		ug/l	50	17.	100
Benzene	ND		ug/l	50	16.	100
Toluene	ND		ug/l	250	70.	100
Ethylbenzene	ND		ug/l	250	70.	100
Chloromethane	ND		ug/l	250	70.	100
Bromomethane	ND		ug/l	250	70.	100
Vinyl chloride	130		ug/l	100	7.1	100
Chloroethane	77	J	ug/l	250	70.	100
1,1-Dichloroethene	ND		ug/l	50	17.	100
trans-1,2-Dichloroethene	ND		ug/l	250	70.	100

Project Name: FESL
Project Number: 20029

Lab Number: L2049310
Report Date: 11/16/20

SAMPLE RESULTS

Lab ID: L2049310-05 D
 Client ID: EZVI HI D25
 Sample Location: ROCHESTER, NY

Date Collected: 11/09/20 09:40
 Date Received: 11/09/20
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Trichloroethene	25	J	ug/l	50	18.	100
1,2-Dichlorobenzene	ND		ug/l	250	70.	100
1,3-Dichlorobenzene	ND		ug/l	250	70.	100
1,4-Dichlorobenzene	ND		ug/l	250	70.	100
Methyl tert butyl ether	ND		ug/l	250	70.	100
p/m-Xylene	ND		ug/l	250	70.	100
o-Xylene	ND		ug/l	250	70.	100
Xylenes, Total	ND		ug/l	250	70.	100
cis-1,2-Dichloroethene	530		ug/l	250	70.	100
1,2-Dichloroethene, Total	530		ug/l	250	70.	100
Dibromomethane	ND		ug/l	500	100	100
1,2,3-Trichloropropane	ND		ug/l	250	70.	100
Acrylonitrile	ND		ug/l	500	150	100
Styrene	ND		ug/l	250	70.	100
Dichlorodifluoromethane	ND		ug/l	500	100	100
Acetone	ND		ug/l	500	150	100
Carbon disulfide	ND		ug/l	500	100	100
2-Butanone	410	J	ug/l	500	190	100
Vinyl acetate	ND		ug/l	500	100	100
4-Methyl-2-pentanone	ND		ug/l	500	100	100
2-Hexanone	ND		ug/l	500	100	100
Bromochloromethane	ND		ug/l	250	70.	100
2,2-Dichloropropane	ND		ug/l	250	70.	100
1,2-Dibromoethane	ND		ug/l	200	65.	100
1,3-Dichloropropane	ND		ug/l	250	70.	100
1,1,1,2-Tetrachloroethane	ND		ug/l	250	70.	100
Bromobenzene	ND		ug/l	250	70.	100
n-Butylbenzene	ND		ug/l	250	70.	100
sec-Butylbenzene	ND		ug/l	250	70.	100
tert-Butylbenzene	ND		ug/l	250	70.	100
o-Chlorotoluene	ND		ug/l	250	70.	100
p-Chlorotoluene	ND		ug/l	250	70.	100
1,2-Dibromo-3-chloropropane	ND		ug/l	250	70.	100
Hexachlorobutadiene	ND		ug/l	250	70.	100
Isopropylbenzene	ND		ug/l	250	70.	100
p-Isopropyltoluene	ND		ug/l	250	70.	100
Naphthalene	ND		ug/l	250	70.	100

Project Name: FESL
Project Number: 20029

Lab Number: L2049310
Report Date: 11/16/20

SAMPLE RESULTS

Lab ID: L2049310-05 D
 Client ID: EZVI HI D25
 Sample Location: ROCHESTER, NY

Date Collected: 11/09/20 09:40
 Date Received: 11/09/20
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
n-Propylbenzene	ND		ug/l	250	70.	100
1,2,3-Trichlorobenzene	ND		ug/l	250	70.	100
1,2,4-Trichlorobenzene	ND		ug/l	250	70.	100
1,3,5-Trimethylbenzene	ND		ug/l	250	70.	100
1,2,4-Trimethylbenzene	ND		ug/l	250	70.	100
1,4-Dioxane	ND		ug/l	25000	6100	100
Freon-113	ND		ug/l	250	70.	100
p-Diethylbenzene	ND		ug/l	200	70.	100
p-Ethyltoluene	ND		ug/l	200	70.	100
1,2,4,5-Tetramethylbenzene	ND		ug/l	200	54.	100
Ethyl ether	ND		ug/l	250	70.	100
trans-1,4-Dichloro-2-butene	ND		ug/l	250	70.	100

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	105		70-130
Toluene-d8	97		70-130
4-Bromofluorobenzene	104		70-130
Dibromofluoromethane	96		70-130

Project Name: FESL
Project Number: 20029

Lab Number: L2049310
Report Date: 11/16/20

Method Blank Analysis
Batch Quality Control

Analytical Method: 117,-
Analytical Date: 11/11/20 07:10
Analyst: AW

Parameter	Result	Qualifier	Units	RL	MDL	
Dissolved Gases by GC - Mansfield Lab for sample(s): 01-05 Batch: WG1432910-3						
Methane	ND		ug/l	2.00	2.00	A
Ethene	ND		ug/l	0.500	0.500	A
Ethane	ND		ug/l	0.500	0.500	A

Project Name: FESL
Project Number: 20029

Lab Number: L2049310
Report Date: 11/16/20

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260C
Analytical Date: 11/10/20 22:09
Analyst: TMS

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 02-05 Batch: WG1433139-5					
Methylene chloride	ND		ug/l	2.5	0.70
1,1-Dichloroethane	ND		ug/l	2.5	0.70
Chloroform	ND		ug/l	2.5	0.70
Carbon tetrachloride	ND		ug/l	0.50	0.13
1,2-Dichloropropane	ND		ug/l	1.0	0.14
Dibromochloromethane	ND		ug/l	0.50	0.15
1,1,2-Trichloroethane	ND		ug/l	1.5	0.50
Tetrachloroethene	ND		ug/l	0.50	0.18
Chlorobenzene	ND		ug/l	2.5	0.70
Trichlorofluoromethane	ND		ug/l	2.5	0.70
1,2-Dichloroethane	ND		ug/l	0.50	0.13
1,1,1-Trichloroethane	ND		ug/l	2.5	0.70
Bromodichloromethane	ND		ug/l	0.50	0.19
trans-1,3-Dichloropropene	ND		ug/l	0.50	0.16
cis-1,3-Dichloropropene	ND		ug/l	0.50	0.14
1,3-Dichloropropene, Total	ND		ug/l	0.50	0.14
1,1-Dichloropropene	ND		ug/l	2.5	0.70
Bromoform	ND		ug/l	2.0	0.65
1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	0.17
Benzene	ND		ug/l	0.50	0.16
Toluene	ND		ug/l	2.5	0.70
Ethylbenzene	ND		ug/l	2.5	0.70
Chloromethane	ND		ug/l	2.5	0.70
Bromomethane	ND		ug/l	2.5	0.70
Vinyl chloride	ND		ug/l	1.0	0.07
Chloroethane	ND		ug/l	2.5	0.70
1,1-Dichloroethene	ND		ug/l	0.50	0.17
trans-1,2-Dichloroethene	ND		ug/l	2.5	0.70
Trichloroethene	ND		ug/l	0.50	0.18

Project Name: FESL
Project Number: 20029

Lab Number: L2049310
Report Date: 11/16/20

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260C
Analytical Date: 11/10/20 22:09
Analyst: TMS

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 02-05 Batch: WG1433139-5					
1,2-Dichlorobenzene	ND		ug/l	2.5	0.70
1,3-Dichlorobenzene	ND		ug/l	2.5	0.70
1,4-Dichlorobenzene	ND		ug/l	2.5	0.70
Methyl tert butyl ether	ND		ug/l	2.5	0.70
p/m-Xylene	ND		ug/l	2.5	0.70
o-Xylene	ND		ug/l	2.5	0.70
Xylenes, Total	ND		ug/l	2.5	0.70
cis-1,2-Dichloroethene	ND		ug/l	2.5	0.70
1,2-Dichloroethene, Total	ND		ug/l	2.5	0.70
Dibromomethane	ND		ug/l	5.0	1.0
1,2,3-Trichloropropane	ND		ug/l	2.5	0.70
Acrylonitrile	ND		ug/l	5.0	1.5
Styrene	ND		ug/l	2.5	0.70
Dichlorodifluoromethane	ND		ug/l	5.0	1.0
Acetone	ND		ug/l	5.0	1.5
Carbon disulfide	ND		ug/l	5.0	1.0
2-Butanone	ND		ug/l	5.0	1.9
Vinyl acetate	ND		ug/l	5.0	1.0
4-Methyl-2-pentanone	ND		ug/l	5.0	1.0
2-Hexanone	ND		ug/l	5.0	1.0
Bromochloromethane	ND		ug/l	2.5	0.70
2,2-Dichloropropane	ND		ug/l	2.5	0.70
1,2-Dibromoethane	ND		ug/l	2.0	0.65
1,3-Dichloropropane	ND		ug/l	2.5	0.70
1,1,1,2-Tetrachloroethane	ND		ug/l	2.5	0.70
Bromobenzene	ND		ug/l	2.5	0.70
n-Butylbenzene	ND		ug/l	2.5	0.70
sec-Butylbenzene	ND		ug/l	2.5	0.70
tert-Butylbenzene	ND		ug/l	2.5	0.70

Project Name: FESL
Project Number: 20029

Lab Number: L2049310
Report Date: 11/16/20

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260C
Analytical Date: 11/10/20 22:09
Analyst: TMS

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 02-05 Batch: WG1433139-5					
o-Chlorotoluene	ND		ug/l	2.5	0.70
p-Chlorotoluene	ND		ug/l	2.5	0.70
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	0.70
Hexachlorobutadiene	ND		ug/l	2.5	0.70
Isopropylbenzene	ND		ug/l	2.5	0.70
p-Isopropyltoluene	ND		ug/l	2.5	0.70
Naphthalene	ND		ug/l	2.5	0.70
n-Propylbenzene	ND		ug/l	2.5	0.70
1,2,3-Trichlorobenzene	ND		ug/l	2.5	0.70
1,2,4-Trichlorobenzene	ND		ug/l	2.5	0.70
1,3,5-Trimethylbenzene	ND		ug/l	2.5	0.70
1,2,4-Trimethylbenzene	ND		ug/l	2.5	0.70
1,4-Dioxane	ND		ug/l	250	61.
Freon-113	ND		ug/l	2.5	0.70
p-Diethylbenzene	ND		ug/l	2.0	0.70
p-Ethyltoluene	ND		ug/l	2.0	0.70
1,2,4,5-Tetramethylbenzene	ND		ug/l	2.0	0.54
Ethyl ether	ND		ug/l	2.5	0.70
trans-1,4-Dichloro-2-butene	ND		ug/l	2.5	0.70

Surrogate	%Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	97		70-130
Toluene-d8	99		70-130
4-Bromofluorobenzene	102		70-130
Dibromofluoromethane	91		70-130

Project Name: FESL
Project Number: 20029

Lab Number: L2049310
Report Date: 11/16/20

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260C
Analytical Date: 11/11/20 18:41
Analyst: TMS

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 01 Batch: WG1433557-5					
Methylene chloride	ND		ug/l	2.5	0.70
1,1-Dichloroethane	ND		ug/l	2.5	0.70
Chloroform	ND		ug/l	2.5	0.70
Carbon tetrachloride	ND		ug/l	0.50	0.13
1,2-Dichloropropane	ND		ug/l	1.0	0.14
Dibromochloromethane	ND		ug/l	0.50	0.15
1,1,2-Trichloroethane	ND		ug/l	1.5	0.50
Tetrachloroethene	ND		ug/l	0.50	0.18
Chlorobenzene	ND		ug/l	2.5	0.70
Trichlorofluoromethane	ND		ug/l	2.5	0.70
1,2-Dichloroethane	ND		ug/l	0.50	0.13
1,1,1-Trichloroethane	ND		ug/l	2.5	0.70
Bromodichloromethane	ND		ug/l	0.50	0.19
trans-1,3-Dichloropropene	ND		ug/l	0.50	0.16
cis-1,3-Dichloropropene	ND		ug/l	0.50	0.14
1,3-Dichloropropene, Total	ND		ug/l	0.50	0.14
1,1-Dichloropropene	ND		ug/l	2.5	0.70
Bromoform	ND		ug/l	2.0	0.65
1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	0.17
Benzene	ND		ug/l	0.50	0.16
Toluene	ND		ug/l	2.5	0.70
Ethylbenzene	ND		ug/l	2.5	0.70
Chloromethane	ND		ug/l	2.5	0.70
Bromomethane	ND		ug/l	2.5	0.70
Vinyl chloride	ND		ug/l	1.0	0.07
Chloroethane	ND		ug/l	2.5	0.70
1,1-Dichloroethene	ND		ug/l	0.50	0.17
trans-1,2-Dichloroethene	ND		ug/l	2.5	0.70
Trichloroethene	ND		ug/l	0.50	0.18

Project Name: FESL
Project Number: 20029

Lab Number: L2049310
Report Date: 11/16/20

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260C
Analytical Date: 11/11/20 18:41
Analyst: TMS

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 01 Batch: WG1433557-5					
1,2-Dichlorobenzene	ND		ug/l	2.5	0.70
1,3-Dichlorobenzene	ND		ug/l	2.5	0.70
1,4-Dichlorobenzene	ND		ug/l	2.5	0.70
Methyl tert butyl ether	ND		ug/l	2.5	0.70
p/m-Xylene	ND		ug/l	2.5	0.70
o-Xylene	ND		ug/l	2.5	0.70
Xylenes, Total	ND		ug/l	2.5	0.70
cis-1,2-Dichloroethene	ND		ug/l	2.5	0.70
1,2-Dichloroethene, Total	ND		ug/l	2.5	0.70
Dibromomethane	ND		ug/l	5.0	1.0
1,2,3-Trichloropropane	ND		ug/l	2.5	0.70
Acrylonitrile	ND		ug/l	5.0	1.5
Styrene	ND		ug/l	2.5	0.70
Dichlorodifluoromethane	ND		ug/l	5.0	1.0
Acetone	ND		ug/l	5.0	1.5
Carbon disulfide	ND		ug/l	5.0	1.0
2-Butanone	ND		ug/l	5.0	1.9
Vinyl acetate	ND		ug/l	5.0	1.0
4-Methyl-2-pentanone	ND		ug/l	5.0	1.0
2-Hexanone	ND		ug/l	5.0	1.0
Bromochloromethane	ND		ug/l	2.5	0.70
2,2-Dichloropropane	ND		ug/l	2.5	0.70
1,2-Dibromoethane	ND		ug/l	2.0	0.65
1,3-Dichloropropane	ND		ug/l	2.5	0.70
1,1,1,2-Tetrachloroethane	ND		ug/l	2.5	0.70
Bromobenzene	ND		ug/l	2.5	0.70
n-Butylbenzene	ND		ug/l	2.5	0.70
sec-Butylbenzene	ND		ug/l	2.5	0.70
tert-Butylbenzene	ND		ug/l	2.5	0.70

Project Name: FESL
Project Number: 20029

Lab Number: L2049310
Report Date: 11/16/20

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260C
Analytical Date: 11/11/20 18:41
Analyst: TMS

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 01 Batch: WG1433557-5					
o-Chlorotoluene	ND		ug/l	2.5	0.70
p-Chlorotoluene	ND		ug/l	2.5	0.70
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	0.70
Hexachlorobutadiene	ND		ug/l	2.5	0.70
Isopropylbenzene	ND		ug/l	2.5	0.70
p-Isopropyltoluene	ND		ug/l	2.5	0.70
Naphthalene	ND		ug/l	2.5	0.70
n-Propylbenzene	ND		ug/l	2.5	0.70
1,2,3-Trichlorobenzene	ND		ug/l	2.5	0.70
1,2,4-Trichlorobenzene	ND		ug/l	2.5	0.70
1,3,5-Trimethylbenzene	ND		ug/l	2.5	0.70
1,2,4-Trimethylbenzene	ND		ug/l	2.5	0.70
1,4-Dioxane	ND		ug/l	250	61.
Freon-113	ND		ug/l	2.5	0.70
p-Diethylbenzene	ND		ug/l	2.0	0.70
p-Ethyltoluene	ND		ug/l	2.0	0.70
1,2,4,5-Tetramethylbenzene	ND		ug/l	2.0	0.54
Ethyl ether	ND		ug/l	2.5	0.70
trans-1,4-Dichloro-2-butene	ND		ug/l	2.5	0.70

Surrogate	%Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	103		70-130
Toluene-d8	98		70-130
4-Bromofluorobenzene	103		70-130
Dibromofluoromethane	100		70-130

Lab Control Sample Analysis

Batch Quality Control

Project Name: FESL
Project Number: 20029

Lab Number: L2049310
Report Date: 11/16/20

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits	Column
Dissolved Gases by GC - Mansfield Lab Associated sample(s): 01-05 Batch: WG1432910-2									
Methane	101		-		80-120	-		25	A
Ethene	90		-		80-120	-		25	A
Ethane	89		-		80-120	-		25	A

Lab Control Sample Analysis

Batch Quality Control

Project Name: FESL
Project Number: 20029

Lab Number: L2049310
Report Date: 11/16/20

Parameter	LCS		LCSD		%Recovery Limits	RPD	Qual	RPD Limits
	%Recovery	Qual	%Recovery	Qual				
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 02-05 Batch: WG1433139-3 WG1433139-4								
Methylene chloride	96		93		70-130	3		20
1,1-Dichloroethane	110		100		70-130	10		20
Chloroform	100		93		70-130	7		20
Carbon tetrachloride	100		100		63-132	0		20
1,2-Dichloropropane	100		110		70-130	10		20
Dibromochloromethane	99		110		63-130	11		20
1,1,2-Trichloroethane	98		110		70-130	12		20
Tetrachloroethene	110		110		70-130	0		20
Chlorobenzene	100		110		75-130	10		20
Trichlorofluoromethane	100		100		62-150	0		20
1,2-Dichloroethane	110		100		70-130	10		20
1,1,1-Trichloroethane	100		100		67-130	0		20
Bromodichloromethane	97		100		67-130	3		20
trans-1,3-Dichloropropene	100		110		70-130	10		20
cis-1,3-Dichloropropene	98		99		70-130	1		20
1,1-Dichloropropene	110		100		70-130	10		20
Bromoform	100		120		54-136	18		20
1,1,1,2-Tetrachloroethane	100		110		67-130	10		20
Benzene	100		97		70-130	3		20
Toluene	110		110		70-130	0		20
Ethylbenzene	100		110		70-130	10		20
Chloromethane	82		83		64-130	1		20
Bromomethane	14	Q	15	Q	39-139	7		20

Lab Control Sample Analysis

Batch Quality Control

Project Name: FESL
Project Number: 20029

Lab Number: L2049310
Report Date: 11/16/20

Parameter	LCS		LCSD		%Recovery Limits	RPD	Qual	RPD Limits
	%Recovery	Qual	%Recovery	Qual				
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 02-05 Batch: WG1433139-3 WG1433139-4								
Vinyl chloride	89		90		55-140	1		20
Chloroethane	100		99		55-138	1		20
1,1-Dichloroethene	100		97		61-145	3		20
trans-1,2-Dichloroethene	100		95		70-130	5		20
Trichloroethene	100		97		70-130	3		20
1,2-Dichlorobenzene	100		110		70-130	10		20
1,3-Dichlorobenzene	100		100		70-130	0		20
1,4-Dichlorobenzene	100		110		70-130	10		20
Methyl tert butyl ether	110		110		63-130	0		20
p/m-Xylene	100		110		70-130	10		20
o-Xylene	100		105		70-130	5		20
cis-1,2-Dichloroethene	100		99		70-130	1		20
Dibromomethane	95		100		70-130	5		20
1,2,3-Trichloropropane	98		110		64-130	12		20
Acrylonitrile	120		120		70-130	0		20
Styrene	95		105		70-130	10		20
Dichlorodifluoromethane	64		64		36-147	0		20
Acetone	110		120		58-148	9		20
Carbon disulfide	95		92		51-130	3		20
2-Butanone	110		100		63-138	10		20
Vinyl acetate	100		88		70-130	13		20
4-Methyl-2-pentanone	98		120		59-130	20		20
2-Hexanone	97		120		57-130	21	Q	20

Lab Control Sample Analysis

Batch Quality Control

Project Name: FESL
Project Number: 20029

Lab Number: L2049310
Report Date: 11/16/20

Parameter	LCS		LCSD		%Recovery Limits	RPD	Qual	RPD Limits
	%Recovery	Qual	%Recovery	Qual				
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 02-05 Batch: WG1433139-3 WG1433139-4								
Bromochloromethane	110		110		70-130	0		20
2,2-Dichloropropane	110		110		63-133	0		20
1,2-Dibromoethane	100		110		70-130	10		20
1,3-Dichloropropane	110		110		70-130	0		20
1,1,1,2-Tetrachloroethane	98		110		64-130	12		20
Bromobenzene	110		110		70-130	0		20
n-Butylbenzene	100		100		53-136	0		20
sec-Butylbenzene	100		110		70-130	10		20
tert-Butylbenzene	110		110		70-130	0		20
o-Chlorotoluene	110		110		70-130	0		20
p-Chlorotoluene	100		110		70-130	10		20
1,2-Dibromo-3-chloropropane	95		100		41-144	5		20
Hexachlorobutadiene	94		94		63-130	0		20
Isopropylbenzene	110		110		70-130	0		20
p-Isopropyltoluene	100		110		70-130	10		20
Naphthalene	100		100		70-130	0		20
n-Propylbenzene	110		110		69-130	0		20
1,2,3-Trichlorobenzene	100		110		70-130	10		20
1,2,4-Trichlorobenzene	100		110		70-130	10		20
1,3,5-Trimethylbenzene	100		110		64-130	10		20
1,2,4-Trimethylbenzene	110		110		70-130	0		20
1,4-Dioxane	32	Q	44	Q	56-162	32	Q	20
Freon-113	110		100		70-130	10		20

Lab Control Sample Analysis

Batch Quality Control

Project Name: FESL
Project Number: 20029

Lab Number: L2049310
Report Date: 11/16/20

Parameter	LCS		LCSD		%Recovery		RPD	RPD	
	%Recovery	Qual	%Recovery	Qual	Limits	Qual		Limits	
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 02-05 Batch: WG1433139-3 WG1433139-4									
p-Diethylbenzene	100		100		70-130		0		20
p-Ethyltoluene	110		110		70-130		0		20
1,2,4,5-Tetramethylbenzene	99		99		70-130		0		20
Ethyl ether	99		100		59-134		1		20
trans-1,4-Dichloro-2-butene	65	Q	69	Q	70-130		6		20

Surrogate	LCS		LCSD		Acceptance Criteria
	%Recovery	Qual	%Recovery	Qual	
1,2-Dichloroethane-d4	98		99		70-130
Toluene-d8	98		100		70-130
4-Bromofluorobenzene	103		102		70-130
Dibromofluoromethane	96		93		70-130

Lab Control Sample Analysis

Batch Quality Control

Project Name: FESL
Project Number: 20029

Lab Number: L2049310
Report Date: 11/16/20

Parameter	LCS		LCSD		%Recovery Limits	RPD	Qual	RPD Limits
	%Recovery	Qual	%Recovery	Qual				
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01 Batch: WG1433557-3 WG1433557-4								
Methylene chloride	93		100		70-130	7		20
1,1-Dichloroethane	97		100		70-130	3		20
Chloroform	90		99		70-130	10		20
Carbon tetrachloride	86		96		63-132	11		20
1,2-Dichloropropane	88		98		70-130	11		20
Dibromochloromethane	82		93		63-130	13		20
1,1,2-Trichloroethane	94		100		70-130	6		20
Tetrachloroethene	94		100		70-130	6		20
Chlorobenzene	95		100		75-130	5		20
Trichlorofluoromethane	93		100		62-150	7		20
1,2-Dichloroethane	90		97		70-130	7		20
1,1,1-Trichloroethane	90		98		67-130	9		20
Bromodichloromethane	84		94		67-130	11		20
trans-1,3-Dichloropropene	84		92		70-130	9		20
cis-1,3-Dichloropropene	80		92		70-130	14		20
1,1-Dichloropropene	94		100		70-130	6		20
Bromoform	78		90		54-136	14		20
1,1,1,2,2-Tetrachloroethane	91		100		67-130	9		20
Benzene	92		100		70-130	8		20
Toluene	98		100		70-130	2		20
Ethylbenzene	99		110		70-130	11		20
Chloromethane	88		91		64-130	3		20
Bromomethane	83		93		39-139	11		20

Lab Control Sample Analysis

Batch Quality Control

Project Name: FESL
Project Number: 20029

Lab Number: L2049310
Report Date: 11/16/20

Parameter	LCS		LCSD		%Recovery Limits	RPD	Qual	RPD Limits
	%Recovery	Qual	%Recovery	Qual				
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01 Batch: WG1433557-3 WG1433557-4								
Vinyl chloride	87		94		55-140	8		20
Chloroethane	97		110		55-138	13		20
1,1-Dichloroethene	93		100		61-145	7		20
trans-1,2-Dichloroethene	91		100		70-130	9		20
Trichloroethene	90		100		70-130	11		20
1,2-Dichlorobenzene	94		100		70-130	6		20
1,3-Dichlorobenzene	97		110		70-130	13		20
1,4-Dichlorobenzene	94		100		70-130	6		20
Methyl tert butyl ether	83		96		63-130	15		20
p/m-Xylene	100		110		70-130	10		20
o-Xylene	100		110		70-130	10		20
cis-1,2-Dichloroethene	91		100		70-130	9		20
Dibromomethane	83		94		70-130	12		20
1,2,3-Trichloropropane	95		100		64-130	5		20
Acrylonitrile	86		92		70-130	7		20
Styrene	100		110		70-130	10		20
Dichlorodifluoromethane	76		81		36-147	6		20
Acetone	75		86		58-148	14		20
Carbon disulfide	92		99		51-130	7		20
2-Butanone	89		93		63-138	4		20
Vinyl acetate	78		86		70-130	10		20
4-Methyl-2-pentanone	83		92		59-130	10		20
2-Hexanone	70		86		57-130	21	Q	20

Lab Control Sample Analysis

Batch Quality Control

Project Name: FESL
Project Number: 20029

Lab Number: L2049310
Report Date: 11/16/20

Parameter	LCS		LCSD		%Recovery Limits	RPD	Qual	RPD Limits
	%Recovery	Qual	%Recovery	Qual				
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01 Batch: WG1433557-3 WG1433557-4								
Bromochloromethane	85		95		70-130	11		20
2,2-Dichloropropane	96		100		63-133	4		20
1,2-Dibromoethane	87		93		70-130	7		20
1,3-Dichloropropane	93		99		70-130	6		20
1,1,1,2-Tetrachloroethane	85		96		64-130	12		20
Bromobenzene	93		100		70-130	7		20
n-Butylbenzene	110		110		53-136	0		20
sec-Butylbenzene	110		120		70-130	9		20
tert-Butylbenzene	90		98		70-130	9		20
o-Chlorotoluene	100		120		70-130	18		20
p-Chlorotoluene	100		110		70-130	10		20
1,2-Dibromo-3-chloropropane	61		73		41-144	18		20
Hexachlorobutadiene	96		100		63-130	4		20
Isopropylbenzene	100		120		70-130	18		20
p-Isopropyltoluene	100		120		70-130	18		20
Naphthalene	62	Q	69	Q	70-130	11		20
n-Propylbenzene	110		120		69-130	9		20
1,2,3-Trichlorobenzene	69	Q	78		70-130	12		20
1,2,4-Trichlorobenzene	78		86		70-130	10		20
1,3,5-Trimethylbenzene	110		120		64-130	9		20
1,2,4-Trimethylbenzene	100		110		70-130	10		20
1,4-Dioxane	70		72		56-162	3		20
Freon-113	99		110		70-130	11		20

Lab Control Sample Analysis

Batch Quality Control

Project Name: FESL
Project Number: 20029

Lab Number: L2049310
Report Date: 11/16/20

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01 Batch: WG1433557-3 WG1433557-4								
p-Diethylbenzene	100		110		70-130	10		20
p-Ethyltoluene	100		120		70-130	18		20
1,2,4,5-Tetramethylbenzene	92		100		70-130	8		20
Ethyl ether	91		96		59-134	5		20
trans-1,4-Dichloro-2-butene	85		97		70-130	13		20

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
1,2-Dichloroethane-d4	100		101		70-130
Toluene-d8	102		101		70-130
4-Bromofluorobenzene	107		105		70-130
Dibromofluoromethane	95		96		70-130

Lab Duplicate Analysis

Batch Quality Control

Project Name: FESL

Project Number: 20029

Lab Number: L2049310

Report Date: 11/16/20

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
Dissolved Gases by GC - Mansfield Lab Associated sample(s): 01-05 QC Batch ID: WG1432910-4 QC Sample: L2049310-03 Client ID: FLOW HI D25						
Methane	217	245	ug/l	12		25 A
Ethene	125	138	ug/l	10		25 A
Ethane	21.3	25.0	ug/l	16		25 A

INORGANICS & MISCELLANEOUS

Project Name: FESL
Project Number: 20029

Lab Number: L2049310
Report Date: 11/16/20

SAMPLE RESULTS

Lab ID: L2049310-01
Client ID: CTRL D25
Sample Location: ROCHESTER, NY

Date Collected: 11/09/20 09:20
Date Received: 11/09/20
Field Prep: Not Specified

Sample Depth:
Matrix: Water

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Alkalinity, Total	1260		mg CaCO3/L	5.00	NA	2.5	-	11/12/20 02:28	121,2320B	JA
Sulfate	84.		mg/l	50	6.8	5	11/16/20 10:54	11/16/20 10:54	1,9038	JB



Project Name: FESL
Project Number: 20029

Lab Number: L2049310
Report Date: 11/16/20

SAMPLE RESULTS

Lab ID: L2049310-02
 Client ID: CTRL D25 DUP
 Sample Location: ROCHESTER, NY

Date Collected: 11/09/20 09:25
 Date Received: 11/09/20
 Field Prep: Not Specified

Sample Depth:
 Matrix: Water

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Alkalinity, Total	1300		mg CaCO3/L	5.00	NA	2.5	-	11/12/20 02:28	121,2320B	JA
Sulfate	82.		mg/l	50	6.8	5	11/16/20 10:54	11/16/20 10:54	1,9038	JB



Project Name: FESL
Project Number: 20029

Lab Number: L2049310
Report Date: 11/16/20

SAMPLE RESULTS

Lab ID: L2049310-03
Client ID: FLOW HI D25
Sample Location: ROCHESTER, NY

Date Collected: 11/09/20 09:30
Date Received: 11/09/20
Field Prep: Not Specified

Sample Depth:
Matrix: Water

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Alkalinity, Total	541.		mg CaCO3/L	2.00	NA	1	-	11/12/20 02:28	121,2320B	JA
Sulfate	47.		mg/l	20	2.7	2	11/16/20 10:54	11/16/20 10:54	1,9038	JB



Project Name: FESL
Project Number: 20029

Lab Number: L2049310
Report Date: 11/16/20

SAMPLE RESULTS

Lab ID: L2049310-04
 Client ID: TARGET HI D25
 Sample Location: ROCHESTER, NY

Date Collected: 11/09/20 09:35
 Date Received: 11/09/20
 Field Prep: Not Specified

Sample Depth:
 Matrix: Water

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Alkalinity, Total	542.		mg CaCO3/L	2.00	NA	1	-	11/12/20 02:28	121,2320B	JA
Sulfate	41.		mg/l	20	2.7	2	11/16/20 10:54	11/16/20 10:54	1,9038	JB



Project Name: FESL
Project Number: 20029

Lab Number: L2049310
Report Date: 11/16/20

SAMPLE RESULTS

Lab ID: L2049310-05
 Client ID: EZVI HI D25
 Sample Location: ROCHESTER, NY

Date Collected: 11/09/20 09:40
 Date Received: 11/09/20
 Field Prep: Not Specified

Sample Depth:
 Matrix: Water

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Alkalinity, Total	1170		mg CaCO3/L	4.00	NA	2	-	11/12/20 02:28	121,2320B	JA
Sulfate	ND		mg/l	500	68.	50	11/16/20 10:54	11/16/20 10:54	1,9038	JB



Project Name: FESL
Project Number: 20029

Lab Number: L2049310
Report Date: 11/16/20

Method Blank Analysis
Batch Quality Control

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab for sample(s): 01-05 Batch: WG1432843-1										
Alkalinity, Total	ND		mg CaCO3/L	2.00	NA	1	-	11/12/20 02:28	121,2320B	JA
General Chemistry - Westborough Lab for sample(s): 01-05 Batch: WG1434736-1										
Sulfate	2.0	J	mg/l	10	1.4	1	11/16/20 10:54	11/16/20 10:54	1,9038	JB

Lab Control Sample Analysis

Batch Quality Control

Project Name: FESL
Project Number: 20029

Lab Number: L2049310
Report Date: 11/16/20

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
General Chemistry - Westborough Lab Associated sample(s): 01-05 Batch: WG1432843-2								
Alkalinity, Total	103		-		90-110	-		10
General Chemistry - Westborough Lab Associated sample(s): 01-05 Batch: WG1434736-2								
Sulfate	95		-		90-110	-		

Matrix Spike Analysis Batch Quality Control

Project Name: FESL
Project Number: 20029

Lab Number: L2049310
Report Date: 11/16/20

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	MSD Qual	MSD Found	MSD %Recovery	MSD Qual	Recovery Limits	RPD	RPD Qual	RPD Limits
General Chemistry - Westborough Lab Associated sample(s): 01-05 QC Batch ID: WG1432843-4 QC Sample: L2049011-03 Client ID: MS Sample												
Alkalinity, Total	264.	100	292	28	Q	-	-		86-116	-		10
General Chemistry - Westborough Lab Associated sample(s): 01-05 QC Batch ID: WG1434736-4 QC Sample: L2049367-01 Client ID: MS Sample												
Sulfate	5.8J	20	26	130		-	-		55-147	-		14

Lab Duplicate Analysis

Batch Quality Control

Project Name: FESL

Project Number: 20029

Lab Number: L2049310

Report Date: 11/16/20

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
General Chemistry - Westborough Lab Associated sample(s): 01-05 QC Batch ID: WG1432843-3 QC Sample: L2049011-03 Client ID: DUP Sample						
Alkalinity, Total	264.	264	mg CaCO3/L	0		10
General Chemistry - Westborough Lab Associated sample(s): 01-05 QC Batch ID: WG1434736-3 QC Sample: L2049367-01 Client ID: DUP Sample						
Sulfate	5.8J	5.2J	mg/l	NC		14

Project Name: FESL**Lab Number:** L2049310**Project Number:** 20029**Report Date:** 11/16/20**Sample Receipt and Container Information**

Were project specific reporting limits specified?

YES

Cooler Information

Cooler	Custody Seal
A	Absent

Container Information

Container ID	Container Type	Cooler	Initial pH	Final pH	Temp deg C	Pres	Seal	Frozen Date/Time	Analysis(*)
L2049310-01A	Vial HCl preserved	A	NA		6.5	Y	Absent		NYTCL-8260(14)
L2049310-01B	Vial HCl preserved	A	NA		6.5	Y	Absent		NYTCL-8260(14)
L2049310-01C	20ml Vial HCl preserved	A	NA		6.5	Y	Absent		DISSGAS(14)
L2049310-01D	20ml Vial HCl preserved	A	NA		6.5	Y	Absent		DISSGAS(14)
L2049310-01E	Plastic 120ml unpreserved	A	7	7	6.5	Y	Absent		SO4-9038(28)
L2049310-01F	Plastic 250ml unpreserved/No Headspace	A	NA		6.5	Y	Absent		ALK-T-2320(14)
L2049310-01G	Plastic 250ml unpreserved/No Headspace	A	NA		6.5	Y	Absent		-
L2049310-02A	Vial HCl preserved	A	NA		6.5	Y	Absent		NYTCL-8260(14)
L2049310-02B	Vial HCl preserved	A	NA		6.5	Y	Absent		NYTCL-8260(14)
L2049310-02C	20ml Vial HCl preserved	A	NA		6.5	Y	Absent		DISSGAS(14)
L2049310-02D	20ml Vial HCl preserved	A	NA		6.5	Y	Absent		DISSGAS(14)
L2049310-02E	Plastic 120ml unpreserved	A	9	9	6.5	Y	Absent		SO4-9038(28)
L2049310-02F	Plastic 250ml unpreserved/No Headspace	A	NA		6.5	Y	Absent		ALK-T-2320(14)
L2049310-02G	Plastic 250ml unpreserved/No Headspace	A	NA		6.5	Y	Absent		-
L2049310-03A	Vial HCl preserved	A	NA		6.5	Y	Absent		NYTCL-8260(14)
L2049310-03B	Vial HCl preserved	A	NA		6.5	Y	Absent		NYTCL-8260(14)
L2049310-03C	20ml Vial HCl preserved	A	NA		6.5	Y	Absent		DISSGAS(14)
L2049310-03D	20ml Vial HCl preserved	A	NA		6.5	Y	Absent		DISSGAS(14)
L2049310-03E	Plastic 120ml unpreserved	A	7	7	6.5	Y	Absent		SO4-9038(28)
L2049310-03F	Plastic 250ml unpreserved/No Headspace	A	NA		6.5	Y	Absent		ALK-T-2320(14)
L2049310-03G	Plastic 250ml unpreserved/No Headspace	A	NA		6.5	Y	Absent		-
L2049310-04A	Vial HCl preserved	A	NA		6.5	Y	Absent		NYTCL-8260(14)
L2049310-04B	Vial HCl preserved	A	NA		6.5	Y	Absent		NYTCL-8260(14)

Project Name: FESL
Project Number: 20029

Serial_No:11162015:02
Lab Number: L2049310
Report Date: 11/16/20

Container Information

Container ID	Container Type	Cooler	Initial pH	Final pH	Temp deg C	Pres	Seal	Frozen Date/Time	Analysis(*)
L2049310-04C	20ml Vial HCl preserved	A	NA		6.5	Y	Absent		DISSGAS(14)
L2049310-04D	20ml Vial HCl preserved	A	NA		6.5	Y	Absent		DISSGAS(14)
L2049310-04E	Plastic 120ml unpreserved	A	10	10	6.5	Y	Absent		SO4-9038(28)
L2049310-04F	Plastic 250ml unpreserved/No Headspace	A	NA		6.5	Y	Absent		ALK-T-2320(14)
L2049310-04G	Plastic 250ml unpreserved/No Headspace	A	NA		6.5	Y	Absent		-
L2049310-05A	Vial HCl preserved	A	NA		6.5	Y	Absent		NYTCL-8260(14)
L2049310-05B	Vial HCl preserved	A	NA		6.5	Y	Absent		NYTCL-8260(14)
L2049310-05C	20ml Vial HCl preserved	A	NA		6.5	Y	Absent		DISSGAS(14)
L2049310-05D	20ml Vial HCl preserved	A	NA		6.5	Y	Absent		DISSGAS(14)
L2049310-05E	Plastic 120ml unpreserved	A	7	7	6.5	Y	Absent		SO4-9038(28)
L2049310-05F	Plastic 250ml unpreserved/No Headspace	A	NA		6.5	Y	Absent		ALK-T-2320(14)
L2049310-05G	Plastic 250ml unpreserved/No Headspace	A	NA		6.5	Y	Absent		-

Project Name: FESL
Project Number: 20029

Lab Number: L2049310
Report Date: 11/16/20

GLOSSARY

Acronyms

DL	- Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the limit of quantitation (LOQ). The DL includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)
EDL	- Estimated Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The EDL includes any adjustments from dilutions, concentrations or moisture content, where applicable. The use of EDLs is specific to the analysis of PAHs using Solid-Phase Microextraction (SPME).
EMPC	- Estimated Maximum Possible Concentration: The concentration that results from the signal present at the retention time of an analyte when the ions meet all of the identification criteria except the ion abundance ratio criteria. An EMPC is a worst-case estimate of the concentration.
EPA	- Environmental Protection Agency.
LCS	- Laboratory Control Sample: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.
LCSD	- Laboratory Control Sample Duplicate: Refer to LCS.
LFB	- Laboratory Fortified Blank: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.
LOD	- Limit of Detection: This value represents the level to which a target analyte can reliably be detected for a specific analyte in a specific matrix by a specific method. The LOD includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)
LOQ	- Limit of Quantitation: The value at which an instrument can accurately measure an analyte at a specific concentration. The LOQ includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.) Limit of Quantitation: The value at which an instrument can accurately measure an analyte at a specific concentration. The LOQ includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)
MDL	- Method Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The MDL includes any adjustments from dilutions, concentrations or moisture content, where applicable.
MS	- Matrix Spike Sample: A sample prepared by adding a known mass of target analyte to a specified amount of matrix sample for which an independent estimate of target analyte concentration is available. For Method 332.0, the spike recovery is calculated using the native concentration, including estimated values.
MSD	- Matrix Spike Sample Duplicate: Refer to MS.
NA	- Not Applicable.
NC	- Not Calculated: Term is utilized when one or more of the results utilized in the calculation are non-detect at the parameter's reporting unit.
NDPA/DPA	- N-Nitrosodiphenylamine/Diphenylamine.
NI	- Not Ignitable.
NP	- Non-Plastic: Term is utilized for the analysis of Atterberg Limits in soil.
NR	- No Results: Term is utilized when 'No Target Compounds Requested' is reported for the analysis of Volatile or Semivolatile Organic TIC only requests.
RL	- Reporting Limit: The value at which an instrument can accurately measure an analyte at a specific concentration. The RL includes any adjustments from dilutions, concentrations or moisture content, where applicable.
RPD	- Relative Percent Difference: The results from matrix and/or matrix spike duplicates are primarily designed to assess the precision of analytical results in a given matrix and are expressed as relative percent difference (RPD). Values which are less than five times the reporting limit for any individual parameter are evaluated by utilizing the absolute difference between the values; although the RPD value will be provided in the report.
SRM	- Standard Reference Material: A reference sample of a known or certified value that is of the same or similar matrix as the associated field samples.
STLP	- Semi-dynamic Tank Leaching Procedure per EPA Method 1315.
TEF	- Toxic Equivalency Factors: The values assigned to each dioxin and furan to evaluate their toxicity relative to 2,3,7,8-TCDD.
TEQ	- Toxic Equivalent: The measure of a sample's toxicity derived by multiplying each dioxin and furan by its corresponding TEF and then summing the resulting values.
TIC	- Tentatively Identified Compound: A compound that has been identified to be present and is not part of the target compound list (TCL) for the method and/or program. All TICs are qualitatively identified and reported as estimated concentrations.

Report Format: DU Report with 'J' Qualifiers



Project Name: FESL
Project Number: 20029

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Footnotes

- 1 - The reference for this analyte should be considered modified since this analyte is absent from the target analyte list of the original method.

Terms

Analytical Method: Both the document from which the method originates and the analytical reference method. (Example: EPA 8260B is shown as 1,8260B.) The codes for the reference method documents are provided in the References section of the Addendum.

Difference: With respect to Total Oxidizable Precursor (TOP) Assay analysis, the difference is defined as the Post-Treatment value minus the Pre-Treatment value.

Final pH: As it pertains to Sample Receipt & Container Information section of the report, Final pH reflects pH of container determined after adjustment at the laboratory, if applicable. If no adjustment required, value reflects Initial pH.

Frozen Date/Time: With respect to Volatile Organics in soil, Frozen Date/Time reflects the date/time at which associated Reagent Water-preserved vials were initially frozen. Note: If frozen date/time is beyond 48 hours from sample collection, value will be reflected in 'bold'.

Initial pH: As it pertains to Sample Receipt & Container Information section of the report, Initial pH reflects pH of container determined upon receipt, if applicable.

PAH Total: With respect to Alkylated PAH analyses, the 'PAHs, Total' result is defined as the summation of results for all or a subset of the following compounds: Naphthalene, C1-C4 Naphthalenes, 2-Methylnaphthalene, 1-Methylnaphthalene, Biphenyl, Acenaphthylene, Acenaphthene, Fluorene, C1-C3 Fluorenes, Phenanthrene, C1-C4 Phenanthrenes/Anthracenes, Anthracene, Fluoranthene, Pyrene, C1-C4 Fluoranthenes/Pyrenes, Benz(a)anthracene, Chrysene, C1-C4 Chrysenes, Benzo(b)fluoranthene, Benzo(j)+(k)fluoranthene, Benzo(e)pyrene, Benzo(a)pyrene, Perylene, Indeno(1,2,3-cd)pyrene, Dibenz(ah)+(ac)anthracene, Benzo(g,h,i)perylene. If a 'Total' result is requested, the results of its individual components will also be reported.

PFAS Total: With respect to PFAS analyses, the 'PFAS, Total (5)' result is defined as the summation of results for: PFHpA, PFHxS, PFOA, PFNA and PFOS. If a 'Total' result is requested, the results of its individual components will also be reported.

The target compound Chlordane (CAS No. 57-74-9) is reported for GC ECD analyses. Per EPA, this compound "refers to a mixture of chlordane isomers, other chlorinated hydrocarbons and numerous other components." (Reference: USEPA Toxicological Review of Chlordane, In Support of Summary Information on the Integrated Risk Information System (IRIS), December 1997.)

Total: With respect to Organic analyses, a 'Total' result is defined as the summation of results for individual isomers or Aroclors. If a 'Total' result is requested, the results of its individual components will also be reported. This is applicable to 'Total' results for methods 8260, 8081 and 8082.

Data Qualifiers

- A** - Spectra identified as "Aldol Condensates" are byproducts of the extraction/concentration procedures when acetone is introduced in the process.
- B** - The analyte was detected above the reporting limit in the associated method blank. Flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For MCP-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For DOD-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank AND the analyte was detected above one-half the reporting limit (or above the reporting limit for common lab contaminants) in the associated method blank. For NJ-Air-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte above the reporting limit. For NJ-related projects (excluding Air), flag only applies to associated field samples that have detectable concentrations of the analyte, which was detected above the reporting limit in the associated method blank or above five times the reporting limit for common lab contaminants (Phthalates, Acetone, Methylene Chloride, 2-Butanone).
- C** - Co-elution: The target analyte co-elutes with a known lab standard (i.e. surrogate, internal standards, etc.) for co-extracted analyses.
- D** - Concentration of analyte was quantified from diluted analysis. Flag only applies to field samples that have detectable concentrations of the analyte.
- E** - Concentration of analyte exceeds the range of the calibration curve and/or linear range of the instrument.
- F** - The ratio of quantifier ion response to qualifier ion response falls outside of the laboratory criteria. Results are considered to be an estimated maximum concentration.
- G** - The concentration may be biased high due to matrix interferences (i.e. co-elution) with non-target compound(s). The result should be considered estimated.
- H** - The analysis of pH was performed beyond the regulatory-required holding time of 15 minutes from the time of sample collection.
- I** - The lower value for the two columns has been reported due to obvious interference.
- J** - Estimated value. The Target analyte concentration is below the quantitation limit (RL), but above the Method Detection Limit (MDL) or Estimated Detection Limit (EDL) for SPME-related analyses. This represents an estimated concentration for Tentatively Identified Compounds (TICs).
- M** - Reporting Limit (RL) exceeds the MCP CAM Reporting Limit for this analyte.
- ND** - Not detected at the method detection limit (MDL) for the sample, or estimated detection limit (EDL) for SPME-related analyses.
- NJ** - Presumptive evidence of compound. This represents an estimated concentration for Tentatively Identified Compounds (TICs), where

Report Format: DU Report with 'J' Qualifiers



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Data Qualifiers

the identification is based on a mass spectral library search.

- P** - The RPD between the results for the two columns exceeds the method-specified criteria.
- Q** - The quality control sample exceeds the associated acceptance criteria. For DOD-related projects, LCS and/or Continuing Calibration Standard exceedences are also qualified on all associated sample results. Note: This flag is not applicable for matrix spike recoveries when the sample concentration is greater than 4x the spike added or for batch duplicate RPD when the sample concentrations are less than 5x the RL. (Metals only.)
- R** - Analytical results are from sample re-analysis.
- RE** - Analytical results are from sample re-extraction.
- S** - Analytical results are from modified screening analysis.

Project Name: FESL
Project Number: 20029

Lab Number: L2049310
Report Date: 11/16/20

REFERENCES

- 1 Test Methods for Evaluating Solid Waste: Physical/Chemical Methods. EPA SW-846. Third Edition. Updates I - VI, 2018.
- 117 Technical Guidance for the Natural Attenuation Indicators: Methane, Ethane, and Ethene, EPA-NE, Revision 1, February 21, 2002 and Sample Preparation & Calculations for Dissolved Gas Analysis in Water Samples using a GC Headspace Equilibration Technique, EPA RSKSOP-175, Revision 2, May 2004.
- 121 Standard Methods for the Examination of Water and Wastewater. APHA-AWWA-WEF. Standard Methods Online.

LIMITATION OF LIABILITIES

Alpha Analytical performs services with reasonable care and diligence normal to the analytical testing laboratory industry. In the event of an error, the sole and exclusive responsibility of Alpha Analytical shall be to re-perform the work at it's own expense. In no event shall Alpha Analytical be held liable for any incidental, consequential or special damages, including but not limited to, damages in any way connected with the use of, interpretation of, information or analysis provided by Alpha Analytical.

We strongly urge our clients to comply with EPA protocol regarding sample volume, preservation, cooling, containers, sampling procedures, holding time and splitting of samples in the field.



Certification Information

The following analytes are not included in our Primary NELAP Scope of Accreditation:

Westborough Facility

EPA 624/624.1: m/p-xylene, o-xylene, Naphthalene

EPA 8260C: NPW: 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene, Azobenzene; SCM: Iodomethane (methyl iodide), 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene.

EPA 8270D: NPW: Dimethylnaphthalene, 1,4-Diphenylhydrazine; SCM: Dimethylnaphthalene, 1,4-Diphenylhydrazine.

SM4500: NPW: Amenable Cyanide; SCM: Total Phosphorus, TKN, NO₂, NO₃.

Mansfield Facility

SM 2540D: TSS

EPA 8082A: NPW: PCB: 1, 5, 31, 87, 101, 110, 141, 151, 153, 180, 183, 187.

EPA TO-15: Halothane, 2,4,4-Trimethyl-2-pentene, 2,4,4-Trimethyl-1-pentene, Thiophene, 2-Methylthiophene, 3-Methylthiophene, 2-Ethylthiophene, 1,2,3-Trimethylbenzene, Indan, Indene, 1,2,4,5-Tetramethylbenzene, Benzothiophene, 1-Methylnaphthalene.

EPA TO-12 Non-methane organics

EPA 3C Fixed gases

Biological Tissue Matrix: EPA 3050B

The following analytes are included in our Massachusetts DEP Scope of Accreditation

Westborough Facility:

Drinking Water

EPA 300.0: Chloride, Nitrate-N, Fluoride, Sulfate; **EPA 353.2:** Nitrate-N, Nitrite-N; **SM4500NO3-F:** Nitrate-N, Nitrite-N; **SM4500F-C, SM4500CN-CE,**

EPA 180.1, SM2130B, SM4500CI-D, SM2320B, SM2540C, SM4500H-B, SM4500NO2-B

EPA 332: Perchlorate; **EPA 524.2:** THMs and VOCs; **EPA 504.1:** EDB, DBCP.

Microbiology: SM9215B; SM9223-P/A, SM9223B-Colilert-QT, SM9222D.

Non-Potable Water

SM4500H,B, EPA 120.1, SM2510B, SM2540C, SM2320B, SM4500CL-E, SM4500F-BC, SM4500NH3-BH: Ammonia-N and Kjeldahl-N, **EPA 350.1:** Ammonia-N, **LACHAT 10-107-06-1-B:** Ammonia-N, **EPA 351.1, SM4500NO3-F, EPA 353.2:** Nitrate-N, **SM4500P-E, SM4500P-B, E, SM4500SO4-E, SM5220D, EPA 410.4, SM5210B, SM5310C, SM4500CL-D, EPA 1664, EPA 420.1, SM4500-CN-CE, SM2540D, EPA 300:** Chloride, Sulfate, Nitrate.

EPA 624.1: Volatile Halocarbons & Aromatics,

EPA 608.3: Chlordane, Toxaphene, Aldrin, alpha-BHC, beta-BHC, gamma-BHC, delta-BHC, Dieldrin, DDD, DDE, DDT, Endosulfan I, Endosulfan II, Endosulfan sulfate, Endrin, Endrin Aldehyde, Heptachlor, Heptachlor Epoxide, PCBs

EPA 625.1: SVOC (Acid/Base/Neutral Extractables), **EPA 600/4-81-045:** PCB-Oil.

Microbiology: SM9223B-Colilert-QT; Enterolert-QT, SM9221E, EPA 1600, EPA 1603.

Mansfield Facility:

Drinking Water

EPA 200.7: Al, Ba, Cd, Cr, Cu, Fe, Mn, Ni, Na, Ag, Ca, Zn. **EPA 200.8:** Al, Sb, As, Ba, Be, Cd, Cr, Cu, Pb, Mn, Ni, Se, Ag, TL, Zn. **EPA 245.1** Hg.

EPA 522.

Non-Potable Water


EPA 200.7: Al, Sb, As, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Mg, Mn, Mo, Ni, K, Se, Ag, Na, Sr, TL, Ti, V, Zn.

EPA 200.8: Al, Sb, As, Be, Cd, Cr, Cu, Fe, Pb, Mn, Ni, K, Se, Ag, Na, TL, Zn.

EPA 245.1 Hg.

SM2340B

For a complete listing of analytes and methods, please contact your Alpha Project Manager.

 NEW JERSEY CHAIN OF CUSTODY Westborough, MA 01581 8 Walkup Dr. TEL: 508-898-9220 FAX: 508-898-9193	Mansfield, MA 02048 320 Forbes Blvd TEL: 508-822-9300 FAX: 508-822-3288	Service Centers Mahwah, NJ 07430: 35 Whitney Rd, Suite 5 Albany, NY 12205: 14 Walker Way Tonawanda, NY 14150: 275 Cooper Ave, Suite 105	Page 1 of 1	Date Rec'd in Lab 11/9/20	ALPHA Job # L2049310							
		Project Information Project Name: FESL Project Location: Rochester, NY Project # 20029 (Use Project name as Project #) <input type="checkbox"/>		Deliverables <input type="checkbox"/> NJ Full / Reduced <input type="checkbox"/> EQUS (1 File) <input type="checkbox"/> EQUS (4 File) <input type="checkbox"/> Other NYSDOH ELAP		Billing Information <input checked="" type="checkbox"/> Same as Client Info PO# 4697						
Client Information Client: XDD Address: 22 Marin Way, Unit 3 Stratham, NH 03833 Phone: 603-778-1100 Fax: Email: lcrawford@xdd-llc.com		Turn-Around Time Standard <input type="checkbox"/> Due Date: <i>See below</i> Rush (only if pre approved) <input type="checkbox"/> # of Days: <i>See below</i>		Regulatory Requirement <input type="checkbox"/> SRS Residential/Non Residential <input type="checkbox"/> SRS Impact to Groundwater <input type="checkbox"/> NJ Ground Water Quality Standards <input type="checkbox"/> NJ IGW SPLP Leachate Criteria <input checked="" type="checkbox"/> Other		Site Information Is this site impacted by Petroleum? Yes <input type="checkbox"/> Petroleum Product:						
These samples have been previously analyzed by Alpha <input type="checkbox"/>		For EPH, selection is REQUIRED: <input type="checkbox"/> Category 1 <input type="checkbox"/> Category 2		For VOC, selection is REQUIRED: <input type="checkbox"/> 1,4-Dioxane <input type="checkbox"/> 8011		Other project specific requirements/comments: invoices go to ap@xdd-llc.com please include Freon-113 <i>3-day TAT for VOCs, standard TAT for all other analytes</i>		ANALYSIS VOCs Dissolved Gases Alkalinity Sulfate		Sample Filtration <input type="checkbox"/> Done <input type="checkbox"/> Lab to do <input type="checkbox"/> Lab to do (Please Specify below)		
ALPHA Lab ID (Lab Use Only)	Sample ID	Collection		Sample Matrix	Sampler's Initials					Sample Specific Comments	Total Bottle -	
		Date	Time									
49310-01	Ctrl D25	11/9/2020	9:20	GW	LC	x	x	x	x			4
02	Ctrl D25 dup	11/9/2020	9:25	GW	LC	x	x	x	x			7
03	Flow Hi D25	11/9/2020	9:30	GW	LC	x	x	x	x			
04	Target Hi D25	11/9/2020	9:35	GW	LC	x	x	x	x			
05	eZVI Hi D25	11/9/2020	9:40	GW	LC	x	x	x	x			
Preservative Code: A = None B = HCl C = HNO ₃ D = H ₂ SO ₄ E = NaOH F = MeOH G = NaHSO ₄ H = Na ₂ S ₂ O ₃ K/E = Zn Ac/NaOH O = Other		Container Code: P = Plastic A = Amber Glass V = Vial G = Glass B = Bacteria Cup C = Cube O = Other E = Encore D = BOD Bottle		Westboro: Certification No: MA935 Mansfield: Certification No: MA015		Container Type G G P P		Preservative B B A A		Please print clearly, legibly and completely. Samples can not be logged in and turnaround time clock will not start until any ambiguities are resolved. BY EXECUTING THIS COC, THE CLIENT HAS READ AND AGREES TO BE BOUND BY ALPHA'S TERMS & CONDITIONS .		
		Relinquished By: <i>[Signature]</i>		Date/Time: <i>11/9/2020 1:20pm</i>		Received By: <i>[Signature]</i>		Date/Time: <i>11/9/20 1:30</i>				
		Relinquished By: <i>[Signature]</i>		Date/Time: <i>11/9/20 1:00</i>		Received By: <i>[Signature]</i>		Date/Time: <i>11/9/20 1:00</i>				



ANALYTICAL REPORT

Lab Number:	L2053373
Client:	XDD Environmental Mary Scudieri 22 Marin Way Unit 3 Stratham, NH 03885
ATTN:	Laurel Crawford
Phone:	(603) 778-1100
Project Name:	FESL
Project Number:	20029
Report Date:	12/04/20

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Certifications & Approvals: MA (M-MA086), NH NELAP (2064), CT (PH-0574), IL (200077), ME (MA00086), MD (348), NJ (MA935), NY (11148), NC (25700/666), PA (68-03671), RI (LAO00065), TX (T104704476), VT (VT-0935), VA (460195), USDA (Permit #P330-17-00196).

Eight Walkup Drive, Westborough, MA 01581-1019
508-898-9220 (Fax) 508-898-9193 800-624-9220 - www.alphalab.com



Project Name: FESL
Project Number: 20029

Lab Number: L2053373
Report Date: 12/04/20

Alpha Sample ID	Client ID	Matrix	Sample Location	Collection Date/Time	Receive Date
L2053373-01	SBW-07 BASELINE	WATER	ROCHESTER, NY	12/02/20 09:00	12/02/20
L2053373-02	SBW-07 BASELINE DUPE	WATER	ROCHESTER, NY	12/02/20 09:05	12/02/20

Project Name: FESL
Project Number: 20029

Lab Number: L2053373
Report Date: 12/04/20

Case Narrative

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

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

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

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

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

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

Project Name: FESL
Project Number: 20029

Lab Number: L2053373
Report Date: 12/04/20

Case Narrative (continued)

Report Submission

All non-detect (ND) or estimated concentrations (J-qualified) have been quantitated to the limit noted in the MDL column.

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

Authorized Signature:

Tiffani Morrissey - Tiffani Morrissey

Title: Technical Director/Representative

Date: 12/04/20

ORGANICS

VOLATILES

Project Name: FESL
Project Number: 20029

Lab Number: L2053373
Report Date: 12/04/20

SAMPLE RESULTS

Lab ID: L2053373-01 D
 Client ID: SBW-07 BASELINE
 Sample Location: ROCHESTER, NY

Date Collected: 12/02/20 09:00
 Date Received: 12/02/20
 Field Prep: Not Specified

Sample Depth:

Matrix: Water
 Analytical Method: 1,8260C
 Analytical Date: 12/03/20 11:08
 Analyst: PD

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methylene chloride	ND		ug/l	6.2	1.8	2.5
1,1-Dichloroethane	450		ug/l	6.2	1.8	2.5
Chloroform	ND		ug/l	6.2	1.8	2.5
Carbon tetrachloride	ND		ug/l	1.2	0.34	2.5
1,2-Dichloropropane	ND		ug/l	2.5	0.34	2.5
Dibromochloromethane	ND		ug/l	1.2	0.37	2.5
1,1,2-Trichloroethane	ND		ug/l	3.8	1.2	2.5
Tetrachloroethene	420		ug/l	1.2	0.45	2.5
Chlorobenzene	ND		ug/l	6.2	1.8	2.5
Trichlorofluoromethane	ND		ug/l	6.2	1.8	2.5
1,2-Dichloroethane	ND		ug/l	1.2	0.33	2.5
1,1,1-Trichloroethane	220		ug/l	6.2	1.8	2.5
Bromodichloromethane	ND		ug/l	1.2	0.48	2.5
trans-1,3-Dichloropropene	ND		ug/l	1.2	0.41	2.5
cis-1,3-Dichloropropene	ND		ug/l	1.2	0.36	2.5
1,3-Dichloropropene, Total	ND		ug/l	1.2	0.36	2.5
1,1-Dichloropropene	ND		ug/l	6.2	1.8	2.5
Bromoform	ND		ug/l	5.0	1.6	2.5
1,1,1,2,2-Tetrachloroethane	ND		ug/l	1.2	0.42	2.5
Benzene	3.6		ug/l	1.2	0.40	2.5
Toluene	3.2	J	ug/l	6.2	1.8	2.5
Ethylbenzene	ND		ug/l	6.2	1.8	2.5
Chloromethane	ND		ug/l	6.2	1.8	2.5
Bromomethane	ND		ug/l	6.2	1.8	2.5
Vinyl chloride	250		ug/l	2.5	0.18	2.5
Chloroethane	19		ug/l	6.2	1.8	2.5
1,1-Dichloroethene	7.8		ug/l	1.2	0.42	2.5
trans-1,2-Dichloroethene	5.4	J	ug/l	6.2	1.8	2.5

Project Name: FESL
Project Number: 20029

Lab Number: L2053373
Report Date: 12/04/20

SAMPLE RESULTS

Lab ID: L2053373-01 D
 Client ID: SBW-07 BASELINE
 Sample Location: ROCHESTER, NY

Date Collected: 12/02/20 09:00
 Date Received: 12/02/20
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Trichloroethene	24		ug/l	1.2	0.44	2.5
1,2-Dichlorobenzene	ND		ug/l	6.2	1.8	2.5
1,3-Dichlorobenzene	ND		ug/l	6.2	1.8	2.5
1,4-Dichlorobenzene	ND		ug/l	6.2	1.8	2.5
Methyl tert butyl ether	ND		ug/l	6.2	1.8	2.5
p/m-Xylene	ND		ug/l	6.2	1.8	2.5
o-Xylene	ND		ug/l	6.2	1.8	2.5
Xylenes, Total	ND		ug/l	6.2	1.8	2.5
cis-1,2-Dichloroethene	460		ug/l	6.2	1.8	2.5
1,2-Dichloroethene, Total	470	J	ug/l	6.2	1.8	2.5
Dibromomethane	ND		ug/l	12	2.5	2.5
1,2,3-Trichloropropane	ND		ug/l	6.2	1.8	2.5
Acrylonitrile	ND		ug/l	12	3.8	2.5
Styrene	ND		ug/l	6.2	1.8	2.5
Dichlorodifluoromethane	ND		ug/l	12	2.5	2.5
Acetone	ND		ug/l	12	3.6	2.5
Carbon disulfide	ND		ug/l	12	2.5	2.5
2-Butanone	ND		ug/l	12	4.8	2.5
Vinyl acetate	ND		ug/l	12	2.5	2.5
4-Methyl-2-pentanone	ND		ug/l	12	2.5	2.5
2-Hexanone	ND		ug/l	12	2.5	2.5
Bromochloromethane	ND		ug/l	6.2	1.8	2.5
2,2-Dichloropropane	ND		ug/l	6.2	1.8	2.5
1,2-Dibromoethane	ND		ug/l	5.0	1.6	2.5
1,3-Dichloropropane	ND		ug/l	6.2	1.8	2.5
1,1,1,2-Tetrachloroethane	ND		ug/l	6.2	1.8	2.5
Bromobenzene	ND		ug/l	6.2	1.8	2.5
n-Butylbenzene	ND		ug/l	6.2	1.8	2.5
sec-Butylbenzene	ND		ug/l	6.2	1.8	2.5
tert-Butylbenzene	ND		ug/l	6.2	1.8	2.5
o-Chlorotoluene	ND		ug/l	6.2	1.8	2.5
p-Chlorotoluene	ND		ug/l	6.2	1.8	2.5
1,2-Dibromo-3-chloropropane	ND		ug/l	6.2	1.8	2.5
Hexachlorobutadiene	ND		ug/l	6.2	1.8	2.5
Isopropylbenzene	ND		ug/l	6.2	1.8	2.5
p-Isopropyltoluene	ND		ug/l	6.2	1.8	2.5
Naphthalene	ND		ug/l	6.2	1.8	2.5

Project Name: FESL
Project Number: 20029

Lab Number: L2053373
Report Date: 12/04/20

SAMPLE RESULTS

Lab ID: L2053373-01 D
 Client ID: SBW-07 BASELINE
 Sample Location: ROCHESTER, NY

Date Collected: 12/02/20 09:00
 Date Received: 12/02/20
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
n-Propylbenzene	ND		ug/l	6.2	1.8	2.5
1,2,3-Trichlorobenzene	ND		ug/l	6.2	1.8	2.5
1,2,4-Trichlorobenzene	ND		ug/l	6.2	1.8	2.5
1,3,5-Trimethylbenzene	ND		ug/l	6.2	1.8	2.5
1,2,4-Trimethylbenzene	ND		ug/l	6.2	1.8	2.5
1,4-Dioxane	180	J	ug/l	620	150	2.5
Freon-113	170		ug/l	6.2	1.8	2.5
p-Diethylbenzene	ND		ug/l	5.0	1.8	2.5
p-Ethyltoluene	ND		ug/l	5.0	1.8	2.5
1,2,4,5-Tetramethylbenzene	ND		ug/l	5.0	1.4	2.5
Ethyl ether	8.0		ug/l	6.2	1.8	2.5
trans-1,4-Dichloro-2-butene	ND		ug/l	6.2	1.8	2.5

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	100		70-130
Toluene-d8	99		70-130
4-Bromofluorobenzene	98		70-130
Dibromofluoromethane	99		70-130

Project Name: FESL
Project Number: 20029

Lab Number: L2053373
Report Date: 12/04/20

SAMPLE RESULTS

Lab ID: L2053373-02 D
 Client ID: SBW-07 BASELINE DUPE
 Sample Location: ROCHESTER, NY

Date Collected: 12/02/20 09:05
 Date Received: 12/02/20
 Field Prep: Not Specified

Sample Depth:

Matrix: Water
 Analytical Method: 1,8260C
 Analytical Date: 12/03/20 11:33
 Analyst: PD

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methylene chloride	ND		ug/l	10	2.8	4
1,1-Dichloroethane	610		ug/l	10	2.8	4
Chloroform	ND		ug/l	10	2.8	4
Carbon tetrachloride	ND		ug/l	2.0	0.54	4
1,2-Dichloropropane	ND		ug/l	4.0	0.55	4
Dibromochloromethane	ND		ug/l	2.0	0.60	4
1,1,2-Trichloroethane	ND		ug/l	6.0	2.0	4
Tetrachloroethene	76		ug/l	2.0	0.72	4
Chlorobenzene	ND		ug/l	10	2.8	4
Trichlorofluoromethane	ND		ug/l	10	2.8	4
1,2-Dichloroethane	ND		ug/l	2.0	0.53	4
1,1,1-Trichloroethane	310		ug/l	10	2.8	4
Bromodichloromethane	ND		ug/l	2.0	0.77	4
trans-1,3-Dichloropropene	ND		ug/l	2.0	0.66	4
cis-1,3-Dichloropropene	ND		ug/l	2.0	0.58	4
1,3-Dichloropropene, Total	ND		ug/l	2.0	0.58	4
1,1-Dichloropropene	ND		ug/l	10	2.8	4
Bromoform	ND		ug/l	8.0	2.6	4
1,1,1,2-Tetrachloroethane	ND		ug/l	2.0	0.67	4
Benzene	3.9		ug/l	2.0	0.64	4
Toluene	3.3	J	ug/l	10	2.8	4
Ethylbenzene	ND		ug/l	10	2.8	4
Chloromethane	ND		ug/l	10	2.8	4
Bromomethane	ND		ug/l	10	2.8	4
Vinyl chloride	380		ug/l	4.0	0.28	4
Chloroethane	23		ug/l	10	2.8	4
1,1-Dichloroethene	10		ug/l	2.0	0.68	4
trans-1,2-Dichloroethene	7.2	J	ug/l	10	2.8	4

Project Name: FESL
Project Number: 20029

Lab Number: L2053373
Report Date: 12/04/20

SAMPLE RESULTS

Lab ID: L2053373-02 D
 Client ID: SBW-07 BASELINE DUPE
 Sample Location: ROCHESTER, NY

Date Collected: 12/02/20 09:05
 Date Received: 12/02/20
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Trichloroethene	17		ug/l	2.0	0.70	4
1,2-Dichlorobenzene	ND		ug/l	10	2.8	4
1,3-Dichlorobenzene	ND		ug/l	10	2.8	4
1,4-Dichlorobenzene	ND		ug/l	10	2.8	4
Methyl tert butyl ether	ND		ug/l	10	2.8	4
p/m-Xylene	ND		ug/l	10	2.8	4
o-Xylene	ND		ug/l	10	2.8	4
Xylenes, Total	ND		ug/l	10	2.8	4
cis-1,2-Dichloroethene	630		ug/l	10	2.8	4
1,2-Dichloroethene, Total	640	J	ug/l	10	2.8	4
Dibromomethane	ND		ug/l	20	4.0	4
1,2,3-Trichloropropane	ND		ug/l	10	2.8	4
Acrylonitrile	ND		ug/l	20	6.0	4
Styrene	ND		ug/l	10	2.8	4
Dichlorodifluoromethane	ND		ug/l	20	4.0	4
Acetone	ND		ug/l	20	5.8	4
Carbon disulfide	ND		ug/l	20	4.0	4
2-Butanone	ND		ug/l	20	7.8	4
Vinyl acetate	ND		ug/l	20	4.0	4
4-Methyl-2-pentanone	ND		ug/l	20	4.0	4
2-Hexanone	ND		ug/l	20	4.0	4
Bromochloromethane	ND		ug/l	10	2.8	4
2,2-Dichloropropane	ND		ug/l	10	2.8	4
1,2-Dibromoethane	ND		ug/l	8.0	2.6	4
1,3-Dichloropropane	ND		ug/l	10	2.8	4
1,1,1,2-Tetrachloroethane	ND		ug/l	10	2.8	4
Bromobenzene	ND		ug/l	10	2.8	4
n-Butylbenzene	ND		ug/l	10	2.8	4
sec-Butylbenzene	ND		ug/l	10	2.8	4
tert-Butylbenzene	ND		ug/l	10	2.8	4
o-Chlorotoluene	ND		ug/l	10	2.8	4
p-Chlorotoluene	ND		ug/l	10	2.8	4
1,2-Dibromo-3-chloropropane	ND		ug/l	10	2.8	4
Hexachlorobutadiene	ND		ug/l	10	2.8	4
Isopropylbenzene	ND		ug/l	10	2.8	4
p-Isopropyltoluene	ND		ug/l	10	2.8	4
Naphthalene	ND		ug/l	10	2.8	4

Project Name: FESL
Project Number: 20029

Lab Number: L2053373
Report Date: 12/04/20

SAMPLE RESULTS

Lab ID: L2053373-02 D
 Client ID: SBW-07 BASELINE DUPE
 Sample Location: ROCHESTER, NY

Date Collected: 12/02/20 09:05
 Date Received: 12/02/20
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
n-Propylbenzene	ND		ug/l	10	2.8	4
1,2,3-Trichlorobenzene	ND		ug/l	10	2.8	4
1,2,4-Trichlorobenzene	ND		ug/l	10	2.8	4
1,3,5-Trimethylbenzene	ND		ug/l	10	2.8	4
1,2,4-Trimethylbenzene	ND		ug/l	10	2.8	4
1,4-Dioxane	ND		ug/l	1000	240	4
Freon-113	370		ug/l	10	2.8	4
p-Diethylbenzene	ND		ug/l	8.0	2.8	4
p-Ethyltoluene	ND		ug/l	8.0	2.8	4
1,2,4,5-Tetramethylbenzene	ND		ug/l	8.0	2.2	4
Ethyl ether	9.2	J	ug/l	10	2.8	4
trans-1,4-Dichloro-2-butene	ND		ug/l	10	2.8	4

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	103		70-130
Toluene-d8	98		70-130
4-Bromofluorobenzene	102		70-130
Dibromofluoromethane	102		70-130

Project Name: FESL
Project Number: 20029

Lab Number: L2053373
Report Date: 12/04/20

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260C
Analytical Date: 12/03/20 09:30
Analyst: PD

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 01-02 Batch: WG1440941-5					
Methylene chloride	ND		ug/l	2.5	0.70
1,1-Dichloroethane	ND		ug/l	2.5	0.70
Chloroform	ND		ug/l	2.5	0.70
Carbon tetrachloride	ND		ug/l	0.50	0.13
1,2-Dichloropropane	ND		ug/l	1.0	0.14
Dibromochloromethane	ND		ug/l	0.50	0.15
1,1,2-Trichloroethane	ND		ug/l	1.5	0.50
Tetrachloroethene	ND		ug/l	0.50	0.18
Chlorobenzene	ND		ug/l	2.5	0.70
Trichlorofluoromethane	ND		ug/l	2.5	0.70
1,2-Dichloroethane	ND		ug/l	0.50	0.13
1,1,1-Trichloroethane	ND		ug/l	2.5	0.70
Bromodichloromethane	ND		ug/l	0.50	0.19
trans-1,3-Dichloropropene	ND		ug/l	0.50	0.16
cis-1,3-Dichloropropene	ND		ug/l	0.50	0.14
1,3-Dichloropropene, Total	ND		ug/l	0.50	0.14
1,1-Dichloropropene	ND		ug/l	2.5	0.70
Bromoform	ND		ug/l	2.0	0.65
1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	0.17
Benzene	ND		ug/l	0.50	0.16
Toluene	ND		ug/l	2.5	0.70
Ethylbenzene	ND		ug/l	2.5	0.70
Chloromethane	ND		ug/l	2.5	0.70
Bromomethane	ND		ug/l	2.5	0.70
Vinyl chloride	ND		ug/l	1.0	0.07
Chloroethane	ND		ug/l	2.5	0.70
1,1-Dichloroethene	ND		ug/l	0.50	0.17
trans-1,2-Dichloroethene	ND		ug/l	2.5	0.70
Trichloroethene	ND		ug/l	0.50	0.18

Project Name: FESL
Project Number: 20029

Lab Number: L2053373
Report Date: 12/04/20

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260C
Analytical Date: 12/03/20 09:30
Analyst: PD

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 01-02 Batch: WG1440941-5					
1,2-Dichlorobenzene	ND		ug/l	2.5	0.70
1,3-Dichlorobenzene	ND		ug/l	2.5	0.70
1,4-Dichlorobenzene	ND		ug/l	2.5	0.70
Methyl tert butyl ether	ND		ug/l	2.5	0.70
p/m-Xylene	ND		ug/l	2.5	0.70
o-Xylene	ND		ug/l	2.5	0.70
Xylenes, Total	ND		ug/l	2.5	0.70
cis-1,2-Dichloroethene	ND		ug/l	2.5	0.70
1,2-Dichloroethene, Total	ND		ug/l	2.5	0.70
Dibromomethane	ND		ug/l	5.0	1.0
1,2,3-Trichloropropane	ND		ug/l	2.5	0.70
Acrylonitrile	ND		ug/l	5.0	1.5
Styrene	ND		ug/l	2.5	0.70
Dichlorodifluoromethane	ND		ug/l	5.0	1.0
Acetone	ND		ug/l	5.0	1.5
Carbon disulfide	ND		ug/l	5.0	1.0
2-Butanone	ND		ug/l	5.0	1.9
Vinyl acetate	ND		ug/l	5.0	1.0
4-Methyl-2-pentanone	ND		ug/l	5.0	1.0
2-Hexanone	ND		ug/l	5.0	1.0
Bromochloromethane	ND		ug/l	2.5	0.70
2,2-Dichloropropane	ND		ug/l	2.5	0.70
1,2-Dibromoethane	ND		ug/l	2.0	0.65
1,3-Dichloropropane	ND		ug/l	2.5	0.70
1,1,1,2-Tetrachloroethane	ND		ug/l	2.5	0.70
Bromobenzene	ND		ug/l	2.5	0.70
n-Butylbenzene	ND		ug/l	2.5	0.70
sec-Butylbenzene	ND		ug/l	2.5	0.70
tert-Butylbenzene	ND		ug/l	2.5	0.70

Project Name: FESL
Project Number: 20029

Lab Number: L2053373
Report Date: 12/04/20

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260C
Analytical Date: 12/03/20 09:30
Analyst: PD

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 01-02 Batch: WG1440941-5					
o-Chlorotoluene	ND		ug/l	2.5	0.70
p-Chlorotoluene	ND		ug/l	2.5	0.70
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	0.70
Hexachlorobutadiene	ND		ug/l	2.5	0.70
Isopropylbenzene	ND		ug/l	2.5	0.70
p-Isopropyltoluene	ND		ug/l	2.5	0.70
Naphthalene	ND		ug/l	2.5	0.70
n-Propylbenzene	ND		ug/l	2.5	0.70
1,2,3-Trichlorobenzene	ND		ug/l	2.5	0.70
1,2,4-Trichlorobenzene	ND		ug/l	2.5	0.70
1,3,5-Trimethylbenzene	ND		ug/l	2.5	0.70
1,2,4-Trimethylbenzene	ND		ug/l	2.5	0.70
1,4-Dioxane	ND		ug/l	250	61.
Freon-113	ND		ug/l	2.5	0.70
p-Diethylbenzene	ND		ug/l	2.0	0.70
p-Ethyltoluene	ND		ug/l	2.0	0.70
1,2,4,5-Tetramethylbenzene	ND		ug/l	2.0	0.54
Ethyl ether	ND		ug/l	2.5	0.70
trans-1,4-Dichloro-2-butene	ND		ug/l	2.5	0.70

Surrogate	%Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	98		70-130
Toluene-d8	98		70-130
4-Bromofluorobenzene	99		70-130
Dibromofluoromethane	99		70-130

Lab Control Sample Analysis

Batch Quality Control

Project Name: FESL
Project Number: 20029

Lab Number: L2053373
Report Date: 12/04/20

Parameter	LCS		LCSD		%Recovery Limits	RPD	Qual	RPD Limits
	%Recovery	Qual	%Recovery	Qual				
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-02 Batch: WG1440941-3 WG1440941-4								
Methylene chloride	100		100		70-130	0		20
1,1-Dichloroethane	100		100		70-130	0		20
Chloroform	100		100		70-130	0		20
Carbon tetrachloride	110		110		63-132	0		20
1,2-Dichloropropane	97		99		70-130	2		20
Dibromochloromethane	100		100		63-130	0		20
1,1,2-Trichloroethane	95		98		70-130	3		20
Tetrachloroethene	110		100		70-130	10		20
Chlorobenzene	100		100		75-130	0		20
Trichlorofluoromethane	110		110		62-150	0		20
1,2-Dichloroethane	99		98		70-130	1		20
1,1,1-Trichloroethane	100		110		67-130	10		20
Bromodichloromethane	96		99		67-130	3		20
trans-1,3-Dichloropropene	100		98		70-130	2		20
cis-1,3-Dichloropropene	95		97		70-130	2		20
1,1-Dichloropropene	100		100		70-130	0		20
Bromoform	110		110		54-136	0		20
1,1,2,2-Tetrachloroethane	96		100		67-130	4		20
Benzene	100		100		70-130	0		20
Toluene	100		100		70-130	0		20
Ethylbenzene	100		100		70-130	0		20
Chloromethane	110		100		64-130	10		20
Bromomethane	110		98		39-139	12		20

Lab Control Sample Analysis

Batch Quality Control

Project Name: FESL
Project Number: 20029

Lab Number: L2053373
Report Date: 12/04/20

Parameter	LCS		LCSD		%Recovery Limits	RPD	Qual	RPD Limits
	%Recovery	Qual	%Recovery	Qual				
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-02 Batch: WG1440941-3 WG1440941-4								
Vinyl chloride	100		97		55-140	3		20
Chloroethane	110		100		55-138	10		20
1,1-Dichloroethene	110		110		61-145	0		20
trans-1,2-Dichloroethene	100		110		70-130	10		20
Trichloroethene	97		100		70-130	3		20
1,2-Dichlorobenzene	100		100		70-130	0		20
1,3-Dichlorobenzene	100		110		70-130	10		20
1,4-Dichlorobenzene	100		110		70-130	10		20
Methyl tert butyl ether	98		96		63-130	2		20
p/m-Xylene	100		100		70-130	0		20
o-Xylene	100		100		70-130	0		20
cis-1,2-Dichloroethene	100		100		70-130	0		20
Dibromomethane	96		98		70-130	2		20
1,2,3-Trichloropropane	94		100		64-130	6		20
Acrylonitrile	99		100		70-130	1		20
Styrene	100		100		70-130	0		20
Dichlorodifluoromethane	100		98		36-147	2		20
Acetone	91		100		58-148	9		20
Carbon disulfide	110		110		51-130	0		20
2-Butanone	94		94		63-138	0		20
Vinyl acetate	100		87		70-130	14		20
4-Methyl-2-pentanone	95		100		59-130	5		20
2-Hexanone	110		94		57-130	16		20

Lab Control Sample Analysis

Batch Quality Control

Project Name: FESL
Project Number: 20029

Lab Number: L2053373
Report Date: 12/04/20

Parameter	LCS		LCSD		%Recovery Limits	RPD	Qual	RPD Limits
	%Recovery	Qual	%Recovery	Qual				
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-02 Batch: WG1440941-3 WG1440941-4								
Bromochloromethane	110		110		70-130	0		20
2,2-Dichloropropane	120		100		63-133	18		20
1,2-Dibromoethane	97		100		70-130	3		20
1,3-Dichloropropane	96		100		70-130	4		20
1,1,1,2-Tetrachloroethane	100		100		64-130	0		20
Bromobenzene	100		110		70-130	10		20
n-Butylbenzene	110		110		53-136	0		20
sec-Butylbenzene	110		110		70-130	0		20
tert-Butylbenzene	110		110		70-130	0		20
o-Chlorotoluene	100		110		70-130	10		20
p-Chlorotoluene	100		100		70-130	0		20
1,2-Dibromo-3-chloropropane	87		97		41-144	11		20
Hexachlorobutadiene	100		110		63-130	10		20
Isopropylbenzene	100		100		70-130	0		20
p-Isopropyltoluene	100		100		70-130	0		20
Naphthalene	77		82		70-130	6		20
n-Propylbenzene	110		110		69-130	0		20
1,2,3-Trichlorobenzene	80		87		70-130	8		20
1,2,4-Trichlorobenzene	88		91		70-130	3		20
1,3,5-Trimethylbenzene	100		110		64-130	10		20
1,2,4-Trimethylbenzene	100		100		70-130	0		20
1,4-Dioxane	100		116		56-162	15		20
Freon-113	110		100		70-130	10		20

Lab Control Sample Analysis

Batch Quality Control

Project Name: FESL
Project Number: 20029

Lab Number: L2053373
Report Date: 12/04/20

Parameter	LCS		LCSD		%Recovery Limits	RPD	RPD	
	%Recovery	Qual	%Recovery	Qual			Qual	Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-02 Batch: WG1440941-3 WG1440941-4								
p-Diethylbenzene	100		110		70-130	10		20
p-Ethyltoluene	100		110		70-130	10		20
1,2,4,5-Tetramethylbenzene	99		100		70-130	1		20
Ethyl ether	98		98		59-134	0		20
trans-1,4-Dichloro-2-butene	110		100		70-130	10		20

Surrogate	LCS		LCSD		Acceptance Criteria
	%Recovery	Qual	%Recovery	Qual	
1,2-Dichloroethane-d4	98		97		70-130
Toluene-d8	102		100		70-130
4-Bromofluorobenzene	100		101		70-130
Dibromofluoromethane	101		100		70-130

Project Name: FESL

Project Number: 20029

Sample Receipt and Container Information

Were project specific reporting limits specified?

YES

Cooler Information**Cooler** **Custody Seal**

A Absent

Container Information

Container ID	Container Type	Cooler	Initial pH	Final pH	Temp deg C	Pres	Seal	Frozen Date/Time	Analysis(*)
L2053373-01A	Vial HCl preserved	A	NA		2.5	Y	Absent		NYTCL-8260(14)
L2053373-01B	Vial HCl preserved	A	NA		2.5	Y	Absent		NYTCL-8260(14)
L2053373-01C	Vial HCl preserved	A	NA		2.5	Y	Absent		NYTCL-8260(14)
L2053373-02A	Vial HCl preserved	A	NA		2.5	Y	Absent		NYTCL-8260(14)
L2053373-02B	Vial HCl preserved	A	NA		2.5	Y	Absent		NYTCL-8260(14)
L2053373-02C	Vial HCl preserved	A	NA		2.5	Y	Absent		NYTCL-8260(14)

Project Name: FESL
Project Number: 20029

Lab Number: L2053373
Report Date: 12/04/20

GLOSSARY

Acronyms

DL	- Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the limit of quantitation (LOQ). The DL includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)
EDL	- Estimated Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The EDL includes any adjustments from dilutions, concentrations or moisture content, where applicable. The use of EDLs is specific to the analysis of PAHs using Solid-Phase Microextraction (SPME).
EMPC	- Estimated Maximum Possible Concentration: The concentration that results from the signal present at the retention time of an analyte when the ions meet all of the identification criteria except the ion abundance ratio criteria. An EMPC is a worst-case estimate of the concentration.
EPA	- Environmental Protection Agency.
LCS	- Laboratory Control Sample: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.
LCSD	- Laboratory Control Sample Duplicate: Refer to LCS.
LFB	- Laboratory Fortified Blank: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.
LOD	- Limit of Detection: This value represents the level to which a target analyte can reliably be detected for a specific analyte in a specific matrix by a specific method. The LOD includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)
LOQ	- Limit of Quantitation: The value at which an instrument can accurately measure an analyte at a specific concentration. The LOQ includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.) Limit of Quantitation: The value at which an instrument can accurately measure an analyte at a specific concentration. The LOQ includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)
MDL	- Method Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The MDL includes any adjustments from dilutions, concentrations or moisture content, where applicable.
MS	- Matrix Spike Sample: A sample prepared by adding a known mass of target analyte to a specified amount of matrix sample for which an independent estimate of target analyte concentration is available. For Method 332.0, the spike recovery is calculated using the native concentration, including estimated values.
MSD	- Matrix Spike Sample Duplicate: Refer to MS.
NA	- Not Applicable.
NC	- Not Calculated: Term is utilized when one or more of the results utilized in the calculation are non-detect at the parameter's reporting unit.
NDPA/DPA	- N-Nitrosodiphenylamine/Diphenylamine.
NI	- Not Ignitable.
NP	- Non-Plastic: Term is utilized for the analysis of Atterberg Limits in soil.
NR	- No Results: Term is utilized when 'No Target Compounds Requested' is reported for the analysis of Volatile or Semivolatile Organic TIC only requests.
RL	- Reporting Limit: The value at which an instrument can accurately measure an analyte at a specific concentration. The RL includes any adjustments from dilutions, concentrations or moisture content, where applicable.
RPD	- Relative Percent Difference: The results from matrix and/or matrix spike duplicates are primarily designed to assess the precision of analytical results in a given matrix and are expressed as relative percent difference (RPD). Values which are less than five times the reporting limit for any individual parameter are evaluated by utilizing the absolute difference between the values; although the RPD value will be provided in the report.
SRM	- Standard Reference Material: A reference sample of a known or certified value that is of the same or similar matrix as the associated field samples.
STLP	- Semi-dynamic Tank Leaching Procedure per EPA Method 1315.
TEF	- Toxic Equivalency Factors: The values assigned to each dioxin and furan to evaluate their toxicity relative to 2,3,7,8-TCDD.
TEQ	- Toxic Equivalent: The measure of a sample's toxicity derived by multiplying each dioxin and furan by its corresponding TEF and then summing the resulting values.
TIC	- Tentatively Identified Compound: A compound that has been identified to be present and is not part of the target compound list (TCL) for the method and/or program. All TICs are qualitatively identified and reported as estimated concentrations.

Report Format: DU Report with 'J' Qualifiers



Project Name: FESL
Project Number: 20029

Lab Number: L2053373
Report Date: 12/04/20

Footnotes

- 1 - The reference for this analyte should be considered modified since this analyte is absent from the target analyte list of the original method.

Terms

Analytical Method: Both the document from which the method originates and the analytical reference method. (Example: EPA 8260B is shown as 1,8260B.) The codes for the reference method documents are provided in the References section of the Addendum.

Difference: With respect to Total Oxidizable Precursor (TOP) Assay analysis, the difference is defined as the Post-Treatment value minus the Pre-Treatment value.

Final pH: As it pertains to Sample Receipt & Container Information section of the report, Final pH reflects pH of container determined after adjustment at the laboratory, if applicable. If no adjustment required, value reflects Initial pH.

Frozen Date/Time: With respect to Volatile Organics in soil, Frozen Date/Time reflects the date/time at which associated Reagent Water-preserved vials were initially frozen. Note: If frozen date/time is beyond 48 hours from sample collection, value will be reflected in 'bold'.

Initial pH: As it pertains to Sample Receipt & Container Information section of the report, Initial pH reflects pH of container determined upon receipt, if applicable.

PAH Total: With respect to Alkylated PAH analyses, the 'PAHs, Total' result is defined as the summation of results for all or a subset of the following compounds: Naphthalene, C1-C4 Naphthalenes, 2-Methylnaphthalene, 1-Methylnaphthalene, Biphenyl, Acenaphthylene, Acenaphthene, Fluorene, C1-C3 Fluorenes, Phenanthrene, C1-C4 Phenanthrenes/Anthracenes, Anthracene, Fluoranthene, Pyrene, C1-C4 Fluoranthenes/Pyrenes, Benz(a)anthracene, Chrysene, C1-C4 Chrysenes, Benzo(b)fluoranthene, Benzo(j)+(k)fluoranthene, Benzo(e)pyrene, Benzo(a)pyrene, Perylene, Indeno(1,2,3-cd)pyrene, Dibenz(ah)+(ac)anthracene, Benzo(g,h,i)perylene. If a 'Total' result is requested, the results of its individual components will also be reported.

PFAS Total: With respect to PFAS analyses, the 'PFAS, Total (5)' result is defined as the summation of results for: PFHpA, PFHxS, PFOA, PFNA and PFOS. In addition, the 'PFAS, Total (6)' result is defined as the summation of results at or above the RL for: PFHpA, PFHxS, PFOA, PFNA, PFDA and PFOS. (Note: 'PFAS, Total (6)' is applicable to MassDEP DW compliance analysis only.). If a 'Total' result is requested, the results of its individual components will also be reported.

The target compound Chlordane (CAS No. 57-74-9) is reported for GC ECD analyses. Per EPA, this compound "refers to a mixture of chlordane isomers, other chlorinated hydrocarbons and numerous other components." (Reference: USEPA Toxicological Review of Chlordane, In Support of Summary Information on the Integrated Risk Information System (IRIS), December 1997.)

Total: With respect to Organic analyses, a 'Total' result is defined as the summation of results for individual isomers or Aroclors. If a 'Total' result is requested, the results of its individual components will also be reported. This is applicable to 'Total' results for methods 8260, 8081 and 8082.

Data Qualifiers

- A** - Spectra identified as "Aldol Condensates" are byproducts of the extraction/concentration procedures when acetone is introduced in the process.
- B** - The analyte was detected above the reporting limit in the associated method blank. Flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For MCP-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For DOD-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank AND the analyte was detected above one-half the reporting limit (or above the reporting limit for common lab contaminants) in the associated method blank. For NJ-Air-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte above the reporting limit. For NJ-related projects (excluding Air), flag only applies to associated field samples that have detectable concentrations of the analyte, which was detected above the reporting limit in the associated method blank or above five times the reporting limit for common lab contaminants (Phthalates, Acetone, Methylene Chloride, 2-Butanone).
- C** - Co-elution: The target analyte co-elutes with a known lab standard (i.e. surrogate, internal standards, etc.) for co-extracted analyses.
- D** - Concentration of analyte was quantified from diluted analysis. Flag only applies to field samples that have detectable concentrations of the analyte.
- E** - Concentration of analyte exceeds the range of the calibration curve and/or linear range of the instrument.
- F** - The ratio of quantifier ion response to qualifier ion response falls outside of the laboratory criteria. Results are considered to be an estimated maximum concentration.
- G** - The concentration may be biased high due to matrix interferences (i.e. co-elution) with non-target compound(s). The result should be considered estimated.
- H** - The analysis of pH was performed beyond the regulatory-required holding time of 15 minutes from the time of sample collection.
- I** - The lower value for the two columns has been reported due to obvious interference.
- J** - Estimated value. The Target analyte concentration is below the quantitation limit (RL), but above the Method Detection Limit (MDL) or Estimated Detection Limit (EDL) for SPME-related analyses. This represents an estimated concentration for Tentatively Identified Compounds (TICs).
- M** - Reporting Limit (RL) exceeds the MCP CAM Reporting Limit for this analyte.
- ND** - Not detected at the method detection limit (MDL) for the sample, or estimated detection limit (EDL) for SPME-related analyses.

Report Format: DU Report with 'J' Qualifiers



Project Name: FESL
Project Number: 20029

Lab Number: L2053373
Report Date: 12/04/20

Data Qualifiers

- NJ** - Presumptive evidence of compound. This represents an estimated concentration for Tentatively Identified Compounds (TICs), where the identification is based on a mass spectral library search.
- P** - The RPD between the results for the two columns exceeds the method-specified criteria.
- Q** - The quality control sample exceeds the associated acceptance criteria. For DOD-related projects, LCS and/or Continuing Calibration Standard exceedences are also qualified on all associated sample results. Note: This flag is not applicable for matrix spike recoveries when the sample concentration is greater than 4x the spike added or for batch duplicate RPD when the sample concentrations are less than 5x the RL. (Metals only.)
- R** - Analytical results are from sample re-analysis.
- RE** - Analytical results are from sample re-extraction.
- S** - Analytical results are from modified screening analysis.

Project Name: FESL
Project Number: 20029

Lab Number: L2053373
Report Date: 12/04/20

REFERENCES

- 1 Test Methods for Evaluating Solid Waste: Physical/Chemical Methods. EPA SW-846. Third Edition. Updates I - VI, 2018.

LIMITATION OF LIABILITIES

Alpha Analytical performs services with reasonable care and diligence normal to the analytical testing laboratory industry. In the event of an error, the sole and exclusive responsibility of Alpha Analytical shall be to re-perform the work at it's own expense. In no event shall Alpha Analytical be held liable for any incidental, consequential or special damages, including but not limited to, damages in any way connected with the use of, interpretation of, information or analysis provided by Alpha Analytical.

We strongly urge our clients to comply with EPA protocol regarding sample volume, preservation, cooling, containers, sampling procedures, holding time and splitting of samples in the field.



Certification Information

The following analytes are not included in our Primary NELAP Scope of Accreditation:

Westborough Facility

EPA 624/624.1: m/p-xylene, o-xylene, Naphthalene

EPA 8260C: NPW: 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene, Azobenzene; SCM: Iodomethane (methyl iodide), 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene.

EPA 8270D: NPW: Dimethylnaphthalene, 1,4-Diphenylhydrazine; SCM: Dimethylnaphthalene, 1,4-Diphenylhydrazine.

SM4500: NPW: Amenable Cyanide; SCM: Total Phosphorus, TKN, NO₂, NO₃.

Mansfield Facility

SM 2540D: TSS

EPA 8082A: NPW: PCB: 1, 5, 31, 87, 101, 110, 141, 151, 153, 180, 183, 187.

EPA TO-15: Halothane, 2,4,4-Trimethyl-2-pentene, 2,4,4-Trimethyl-1-pentene, Thiophene, 2-Methylthiophene, 3-Methylthiophene, 2-Ethylthiophene, 1,2,3-Trimethylbenzene, Indan, Indene, 1,2,4,5-Tetramethylbenzene, Benzothiophene, 1-Methylnaphthalene.

EPA TO-12 Non-methane organics

EPA 3C Fixed gases

Biological Tissue Matrix: EPA 3050B

The following analytes are included in our Massachusetts DEP Scope of Accreditation

Westborough Facility:

Drinking Water

EPA 300.0: Chloride, Nitrate-N, Fluoride, Sulfate; **EPA 353.2:** Nitrate-N, Nitrite-N; **SM4500NO3-F:** Nitrate-N, Nitrite-N; **SM4500F-C, SM4500CN-CE,**

EPA 180.1, SM2130B, SM4500CI-D, SM2320B, SM2540C, SM4500H-B, SM4500NO2-B

EPA 332: Perchlorate; **EPA 524.2:** THMs and VOCs; **EPA 504.1:** EDB, DBCP.

Microbiology: SM9215B; SM9223-P/A, SM9223B-Colilert-QT, SM9222D.

Non-Potable Water

SM4500H,B, EPA 120.1, SM2510B, SM2540C, SM2320B, SM4500CL-E, SM4500F-BC, SM4500NH3-BH: Ammonia-N and Kjeldahl-N, **EPA 350.1:** Ammonia-N, **LACHAT 10-107-06-1-B:** Ammonia-N, **EPA 351.1, SM4500NO3-F, EPA 353.2:** Nitrate-N, **SM4500P-E, SM4500P-B, E, SM4500SO4-E, SM5220D, EPA 410.4, SM5210B, SM5310C, SM4500CL-D, EPA 1664, EPA 420.1, SM4500-CN-CE, SM2540D, EPA 300:** Chloride, Sulfate, Nitrate.

EPA 624.1: Volatile Halocarbons & Aromatics,

EPA 608.3: Chlordane, Toxaphene, Aldrin, alpha-BHC, beta-BHC, gamma-BHC, delta-BHC, Dieldrin, DDD, DDE, DDT, Endosulfan I, Endosulfan II, Endosulfan sulfate, Endrin, Endrin Aldehyde, Heptachlor, Heptachlor Epoxide, PCBs

EPA 625.1: SVOC (Acid/Base/Neutral Extractables), **EPA 600/4-81-045:** PCB-Oil.

Microbiology: SM9223B-Colilert-QT; Enterolert-QT, SM9221E, EPA 1600, EPA 1603.

Mansfield Facility:

Drinking Water

EPA 200.7: Al, Ba, Cd, Cr, Cu, Fe, Mn, Ni, Na, Ag, Ca, Zn. **EPA 200.8:** Al, Sb, As, Ba, Be, Cd, Cr, Cu, Pb, Mn, Ni, Se, Ag, TL, Zn. **EPA 245.1** Hg.

EPA 522.

Non-Potable Water

EPA 200.7: Al, Sb, As, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Mg, Mn, Mo, Ni, K, Se, Ag, Na, Sr, TL, Ti, V, Zn.

EPA 200.8: Al, Sb, As, Be, Cd, Cr, Cu, Fe, Pb, Mn, Ni, K, Se, Ag, Na, TL, Zn.

EPA 245.1 Hg.

SM2340B

For a complete listing of analytes and methods, please contact your Alpha Project Manager.

<p>NEW JERSEY CHAIN OF CUSTODY</p> <p>Westborough, MA 01581 8 Walkup Dr. TEL: 508-898-9220 FAX: 508-898-9193</p> <p>Mansfield, MA 02048 320 Forbes Blvd TEL: 508-822-9300 FAX: 508-822-3288</p>	<p>Service Centers</p> <p>Mahwah, NJ 07430: 35 Whitney Rd, Suite 5 Albany, NY 12205: 14 Walker Way Tonawanda, NY 14150: 275 Cooper Ave, Suite 105</p>	<p>Page 1 of 1</p>	<p>Date Rec'd in Lab 12/2/20</p>	<p>ALPHA Job # L 2053373</p>																				
	<p>Project Information</p> <p>Project Name: FESL Project Location: Rochester, NY Project #: 20029 (Use Project name as Project #) <input type="checkbox"/></p> <p>Project Manager: Ashaley Kane ALPHAQuote #: 12786</p> <p>Turn-Around Time</p> <p>Standard <input type="checkbox"/> Due Date: 12/7/20 a.m. Rush (only if pre approved) <input type="checkbox"/> # of Days:</p>	<p>Deliverables</p> <p><input type="checkbox"/> NJ Full / Reduced <input type="checkbox"/> EQuIS (1 File) <input type="checkbox"/> EQuIS (4 File) <input type="checkbox"/> Other NYSDOH ELAP</p>	<p>Regulatory Requirement</p> <p><input type="checkbox"/> SRS Residential/Non Residential <input type="checkbox"/> SRS Impact to Groundwater <input type="checkbox"/> NJ Ground Water Quality Standards <input type="checkbox"/> NJ IGW SPLP Leachate Criteria <input checked="" type="checkbox"/> Other</p>	<p>Billing Information</p> <p><input checked="" type="checkbox"/> Same as Client Info PO# 4715</p>	<p>Site Information</p> <p>Is this site impacted by Petroleum? Yes <input type="checkbox"/></p> <p>Petroleum Product:</p>																			
	<p>Client Information</p> <p>Client: XDD Address: 22 Marin Way, Unit 3 Stratham, NH 03833 Phone: 603-778-1100 Fax: Email: lcrawford@xdd-llc.com</p>	<p>These samples have been previously analyzed by Alpha <input type="checkbox"/></p> <p>For EPH, selection is REQUIRED:</p> <p><input type="checkbox"/> Category 1 <input type="checkbox"/> Category 2</p>	<p>For VOC, selection is REQUIRED:</p> <p><input type="checkbox"/> 1,4-Dioxane <input type="checkbox"/> 8011</p> <p>Other project specific requirements/comments: invoices go to ap@xdd-llc.com please include Freon-113</p>	<p>ANALYSIS</p> <table border="1"> <tr><th>VOCs</th><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr> </table>	VOCs																			
VOCs																								
<p>ALPHA Lab ID (Lab Use Only)</p>	<p>Sample ID</p>	<p>Collection Date Time</p>	<p>Sample Matrix</p>	<p>Sampler's Initials</p>	<p>Analysis Results</p>	<p>Analysis Results</p>	<p>Analysis Results</p>	<p>Analysis Results</p>	<p>Analysis Results</p>	<p>Analysis Results</p>	<p>Analysis Results</p>	<p>Analysis Results</p>	<p>Analysis Results</p>	<p>Analysis Results</p>	<p>Analysis Results</p>	<p>Analysis Results</p>	<p>Analysis Results</p>	<p>Analysis Results</p>	<p>Analysis Results</p>					
<p>53373 - 01 - 02</p>	<p>SBW-07 Baseline SBW-07 Baseline Dupe</p>	<p>12/2/2020 9:00 12/2/2020 9:05</p>	<p>GW GW</p>	<p>LC LC</p>	<p>x x</p>																			
<p>Preservative Code: A = None B = HCl C = HNO₃ D = H₂SO₄ E = NaOH F = MeOH G = NaHSO₄ H = Na₂S₂O₃ K/E = Zn Ac/NaOH O = Other</p>	<p>Container Code P = Plastic A = Amber Glass V = Vial G = Glass B = Bacteria Cup C = Cube O = Other E = Encore D = BOD Bottle</p>	<p>Westboro: Certification No: MA935 Mansfield: Certification No: MA015</p>	<p>Container Type G</p>	<p>Preservative B</p>	<p>Relinquished By: <i>[Signature]</i></p>	<p>Date/Time 12/2/20 10:20 12/2/20 17:50 12/2/20 19:40</p>	<p>Received By: <i>[Signature]</i></p>	<p>Date/Time 12/2/20 10:20 12/2/20 17:50 12/2/20 19:40</p>	<p>Please print clearly, legibly and completely. Samples can not be logged in and turnaround time clock will not start until any ambiguities are resolved. BY EXECUTING THIS COC, THE CLIENT HAS READ AND AGREES TO BE BOUND BY ALPHA'S <u>TERMS & CONDITIONS.</u></p>															
Form No: 01-14 (rev. 30-Sept-2013)																								



ANALYTICAL REPORT

Lab Number:	L2056972
Client:	XDD Environmental Mary Scudieri 22 Marin Way Unit 3 Stratham, NH 03885
ATTN:	Laurel Crawford
Phone:	(603) 778-1100
Project Name:	FESL
Project Number:	20029
Report Date:	01/06/21

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Certifications & Approvals: MA (M-MA086), NH NELAP (2064), CT (PH-0574), IL (200077), ME (MA00086), MD (348), NJ (MA935), NY (11148), NC (25700/666), PA (68-03671), RI (LAO00065), TX (T104704476), VT (VT-0935), VA (460195), USDA (Permit #P330-17-00196).

Eight Walkup Drive, Westborough, MA 01581-1019
508-898-9220 (Fax) 508-898-9193 800-624-9220 - www.alphalab.com



Project Name: FESL
Project Number: 20029

Lab Number: L2056972
Report Date: 01/06/21

Alpha Sample ID	Client ID	Matrix	Sample Location	Collection Date/Time	Receive Date
L2056972-01	SBW-07 BASELINE	WATER	ROCHESTER, NY	12/21/20 08:30	12/21/20
L2056972-02	CTRL 4 FEET	WATER	ROCHESTER, NY	12/21/20 08:35	12/21/20
L2056972-03	FLOW 4 FEET	WATER	ROCHESTER, NY	12/21/20 08:40	12/21/20
L2056972-04	TARGET 4 FEET	WATER	ROCHESTER, NY	12/21/20 08:45	12/21/20

Project Name: FESL
Project Number: 20029

Lab Number: L2056972
Report Date: 01/06/21

Case Narrative

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

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

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

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

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

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

Project Name: FESL
Project Number: 20029

Lab Number: L2056972
Report Date: 01/06/21

Case Narrative (continued)

Report Submission

January 06, 2021: This final report includes the results of all requested analyses.

December 23, 2020: This is a preliminary report.

Sample Receipt

L2056972-01: The sample was received above the appropriate pH for the Dissolved Metals analysis. The laboratory added additional HNO₃ to a pH <2.


Dissolved Metals

The WG1451356-1 Method Blank, associated with L2056972-01, has a concentration above the reporting limit for chromium. Since the sample was non-detect to the RL for this target analyte, no further actions were taken. The results of the original analysis are reported.

The WG1451356-3 MS recoveries for calcium (350%), magnesium (285%), potassium (306%), and sodium (600%), performed on L2056972-01, do not apply because the sample concentrations are greater than four times the spike amounts added.

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

Authorized Signature:

 Kelly Stenstrom

Title: Technical Director/Representative

Date: 01/06/21

ORGANICS

VOLATILES

Project Name: FESL
Project Number: 20029

Lab Number: L2056972
Report Date: 01/06/21

SAMPLE RESULTS

Lab ID: L2056972-01
 Client ID: SBW-07 BASELINE
 Sample Location: ROCHESTER, NY

Date Collected: 12/21/20 08:30
 Date Received: 12/21/20
 Field Prep: Refer to COC

Sample Depth:

Matrix: Water
 Analytical Method: 117,-
 Analytical Date: 12/23/20 11:52
 Analyst: AW

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Dissolved Gases by GC - Mansfield Lab							
Methane	261		ug/l	2.00	--	1	A
Ethene	64.9		ug/l	0.500	--	1	A
Ethane	4.10		ug/l	0.500	--	1	A

Project Name: FESL
Project Number: 20029

Lab Number: L2056972
Report Date: 01/06/21

SAMPLE RESULTS

Lab ID: L2056972-02 D
 Client ID: CTRL 4 FEET
 Sample Location: ROCHESTER, NY

Date Collected: 12/21/20 08:35
 Date Received: 12/21/20
 Field Prep: Not Specified

Sample Depth:

Matrix: Water
 Analytical Method: 1,8260C
 Analytical Date: 12/22/20 16:38
 Analyst: MM

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methylene chloride	ND		ug/l	5.0	--	2
1,1-Dichloroethane	200		ug/l	5.0	--	2
Chloroform	ND		ug/l	5.0	--	2
Carbon tetrachloride	ND		ug/l	1.0	--	2
1,2-Dichloropropane	ND		ug/l	2.0	--	2
Dibromochloromethane	ND		ug/l	1.0	--	2
1,1,2-Trichloroethane	ND		ug/l	3.0	--	2
Tetrachloroethene	ND		ug/l	1.0	--	2
Chlorobenzene	ND		ug/l	5.0	--	2
Trichlorofluoromethane	ND		ug/l	5.0	--	2
1,2-Dichloroethane	ND		ug/l	1.0	--	2
1,1,1-Trichloroethane	54		ug/l	5.0	--	2
Bromodichloromethane	ND		ug/l	1.0	--	2
trans-1,3-Dichloropropene	ND		ug/l	1.0	--	2
cis-1,3-Dichloropropene	ND		ug/l	1.0	--	2
1,3-Dichloropropene, Total	ND		ug/l	1.0	--	2
1,1-Dichloropropene	ND		ug/l	5.0	--	2
Bromoform	ND		ug/l	4.0	--	2
1,1,1,2-Tetrachloroethane	ND		ug/l	1.0	--	2
Benzene	ND		ug/l	1.0	--	2
Toluene	ND		ug/l	5.0	--	2
Ethylbenzene	ND		ug/l	5.0	--	2
Chloromethane	ND		ug/l	5.0	--	2
Bromomethane	ND		ug/l	5.0	--	2
Vinyl chloride	92		ug/l	2.0	--	2
Chloroethane	7.2		ug/l	5.0	--	2
1,1-Dichloroethene	1.2		ug/l	1.0	--	2
trans-1,2-Dichloroethene	ND		ug/l	5.0	--	2

Project Name: FESL
Project Number: 20029

Lab Number: L2056972
Report Date: 01/06/21

SAMPLE RESULTS

Lab ID: L2056972-02 D
 Client ID: CTRL 4 FEET
 Sample Location: ROCHESTER, NY

Date Collected: 12/21/20 08:35
 Date Received: 12/21/20
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Trichloroethene	6.5		ug/l	1.0	--	2
1,2-Dichlorobenzene	ND		ug/l	5.0	--	2
1,3-Dichlorobenzene	ND		ug/l	5.0	--	2
1,4-Dichlorobenzene	ND		ug/l	5.0	--	2
Methyl tert butyl ether	ND		ug/l	5.0	--	2
p/m-Xylene	ND		ug/l	5.0	--	2
o-Xylene	ND		ug/l	5.0	--	2
Xylenes, Total	ND		ug/l	5.0	--	2
cis-1,2-Dichloroethene	160		ug/l	5.0	--	2
1,2-Dichloroethene, Total	160		ug/l	5.0	--	2
Dibromomethane	ND		ug/l	10	--	2
1,2,3-Trichloropropane	ND		ug/l	5.0	--	2
Acrylonitrile	ND		ug/l	10	--	2
Styrene	ND		ug/l	5.0	--	2
Dichlorodifluoromethane	ND		ug/l	10	--	2
Acetone	290		ug/l	10	--	2
Carbon disulfide	ND		ug/l	10	--	2
2-Butanone	ND		ug/l	10	--	2
Vinyl acetate	ND		ug/l	10	--	2
4-Methyl-2-pentanone	ND		ug/l	10	--	2
2-Hexanone	ND		ug/l	10	--	2
Bromochloromethane	ND		ug/l	5.0	--	2
2,2-Dichloropropane	ND		ug/l	5.0	--	2
1,2-Dibromoethane	ND		ug/l	4.0	--	2
1,3-Dichloropropane	ND		ug/l	5.0	--	2
1,1,1,2-Tetrachloroethane	ND		ug/l	5.0	--	2
Bromobenzene	ND		ug/l	5.0	--	2
n-Butylbenzene	ND		ug/l	5.0	--	2
sec-Butylbenzene	ND		ug/l	5.0	--	2
tert-Butylbenzene	ND		ug/l	5.0	--	2
o-Chlorotoluene	ND		ug/l	5.0	--	2
p-Chlorotoluene	ND		ug/l	5.0	--	2
1,2-Dibromo-3-chloropropane	ND		ug/l	5.0	--	2
Hexachlorobutadiene	ND		ug/l	5.0	--	2
Isopropylbenzene	ND		ug/l	5.0	--	2
p-Isopropyltoluene	ND		ug/l	5.0	--	2
Naphthalene	ND		ug/l	5.0	--	2

Project Name: FESL
Project Number: 20029

Lab Number: L2056972
Report Date: 01/06/21

SAMPLE RESULTS

Lab ID: L2056972-02 D
 Client ID: CTRL 4 FEET
 Sample Location: ROCHESTER, NY

Date Collected: 12/21/20 08:35
 Date Received: 12/21/20
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
n-Propylbenzene	ND		ug/l	5.0	--	2
1,2,3-Trichlorobenzene	ND		ug/l	5.0	--	2
1,2,4-Trichlorobenzene	ND		ug/l	5.0	--	2
1,3,5-Trimethylbenzene	ND		ug/l	5.0	--	2
1,2,4-Trimethylbenzene	ND		ug/l	5.0	--	2
1,4-Dioxane	ND		ug/l	500	--	2
Freon-113	13		ug/l	5.0	--	2
p-Diethylbenzene	ND		ug/l	4.0	--	2
p-Ethyltoluene	ND		ug/l	4.0	--	2
1,2,4,5-Tetramethylbenzene	ND		ug/l	4.0	--	2
Ethyl ether	ND		ug/l	5.0	--	2
trans-1,4-Dichloro-2-butene	ND		ug/l	5.0	--	2

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	108		70-130
Toluene-d8	103		70-130
4-Bromofluorobenzene	110		70-130
Dibromofluoromethane	97		70-130

Project Name: FESL
Project Number: 20029

Lab Number: L2056972
Report Date: 01/06/21

SAMPLE RESULTS

Lab ID: L2056972-03 D
 Client ID: FLOW 4 FEET
 Sample Location: ROCHESTER, NY

Date Collected: 12/21/20 08:40
 Date Received: 12/21/20
 Field Prep: Not Specified

Sample Depth:

Matrix: Water
 Analytical Method: 1,8260C
 Analytical Date: 12/22/20 17:01
 Analyst: MM

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methylene chloride	ND		ug/l	5.0	--	2
1,1-Dichloroethane	240		ug/l	5.0	--	2
Chloroform	ND		ug/l	5.0	--	2
Carbon tetrachloride	ND		ug/l	1.0	--	2
1,2-Dichloropropane	ND		ug/l	2.0	--	2
Dibromochloromethane	ND		ug/l	1.0	--	2
1,1,2-Trichloroethane	ND		ug/l	3.0	--	2
Tetrachloroethene	ND		ug/l	1.0	--	2
Chlorobenzene	ND		ug/l	5.0	--	2
Trichlorofluoromethane	ND		ug/l	5.0	--	2
1,2-Dichloroethane	ND		ug/l	1.0	--	2
1,1,1-Trichloroethane	ND		ug/l	5.0	--	2
Bromodichloromethane	ND		ug/l	1.0	--	2
trans-1,3-Dichloropropene	ND		ug/l	1.0	--	2
cis-1,3-Dichloropropene	ND		ug/l	1.0	--	2
1,3-Dichloropropene, Total	ND		ug/l	1.0	--	2
1,1-Dichloropropene	ND		ug/l	5.0	--	2
Bromoform	ND		ug/l	4.0	--	2
1,1,1,2-Tetrachloroethane	ND		ug/l	1.0	--	2
Benzene	1.2		ug/l	1.0	--	2
Toluene	ND		ug/l	5.0	--	2
Ethylbenzene	ND		ug/l	5.0	--	2
Chloromethane	ND		ug/l	5.0	--	2
Bromomethane	ND		ug/l	5.0	--	2
Vinyl chloride	24		ug/l	2.0	--	2
Chloroethane	9.7		ug/l	5.0	--	2
1,1-Dichloroethene	ND		ug/l	1.0	--	2
trans-1,2-Dichloroethene	ND		ug/l	5.0	--	2

Project Name: FESL
Project Number: 20029

Lab Number: L2056972
Report Date: 01/06/21

SAMPLE RESULTS

Lab ID: L2056972-03 D
 Client ID: FLOW 4 FEET
 Sample Location: ROCHESTER, NY

Date Collected: 12/21/20 08:40
 Date Received: 12/21/20
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Trichloroethene	ND		ug/l	1.0	--	2
1,2-Dichlorobenzene	ND		ug/l	5.0	--	2
1,3-Dichlorobenzene	ND		ug/l	5.0	--	2
1,4-Dichlorobenzene	ND		ug/l	5.0	--	2
Methyl tert butyl ether	ND		ug/l	5.0	--	2
p/m-Xylene	ND		ug/l	5.0	--	2
o-Xylene	ND		ug/l	5.0	--	2
Xylenes, Total	ND		ug/l	5.0	--	2
cis-1,2-Dichloroethene	100		ug/l	5.0	--	2
1,2-Dichloroethene, Total	100		ug/l	5.0	--	2
Dibromomethane	ND		ug/l	10	--	2
1,2,3-Trichloropropane	ND		ug/l	5.0	--	2
Acrylonitrile	ND		ug/l	10	--	2
Styrene	ND		ug/l	5.0	--	2
Dichlorodifluoromethane	ND		ug/l	10	--	2
Acetone	270		ug/l	10	--	2
Carbon disulfide	ND		ug/l	10	--	2
2-Butanone	ND		ug/l	10	--	2
Vinyl acetate	ND		ug/l	10	--	2
4-Methyl-2-pentanone	ND		ug/l	10	--	2
2-Hexanone	ND		ug/l	10	--	2
Bromochloromethane	ND		ug/l	5.0	--	2
2,2-Dichloropropane	ND		ug/l	5.0	--	2
1,2-Dibromoethane	ND		ug/l	4.0	--	2
1,3-Dichloropropane	ND		ug/l	5.0	--	2
1,1,1,2-Tetrachloroethane	ND		ug/l	5.0	--	2
Bromobenzene	ND		ug/l	5.0	--	2
n-Butylbenzene	ND		ug/l	5.0	--	2
sec-Butylbenzene	ND		ug/l	5.0	--	2
tert-Butylbenzene	ND		ug/l	5.0	--	2
o-Chlorotoluene	ND		ug/l	5.0	--	2
p-Chlorotoluene	ND		ug/l	5.0	--	2
1,2-Dibromo-3-chloropropane	ND		ug/l	5.0	--	2
Hexachlorobutadiene	ND		ug/l	5.0	--	2
Isopropylbenzene	ND		ug/l	5.0	--	2
p-Isopropyltoluene	ND		ug/l	5.0	--	2
Naphthalene	ND		ug/l	5.0	--	2

Project Name: FESL
Project Number: 20029

Lab Number: L2056972
Report Date: 01/06/21

SAMPLE RESULTS

Lab ID: L2056972-03 D
 Client ID: FLOW 4 FEET
 Sample Location: ROCHESTER, NY

Date Collected: 12/21/20 08:40
 Date Received: 12/21/20
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
n-Propylbenzene	ND		ug/l	5.0	--	2
1,2,3-Trichlorobenzene	ND		ug/l	5.0	--	2
1,2,4-Trichlorobenzene	ND		ug/l	5.0	--	2
1,3,5-Trimethylbenzene	ND		ug/l	5.0	--	2
1,2,4-Trimethylbenzene	ND		ug/l	5.0	--	2
1,4-Dioxane	ND		ug/l	500	--	2
Freon-113	ND		ug/l	5.0	--	2
p-Diethylbenzene	ND		ug/l	4.0	--	2
p-Ethyltoluene	ND		ug/l	4.0	--	2
1,2,4,5-Tetramethylbenzene	ND		ug/l	4.0	--	2
Ethyl ether	ND		ug/l	5.0	--	2
trans-1,4-Dichloro-2-butene	ND		ug/l	5.0	--	2

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	107		70-130
Toluene-d8	102		70-130
4-Bromofluorobenzene	112		70-130
Dibromofluoromethane	97		70-130

Project Name: FESL
Project Number: 20029

Lab Number: L2056972
Report Date: 01/06/21

SAMPLE RESULTS

Lab ID: L2056972-04 D
 Client ID: TARGET 4 FEET
 Sample Location: ROCHESTER, NY

Date Collected: 12/21/20 08:45
 Date Received: 12/21/20
 Field Prep: Not Specified

Sample Depth:

Matrix: Water
 Analytical Method: 1,8260C
 Analytical Date: 12/22/20 17:24
 Analyst: MM

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methylene chloride	ND		ug/l	6.2	--	2.5
1,1-Dichloroethane	250		ug/l	6.2	--	2.5
Chloroform	ND		ug/l	6.2	--	2.5
Carbon tetrachloride	ND		ug/l	1.2	--	2.5
1,2-Dichloropropane	ND		ug/l	2.5	--	2.5
Dibromochloromethane	ND		ug/l	1.2	--	2.5
1,1,2-Trichloroethane	ND		ug/l	3.8	--	2.5
Tetrachloroethene	ND		ug/l	1.2	--	2.5
Chlorobenzene	ND		ug/l	6.2	--	2.5
Trichlorofluoromethane	ND		ug/l	6.2	--	2.5
1,2-Dichloroethane	ND		ug/l	1.2	--	2.5
1,1,1-Trichloroethane	ND		ug/l	6.2	--	2.5
Bromodichloromethane	ND		ug/l	1.2	--	2.5
trans-1,3-Dichloropropene	ND		ug/l	1.2	--	2.5
cis-1,3-Dichloropropene	ND		ug/l	1.2	--	2.5
1,3-Dichloropropene, Total	ND		ug/l	1.2	--	2.5
1,1-Dichloropropene	ND		ug/l	6.2	--	2.5
Bromoform	ND		ug/l	5.0	--	2.5
1,1,2,2-Tetrachloroethane	ND		ug/l	1.2	--	2.5
Benzene	2.1		ug/l	1.2	--	2.5
Toluene	ND		ug/l	6.2	--	2.5
Ethylbenzene	ND		ug/l	6.2	--	2.5
Chloromethane	ND		ug/l	6.2	--	2.5
Bromomethane	ND		ug/l	6.2	--	2.5
Vinyl chloride	4.4		ug/l	2.5	--	2.5
Chloroethane	11		ug/l	6.2	--	2.5
1,1-Dichloroethene	ND		ug/l	1.2	--	2.5
trans-1,2-Dichloroethene	ND		ug/l	6.2	--	2.5

Project Name: FESL
Project Number: 20029

Lab Number: L2056972
Report Date: 01/06/21

SAMPLE RESULTS

Lab ID: L2056972-04 D
 Client ID: TARGET 4 FEET
 Sample Location: ROCHESTER, NY

Date Collected: 12/21/20 08:45
 Date Received: 12/21/20
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Trichloroethene	ND		ug/l	1.2	--	2.5
1,2-Dichlorobenzene	ND		ug/l	6.2	--	2.5
1,3-Dichlorobenzene	ND		ug/l	6.2	--	2.5
1,4-Dichlorobenzene	ND		ug/l	6.2	--	2.5
Methyl tert butyl ether	ND		ug/l	6.2	--	2.5
p/m-Xylene	ND		ug/l	6.2	--	2.5
o-Xylene	ND		ug/l	6.2	--	2.5
Xylenes, Total	ND		ug/l	6.2	--	2.5
cis-1,2-Dichloroethene	29		ug/l	6.2	--	2.5
1,2-Dichloroethene, Total	29		ug/l	6.2	--	2.5
Dibromomethane	ND		ug/l	12	--	2.5
1,2,3-Trichloropropane	ND		ug/l	6.2	--	2.5
Acrylonitrile	ND		ug/l	12	--	2.5
Styrene	ND		ug/l	6.2	--	2.5
Dichlorodifluoromethane	ND		ug/l	12	--	2.5
Acetone	240		ug/l	12	--	2.5
Carbon disulfide	ND		ug/l	12	--	2.5
2-Butanone	ND		ug/l	12	--	2.5
Vinyl acetate	ND		ug/l	12	--	2.5
4-Methyl-2-pentanone	ND		ug/l	12	--	2.5
2-Hexanone	ND		ug/l	12	--	2.5
Bromochloromethane	ND		ug/l	6.2	--	2.5
2,2-Dichloropropane	ND		ug/l	6.2	--	2.5
1,2-Dibromoethane	ND		ug/l	5.0	--	2.5
1,3-Dichloropropane	ND		ug/l	6.2	--	2.5
1,1,1,2-Tetrachloroethane	ND		ug/l	6.2	--	2.5
Bromobenzene	ND		ug/l	6.2	--	2.5
n-Butylbenzene	ND		ug/l	6.2	--	2.5
sec-Butylbenzene	ND		ug/l	6.2	--	2.5
tert-Butylbenzene	ND		ug/l	6.2	--	2.5
o-Chlorotoluene	ND		ug/l	6.2	--	2.5
p-Chlorotoluene	ND		ug/l	6.2	--	2.5
1,2-Dibromo-3-chloropropane	ND		ug/l	6.2	--	2.5
Hexachlorobutadiene	ND		ug/l	6.2	--	2.5
Isopropylbenzene	ND		ug/l	6.2	--	2.5
p-Isopropyltoluene	ND		ug/l	6.2	--	2.5
Naphthalene	ND		ug/l	6.2	--	2.5

Project Name: FESL
Project Number: 20029

Lab Number: L2056972
Report Date: 01/06/21

SAMPLE RESULTS

Lab ID: L2056972-04 D
 Client ID: TARGET 4 FEET
 Sample Location: ROCHESTER, NY

Date Collected: 12/21/20 08:45
 Date Received: 12/21/20
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
n-Propylbenzene	ND		ug/l	6.2	--	2.5
1,2,3-Trichlorobenzene	ND		ug/l	6.2	--	2.5
1,2,4-Trichlorobenzene	ND		ug/l	6.2	--	2.5
1,3,5-Trimethylbenzene	ND		ug/l	6.2	--	2.5
1,2,4-Trimethylbenzene	ND		ug/l	6.2	--	2.5
1,4-Dioxane	ND		ug/l	620	--	2.5
Freon-113	ND		ug/l	6.2	--	2.5
p-Diethylbenzene	ND		ug/l	5.0	--	2.5
p-Ethyltoluene	ND		ug/l	5.0	--	2.5
1,2,4,5-Tetramethylbenzene	ND		ug/l	5.0	--	2.5
Ethyl ether	ND		ug/l	6.2	--	2.5
trans-1,4-Dichloro-2-butene	ND		ug/l	6.2	--	2.5

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	109		70-130
Toluene-d8	103		70-130
4-Bromofluorobenzene	109		70-130
Dibromofluoromethane	97		70-130

Project Name: FESL
Project Number: 20029

Lab Number: L2056972
Report Date: 01/06/21

Method Blank Analysis
Batch Quality Control

Analytical Method: 117,-
Analytical Date: 12/23/20 06:56
Analyst: AW

Parameter	Result	Qualifier	Units	RL	MDL
Dissolved Gases by GC - Mansfield Lab for sample(s): 01 Batch: WG1448486-3					
Methane	ND		ug/l	2.00	-- A
Ethene	ND		ug/l	0.500	-- A
Ethane	ND		ug/l	0.500	-- A

Project Name: FESL
Project Number: 20029

Lab Number: L2056972
Report Date: 01/06/21

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260C
Analytical Date: 12/22/20 11:14
Analyst: PD

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 02-04 Batch: WG1448494-5					
Methylene chloride	ND		ug/l	2.5	--
1,1-Dichloroethane	ND		ug/l	2.5	--
Chloroform	ND		ug/l	2.5	--
Carbon tetrachloride	ND		ug/l	0.50	--
1,2-Dichloropropane	ND		ug/l	1.0	--
Dibromochloromethane	ND		ug/l	0.50	--
1,1,2-Trichloroethane	ND		ug/l	1.5	--
Tetrachloroethene	ND		ug/l	0.50	--
Chlorobenzene	ND		ug/l	2.5	--
Trichlorofluoromethane	ND		ug/l	2.5	--
1,2-Dichloroethane	ND		ug/l	0.50	--
1,1,1-Trichloroethane	ND		ug/l	2.5	--
Bromodichloromethane	ND		ug/l	0.50	--
trans-1,3-Dichloropropene	ND		ug/l	0.50	--
cis-1,3-Dichloropropene	ND		ug/l	0.50	--
1,3-Dichloropropene, Total	ND		ug/l	0.50	--
1,1-Dichloropropene	ND		ug/l	2.5	--
Bromoform	ND		ug/l	2.0	--
1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	--
Benzene	ND		ug/l	0.50	--
Toluene	ND		ug/l	2.5	--
Ethylbenzene	ND		ug/l	2.5	--
Chloromethane	ND		ug/l	2.5	--
Bromomethane	ND		ug/l	2.5	--
Vinyl chloride	ND		ug/l	1.0	--
Chloroethane	ND		ug/l	2.5	--
1,1-Dichloroethene	ND		ug/l	0.50	--
trans-1,2-Dichloroethene	ND		ug/l	2.5	--
Trichloroethene	ND		ug/l	0.50	--

Project Name: FESL
Project Number: 20029

Lab Number: L2056972
Report Date: 01/06/21

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260C
Analytical Date: 12/22/20 11:14
Analyst: PD

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 02-04 Batch: WG1448494-5					
1,2-Dichlorobenzene	ND		ug/l	2.5	--
1,3-Dichlorobenzene	ND		ug/l	2.5	--
1,4-Dichlorobenzene	ND		ug/l	2.5	--
Methyl tert butyl ether	ND		ug/l	2.5	--
p/m-Xylene	ND		ug/l	2.5	--
o-Xylene	ND		ug/l	2.5	--
Xylenes, Total	ND		ug/l	2.5	--
cis-1,2-Dichloroethene	ND		ug/l	2.5	--
1,2-Dichloroethene, Total	ND		ug/l	2.5	--
Dibromomethane	ND		ug/l	5.0	--
1,2,3-Trichloropropane	ND		ug/l	2.5	--
Acrylonitrile	ND		ug/l	5.0	--
Styrene	ND		ug/l	2.5	--
Dichlorodifluoromethane	ND		ug/l	5.0	--
Acetone	ND		ug/l	5.0	--
Carbon disulfide	ND		ug/l	5.0	--
2-Butanone	ND		ug/l	5.0	--
Vinyl acetate	ND		ug/l	5.0	--
4-Methyl-2-pentanone	ND		ug/l	5.0	--
2-Hexanone	ND		ug/l	5.0	--
Bromochloromethane	ND		ug/l	2.5	--
2,2-Dichloropropane	ND		ug/l	2.5	--
1,2-Dibromoethane	ND		ug/l	2.0	--
1,3-Dichloropropane	ND		ug/l	2.5	--
1,1,1,2-Tetrachloroethane	ND		ug/l	2.5	--
Bromobenzene	ND		ug/l	2.5	--
n-Butylbenzene	ND		ug/l	2.5	--
sec-Butylbenzene	ND		ug/l	2.5	--
tert-Butylbenzene	ND		ug/l	2.5	--

Project Name: FESL
Project Number: 20029

Lab Number: L2056972
Report Date: 01/06/21

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260C
 Analytical Date: 12/22/20 11:14
 Analyst: PD

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 02-04 Batch: WG1448494-5					
o-Chlorotoluene	ND		ug/l	2.5	--
p-Chlorotoluene	ND		ug/l	2.5	--
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	--
Hexachlorobutadiene	ND		ug/l	2.5	--
Isopropylbenzene	ND		ug/l	2.5	--
p-Isopropyltoluene	ND		ug/l	2.5	--
Naphthalene	ND		ug/l	2.5	--
n-Propylbenzene	ND		ug/l	2.5	--
1,2,3-Trichlorobenzene	ND		ug/l	2.5	--
1,2,4-Trichlorobenzene	ND		ug/l	2.5	--
1,3,5-Trimethylbenzene	ND		ug/l	2.5	--
1,2,4-Trimethylbenzene	ND		ug/l	2.5	--
1,4-Dioxane	ND		ug/l	250	--
Freon-113	ND		ug/l	2.5	--
p-Diethylbenzene	ND		ug/l	2.0	--
p-Ethyltoluene	ND		ug/l	2.0	--
1,2,4,5-Tetramethylbenzene	ND		ug/l	2.0	--
Ethyl ether	ND		ug/l	2.5	--
trans-1,4-Dichloro-2-butene	ND		ug/l	2.5	--

Surrogate	%Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	105		70-130
Toluene-d8	103		70-130
4-Bromofluorobenzene	110		70-130
Dibromofluoromethane	94		70-130

Lab Control Sample Analysis

Batch Quality Control

Project Name: FESL
Project Number: 20029

Lab Number: L2056972
Report Date: 01/06/21

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits	Column
Dissolved Gases by GC - Mansfield Lab Associated sample(s): 01 Batch: WG1448486-2									
Methane	102		-		80-120	-		25	A
Ethene	91		-		80-120	-		25	A
Ethane	90		-		80-120	-		25	A

Lab Control Sample Analysis

Batch Quality Control

Project Name: FESL
Project Number: 20029

Lab Number: L2056972
Report Date: 01/06/21

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 02-04 Batch: WG1448494-3 WG1448494-4								
Methylene chloride	94		96		70-130	2		20
1,1-Dichloroethane	100		100		70-130	0		20
Chloroform	100		100		70-130	0		20
Carbon tetrachloride	100		100		63-132	0		20
1,2-Dichloropropane	98		100		70-130	2		20
Dibromochloromethane	91		94		63-130	3		20
1,1,2-Trichloroethane	94		96		70-130	2		20
Tetrachloroethene	100		100		70-130	0		20
Chlorobenzene	100		100		75-130	0		20
Trichlorofluoromethane	98		100		62-150	2		20
1,2-Dichloroethane	100		100		70-130	0		20
1,1,1-Trichloroethane	100		100		67-130	0		20
Bromodichloromethane	96		100		67-130	4		20
trans-1,3-Dichloropropene	100		100		70-130	0		20
cis-1,3-Dichloropropene	95		96		70-130	1		20
1,1-Dichloropropene	100		100		70-130	0		20
Bromoform	85		89		54-136	5		20
1,1,1,2-Tetrachloroethane	94		96		67-130	2		20
Benzene	95		97		70-130	2		20
Toluene	100		100		70-130	0		20
Ethylbenzene	100		100		70-130	0		20
Chloromethane	73		72		64-130	1		20
Bromomethane	120		100		39-139	18		20

Lab Control Sample Analysis

Batch Quality Control

Project Name: FESL
Project Number: 20029

Lab Number: L2056972
Report Date: 01/06/21

Parameter	LCS		LCSD		%Recovery Limits	RPD	Qual	RPD Limits
	%Recovery	Qual	%Recovery	Qual				
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 02-04 Batch: WG1448494-3 WG1448494-4								
Vinyl chloride	81		83		55-140	2		20
Chloroethane	87		88		55-138	1		20
1,1-Dichloroethene	91		94		61-145	3		20
trans-1,2-Dichloroethene	100		100		70-130	0		20
Trichloroethene	97		100		70-130	3		20
1,2-Dichlorobenzene	100		100		70-130	0		20
1,3-Dichlorobenzene	100		100		70-130	0		20
1,4-Dichlorobenzene	100		100		70-130	0		20
Methyl tert butyl ether	92		94		63-130	2		20
p/m-Xylene	100		100		70-130	0		20
o-Xylene	95		100		70-130	5		20
cis-1,2-Dichloroethene	91		94		70-130	3		20
Dibromomethane	92		92		70-130	0		20
1,2,3-Trichloropropane	95		96		64-130	1		20
Acrylonitrile	93		91		70-130	2		20
Styrene	90		95		70-130	5		20
Dichlorodifluoromethane	74		75		36-147	1		20
Acetone	86		88		58-148	2		20
Carbon disulfide	93		93		51-130	0		20
2-Butanone	90		86		63-138	5		20
Vinyl acetate	100		100		70-130	0		20
4-Methyl-2-pentanone	79		80		59-130	1		20
2-Hexanone	87		88		57-130	1		20

Lab Control Sample Analysis

Batch Quality Control

Project Name: FESL
Project Number: 20029

Lab Number: L2056972
Report Date: 01/06/21

Parameter	LCS		LCSD		%Recovery		RPD	RPD	
	%Recovery	Qual	%Recovery	Qual	Limits	Qual		Limits	
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 02-04 Batch: WG1448494-3 WG1448494-4									
Bromochloromethane	95		96		70-130		1		20
2,2-Dichloropropane	110		110		63-133		0		20
1,2-Dibromoethane	90		92		70-130		2		20
1,3-Dichloropropane	97		98		70-130		1		20
1,1,1,2-Tetrachloroethane	95		97		64-130		2		20
Bromobenzene	100		100		70-130		0		20
n-Butylbenzene	110		110		53-136		0		20
sec-Butylbenzene	100		110		70-130		10		20
tert-Butylbenzene	100		110		70-130		10		20
o-Chlorotoluene	110		120		70-130		9		20
p-Chlorotoluene	110		110		70-130		0		20
1,2-Dibromo-3-chloropropane	68		72		41-144		6		20
Hexachlorobutadiene	110		120		63-130		9		20
Isopropylbenzene	110		110		70-130		0		20
p-Isopropyltoluene	100		110		70-130		10		20
Naphthalene	82		90		70-130		9		20
n-Propylbenzene	110		110		69-130		0		20
1,2,3-Trichlorobenzene	84		93		70-130		10		20
1,2,4-Trichlorobenzene	96		99		70-130		3		20
1,3,5-Trimethylbenzene	100		110		64-130		10		20
1,2,4-Trimethylbenzene	100		110		70-130		10		20
1,4-Dioxane	84		88		56-162		5		20
Freon-113	110		110		70-130		0		20

Lab Control Sample Analysis

Batch Quality Control

Project Name: FESL
Project Number: 20029

Lab Number: L2056972
Report Date: 01/06/21

Parameter	LCS		LCSD		%Recovery Limits	RPD	RPD	
	%Recovery	Qual	%Recovery	Qual			Qual	Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 02-04 Batch: WG1448494-3 WG1448494-4								
p-Diethylbenzene	100		110		70-130	10		20
p-Ethyltoluene	110		110		70-130	0		20
1,2,4,5-Tetramethylbenzene	100		110		70-130	10		20
Ethyl ether	96		95		59-134	1		20
trans-1,4-Dichloro-2-butene	97		97		70-130	0		20

Surrogate	LCS		LCSD		Acceptance Criteria
	%Recovery	Qual	%Recovery	Qual	
1,2-Dichloroethane-d4	107		105		70-130
Toluene-d8	104		103		70-130
4-Bromofluorobenzene	110		111		70-130
Dibromofluoromethane	97		97		70-130

METALS

Project Name: FESL
Project Number: 20029

Lab Number: L2056972
Report Date: 01/06/21

SAMPLE RESULTS

Lab ID: L2056972-01
 Client ID: SBW-07 BASELINE
 Sample Location: ROCHESTER, NY

Date Collected: 12/21/20 08:30
 Date Received: 12/21/20
 Field Prep: Refer to COC

Sample Depth:
 Matrix: Water

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Dissolved Metals - Mansfield Lab											
Aluminum, Dissolved	ND		mg/l	0.0100	--	1	01/04/21 13:42	01/05/21 09:59	EPA 3005A	1,6020B	AM
Antimony, Dissolved	ND		mg/l	0.00400	--	1	01/04/21 13:42	01/05/21 09:59	EPA 3005A	1,6020B	AM
Arsenic, Dissolved	0.00160		mg/l	0.00050	--	1	01/04/21 13:42	01/05/21 09:59	EPA 3005A	1,6020B	AM
Barium, Dissolved	1.245		mg/l	0.00050	--	1	01/04/21 13:42	01/05/21 09:59	EPA 3005A	1,6020B	AM
Beryllium, Dissolved	ND		mg/l	0.00050	--	1	01/04/21 13:42	01/05/21 09:59	EPA 3005A	1,6020B	AM
Cadmium, Dissolved	ND		mg/l	0.00020	--	1	01/04/21 13:42	01/05/21 09:59	EPA 3005A	1,6020B	AM
Calcium, Dissolved	120.		mg/l	0.100	--	1	01/04/21 13:42	01/05/21 09:59	EPA 3005A	1,6020B	AM
Chromium, Dissolved	ND		mg/l	0.00100	--	1	01/04/21 13:42	01/05/21 09:59	EPA 3005A	1,6020B	AM
Cobalt, Dissolved	0.00141		mg/l	0.00050	--	1	01/04/21 13:42	01/05/21 09:59	EPA 3005A	1,6020B	AM
Copper, Dissolved	ND		mg/l	0.00100	--	1	01/04/21 13:42	01/05/21 09:59	EPA 3005A	1,6020B	AM
Iron, Dissolved	0.144		mg/l	0.0500	--	1	01/04/21 13:42	01/05/21 09:59	EPA 3005A	1,6020B	AM
Lead, Dissolved	ND		mg/l	0.00100	--	1	01/04/21 13:42	01/05/21 09:59	EPA 3005A	1,6020B	AM
Magnesium, Dissolved	69.5		mg/l	0.0700	--	1	01/04/21 13:42	01/05/21 09:59	EPA 3005A	1,6020B	AM
Manganese, Dissolved	0.04689		mg/l	0.00100	--	1	01/04/21 13:42	01/05/21 09:59	EPA 3005A	1,6020B	AM
Mercury, Dissolved	ND		mg/l	0.00020	--	1	01/04/21 14:13	01/04/21 23:13	EPA 7470A	1,7470A	VW
Nickel, Dissolved	0.00329		mg/l	0.00200	--	1	01/04/21 13:42	01/05/21 09:59	EPA 3005A	1,6020B	AM
Potassium, Dissolved	80.4		mg/l	0.100	--	1	01/04/21 13:42	01/05/21 09:59	EPA 3005A	1,6020B	AM
Selenium, Dissolved	ND		mg/l	0.00500	--	1	01/04/21 13:42	01/05/21 09:59	EPA 3005A	1,6020B	AM
Silver, Dissolved	ND		mg/l	0.00040	--	1	01/04/21 13:42	01/05/21 09:59	EPA 3005A	1,6020B	AM
Sodium, Dissolved	350.		mg/l	0.100	--	1	01/04/21 13:42	01/05/21 09:59	EPA 3005A	1,6020B	AM
Thallium, Dissolved	ND		mg/l	0.00050	--	1	01/04/21 13:42	01/05/21 09:59	EPA 3005A	1,6020B	AM
Vanadium, Dissolved	ND		mg/l	0.00500	--	1	01/04/21 13:42	01/05/21 09:59	EPA 3005A	1,6020B	AM
Zinc, Dissolved	ND		mg/l	0.01000	--	1	01/04/21 13:42	01/05/21 09:59	EPA 3005A	1,6020B	AM



Project Name: FESL
Project Number: 20029

Lab Number: L2056972
Report Date: 01/06/21

Method Blank Analysis Batch Quality Control

Parameter	Result Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Dissolved Metals - Mansfield Lab for sample(s): 01 Batch: WG1451356-1									
Aluminum, Dissolved	ND	mg/l	0.0100	--	1	01/04/21 13:42	01/05/21 09:24	1,6020B	AM
Antimony, Dissolved	ND	mg/l	0.00400	--	1	01/04/21 13:42	01/05/21 09:24	1,6020B	AM
Arsenic, Dissolved	ND	mg/l	0.00050	--	1	01/04/21 13:42	01/05/21 09:24	1,6020B	AM
Barium, Dissolved	ND	mg/l	0.00050	--	1	01/04/21 13:42	01/05/21 09:24	1,6020B	AM
Beryllium, Dissolved	ND	mg/l	0.00050	--	1	01/04/21 13:42	01/05/21 09:24	1,6020B	AM
Cadmium, Dissolved	ND	mg/l	0.00020	--	1	01/04/21 13:42	01/05/21 09:24	1,6020B	AM
Calcium, Dissolved	ND	mg/l	0.100	--	1	01/04/21 13:42	01/05/21 09:24	1,6020B	AM
Chromium, Dissolved	0.00109	mg/l	0.00100	--	1	01/04/21 13:42	01/05/21 09:24	1,6020B	AM
Cobalt, Dissolved	ND	mg/l	0.00050	--	1	01/04/21 13:42	01/05/21 09:24	1,6020B	AM
Copper, Dissolved	ND	mg/l	0.00100	--	1	01/04/21 13:42	01/05/21 09:24	1,6020B	AM
Iron, Dissolved	ND	mg/l	0.0500	--	1	01/04/21 13:42	01/05/21 09:24	1,6020B	AM
Lead, Dissolved	ND	mg/l	0.00100	--	1	01/04/21 13:42	01/05/21 09:24	1,6020B	AM
Magnesium, Dissolved	ND	mg/l	0.0700	--	1	01/04/21 13:42	01/05/21 09:24	1,6020B	AM
Manganese, Dissolved	ND	mg/l	0.00100	--	1	01/04/21 13:42	01/05/21 09:24	1,6020B	AM
Nickel, Dissolved	ND	mg/l	0.00200	--	1	01/04/21 13:42	01/05/21 09:24	1,6020B	AM
Potassium, Dissolved	ND	mg/l	0.100	--	1	01/04/21 13:42	01/05/21 09:24	1,6020B	AM
Selenium, Dissolved	ND	mg/l	0.00500	--	1	01/04/21 13:42	01/05/21 09:24	1,6020B	AM
Silver, Dissolved	ND	mg/l	0.00040	--	1	01/04/21 13:42	01/05/21 09:24	1,6020B	AM
Sodium, Dissolved	ND	mg/l	0.100	--	1	01/04/21 13:42	01/05/21 09:24	1,6020B	AM
Thallium, Dissolved	ND	mg/l	0.00050	--	1	01/04/21 13:42	01/05/21 09:24	1,6020B	AM
Vanadium, Dissolved	ND	mg/l	0.00500	--	1	01/04/21 13:42	01/05/21 09:24	1,6020B	AM
Zinc, Dissolved	ND	mg/l	0.01000	--	1	01/04/21 13:42	01/05/21 09:24	1,6020B	AM

Prep Information

Digestion Method: EPA 3005A

Parameter	Result Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Dissolved Metals - Mansfield Lab for sample(s): 01 Batch: WG1451357-1									
Mercury, Dissolved	ND	mg/l	0.00020	--	1	01/04/21 14:13	01/04/21 23:00	1,7470A	VW



Project Name: FESL
Project Number: 20029

Lab Number: L2056972
Report Date: 01/06/21

Method Blank Analysis Batch Quality Control

Prep Information

Digestion Method: EPA 7470A

Lab Control Sample Analysis

Batch Quality Control

Project Name: FESL
Project Number: 20029

Lab Number: L2056972
Report Date: 01/06/21

Parameter	LCS		LCSD		%Recovery Limits	RPD	Qual	RPD Limits
	%Recovery	Qual	%Recovery	Qual				
Dissolved Metals - Mansfield Lab Associated sample(s): 01 Batch: WG1451356-2								
Aluminum, Dissolved	106		-		80-120	-		
Antimony, Dissolved	90		-		80-120	-		
Arsenic, Dissolved	105		-		80-120	-		
Barium, Dissolved	104		-		80-120	-		
Beryllium, Dissolved	110		-		80-120	-		
Cadmium, Dissolved	110		-		80-120	-		
Calcium, Dissolved	104		-		80-120	-		
Chromium, Dissolved	100		-		80-120	-		
Cobalt, Dissolved	102		-		80-120	-		
Copper, Dissolved	101		-		80-120	-		
Iron, Dissolved	98		-		80-120	-		
Lead, Dissolved	102		-		80-120	-		
Magnesium, Dissolved	105		-		80-120	-		
Manganese, Dissolved	100		-		80-120	-		
Nickel, Dissolved	98		-		80-120	-		
Potassium, Dissolved	106		-		80-120	-		
Selenium, Dissolved	103		-		80-120	-		
Silver, Dissolved	103		-		80-120	-		
Sodium, Dissolved	104		-		80-120	-		
Thallium, Dissolved	97		-		80-120	-		
Vanadium, Dissolved	100		-		80-120	-		

Lab Control Sample Analysis

Batch Quality Control

Project Name: FESL
Project Number: 20029

Lab Number: L2056972
Report Date: 01/06/21

Parameter	LCS %Recovery	LCSD %Recovery	%Recovery Limits	RPD	RPD Limits
Dissolved Metals - Mansfield Lab Associated sample(s): 01 Batch: WG1451356-2					
Zinc, Dissolved	110	-	80-120	-	
Dissolved Metals - Mansfield Lab Associated sample(s): 01 Batch: WG1451357-2					
Mercury, Dissolved	91	-	80-120	-	

Matrix Spike Analysis Batch Quality Control

Project Name: FESL
Project Number: 20029

Lab Number: L2056972
Report Date: 01/06/21

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	Qual	MSD Found	MSD %Recovery	Qual	Recovery Limits	RPD	Qual	RPD Limits
Dissolved Metals - Mansfield Lab Associated sample(s): 01 QC Batch ID: WG1451356-3 QC Sample: L2056972-01 Client ID: SBW-07 BASELINE												
Aluminum, Dissolved	ND	2	2.25	112		-	-		75-125	-		20
Antimony, Dissolved	ND	0.5	0.5163	103		-	-		75-125	-		20
Arsenic, Dissolved	0.00160	0.12	0.1379	114		-	-		75-125	-		20
Barium, Dissolved	1.245	2	3.328	104		-	-		75-125	-		20
Beryllium, Dissolved	ND	0.05	0.05308	106		-	-		75-125	-		20
Cadmium, Dissolved	ND	0.051	0.05548	109		-	-		75-125	-		20
Calcium, Dissolved	120	10	155	350	Q	-	-		75-125	-		20
Chromium, Dissolved	ND	0.2	0.1891	94		-	-		75-125	-		20
Cobalt, Dissolved	0.00141	0.5	0.5240	104		-	-		75-125	-		20
Copper, Dissolved	ND	0.25	0.2629	105		-	-		75-125	-		20
Iron, Dissolved	0.144	1	1.20	106		-	-		75-125	-		20
Lead, Dissolved	ND	0.51	0.5252	103		-	-		75-125	-		20
Magnesium, Dissolved	69.5	10	98.0	285	Q	-	-		75-125	-		20
Manganese, Dissolved	0.04689	0.5	0.5389	98		-	-		75-125	-		20
Nickel, Dissolved	0.00329	0.5	0.5073	101		-	-		75-125	-		20
Potassium, Dissolved	80.4	10	111	306	Q	-	-		75-125	-		20
Selenium, Dissolved	ND	0.12	0.134	112		-	-		75-125	-		20
Silver, Dissolved	ND	0.05	0.05185	104		-	-		75-125	-		20
Sodium, Dissolved	350	10	410	600	Q	-	-		75-125	-		20
Thallium, Dissolved	ND	0.12	0.1136	95		-	-		75-125	-		20
Vanadium, Dissolved	ND	0.5	0.4837	97		-	-		75-125	-		20

Matrix Spike Analysis Batch Quality Control

Project Name: FESL
Project Number: 20029

Lab Number: L2056972
Report Date: 01/06/21

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	MSD Found	MSD %Recovery	Recovery Limits	RPD	RPD Limits
Dissolved Metals - Mansfield Lab Associated sample(s): 01 QC Batch ID: WG1451356-3 QC Sample: L2056972-01 Client ID: SBW-07 BASELINE									
Zinc, Dissolved	ND	0.5	0.5728	114	-	-	75-125	-	20
Dissolved Metals - Mansfield Lab Associated sample(s): 01 QC Batch ID: WG1451357-3 QC Sample: L2056972-01 Client ID: SBW-07 BASELINE									
Mercury, Dissolved	ND	0.005	0.00415	83	-	-	75-125	-	20

Lab Duplicate Analysis

Batch Quality Control

Project Name: FESL
Project Number: 20029

Lab Number: L2056972
Report Date: 01/06/21

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
Dissolved Metals - Mansfield Lab Associated sample(s): 01 QC Batch ID: WG1451356-4 QC Sample: L2056972-01 Client ID: SBW-07 BASELINE						
Aluminum, Dissolved	ND	ND	mg/l	NC		20
Antimony, Dissolved	ND	ND	mg/l	NC		20
Arsenic, Dissolved	0.00160	0.00167	mg/l	4		20
Barium, Dissolved	1.245	1.236	mg/l	1		20
Beryllium, Dissolved	ND	ND	mg/l	NC		20
Cadmium, Dissolved	ND	ND	mg/l	NC		20
Calcium, Dissolved	120	124	mg/l	3		20
Chromium, Dissolved	ND	ND	mg/l	NC		20
Cobalt, Dissolved	0.00141	0.00141	mg/l	0		20
Copper, Dissolved	ND	ND	mg/l	NC		20
Iron, Dissolved	0.144	0.156	mg/l	8		20
Lead, Dissolved	ND	ND	mg/l	NC		20
Magnesium, Dissolved	69.5	70.0	mg/l	1		20
Manganese, Dissolved	0.04689	0.04784	mg/l	2		20
Nickel, Dissolved	0.00329	0.00339	mg/l	3		20
Potassium, Dissolved	80.4	81.6	mg/l	1		20
Selenium, Dissolved	ND	ND	mg/l	NC		20
Silver, Dissolved	ND	ND	mg/l	NC		20
Sodium, Dissolved	350	350	mg/l	0		20

Lab Duplicate Analysis

Batch Quality Control

Project Name: FESL

Project Number: 20029

Lab Number: L2056972

Report Date: 01/06/21

Parameter	Native Sample	Duplicate Sample	Units	RPD	RPD Limits
Dissolved Metals - Mansfield Lab Associated sample(s): 01 QC Batch ID: WG1451356-4 QC Sample: L2056972-01 Client ID: SBW-07 BASELINE					
Thallium, Dissolved	ND	ND	mg/l	NC	20
Vanadium, Dissolved	ND	ND	mg/l	NC	20
Zinc, Dissolved	ND	ND	mg/l	NC	20
Dissolved Metals - Mansfield Lab Associated sample(s): 01 QC Batch ID: WG1451357-4 QC Sample: L2056972-01 Client ID: SBW-07 BASELINE					
Mercury, Dissolved	ND	ND	mg/l	NC	20

INORGANICS & MISCELLANEOUS

Project Name: FESL
Project Number: 20029

Lab Number: L2056972
Report Date: 01/06/21

SAMPLE RESULTS

Lab ID: L2056972-01
Client ID: SBW-07 BASELINE
Sample Location: ROCHESTER, NY

Date Collected: 12/21/20 08:30
Date Received: 12/21/20
Field Prep: Refer to COC

Sample Depth:
Matrix: Water

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Alkalinity, Total	1340		mg CaCO3/L	5.00	NA	2.5	-	12/29/20 05:35	121,2320B	JA
Sulfate	ND		mg/l	10	--	1	01/05/21 14:44	01/05/21 14:44	1,9038	JB



Project Name: FESL
Project Number: 20029

Lab Number: L2056972
Report Date: 01/06/21

Method Blank Analysis
Batch Quality Control

Parameter	Result Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab for sample(s): 01 Batch: WG1449704-1									
Alkalinity, Total	ND	mg CaCO3/L	2.00	NA	1	-	12/29/20 05:35	121,2320B	JA
General Chemistry - Westborough Lab for sample(s): 01 Batch: WG1451763-1									
Sulfate	ND	mg/l	10	--	1	01/05/21 14:44	01/05/21 14:44	1,9038	JB

Lab Control Sample Analysis

Batch Quality Control

Project Name: FESL
Project Number: 20029

Lab Number: L2056972
Report Date: 01/06/21

Parameter	LCS		LCSD		%Recovery Limits	RPD	Qual	RPD Limits
	%Recovery	Qual	%Recovery	Qual				
General Chemistry - Westborough Lab Associated sample(s): 01 Batch: WG1449704-2								
Alkalinity, Total	104		-		90-110	-		10
General Chemistry - Westborough Lab Associated sample(s): 01 Batch: WG1451763-2								
Sulfate	95		-		90-110	-		

Matrix Spike Analysis Batch Quality Control

Project Name: FESL
Project Number: 20029

Lab Number: L2056972
Report Date: 01/06/21

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	MSD Qual	MSD Found	MSD %Recovery	MSD Qual	Recovery Limits	RPD	RPD Qual	RPD Limits
General Chemistry - Westborough Lab Associated sample(s): 01 QC Batch ID: WG1449704-4 QC Sample: L2057096-02 Client ID: MS Sample												
Alkalinity, Total	40.0	100	154	114	-	-	-	-	86-116	-	-	10
General Chemistry - Westborough Lab Associated sample(s): 01 QC Batch ID: WG1451763-4 QC Sample: L2056008-01 Client ID: MS Sample												
Sulfate	1000	1000	2000	101	-	-	-	-	55-147	-	-	14

Lab Duplicate Analysis

Batch Quality Control

Project Name: FESL

Project Number: 20029

Lab Number: L2056972

Report Date: 01/06/21

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
General Chemistry - Westborough Lab Associated sample(s): 01 QC Batch ID: WG1449704-3 QC Sample: L2057096-01 Client ID: DUP Sample						
Alkalinity, Total	404	402	mg CaCO ₃ /L	0		10
General Chemistry - Westborough Lab Associated sample(s): 01 QC Batch ID: WG1451763-3 QC Sample: L2056008-01 Client ID: DUP Sample						
Sulfate	1000	1000	mg/l	0		14

Project Name: FESL
Project Number: 20029

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Lab Number: L2056972
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Sample Receipt and Container Information

Were project specific reporting limits specified? YES

Cooler Information

Cooler **Custody Seal**
A Absent

Container Information

Container ID	Container Type	Cooler	Initial pH	Final pH	Temp deg C	Pres	Seal	Frozen Date/Time	Analysis(*)
L2056972-01A	20ml Vial HCl preserved	A	NA		4.4	Y	Absent		DISSGAS(14)
L2056972-01B	20ml Vial HCl preserved	A	NA		4.4	Y	Absent		DISSGAS(14)
L2056972-01C	Plastic 60ml unpreserved	A	7	7	4.4	Y	Absent		SO4-9038(28)
L2056972-01D	Plastic 250ml unpreserved/No Headspace	A	NA		4.4	Y	Absent		ALK-T-2320(14)
L2056972-01E	Plastic 250ml HNO3 preserved	A	4	<2	4.4	N	Absent		K-6020S(180),CU-6020S(180),SE-6020S(180),V-6020S(180),MN-6020S(180),MG-6020S(180),BE-6020S(180),CO-6020S(180),ZN-6020S(180),FE-6020S(180),CA-6020S(180),CR-6020S(180),BA-6020S(180),NI-6020S(180),PB-6020S(180),TL-6020S(180),NA-6020S(180),SB-6020S(180),AS-6020S(180),AG-6020S(180),AL-6020S(180),HG-S(28),CD-6020S(180)
L2056972-02A	Vial HCl preserved	A	NA		4.4	Y	Absent		NYTCL-8260(14)
L2056972-02B	Vial HCl preserved	A	NA		4.4	Y	Absent		NYTCL-8260(14)
L2056972-03A	Vial HCl preserved	A	NA		4.4	Y	Absent		NYTCL-8260(14)
L2056972-03B	Vial HCl preserved	A	NA		4.4	Y	Absent		NYTCL-8260(14)
L2056972-04A	Vial HCl preserved	A	NA		4.4	Y	Absent		NYTCL-8260(14)
L2056972-04B	Vial HCl preserved	A	NA		4.4	Y	Absent		NYTCL-8260(14)

*Values in parentheses indicate holding time in days



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GLOSSARY

Acronyms

DL	- Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the limit of quantitation (LOQ). The DL includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)
EDL	- Estimated Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The EDL includes any adjustments from dilutions, concentrations or moisture content, where applicable. The use of EDLs is specific to the analysis of PAHs using Solid-Phase Microextraction (SPME).
EMPC	- Estimated Maximum Possible Concentration: The concentration that results from the signal present at the retention time of an analyte when the ions meet all of the identification criteria except the ion abundance ratio criteria. An EMPC is a worst-case estimate of the concentration.
EPA	- Environmental Protection Agency.
LCS	- Laboratory Control Sample: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.
LCSD	- Laboratory Control Sample Duplicate: Refer to LCS.
LFB	- Laboratory Fortified Blank: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.
LOD	- Limit of Detection: This value represents the level to which a target analyte can reliably be detected for a specific analyte in a specific matrix by a specific method. The LOD includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)
LOQ	- Limit of Quantitation: The value at which an instrument can accurately measure an analyte at a specific concentration. The LOQ includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.) Limit of Quantitation: The value at which an instrument can accurately measure an analyte at a specific concentration. The LOQ includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)
MDL	- Method Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The MDL includes any adjustments from dilutions, concentrations or moisture content, where applicable.
MS	- Matrix Spike Sample: A sample prepared by adding a known mass of target analyte to a specified amount of matrix sample for which an independent estimate of target analyte concentration is available. For Method 332.0, the spike recovery is calculated using the native concentration, including estimated values.
MSD	- Matrix Spike Sample Duplicate: Refer to MS.
NA	- Not Applicable.
NC	- Not Calculated: Term is utilized when one or more of the results utilized in the calculation are non-detect at the parameter's reporting unit.
NDPA/DPA	- N-Nitrosodiphenylamine/Diphenylamine.
NI	- Not Ignitable.
NP	- Non-Plastic: Term is utilized for the analysis of Atterberg Limits in soil.
NR	- No Results: Term is utilized when 'No Target Compounds Requested' is reported for the analysis of Volatile or Semivolatile Organic TIC only requests.
RL	- Reporting Limit: The value at which an instrument can accurately measure an analyte at a specific concentration. The RL includes any adjustments from dilutions, concentrations or moisture content, where applicable.
RPD	- Relative Percent Difference: The results from matrix and/or matrix spike duplicates are primarily designed to assess the precision of analytical results in a given matrix and are expressed as relative percent difference (RPD). Values which are less than five times the reporting limit for any individual parameter are evaluated by utilizing the absolute difference between the values; although the RPD value will be provided in the report.
SRM	- Standard Reference Material: A reference sample of a known or certified value that is of the same or similar matrix as the associated field samples.
STLP	- Semi-dynamic Tank Leaching Procedure per EPA Method 1315.
TEF	- Toxic Equivalency Factors: The values assigned to each dioxin and furan to evaluate their toxicity relative to 2,3,7,8-TCDD.
TEQ	- Toxic Equivalent: The measure of a sample's toxicity derived by multiplying each dioxin and furan by its corresponding TEF and then summing the resulting values.
TIC	- Tentatively Identified Compound: A compound that has been identified to be present and is not part of the target compound list (TCL) for the method and/or program. All TICs are qualitatively identified and reported as estimated concentrations.

Report Format: Data Usability Report



Project Name: FESL
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Footnotes

- 1 - The reference for this analyte should be considered modified since this analyte is absent from the target analyte list of the original method.

Terms

Analytical Method: Both the document from which the method originates and the analytical reference method. (Example: EPA 8260B is shown as 1,8260B.) The codes for the reference method documents are provided in the References section of the Addendum.

Difference: With respect to Total Oxidizable Precursor (TOP) Assay analysis, the difference is defined as the Post-Treatment value minus the Pre-Treatment value.

Final pH: As it pertains to Sample Receipt & Container Information section of the report, Final pH reflects pH of container determined after adjustment at the laboratory, if applicable. If no adjustment required, value reflects Initial pH.

Frozen Date/Time: With respect to Volatile Organics in soil, Frozen Date/Time reflects the date/time at which associated Reagent Water-preserved vials were initially frozen. Note: If frozen date/time is beyond 48 hours from sample collection, value will be reflected in 'bold'.

Initial pH: As it pertains to Sample Receipt & Container Information section of the report, Initial pH reflects pH of container determined upon receipt, if applicable.

PAH Total: With respect to Alkylated PAH analyses, the 'PAHs, Total' result is defined as the summation of results for all or a subset of the following compounds: Naphthalene, C1-C4 Naphthalenes, 2-Methylnaphthalene, 1-Methylnaphthalene, Biphenyl, Acenaphthylene, Acenaphthene, Fluorene, C1-C3 Fluorenes, Phenanthrene, C1-C4 Phenanthrenes/Anthracenes, Anthracene, Fluoranthene, Pyrene, C1-C4 Fluoranthenes/Pyrenes, Benz(a)anthracene, Chrysene, C1-C4 Chrysenes, Benzo(b)fluoranthene, Benzo(j)+(k)fluoranthene, Benzo(e)pyrene, Benzo(a)pyrene, Perylene, Indeno(1,2,3-cd)pyrene, Dibenz(ah)+(ac)anthracene, Benzo(g,h,i)perylene. If a 'Total' result is requested, the results of its individual components will also be reported.

PFAS Total: With respect to PFAS analyses, the 'PFAS, Total (5)' result is defined as the summation of results for: PFHpA, PFHxS, PFOA, PFNA and PFOS. In addition, the 'PFAS, Total (6)' result is defined as the summation of results at or above the RL for: PFHpA, PFHxS, PFOA, PFNA, PFDA and PFOS. (Note: 'PFAS, Total (6)' is applicable to MassDEP DW compliance analysis only.). If a 'Total' result is requested, the results of its individual components will also be reported.

The target compound Chlordane (CAS No. 57-74-9) is reported for GC ECD analyses. Per EPA, this compound "refers to a mixture of chlordane isomers, other chlorinated hydrocarbons and numerous other components." (Reference: USEPA Toxicological Review of Chlordane, In Support of Summary Information on the Integrated Risk Information System (IRIS), December 1997.)

Total: With respect to Organic analyses, a 'Total' result is defined as the summation of results for individual isomers or Aroclors. If a 'Total' result is requested, the results of its individual components will also be reported. This is applicable to 'Total' results for methods 8260, 8081 and 8082.

Data Qualifiers

- A** - Spectra identified as "Aldol Condensates" are byproducts of the extraction/concentration procedures when acetone is introduced in the process.
- B** - The analyte was detected above the reporting limit in the associated method blank. Flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For MCP-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For DOD-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank AND the analyte was detected above one-half the reporting limit (or above the reporting limit for common lab contaminants) in the associated method blank. For NJ-Air-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte above the reporting limit. For NJ-related projects (excluding Air), flag only applies to associated field samples that have detectable concentrations of the analyte, which was detected above the reporting limit in the associated method blank or above five times the reporting limit for common lab contaminants (Phthalates, Acetone, Methylene Chloride, 2-Butanone).
- C** - Co-elution: The target analyte co-elutes with a known lab standard (i.e. surrogate, internal standards, etc.) for co-extracted analyses.
- D** - Concentration of analyte was quantified from diluted analysis. Flag only applies to field samples that have detectable concentrations of the analyte.
- E** - Concentration of analyte exceeds the range of the calibration curve and/or linear range of the instrument.
- F** - The ratio of quantifier ion response to qualifier ion response falls outside of the laboratory criteria. Results are considered to be an estimated maximum concentration.
- G** - The concentration may be biased high due to matrix interferences (i.e. co-elution) with non-target compound(s). The result should be considered estimated.
- H** - The analysis of pH was performed beyond the regulatory-required holding time of 15 minutes from the time of sample collection.
- I** - The lower value for the two columns has been reported due to obvious interference.
- J** - Estimated value. This represents an estimated concentration for Tentatively Identified Compounds (TICs).
- M** - Reporting Limit (RL) exceeds the MCP CAM Reporting Limit for this analyte.
- ND** - Not detected at the reporting limit (RL) for the sample.
- NJ** - Presumptive evidence of compound. This represents an estimated concentration for Tentatively Identified Compounds (TICs), where

Report Format: Data Usability Report



Project Name: FESL
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Data Qualifiers

the identification is based on a mass spectral library search.

- P** - The RPD between the results for the two columns exceeds the method-specified criteria.
- Q** - The quality control sample exceeds the associated acceptance criteria. For DOD-related projects, LCS and/or Continuing Calibration Standard exceedences are also qualified on all associated sample results. Note: This flag is not applicable for matrix spike recoveries when the sample concentration is greater than 4x the spike added or for batch duplicate RPD when the sample concentrations are less than 5x the RL. (Metals only.)
- R** - Analytical results are from sample re-analysis.
- RE** - Analytical results are from sample re-extraction.
- S** - Analytical results are from modified screening analysis.

Project Name: FESL
Project Number: 20029

Lab Number: L2056972
Report Date: 01/06/21

REFERENCES

- 1 Test Methods for Evaluating Solid Waste: Physical/Chemical Methods. EPA SW-846. Third Edition. Updates I - VI, 2018.
- 117 Technical Guidance for the Natural Attenuation Indicators: Methane, Ethane, and Ethene, EPA-NE, Revision 1, February 21, 2002 and Sample Preparation & Calculations for Dissolved Gas Analysis in Water Samples using a GC Headspace Equilibration Technique, EPA RSKSOP-175, Revision 2, May 2004.
- 121 Standard Methods for the Examination of Water and Wastewater. APHA-AWWA-WEF. Standard Methods Online.

LIMITATION OF LIABILITIES

Alpha Analytical performs services with reasonable care and diligence normal to the analytical testing laboratory industry. In the event of an error, the sole and exclusive responsibility of Alpha Analytical shall be to re-perform the work at it's own expense. In no event shall Alpha Analytical be held liable for any incidental, consequential or special damages, including but not limited to, damages in any way connected with the use of, interpretation of, information or analysis provided by Alpha Analytical.

We strongly urge our clients to comply with EPA protocol regarding sample volume, preservation, cooling, containers, sampling procedures, holding time and splitting of samples in the field.



Certification Information

The following analytes are not included in our Primary NELAP Scope of Accreditation:

Westborough Facility

EPA 624/624.1: m/p-xylene, o-xylene, Naphthalene

EPA 8260C: NPW: 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene, Azobenzene; SCM: Iodomethane (methyl iodide), 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene.

EPA 8270D: NPW: Dimethylnaphthalene, 1,4-Diphenylhydrazine; SCM: Dimethylnaphthalene, 1,4-Diphenylhydrazine.

SM4500: NPW: Amenable Cyanide; SCM: Total Phosphorus, TKN, NO₂, NO₃.

Mansfield Facility

SM 2540D: TSS

EPA 8082A: NPW: PCB: 1, 5, 31, 87, 101, 110, 141, 151, 153, 180, 183, 187.

EPA TO-15: Halothane, 2,4,4-Trimethyl-2-pentene, 2,4,4-Trimethyl-1-pentene, Thiophene, 2-Methylthiophene,

3-Methylthiophene, 2-Ethylthiophene, 1,2,3-Trimethylbenzene, Indan, Indene, 1,2,4,5-Tetramethylbenzene, Benzothiophene, 1-Methylnaphthalene.

EPA TO-12 Non-methane organics

EPA 3C Fixed gases

Biological Tissue Matrix: EPA 3050B

The following analytes are included in our Massachusetts DEP Scope of Accreditation

Westborough Facility:

Drinking Water

EPA 300.0: Chloride, Nitrate-N, Fluoride, Sulfate; **EPA 353.2:** Nitrate-N, Nitrite-N; **SM4500NO3-F:** Nitrate-N, Nitrite-N; **SM4500F-C, SM4500CN-CE,**

EPA 180.1, SM2130B, SM4500CI-D, SM2320B, SM2540C, SM4500H-B, SM4500NO2-B

EPA 332: Perchlorate; **EPA 524.2:** THMs and VOCs; **EPA 504.1:** EDB, DBCP.

Microbiology: SM9215B; SM9223-P/A, SM9223B-Colilert-QT, SM9222D.

Non-Potable Water

SM4500H,B, EPA 120.1, SM2510B, SM2540C, SM2320B, SM4500CL-E, SM4500F-BC, SM4500NH3-BH: Ammonia-N and Kjeldahl-N, **EPA 350.1:**

Ammonia-N, **LACHAT 10-107-06-1-B:** Ammonia-N, **EPA 351.1, SM4500NO3-F, EPA 353.2:** Nitrate-N, **SM4500P-E, SM4500P-B, E, SM4500SO4-E, SM5220D, EPA 410.4, SM5210B, SM5310C, SM4500CL-D, EPA 1664, EPA 420.1, SM4500-CN-CE, SM2540D, EPA 300:** Chloride, Sulfate, Nitrate.

EPA 624.1: Volatile Halocarbons & Aromatics,

EPA 608.3: Chlordane, Toxaphene, Aldrin, alpha-BHC, beta-BHC, gamma-BHC, delta-BHC, Dieldrin, DDD, DDE, DDT, Endosulfan I, Endosulfan II, Endosulfan sulfate, Endrin, Endrin Aldehyde, Heptachlor, Heptachlor Epoxide, PCBs

EPA 625.1: SVOC (Acid/Base/Neutral Extractables), **EPA 600/4-81-045:** PCB-Oil.

Microbiology: SM9223B-Colilert-QT; Enterolert-QT, SM9221E, EPA 1600, EPA 1603.

Mansfield Facility:

Drinking Water

EPA 200.7: Al, Ba, Cd, Cr, Cu, Fe, Mn, Ni, Na, Ag, Ca, Zn. **EPA 200.8:** Al, Sb, As, Ba, Be, Cd, Cr, Cu, Pb, Mn, Ni, Se, Ag, TL, Zn. **EPA 245.1** Hg.

EPA 522.

Non-Potable Water

EPA 200.7: Al, Sb, As, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Mg, Mn, Mo, Ni, K, Se, Ag, Na, Sr, TL, Ti, V, Zn.

EPA 200.8: Al, Sb, As, Be, Cd, Cr, Cu, Fe, Pb, Mn, Ni, K, Se, Ag, Na, TL, Zn.

EPA 245.1 Hg.

SM2340B

For a complete listing of analytes and methods, please contact your Alpha Project Manager.



ANALYTICAL REPORT

Lab Number:	L2057677
Client:	XDD Environmental Mary Scudieri 22 Marin Way Unit 3 Stratham, NH 03885
ATTN:	Laurel Crawford
Phone:	(603) 778-1100
Project Name:	FESL
Project Number:	20029
Report Date:	01/05/21

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Certifications & Approvals: MA (M-MA086), NH NELAP (2064), CT (PH-0574), IL (200077), ME (MA00086), MD (348), NJ (MA935), NY (11148), NC (25700/666), PA (68-03671), RI (LAO00065), TX (T104704476), VT (VT-0935), VA (460195), USDA (Permit #P330-17-00196).

Eight Walkup Drive, Westborough, MA 01581-1019
508-898-9220 (Fax) 508-898-9193 800-624-9220 - www.alphalab.com



Project Name: FESL
Project Number: 20029

Lab Number: L2057677
Report Date: 01/05/21

Alpha Sample ID	Client ID	Matrix	Sample Location	Collection Date/Time	Receive Date
L2057677-01	FLOW 8 FEET	WATER	ROCHESTER, NY	12/24/20 16:30	12/28/20
L2057677-02	TARGET 8 FEET	WATER	ROCHESTER, NY	12/24/20 16:35	12/28/20
L2057677-03	CTRL 8 FEET	WATER	ROCHESTER, NY	12/24/20 16:40	12/28/20

Project Name: FESL
Project Number: 20029

Lab Number: L2057677
Report Date: 01/05/21

Case Narrative

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

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

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

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

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

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

Project Name: FESL
Project Number: 20029

Lab Number: L2057677
Report Date: 01/05/21


Case Narrative (continued)

Report Submission

All non-detect (ND) or estimated concentrations (J-qualified) have been quantitated to the limit noted in the MDL column.

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

Authorized Signature:

 Kelly Stenstrom

Title: Technical Director/Representative

Date: 01/05/21

ORGANICS

VOLATILES

Project Name: FESL
Project Number: 20029

Lab Number: L2057677
Report Date: 01/05/21

SAMPLE RESULTS

Lab ID: L2057677-01 D
 Client ID: FLOW 8 FEET
 Sample Location: ROCHESTER, NY

Date Collected: 12/24/20 16:30
 Date Received: 12/28/20
 Field Prep: Not Specified

Sample Depth:

Matrix: Water
 Analytical Method: 1,8260C
 Analytical Date: 01/04/21 12:08
 Analyst: AJK

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methylene chloride	ND		ug/l	6.2	1.8	2.5
1,1-Dichloroethane	470		ug/l	6.2	1.8	2.5
Chloroform	ND		ug/l	6.2	1.8	2.5
Carbon tetrachloride	ND		ug/l	1.2	0.34	2.5
1,2-Dichloropropane	ND		ug/l	2.5	0.34	2.5
Dibromochloromethane	ND		ug/l	1.2	0.37	2.5
1,1,2-Trichloroethane	ND		ug/l	3.8	1.2	2.5
Tetrachloroethene	41		ug/l	1.2	0.45	2.5
Chlorobenzene	ND		ug/l	6.2	1.8	2.5
Trichlorofluoromethane	ND		ug/l	6.2	1.8	2.5
1,2-Dichloroethane	ND		ug/l	1.2	0.33	2.5
1,1,1-Trichloroethane	ND		ug/l	6.2	1.8	2.5
Bromodichloromethane	ND		ug/l	1.2	0.48	2.5
trans-1,3-Dichloropropene	ND		ug/l	1.2	0.41	2.5
cis-1,3-Dichloropropene	ND		ug/l	1.2	0.36	2.5
1,3-Dichloropropene, Total	ND		ug/l	1.2	0.36	2.5
1,1-Dichloropropene	ND		ug/l	6.2	1.8	2.5
Bromoform	ND		ug/l	5.0	1.6	2.5
1,1,1,2,2-Tetrachloroethane	ND		ug/l	1.2	0.42	2.5
Benzene	2.5		ug/l	1.2	0.40	2.5
Toluene	2.8	J	ug/l	6.2	1.8	2.5
Ethylbenzene	ND		ug/l	6.2	1.8	2.5
Chloromethane	ND		ug/l	6.2	1.8	2.5
Bromomethane	ND		ug/l	6.2	1.8	2.5
Vinyl chloride	28		ug/l	2.5	0.18	2.5
Chloroethane	21		ug/l	6.2	1.8	2.5
1,1-Dichloroethene	ND		ug/l	1.2	0.42	2.5
trans-1,2-Dichloroethene	ND		ug/l	6.2	1.8	2.5

Project Name: FESL
Project Number: 20029

Lab Number: L2057677
Report Date: 01/05/21

SAMPLE RESULTS

Lab ID: L2057677-01 D
 Client ID: FLOW 8 FEET
 Sample Location: ROCHESTER, NY

Date Collected: 12/24/20 16:30
 Date Received: 12/28/20
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Trichloroethene	4.1		ug/l	1.2	0.44	2.5
1,2-Dichlorobenzene	ND		ug/l	6.2	1.8	2.5
1,3-Dichlorobenzene	ND		ug/l	6.2	1.8	2.5
1,4-Dichlorobenzene	ND		ug/l	6.2	1.8	2.5
Methyl tert butyl ether	ND		ug/l	6.2	1.8	2.5
p/m-Xylene	5.5	J	ug/l	6.2	1.8	2.5
o-Xylene	2.0	J	ug/l	6.2	1.8	2.5
Xylenes, Total	7.5	J	ug/l	6.2	1.8	2.5
cis-1,2-Dichloroethene	180		ug/l	6.2	1.8	2.5
1,2-Dichloroethene, Total	180		ug/l	6.2	1.8	2.5
Dibromomethane	ND		ug/l	12	2.5	2.5
1,2,3-Trichloropropane	ND		ug/l	6.2	1.8	2.5
Acrylonitrile	ND		ug/l	12	3.8	2.5
Styrene	ND		ug/l	6.2	1.8	2.5
Dichlorodifluoromethane	3.5	J	ug/l	12	2.5	2.5
Acetone	27		ug/l	12	3.6	2.5
Carbon disulfide	ND		ug/l	12	2.5	2.5
2-Butanone	ND		ug/l	12	4.8	2.5
Vinyl acetate	ND		ug/l	12	2.5	2.5
4-Methyl-2-pentanone	ND		ug/l	12	2.5	2.5
2-Hexanone	ND		ug/l	12	2.5	2.5
Bromochloromethane	ND		ug/l	6.2	1.8	2.5
2,2-Dichloropropane	ND		ug/l	6.2	1.8	2.5
1,2-Dibromoethane	ND		ug/l	5.0	1.6	2.5
1,3-Dichloropropane	ND		ug/l	6.2	1.8	2.5
1,1,1,2-Tetrachloroethane	ND		ug/l	6.2	1.8	2.5
Bromobenzene	ND		ug/l	6.2	1.8	2.5
n-Butylbenzene	ND		ug/l	6.2	1.8	2.5
sec-Butylbenzene	ND		ug/l	6.2	1.8	2.5
tert-Butylbenzene	ND		ug/l	6.2	1.8	2.5
o-Chlorotoluene	ND		ug/l	6.2	1.8	2.5
p-Chlorotoluene	ND		ug/l	6.2	1.8	2.5
1,2-Dibromo-3-chloropropane	ND		ug/l	6.2	1.8	2.5
Hexachlorobutadiene	ND		ug/l	6.2	1.8	2.5
Isopropylbenzene	ND		ug/l	6.2	1.8	2.5
p-Isopropyltoluene	ND		ug/l	6.2	1.8	2.5
Naphthalene	ND		ug/l	6.2	1.8	2.5

Project Name: FESL
Project Number: 20029

Lab Number: L2057677
Report Date: 01/05/21

SAMPLE RESULTS

Lab ID: L2057677-01 D
 Client ID: FLOW 8 FEET
 Sample Location: ROCHESTER, NY

Date Collected: 12/24/20 16:30
 Date Received: 12/28/20
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
n-Propylbenzene	ND		ug/l	6.2	1.8	2.5
1,2,3-Trichlorobenzene	ND		ug/l	6.2	1.8	2.5
1,2,4-Trichlorobenzene	ND		ug/l	6.2	1.8	2.5
1,3,5-Trimethylbenzene	2.4	J	ug/l	6.2	1.8	2.5
1,2,4-Trimethylbenzene	3.4	J	ug/l	6.2	1.8	2.5
1,4-Dioxane	180	J	ug/l	620	150	2.5
Freon-113	ND		ug/l	6.2	1.8	2.5
p-Diethylbenzene	ND		ug/l	5.0	1.8	2.5
p-Ethyltoluene	2.0	J	ug/l	5.0	1.8	2.5
1,2,4,5-Tetramethylbenzene	ND		ug/l	5.0	1.4	2.5
Ethyl ether	8.6		ug/l	6.2	1.8	2.5
trans-1,4-Dichloro-2-butene	ND		ug/l	6.2	1.8	2.5

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	105		70-130
Toluene-d8	101		70-130
4-Bromofluorobenzene	110		70-130
Dibromofluoromethane	100		70-130

Project Name: FESL
Project Number: 20029

Lab Number: L2057677
Report Date: 01/05/21

SAMPLE RESULTS

Lab ID: L2057677-02 D
 Client ID: TARGET 8 FEET
 Sample Location: ROCHESTER, NY

Date Collected: 12/24/20 16:35
 Date Received: 12/28/20
 Field Prep: Not Specified

Sample Depth:

Matrix: Water
 Analytical Method: 1,8260C
 Analytical Date: 01/04/21 12:29
 Analyst: AJK

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methylene chloride	ND		ug/l	6.2	1.8	2.5
1,1-Dichloroethane	350		ug/l	6.2	1.8	2.5
Chloroform	ND		ug/l	6.2	1.8	2.5
Carbon tetrachloride	ND		ug/l	1.2	0.34	2.5
1,2-Dichloropropane	ND		ug/l	2.5	0.34	2.5
Dibromochloromethane	ND		ug/l	1.2	0.37	2.5
1,1,2-Trichloroethane	ND		ug/l	3.8	1.2	2.5
Tetrachloroethene	ND		ug/l	1.2	0.45	2.5
Chlorobenzene	ND		ug/l	6.2	1.8	2.5
Trichlorofluoromethane	ND		ug/l	6.2	1.8	2.5
1,2-Dichloroethane	ND		ug/l	1.2	0.33	2.5
1,1,1-Trichloroethane	ND		ug/l	6.2	1.8	2.5
Bromodichloromethane	ND		ug/l	1.2	0.48	2.5
trans-1,3-Dichloropropene	ND		ug/l	1.2	0.41	2.5
cis-1,3-Dichloropropene	ND		ug/l	1.2	0.36	2.5
1,3-Dichloropropene, Total	ND		ug/l	1.2	0.36	2.5
1,1-Dichloropropene	ND		ug/l	6.2	1.8	2.5
Bromoform	ND		ug/l	5.0	1.6	2.5
1,1,1,2,2-Tetrachloroethane	ND		ug/l	1.2	0.42	2.5
Benzene	3.2		ug/l	1.2	0.40	2.5
Toluene	3.2	J	ug/l	6.2	1.8	2.5
Ethylbenzene	ND		ug/l	6.2	1.8	2.5
Chloromethane	ND		ug/l	6.2	1.8	2.5
Bromomethane	ND		ug/l	6.2	1.8	2.5
Vinyl chloride	2.3	J	ug/l	2.5	0.18	2.5
Chloroethane	20		ug/l	6.2	1.8	2.5
1,1-Dichloroethene	ND		ug/l	1.2	0.42	2.5
trans-1,2-Dichloroethene	ND		ug/l	6.2	1.8	2.5

Project Name: FESL
Project Number: 20029

Lab Number: L2057677
Report Date: 01/05/21

SAMPLE RESULTS

Lab ID: L2057677-02 D
 Client ID: TARGET 8 FEET
 Sample Location: ROCHESTER, NY

Date Collected: 12/24/20 16:35
 Date Received: 12/28/20
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Trichloroethene	ND		ug/l	1.2	0.44	2.5
1,2-Dichlorobenzene	ND		ug/l	6.2	1.8	2.5
1,3-Dichlorobenzene	ND		ug/l	6.2	1.8	2.5
1,4-Dichlorobenzene	ND		ug/l	6.2	1.8	2.5
Methyl tert butyl ether	ND		ug/l	6.2	1.8	2.5
p/m-Xylene	5.6	J	ug/l	6.2	1.8	2.5
o-Xylene	2.2	J	ug/l	6.2	1.8	2.5
Xylenes, Total	7.8	J	ug/l	6.2	1.8	2.5
cis-1,2-Dichloroethene	26		ug/l	6.2	1.8	2.5
1,2-Dichloroethene, Total	26		ug/l	6.2	1.8	2.5
Dibromomethane	ND		ug/l	12	2.5	2.5
1,2,3-Trichloropropane	ND		ug/l	6.2	1.8	2.5
Acrylonitrile	ND		ug/l	12	3.8	2.5
Styrene	ND		ug/l	6.2	1.8	2.5
Dichlorodifluoromethane	ND		ug/l	12	2.5	2.5
Acetone	26		ug/l	12	3.6	2.5
Carbon disulfide	ND		ug/l	12	2.5	2.5
2-Butanone	ND		ug/l	12	4.8	2.5
Vinyl acetate	ND		ug/l	12	2.5	2.5
4-Methyl-2-pentanone	ND		ug/l	12	2.5	2.5
2-Hexanone	ND		ug/l	12	2.5	2.5
Bromochloromethane	ND		ug/l	6.2	1.8	2.5
2,2-Dichloropropane	ND		ug/l	6.2	1.8	2.5
1,2-Dibromoethane	ND		ug/l	5.0	1.6	2.5
1,3-Dichloropropane	ND		ug/l	6.2	1.8	2.5
1,1,1,2-Tetrachloroethane	ND		ug/l	6.2	1.8	2.5
Bromobenzene	ND		ug/l	6.2	1.8	2.5
n-Butylbenzene	ND		ug/l	6.2	1.8	2.5
sec-Butylbenzene	ND		ug/l	6.2	1.8	2.5
tert-Butylbenzene	ND		ug/l	6.2	1.8	2.5
o-Chlorotoluene	ND		ug/l	6.2	1.8	2.5
p-Chlorotoluene	ND		ug/l	6.2	1.8	2.5
1,2-Dibromo-3-chloropropane	ND		ug/l	6.2	1.8	2.5
Hexachlorobutadiene	ND		ug/l	6.2	1.8	2.5
Isopropylbenzene	ND		ug/l	6.2	1.8	2.5
p-Isopropyltoluene	ND		ug/l	6.2	1.8	2.5
Naphthalene	ND		ug/l	6.2	1.8	2.5

Project Name: FESL
Project Number: 20029

Lab Number: L2057677
Report Date: 01/05/21

SAMPLE RESULTS

Lab ID: L2057677-02 D
 Client ID: TARGET 8 FEET
 Sample Location: ROCHESTER, NY

Date Collected: 12/24/20 16:35
 Date Received: 12/28/20
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
n-Propylbenzene	ND		ug/l	6.2	1.8	2.5
1,2,3-Trichlorobenzene	ND		ug/l	6.2	1.8	2.5
1,2,4-Trichlorobenzene	ND		ug/l	6.2	1.8	2.5
1,3,5-Trimethylbenzene	2.9	J	ug/l	6.2	1.8	2.5
1,2,4-Trimethylbenzene	4.0	J	ug/l	6.2	1.8	2.5
1,4-Dioxane	180	J	ug/l	620	150	2.5
Freon-113	ND		ug/l	6.2	1.8	2.5
p-Diethylbenzene	ND		ug/l	5.0	1.8	2.5
p-Ethyltoluene	2.7	J	ug/l	5.0	1.8	2.5
1,2,4,5-Tetramethylbenzene	ND		ug/l	5.0	1.4	2.5
Ethyl ether	7.8		ug/l	6.2	1.8	2.5
trans-1,4-Dichloro-2-butene	ND		ug/l	6.2	1.8	2.5

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	117		70-130
Toluene-d8	103		70-130
4-Bromofluorobenzene	111		70-130
Dibromofluoromethane	101		70-130

Project Name: FESL
Project Number: 20029

Lab Number: L2057677
Report Date: 01/05/21

SAMPLE RESULTS

Lab ID: L2057677-03 D
 Client ID: CTRL 8 FEET
 Sample Location: ROCHESTER, NY

Date Collected: 12/24/20 16:40
 Date Received: 12/28/20
 Field Prep: Not Specified

Sample Depth:

Matrix: Water
 Analytical Method: 1,8260C
 Analytical Date: 01/04/21 12:51
 Analyst: AJK

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methylene chloride	ND		ug/l	6.2	1.8	2.5
1,1-Dichloroethane	450		ug/l	6.2	1.8	2.5
Chloroform	ND		ug/l	6.2	1.8	2.5
Carbon tetrachloride	ND		ug/l	1.2	0.34	2.5
1,2-Dichloropropane	ND		ug/l	2.5	0.34	2.5
Dibromochloromethane	ND		ug/l	1.2	0.37	2.5
1,1,2-Trichloroethane	ND		ug/l	3.8	1.2	2.5
Tetrachloroethene	ND		ug/l	1.2	0.45	2.5
Chlorobenzene	ND		ug/l	6.2	1.8	2.5
Trichlorofluoromethane	ND		ug/l	6.2	1.8	2.5
1,2-Dichloroethane	ND		ug/l	1.2	0.33	2.5
1,1,1-Trichloroethane	140		ug/l	6.2	1.8	2.5
Bromodichloromethane	ND		ug/l	1.2	0.48	2.5
trans-1,3-Dichloropropene	ND		ug/l	1.2	0.41	2.5
cis-1,3-Dichloropropene	ND		ug/l	1.2	0.36	2.5
1,3-Dichloropropene, Total	ND		ug/l	1.2	0.36	2.5
1,1-Dichloropropene	ND		ug/l	6.2	1.8	2.5
Bromoform	ND		ug/l	5.0	1.6	2.5
1,1,1,2,2-Tetrachloroethane	ND		ug/l	1.2	0.42	2.5
Benzene	1.3		ug/l	1.2	0.40	2.5
Toluene	ND		ug/l	6.2	1.8	2.5
Ethylbenzene	ND		ug/l	6.2	1.8	2.5
Chloromethane	ND		ug/l	6.2	1.8	2.5
Bromomethane	ND		ug/l	6.2	1.8	2.5
Vinyl chloride	180		ug/l	2.5	0.18	2.5
Chloroethane	17		ug/l	6.2	1.8	2.5
1,1-Dichloroethene	3.1		ug/l	1.2	0.42	2.5
trans-1,2-Dichloroethene	3.6	J	ug/l	6.2	1.8	2.5

Project Name: FESL
Project Number: 20029

Lab Number: L2057677
Report Date: 01/05/21

SAMPLE RESULTS

Lab ID: L2057677-03 D
 Client ID: CTRL 8 FEET
 Sample Location: ROCHESTER, NY

Date Collected: 12/24/20 16:40
 Date Received: 12/28/20
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Trichloroethene	14		ug/l	1.2	0.44	2.5
1,2-Dichlorobenzene	ND		ug/l	6.2	1.8	2.5
1,3-Dichlorobenzene	ND		ug/l	6.2	1.8	2.5
1,4-Dichlorobenzene	ND		ug/l	6.2	1.8	2.5
Methyl tert butyl ether	ND		ug/l	6.2	1.8	2.5
p/m-Xylene	ND		ug/l	6.2	1.8	2.5
o-Xylene	ND		ug/l	6.2	1.8	2.5
Xylenes, Total	ND		ug/l	6.2	1.8	2.5
cis-1,2-Dichloroethene	400		ug/l	6.2	1.8	2.5
1,2-Dichloroethene, Total	400	J	ug/l	6.2	1.8	2.5
Dibromomethane	ND		ug/l	12	2.5	2.5
1,2,3-Trichloropropane	ND		ug/l	6.2	1.8	2.5
Acrylonitrile	ND		ug/l	12	3.8	2.5
Styrene	ND		ug/l	6.2	1.8	2.5
Dichlorodifluoromethane	3.1	J	ug/l	12	2.5	2.5
Acetone	13		ug/l	12	3.6	2.5
Carbon disulfide	ND		ug/l	12	2.5	2.5
2-Butanone	ND		ug/l	12	4.8	2.5
Vinyl acetate	ND		ug/l	12	2.5	2.5
4-Methyl-2-pentanone	ND		ug/l	12	2.5	2.5
2-Hexanone	ND		ug/l	12	2.5	2.5
Bromochloromethane	ND		ug/l	6.2	1.8	2.5
2,2-Dichloropropane	ND		ug/l	6.2	1.8	2.5
1,2-Dibromoethane	ND		ug/l	5.0	1.6	2.5
1,3-Dichloropropane	ND		ug/l	6.2	1.8	2.5
1,1,1,2-Tetrachloroethane	ND		ug/l	6.2	1.8	2.5
Bromobenzene	ND		ug/l	6.2	1.8	2.5
n-Butylbenzene	ND		ug/l	6.2	1.8	2.5
sec-Butylbenzene	ND		ug/l	6.2	1.8	2.5
tert-Butylbenzene	ND		ug/l	6.2	1.8	2.5
o-Chlorotoluene	ND		ug/l	6.2	1.8	2.5
p-Chlorotoluene	ND		ug/l	6.2	1.8	2.5
1,2-Dibromo-3-chloropropane	ND		ug/l	6.2	1.8	2.5
Hexachlorobutadiene	ND		ug/l	6.2	1.8	2.5
Isopropylbenzene	ND		ug/l	6.2	1.8	2.5
p-Isopropyltoluene	ND		ug/l	6.2	1.8	2.5
Naphthalene	ND		ug/l	6.2	1.8	2.5

Project Name: FESL
Project Number: 20029

Lab Number: L2057677
Report Date: 01/05/21

SAMPLE RESULTS

Lab ID: L2057677-03 D
 Client ID: CTRL 8 FEET
 Sample Location: ROCHESTER, NY

Date Collected: 12/24/20 16:40
 Date Received: 12/28/20
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
n-Propylbenzene	ND		ug/l	6.2	1.8	2.5
1,2,3-Trichlorobenzene	ND		ug/l	6.2	1.8	2.5
1,2,4-Trichlorobenzene	ND		ug/l	6.2	1.8	2.5
1,3,5-Trimethylbenzene	ND		ug/l	6.2	1.8	2.5
1,2,4-Trimethylbenzene	ND		ug/l	6.2	1.8	2.5
1,4-Dioxane	160	J	ug/l	620	150	2.5
Freon-113	55		ug/l	6.2	1.8	2.5
p-Diethylbenzene	ND		ug/l	5.0	1.8	2.5
p-Ethyltoluene	ND		ug/l	5.0	1.8	2.5
1,2,4,5-Tetramethylbenzene	ND		ug/l	5.0	1.4	2.5
Ethyl ether	9.2		ug/l	6.2	1.8	2.5
trans-1,4-Dichloro-2-butene	ND		ug/l	6.2	1.8	2.5

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	109		70-130
Toluene-d8	102		70-130
4-Bromofluorobenzene	110		70-130
Dibromofluoromethane	102		70-130

Project Name: FESL
Project Number: 20029

Lab Number: L2057677
Report Date: 01/05/21

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260C
Analytical Date: 01/04/21 08:34
Analyst: PD

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 01-03 Batch: WG1451519-5					
Methylene chloride	ND		ug/l	2.5	0.70
1,1-Dichloroethane	ND		ug/l	2.5	0.70
Chloroform	ND		ug/l	2.5	0.70
Carbon tetrachloride	ND		ug/l	0.50	0.13
1,2-Dichloropropane	ND		ug/l	1.0	0.14
Dibromochloromethane	ND		ug/l	0.50	0.15
1,1,2-Trichloroethane	ND		ug/l	1.5	0.50
Tetrachloroethene	ND		ug/l	0.50	0.18
Chlorobenzene	ND		ug/l	2.5	0.70
Trichlorofluoromethane	ND		ug/l	2.5	0.70
1,2-Dichloroethane	ND		ug/l	0.50	0.13
1,1,1-Trichloroethane	ND		ug/l	2.5	0.70
Bromodichloromethane	ND		ug/l	0.50	0.19
trans-1,3-Dichloropropene	ND		ug/l	0.50	0.16
cis-1,3-Dichloropropene	ND		ug/l	0.50	0.14
1,3-Dichloropropene, Total	ND		ug/l	0.50	0.14
1,1-Dichloropropene	ND		ug/l	2.5	0.70
Bromoform	ND		ug/l	2.0	0.65
1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	0.17
Benzene	ND		ug/l	0.50	0.16
Toluene	ND		ug/l	2.5	0.70
Ethylbenzene	ND		ug/l	2.5	0.70
Chloromethane	ND		ug/l	2.5	0.70
Bromomethane	ND		ug/l	2.5	0.70
Vinyl chloride	ND		ug/l	1.0	0.07
Chloroethane	ND		ug/l	2.5	0.70
1,1-Dichloroethene	ND		ug/l	0.50	0.17
trans-1,2-Dichloroethene	ND		ug/l	2.5	0.70
Trichloroethene	ND		ug/l	0.50	0.18

Project Name: FESL
Project Number: 20029

Lab Number: L2057677
Report Date: 01/05/21

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260C
Analytical Date: 01/04/21 08:34
Analyst: PD

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 01-03 Batch: WG1451519-5					
1,2-Dichlorobenzene	ND		ug/l	2.5	0.70
1,3-Dichlorobenzene	ND		ug/l	2.5	0.70
1,4-Dichlorobenzene	ND		ug/l	2.5	0.70
Methyl tert butyl ether	ND		ug/l	2.5	0.70
p/m-Xylene	ND		ug/l	2.5	0.70
o-Xylene	ND		ug/l	2.5	0.70
Xylenes, Total	ND		ug/l	2.5	0.70
cis-1,2-Dichloroethene	ND		ug/l	2.5	0.70
1,2-Dichloroethene, Total	ND		ug/l	2.5	0.70
Dibromomethane	ND		ug/l	5.0	1.0
1,2,3-Trichloropropane	ND		ug/l	2.5	0.70
Acrylonitrile	ND		ug/l	5.0	1.5
Styrene	ND		ug/l	2.5	0.70
Dichlorodifluoromethane	ND		ug/l	5.0	1.0
Acetone	ND		ug/l	5.0	1.5
Carbon disulfide	ND		ug/l	5.0	1.0
2-Butanone	ND		ug/l	5.0	1.9
Vinyl acetate	ND		ug/l	5.0	1.0
4-Methyl-2-pentanone	ND		ug/l	5.0	1.0
2-Hexanone	ND		ug/l	5.0	1.0
Bromochloromethane	ND		ug/l	2.5	0.70
2,2-Dichloropropane	ND		ug/l	2.5	0.70
1,2-Dibromoethane	ND		ug/l	2.0	0.65
1,3-Dichloropropane	ND		ug/l	2.5	0.70
1,1,1,2-Tetrachloroethane	ND		ug/l	2.5	0.70
Bromobenzene	ND		ug/l	2.5	0.70
n-Butylbenzene	ND		ug/l	2.5	0.70
sec-Butylbenzene	ND		ug/l	2.5	0.70
tert-Butylbenzene	ND		ug/l	2.5	0.70

Project Name: FESL
Project Number: 20029

Lab Number: L2057677
Report Date: 01/05/21

**Method Blank Analysis
Batch Quality Control**

Analytical Method: 1,8260C
Analytical Date: 01/04/21 08:34
Analyst: PD

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 01-03 Batch: WG1451519-5					
o-Chlorotoluene	ND		ug/l	2.5	0.70
p-Chlorotoluene	ND		ug/l	2.5	0.70
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	0.70
Hexachlorobutadiene	ND		ug/l	2.5	0.70
Isopropylbenzene	ND		ug/l	2.5	0.70
p-Isopropyltoluene	ND		ug/l	2.5	0.70
Naphthalene	ND		ug/l	2.5	0.70
n-Propylbenzene	ND		ug/l	2.5	0.70
1,2,3-Trichlorobenzene	ND		ug/l	2.5	0.70
1,2,4-Trichlorobenzene	ND		ug/l	2.5	0.70
1,3,5-Trimethylbenzene	ND		ug/l	2.5	0.70
1,2,4-Trimethylbenzene	ND		ug/l	2.5	0.70
1,4-Dioxane	ND		ug/l	250	61.
Freon-113	ND		ug/l	2.5	0.70
p-Diethylbenzene	ND		ug/l	2.0	0.70
p-Ethyltoluene	ND		ug/l	2.0	0.70
1,2,4,5-Tetramethylbenzene	ND		ug/l	2.0	0.54
Ethyl ether	ND		ug/l	2.5	0.70
trans-1,4-Dichloro-2-butene	ND		ug/l	2.5	0.70

Surrogate	%Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	106		70-130
Toluene-d8	104		70-130
4-Bromofluorobenzene	113		70-130
Dibromofluoromethane	100		70-130

Lab Control Sample Analysis

Batch Quality Control

Project Name: FESL
Project Number: 20029

Lab Number: L2057677
Report Date: 01/05/21

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-03 Batch: WG1451519-3 WG1451519-4								
Methylene chloride	94		100		70-130	6		20
1,1-Dichloroethane	110		120		70-130	9		20
Chloroform	95		100		70-130	5		20
Carbon tetrachloride	91		98		63-132	7		20
1,2-Dichloropropane	100		110		70-130	10		20
Dibromochloromethane	92		100		63-130	8		20
1,1,2-Trichloroethane	91		100		70-130	9		20
Tetrachloroethene	94		97		70-130	3		20
Chlorobenzene	100		110		75-130	10		20
Trichlorofluoromethane	96		100		62-150	4		20
1,2-Dichloroethane	100		110		70-130	10		20
1,1,1-Trichloroethane	95		100		67-130	5		20
Bromodichloromethane	92		100		67-130	8		20
trans-1,3-Dichloropropene	89		98		70-130	10		20
cis-1,3-Dichloropropene	90		96		70-130	6		20
1,1-Dichloropropene	95		99		70-130	4		20
Bromoform	89		99		54-136	11		20
1,1,2,2-Tetrachloroethane	92		100		67-130	8		20
Benzene	96		100		70-130	4		20
Toluene	100		110		70-130	10		20
Ethylbenzene	110		110		70-130	0		20
Chloromethane	130		140	Q	64-130	7		20
Bromomethane	130		140	Q	39-139	7		20

Lab Control Sample Analysis

Batch Quality Control

Project Name: FESL
Project Number: 20029

Lab Number: L2057677
Report Date: 01/05/21

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-03 Batch: WG1451519-3 WG1451519-4								
Vinyl chloride	110		120		55-140	9		20
Chloroethane	120		140	Q	55-138	15		20
1,1-Dichloroethene	95		99		61-145	4		20
trans-1,2-Dichloroethene	100		110		70-130	10		20
Trichloroethene	97		100		70-130	3		20
1,2-Dichlorobenzene	100		110		70-130	10		20
1,3-Dichlorobenzene	110		110		70-130	0		20
1,4-Dichlorobenzene	100		110		70-130	10		20
Methyl tert butyl ether	91		98		63-130	7		20
p/m-Xylene	105		115		70-130	9		20
o-Xylene	110		110		70-130	0		20
cis-1,2-Dichloroethene	94		100		70-130	6		20
Dibromomethane	94		100		70-130	6		20
1,2,3-Trichloropropane	88		100		64-130	13		20
Acrylonitrile	110		110		70-130	0		20
Styrene	105		115		70-130	9		20
Dichlorodifluoromethane	110		110		36-147	0		20
Acetone	110		120		58-148	9		20
Carbon disulfide	93		97		51-130	4		20
2-Butanone	120		120		63-138	0		20
Vinyl acetate	110		110		70-130	0		20
4-Methyl-2-pentanone	93		110		59-130	17		20
2-Hexanone	90		100		57-130	11		20

Lab Control Sample Analysis

Batch Quality Control

Project Name: FESL
Project Number: 20029

Lab Number: L2057677
Report Date: 01/05/21

Parameter	LCS		LCSD		%Recovery Limits	RPD	Qual	RPD Limits
	%Recovery	Qual	%Recovery	Qual				
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-03 Batch: WG1451519-3 WG1451519-4								
Bromochloromethane	95		100		70-130	5		20
2,2-Dichloropropane	100		110		63-133	10		20
1,2-Dibromoethane	89		98		70-130	10		20
1,3-Dichloropropane	94		100		70-130	6		20
1,1,1,2-Tetrachloroethane	96		100		64-130	4		20
Bromobenzene	99		110		70-130	11		20
n-Butylbenzene	100		110		53-136	10		20
sec-Butylbenzene	100		110		70-130	10		20
tert-Butylbenzene	94		97		70-130	3		20
o-Chlorotoluene	120		120		70-130	0		20
p-Chlorotoluene	110		120		70-130	9		20
1,2-Dibromo-3-chloropropane	70		90		41-144	25	Q	20
Hexachlorobutadiene	82		86		63-130	5		20
Isopropylbenzene	110		120		70-130	9		20
p-Isopropyltoluene	110		110		70-130	0		20
Naphthalene	67	Q	77		70-130	14		20
n-Propylbenzene	110		120		69-130	9		20
1,2,3-Trichlorobenzene	69	Q	79		70-130	14		20
1,2,4-Trichlorobenzene	78		87		70-130	11		20
1,3,5-Trimethylbenzene	110		120		64-130	9		20
1,2,4-Trimethylbenzene	110		120		70-130	9		20
1,4-Dioxane	82		86		56-162	5		20
Freon-113	100		110		70-130	10		20

Lab Control Sample Analysis

Batch Quality Control

Project Name: FESL
Project Number: 20029

Lab Number: L2057677
Report Date: 01/05/21

Parameter	LCS		LCSD		%Recovery Limits	RPD	RPD	
	%Recovery	Qual	%Recovery	Qual			Qual	Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-03 Batch: WG1451519-3 WG1451519-4								
p-Diethylbenzene	110		110		70-130	0		20
p-Ethyltoluene	110		120		70-130	9		20
1,2,4,5-Tetramethylbenzene	98		100		70-130	2		20
Ethyl ether	92		110		59-134	18		20
trans-1,4-Dichloro-2-butene	100		120		70-130	18		20

Surrogate	LCS		LCSD		Acceptance Criteria
	%Recovery	Qual	%Recovery	Qual	
1,2-Dichloroethane-d4	104		99		70-130
Toluene-d8	104		102		70-130
4-Bromofluorobenzene	110		112		70-130
Dibromofluoromethane	100		99		70-130

Project Name: FESL**Lab Number:** L2057677**Project Number:** 20029**Report Date:** 01/05/21**Sample Receipt and Container Information**

Were project specific reporting limits specified?

YES

Cooler Information**Cooler** **Custody Seal**

A Absent

Container Information

Container ID	Container Type	Cooler	Initial pH	Final pH	Temp deg C	Pres	Seal	Frozen Date/Time	Analysis(*)
L2057677-01A	Vial HCl preserved	A	NA		2.4	Y	Absent		NYTCL-8260(14)
L2057677-01B	Vial HCl preserved	A	NA		2.4	Y	Absent		NYTCL-8260(14)
L2057677-02A	Vial HCl preserved	A	NA		2.4	Y	Absent		NYTCL-8260(14)
L2057677-02B	Vial HCl preserved	A	NA		2.4	Y	Absent		NYTCL-8260(14)
L2057677-03A	Vial HCl preserved	A	NA		2.4	Y	Absent		NYTCL-8260(14)
L2057677-03B	Vial HCl preserved	A	NA		2.4	Y	Absent		NYTCL-8260(14)

Project Name: FESL
Project Number: 20029

Lab Number: L2057677
Report Date: 01/05/21

GLOSSARY

Acronyms

DL	- Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the limit of quantitation (LOQ). The DL includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)
EDL	- Estimated Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The EDL includes any adjustments from dilutions, concentrations or moisture content, where applicable. The use of EDLs is specific to the analysis of PAHs using Solid-Phase Microextraction (SPME).
EMPC	- Estimated Maximum Possible Concentration: The concentration that results from the signal present at the retention time of an analyte when the ions meet all of the identification criteria except the ion abundance ratio criteria. An EMPC is a worst-case estimate of the concentration.
EPA	- Environmental Protection Agency.
LCS	- Laboratory Control Sample: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.
LCSD	- Laboratory Control Sample Duplicate: Refer to LCS.
LFB	- Laboratory Fortified Blank: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.
LOD	- Limit of Detection: This value represents the level to which a target analyte can reliably be detected for a specific analyte in a specific matrix by a specific method. The LOD includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)
LOQ	- Limit of Quantitation: The value at which an instrument can accurately measure an analyte at a specific concentration. The LOQ includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.) Limit of Quantitation: The value at which an instrument can accurately measure an analyte at a specific concentration. The LOQ includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)
MDL	- Method Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The MDL includes any adjustments from dilutions, concentrations or moisture content, where applicable.
MS	- Matrix Spike Sample: A sample prepared by adding a known mass of target analyte to a specified amount of matrix sample for which an independent estimate of target analyte concentration is available. For Method 332.0, the spike recovery is calculated using the native concentration, including estimated values.
MSD	- Matrix Spike Sample Duplicate: Refer to MS.
NA	- Not Applicable.
NC	- Not Calculated: Term is utilized when one or more of the results utilized in the calculation are non-detect at the parameter's reporting unit.
NDPA/DPA	- N-Nitrosodiphenylamine/Diphenylamine.
NI	- Not Ignitable.
NP	- Non-Plastic: Term is utilized for the analysis of Atterberg Limits in soil.
NR	- No Results: Term is utilized when 'No Target Compounds Requested' is reported for the analysis of Volatile or Semivolatile Organic TIC only requests.
RL	- Reporting Limit: The value at which an instrument can accurately measure an analyte at a specific concentration. The RL includes any adjustments from dilutions, concentrations or moisture content, where applicable.
RPD	- Relative Percent Difference: The results from matrix and/or matrix spike duplicates are primarily designed to assess the precision of analytical results in a given matrix and are expressed as relative percent difference (RPD). Values which are less than five times the reporting limit for any individual parameter are evaluated by utilizing the absolute difference between the values; although the RPD value will be provided in the report.
SRM	- Standard Reference Material: A reference sample of a known or certified value that is of the same or similar matrix as the associated field samples.
STLP	- Semi-dynamic Tank Leaching Procedure per EPA Method 1315.
TEF	- Toxic Equivalency Factors: The values assigned to each dioxin and furan to evaluate their toxicity relative to 2,3,7,8-TCDD.
TEQ	- Toxic Equivalent: The measure of a sample's toxicity derived by multiplying each dioxin and furan by its corresponding TEF and then summing the resulting values.
TIC	- Tentatively Identified Compound: A compound that has been identified to be present and is not part of the target compound list (TCL) for the method and/or program. All TICs are qualitatively identified and reported as estimated concentrations.

Report Format: DU Report with 'J' Qualifiers



Project Name: FESL
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Footnotes

- 1 - The reference for this analyte should be considered modified since this analyte is absent from the target analyte list of the original method.

Terms

Analytical Method: Both the document from which the method originates and the analytical reference method. (Example: EPA 8260B is shown as 1,8260B.) The codes for the reference method documents are provided in the References section of the Addendum.

Difference: With respect to Total Oxidizable Precursor (TOP) Assay analysis, the difference is defined as the Post-Treatment value minus the Pre-Treatment value.

Final pH: As it pertains to Sample Receipt & Container Information section of the report, Final pH reflects pH of container determined after adjustment at the laboratory, if applicable. If no adjustment required, value reflects Initial pH.

Frozen Date/Time: With respect to Volatile Organics in soil, Frozen Date/Time reflects the date/time at which associated Reagent Water-preserved vials were initially frozen. Note: If frozen date/time is beyond 48 hours from sample collection, value will be reflected in 'bold'.

Initial pH: As it pertains to Sample Receipt & Container Information section of the report, Initial pH reflects pH of container determined upon receipt, if applicable.

PAH Total: With respect to Alkylated PAH analyses, the 'PAHs, Total' result is defined as the summation of results for all or a subset of the following compounds: Naphthalene, C1-C4 Naphthalenes, 2-Methylnaphthalene, 1-Methylnaphthalene, Biphenyl, Acenaphthylene, Acenaphthene, Fluorene, C1-C3 Fluorenes, Phenanthrene, C1-C4 Phenanthrenes/Anthracenes, Anthracene, Fluoranthene, Pyrene, C1-C4 Fluoranthenes/Pyrenes, Benz(a)anthracene, Chrysene, C1-C4 Chrysenes, Benzo(b)fluoranthene, Benzo(j)+(k)fluoranthene, Benzo(e)pyrene, Benzo(a)pyrene, Perylene, Indeno(1,2,3-cd)pyrene, Dibenz(ah)+(ac)anthracene, Benzo(g,h,i)perylene. If a 'Total' result is requested, the results of its individual components will also be reported.

PFAS Total: With respect to PFAS analyses, the 'PFAS, Total (5)' result is defined as the summation of results for: PFHpA, PFHxS, PFOA, PFNA and PFOS. In addition, the 'PFAS, Total (6)' result is defined as the summation of results at or above the RL for: PFHpA, PFHxS, PFOA, PFNA, PFDA and PFOS. (Note: 'PFAS, Total (6)' is applicable to MassDEP DW compliance analysis only.). If a 'Total' result is requested, the results of its individual components will also be reported.

The target compound Chlordane (CAS No. 57-74-9) is reported for GC ECD analyses. Per EPA, this compound "refers to a mixture of chlordane isomers, other chlorinated hydrocarbons and numerous other components." (Reference: USEPA Toxicological Review of Chlordane, In Support of Summary Information on the Integrated Risk Information System (IRIS), December 1997.)

Total: With respect to Organic analyses, a 'Total' result is defined as the summation of results for individual isomers or Aroclors. If a 'Total' result is requested, the results of its individual components will also be reported. This is applicable to 'Total' results for methods 8260, 8081 and 8082.

Data Qualifiers

- A** - Spectra identified as "Aldol Condensates" are byproducts of the extraction/concentration procedures when acetone is introduced in the process.
- B** - The analyte was detected above the reporting limit in the associated method blank. Flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For MCP-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For DOD-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank AND the analyte was detected above one-half the reporting limit (or above the reporting limit for common lab contaminants) in the associated method blank. For NJ-Air-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte above the reporting limit. For NJ-related projects (excluding Air), flag only applies to associated field samples that have detectable concentrations of the analyte, which was detected above the reporting limit in the associated method blank or above five times the reporting limit for common lab contaminants (Phthalates, Acetone, Methylene Chloride, 2-Butanone).
- C** - Co-elution: The target analyte co-elutes with a known lab standard (i.e. surrogate, internal standards, etc.) for co-extracted analyses.
- D** - Concentration of analyte was quantified from diluted analysis. Flag only applies to field samples that have detectable concentrations of the analyte.
- E** - Concentration of analyte exceeds the range of the calibration curve and/or linear range of the instrument.
- F** - The ratio of quantifier ion response to qualifier ion response falls outside of the laboratory criteria. Results are considered to be an estimated maximum concentration.
- G** - The concentration may be biased high due to matrix interferences (i.e. co-elution) with non-target compound(s). The result should be considered estimated.
- H** - The analysis of pH was performed beyond the regulatory-required holding time of 15 minutes from the time of sample collection.
- I** - The lower value for the two columns has been reported due to obvious interference.
- J** - Estimated value. The Target analyte concentration is below the quantitation limit (RL), but above the Method Detection Limit (MDL) or Estimated Detection Limit (EDL) for SPME-related analyses. This represents an estimated concentration for Tentatively Identified Compounds (TICs).
- M** - Reporting Limit (RL) exceeds the MCP CAM Reporting Limit for this analyte.
- ND** - Not detected at the method detection limit (MDL) for the sample, or estimated detection limit (EDL) for SPME-related analyses.

Report Format: DU Report with 'J' Qualifiers



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Project Number: 20029

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Data Qualifiers

- NJ** - Presumptive evidence of compound. This represents an estimated concentration for Tentatively Identified Compounds (TICs), where the identification is based on a mass spectral library search.
- P** - The RPD between the results for the two columns exceeds the method-specified criteria.
- Q** - The quality control sample exceeds the associated acceptance criteria. For DOD-related projects, LCS and/or Continuing Calibration Standard exceedences are also qualified on all associated sample results. Note: This flag is not applicable for matrix spike recoveries when the sample concentration is greater than 4x the spike added or for batch duplicate RPD when the sample concentrations are less than 5x the RL. (Metals only.)
- R** - Analytical results are from sample re-analysis.
- RE** - Analytical results are from sample re-extraction.
- S** - Analytical results are from modified screening analysis.

Project Name: FESL
Project Number: 20029

Lab Number: L2057677
Report Date: 01/05/21

REFERENCES

- 1 Test Methods for Evaluating Solid Waste: Physical/Chemical Methods. EPA SW-846. Third Edition. Updates I - VI, 2018.

LIMITATION OF LIABILITIES

Alpha Analytical performs services with reasonable care and diligence normal to the analytical testing laboratory industry. In the event of an error, the sole and exclusive responsibility of Alpha Analytical shall be to re-perform the work at it's own expense. In no event shall Alpha Analytical be held liable for any incidental, consequential or special damages, including but not limited to, damages in any way connected with the use of, interpretation of, information or analysis provided by Alpha Analytical.

We strongly urge our clients to comply with EPA protocol regarding sample volume, preservation, cooling, containers, sampling procedures, holding time and splitting of samples in the field.



Certification Information

The following analytes are not included in our Primary NELAP Scope of Accreditation:

Westborough Facility

EPA 624/624.1: m/p-xylene, o-xylene, Naphthalene

EPA 8260C: NPW: 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene, Azobenzene; SCM: Iodomethane (methyl iodide), 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene.

EPA 8270D: NPW: Dimethylnaphthalene, 1,4-Diphenylhydrazine; SCM: Dimethylnaphthalene, 1,4-Diphenylhydrazine.

SM4500: NPW: Amenable Cyanide; SCM: Total Phosphorus, TKN, NO₂, NO₃.

Mansfield Facility

SM 2540D: TSS

EPA 8082A: NPW: PCB: 1, 5, 31, 87, 101, 110, 141, 151, 153, 180, 183, 187.

EPA TO-15: Halothane, 2,4,4-Trimethyl-2-pentene, 2,4,4-Trimethyl-1-pentene, Thiophene, 2-Methylthiophene, 3-Methylthiophene, 2-Ethylthiophene, 1,2,3-Trimethylbenzene, Indan, Indene, 1,2,4,5-Tetramethylbenzene, Benzothiophene, 1-Methylnaphthalene.

EPA TO-12 Non-methane organics

EPA 3C Fixed gases

Biological Tissue Matrix: EPA 3050B

The following analytes are included in our Massachusetts DEP Scope of Accreditation

Westborough Facility:

Drinking Water

EPA 300.0: Chloride, Nitrate-N, Fluoride, Sulfate; **EPA 353.2:** Nitrate-N, Nitrite-N; **SM4500NO3-F:** Nitrate-N, Nitrite-N; **SM4500F-C, SM4500CN-CE,**

EPA 180.1, SM2130B, SM4500CI-D, SM2320B, SM2540C, SM4500H-B, SM4500NO2-B

EPA 332: Perchlorate; **EPA 524.2:** THMs and VOCs; **EPA 504.1:** EDB, DBCP.

Microbiology: **SM9215B; SM9223-P/A, SM9223B-Colilert-QT, SM9222D.**

Non-Potable Water

SM4500H,B, EPA 120.1, SM2510B, SM2540C, SM2320B, SM4500CL-E, SM4500F-BC, SM4500NH3-BH: Ammonia-N and Kjeldahl-N, **EPA 350.1:** Ammonia-N, **LACHAT 10-107-06-1-B:** Ammonia-N, **EPA 351.1, SM4500NO3-F, EPA 353.2:** Nitrate-N, **SM4500P-E, SM4500P-B, E, SM4500SO4-E, SM5220D, EPA 410.4, SM5210B, SM5310C, SM4500CL-D, EPA 1664, EPA 420.1, SM4500-CN-CE, SM2540D, EPA 300:** Chloride, Sulfate, Nitrate.

EPA 624.1: Volatile Halocarbons & Aromatics,

EPA 608.3: Chlordane, Toxaphene, Aldrin, alpha-BHC, beta-BHC, gamma-BHC, delta-BHC, Dieldrin, DDD, DDE, DDT, Endosulfan I, Endosulfan II, Endosulfan sulfate, Endrin, Endrin Aldehyde, Heptachlor, Heptachlor Epoxide, PCBs

EPA 625.1: SVOC (Acid/Base/Neutral Extractables), **EPA 600/4-81-045:** PCB-Oil.

Microbiology: **SM9223B-Colilert-QT; Enterolert-QT, SM9221E, EPA 1600, EPA 1603.**

Mansfield Facility:

Drinking Water

EPA 200.7: Al, Ba, Cd, Cr, Cu, Fe, Mn, Ni, Na, Ag, Ca, Zn. **EPA 200.8:** Al, Sb, As, Ba, Be, Cd, Cr, Cu, Pb, Mn, Ni, Se, Ag, TL, Zn. **EPA 245.1** Hg.

EPA 522.

Non-Potable Water

EPA 200.7: Al, Sb, As, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Mg, Mn, Mo, Ni, K, Se, Ag, Na, Sr, TL, Ti, V, Zn.

EPA 200.8: Al, Sb, As, Be, Cd, Cr, Cu, Fe, Pb, Mn, Ni, K, Se, Ag, Na, TL, Zn.

EPA 245.1 Hg.

SM2340B

For a complete listing of analytes and methods, please contact your Alpha Project Manager.



ANALYTICAL REPORT

Lab Number:	L2100020
Client:	XDD Environmental Mary Scudieri 22 Marin Way Unit 3 Stratham, NH 03885
ATTN:	Laurel Crawford
Phone:	(603) 778-1100
Project Name:	FESL
Project Number:	20029
Report Date:	01/11/21

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Certifications & Approvals: MA (M-MA086), NH NELAP (2064), CT (PH-0574), IL (200077), ME (MA00086), MD (348), NJ (MA935), NY (11148), NC (25700/666), PA (68-03671), RI (LAO00065), TX (T104704476), VT (VT-0935), VA (460195), USDA (Permit #P330-17-00196).

Eight Walkup Drive, Westborough, MA 01581-1019
508-898-9220 (Fax) 508-898-9193 800-624-9220 - www.alphalab.com



Project Name: FESL
Project Number: 20029

Lab Number: L2100020
Report Date: 01/11/21

Alpha Sample ID	Client ID	Matrix	Sample Location	Collection Date/Time	Receive Date
L2100020-01	CTRL 4 FEET DUP	WATER	ROCHESTER, NY	12/30/20 19:00	01/04/21
L2100020-02	FLOW 4 FEET DUP	WATER	ROCHESTER, NY	12/30/20 19:01	01/04/21
L2100020-03	TARGET 4 FEET DUP	WATER	ROCHESTER, NY	12/30/20 19:02	01/04/21

Project Name: FESL
Project Number: 20029

Lab Number: L2100020
Report Date: 01/11/21

Case Narrative

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

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

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

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

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

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

Project Name: FESL
Project Number: 20029

Lab Number: L2100020
Report Date: 01/11/21

Case Narrative (continued)

Report Submission

All non-detect (ND) or estimated concentrations (J-qualified) have been quantitated to the limit noted in the MDL column.

Sample Receipt

L2100020-01 and -03: Headspace was noted in the sample containers submitted for Total Alkalinity - SM 2320. The analysis was performed at the client's request.

Dissolved Gases

The WG1452916-5 MS recoveries, performed on L2100020-01, are outside the acceptance criteria for methane (78%), ethene (72%), and ethane (71%); however, the associated LCS recoveries are within overall method allowances. No further action was required.

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

Authorized Signature:



Michelle M. Morris

Title: Technical Director/Representative

Date: 01/11/21

ORGANICS

VOLATILES

Project Name: FESL
Project Number: 20029

Lab Number: L2100020
Report Date: 01/11/21

SAMPLE RESULTS

Lab ID: L2100020-01
 Client ID: CTRL 4 FEET DUP
 Sample Location: ROCHESTER, NY

Date Collected: 12/30/20 19:00
 Date Received: 01/04/21
 Field Prep: Not Specified

Sample Depth:

Matrix: Water
 Analytical Method: 117,-
 Analytical Date: 01/08/21 09:14
 Analyst: AW

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Dissolved Gases by GC - Mansfield Lab							
Methane	2.64		ug/l	2.00	2.00	1	A
Ethene	6.85		ug/l	0.500	0.500	1	A
Ethane	1.32		ug/l	0.500	0.500	1	A

Project Name: FESL
Project Number: 20029

Lab Number: L2100020
Report Date: 01/11/21

SAMPLE RESULTS

Lab ID: L2100020-01 D
 Client ID: CTRL 4 FEET DUP
 Sample Location: ROCHESTER, NY

Date Collected: 12/30/20 19:00
 Date Received: 01/04/21
 Field Prep: Not Specified

Sample Depth:

Matrix: Water
 Analytical Method: 1,8260C
 Analytical Date: 01/07/21 00:06
 Analyst: PD

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methylene chloride	ND		ug/l	6.2	1.8	2.5
1,1-Dichloroethane	260		ug/l	6.2	1.8	2.5
Chloroform	ND		ug/l	6.2	1.8	2.5
Carbon tetrachloride	ND		ug/l	1.2	0.34	2.5
1,2-Dichloropropane	ND		ug/l	2.5	0.34	2.5
Dibromochloromethane	ND		ug/l	1.2	0.37	2.5
1,1,2-Trichloroethane	ND		ug/l	3.8	1.2	2.5
Tetrachloroethene	0.50	J	ug/l	1.2	0.45	2.5
Chlorobenzene	ND		ug/l	6.2	1.8	2.5
Trichlorofluoromethane	ND		ug/l	6.2	1.8	2.5
1,2-Dichloroethane	ND		ug/l	1.2	0.33	2.5
1,1,1-Trichloroethane	100		ug/l	6.2	1.8	2.5
Bromodichloromethane	ND		ug/l	1.2	0.48	2.5
trans-1,3-Dichloropropene	ND		ug/l	1.2	0.41	2.5
cis-1,3-Dichloropropene	ND		ug/l	1.2	0.36	2.5
1,3-Dichloropropene, Total	ND		ug/l	1.2	0.36	2.5
1,1-Dichloropropene	ND		ug/l	6.2	1.8	2.5
Bromoform	ND		ug/l	5.0	1.6	2.5
1,1,1,2,2-Tetrachloroethane	ND		ug/l	1.2	0.42	2.5
Benzene	1.0	J	ug/l	1.2	0.40	2.5
Toluene	ND		ug/l	6.2	1.8	2.5
Ethylbenzene	ND		ug/l	6.2	1.8	2.5
Chloromethane	ND		ug/l	6.2	1.8	2.5
Bromomethane	ND		ug/l	6.2	1.8	2.5
Vinyl chloride	79		ug/l	2.5	0.18	2.5
Chloroethane	9.3		ug/l	6.2	1.8	2.5
1,1-Dichloroethene	2.4		ug/l	1.2	0.42	2.5
trans-1,2-Dichloroethene	2.6	J	ug/l	6.2	1.8	2.5

Project Name: FESL
Project Number: 20029

Lab Number: L2100020
Report Date: 01/11/21

SAMPLE RESULTS

Lab ID: L2100020-01 D
 Client ID: CTRL 4 FEET DUP
 Sample Location: ROCHESTER, NY

Date Collected: 12/30/20 19:00
 Date Received: 01/04/21
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Trichloroethene	11		ug/l	1.2	0.44	2.5
1,2-Dichlorobenzene	ND		ug/l	6.2	1.8	2.5
1,3-Dichlorobenzene	ND		ug/l	6.2	1.8	2.5
1,4-Dichlorobenzene	ND		ug/l	6.2	1.8	2.5
Methyl tert butyl ether	ND		ug/l	6.2	1.8	2.5
p/m-Xylene	2.0	J	ug/l	6.2	1.8	2.5
o-Xylene	ND		ug/l	6.2	1.8	2.5
Xylenes, Total	2.0	J	ug/l	6.2	1.8	2.5
cis-1,2-Dichloroethene	310		ug/l	6.2	1.8	2.5
1,2-Dichloroethene, Total	310	J	ug/l	6.2	1.8	2.5
Dibromomethane	ND		ug/l	12	2.5	2.5
1,2,3-Trichloropropane	ND		ug/l	6.2	1.8	2.5
Acrylonitrile	ND		ug/l	12	3.8	2.5
Styrene	ND		ug/l	6.2	1.8	2.5
Dichlorodifluoromethane	ND		ug/l	12	2.5	2.5
Acetone	ND		ug/l	12	3.6	2.5
Carbon disulfide	ND		ug/l	12	2.5	2.5
2-Butanone	ND		ug/l	12	4.8	2.5
Vinyl acetate	ND		ug/l	12	2.5	2.5
4-Methyl-2-pentanone	ND		ug/l	12	2.5	2.5
2-Hexanone	ND		ug/l	12	2.5	2.5
Bromochloromethane	ND		ug/l	6.2	1.8	2.5
2,2-Dichloropropane	ND		ug/l	6.2	1.8	2.5
1,2-Dibromoethane	ND		ug/l	5.0	1.6	2.5
1,3-Dichloropropane	ND		ug/l	6.2	1.8	2.5
1,1,1,2-Tetrachloroethane	ND		ug/l	6.2	1.8	2.5
Bromobenzene	ND		ug/l	6.2	1.8	2.5
n-Butylbenzene	ND		ug/l	6.2	1.8	2.5
sec-Butylbenzene	ND		ug/l	6.2	1.8	2.5
tert-Butylbenzene	ND		ug/l	6.2	1.8	2.5
o-Chlorotoluene	ND		ug/l	6.2	1.8	2.5
p-Chlorotoluene	ND		ug/l	6.2	1.8	2.5
1,2-Dibromo-3-chloropropane	ND		ug/l	6.2	1.8	2.5
Hexachlorobutadiene	ND		ug/l	6.2	1.8	2.5
Isopropylbenzene	ND		ug/l	6.2	1.8	2.5
p-Isopropyltoluene	ND		ug/l	6.2	1.8	2.5
Naphthalene	2.6	J	ug/l	6.2	1.8	2.5

Project Name: FESL
Project Number: 20029

Lab Number: L2100020
Report Date: 01/11/21

SAMPLE RESULTS

Lab ID: L2100020-01 D
 Client ID: CTRL 4 FEET DUP
 Sample Location: ROCHESTER, NY

Date Collected: 12/30/20 19:00
 Date Received: 01/04/21
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
n-Propylbenzene	ND		ug/l	6.2	1.8	2.5
1,2,3-Trichlorobenzene	ND		ug/l	6.2	1.8	2.5
1,2,4-Trichlorobenzene	ND		ug/l	6.2	1.8	2.5
1,3,5-Trimethylbenzene	ND		ug/l	6.2	1.8	2.5
1,2,4-Trimethylbenzene	ND		ug/l	6.2	1.8	2.5
1,4-Dioxane	240	J	ug/l	620	150	2.5
Freon-113	53		ug/l	6.2	1.8	2.5
p-Diethylbenzene	ND		ug/l	5.0	1.8	2.5
p-Ethyltoluene	ND		ug/l	5.0	1.8	2.5
1,2,4,5-Tetramethylbenzene	ND		ug/l	5.0	1.4	2.5
Ethyl ether	8.4		ug/l	6.2	1.8	2.5
trans-1,4-Dichloro-2-butene	ND		ug/l	6.2	1.8	2.5

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	96		70-130
Toluene-d8	98		70-130
4-Bromofluorobenzene	95		70-130
Dibromofluoromethane	102		70-130

Project Name: FESL
Project Number: 20029

Lab Number: L2100020
Report Date: 01/11/21

SAMPLE RESULTS

Lab ID: L2100020-02
 Client ID: FLOW 4 FEET DUP
 Sample Location: ROCHESTER, NY

Date Collected: 12/30/20 19:01
 Date Received: 01/04/21
 Field Prep: Not Specified

Sample Depth:

Matrix: Water
 Analytical Method: 117,-
 Analytical Date: 01/08/21 09:32
 Analyst: AW

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Dissolved Gases by GC - Mansfield Lab							
Methane	174		ug/l	2.00	2.00	1	A
Ethene	56.0		ug/l	0.500	0.500	1	A
Ethane	70.7		ug/l	0.500	0.500	1	A

Project Name: FESL
Project Number: 20029

Lab Number: L2100020
Report Date: 01/11/21

SAMPLE RESULTS

Lab ID: L2100020-02 D
 Client ID: FLOW 4 FEET DUP
 Sample Location: ROCHESTER, NY

Date Collected: 12/30/20 19:01
 Date Received: 01/04/21
 Field Prep: Not Specified

Sample Depth:

Matrix: Water
 Analytical Method: 1,8260C
 Analytical Date: 01/07/21 00:34
 Analyst: PD

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methylene chloride	ND		ug/l	6.2	1.8	2.5
1,1-Dichloroethane	300		ug/l	6.2	1.8	2.5
Chloroform	ND		ug/l	6.2	1.8	2.5
Carbon tetrachloride	ND		ug/l	1.2	0.34	2.5
1,2-Dichloropropane	ND		ug/l	2.5	0.34	2.5
Dibromochloromethane	ND		ug/l	1.2	0.37	2.5
1,1,2-Trichloroethane	ND		ug/l	3.8	1.2	2.5
Tetrachloroethene	21		ug/l	1.2	0.45	2.5
Chlorobenzene	ND		ug/l	6.2	1.8	2.5
Trichlorofluoromethane	ND		ug/l	6.2	1.8	2.5
1,2-Dichloroethane	ND		ug/l	1.2	0.33	2.5
1,1,1-Trichloroethane	ND		ug/l	6.2	1.8	2.5
Bromodichloromethane	ND		ug/l	1.2	0.48	2.5
trans-1,3-Dichloropropene	ND		ug/l	1.2	0.41	2.5
cis-1,3-Dichloropropene	ND		ug/l	1.2	0.36	2.5
1,3-Dichloropropene, Total	ND		ug/l	1.2	0.36	2.5
1,1-Dichloropropene	ND		ug/l	6.2	1.8	2.5
Bromoform	ND		ug/l	5.0	1.6	2.5
1,1,1,2-Tetrachloroethane	ND		ug/l	1.2	0.42	2.5
Benzene	2.3		ug/l	1.2	0.40	2.5
Toluene	2.6	J	ug/l	6.2	1.8	2.5
Ethylbenzene	1.8	J	ug/l	6.2	1.8	2.5
Chloromethane	ND		ug/l	6.2	1.8	2.5
Bromomethane	ND		ug/l	6.2	1.8	2.5
Vinyl chloride	16		ug/l	2.5	0.18	2.5
Chloroethane	18		ug/l	6.2	1.8	2.5
1,1-Dichloroethene	ND		ug/l	1.2	0.42	2.5
trans-1,2-Dichloroethene	ND		ug/l	6.2	1.8	2.5

Project Name: FESL
Project Number: 20029

Lab Number: L2100020
Report Date: 01/11/21

SAMPLE RESULTS

Lab ID: L2100020-02 D
 Client ID: FLOW 4 FEET DUP
 Sample Location: ROCHESTER, NY

Date Collected: 12/30/20 19:01
 Date Received: 01/04/21
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Trichloroethene	2.2		ug/l	1.2	0.44	2.5
1,2-Dichlorobenzene	ND		ug/l	6.2	1.8	2.5
1,3-Dichlorobenzene	ND		ug/l	6.2	1.8	2.5
1,4-Dichlorobenzene	ND		ug/l	6.2	1.8	2.5
Methyl tert butyl ether	ND		ug/l	6.2	1.8	2.5
p/m-Xylene	6.0	J	ug/l	6.2	1.8	2.5
o-Xylene	2.6	J	ug/l	6.2	1.8	2.5
Xylenes, Total	8.6	J	ug/l	6.2	1.8	2.5
cis-1,2-Dichloroethene	98		ug/l	6.2	1.8	2.5
1,2-Dichloroethene, Total	98		ug/l	6.2	1.8	2.5
Dibromomethane	ND		ug/l	12	2.5	2.5
1,2,3-Trichloropropane	ND		ug/l	6.2	1.8	2.5
Acrylonitrile	ND		ug/l	12	3.8	2.5
Styrene	ND		ug/l	6.2	1.8	2.5
Dichlorodifluoromethane	ND		ug/l	12	2.5	2.5
Acetone	5.9	J	ug/l	12	3.6	2.5
Carbon disulfide	ND		ug/l	12	2.5	2.5
2-Butanone	ND		ug/l	12	4.8	2.5
Vinyl acetate	ND		ug/l	12	2.5	2.5
4-Methyl-2-pentanone	ND		ug/l	12	2.5	2.5
2-Hexanone	ND		ug/l	12	2.5	2.5
Bromochloromethane	ND		ug/l	6.2	1.8	2.5
2,2-Dichloropropane	ND		ug/l	6.2	1.8	2.5
1,2-Dibromoethane	ND		ug/l	5.0	1.6	2.5
1,3-Dichloropropane	ND		ug/l	6.2	1.8	2.5
1,1,1,2-Tetrachloroethane	ND		ug/l	6.2	1.8	2.5
Bromobenzene	ND		ug/l	6.2	1.8	2.5
n-Butylbenzene	ND		ug/l	6.2	1.8	2.5
sec-Butylbenzene	ND		ug/l	6.2	1.8	2.5
tert-Butylbenzene	ND		ug/l	6.2	1.8	2.5
o-Chlorotoluene	ND		ug/l	6.2	1.8	2.5
p-Chlorotoluene	ND		ug/l	6.2	1.8	2.5
1,2-Dibromo-3-chloropropane	ND		ug/l	6.2	1.8	2.5
Hexachlorobutadiene	ND		ug/l	6.2	1.8	2.5
Isopropylbenzene	ND		ug/l	6.2	1.8	2.5
p-Isopropyltoluene	ND		ug/l	6.2	1.8	2.5
Naphthalene	ND		ug/l	6.2	1.8	2.5

Project Name: FESL
Project Number: 20029

Lab Number: L2100020
Report Date: 01/11/21

SAMPLE RESULTS

Lab ID: L2100020-02 D
 Client ID: FLOW 4 FEET DUP
 Sample Location: ROCHESTER, NY

Date Collected: 12/30/20 19:01
 Date Received: 01/04/21
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
n-Propylbenzene	ND		ug/l	6.2	1.8	2.5
1,2,3-Trichlorobenzene	ND		ug/l	6.2	1.8	2.5
1,2,4-Trichlorobenzene	ND		ug/l	6.2	1.8	2.5
1,3,5-Trimethylbenzene	2.3	J	ug/l	6.2	1.8	2.5
1,2,4-Trimethylbenzene	3.8	J	ug/l	6.2	1.8	2.5
1,4-Dioxane	270	J	ug/l	620	150	2.5
Freon-113	ND		ug/l	6.2	1.8	2.5
p-Diethylbenzene	ND		ug/l	5.0	1.8	2.5
p-Ethyltoluene	2.0	J	ug/l	5.0	1.8	2.5
1,2,4,5-Tetramethylbenzene	ND		ug/l	5.0	1.4	2.5
Ethyl ether	9.1		ug/l	6.2	1.8	2.5
trans-1,4-Dichloro-2-butene	ND		ug/l	6.2	1.8	2.5

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	95		70-130
Toluene-d8	98		70-130
4-Bromofluorobenzene	95		70-130
Dibromofluoromethane	103		70-130

Project Name: FESL
Project Number: 20029

Lab Number: L2100020
Report Date: 01/11/21

SAMPLE RESULTS

Lab ID: L2100020-03
 Client ID: TARGET 4 FEET DUP
 Sample Location: ROCHESTER, NY

Date Collected: 12/30/20 19:02
 Date Received: 01/04/21
 Field Prep: Not Specified

Sample Depth:

Matrix: Water
 Analytical Method: 117,-
 Analytical Date: 01/08/21 09:49
 Analyst: AW

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Dissolved Gases by GC - Mansfield Lab							
Methane	75.7		ug/l	2.00	2.00	1	A
Ethene	244		ug/l	0.500	0.500	1	A
Ethane	99.5		ug/l	0.500	0.500	1	A

Project Name: FESL
Project Number: 20029

Lab Number: L2100020
Report Date: 01/11/21

SAMPLE RESULTS

Lab ID: L2100020-03 D
 Client ID: TARGET 4 FEET DUP
 Sample Location: ROCHESTER, NY

Date Collected: 12/30/20 19:02
 Date Received: 01/04/21
 Field Prep: Not Specified

Sample Depth:

Matrix: Water
 Analytical Method: 1,8260C
 Analytical Date: 01/07/21 01:02
 Analyst: PD

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methylene chloride	ND		ug/l	5.0	1.4	2
1,1-Dichloroethane	250		ug/l	5.0	1.4	2
Chloroform	ND		ug/l	5.0	1.4	2
Carbon tetrachloride	ND		ug/l	1.0	0.27	2
1,2-Dichloropropane	ND		ug/l	2.0	0.27	2
Dibromochloromethane	ND		ug/l	1.0	0.30	2
1,1,2-Trichloroethane	ND		ug/l	3.0	1.0	2
Tetrachloroethene	ND		ug/l	1.0	0.36	2
Chlorobenzene	ND		ug/l	5.0	1.4	2
Trichlorofluoromethane	ND		ug/l	5.0	1.4	2
1,2-Dichloroethane	ND		ug/l	1.0	0.26	2
1,1,1-Trichloroethane	ND		ug/l	5.0	1.4	2
Bromodichloromethane	ND		ug/l	1.0	0.38	2
trans-1,3-Dichloropropene	ND		ug/l	1.0	0.33	2
cis-1,3-Dichloropropene	ND		ug/l	1.0	0.29	2
1,3-Dichloropropene, Total	ND		ug/l	1.0	0.29	2
1,1-Dichloropropene	ND		ug/l	5.0	1.4	2
Bromoform	ND		ug/l	4.0	1.3	2
1,1,2,2-Tetrachloroethane	ND		ug/l	1.0	0.33	2
Benzene	3.4		ug/l	1.0	0.32	2
Toluene	3.1	J	ug/l	5.0	1.4	2
Ethylbenzene	ND		ug/l	5.0	1.4	2
Chloromethane	ND		ug/l	5.0	1.4	2
Bromomethane	ND		ug/l	5.0	1.4	2
Vinyl chloride	1.3	J	ug/l	2.0	0.14	2
Chloroethane	16		ug/l	5.0	1.4	2
1,1-Dichloroethene	ND		ug/l	1.0	0.34	2
trans-1,2-Dichloroethene	ND		ug/l	5.0	1.4	2

Project Name: FESL
Project Number: 20029

Lab Number: L2100020
Report Date: 01/11/21

SAMPLE RESULTS

Lab ID: L2100020-03 D
 Client ID: TARGET 4 FEET DUP
 Sample Location: ROCHESTER, NY

Date Collected: 12/30/20 19:02
 Date Received: 01/04/21
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Trichloroethene	ND		ug/l	1.0	0.35	2
1,2-Dichlorobenzene	ND		ug/l	5.0	1.4	2
1,3-Dichlorobenzene	ND		ug/l	5.0	1.4	2
1,4-Dichlorobenzene	ND		ug/l	5.0	1.4	2
Methyl tert butyl ether	ND		ug/l	5.0	1.4	2
p/m-Xylene	7.2		ug/l	5.0	1.4	2
o-Xylene	2.3	J	ug/l	5.0	1.4	2
Xylenes, Total	9.5	J	ug/l	5.0	1.4	2
cis-1,2-Dichloroethene	11		ug/l	5.0	1.4	2
1,2-Dichloroethene, Total	11		ug/l	5.0	1.4	2
Dibromomethane	ND		ug/l	10	2.0	2
1,2,3-Trichloropropane	ND		ug/l	5.0	1.4	2
Acrylonitrile	ND		ug/l	10	3.0	2
Styrene	ND		ug/l	5.0	1.4	2
Dichlorodifluoromethane	ND		ug/l	10	2.0	2
Acetone	6.7	J	ug/l	10	2.9	2
Carbon disulfide	ND		ug/l	10	2.0	2
2-Butanone	4.8	J	ug/l	10	3.9	2
Vinyl acetate	ND		ug/l	10	2.0	2
4-Methyl-2-pentanone	ND		ug/l	10	2.0	2
2-Hexanone	ND		ug/l	10	2.0	2
Bromochloromethane	ND		ug/l	5.0	1.4	2
2,2-Dichloropropane	ND		ug/l	5.0	1.4	2
1,2-Dibromoethane	ND		ug/l	4.0	1.3	2
1,3-Dichloropropane	ND		ug/l	5.0	1.4	2
1,1,1,2-Tetrachloroethane	ND		ug/l	5.0	1.4	2
Bromobenzene	ND		ug/l	5.0	1.4	2
n-Butylbenzene	ND		ug/l	5.0	1.4	2
sec-Butylbenzene	ND		ug/l	5.0	1.4	2
tert-Butylbenzene	ND		ug/l	5.0	1.4	2
o-Chlorotoluene	ND		ug/l	5.0	1.4	2
p-Chlorotoluene	ND		ug/l	5.0	1.4	2
1,2-Dibromo-3-chloropropane	ND		ug/l	5.0	1.4	2
Hexachlorobutadiene	ND		ug/l	5.0	1.4	2
Isopropylbenzene	ND		ug/l	5.0	1.4	2
p-Isopropyltoluene	ND		ug/l	5.0	1.4	2
Naphthalene	ND		ug/l	5.0	1.4	2

Project Name: FESL
Project Number: 20029

Lab Number: L2100020
Report Date: 01/11/21

SAMPLE RESULTS

Lab ID: L2100020-03 D
 Client ID: TARGET 4 FEET DUP
 Sample Location: ROCHESTER, NY

Date Collected: 12/30/20 19:02
 Date Received: 01/04/21
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
n-Propylbenzene	ND		ug/l	5.0	1.4	2
1,2,3-Trichlorobenzene	ND		ug/l	5.0	1.4	2
1,2,4-Trichlorobenzene	ND		ug/l	5.0	1.4	2
1,3,5-Trimethylbenzene	3.3	J	ug/l	5.0	1.4	2
1,2,4-Trimethylbenzene	5.9		ug/l	5.0	1.4	2
1,4-Dioxane	300	J	ug/l	500	120	2
Freon-113	ND		ug/l	5.0	1.4	2
p-Diethylbenzene	1.6	J	ug/l	4.0	1.4	2
p-Ethyltoluene	3.0	J	ug/l	4.0	1.4	2
1,2,4,5-Tetramethylbenzene	ND		ug/l	4.0	1.1	2
Ethyl ether	9.0		ug/l	5.0	1.4	2
trans-1,4-Dichloro-2-butene	ND		ug/l	5.0	1.4	2

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	97		70-130
Toluene-d8	100		70-130
4-Bromofluorobenzene	94		70-130
Dibromofluoromethane	105		70-130

Project Name: FESL
Project Number: 20029

Lab Number: L2100020
Report Date: 01/11/21

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260C
Analytical Date: 01/06/21 15:47
Analyst: MKS

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 01-03 Batch: WG1452609-5					
Methylene chloride	ND		ug/l	2.5	0.70
1,1-Dichloroethane	ND		ug/l	2.5	0.70
Chloroform	ND		ug/l	2.5	0.70
Carbon tetrachloride	ND		ug/l	0.50	0.13
1,2-Dichloropropane	ND		ug/l	1.0	0.14
Dibromochloromethane	ND		ug/l	0.50	0.15
1,1,2-Trichloroethane	ND		ug/l	1.5	0.50
Tetrachloroethene	ND		ug/l	0.50	0.18
Chlorobenzene	ND		ug/l	2.5	0.70
Trichlorofluoromethane	ND		ug/l	2.5	0.70
1,2-Dichloroethane	ND		ug/l	0.50	0.13
1,1,1-Trichloroethane	ND		ug/l	2.5	0.70
Bromodichloromethane	ND		ug/l	0.50	0.19
trans-1,3-Dichloropropene	ND		ug/l	0.50	0.16
cis-1,3-Dichloropropene	ND		ug/l	0.50	0.14
1,3-Dichloropropene, Total	ND		ug/l	0.50	0.14
1,1-Dichloropropene	ND		ug/l	2.5	0.70
Bromoform	ND		ug/l	2.0	0.65
1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	0.17
Benzene	ND		ug/l	0.50	0.16
Toluene	ND		ug/l	2.5	0.70
Ethylbenzene	ND		ug/l	2.5	0.70
Chloromethane	ND		ug/l	2.5	0.70
Bromomethane	ND		ug/l	2.5	0.70
Vinyl chloride	ND		ug/l	1.0	0.07
Chloroethane	ND		ug/l	2.5	0.70
1,1-Dichloroethene	ND		ug/l	0.50	0.17
trans-1,2-Dichloroethene	ND		ug/l	2.5	0.70
Trichloroethene	ND		ug/l	0.50	0.18

Project Name: FESL
Project Number: 20029

Lab Number: L2100020
Report Date: 01/11/21

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260C
Analytical Date: 01/06/21 15:47
Analyst: MKS

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 01-03 Batch: WG1452609-5					
1,2-Dichlorobenzene	ND		ug/l	2.5	0.70
1,3-Dichlorobenzene	ND		ug/l	2.5	0.70
1,4-Dichlorobenzene	ND		ug/l	2.5	0.70
Methyl tert butyl ether	ND		ug/l	2.5	0.70
p/m-Xylene	ND		ug/l	2.5	0.70
o-Xylene	ND		ug/l	2.5	0.70
Xylenes, Total	ND		ug/l	2.5	0.70
cis-1,2-Dichloroethene	ND		ug/l	2.5	0.70
1,2-Dichloroethene, Total	ND		ug/l	2.5	0.70
Dibromomethane	ND		ug/l	5.0	1.0
1,2,3-Trichloropropane	ND		ug/l	2.5	0.70
Acrylonitrile	ND		ug/l	5.0	1.5
Styrene	ND		ug/l	2.5	0.70
Dichlorodifluoromethane	ND		ug/l	5.0	1.0
Acetone	ND		ug/l	5.0	1.5
Carbon disulfide	ND		ug/l	5.0	1.0
2-Butanone	ND		ug/l	5.0	1.9
Vinyl acetate	ND		ug/l	5.0	1.0
4-Methyl-2-pentanone	ND		ug/l	5.0	1.0
2-Hexanone	ND		ug/l	5.0	1.0
Bromochloromethane	ND		ug/l	2.5	0.70
2,2-Dichloropropane	ND		ug/l	2.5	0.70
1,2-Dibromoethane	ND		ug/l	2.0	0.65
1,3-Dichloropropane	ND		ug/l	2.5	0.70
1,1,1,2-Tetrachloroethane	ND		ug/l	2.5	0.70
Bromobenzene	ND		ug/l	2.5	0.70
n-Butylbenzene	ND		ug/l	2.5	0.70
sec-Butylbenzene	ND		ug/l	2.5	0.70
tert-Butylbenzene	ND		ug/l	2.5	0.70

Project Name: FESL
Project Number: 20029

Lab Number: L2100020
Report Date: 01/11/21

**Method Blank Analysis
Batch Quality Control**

Analytical Method: 1,8260C
Analytical Date: 01/06/21 15:47
Analyst: MKS

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 01-03 Batch: WG1452609-5					
o-Chlorotoluene	ND		ug/l	2.5	0.70
p-Chlorotoluene	ND		ug/l	2.5	0.70
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	0.70
Hexachlorobutadiene	ND		ug/l	2.5	0.70
Isopropylbenzene	ND		ug/l	2.5	0.70
p-Isopropyltoluene	ND		ug/l	2.5	0.70
Naphthalene	ND		ug/l	2.5	0.70
n-Propylbenzene	ND		ug/l	2.5	0.70
1,2,3-Trichlorobenzene	ND		ug/l	2.5	0.70
1,2,4-Trichlorobenzene	ND		ug/l	2.5	0.70
1,3,5-Trimethylbenzene	ND		ug/l	2.5	0.70
1,2,4-Trimethylbenzene	ND		ug/l	2.5	0.70
1,4-Dioxane	ND		ug/l	250	61.
Freon-113	ND		ug/l	2.5	0.70
p-Diethylbenzene	ND		ug/l	2.0	0.70
p-Ethyltoluene	ND		ug/l	2.0	0.70
1,2,4,5-Tetramethylbenzene	ND		ug/l	2.0	0.54
Ethyl ether	ND		ug/l	2.5	0.70
trans-1,4-Dichloro-2-butene	ND		ug/l	2.5	0.70

Surrogate	%Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	104		70-130
Toluene-d8	99		70-130
4-Bromofluorobenzene	94		70-130
Dibromofluoromethane	100		70-130

Project Name: FESL
Project Number: 20029

Lab Number: L2100020
Report Date: 01/11/21

Method Blank Analysis
Batch Quality Control

Analytical Method: 117,-
Analytical Date: 01/08/21 07:24
Analyst: AW

Parameter	Result	Qualifier	Units	RL	MDL	
Dissolved Gases by GC - Mansfield Lab for sample(s): 01-03 Batch: WG1452916-3						
Methane	ND		ug/l	2.00	2.00	A
Ethene	ND		ug/l	0.500	0.500	A
Ethane	ND		ug/l	0.500	0.500	A

Lab Control Sample Analysis

Batch Quality Control

Project Name: FESL
Project Number: 20029

Lab Number: L2100020
Report Date: 01/11/21

Parameter	LCS		LCSD		%Recovery Limits	RPD	Qual	RPD Limits
	%Recovery	Qual	%Recovery	Qual				
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-03 Batch: WG1452609-3 WG1452609-4								
Methylene chloride	93		95		70-130	2		20
1,1-Dichloroethane	79		82		70-130	4		20
Chloroform	99		100		70-130	1		20
Carbon tetrachloride	100		110		63-132	10		20
1,2-Dichloropropane	79		78		70-130	1		20
Dibromochloromethane	99		97		63-130	2		20
1,1,2-Trichloroethane	96		98		70-130	2		20
Tetrachloroethene	95		100		70-130	5		20
Chlorobenzene	94		96		75-130	2		20
Trichlorofluoromethane	110		120		62-150	9		20
1,2-Dichloroethane	90		88		70-130	2		20
1,1,1-Trichloroethane	97		100		67-130	3		20
Bromodichloromethane	100		100		67-130	0		20
trans-1,3-Dichloropropene	100		100		70-130	0		20
cis-1,3-Dichloropropene	100		100		70-130	0		20
1,1-Dichloropropene	100		100		70-130	0		20
Bromoform	99		91		54-136	8		20
1,1,1,2,2-Tetrachloroethane	91		86		67-130	6		20
Benzene	96		97		70-130	1		20
Toluene	88		91		70-130	3		20
Ethylbenzene	92		94		70-130	2		20
Chloromethane	68		68		64-130	0		20
Bromomethane	120		120		39-139	0		20

Lab Control Sample Analysis

Batch Quality Control

Project Name: FESL
Project Number: 20029

Lab Number: L2100020
Report Date: 01/11/21

Parameter	LCS		LCSD		%Recovery Limits	RPD	Qual	RPD Limits
	%Recovery	Qual	%Recovery	Qual				
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-03 Batch: WG1452609-3 WG1452609-4								
Vinyl chloride	82		85		55-140	4		20
Chloroethane	91		95		55-138	4		20
1,1-Dichloroethene	90		94		61-145	4		20
trans-1,2-Dichloroethene	88		93		70-130	6		20
Trichloroethene	87		93		70-130	7		20
1,2-Dichlorobenzene	88		88		70-130	0		20
1,3-Dichlorobenzene	89		86		70-130	3		20
1,4-Dichlorobenzene	89		87		70-130	2		20
Methyl tert butyl ether	100		100		63-130	0		20
p/m-Xylene	100		105		70-130	5		20
o-Xylene	100		105		70-130	5		20
cis-1,2-Dichloroethene	90		95		70-130	5		20
Dibromomethane	93		90		70-130	3		20
1,2,3-Trichloropropane	96		95		64-130	1		20
Acrylonitrile	71		66	Q	70-130	7		20
Styrene	105		105		70-130	0		20
Dichlorodifluoromethane	110		110		36-147	0		20
Acetone	70		70		58-148	0		20
Carbon disulfide	94		99		51-130	5		20
2-Butanone	72		74		63-138	3		20
Vinyl acetate	83		82		70-130	1		20
4-Methyl-2-pentanone	77		72		59-130	7		20
2-Hexanone	76		75		57-130	1		20

Lab Control Sample Analysis

Batch Quality Control

Project Name: FESL
Project Number: 20029

Lab Number: L2100020
Report Date: 01/11/21

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-03 Batch: WG1452609-3 WG1452609-4								
Bromochloromethane	97		100		70-130	3		20
2,2-Dichloropropane	110		110		63-133	0		20
1,2-Dibromoethane	94		94		70-130	0		20
1,3-Dichloropropane	94		92		70-130	2		20
1,1,1,2-Tetrachloroethane	100		99		64-130	1		20
Bromobenzene	88		89		70-130	1		20
n-Butylbenzene	84		88		53-136	5		20
sec-Butylbenzene	87		91		70-130	4		20
tert-Butylbenzene	87		89		70-130	2		20
o-Chlorotoluene	86		88		70-130	2		20
p-Chlorotoluene	86		85		70-130	1		20
1,2-Dibromo-3-chloropropane	87		86		41-144	1		20
Hexachlorobutadiene	89		89		63-130	0		20
Isopropylbenzene	89		90		70-130	1		20
p-Isopropyltoluene	88		91		70-130	3		20
Naphthalene	86		84		70-130	2		20
n-Propylbenzene	85		87		69-130	2		20
1,2,3-Trichlorobenzene	94		91		70-130	3		20
1,2,4-Trichlorobenzene	94		94		70-130	0		20
1,3,5-Trimethylbenzene	92		93		64-130	1		20
1,2,4-Trimethylbenzene	92		93		70-130	1		20
1,4-Dioxane	124		116		56-162	7		20
Freon-113	100		110		70-130	10		20

Lab Control Sample Analysis

Batch Quality Control

Project Name: FESL
Project Number: 20029

Lab Number: L2100020
Report Date: 01/11/21

Parameter	LCS		LCSD		%Recovery Limits	RPD	Qual	RPD Limits
	%Recovery	Qual	%Recovery	Qual				
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-03 Batch: WG1452609-3 WG1452609-4								
p-Diethylbenzene	87		89		70-130	2		20
p-Ethyltoluene	90		91		70-130	1		20
1,2,4,5-Tetramethylbenzene	92		90		70-130	2		20
Ethyl ether	94		94		59-134	0		20
trans-1,4-Dichloro-2-butene	72		72		70-130	0		20

Surrogate	LCS		LCSD		Acceptance Criteria
	%Recovery	Qual	%Recovery	Qual	
1,2-Dichloroethane-d4	110		109		70-130
Toluene-d8	101		101		70-130
4-Bromofluorobenzene	92		91		70-130
Dibromofluoromethane	107		106		70-130

Lab Control Sample Analysis

Batch Quality Control

Project Name: FESL
Project Number: 20029

Lab Number: L2100020
Report Date: 01/11/21

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits	Column
Dissolved Gases by GC - Mansfield Lab Associated sample(s): 01-03 Batch: WG1452916-2									
Methane	98		-		80-120	-		25	A
Ethene	86		-		80-120	-		25	A
Ethane	86		-		80-120	-		25	A

Matrix Spike Analysis

Batch Quality Control

Project Name: FESL
Project Number: 20029

Lab Number: L2100020
Report Date: 01/11/21

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	Qual	MSD Found	MSD %Recovery	Qual	Recovery Limits	RPD	Qual	RPD Limits	Column
Dissolved Gases by GC - Mansfield Lab Associated sample(s): 01-03 QC Batch ID: WG1452916-5 QC Sample: L2100020-01 Client ID: CTRL 4 FEET DUP													
Methane	2.64	54.6	45.5	78	Q	-	-		80-120	-		25	A
Ethene	6.85	95.5	75.8	72	Q	-	-		80-120	-		25	A
Ethane	1.32	102	73.6	71	Q	-	-		80-120	-		25	A

INORGANICS & MISCELLANEOUS

Project Name: FESL
Project Number: 20029

Lab Number: L2100020
Report Date: 01/11/21

SAMPLE RESULTS

Lab ID: L2100020-01
 Client ID: CTRL 4 FEET DUP
 Sample Location: ROCHESTER, NY

Date Collected: 12/30/20 19:00
 Date Received: 01/04/21
 Field Prep: Not Specified

Sample Depth:
 Matrix: Water

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Alkalinity, Total	943.		mg CaCO3/L	5.00	NA	2.5	-	01/06/21 11:47	121,2320B	JB



Project Name: FESL
Project Number: 20029

Lab Number: L2100020
Report Date: 01/11/21

SAMPLE RESULTS

Lab ID: L2100020-02
 Client ID: FLOW 4 FEET DUP
 Sample Location: ROCHESTER, NY

Date Collected: 12/30/20 19:01
 Date Received: 01/04/21
 Field Prep: Not Specified

Sample Depth:
 Matrix: Water

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Alkalinity, Total	723.		mg CaCO3/L	4.00	NA	2	-	01/06/21 11:47	121,2320B	JB



Project Name: FESL
Project Number: 20029

Lab Number: L2100020
Report Date: 01/11/21

SAMPLE RESULTS

Lab ID: L2100020-03
 Client ID: TARGET 4 FEET DUP
 Sample Location: ROCHESTER, NY

Date Collected: 12/30/20 19:02
 Date Received: 01/04/21
 Field Prep: Not Specified

Sample Depth:
 Matrix: Water

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Alkalinity, Total	643.		mg CaCO3/L	4.00	NA	2	-	01/06/21 11:47	121,2320B	JB



Project Name: FESL

Lab Number: L2100020

Project Number: 20029

Report Date: 01/11/21

Method Blank Analysis
Batch Quality Control

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab for sample(s): 01-03 Batch: WG1452167-1										
Alkalinity, Total	ND		mg CaCO3/L	2.00	NA	1	-	01/06/21 11:47	121,2320B	JB

Lab Control Sample Analysis

Batch Quality Control

Project Name: FESL
Project Number: 20029

Lab Number: L2100020
Report Date: 01/11/21

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
General Chemistry - Westborough Lab Associated sample(s): 01-03 Batch: WG1452167-2								
Alkalinity, Total	103		-		90-110	-		10

Matrix Spike Analysis Batch Quality Control

Project Name: FESL
Project Number: 20029

Lab Number: L2100020
Report Date: 01/11/21

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	MSD Qual	MSD Found	MSD %Recovery	MSD Qual	Recovery Limits	RPD	RPD Qual	RPD Limits
General Chemistry - Westborough Lab Associated sample(s): 01-03 QC Batch ID: WG1452167-4 QC Sample: L2058235-06 Client ID: MS Sample												
Alkalinity, Total	21.2	100	133	112	-	-	-	-	86-116	-	-	10

Lab Duplicate Analysis

Batch Quality Control

Project Name: FESL

Project Number: 20029

Lab Number: L2100020

Report Date: 01/11/21

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
General Chemistry - Westborough Lab Associated sample(s): 01-03 QC Batch ID: WG1452167-3 QC Sample: L2058235-06 Client ID: DUP Sample						
Alkalinity, Total	21.2	20.6	mg CaCO ₃ /L	3		10

Project Name: FESL**Lab Number:** L2100020**Project Number:** 20029**Report Date:** 01/11/21**Sample Receipt and Container Information**

Were project specific reporting limits specified?

YES

Cooler Information

Cooler	Custody Seal
A	Absent

Container Information

Container ID	Container Type	Cooler	Initial pH	Final pH	Temp deg C	Pres	Seal	Frozen Date/Time	Analysis(*)
L2100020-01A	20ml Vial HCl preserved	A	NA		2.5	Y	Absent		DISSGAS(14)
L2100020-01B	20ml Vial HCl preserved	A	NA		2.5	Y	Absent		DISSGAS(14)
L2100020-01C	Vial HCl preserved	A	NA		2.5	Y	Absent		NYTCL-8260(14)
L2100020-01D	Vial HCl preserved	A	NA		2.5	Y	Absent		NYTCL-8260(14)
L2100020-01E	Plastic 250ml unpreserved/No Headspace	A	NA		2.5	Y	Absent		ALK-T-2320(14)
L2100020-02A	20ml Vial HCl preserved	A	NA		2.5	Y	Absent		DISSGAS(14)
L2100020-02B	20ml Vial HCl preserved	A	NA		2.5	Y	Absent		DISSGAS(14)
L2100020-02C	Vial HCl preserved	A	NA		2.5	Y	Absent		NYTCL-8260(14)
L2100020-02D	Vial HCl preserved	A	NA		2.5	Y	Absent		NYTCL-8260(14)
L2100020-02E	Plastic 250ml unpreserved/No Headspace	A	NA		2.5	Y	Absent		ALK-T-2320(14)
L2100020-03A	20ml Vial HCl preserved	A	NA		2.5	Y	Absent		DISSGAS(14)
L2100020-03B	20ml Vial HCl preserved	A	NA		2.5	Y	Absent		DISSGAS(14)
L2100020-03C	Vial HCl preserved	A	NA		2.5	Y	Absent		NYTCL-8260(14)
L2100020-03D	Vial HCl preserved	A	NA		2.5	Y	Absent		NYTCL-8260(14)
L2100020-03E	Plastic 250ml unpreserved/No Headspace	A	NA		2.5	Y	Absent		ALK-T-2320(14)

Container Comments

L2100020-01A	Label Time: 8:00 MW 1/4/21
L2100020-01B	Label Time: 8:00 MW 1/4/21
L2100020-02A	Label Time: 8:01 MW 1/4/21
L2100020-02B	Label Time: 8:01 MW 1/4/21

Project Name: FESL
Project Number: 20029

Serial_No:01112110:27
Lab Number: L2100020
Report Date: 01/11/21

Container Information

Container ID **Container Type**

Cooler	Initial pH	Final pH	Temp deg C	Pres	Seal	Frozen Date/Time	Analysis(*)
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Container Comments

L2100020-03A Label Time: 8:02 MW 1/4/21

L2100020-03B Label Time: 8:02 MW 1/4/21

Project Name: FESL
Project Number: 20029

Lab Number: L2100020
Report Date: 01/11/21

GLOSSARY

Acronyms

DL	- Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the limit of quantitation (LOQ). The DL includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)
EDL	- Estimated Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The EDL includes any adjustments from dilutions, concentrations or moisture content, where applicable. The use of EDLs is specific to the analysis of PAHs using Solid-Phase Microextraction (SPME).
EMPC	- Estimated Maximum Possible Concentration: The concentration that results from the signal present at the retention time of an analyte when the ions meet all of the identification criteria except the ion abundance ratio criteria. An EMPC is a worst-case estimate of the concentration.
EPA	- Environmental Protection Agency.
LCS	- Laboratory Control Sample: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.
LCSD	- Laboratory Control Sample Duplicate: Refer to LCS.
LFB	- Laboratory Fortified Blank: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.
LOD	- Limit of Detection: This value represents the level to which a target analyte can reliably be detected for a specific analyte in a specific matrix by a specific method. The LOD includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)
LOQ	- Limit of Quantitation: The value at which an instrument can accurately measure an analyte at a specific concentration. The LOQ includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.) Limit of Quantitation: The value at which an instrument can accurately measure an analyte at a specific concentration. The LOQ includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)
MDL	- Method Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The MDL includes any adjustments from dilutions, concentrations or moisture content, where applicable.
MS	- Matrix Spike Sample: A sample prepared by adding a known mass of target analyte to a specified amount of matrix sample for which an independent estimate of target analyte concentration is available. For Method 332.0, the spike recovery is calculated using the native concentration, including estimated values.
MSD	- Matrix Spike Sample Duplicate: Refer to MS.
NA	- Not Applicable.
NC	- Not Calculated: Term is utilized when one or more of the results utilized in the calculation are non-detect at the parameter's reporting unit.
NDPA/DPA	- N-Nitrosodiphenylamine/Diphenylamine.
NI	- Not Ignitable.
NP	- Non-Plastic: Term is utilized for the analysis of Atterberg Limits in soil.
NR	- No Results: Term is utilized when 'No Target Compounds Requested' is reported for the analysis of Volatile or Semivolatile Organic TIC only requests.
RL	- Reporting Limit: The value at which an instrument can accurately measure an analyte at a specific concentration. The RL includes any adjustments from dilutions, concentrations or moisture content, where applicable.
RPD	- Relative Percent Difference: The results from matrix and/or matrix spike duplicates are primarily designed to assess the precision of analytical results in a given matrix and are expressed as relative percent difference (RPD). Values which are less than five times the reporting limit for any individual parameter are evaluated by utilizing the absolute difference between the values; although the RPD value will be provided in the report.
SRM	- Standard Reference Material: A reference sample of a known or certified value that is of the same or similar matrix as the associated field samples.
STLP	- Semi-dynamic Tank Leaching Procedure per EPA Method 1315.
TEF	- Toxic Equivalency Factors: The values assigned to each dioxin and furan to evaluate their toxicity relative to 2,3,7,8-TCDD.
TEQ	- Toxic Equivalent: The measure of a sample's toxicity derived by multiplying each dioxin and furan by its corresponding TEF and then summing the resulting values.
TIC	- Tentatively Identified Compound: A compound that has been identified to be present and is not part of the target compound list (TCL) for the method and/or program. All TICs are qualitatively identified and reported as estimated concentrations.

Report Format: DU Report with 'J' Qualifiers



Project Name: FESL
Project Number: 20029

Lab Number: L2100020
Report Date: 01/11/21

Footnotes

- 1 - The reference for this analyte should be considered modified since this analyte is absent from the target analyte list of the original method.

Terms

Analytical Method: Both the document from which the method originates and the analytical reference method. (Example: EPA 8260B is shown as 1,8260B.) The codes for the reference method documents are provided in the References section of the Addendum.

Difference: With respect to Total Oxidizable Precursor (TOP) Assay analysis, the difference is defined as the Post-Treatment value minus the Pre-Treatment value.

Final pH: As it pertains to Sample Receipt & Container Information section of the report, Final pH reflects pH of container determined after adjustment at the laboratory, if applicable. If no adjustment required, value reflects Initial pH.

Frozen Date/Time: With respect to Volatile Organics in soil, Frozen Date/Time reflects the date/time at which associated Reagent Water-preserved vials were initially frozen. Note: If frozen date/time is beyond 48 hours from sample collection, value will be reflected in 'bold'.

Initial pH: As it pertains to Sample Receipt & Container Information section of the report, Initial pH reflects pH of container determined upon receipt, if applicable.

PAH Total: With respect to Alkylated PAH analyses, the 'PAHs, Total' result is defined as the summation of results for all or a subset of the following compounds: Naphthalene, C1-C4 Naphthalenes, 2-Methylnaphthalene, 1-Methylnaphthalene, Biphenyl, Acenaphthylene, Acenaphthene, Fluorene, C1-C3 Fluorenes, Phenanthrene, C1-C4 Phenanthrenes/Anthracenes, Anthracene, Fluoranthene, Pyrene, C1-C4 Fluoranthenes/Pyrenes, Benz(a)anthracene, Chrysene, C1-C4 Chrysenes, Benzo(b)fluoranthene, Benzo(j)+(k)fluoranthene, Benzo(e)pyrene, Benzo(a)pyrene, Perylene, Indeno(1,2,3-cd)pyrene, Dibenz(ah)+(ac)anthracene, Benzo(g,h,i)perylene. If a 'Total' result is requested, the results of its individual components will also be reported.

PFAS Total: With respect to PFAS analyses, the 'PFAS, Total (5)' result is defined as the summation of results for: PFHpA, PFHxS, PFOA, PFNA and PFOS. In addition, the 'PFAS, Total (6)' result is defined as the summation of results at or above the RL for: PFHpA, PFHxS, PFOA, PFNA, PFDA and PFOS. (Note: 'PFAS, Total (6)' is applicable to MassDEP DW compliance analysis only.). If a 'Total' result is requested, the results of its individual components will also be reported.

The target compound Chlordane (CAS No. 57-74-9) is reported for GC ECD analyses. Per EPA, this compound "refers to a mixture of chlordane isomers, other chlorinated hydrocarbons and numerous other components." (Reference: USEPA Toxicological Review of Chlordane, In Support of Summary Information on the Integrated Risk Information System (IRIS), December 1997.)

Total: With respect to Organic analyses, a 'Total' result is defined as the summation of results for individual isomers or Aroclors. If a 'Total' result is requested, the results of its individual components will also be reported. This is applicable to 'Total' results for methods 8260, 8081 and 8082.

Data Qualifiers

- A** - Spectra identified as "Aldol Condensates" are byproducts of the extraction/concentration procedures when acetone is introduced in the process.
- B** - The analyte was detected above the reporting limit in the associated method blank. Flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For MCP-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For DOD-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank AND the analyte was detected above one-half the reporting limit (or above the reporting limit for common lab contaminants) in the associated method blank. For NJ-Air-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte above the reporting limit. For NJ-related projects (excluding Air), flag only applies to associated field samples that have detectable concentrations of the analyte, which was detected above the reporting limit in the associated method blank or above five times the reporting limit for common lab contaminants (Phthalates, Acetone, Methylene Chloride, 2-Butanone).
- C** - Co-elution: The target analyte co-elutes with a known lab standard (i.e. surrogate, internal standards, etc.) for co-extracted analyses.
- D** - Concentration of analyte was quantified from diluted analysis. Flag only applies to field samples that have detectable concentrations of the analyte.
- E** - Concentration of analyte exceeds the range of the calibration curve and/or linear range of the instrument.
- F** - The ratio of quantifier ion response to qualifier ion response falls outside of the laboratory criteria. Results are considered to be an estimated maximum concentration.
- G** - The concentration may be biased high due to matrix interferences (i.e. co-elution) with non-target compound(s). The result should be considered estimated.
- H** - The analysis of pH was performed beyond the regulatory-required holding time of 15 minutes from the time of sample collection.
- I** - The lower value for the two columns has been reported due to obvious interference.
- J** - Estimated value. The Target analyte concentration is below the quantitation limit (RL), but above the Method Detection Limit (MDL) or Estimated Detection Limit (EDL) for SPME-related analyses. This represents an estimated concentration for Tentatively Identified Compounds (TICs).
- M** - Reporting Limit (RL) exceeds the MCP CAM Reporting Limit for this analyte.
- ND** - Not detected at the method detection limit (MDL) for the sample, or estimated detection limit (EDL) for SPME-related analyses.

Report Format: DU Report with 'J' Qualifiers



Project Name: FESL
Project Number: 20029

Lab Number: L2100020
Report Date: 01/11/21

Data Qualifiers

- NJ** - Presumptive evidence of compound. This represents an estimated concentration for Tentatively Identified Compounds (TICs), where the identification is based on a mass spectral library search.
- P** - The RPD between the results for the two columns exceeds the method-specified criteria.
- Q** - The quality control sample exceeds the associated acceptance criteria. For DOD-related projects, LCS and/or Continuing Calibration Standard exceedences are also qualified on all associated sample results. Note: This flag is not applicable for matrix spike recoveries when the sample concentration is greater than 4x the spike added or for batch duplicate RPD when the sample concentrations are less than 5x the RL. (Metals only.)
- R** - Analytical results are from sample re-analysis.
- RE** - Analytical results are from sample re-extraction.
- S** - Analytical results are from modified screening analysis.

Project Name: FESL
Project Number: 20029

Lab Number: L2100020
Report Date: 01/11/21

REFERENCES

- 1 Test Methods for Evaluating Solid Waste: Physical/Chemical Methods. EPA SW-846. Third Edition. Updates I - VI, 2018.
- 117 Technical Guidance for the Natural Attenuation Indicators: Methane, Ethane, and Ethene, EPA-NE, Revision 1, February 21, 2002 and Sample Preparation & Calculations for Dissolved Gas Analysis in Water Samples using a GC Headspace Equilibration Technique, EPA RSKSOP-175, Revision 2, May 2004.
- 121 Standard Methods for the Examination of Water and Wastewater. APHA-AWWA-WEF. Standard Methods Online.

LIMITATION OF LIABILITIES

Alpha Analytical performs services with reasonable care and diligence normal to the analytical testing laboratory industry. In the event of an error, the sole and exclusive responsibility of Alpha Analytical shall be to re-perform the work at it's own expense. In no event shall Alpha Analytical be held liable for any incidental, consequential or special damages, including but not limited to, damages in any way connected with the use of, interpretation of, information or analysis provided by Alpha Analytical.

We strongly urge our clients to comply with EPA protocol regarding sample volume, preservation, cooling, containers, sampling procedures, holding time and splitting of samples in the field.



Certification Information

The following analytes are not included in our Primary NELAP Scope of Accreditation:

Westborough Facility

EPA 624/624.1: m/p-xylene, o-xylene, Naphthalene

EPA 8260C: NPW: 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene, Azobenzene; SCM: Iodomethane (methyl iodide), 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene.

EPA 8270D: NPW: Dimethylnaphthalene, 1,4-Diphenylhydrazine; SCM: Dimethylnaphthalene, 1,4-Diphenylhydrazine.

SM4500: NPW: Amenable Cyanide; SCM: Total Phosphorus, TKN, NO₂, NO₃.

Mansfield Facility

SM 2540D: TSS

EPA 8082A: NPW: PCB: 1, 5, 31, 87, 101, 110, 141, 151, 153, 180, 183, 187.

EPA TO-15: Halothane, 2,4,4-Trimethyl-2-pentene, 2,4,4-Trimethyl-1-pentene, Thiophene, 2-Methylthiophene, 3-Methylthiophene, 2-Ethylthiophene, 1,2,3-Trimethylbenzene, Indan, Indene, 1,2,4,5-Tetramethylbenzene, Benzothiophene, 1-Methylnaphthalene.

EPA TO-12 Non-methane organics

EPA 3C Fixed gases

Biological Tissue Matrix: EPA 3050B

The following analytes are included in our Massachusetts DEP Scope of Accreditation

Westborough Facility:

Drinking Water

EPA 300.0: Chloride, Nitrate-N, Fluoride, Sulfate; **EPA 353.2:** Nitrate-N, Nitrite-N; **SM4500NO3-F:** Nitrate-N, Nitrite-N; **SM4500F-C, SM4500CN-CE,**

EPA 180.1, SM2130B, SM4500CI-D, SM2320B, SM2540C, SM4500H-B, SM4500NO2-B

EPA 332: Perchlorate; **EPA 524.2:** THMs and VOCs; **EPA 504.1:** EDB, DBCP.

Microbiology: **SM9215B; SM9223-P/A, SM9223B-Colilert-QT, SM9222D.**

Non-Potable Water

SM4500H,B, EPA 120.1, SM2510B, SM2540C, SM2320B, SM4500CL-E, SM4500F-BC, SM4500NH3-BH: Ammonia-N and Kjeldahl-N, **EPA 350.1:** Ammonia-N, **LACHAT 10-107-06-1-B:** Ammonia-N, **EPA 351.1, SM4500NO3-F, EPA 353.2:** Nitrate-N, **SM4500P-E, SM4500P-B, E, SM4500SO4-E, SM5220D, EPA 410.4, SM5210B, SM5310C, SM4500CL-D, EPA 1664, EPA 420.1, SM4500-CN-CE, SM2540D, EPA 300:** Chloride, Sulfate, Nitrate.

EPA 624.1: Volatile Halocarbons & Aromatics,

EPA 608.3: Chlordane, Toxaphene, Aldrin, alpha-BHC, beta-BHC, gamma-BHC, delta-BHC, Dieldrin, DDD, DDE, DDT, Endosulfan I, Endosulfan II, Endosulfan sulfate, Endrin, Endrin Aldehyde, Heptachlor, Heptachlor Epoxide, PCBs

EPA 625.1: SVOC (Acid/Base/Neutral Extractables), **EPA 600/4-81-045:** PCB-Oil.

Microbiology: **SM9223B-Colilert-QT; Enterolert-QT, SM9221E, EPA 1600, EPA 1603.**

Mansfield Facility:

Drinking Water

EPA 200.7: Al, Ba, Cd, Cr, Cu, Fe, Mn, Ni, Na, Ag, Ca, Zn. **EPA 200.8:** Al, Sb, As, Ba, Be, Cd, Cr, Cu, Pb, Mn, Ni, Se, Ag, TL, Zn. **EPA 245.1** Hg.

EPA 522.

Non-Potable Water



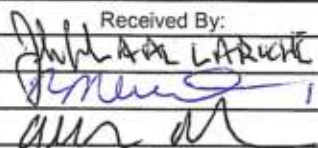
EPA 200.7: Al, Sb, As, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Mg, Mn, Mo, Ni, K, Se, Ag, Na, Sr, TL, Ti, V, Zn.

EPA 200.8: Al, Sb, As, Be, Cd, Cr, Cu, Fe, Pb, Mn, Ni, K, Se, Ag, Na, TL, Zn.

EPA 245.1 Hg.

SM2340B

For a complete listing of analytes and methods, please contact your Alpha Project Manager.

 NEW JERSEY CHAIN OF CUSTODY Westborough, MA 01581 8 Walkup Dr. TEL: 508-898-9220 FAX: 508-898-9193 Mansfield, MA 02048 320 Forbes Blvd TEL: 508-822-9300 FAX: 508-822-3288	Service Centers Mahwah, NJ 07430: 35 Whitney Rd, Suite 5 Albany, NY 12205: 14 Walker Way Tonawanda, NY 14150: 275 Cooper Ave, Suite 105	Page 1 of 1	Date Rec'd in Lab 1/4/21	ALPHA Job # L2100020				
	Project Information Project Name: FESL Project Location: Rochester, NY Project #: 20029 (Use Project name as Project #) <input type="checkbox"/>	Deliverables <input type="checkbox"/> NJ Full / Reduced <input type="checkbox"/> EQuIS (1 File) <input type="checkbox"/> EQuIS (4 File) <input type="checkbox"/> Other NYSDOH ELAP	Billing Information <input checked="" type="checkbox"/> Same as Client Info PO # 4715					
Client Information Client: XDD Address: 22 Marin Way, Unit 3 Stratham, NH 03833 Phone: 603-778-1100 Fax: Email: lcrawford@xdd-llc.com	Project Manager: Ashaley Kane ALPHAQuote #: 12786 Turn-Around Time Standard <input type="checkbox"/> Due Date: Rush (only if pre approved) <input type="checkbox"/> # of Days:	Regulatory Requirement <input type="checkbox"/> SRS Residential/Non Residential <input type="checkbox"/> SRS Impact to Groundwater <input type="checkbox"/> NJ Ground Water Quality Standards <input type="checkbox"/> NJ IGW SPLP Leachate Criteria <input checked="" type="checkbox"/> Other		Site Information Is this site impacted by Petroleum? Yes <input type="checkbox"/> Petroleum Product:				
These samples have been previously analyzed by Alpha <input type="checkbox"/>		ANALYSIS		Sample Filtration <input type="checkbox"/> Done <input type="checkbox"/> Lab to do Preservation <input type="checkbox"/> Lab to do (Please Specify below)				
For EPH, selection is REQUIRED: <input type="checkbox"/> Category 1 <input type="checkbox"/> Category 2	For VOC, selection is REQUIRED: <input type="checkbox"/> 1,4-Dioxane <input type="checkbox"/> 8011	Other project specific requirements/comments: invoices go to ap@xdd-llc.com please include Freon-113; all other analyses standard TAT; please copy bjoy@xdd-llc.com and marley@xdd-llc.com on results		Sample Specific Comments				
ALPHA Lab ID (Lab Use Only)	Sample ID	Collection Date Time	Sample Matrix	Sampler's Initials	VOCs Dissolved Gases Alkalinity Sulfate Dissolved Metals	Container Type Preservative	Please print clearly, legibly and completely. Samples can not be logged in and turnaround time clock will not start until any ambiguities are resolved. BY EXECUTING THIS COC, THE CLIENT HAS READ AND AGREES TO BE BOUND BY ALPHA'S TERMS & CONDITIONS .	
Preservative Code: A = None B = HCl C = HNO ₃ D = H ₂ SO ₄ E = NaOH F = MeOH G = NaHSO ₄ H = Na ₂ S ₂ O ₃ K/E = Zn Ac/NaOH O = Other	Container Code P = Plastic A = Amber Glass V = Vial G = Glass B = Bacteria Cup C = Cube O = Other E = Encore D = BOD Bottle	Westboro: Certification No: MA935 Mansfield: Certification No: MA015	G G P P B B A A	Relinquished By: 	Date/Time 1/4/21 10:30 1/4/21 1615 1/4/21 1850	Received By: 		Date/Time 1/4/21 10:30 1/4/21 1615 1/4/21 1850
Form No: 01-14 (rev. 30-Sept-2013)		Total Bottles		2 2 2	2 2 2	2 2 2		



ANALYTICAL REPORT

Lab Number:	L2100688
Client:	XDD Environmental Mary Scudieri 22 Marin Way Unit 3 Stratham, NH 03885
ATTN:	Laurel Crawford
Phone:	(603) 778-1100
Project Name:	FESL
Project Number:	20029
Report Date:	01/18/21

The original project report/data package is held by Alpha Analytical. This report/data package is paginated and should be reproduced only in its entirety. Alpha Analytical holds no responsibility for results and/or data that are not consistent with the original.

Certifications & Approvals: MA (M-MA086), NH NELAP (2064), CT (PH-0574), IL (200077), ME (MA00086), MD (348), NJ (MA935), NY (11148), NC (25700/666), PA (68-03671), RI (LAO00065), TX (T104704476), VT (VT-0935), VA (460195), USDA (Permit #P330-17-00196).

Eight Walkup Drive, Westborough, MA 01581-1019
508-898-9220 (Fax) 508-898-9193 800-624-9220 - www.alphalab.com



Project Name: FESL
Project Number: 20029

Lab Number: L2100688
Report Date: 01/18/21

Alpha Sample ID	Client ID	Matrix	Sample Location	Collection Date/Time	Receive Date
L2100688-01	CTRL 4 FEET DUP	WATER	ROCHESTER, NY	01/04/21 16:00	01/07/21
L2100688-02	FLOW 4 FEET DUP	WATER	ROCHESTER, NY	01/04/21 16:01	01/07/21
L2100688-03	TARGET 4 FEET DUP	WATER	ROCHESTER, NY	01/04/21 16:02	01/07/21
L2100688-04	CTRL 4 FEET DUP	WATER	ROCHESTER, NY	01/07/21 08:40	01/07/21
L2100688-05	FLOW 4 FEET DUP	WATER	ROCHESTER, NY	01/07/21 08:45	01/07/21
L2100688-06	TARGET 4 FEET DUP	WATER	ROCHESTER, NY	01/07/21 08:50	01/07/21

Project Name: FESL
Project Number: 20029

Lab Number: L2100688
Report Date: 01/18/21

Case Narrative

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

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

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

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

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

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

Project Name: FESL
Project Number: 20029

Lab Number: L2100688
Report Date: 01/18/21

Case Narrative (continued)

Report Submission

All non-detect (ND) or estimated concentrations (J-qualified) have been quantitated to the limit noted in the MDL column.

Sample Receipt

L2100688-05 and -06: The sample was received above the appropriate pH for the Dissolved Metals analysis. The laboratory added additional HNO₃ to a pH <2.

Dissolved Metals

The WG1452977-3 MS recoveries for calcium (260%), magnesium (210%), potassium (273%), and sodium (620%), performed on L2100688-04, do not apply because the sample concentrations are greater than four times the spike amounts added.

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

Authorized Signature:



Michelle M. Morris

Title: Technical Director/Representative

Date: 01/18/21

METALS

Project Name: FESL
Project Number: 20029

Lab Number: L2100688
Report Date: 01/18/21

SAMPLE RESULTS

Lab ID: L2100688-04
 Client ID: CTRL 4 FEET DUP
 Sample Location: ROCHESTER, NY

Date Collected: 01/07/21 08:40
 Date Received: 01/07/21
 Field Prep: Refer to COC

Sample Depth:
 Matrix: Water

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Dissolved Metals - Mansfield Lab											
Aluminum, Dissolved	0.00918	J	mg/l	0.0100	0.00327	1	01/08/21 09:56	01/08/21 14:02	EPA 3005A	1,6020B	AM
Antimony, Dissolved	0.00087	J	mg/l	0.00400	0.00042	1	01/08/21 09:56	01/08/21 14:02	EPA 3005A	1,6020B	AM
Arsenic, Dissolved	0.01440		mg/l	0.00050	0.00016	1	01/08/21 09:56	01/08/21 14:02	EPA 3005A	1,6020B	AM
Barium, Dissolved	0.1511		mg/l	0.00050	0.00017	1	01/08/21 09:56	01/08/21 14:02	EPA 3005A	1,6020B	AM
Beryllium, Dissolved	ND		mg/l	0.00050	0.00010	1	01/08/21 09:56	01/08/21 14:02	EPA 3005A	1,6020B	AM
Cadmium, Dissolved	ND		mg/l	0.00020	0.00005	1	01/08/21 09:56	01/08/21 14:02	EPA 3005A	1,6020B	AM
Calcium, Dissolved	128.		mg/l	0.100	0.0394	1	01/08/21 09:56	01/08/21 14:02	EPA 3005A	1,6020B	AM
Chromium, Dissolved	0.00069	J	mg/l	0.00100	0.00017	1	01/08/21 09:56	01/08/21 14:02	EPA 3005A	1,6020B	AM
Cobalt, Dissolved	0.00541		mg/l	0.00050	0.00016	1	01/08/21 09:56	01/08/21 14:02	EPA 3005A	1,6020B	AM
Copper, Dissolved	0.00130		mg/l	0.00100	0.00038	1	01/08/21 09:56	01/08/21 14:02	EPA 3005A	1,6020B	AM
Iron, Dissolved	0.0396	J	mg/l	0.0500	0.0191	1	01/08/21 09:56	01/08/21 14:02	EPA 3005A	1,6020B	AM
Lead, Dissolved	0.01116		mg/l	0.00100	0.00034	1	01/08/21 09:56	01/08/21 14:02	EPA 3005A	1,6020B	AM
Magnesium, Dissolved	51.7		mg/l	0.0700	0.0242	1	01/08/21 09:56	01/08/21 14:02	EPA 3005A	1,6020B	AM
Manganese, Dissolved	0.00726		mg/l	0.00100	0.00044	1	01/08/21 09:56	01/08/21 14:02	EPA 3005A	1,6020B	AM
Mercury, Dissolved	ND		mg/l	0.00020	0.00009	1	01/08/21 10:00	01/15/21 14:32	EPA 7470A	1,7470A	VW
Nickel, Dissolved	0.09026		mg/l	0.00200	0.00055	1	01/08/21 09:56	01/08/21 14:02	EPA 3005A	1,6020B	AM
Potassium, Dissolved	96.7		mg/l	0.100	0.0309	1	01/08/21 09:56	01/08/21 14:02	EPA 3005A	1,6020B	AM
Selenium, Dissolved	ND		mg/l	0.00500	0.00173	1	01/08/21 09:56	01/08/21 14:02	EPA 3005A	1,6020B	AM
Silver, Dissolved	ND		mg/l	0.00040	0.00016	1	01/08/21 09:56	01/08/21 14:02	EPA 3005A	1,6020B	AM
Sodium, Dissolved	347.		mg/l	0.100	0.0293	1	01/08/21 09:56	01/08/21 14:02	EPA 3005A	1,6020B	AM
Thallium, Dissolved	0.00066	J	mg/l	0.00100	0.00014	1	01/08/21 09:56	01/08/21 14:02	EPA 3005A	1,6020B	AM
Vanadium, Dissolved	ND		mg/l	0.00500	0.00157	1	01/08/21 09:56	01/08/21 14:02	EPA 3005A	1,6020B	AM
Zinc, Dissolved	0.01466		mg/l	0.01000	0.00341	1	01/08/21 09:56	01/08/21 14:02	EPA 3005A	1,6020B	AM



Project Name: FESL
Project Number: 20029

Lab Number: L2100688
Report Date: 01/18/21

SAMPLE RESULTS

Lab ID: L2100688-05
 Client ID: FLOW 4 FEET DUP
 Sample Location: ROCHESTER, NY

Date Collected: 01/07/21 08:45
 Date Received: 01/07/21
 Field Prep: Refer to COC

Sample Depth:
 Matrix: Water

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Dissolved Metals - Mansfield Lab											
Aluminum, Dissolved	0.00416	J	mg/l	0.0100	0.00327	1	01/08/21 09:56	01/08/21 14:07	EPA 3005A	1,6020B	AM
Antimony, Dissolved	0.00063	J	mg/l	0.00400	0.00042	1	01/08/21 09:56	01/08/21 14:07	EPA 3005A	1,6020B	AM
Arsenic, Dissolved	0.00114		mg/l	0.00050	0.00016	1	01/08/21 09:56	01/08/21 14:07	EPA 3005A	1,6020B	AM
Barium, Dissolved	0.03226		mg/l	0.00050	0.00017	1	01/08/21 09:56	01/08/21 14:07	EPA 3005A	1,6020B	AM
Beryllium, Dissolved	ND		mg/l	0.00050	0.00010	1	01/08/21 09:56	01/08/21 14:07	EPA 3005A	1,6020B	AM
Cadmium, Dissolved	ND		mg/l	0.00020	0.00005	1	01/08/21 09:56	01/08/21 14:07	EPA 3005A	1,6020B	AM
Calcium, Dissolved	7.51		mg/l	0.100	0.0394	1	01/08/21 09:56	01/08/21 14:07	EPA 3005A	1,6020B	AM
Chromium, Dissolved	ND		mg/l	0.00100	0.00017	1	01/08/21 09:56	01/08/21 14:07	EPA 3005A	1,6020B	AM
Cobalt, Dissolved	0.00097		mg/l	0.00050	0.00016	1	01/08/21 09:56	01/08/21 14:07	EPA 3005A	1,6020B	AM
Copper, Dissolved	0.00095	J	mg/l	0.00100	0.00038	1	01/08/21 09:56	01/08/21 14:07	EPA 3005A	1,6020B	AM
Iron, Dissolved	0.0704		mg/l	0.0500	0.0191	1	01/08/21 09:56	01/08/21 14:07	EPA 3005A	1,6020B	AM
Lead, Dissolved	ND		mg/l	0.00100	0.00034	1	01/08/21 09:56	01/08/21 14:07	EPA 3005A	1,6020B	AM
Magnesium, Dissolved	57.6		mg/l	0.0700	0.0242	1	01/08/21 09:56	01/08/21 14:07	EPA 3005A	1,6020B	AM
Manganese, Dissolved	0.00670		mg/l	0.00100	0.00044	1	01/08/21 09:56	01/08/21 14:07	EPA 3005A	1,6020B	AM
Mercury, Dissolved	ND		mg/l	0.00020	0.00009	1	01/08/21 10:00	01/15/21 14:22	EPA 7470A	1,7470A	VW
Nickel, Dissolved	0.00338		mg/l	0.00200	0.00055	1	01/08/21 09:56	01/08/21 14:07	EPA 3005A	1,6020B	AM
Potassium, Dissolved	93.3		mg/l	0.100	0.0309	1	01/08/21 09:56	01/08/21 14:07	EPA 3005A	1,6020B	AM
Selenium, Dissolved	ND		mg/l	0.00500	0.00173	1	01/08/21 09:56	01/08/21 14:07	EPA 3005A	1,6020B	AM
Silver, Dissolved	ND		mg/l	0.00040	0.00016	1	01/08/21 09:56	01/08/21 14:07	EPA 3005A	1,6020B	AM
Sodium, Dissolved	350.		mg/l	0.100	0.0293	1	01/08/21 09:56	01/08/21 14:07	EPA 3005A	1,6020B	AM
Thallium, Dissolved	0.00016	J	mg/l	0.00100	0.00014	1	01/08/21 09:56	01/08/21 14:07	EPA 3005A	1,6020B	AM
Vanadium, Dissolved	ND		mg/l	0.00500	0.00157	1	01/08/21 09:56	01/08/21 14:07	EPA 3005A	1,6020B	AM
Zinc, Dissolved	ND		mg/l	0.01000	0.00341	1	01/08/21 09:56	01/08/21 14:07	EPA 3005A	1,6020B	AM



Project Name: FESL
Project Number: 20029

Lab Number: L2100688
Report Date: 01/18/21

SAMPLE RESULTS

Lab ID: L2100688-06
 Client ID: TARGET 4 FEET DUP
 Sample Location: ROCHESTER, NY

Date Collected: 01/07/21 08:50
 Date Received: 01/07/21
 Field Prep: Refer to COC

Sample Depth:
 Matrix: Water

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Dissolved Metals - Mansfield Lab											
Aluminum, Dissolved	0.00426	J	mg/l	0.0100	0.00327	1	01/08/21 09:56	01/08/21 14:12	EPA 3005A	1,6020B	AM
Antimony, Dissolved	ND		mg/l	0.00400	0.00042	1	01/08/21 09:56	01/08/21 14:12	EPA 3005A	1,6020B	AM
Arsenic, Dissolved	0.00088		mg/l	0.00050	0.00016	1	01/08/21 09:56	01/08/21 14:12	EPA 3005A	1,6020B	AM
Barium, Dissolved	0.01213		mg/l	0.00050	0.00017	1	01/08/21 09:56	01/08/21 14:12	EPA 3005A	1,6020B	AM
Beryllium, Dissolved	ND		mg/l	0.00050	0.00010	1	01/08/21 09:56	01/08/21 14:12	EPA 3005A	1,6020B	AM
Cadmium, Dissolved	ND		mg/l	0.00020	0.00005	1	01/08/21 09:56	01/08/21 14:12	EPA 3005A	1,6020B	AM
Calcium, Dissolved	2.41		mg/l	0.100	0.0394	1	01/08/21 09:56	01/08/21 14:12	EPA 3005A	1,6020B	AM
Chromium, Dissolved	ND		mg/l	0.00100	0.00017	1	01/08/21 09:56	01/08/21 14:12	EPA 3005A	1,6020B	AM
Cobalt, Dissolved	0.00062		mg/l	0.00050	0.00016	1	01/08/21 09:56	01/08/21 14:12	EPA 3005A	1,6020B	AM
Copper, Dissolved	0.00066	J	mg/l	0.00100	0.00038	1	01/08/21 09:56	01/08/21 14:12	EPA 3005A	1,6020B	AM
Iron, Dissolved	0.0208	J	mg/l	0.0500	0.0191	1	01/08/21 09:56	01/08/21 14:12	EPA 3005A	1,6020B	AM
Lead, Dissolved	ND		mg/l	0.00100	0.00034	1	01/08/21 09:56	01/08/21 14:12	EPA 3005A	1,6020B	AM
Magnesium, Dissolved	45.0		mg/l	0.0700	0.0242	1	01/08/21 09:56	01/08/21 14:12	EPA 3005A	1,6020B	AM
Manganese, Dissolved	0.01371		mg/l	0.00100	0.00044	1	01/08/21 09:56	01/08/21 14:12	EPA 3005A	1,6020B	AM
Mercury, Dissolved	ND		mg/l	0.00020	0.00009	1	01/08/21 10:00	01/15/21 14:35	EPA 7470A	1,7470A	VW
Nickel, Dissolved	0.00254		mg/l	0.00200	0.00055	1	01/08/21 09:56	01/08/21 14:12	EPA 3005A	1,6020B	AM
Potassium, Dissolved	78.9		mg/l	0.100	0.0309	1	01/08/21 09:56	01/08/21 14:12	EPA 3005A	1,6020B	AM
Selenium, Dissolved	ND		mg/l	0.00500	0.00173	1	01/08/21 09:56	01/08/21 14:12	EPA 3005A	1,6020B	AM
Silver, Dissolved	ND		mg/l	0.00040	0.00016	1	01/08/21 09:56	01/08/21 14:12	EPA 3005A	1,6020B	AM
Sodium, Dissolved	350.		mg/l	0.100	0.0293	1	01/08/21 09:56	01/08/21 14:12	EPA 3005A	1,6020B	AM
Thallium, Dissolved	ND		mg/l	0.00100	0.00014	1	01/08/21 09:56	01/08/21 14:12	EPA 3005A	1,6020B	AM
Vanadium, Dissolved	ND		mg/l	0.00500	0.00157	1	01/08/21 09:56	01/08/21 14:12	EPA 3005A	1,6020B	AM
Zinc, Dissolved	ND		mg/l	0.01000	0.00341	1	01/08/21 09:56	01/08/21 14:12	EPA 3005A	1,6020B	AM



Project Name: FESL
Project Number: 20029

Lab Number: L2100688
Report Date: 01/18/21

Method Blank Analysis Batch Quality Control

Parameter	Result Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Dissolved Metals - Mansfield Lab for sample(s): 04-06 Batch: WG1452977-1									
Aluminum, Dissolved	ND	mg/l	0.0100	0.00327	1	01/08/21 09:56	01/08/21 13:37	1,6020B	AM
Antimony, Dissolved	ND	mg/l	0.00400	0.00042	1	01/08/21 09:56	01/08/21 13:37	1,6020B	AM
Arsenic, Dissolved	ND	mg/l	0.00050	0.00016	1	01/08/21 09:56	01/08/21 13:37	1,6020B	AM
Barium, Dissolved	ND	mg/l	0.00050	0.00017	1	01/08/21 09:56	01/08/21 13:37	1,6020B	AM
Beryllium, Dissolved	ND	mg/l	0.00050	0.00010	1	01/08/21 09:56	01/08/21 13:37	1,6020B	AM
Cadmium, Dissolved	ND	mg/l	0.00020	0.00005	1	01/08/21 09:56	01/08/21 13:37	1,6020B	AM
Calcium, Dissolved	ND	mg/l	0.100	0.0394	1	01/08/21 09:56	01/08/21 13:37	1,6020B	AM
Chromium, Dissolved	ND	mg/l	0.00100	0.00017	1	01/08/21 09:56	01/08/21 13:37	1,6020B	AM
Cobalt, Dissolved	ND	mg/l	0.00050	0.00016	1	01/08/21 09:56	01/08/21 13:37	1,6020B	AM
Copper, Dissolved	ND	mg/l	0.00100	0.00038	1	01/08/21 09:56	01/08/21 13:37	1,6020B	AM
Iron, Dissolved	ND	mg/l	0.0500	0.0191	1	01/08/21 09:56	01/08/21 13:37	1,6020B	AM
Lead, Dissolved	ND	mg/l	0.00100	0.00034	1	01/08/21 09:56	01/08/21 13:37	1,6020B	AM
Magnesium, Dissolved	ND	mg/l	0.0700	0.0242	1	01/08/21 09:56	01/08/21 13:37	1,6020B	AM
Manganese, Dissolved	ND	mg/l	0.00100	0.00044	1	01/08/21 09:56	01/08/21 13:37	1,6020B	AM
Nickel, Dissolved	ND	mg/l	0.00200	0.00055	1	01/08/21 09:56	01/08/21 13:37	1,6020B	AM
Potassium, Dissolved	ND	mg/l	0.100	0.0309	1	01/08/21 09:56	01/08/21 13:37	1,6020B	AM
Selenium, Dissolved	ND	mg/l	0.00500	0.00173	1	01/08/21 09:56	01/08/21 13:37	1,6020B	AM
Silver, Dissolved	ND	mg/l	0.00040	0.00016	1	01/08/21 09:56	01/08/21 13:37	1,6020B	AM
Sodium, Dissolved	ND	mg/l	0.100	0.0293	1	01/08/21 09:56	01/08/21 13:37	1,6020B	AM
Thallium, Dissolved	ND	mg/l	0.00100	0.00014	1	01/08/21 09:56	01/08/21 13:37	1,6020B	AM
Vanadium, Dissolved	ND	mg/l	0.00500	0.00157	1	01/08/21 09:56	01/08/21 13:37	1,6020B	AM
Zinc, Dissolved	ND	mg/l	0.01000	0.00341	1	01/08/21 09:56	01/08/21 13:37	1,6020B	AM

Prep Information

Digestion Method: EPA 3005A

Parameter	Result Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Dissolved Metals - Mansfield Lab for sample(s): 04-06 Batch: WG1452979-1									
Mercury, Dissolved	ND	mg/l	0.00020	0.00009	1	01/08/21 10:00	01/15/21 14:15	1,7470A	VW



Project Name: FESL
Project Number: 20029

Lab Number: L2100688
Report Date: 01/18/21

Method Blank Analysis Batch Quality Control

Prep Information

Digestion Method: EPA 7470A

Lab Control Sample Analysis

Batch Quality Control

Project Name: FESL
Project Number: 20029

Lab Number: L2100688
Report Date: 01/18/21

Parameter	LCS		LCSD		%Recovery Limits	RPD	Qual	RPD Limits
	%Recovery	Qual	%Recovery	Qual				
Dissolved Metals - Mansfield Lab Associated sample(s): 04-06 Batch: WG1452977-2								
Aluminum, Dissolved	102		-		80-120	-		
Antimony, Dissolved	81		-		80-120	-		
Arsenic, Dissolved	102		-		80-120	-		
Barium, Dissolved	100		-		80-120	-		
Beryllium, Dissolved	102		-		80-120	-		
Cadmium, Dissolved	106		-		80-120	-		
Calcium, Dissolved	104		-		80-120	-		
Chromium, Dissolved	97		-		80-120	-		
Cobalt, Dissolved	97		-		80-120	-		
Copper, Dissolved	98		-		80-120	-		
Iron, Dissolved	105		-		80-120	-		
Lead, Dissolved	102		-		80-120	-		
Magnesium, Dissolved	106		-		80-120	-		
Manganese, Dissolved	98		-		80-120	-		
Nickel, Dissolved	95		-		80-120	-		
Potassium, Dissolved	106		-		80-120	-		
Selenium, Dissolved	105		-		80-120	-		
Silver, Dissolved	100		-		80-120	-		
Sodium, Dissolved	105		-		80-120	-		
Thallium, Dissolved	101		-		80-120	-		
Vanadium, Dissolved	97		-		80-120	-		

Lab Control Sample Analysis

Batch Quality Control

Project Name: FESL
Project Number: 20029

Lab Number: L2100688
Report Date: 01/18/21

Parameter	LCS %Recovery	LCSD %Recovery	%Recovery Limits	RPD	RPD Limits
Dissolved Metals - Mansfield Lab Associated sample(s): 04-06 Batch: WG1452977-2					
Zinc, Dissolved	106	-	80-120	-	
Dissolved Metals - Mansfield Lab Associated sample(s): 04-06 Batch: WG1452979-2					
Mercury, Dissolved	101	-	80-120	-	

Matrix Spike Analysis Batch Quality Control

Project Name: FESL
Project Number: 20029

Lab Number: L2100688
Report Date: 01/18/21

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	MSD Qual	MSD Found	MSD %Recovery	MSD Qual	Recovery Limits	RPD	RPD Qual	RPD Limits
Dissolved Metals - Mansfield Lab Associated sample(s): 04-06 QC Batch ID: WG1452977-3 QC Sample: L2100688-04 Client ID: CTRL 4 FEET DUP												
Aluminum, Dissolved	0.00918J	2	2.09	104		-	-		75-125	-		20
Antimony, Dissolved	0.00087J	0.5	0.5410	108		-	-		75-125	-		20
Arsenic, Dissolved	0.01440	0.12	0.1457	109		-	-		75-125	-		20
Barium, Dissolved	0.1511	2	2.265	106		-	-		75-125	-		20
Beryllium, Dissolved	ND	0.05	0.05237	105		-	-		75-125	-		20
Cadmium, Dissolved	ND	0.051	0.05491	108		-	-		75-125	-		20
Calcium, Dissolved	128.	10	154	260	Q	-	-		75-125	-		20
Chromium, Dissolved	0.00069J	0.2	0.2025	101		-	-		75-125	-		20
Cobalt, Dissolved	0.00541	0.5	0.5069	100		-	-		75-125	-		20
Copper, Dissolved	0.00130	0.25	0.2534	101		-	-		75-125	-		20
Iron, Dissolved	0.0396J	1	1.07	107		-	-		75-125	-		20
Lead, Dissolved	0.01116	0.51	0.5549	107		-	-		75-125	-		20
Magnesium, Dissolved	51.7	10	72.7	210	Q	-	-		75-125	-		20
Manganese, Dissolved	0.00726	0.5	0.5059	100		-	-		75-125	-		20
Nickel, Dissolved	0.09026	0.5	0.5824	98		-	-		75-125	-		20
Potassium, Dissolved	96.7	10	124	273	Q	-	-		75-125	-		20
Selenium, Dissolved	ND	0.12	0.130	108		-	-		75-125	-		20
Silver, Dissolved	ND	0.05	0.05178	104		-	-		75-125	-		20
Sodium, Dissolved	347.	10	409	620	Q	-	-		75-125	-		20
Thallium, Dissolved	0.00066J	0.12	0.1297	108		-	-		75-125	-		20
Vanadium, Dissolved	ND	0.5	0.5030	101		-	-		75-125	-		20

Matrix Spike Analysis Batch Quality Control

Project Name: FESL
Project Number: 20029

Lab Number: L2100688
Report Date: 01/18/21

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	MSD Found	MSD %Recovery	Recovery Limits	RPD	RPD Limits
Dissolved Metals - Mansfield Lab Associated sample(s): 04-06 QC Batch ID: WG1452977-3 QC Sample: L2100688-04 Client ID: CTRL 4 FEET DUP									
Zinc, Dissolved	0.01466	0.5	0.5482	107	-	-	75-125	-	20
Dissolved Metals - Mansfield Lab Associated sample(s): 04-06 QC Batch ID: WG1452979-3 QC Sample: L2100688-05 Client ID: FLOW 4 FEET DUP									
Mercury, Dissolved	ND	0.005	0.00425	85	-	-	75-125	-	20

Lab Duplicate Analysis

Batch Quality Control

Project Name: FESL
Project Number: 20029

Lab Number: L2100688
Report Date: 01/18/21

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
Dissolved Metals - Mansfield Lab Associated sample(s): 04-06 QC Batch ID: WG1452977-4 QC Sample: L2100688-04 Client ID: CTRL 4 FEET DUP						
Aluminum, Dissolved	0.00918J	0.00539J	mg/l	NC		20
Antimony, Dissolved	0.00087J	0.00068J	mg/l	NC		20
Arsenic, Dissolved	0.01440	0.01434	mg/l	0		20
Barium, Dissolved	0.1511	0.1509	mg/l	0		20
Beryllium, Dissolved	ND	ND	mg/l	NC		20
Cadmium, Dissolved	ND	ND	mg/l	NC		20
Calcium, Dissolved	128.	129	mg/l	1		20
Chromium, Dissolved	0.00069J	0.00061J	mg/l	NC		20
Cobalt, Dissolved	0.00541	0.00491	mg/l	10		20
Copper, Dissolved	0.00130	0.00115	mg/l	12		20
Iron, Dissolved	0.0396J	0.0530	mg/l	NC		20
Lead, Dissolved	0.01116	0.01077	mg/l	4		20
Magnesium, Dissolved	51.7	53.6	mg/l	4		20
Manganese, Dissolved	0.00726	0.00680	mg/l	7		20
Nickel, Dissolved	0.09026	0.09295	mg/l	3		20
Potassium, Dissolved	96.7	99.4	mg/l	3		20
Selenium, Dissolved	ND	ND	mg/l	NC		20
Silver, Dissolved	ND	ND	mg/l	NC		20
Sodium, Dissolved	347.	356	mg/l	3		20

Lab Duplicate Analysis

Batch Quality Control

Project Name: FESL

Project Number: 20029

Lab Number: L2100688

Report Date: 01/18/21

Parameter	Native Sample	Duplicate Sample	Units	RPD	RPD Limits
Dissolved Metals - Mansfield Lab Associated sample(s): 04-06 QC Batch ID: WG1452977-4 QC Sample: L2100688-04 Client ID: CTRL 4 FEET DUP					
Thallium, Dissolved	0.00066J	0.00124	mg/l	NC	20
Vanadium, Dissolved	ND	ND	mg/l	NC	20
Zinc, Dissolved	0.01466	0.01388	mg/l	5	20
Dissolved Metals - Mansfield Lab Associated sample(s): 04-06 QC Batch ID: WG1452979-4 QC Sample: L2100688-05 Client ID: FLOW 4 FEET DUP					
Mercury, Dissolved	ND	ND	mg/l	NC	20

INORGANICS & MISCELLANEOUS

Project Name: FESL
Project Number: 20029

Lab Number: L2100688
Report Date: 01/18/21

SAMPLE RESULTS

Lab ID: L2100688-01
 Client ID: CTRL 4 FEET DUP
 Sample Location: ROCHESTER, NY

Date Collected: 01/04/21 16:00
 Date Received: 01/07/21
 Field Prep: Not Specified

Sample Depth:
 Matrix: Water

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Sulfate	43.		mg/l	20	2.7	2	01/13/21 17:23	01/13/21 17:23	1,9038	JB



Project Name: FESL
Project Number: 20029

Lab Number: L2100688
Report Date: 01/18/21

SAMPLE RESULTS

Lab ID: L2100688-02
Client ID: FLOW 4 FEET DUP
Sample Location: ROCHESTER, NY

Date Collected: 01/04/21 16:01
Date Received: 01/07/21
Field Prep: Not Specified

Sample Depth:
Matrix: Water

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Sulfate	40.		mg/l	20	2.7	2	01/13/21 17:23	01/13/21 17:23	1,9038	JB



Project Name: FESL
Project Number: 20029

Lab Number: L2100688
Report Date: 01/18/21

SAMPLE RESULTS

Lab ID: L2100688-03
 Client ID: TARGET 4 FEET DUP
 Sample Location: ROCHESTER, NY

Date Collected: 01/04/21 16:02
 Date Received: 01/07/21
 Field Prep: Not Specified

Sample Depth:
 Matrix: Water

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Sulfate	34.		mg/l	20	2.7	2	01/13/21 17:23	01/13/21 17:23	1,9038	JB



Project Name: FESL
Project Number: 20029

Lab Number: L2100688
Report Date: 01/18/21

Method Blank Analysis
Batch Quality Control

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab for sample(s): 01-03 Batch: WG1454683-1										
Sulfate	1.7	J	mg/l	10	1.4	1	01/13/21 17:23	01/13/21 17:23	1,9038	JB

Lab Control Sample Analysis

Batch Quality Control

Project Name: FESL
Project Number: 20029

Lab Number: L2100688
Report Date: 01/18/21

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
General Chemistry - Westborough Lab Associated sample(s): 01-03 Batch: WG1454683-2								
Sulfate	95		-		90-110	-		

Matrix Spike Analysis Batch Quality Control

Project Name: FESL
Project Number: 20029

Lab Number: L2100688
Report Date: 01/18/21

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	MSD Qual	MSD Found	MSD %Recovery	MSD Qual	Recovery Limits	RPD	RPD Qual	RPD Limits
General Chemistry - Westborough Lab Associated sample(s): 01-03 QC Batch ID: WG1454683-4 QC Sample: L2100744-01 Client ID: MS Sample												
Sulfate	23.	50	90	134	-	-	-	-	55-147	-	-	14

Lab Duplicate Analysis

Batch Quality Control

Project Name: FESL

Project Number: 20029

Lab Number: L2100688

Report Date: 01/18/21

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
General Chemistry - Westborough Lab Associated sample(s): 01-03 QC Batch ID: WG1454683-3 QC Sample: L2100744-01 Client ID: DUP Sample						
Sulfate	23.	21	mg/l	9		14

Project Name: FESL
Project Number: 20029

Serial_No:01182118:24
Lab Number: L2100688
Report Date: 01/18/21

Sample Receipt and Container Information

Were project specific reporting limits specified? YES

Cooler Information

Cooler **Custody Seal**
A Absent

Container Information

Container ID	Container Type	Cooler	Initial pH	Final pH	Temp deg C	Pres	Seal	Frozen Date/Time	Analysis(*)
L2100688-01A	Plastic 60ml unpreserved	A	7	7	2.9	Y	Absent		SO4-9038(28)
L2100688-02A	Plastic 60ml unpreserved	A	9	9	2.9	Y	Absent		SO4-9038(28)
L2100688-03A	Plastic 60ml unpreserved	A	9	9	2.9	Y	Absent		SO4-9038(28)
L2100688-04A	Plastic 250ml HNO3 preserved	A	<2	<2	2.9	Y	Absent		K-6020S(180),SE-6020S(180),CU-6020S(180),V-6020S(180),MN-6020S(180),BE-6020S(180),CO-6020S(180),ZN-6020S(180),MG-6020S(180),FE-6020S(180),CA-6020S(180),CR-6020S(180),PB-6020S(180),NA-6020S(180),TL-6020S(180),NI-6020S(180),BA-6020S(180),SB-6020S(180),AG-6020S(180),AS-6020S(180),HG-S(28),AL-6020S(180),CD-6020S(180)
L2100688-05A	Plastic 250ml HNO3 preserved	A	4	<2	2.9	N	Absent		V-6020S(180),K-6020S(180),SE-6020S(180),CU-6020S(180),MN-6020S(180),CO-6020S(180),MG-6020S(180),BE-6020S(180),ZN-6020S(180),CA-6020S(180),CR-6020S(180),FE-6020S(180),NI-6020S(180),PB-6020S(180),TL-6020S(180),BA-6020S(180),NA-6020S(180),AS-6020S(180),AG-6020S(180),SB-6020S(180),AL-6020S(180),CD-6020S(180),HG-S(28)
L2100688-06A	Plastic 250ml HNO3 preserved	A	4	<2	2.9	N	Absent		CU-6020S(180),V-6020S(180),SE-6020S(180),K-6020S(180),MN-6020S(180),BE-6020S(180),ZN-6020S(180),CO-6020S(180),MG-6020S(180),CR-6020S(180),FE-6020S(180),CA-6020S(180),TL-6020S(180),NI-6020S(180),NA-6020S(180),PB-6020S(180),BA-6020S(180),AS-6020S(180),SB-6020S(180),AG-6020S(180),AL-6020S(180),HG-S(28),CD-6020S(180)

*Values in parentheses indicate holding time in days



Project Name: FESL
Project Number: 20029

Lab Number: L2100688
Report Date: 01/18/21

GLOSSARY

Acronyms

DL	- Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the limit of quantitation (LOQ). The DL includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)
EDL	- Estimated Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The EDL includes any adjustments from dilutions, concentrations or moisture content, where applicable. The use of EDLs is specific to the analysis of PAHs using Solid-Phase Microextraction (SPME).
EMPC	- Estimated Maximum Possible Concentration: The concentration that results from the signal present at the retention time of an analyte when the ions meet all of the identification criteria except the ion abundance ratio criteria. An EMPC is a worst-case estimate of the concentration.
EPA	- Environmental Protection Agency.
LCS	- Laboratory Control Sample: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.
LCSD	- Laboratory Control Sample Duplicate: Refer to LCS.
LFB	- Laboratory Fortified Blank: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.
LOD	- Limit of Detection: This value represents the level to which a target analyte can reliably be detected for a specific analyte in a specific matrix by a specific method. The LOD includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)
LOQ	- Limit of Quantitation: The value at which an instrument can accurately measure an analyte at a specific concentration. The LOQ includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.) Limit of Quantitation: The value at which an instrument can accurately measure an analyte at a specific concentration. The LOQ includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)
MDL	- Method Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The MDL includes any adjustments from dilutions, concentrations or moisture content, where applicable.
MS	- Matrix Spike Sample: A sample prepared by adding a known mass of target analyte to a specified amount of matrix sample for which an independent estimate of target analyte concentration is available. For Method 332.0, the spike recovery is calculated using the native concentration, including estimated values.
MSD	- Matrix Spike Sample Duplicate: Refer to MS.
NA	- Not Applicable.
NC	- Not Calculated: Term is utilized when one or more of the results utilized in the calculation are non-detect at the parameter's reporting unit.
NDPA/DPA	- N-Nitrosodiphenylamine/Diphenylamine.
NI	- Not Ignitable.
NP	- Non-Plastic: Term is utilized for the analysis of Atterberg Limits in soil.
NR	- No Results: Term is utilized when 'No Target Compounds Requested' is reported for the analysis of Volatile or Semivolatile Organic TIC only requests.
RL	- Reporting Limit: The value at which an instrument can accurately measure an analyte at a specific concentration. The RL includes any adjustments from dilutions, concentrations or moisture content, where applicable.
RPD	- Relative Percent Difference: The results from matrix and/or matrix spike duplicates are primarily designed to assess the precision of analytical results in a given matrix and are expressed as relative percent difference (RPD). Values which are less than five times the reporting limit for any individual parameter are evaluated by utilizing the absolute difference between the values; although the RPD value will be provided in the report.
SRM	- Standard Reference Material: A reference sample of a known or certified value that is of the same or similar matrix as the associated field samples.
STLP	- Semi-dynamic Tank Leaching Procedure per EPA Method 1315.
TEF	- Toxic Equivalency Factors: The values assigned to each dioxin and furan to evaluate their toxicity relative to 2,3,7,8-TCDD.
TEQ	- Toxic Equivalent: The measure of a sample's toxicity derived by multiplying each dioxin and furan by its corresponding TEF and then summing the resulting values.
TIC	- Tentatively Identified Compound: A compound that has been identified to be present and is not part of the target compound list (TCL) for the method and/or program. All TICs are qualitatively identified and reported as estimated concentrations.

Report Format: DU Report with 'J' Qualifiers



Project Name: FESL
Project Number: 20029

Lab Number: L2100688
Report Date: 01/18/21

Footnotes

- 1 - The reference for this analyte should be considered modified since this analyte is absent from the target analyte list of the original method.

Terms

Analytical Method: Both the document from which the method originates and the analytical reference method. (Example: EPA 8260B is shown as 1,8260B.) The codes for the reference method documents are provided in the References section of the Addendum.

Difference: With respect to Total Oxidizable Precursor (TOP) Assay analysis, the difference is defined as the Post-Treatment value minus the Pre-Treatment value.

Final pH: As it pertains to Sample Receipt & Container Information section of the report, Final pH reflects pH of container determined after adjustment at the laboratory, if applicable. If no adjustment required, value reflects Initial pH.

Frozen Date/Time: With respect to Volatile Organics in soil, Frozen Date/Time reflects the date/time at which associated Reagent Water-preserved vials were initially frozen. Note: If frozen date/time is beyond 48 hours from sample collection, value will be reflected in 'bold'.

Initial pH: As it pertains to Sample Receipt & Container Information section of the report, Initial pH reflects pH of container determined upon receipt, if applicable.

PAH Total: With respect to Alkylated PAH analyses, the 'PAHs, Total' result is defined as the summation of results for all or a subset of the following compounds: Naphthalene, C1-C4 Naphthalenes, 2-Methylnaphthalene, 1-Methylnaphthalene, Biphenyl, Acenaphthylene, Acenaphthene, Fluorene, C1-C3 Fluorenes, Phenanthrene, C1-C4 Phenanthrenes/Anthracenes, Anthracene, Fluoranthene, Pyrene, C1-C4 Fluoranthenes/Pyrenes, Benz(a)anthracene, Chrysene, C1-C4 Chrysenes, Benzo(b)fluoranthene, Benzo(j)+(k)fluoranthene, Benzo(e)pyrene, Benzo(a)pyrene, Perylene, Indeno(1,2,3-cd)pyrene, Dibenz(ah)+(ac)anthracene, Benzo(g,h,i)perylene. If a 'Total' result is requested, the results of its individual components will also be reported.

PFAS Total: With respect to PFAS analyses, the 'PFAS, Total (5)' result is defined as the summation of results for: PFHpA, PFHxS, PFOA, PFNA and PFOS. In addition, the 'PFAS, Total (6)' result is defined as the summation of results at or above the RL for: PFHpA, PFHxS, PFOA, PFNA, PFDA and PFOS. (Note: 'PFAS, Total (6)' is applicable to MassDEP DW compliance analysis only.). If a 'Total' result is requested, the results of its individual components will also be reported.

The target compound Chlordane (CAS No. 57-74-9) is reported for GC ECD analyses. Per EPA, this compound "refers to a mixture of chlordane isomers, other chlorinated hydrocarbons and numerous other components." (Reference: USEPA Toxicological Review of Chlordane, In Support of Summary Information on the Integrated Risk Information System (IRIS), December 1997.)

Total: With respect to Organic analyses, a 'Total' result is defined as the summation of results for individual isomers or Aroclors. If a 'Total' result is requested, the results of its individual components will also be reported. This is applicable to 'Total' results for methods 8260, 8081 and 8082.

Data Qualifiers

- A** - Spectra identified as "Aldol Condensates" are byproducts of the extraction/concentration procedures when acetone is introduced in the process.
- B** - The analyte was detected above the reporting limit in the associated method blank. Flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For MCP-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For DOD-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank AND the analyte was detected above one-half the reporting limit (or above the reporting limit for common lab contaminants) in the associated method blank. For NJ-Air-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte above the reporting limit. For NJ-related projects (excluding Air), flag only applies to associated field samples that have detectable concentrations of the analyte, which was detected above the reporting limit in the associated method blank or above five times the reporting limit for common lab contaminants (Phthalates, Acetone, Methylene Chloride, 2-Butanone).
- C** - Co-elution: The target analyte co-elutes with a known lab standard (i.e. surrogate, internal standards, etc.) for co-extracted analyses.
- D** - Concentration of analyte was quantified from diluted analysis. Flag only applies to field samples that have detectable concentrations of the analyte.
- E** - Concentration of analyte exceeds the range of the calibration curve and/or linear range of the instrument.
- F** - The ratio of quantifier ion response to qualifier ion response falls outside of the laboratory criteria. Results are considered to be an estimated maximum concentration.
- G** - The concentration may be biased high due to matrix interferences (i.e. co-elution) with non-target compound(s). The result should be considered estimated.
- H** - The analysis of pH was performed beyond the regulatory-required holding time of 15 minutes from the time of sample collection.
- I** - The lower value for the two columns has been reported due to obvious interference.
- J** - Estimated value. The Target analyte concentration is below the quantitation limit (RL), but above the Method Detection Limit (MDL) or Estimated Detection Limit (EDL) for SPME-related analyses. This represents an estimated concentration for Tentatively Identified Compounds (TICs).
- M** - Reporting Limit (RL) exceeds the MCP CAM Reporting Limit for this analyte.
- ND** - Not detected at the method detection limit (MDL) for the sample, or estimated detection limit (EDL) for SPME-related analyses.

Report Format: DU Report with 'J' Qualifiers



Project Name: FESL
Project Number: 20029

Lab Number: L2100688
Report Date: 01/18/21

Data Qualifiers

- NJ** - Presumptive evidence of compound. This represents an estimated concentration for Tentatively Identified Compounds (TICs), where the identification is based on a mass spectral library search.
- P** - The RPD between the results for the two columns exceeds the method-specified criteria.
- Q** - The quality control sample exceeds the associated acceptance criteria. For DOD-related projects, LCS and/or Continuing Calibration Standard exceedences are also qualified on all associated sample results. Note: This flag is not applicable for matrix spike recoveries when the sample concentration is greater than 4x the spike added or for batch duplicate RPD when the sample concentrations are less than 5x the RL. (Metals only.)
- R** - Analytical results are from sample re-analysis.
- RE** - Analytical results are from sample re-extraction.
- S** - Analytical results are from modified screening analysis.

Project Name: FESL
Project Number: 20029

Lab Number: L2100688
Report Date: 01/18/21

REFERENCES

- 1 Test Methods for Evaluating Solid Waste: Physical/Chemical Methods. EPA SW-846. Third Edition. Updates I - VI, 2018.

LIMITATION OF LIABILITIES

Alpha Analytical performs services with reasonable care and diligence normal to the analytical testing laboratory industry. In the event of an error, the sole and exclusive responsibility of Alpha Analytical shall be to re-perform the work at it's own expense. In no event shall Alpha Analytical be held liable for any incidental, consequential or special damages, including but not limited to, damages in any way connected with the use of, interpretation of, information or analysis provided by Alpha Analytical.

We strongly urge our clients to comply with EPA protocol regarding sample volume, preservation, cooling, containers, sampling procedures, holding time and splitting of samples in the field.



Certification Information

The following analytes are not included in our Primary NELAP Scope of Accreditation:

Westborough Facility

EPA 624/624.1: m/p-xylene, o-xylene, Naphthalene

EPA 8260C: NPW: 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene, Azobenzene; SCM: Iodomethane (methyl iodide), 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene.

EPA 8270D: NPW: Dimethylnaphthalene, 1,4-Diphenylhydrazine; SCM: Dimethylnaphthalene, 1,4-Diphenylhydrazine.

SM4500: NPW: Amenable Cyanide; SCM: Total Phosphorus, TKN, NO₂, NO₃.

Mansfield Facility

SM 2540D: TSS

EPA 8082A: NPW: PCB: 1, 5, 31, 87, 101, 110, 141, 151, 153, 180, 183, 187.

EPA TO-15: Halothane, 2,4,4-Trimethyl-2-pentene, 2,4,4-Trimethyl-1-pentene, Thiophene, 2-Methylthiophene, 3-Methylthiophene, 2-Ethylthiophene, 1,2,3-Trimethylbenzene, Indan, Indene, 1,2,4,5-Tetramethylbenzene, Benzothiophene, 1-Methylnaphthalene.

EPA TO-12 Non-methane organics

EPA 3C Fixed gases

Biological Tissue Matrix: EPA 3050B

The following analytes are included in our Massachusetts DEP Scope of Accreditation

Westborough Facility:

Drinking Water

EPA 300.0: Chloride, Nitrate-N, Fluoride, Sulfate; **EPA 353.2:** Nitrate-N, Nitrite-N; **SM4500NO3-F:** Nitrate-N, Nitrite-N; **SM4500F-C, SM4500CN-CE,**

EPA 180.1, SM2130B, SM4500CI-D, SM2320B, SM2540C, SM4500H-B, SM4500NO2-B

EPA 332: Perchlorate; **EPA 524.2:** THMs and VOCs; **EPA 504.1:** EDB, DBCP.

Microbiology: SM9215B; SM9223-P/A, SM9223B-Colilert-QT, SM9222D.

Non-Potable Water

SM4500H,B, EPA 120.1, SM2510B, SM2540C, SM2320B, SM4500CL-E, SM4500F-BC, SM4500NH3-BH: Ammonia-N and Kjeldahl-N, **EPA 350.1:** Ammonia-N, **LACHAT 10-107-06-1-B:** Ammonia-N, **EPA 351.1, SM4500NO3-F, EPA 353.2:** Nitrate-N, **SM4500P-E, SM4500P-B, E, SM4500SO4-E, SM5220D, EPA 410.4, SM5210B, SM5310C, SM4500CL-D, EPA 1664, EPA 420.1, SM4500-CN-CE, SM2540D, EPA 300:** Chloride, Sulfate, Nitrate.

EPA 624.1: Volatile Halocarbons & Aromatics,

EPA 608.3: Chlordane, Toxaphene, Aldrin, alpha-BHC, beta-BHC, gamma-BHC, delta-BHC, Dieldrin, DDD, DDE, DDT, Endosulfan I, Endosulfan II, Endosulfan sulfate, Endrin, Endrin Aldehyde, Heptachlor, Heptachlor Epoxide, PCBs

EPA 625.1: SVOC (Acid/Base/Neutral Extractables), **EPA 600/4-81-045:** PCB-Oil.

Microbiology: SM9223B-Colilert-QT; Enterolert-QT, SM9221E, EPA 1600, EPA 1603.

Mansfield Facility:

Drinking Water

EPA 200.7: Al, Ba, Cd, Cr, Cu, Fe, Mn, Ni, Na, Ag, Ca, Zn. **EPA 200.8:** Al, Sb, As, Ba, Be, Cd, Cr, Cu, Pb, Mn, Ni, Se, Ag, TL, Zn. **EPA 245.1** Hg.

EPA 522.

Non-Potable Water


EPA 200.7: Al, Sb, As, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Mg, Mn, Mo, Ni, K, Se, Ag, Na, Sr, TL, Ti, V, Zn.

EPA 200.8: Al, Sb, As, Be, Cd, Cr, Cu, Fe, Pb, Mn, Ni, K, Se, Ag, Na, TL, Zn.

EPA 245.1 Hg.

SM2340B

For a complete listing of analytes and methods, please contact your Alpha Project Manager.

 NEW JERSEY CHAIN OF CUSTODY Westborough, MA 01581 8 Walkup Dr. TEL: 508-898-9220 FAX: 508-898-9193	Mansfield, MA 02048 320 Forbes Blvd TEL: 508-822-9300 FAX: 508-822-3286	Service Centers Mahwah, NJ 07430: 35 Whitney Rd, Suite 5 Albany, NY 12205: 14 Walker Way Tonawanda, NY 14150: 275 Cooper Ave, Suite 105		Page 1 of 1	Date Rec'd in Lab 1/7/21	ALPHA Job # L2100688	
		Project Information Project Name: FESL Project Location: Rochester, NY Project #: 20029 (Use Project name as Project #) <input type="checkbox"/>			Deliverables <input type="checkbox"/> NJ Full / Reduced <input type="checkbox"/> EQuIS (1 File) <input type="checkbox"/> EQuIS (4 File) <input type="checkbox"/> Other NYSDOH ELAP		Billing Information <input checked="" type="checkbox"/> Same as Client Info PO # 4715
Client Information Client: XDD Address: 22 Marin Way, Unit 3 Stratham, NH 03833 Phone: 603-778-1100 Fax: Email: lcrawford@xdd-llc.com		Project Manager: Ashaley Kane ALPHAQuote #: 12786 Turn-Around Time Standard <input checked="" type="checkbox"/> Due Date: Rush (only if pre approved) <input type="checkbox"/> # of Days:		Regulatory Requirement <input type="checkbox"/> SRS Residential/Non Residential <input type="checkbox"/> SRS Impact to Groundwater <input type="checkbox"/> NJ Ground Water Quality Standards <input type="checkbox"/> NJ IGW SPLP Leachate Criteria <input checked="" type="checkbox"/> Other		Site Information Is this site impacted by Petroleum? Yes <input type="checkbox"/> Petroleum Product:	
These samples have been previously analyzed by Alpha <input type="checkbox"/>			ANALYSIS		Sample Filtration <input type="checkbox"/> Done <input type="checkbox"/> Lab to do Preservation <input type="checkbox"/> Lab to do (Please Specify below)		
For EPH, selection is REQUIRED: <input type="checkbox"/> Category 1 <input type="checkbox"/> Category 2	For VOC, selection is REQUIRED: <input type="checkbox"/> 1,4-Dioxane <input type="checkbox"/> 8011	Other project specific requirements/comments: invoices go to ap@xdd-llc.com			Sulfate Dissolved Metals - TAL	o t a i l B o t t l e	
ALPHA Lab ID (Lab Use Only)	Sample ID	Collection Date Time	Sample Matrix	Sampler's Initials			Sample Specific Comments
00688-01	Ctrl 4 feet Dup	1/4/2021 16:00	GW	BJ	x		
02	Flow 4 feet Dup	1/4/2021 16:01	GW	BJ	x		
-03	Target 4 feet Dup	1/4/2021 16:02	GW	BJ	x		
-04	Ctrl 4 feet Dup	1/7/2021 8:40	GW	LC		x	
-05	Flow 4 feet Dup	1/7/2021 8:45	GW	LC		x	
-06	Target 4 feet Dup	1/7/2021 8:50	GW	LC		x	
Preservative Code: A = None B = HCl C = HNO ₃ D = H ₂ SO ₄ E = NaOH F = MeOH G = NaHSO ₄ H = Na ₂ S ₂ O ₃ K/E = Zn Ac/NaOH O = Other		Container Code: P = Plastic A = Amber Glass V = Vial G = Glass B = Bacteria Cup C = Cube O = Other E = Encore D = BOD Bottle		Westboro: Certification No: MA935 Mansfield: Certification No: MA015		Container Type P P Preservative A C	
Relinquished By: <i>[Signature]</i>		Date/Time: 1/7/21		Received By: <i>[Signature]</i>		Date/Time: 1/7/21 0900	
Relinquished By: <i>[Signature]</i>		Date/Time: 1/7/21 1200		Received By: <i>[Signature]</i>		Date/Time: 1/7/21 1200	
Please print clearly, legibly and completely. Samples can not be logged in and turnaround time clock will not start until any ambiguities are resolved. BY EXECUTING THIS COC, THE CLIENT HAS READ AND AGREES TO BE BOUND BY ALPHA'S TERMS & CONDITIONS .							



APPENDIX 3

Health and Safety Plan

Site Health and Safety Plan

Location:

Former Emerson Street Landfill
Rochester, New York 14606

Prepared For:

City of Rochester
Division of Environmental Quality
Room 300-B
Rochester, New York 14614

LaBella Project No. 210173

November 2020

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SITE HEALTH AND SAFETY PLAN

Project Title:	Former Emerson Street Landfill Pilot Test
Project Number:	210173
Project Location (Site):	Emerson Street, Rochester, New York
Environmental Director:	Gregory Senecal, CHMM
Project Manager:	Dan Noll, P.E.
Site Safety Supervisor:	To Be Determined
Site Contact:	To Be Determined
Safety Director:	Steven Szymanski
Proposed Date(s) of Field Activities:	To Be Determined
Site Conditions:	Slightly sloping, encompassing approximately 250 acres
Site Environmental Information Provided By:	Prior Environmental Reports by LaBella Associates, P.C. and various other consultants (refer to Work Plan)
Air Monitoring Provided By:	To Be Determined



EMERGENCY CONTACTS

	Name	Phone Number
Ambulance:	As Per Emergency Service	911
Hospital Emergency:	Unity Health Systems	585-723-7070
Poison Control Center:	Finger Lakes Poison Control	585-273-4621
Police (local, state):	Monroe County Sheriff	911
Fire Department:	Rochester Fire Department	911
Site Contact:	To Be Determined	
Agency Contact:	NYSDEC – Todd Caffoe, P.E. NYSDOH – Melissa Doroski Finger Lakes Poison Control MCDOH – Wade Silkworth	585-226-5357 518-402-7860 1-800-222-1222 585-753-5470
Environmental Director:	Greg Senecal, CHMM	Direct: 585-295-6243 Cell: 585-752-6480
Project Manager:	Dan Noll, P.E.	Direct: 585-295-611 Cell: 585-301-8458
Site Safety Supervisor:	To Be Determined	
LaBella Safety Director	Steven Szymanski	Direct: 585-295-6633



MAP AND DIRECTIONS TO THE MEDICAL FACILITY PARK RIDGE HOSPITAL

Total Time: 8 minutes
Total Distance: 3.2 miles

Start: 1700 Emerson St, Rochester, NY, 14606-3122

1. Start out going SOUTH on MCCRACKANVILLE ST toward EMERSON ST.
2. Turn RIGHT on EMERSON ST.
2. Turn RIGHT onto LEE RD/CR-154.
3. Turn LEFT onto RIDGEWAY AVE.
4. 1555 LONG POND ROAD is on the LEFT.

End: 1555 Long Pond Road, Rochester, NY 14626



1.0 Introduction

The purpose of this Health and Safety Plan (HASP) is to provide guidelines for responding to potential health and safety issues that may be encountered during remedial actions at the former Emerson Street Landfill (FESL) located on Emerson Street in the City of Rochester, Monroe County, New York. This HASP only reflects the policies of LaBella Associates D.P.C. The requirements of this HASP are applicable to LaBella personnel at the work site. It is the responsibility of each sub-consultant and sub-contractor to follow their own company's HASP. In addition, the injection contractors will be required to provide copies of their HASP for review prior to initiating work so that all personnel on-site are aware of health and safety issues and measures for these activities. This document's project specifications should be consulted for guidance in preventing and quickly abating any threat to human safety or the environment. The provisions of the HASP were developed in general accordance with 29 CFR 1910 and 29 CFR 1926 and do not replace or supersede any regulatory requirements of the USEPA, NYSDEC, OSHA or any other regulatory body.

2.0 Responsibilities

This HASP presents guidelines to minimize the risk of injury to project personnel, and to provide rapid response in the event of injury. The HASP is applicable only to activities of approved LaBella personnel. It is the responsibility of LaBella employees to follow the requirements of this HASP, or HASPs specific to individual activities, and all applicable company safety procedures.

3.0 Activities Covered

The activities covered under this HASP are limited to the following:

- ❑ PRB installation including but not limited to:
 - Fracturing bedrock
 - Mixing ZVI slurry
 - Injection of ZVI
 - Monitoring well installation and decommissioning
 - Collection of samples
- ❑ Performance Monitoring
- ❑ Re-grading/ cover system construction

4.0 Work Area Access and Site Control

Site control during the project will be the responsibility of LaBella. LaBella will have primary responsibility for maintaining a safe work area for all activities conducted by LaBella personnel. Subcontractors and sub-consultants will be responsible for maintaining a safe work area for work conducted by their own personnel. Such work area controls will consist of:

- Site security fencing with locking gate.
- Air monitoring.
- Use of Personal Protective Equipment (PPE).



5.0 Potential Health and Safety Hazards

This section lists some potential health and safety hazards that project personnel may encounter at the FESL, and some actions to be implemented by approved personnel to control and reduce the associated risk to health and safety. This is not intended to be a complete listing of any and all potential health and safety hazards. New or different hazards may be encountered as site environmental and site work conditions change. The suggested actions to be taken under this plan are not to be substituted for good judgment on the part of project personnel.

5.1 Hazards Due to Heavy Machinery and Equipment

Potential Hazard:

Heavy machinery including trucks, excavators, backhoes, drill rigs, manufacturing equipment and processes, etc will be in operation at the site. The presence of such equipment presents the danger of being struck or crushed. Use caution when working near heavy machinery and manufacturing equipment.

Protective Action:

Make sure that operators are aware of your activities, and heed operator's instructions and warnings. Wear bright colored clothing and walk safe distances from heavy equipment. Do not wear loose clothing that could be caught by moving parts. A hard hat, safety glasses and steel toe shoes are required.

5.2 Excavation Hazards

Potential Hazard:

Excavations and trenches can collapse, causing injury or death. Edges of excavations can be unstable and collapse. Fracturing and injection work will introduce pressure and will alter the pressure of the formation. Toxic and asphyxiant gases can accumulate in confined spaces and trenches. Excavations that require working within the excavation will require air monitoring in the breathing zone (refer to Section 9.0).

Excavations left open create a fall hazard which can cause injury or death.

Protective Action:

Approved personnel are not to enter excavations over 4 feet in depth unless excavations are adequately sloped. Additional personal protective equipment may be required based on the air monitoring.

Personnel should exercise caution near all excavations at the site as it is expected that excavation sidewalls will be unstable. All excavations will be backfilled by the end of each day. Additionally, no test pit will be left unattended during the day. Personnel should exercise caution during fracturing and ZVI injection and keep a safe distance from all equipment and machinery. Personnel should be cautious of well covers and other well materials that may be removed from wells due to the pressurization of the subsurface during bedrock blasting and/or chemical injection. Well caps from nearby wells should be locked in place to the steel casing or completely removed from wells prior to injection of ZVI.



Fencing and/or barriers accompanied by “no trespassing” signs should be placed around all excavations when left open for any period of time when work is not being conducted.

5.3 *Cuts, Punctures and Other Injuries*

Potential Hazard:

In any excavation or construction work site there is the potential for the presence of sharp or jagged edges on rock, metal materials, and other sharp objects. Serious cuts and punctures can result in loss of blood and infection.

Protective Action:

The Project Manager is responsible for making First Aid supplies available at the work site to treat minor injuries. The Site Safety Officer is responsible for arranging the transportation of authorized on-site personnel to medical facilities when First Aid treatment is not sufficient. Do not move seriously injured workers. All injuries requiring treatment are to be reported to the Project Manager. Serious injuries are to be reported immediately to the Site Safety Officer.

5.4 *Injury Due to Exposure of Chemical Hazards*

Potential Hazards:

Volatile organic vapors from petroleum products, chlorinated solvents or other chemicals may be encountered during the work. Inhalation of high concentrations of organic vapors can cause headache, stupor, drowsiness, confusion and other health effects. Skin contact can cause irritation, chemical burn, or dermatitis. ZVI will be utilized during the Pilot Test which can develop dust. ZVI contains approximately 96% iron and is non-toxic; however, the dust is a respiratory concern.

Protective Action:

The presence of organic vapors may be detected by their odor and by monitoring instrumentation. Approved employees will not work in environments where hazardous concentrations of organic vapors are present. Air monitoring will be performed in accordance with the NYSDOH Generic CAMP. Personnel are to leave the work area whenever PID measurements of ambient air exceed 25 ppm consistently for a 5 minute period. In the event that sustained total volatile organic compound (VOC) readings of 25 ppm is encountered personnel should upgrade personal protective equipment to Level C (refer to Section 8.0) and an Exclusion Zone should be established around the work area to limit and monitor access to this area (refer to Section 6.0). Personnel handling and mixing ZVI should attempt to prevent generating dust. A dust mask may be worn when mixing or transferring ZVI between containers to prevent inhalation. ZVI spilled to the ground in excess should be picked up using a shovel and placed in a container. The Safety Data Sheet for ZVI is included as an Appendix to the Pilot Test Work Plan.

5.5 *Injuries Due to Extreme Hot or Cold Weather Conditions*

Potential Hazards:

Extreme hot weather conditions can cause heat exhaustion, heat stress and heat stroke or extreme cold weather conditions can cause hypothermia.

Protective Action:

Precaution measures should be taken such as dress appropriately for the weather conditions and



drink plenty of fluid. If personnel should suffer from any of the above conditions, proper techniques should be taken to cool down or heat up the body and taken to the nearest hospital if needed.

5.6 *Potential Exposure to Asbestos*

Potential Hazards:

During ground intrusive activities (e.g., test pitting or drilling) soil containing asbestos may be encountered. Asbestos is friable when dry and can be inhaled when exposed to air.

Protective Action:

The presence of asbestos can be identified through visual observation of a white magnesium silicate material. If encountered, work should be halted and a sample of the suspected asbestos should be collected and placed in a plastic sealable bag. This sample should be sent to the asbestos laboratory at LaBella Associates for analysis.

5.7 *Potential Explosive Atmospheres*

Potential Hazards:

During ground intrusive activities (e.g., drilling, chemical injections, bedrock blasting, etc.), methane rich vapors within the explosive range could be encountered and pose an explosion risk once encountered.

Protective Action:

For all subsurface work, the work area environment will be monitored for methane concentrations. In the event that methane levels are measured at 50% of the lower explosive limit (LEL), meaning methane levels of 2.5% (i.e., methane LEL is 5%) then the work should be ceased until levels decrease to below 2.5%.

5.8 *Potential Exposure to Radiation*

Potential Hazards:

During ground intrusive activities (e.g., test pitting or drilling), radioactive material could be encountered and pose an exposure risk to humans once encountered.

Protective Action:

Each area of soil/ fill excavated should be screened with the Ludlum meter to check the level of radiation on the soil as compared to the Site background level of radiation. Should the level of radiation on the soil sample exceed 2 times the Site background level, then work should be halted at the specified location and Mr. Rick Rote of LaBella Associates, P.C. should be contacted immediately (see page ii Emergency Contacts).

5.9 *Potential High Pressure Equipment Failure*

Potential Hazards:

During injection work, high pressure pumps will be utilized with associated piping/ tubing. Failure of the equipment and/or materials (e.g., fittings) could result in a high pressure burst of the ZVI.



Protective Action:

LaBella will confirm with the injection contractor prior to work initiating that all equipment has been checked for defects or wear and that any materials/ equipment with suspect conditions is replaced. In addition, LaBella will be aware of the location of such equipment and will observe the work from a safe distance as much as possible. The use of proper PPE will also reduce potential issues should an incident occur.

5.10 *Potential Mishandling of Explosives*

Potential Hazards:

During the blasting work, explosives will be utilized to create a blast-enhanced bedrock trench. Misuse of the explosives could result in injury or death.

Protective Action:

LaBella will review the blasting subcontractor's HASP and review and health and safety measures during a site meeting with the contractor prior to the work. LaBella will observe/ document the work from a safe distance to be provided by the contractor and will not enter the EZ during blasting.

6.0 Work Zones

In the event that conditions warrant establishing various work zones (i.e., based on hazards - Section 5.4), the following work zones should be established:

Exclusion Zone (EZ):

The EZ will be established in the immediate vicinity and adjacent downwind direction of site activities that elevate breathing zone VOC concentrations to unacceptable levels based on field screening. These site activities include contaminated soil excavation and soil sampling activities. If access to the site is required to accommodate non-project related personnel then an EZ will be established by constructing a barrier around the work area (yellow caution tape and/or construction fencing). The EZ barrier shall encompass the work area and any equipment staging/soil staging areas necessary to perform the associated work. The contractor(s) will be responsible for establishing the EZ and limiting access to approved personnel. LaBella will not enter the EZ unless deemed necessary to do so. Depending on the condition for establishing the EZ, access to the EZ may require adequate PPE (e.g., Level C).

Contaminant Reduction Zone (CRZ):

The CRZ will be the area where personnel entering the EZ will don proper PPE prior to entering the EZ and the area where PPE may be removed. The CRZ will also be the area where decontamination of equipment and personnel will be conducted as necessary.

7.0 Decontamination Procedures

Upon leaving the work area, approved personnel shall decontaminate footwear as needed. Under normal work conditions, detailed personal decontamination procedures will not be necessary. Work clothing may become contaminated in the event of an unexpected splash or spill or contact with a contaminated substance. Minor splashes on clothing and footwear can be rinsed with clean water. Heavily contaminated clothing should be removed if it cannot be rinsed with water. Personnel assigned to this



project should be prepared with a change of clothing whenever on site.

8.0 Personal Protective Equipment

Generally, site conditions at this work site require level of protection of Level D or modified Level D. However, air monitoring will be conducted to determine if up-grading to Level C PPE is required (refer to Section 9.0). Descriptions of the typical safety equipment associated with Level D and Level C are provided below:

Level D:

Hard hat, safety glasses, rubber nitrile sampling gloves, steel toe construction grade boots, etc.

Level C:

Level D PPE and full or ½-face respirator and tyvek suit (if necessary). [*Note: Organic vapor cartridges are to be changed after each 8-hours of use or more frequently.*]

9.0 Air Monitoring

According to 29 CFR 1910.120(h), air monitoring shall be used to identify and quantify airborne levels of hazardous substances and health hazards in order to determine the appropriate level of employee protection required for personnel working onsite. Air monitoring will consist at a minimum of the procedures described in “NYSDOH Generic CAMP”, included as Appendix 1A to the NYSDEC DER-10 *Technical Guidance for Site Investigation and Remediation* dated November 2009. Please refer to the NYSDOH Generic CAMP for further details on air monitoring at the Site.

The Air Monitor will utilize a photoionization Detector (PID) to screen the ambient air in the work areas for total Volatile Organic Compounds (VOCs) and a DustTrak™ Model 8520 aerosol monitor or equivalent for measuring particulates. Ambient air will generally be monitored upwind and downwind of the work area and logged in a minimum of 15-minute intervals during subsurface work.

If sustained PID readings of greater than 25 ppm are recorded in the breathing zone, then either personnel are to leave the work area until satisfactory readings are obtained or approved personnel may re-enter the work areas wearing at a minimum a ½ face respirator with organic vapor cartridges for an 8-hour duration (i.e., upgrade to Level C PPE). Organic vapor cartridges are to be changed after each 8-hours of use or more frequently, if necessary. If PID readings are sustained, in the work area, at levels above 25 ppm for a 5 minute average, work will be stopped immediately until safe levels of VOCs are encountered or additional PPE will be required (i.e., Level B).

If dust concentrations exceed the upwind concentration by 150 µg/m³ (0.15 mg/m³) consistently for a 10 minute period within the work area or at the downwind location, then LaBella personnel may not re-enter the work area until dust concentrations in the work area decrease below 150 µg/m³ (0.15 mg/m³), which may be accomplished by the construction manager implementing dust control or suppression measures.

10.0 Emergency Action Plan

In the event of an emergency, employees are to turn off and shut down all powered equipment and leave the work areas immediately. Employees are to walk or drive out of the Site as quickly as possible and wait at the assigned 'safe area'. Follow the instructions of the Site Safety Officer.



Employees are not authorized or trained to provide rescue and medical efforts. Rescue and medical efforts will be provided by local authorities.

11.0 Medical Surveillance

Medical surveillance will be provided to all employees who are injured due to overexposure from an emergency incident involving hazardous substances at this site.

12.0 Employee Training

Personnel who are not familiar with this site plan will receive training on its entire content and organization before working at the Site.

Individuals involved with the fieldwork must be 40-hour OSHA HAZWOPER trained with current 8-hour refresher certification.



Table 1
Exposure Limits and Recognition Qualities

Compound	PEL-TWA (ppm)(b)(d)	TLV-TWA (ppm)(c)(d)	STEL	LEL (%) ^(e)	UEL (%) ^(f)	IDLH (ppm)(g)(d)	Odor	Odor Threshold (ppm)	Ionization Potential
Acetone	750	500	NA	2.15	13.2	20,000	Sweet	4.58	9.69
Anthracene	0.2	0.2	NA	NA	NA	NA	Faint aromatic	NA	NA
Benzene	1	0.5	5	1.3	7.9	3000	Pleasant	8.65	9.24
Benzo (a) pyrene (coal tar pitch volatiles)	0.2	0.1	NA	NA	NA	700	NA	NA	NA
Benzo (a)anthracene	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo (b) Fluoranthene	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo (g,h,i)perylene	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo (k) Fluoranthene	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromodichloromethane	NA	NA	NA	NA	NA	NA	NA	NA	10.88
Carbon Disulfide	20	1	NA	1.3	50	500	Odorless or strong garlic type	0.096	10.07
Chlorobenzene	75	10	NA	1.3	9.6	2,400	Faint almond	0.741	9.07
Chloroform	50	2	NA	NA	NA	1,000	ethereal odor	11.7	11.42
Chrysene	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloroethylene	200	200	NA	9.7	12.8	400	Acrid	NA	9.65
1,2-Dichlorobenzene	50	25	NA	2.2	9.2		Pleasant		9.07
Ethylbenzene	100	100	NA	1	6.7	2,000	Ether	2.3	8.76
Fluoranthene	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluorene	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isopropylbenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methane	NA	NA	NA	5	15	NA	NA	NA	12.98
Methylene Chloride	500	50	NA	12	23	5,000	Chloroform-like	10.2	11.35
Naphthalene	10, Skin	10	NA	0.9	5.9	250	Moth Balls	0.3	8.12
n-propylbenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenanthrene	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pyrene	NA	NA	NA	NA	NA	NA	NA	NA	NA
p-Isopropylbenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA
sec-Butylbenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethane	NA	NA	NA	NA	NA	NA	Sweet	NA	NA
Toluene	100	100	NA	0.9	9.5	2,000	Sweet	2.1	8.82
Trichloroethylene	100	50	NA	8	12.5	1,000	Chloroform	1.36	9.45
1,2,4-Trimethylbenzene	NA	25	NA	0.9	6.4	NA	Distinct	2.4	NA
1,3,5-Trimethylbenzene	NA	25	NA	NA	NA	NA	Distinct	2.4	NA
Vinyl Chloride	1	1	NA	NA	NA	NA	NA	NA	NA
Xylenes (o,m,p)	100	100	NA	1	7	1,000	Sweet	1.1	8.56
<i>Metals</i>									
Arsenic	0.01	0.2	NA	NA	NA	100, Ca	Almond	NA	NA
Cadmium	0.2	0.5	NA	NA	NA	NA	NA	NA	NA
Chromium	1	0.5	NA	NA	NA	NA	NA	NA	NA
Lead	0.05	0.15	NA	NA	NA	700	NA	NA	NA
Mercury	0.05	0.05	NA	NA	NA	28	Odorless	NA	NA
Selenium	0.2	0.02	NA	NA	NA	Unknown	NA	NA	NA
<i>Other</i>									
Asbestos	0.1 (f/cc)	NA	1.0 (f/cc)	NA	NA	NA	NA	NA	NA

(a) Skin = Skin Absorption

(b) OSHA-PEL Permissible Exposure Limit (flame weighted average, 8-hour): NIOSH Guide, June 1990

(c) ACGIH – 8 hour time weighted average from Threshold Limit Values and Biological Exposure Indices for 2003

(d) Metal compounds in mg/m³

(e) Lower Exposure Limit (%)

(f) Upper Exposure Limit (%)

(g) Immediately Dangerous to Life or Health Level: NIOSH Guide, June 1990

Notes:

- All values are given in parts per million (PPM) unless otherwise indicated
- Ca = Possible Human Carcinogen, no IDLH information



APPENDIX 4

Community Air Monitoring Plan

APPENDIX 1A

New York State Department of Health Generic Community Air Monitoring Plan

A Community Air Monitoring Plan (CAMP) requires real-time monitoring for volatile organic compounds (VOCs) and particulates (i.e., dust) at the downwind perimeter of each designated work area when certain activities are in progress at contaminated sites. The CAMP is not intended for use in establishing action levels for worker respiratory protection. Rather, its intent is to provide a measure of protection for the downwind community (i.e., off-site receptors including residences and businesses and on-site workers not directly involved with the subject work activities) from potential airborne contaminant releases as a direct result of investigative and remedial work activities. The action levels specified herein require increased monitoring, corrective actions to abate emissions, and/or work shutdown. Additionally, the CAMP helps to confirm that work activities did not spread contamination off-site through the air.

The generic CAMP presented below will be sufficient to cover many, if not most, sites. Specific requirements should be reviewed for each situation in consultation with NYSDOH to ensure proper applicability. In some cases, a separate site-specific CAMP or supplement may be required. Depending upon the nature of contamination, chemical- specific monitoring with appropriately-sensitive methods may be required. Depending upon the proximity of potentially exposed individuals, more stringent monitoring or response levels than those presented below may be required. Special requirements will be necessary for work within 20 feet of potentially exposed individuals or structures and for indoor work with co-located residences or facilities. These requirements should be determined in consultation with NYSDOH.

Reliance on the CAMP should not preclude simple, common-sense measures to keep VOCs, dust, and odors at a minimum around the work areas.

Community Air Monitoring Plan

Depending upon the nature of known or potential contaminants at each site, real-time air monitoring for volatile organic compounds (VOCs) and/or particulate levels at the perimeter of the exclusion zone or work area will be necessary. Most sites will involve VOC and particulate monitoring; sites known to be contaminated with heavy metals alone may only require particulate monitoring. If radiological contamination is a concern, additional monitoring requirements may be necessary per consultation with appropriate NYSDEC/NYSDOH staff.

Continuous monitoring will be required for all ground intrusive activities and during the demolition of contaminated or potentially contaminated structures. Ground intrusive activities include, but are not limited to, soil/waste excavation and handling, test pitting or trenching, and the installation of soil borings or monitoring wells.

Periodic monitoring for VOCs will be required during non-intrusive activities such as the collection of soil and sediment samples or the collection of groundwater samples from existing monitoring wells. "Periodic" monitoring during sample collection might reasonably consist of taking a reading upon arrival at a sample location, monitoring while opening a well cap or overturning soil, monitoring during well baling/purging, and taking a reading prior to leaving a sample location. In some instances, depending upon the proximity of potentially exposed individuals, continuous monitoring may be required during sampling activities. Examples of such situations include groundwater sampling at wells on the curb of a busy urban street, in the midst of a public park, or adjacent to a school or residence.

VOC Monitoring, Response Levels, and Actions

Volatile organic compounds (VOCs) must be monitored at the downwind perimeter of the immediate work area (i.e., the exclusion zone) on a continuous basis or as otherwise specified. Upwind concentrations should be measured at the start of each workday and periodically thereafter to establish background conditions. The monitoring work should be performed using equipment appropriate to measure the types of contaminants known or suspected to be present. The equipment should be calibrated at least daily for the contaminant(s) of concern or for an appropriate surrogate. The equipment should be capable of calculating 15-minute running average concentrations, which will be compared to the levels specified below.

- If the ambient air concentration of total organic vapors at the downwind perimeter of the work area or exclusion zone exceeds 5 parts per million (ppm) above background for the 15-minute average, work activities must be temporarily halted and monitoring continued. If the total organic vapor level readily decreases (per instantaneous readings) below 5 ppm over background, work activities can resume with continued monitoring.
- If total organic vapor levels at the downwind perimeter of the work area or exclusion zone persist at levels in excess of 5 ppm over background but less than 25 ppm, work activities must be halted, the source of vapors identified, corrective actions taken to abate emissions, and monitoring continued. After these steps, work activities can resume provided that the total organic vapor level 200 feet downwind of the exclusion zone or half the distance to the nearest potential receptor or residential/commercial structure, whichever is less - but in no case less than 20 feet, is below 5 ppm over background for the 15-minute average.
- If the organic vapor level is above 25 ppm at the perimeter of the work area, activities must be shutdown.

All 15-minute readings must be recorded and be available for State (DEC and DOH) personnel to review. Instantaneous readings, if any, used for decision purposes should also be recorded.

Particulate Monitoring, Response Levels, and Actions

Particulate concentrations should be monitored continuously at the upwind and downwind perimeters of the exclusion zone at temporary particulate monitoring stations. The particulate monitoring should be performed using real-time monitoring equipment capable of measuring particulate matter less than 10 micrometers in size (PM-10) and capable of integrating over a period of 15 minutes (or less) for comparison to the airborne particulate action level. The equipment must be equipped with an audible alarm to indicate exceedance of the action level. In addition, fugitive dust migration should be visually assessed during all work activities.

- If the downwind PM-10 particulate level is 100 micrograms per cubic meter (mcg/m^3) greater than background (upwind perimeter) for the 15-minute period or if airborne dust is observed leaving the work area, then dust suppression techniques must be employed. Work may continue with dust suppression techniques provided that downwind PM-10 particulate levels do not exceed 150 mcg/m^3 above the upwind level and provided that no visible dust is migrating from the work area.
- If, after implementation of dust suppression techniques, downwind PM-10 particulate levels are greater than 150 mcg/m^3 above the upwind level, work must be stopped and a re-evaluation of activities initiated. Work can resume provided that dust suppression measures and other controls are successful in reducing the downwind PM-10 particulate concentration to within 150 mcg/m^3 of the upwind level and in preventing visible dust migration.

All readings must be recorded and be available for State (DEC and DOH) personnel to review.



APPENDIX 5

Quality Control Plan



Quality Control Program (QCP)

Site Location:

Former Emerson Street Landfill
1700 Emerson Street
Rochester, New York

October 2020

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1.0 Introduction

LaBella's Quality Control Program (QCP) is an integral part of its approach to environmental investigations. By maintaining a rigorous QC program, our firm is able to provide accurate and reliable data. This QCP should be followed during implementation of environmental investigation and remediation projects and should serve as a basis for quality control methods to be implemented during field programs. Project-specific requirements may apply.

The QC program contains procedures which allow for the proper collection and evaluation of data and documents that QC procedures have been followed during field investigations. The QC program presents the methodology and measurement procedures used in collecting quality field data. This methodology includes the proper use of equipment, documentation of sample collection, and sample handling procedures.

Procedures used in the firm's QC program are compatible with federal, state, and local regulations, as well as, appropriate professional and technical standards.

This QC program includes the following:

- QC Objectives and Checks
- Field Equipment, Handling, and Calibration
- Sampling and Logging Techniques
- Sample Handling, Packaging, and Shipping
- Laboratory Requirements and Deliverables

It should be noted that project-specific work plans (e.g., Remedial Investigation Work Plans) may have project specific details that will differ from the procedures in this QC program. In such cases, the project-specific work plan should be followed (subsequent to regulatory approval).

The characteristics of major importance for the assessment of generated data are accuracy, precision, completeness, representativeness, and comparability. Application of these characteristics to specific projects is addressed later in this document. The characteristics are defined below.

1.1 Accuracy

Accuracy is the degree of agreement of a measurement or average of measurements with an accepted reference or "true" value and is a measure of bias in the system.

1.2 Precision

Precision is the degree of mutual agreement among individual measurements of a given parameter.

1.3 Completeness

Completeness is a measure of the amount of valid data obtained from a measurement system compared to the amount expected to be obtained under correct normal conditions.

1.4 Representativeness

Representativeness expresses the degree to which data accurately and precisely represents a characteristic of a population, parameter variations at a sampling point, a process condition, or an environmental condition

Careful choice and use of appropriate methods in the field will ensure that samples are representative. This is relatively easy with water or air samples since these components are homogeneously dispersed. In soil and sediment, contaminants are unlikely to be evenly distributed, and thus it is important for the sampler and analyst to exercise good judgment when removing a sample.

1.5 Comparability

Comparability expresses the confidence with which one data set can be compared to another. The data sets may be inter- or intra- laboratory.

2.0 Measurement of Data Quality

2.1 Accuracy

Accuracy of a particular analysis is measured by assessing its performance with "known" samples. These "knowns" take the form of EPA standard reference materials, or laboratory prepared solutions of target analytes spiked into a pure water or sample matrix. In the case of gas chromatography (GC) or GC/MS (mass spectrometry) analyses, solutions of surrogate compounds are used. These solutions can be spiked into every sample and are designed to mimic the behavior of target analytes without interfering with their determination.

In each case the recovery of the analyte is measured as a percentage, correcting for analytes known to be present in the original sample if necessary, as in the case of a matrix spike analysis. For EPA supplied known solutions, this recovery is compared to the published data that accompany the solution.

For the firm's prepared solutions, the recovery is compared to EPA-developed data or the firm's historical data as available. For surrogate compounds, recoveries are compared to EPA CLP acceptable recovery tables.

If recoveries do not meet required criteria, then the analytical data for the batch (or, in the case of surrogate compounds, for the individual sample) are considered potentially inaccurate. The analyst or his supervisor must initiate an investigation of the cause of the problem and take corrective action. This can include recalibration of the instrument, reanalysis of the QC sample, reanalysis of

the samples in the batch, or flagging the data as suspect if the problems cannot be resolved. For highly contaminated samples, recovery of the matrix spike may depend on sample homogeneity. As a rule, analyses are not corrected for recovery of matrix spike or surrogate compounds.

2.2 Precision

Precision of a particular analysis is measured by assessing its performance with duplicate or replicate samples. Duplicate samples are pairs of samples taken in the field and transported to the laboratory as distinct samples. Their identity as duplicates is typically not known to the laboratory. For most purposes, precision is determined by the analysis of replicate pairs (i.e., two samples prepared at the laboratory from one original sample). Often in replicate analysis the sample chosen for replication does not contain target analytes so that quantitation of precision is impossible. For EPA CLP analyses, replicate pairs of spiked samples, known as matrix spike/matrix spike duplicate samples, are used for precision studies. This has the advantage that two real positive values for a target analyte can be compared.

Precision is calculated in terms of Relative Percent Difference (RPD).

- Where X_1 and X_2 represent the individual values found for the target analyte in the two replicate analyses or in the matrix spike/matrix spike duplicate analyses.
- RPDs must be compared to the method RPD for the analysis. The analyst or his supervisor must investigate the cause of RPDs outside stated acceptance limits. This may include a visual inspection of the sample for non-homogeneity, analysis of check samples, etc. Follow-up action may include sample reanalysis or flagging of the data as suspect if problems cannot be resolved.
- During the data review and validation process, field duplicate RPDs are assessed as a measure of the total variability of both field sampling and laboratory analysis.

2.3 Completeness

Completeness for each parameter is calculated as follows:

- The firm's target value for completeness for all parameters is 100%. A completeness value of 95% will be considered acceptable. Incomplete results will be reported to the site managers. In planning the field sample collection, the site manager will plan to collect field duplicates from identified critical areas. This procedure should assure 100% completeness for these areas.

2.4 Representativeness

The characteristic of representativeness is not quantifiable. Subjective factors to be taken into account are as follows:

- The degree of homogeneity of a site;
- The degree of homogeneity of a sample taken from one point in a site; and
- The available information on which a sampling plan is based.

To maximize representativeness of results, sampling techniques and sample locations will be carefully chosen so that they provide laboratory samples representative of the site and the specific area. Within the laboratory, precautions are taken to extract from the sample bottle an aliquot representative of the whole sample. This includes premixing the sample and discarding pebbles from soil samples.

2.5 Comparability

Comparability of laboratory tests is ensured by utilizing only New York State Department of Health (NYSDOH) Environmental Laboratory Accreditation Program (ELAP)- certified laboratories. This certification is the basis for demonstrating proficiency in testing requirements. Using ELAP certified laboratories will result in consistency amongst analytical data within a specific project and across projects.

3.0 Quality Control Targets

Target values for detection limit, percent spike recovery and percent "true" value of known check standards, and RPD of duplicates/replicates are included in the QCP, Analytical Procedures. Note that tabulated values are not always attainable. Instances may arise where high sample concentrations, non-homogeneity of samples, or matrix interferences preclude achievement of target detection limits or other quality control criteria. In such instances, the firm will report reasons for deviations from these detection limits or noncompliance with quality control criteria.

4.0 Soil Boring Advancement & Monitoring Well Installation Procedures

Soil and groundwater sampling shall be conducted in accordance with NYSDEC Division of Environmental Remediation (DER)-10 Technical Guidance for Site Investigation and Remediation dated May 3, 2010 and any Site-specific work plans.

Prior to drilling, all drill sites will be cleared with appropriate utility companies to avoid potential accidents relating to underground utilities. Utility drawings will be reviewed, if available.

4.1 Drilling Equipment and Techniques

Direct Push Geoprobe Advanced Borings:

Soil borings and monitoring wells will be advanced with a Geoprobe direct push sampling system. The use of direct push technology allows for rapid sampling, observation, and characterization of relatively shallow overburden soils. The Geoprobe utilizes a four to five-foot macrocore sampler, with disposable polyethylene sleeves. Soil cores will be retrieved in four or five-foot sections, and can be easily cut from the polyethylene sleeves for observation and sampling. The macrocore sampler will be decontaminated between boring locations using an alconox and water solution.

Prior to initiating drilling activities, the Macrocores, drive rods, and pertinent equipment, will be steam cleaned or washed with an alconox and water solution. This cleaning procedure will also be used between each boring. Throughout and after the cleaning processes, direct contact between the equipment and the ground surface will be avoided. Plastic sheeting and/or clean support structures (e.g., pallets, sawhorses) will be used.

Test borings will be advanced with 2-inch (or larger) inside diameter (ID) direct push Macrocore through overburden soils. Drilling fluids, other than potable water will not be allowed without special consideration and agreement from NYSDEC. The use of lubricants is also not allowed unless approved by the NYSDEC representative.

During the drilling, a properly calibrated photoionization detector (PID) will be used to screen soil cores retrieved from the Macrocores.

Direct Push Geoprobe advanced groundwater-monitoring wells typically utilize minimum 1.25-inch threaded flush joint PVC pipe with 0.010-in. slotted screen or pre-packed well screens. PVC piping used for risers and screens will conform to the requirements of ASTM-D 1785 Schedule 40 pipe.. All materials used to construct the wells will be NSF/ASTM approved. Solvent PVC glue shall not be used at any time in the construction of the wells. The bottom of the screen shall be sealed with a treated cap or plug. No lead shot or lead wool is to be employed in sealing the bottom of the well or for sealant at any point in the well. Stainless steel wells or pre-packed PVC wells may be used if specified in the work plan and approved by the NYSDEC.

Hollow-Stem Auger Advanced Borings:

The drilling and installation of soil borings and monitoring wells will be performed using a rotary drill rig which will have sufficient capacity to perform 4 1/4-inch inside diameter (ID) hollow-stem auger drilling in the overburden, retrieve Macrocore or split-spoon samples, and perform necessary rock coring using NX, NQ, HQ or core barrel size as specified in the project-specific work plan. The borehole may be reamed up to 5 1/2-inch diameter prior to monitoring well installation as cased hole in the bedrock, or may be left as open bedrock hole, with regulatory concurrence. Equipment sizes and diameters may vary based on project-specific criteria. Any investigative derived waste generated during the advancement of soil borings and monitoring well installations will be containerized and characterized for proper disposal.

Prior to initiating drilling activities, the augers, rods, Macrocore, split spoons, and other pertinent equipment will be steam cleaned or washed with an alconox and water solution. This cleaning procedure will also be used between each boring. Steam cleaning activities will be performed in a designated on-site decontamination area. During and after the cleaning processes, direct contact between the equipment and the ground surface will be avoided. Plastic sheeting and/or clean support structures (e.g., pallets, sawhorses) will be used.

Test borings will be advanced with 4 1/4-inch (ID) hollow stem augers through overburden, and cored with a NX, NQ, HQ or core barrel size as specified in the project-specific work plan sized diamond core barrels in competent rock, driven by truck-, track-, or trailer-mounted drilling equipment. Alternative methods of drilling or equipment may be allowed or requested for project-

specific criteria, but must be approved by the NYSDEC. Drilling fluids, other than water from a NYSDEC-approved source, will not be allowed without special consideration and agreement from NYSDEC. The use of lubricants is also not allowed unless approved by the NYSDEC representative.

During the drilling, a (PID) will be used to screen soils retrieved from the split spoons or Macrocores. In the event that headspace field screening is required to determine the presence of VOCs in soil samples, the following procedure will be utilized:

- Soils from core will be inserted into an airtight glass jar and/or disposable polyethylene bag, and the container will be sealed immediately
- After sealing the container, the soils will be shaken or kneaded for 10-15 seconds to release volatiles into the headspace of the sealed container
- The PID inlet will be inserted into the headspace of the airtight container to screen soil samples for VOCs

During the drilling, visual screening will be utilized to identify any Non-Aqueous Phase Liquid (NAPL) in the soil cores.

Where bedrock wells are required, test borings shall be advanced into rock with NX, NQ, HR (or similar) coring tools. Only water from an approved source shall be used in rock coring. The consultant shall monitor and record the petrology, core recovery, fractures, rate of advance, and water lost or produced in each test boring. The Rock Quality Determination (RQD) value shall be calculated for each 5-foot core. Each core shall be screened with a PID upon extraction. All core samples shall be retained and stored by the consultant in an approved wooden core box for a period of not less than one year.

The method selected may be percussion or rotary drilling. The method and equipment selected must be capable of penetrating the bedrock at each well location to a depth required by the work plan.

Bedrock well installation will involve construction of a rock socket in the weathered bedrock. The socket will be drilled into the top of rock (typically 1-ft. to 5-ft. into the top of rock) at each bedrock well location to allow a permanent steel casing to be grouted securely in place prior to completion of the well. The purpose for this is to provide a seal at the overburden/bedrock interface and into the upper bedrock surface, to prevent the entrance of overburden water into the bedrock. After the grout and casing have set up for a minimum of 12 hours, the remaining bedrock can be NX (or similar) cored through the steel casing to a depth determined by the project-specific work plan.

Bedrock wells will either be open coreholes in the rock or consist of threaded, flush-joint PVC piping. Construction will vary depending on the project and as such, specific construction of the wells will be detailed in the project-specific work plan. Bedrock wells which do utilize PVC piping for risers and screens will conform to the requirements of ASTM-D 1785 Schedule 40 pipe. All materials used to construct the wells will be NSF/ASTM approved.

Screen and riser sections shall be joined by flush-threaded coupling to form watertight unions that retain 100% of the strength of the casing. Solvent PVC glue shall not be used at any time in the

construction of the wells. The bottom of the screen shall be sealed with a treated cap or plug. No lead shot or lead wool is to be employed in sealing the bottom of the well or for sealant at any point in the well.

4.1.1 Artificial Sand Pack

When utilized, granular backfill will be chemically and texturally clean, inert, siliceous, and of appropriate grain size for the screen slot size and the host environment. The sand pack will be installed using a tremie pipe, when possible (i.e., a tremie pipe may not fit into smaller, 2-in. diameter boreholes). When utilized, the well screen and casing will be installed, and the sand pack placed around the screen and casing to a depth extending at least 2-ft.. A pre-packed well screen may be used if pre-approved by the NYSDEC.

An artificial sand pack will not be utilized in bedrock wells without screens (i.e., open borehole wells).

4.1.2 Bentonite Seal

A minimum 2-ft. thick seal will be placed directly on top of the sand pack, and care will be taken to avoid bridging. In the event that Site geology does not allow for a 2-ft. seal (e.g., only 1-ft. of space remains between the top of the sand pack and ground surface), the remaining space in the annulus will be filled with bentonite.

4.1.3 Grout Mixture

Upon completion of the bentonite seal, the well may be grouted with a non-shrinking cement grout (e.g., Volclay[®]) mix to be placed from the top of the bentonite seal to the ground surface. The cement grout shall consist of a mixture of Portland cement (ASTM C 150) and water, in the proportion of not more than 7 gallons of clean water per bag of cement (1 cubic foot or 94 pounds). Additionally, 3% by weight of bentonite powder may be added.

4.1.4 Surface Protection

At all times during the progress of the work, precautions shall be used to prevent tampering with or the entrance of foreign material into the well. Upon completion of the well, a suitable cap shall be installed to prevent material from entering the well. Where permanent wells are to be installed, the well riser shall be protected by a flush mounted road box set into a concrete pad or locking well cap for stick-up wells. A concrete pad, sloped away from the well, shall be constructed around the flush mount road box or stick-up casing at ground level.

Any well that is to be temporarily removed from service or left incomplete due to delay in construction shall be capped with a watertight cap.

4.2 Surveying

Coordinates and elevations will be established for each monitoring well and sampling location. Elevations to the closest 0.01 foot shall be used for the survey. These elevations shall be referenced to a regional, local, or project-specific datum. The location, identification, coordinates,

and elevations of the wells will be plotted on maps with a scale large enough to show their location with reference to other structures at each site.

4.3 Well Development

After completion of the well, but not sooner than 24 hours after grouting is completed, development will be accomplished using pumping, bailing, or surge blocking. No dispersing agents, acids, disinfectants, or other additives will be used during development or introduced into the well at any other time. During development, water will be removed throughout the entire water column by periodically lowering and raising the pump intake (or bailer stopping point).

Development water will be either properly contained and treated as waste until the results of chemical analysis of samples are obtained or discharged on Site as determined by the Site-specific work plans and/or consultation with the NYSDEC representatives on Site.

The development process will continue until removal of a minimum of 110% of the water lost during drilling, three well volumes; whichever is greater, or as specified in the work plan. In the event that limited recharge does not allow for the recovery of all drilling water lost in the well or three (3) well volumes, the well will be allowed to stabilize to conditions deemed representative of groundwater conditions. Stabilization periods will vary by project but will be confirmed with the NYSDEC prior to sampling.

4.4 PFAS Soil Sampling Procedure

Soil samples for PFAS analysis will be collected using PFAS-Free equipment. Samples will be collected in bottleware provided by the laboratory. Because PFAS are found in numerous everyday items, the following special precautions will be taken during sampling activities:

- No use of Teflon®-containing materials (e.g., Teflon® tubing, bailers, tape, sample jar lid liners, plumbing paste).
- No use of low density polyethylene (LDPE)-containing materials.
- No Tyvek® clothing will be worn by samplers.
- Clothes treated with stain-resistant or rain-resistant coatings (e.g., Gortex®) will be not be worn by samplers.
- All clothing worn by sampling personnel must have been laundered multiple times.
- No fast food wrappers, disposable cups or microwave popcorn will be within the vicinity of the wells/ samples.
- There will be no use of chemical (blue) ice packs, aluminum foil, or Sharpies® within the vicinity of the wells/ samples.
- No use of sunscreen, insect repellants, cosmetic, lotions or moisturizers will be allowed by sampling personnel the day of sampling.
- If any of the above items are handled by the field personnel prior to sampling activities, field personnel will wash their hands thoroughly with soap and water prior to any sampling activities.
- Powder-free nitrile gloves will be worn during all sample collection activities.

Quality assurance/ quality control (QA/QC) samples for PFAS sampling will include one (1) field duplicate, one (1) matrix spike / matrix spike duplicates (MS/MSD) and one (1) equipment blank. The procedures and rationale for collecting these samples are described below.

- **Field duplicate** – Sample will be used to assess the variability in concentrations of samples from the same well due to the combined effects of sample processing in the field and laboratory as well as chemical analysis.
- **Matrix spike/matrix spike duplicate** – Sample will be used to provide information about the effect of the sample matrix on the design and measurement methodology used by the laboratory.
- **Equipment blank** – Sample will be collected to help identify possible contamination from sampling equipment (i.e., shovel, soil core, etc.).

PFAS samples will be submitted to an Environmental Laboratory Accreditation Program (ELAP) certified laboratory for analysis of the full PFAS target analyte list (21 compounds listed in the NYSDEC Guidance) via modified USEPA Method 537 with a method detection limit not to exceed 1 ug/kg. Note, the laboratory utilized will be ELAP certified for PFOA and PFOS in drinking water by EPA method 537 or ISO 25101 as ELAP does not currently offer certification for PFAS compounds in matrices other than finished drinking water.

5.0 Geologic Logging and Sampling

At each investigative location, borings will be advanced through overburden using either a drill rig and hollow-stem auger or direct push technology (split spoons or Macrocore). Soils will be evaluated for visual and olfactory evidence of impairment (i.e., staining, odors, and elevated PID readings) by a qualified individual. Sampling devices will be decontaminated according to procedures outlined in the Decontamination section of this document. When utilized, split-spoon samplers will be driven into the soil using a minimum 140-pound safety hammer and allowed to free-fall 30-inches, in accordance with ASTM-D 1586-84 specifications. The number of blows required to drive the sampler each 6-inches of penetration will be recorded. When required, samples will be stored in the appropriate bottleware (refer to Section 10) until analysis or deemed unnecessary.

In the event that maximum design depth of investigation is reached and hydrogeologic conditions are not suitable for well installation, the maximum drilling depth may be revised.

Boulders and bedrock encountered during well installation may be cored by standard diamond-core drilling methods using an NX, NQ, HQ size core barrel or other if specified in the project-specific work plan. All rock cores recovered will be logged by a qualified individual, and stored in labeled wooden core boxes. The cores will be stored by the firm until the project is completed or for at least one year. Drilling logs will be prepared by a qualified individual who will be present during drilling operations. One copy of each field boring and well construction log and groundwater data, will

typically be submitted as part of the investigation summary report (e.g., Remedial Investigation Report). The RQD value shall be calculated for each 5-foot section. Information provided in the logs shall include, but not be limited to, the following:

- Date(s), test hole identification, and project identification;
- Name of individual developing the log;
- Name of driller and assistant(s);
- Drill, make and model, auger size;
- Identification of alternative drilling methods used and justification thereof (e.g., rotary drilling with a specific bit type to remove material from within the hollow stem augers);
- Standard penetration test (ASTM D-1586) blow counts;
- Field diagram of each monitoring well installed with the depth to bottom of well/ screen, top of screen, length of riser, depth of steel casing, depths of sand pack, bentonite seal, grout, type of well completion etc.;
- Depth of each change of stratum;
- Identification of the material of which each stratum is composed, according to the USCS system or standard rock nomenclature, as appropriate;
- Depth interval from which each sample was taken, sample identification, and sample time;
- Depth at which hole diameters (bit sizes) change;
- Depth at which groundwater is encountered;
- Drilling fluid and quantity of water lost during drilling;
- Depth or location of any loss of tools or equipment;
- Depths of any fractures, joints, faults, cavities, or weathered zones

6.0 Groundwater Sampling Procedures

The groundwater in all new monitoring wells will be allowed to stabilize for at least 1week following development prior to sampling. Water levels will be measured to within 0.01 feet prior to purging and sampling. Sampling of each well will typically be accomplished in one of two ways; active or passive.

Active Sampling:

Active sampling includes bailing or pumping. Purging will be completed prior to active sampling if specified in the project-specific work plan. During purging, the following will be recorded in field books or groundwater sampling logs:

- date
- purge start time
- weather conditions
- presence of NAPL, if any, and approximate thickness
- pump rate
- pH
- dissolved oxygen
- temperature

- conductivity
- redox
- turbidity
- depth of well
- depth to water
- depth to pump intake
- purge end time
- volume of water purged

During low flow sampling, the water quality parameters including pH, conductivity, temperature, dissolved oxygen, redox, water level drawdown, and turbidity will be recorded at five (5) minute intervals. Samples will be collected after the parameters have stabilized for three (3) consecutive 5-minute intervals to within the specified ranges below:

- Water level drawdown (<0.3')
- Turbidity (+/- 10%, < 50-NTU for Metals Samples)
- pH (+/-0.1)
- Temperature (+/- 3%)
- Specific conductivity (+/- 3%)
- Dissolved Oxygen (+/- 10%)
- Oxidation reduction potential (+/- 10 millivolts)

Passive Sampling:

Groundwater samples will be collected via passive methods (i.e., no-purge) according to the following procedures and in the volumes specified in Table 10-1:

Samples will be collected via passive diffusion bag (PDB) samplers. PDB samplers are made of low-density polyethylene plastic tubing (typically 4 mil), filled with laboratory grade (ASTM Type II) deionized water and sealed at both ends.

- Pre-filled PDBs will not be stored for longer than 30 days and will be kept stored at room temperature in a sealed plastic bag until ready to use.
- PDBs filled in the field will be used immediately and not stored for future use.
- PDB samplers will only be used to collect groundwater samples which will be analyzed for VOCs.
- Mesh covers will be utilized for open rock holes as to not puncture the PDB and will be secured to the bag using zip-ties.
- PDB samplers will be deployed by hanging in the well at the depth(s) specified in the project-specific work plan. The depth at which the PDB is deployed will be recorded on the groundwater sampling form. The PDB samplers will be deployed at least 14 days prior to sampling;
- When transferring water from the PDB to sample containers, care will be taken to avoid agitating the sample, since agitation promotes the loss of volatile constituents;

- Gloves will be changed between collection of each PDB and tools used to open the PDB will be decontaminated with an alconox and potable water solution between each PDB;
- Any volume not used will be treated as investigation derived waste;
- Any observable physical characteristics of the groundwater (e.g., color, sheen, odor, turbidity) at the time of sampling will be recorded; and
- Weather conditions (i.e., air temperature, sky condition, recent heavy rainfall, drought conditions) at the time of sampling will be recorded.

6.1 PFAS Groundwater Sampling Procedure

Samples for PFAS analysis will be collected using PFAS-Free equipment, specifically a dedicated disposable high density polyethylene (HDPE) or PVC bailers, and/or low-flow sampling equipment with PFAS-Free components. Samples will be collected in bottlenecks provided by the laboratory. Because PFAS are found in numerous everyday items, the following special precautions will be taken during sampling activities:

- No use of Teflon®-containing materials (e.g., Teflon® tubing, bailers, tape, sample jar lid liners, plumbing paste).
- No use of low density polyethylene (LDPE)-containing materials.
- No Tyvek® clothing will be worn by samplers.
- Clothes treated with stain-resistant or rain-resistant coatings (e.g., Gortex®) will be not be worn by samplers.
- All clothing worn by sampling personnel must have been laundered multiple times.
- No fast food wrappers, disposable cups or microwave popcorn will be within the vicinity of the wells/ samples.
- There will be no use of chemical (blue) ice packs, aluminum foil, or Sharpies® within the vicinity of the wells/ samples.
- No use of sunscreen, insect repellants, cosmetic, lotions or moisturizers will be allowed by sampling personnel the day of sampling.
- If any of the above items are handled by the field personnel prior to sampling activities, field personnel will wash their hands thoroughly with soap and water prior to any sampling activities.
- Powder-free nitrile gloves will be worn during all sample collection activities.

Quality assurance/ quality control (QA/QC) samples for PFAS sampling will include one (1) field duplicate, one (1) matrix spike / matrix spike duplicates (MS/MSD) and one (1) equipment blank. The procedures and rationale for collecting these samples are described below.

- **Field duplicate** – Sample will be used to assess the variability in concentrations of samples from the same well due to the combined effects of sample processing in the field and laboratory as well as chemical analysis.
- **Matrix spike/matrix spike duplicate** – Sample will be used to provide information about the effect of the sample matrix on the design and measurement methodology used by the

laboratory.

- **Equipment blank** – Sample will be collected to help identify possible contamination from sampling equipment (i.e., bailer). One equipment blank will be collected by pouring laboratory certified analyte-free deionized water over a bailer into the sample container.

PFAS samples will be submitted to an Environmental Laboratory Accreditation Program (ELAP) certified laboratory for analysis of the full PFAS target analyte list (21 compounds listed in the NYSDEC Guidance) via modified USEPA Method 537 with a method detection limit not to exceed 2 ng/L. Note, the laboratory utilized will be ELAP certified for PFOA and PFOS in drinking water by EPA method 537 or ISO 25101 as ELAP does not currently offer certification for PFAS compounds in matrices other than finished drinking water.

7.0 Soil Vapor Intrusion Sampling Procedures

Soil vapor intrusion (SVI) sampling is to be conducted in accordance with the *NYSDOH Guidance for Evaluating Soil Vapor Intrusion in the State of New York* dated October 2006 and subsequent updates. Tracer gas testing is to be conducted for sub-slab sampling points to ensure concentrations of the tracer gas are not detected in the sub-slab at greater than 10% of the concentration detected in the atmosphere. An outdoor air sample is to be collected at an upwind direction as a control. A building inventory should be completed to document building construction information and identify products that may be contributing to the levels in indoor air.

8.0 Radiation Screening Procedures

A building and soil cover walkover survey will be completed by a NYSDEC Radioactive Materials Licensed (RML) Contractor.

The RML Contractor will also provide training and oversight to LaBella personnel during implementation of the overburden soil and groundwater and shallow bedrock groundwater evaluations.

Based on the project-specific aspects of the radiation screening, detailed procedures are included in Section 6.1.1 of the RIWP.

9.0 Field Documentation

9.1 Daily Logs/ Field Notebook

Daily logs are necessary to provide sufficient data and observations to enable participants to reconstruct events that occurred during the project and to refresh the memory of the field personnel if called upon to give testimony during legal proceedings. Daily logs may be kept in a project-specific notebook labelled with the project name/ number and contact information.

The daily log is the responsibility of the field personnel and will include:

- Name of person making entry;
- Start and end time of work;
- Names of team members on-site;
- Changes in required levels of personnel protection:
 - Level of protection originally used;
 - Changes in protection, if required; and
 - Reasons for changes.
- Air monitoring locations, start and end times, and equipment identification numbers;
- Summary of tasks completed;
- Summary of samples collected including location, matrix, etc.;
- Field observations and remarks;
- Weather conditions, wind direction, etc.;
- Any deviations from the work plan;
- Initials/ signature of person recording the information.

As with any data logbooks, no pages will be removed for any reason. If corrections are necessary, these must be made by drawing a single line through the original entry (so that the original entry can still be read) and writing the corrected entry alongside. The correction must be initialed and dated. Corrected errors may require a footnote explaining the correction.

Sample documents, forms, or field notebooks are not to be destroyed or thrown away, even if they are illegible or contain inaccuracies that require a replacement document. If an error is made on a document assigned to one individual, that individual may make corrections simply by crossing a line through the error and entering the corrected information. The incorrect information should not be obliterated. Any subsequent error discovered on a document should be corrected by the person who made the entry. All corrections must be initialed and dated.

9.2 Photographs

Photographs will be taken to document the work. Documentation of a photograph is crucial to its validity as a representation of an existing situation. Photographs should be documented with date, location, and description of the photograph.

10.0 Investigation Derived Waste

Purpose:

The purposes of these guidelines are to ensure the proper holding, storage, transportation, and disposal of materials that may contain hazardous wastes. Investigation-derived waste (IDW) included the following:

- Drill cuttings, drilling mud solids;
- Water produced during drilling;
- Well development and purge waters, unused PDB waters;
- Decontamination waters and associated solids;

IDW will be managed in substantial accordance with DER-10 and all applicable local, State and Federal regulations.

Procedure:

1. Contain all investigation-derived wastes in Department of Transportation (DOT)-approved 55-gallon drums, roll-off boxes, or other containers suitable for the wastes.
2. Place different media in separate drums (i.e., do not combine solids and liquids).
3. To the extent practicable, separate solids from drilling muds, decontamination waters, and similar liquids. Place solids within separate containers.
4. Transfer all waste containers to a staging area. Access to this area will be controlled. Waste containers must be transferred to the staging area as soon as practicable after the generating activity is complete.
5. Label all containers with regard to contents, origin, and date of generation. Use indelible ink for all labeling.
6. Collect samples for waste characterization purposes, use boring/well sample analytical data for characterization.
7. For wastes determined to be hazardous in character, be aware on accumulation time limitations. Coordinate the disposal of these wastes with the Owner and NYSDEC.
8. Dispose of investigation-derived wastes as follows;
 - Soil, water, and other environmental media for which analysis does not detect organic constituents, and for which inorganic constituents are at levels consistent with background, may be spread on-site (pending NYSDEC approval) or otherwise treated as a non-waste material.
 - Soils, water, and other environmental media in which organic compounds are detected or metals are present above background will be disposed as industrial waste or hazardous waste, as appropriate. Alternate disposition must be consistent with applicable State and Federal laws.
 - Personal protective equipment, disposable bailers, and similar equipment may be disposed as municipal waste, unless waste characterization results mandate disposal as industrial wastes
9. If waste is determined to be listed hazardous waste, it must be handled as hazardous waste as described above, unless a contained-in determination is accepted by the NYSDEC.

11.0 Decontamination Procedures

Sampling methods and equipment have been chosen to minimize decontamination requirements and to prevent the possibility of cross-contamination. Decontamination of equipment will be performed between discrete sampling locations. Equipment used to collect samples between composite sample locations will not require decontamination between collection of samples. All drilling equipment will be decontaminated after the completion of each drilling location. Special attention will be given to the drilling assembly and augers.

Split spoons and other non-disposable equipment will be decontaminated between each sampling location. The sampler will be cleaned prior to each use, by one of the following procedures:

- Initially cleaned of all foreign matter;
 - Sanitized with a steam cleaner;
- OR**
- Initially cleaned of all foreign matter;
 - Scrubbed with brushes inalconox solution;
 - Triple rinsed; and
 - Allowed to air dry.

Other sampling equipment including but not limited to low-flow sampling pumps, surface soil sampling trowel, water level meters, etc. will be decontaminated between sample location using analconox solution. Consumables including gloves, tubing, bailers, string, etc. will be dedicated to one sample location and will not be reused.

12.0 Sample Containers

The containers required for sampling activities are pre-washed and ordered directly from a laboratory, which has the containers prepared in accordance with USEPA bottle washing procedures. The following tables detail sample volumes, containers, preservation and holding time for typical analytes.

**Table 11-1
Groundwater Samples**

Type of Analysis	Type and Size of Container	Number of Containers and Sample Volume (per sample)	Preservation	Holding Time Until Extraction/ Analysis
VOCs	40-ml glass vial with Teflon-backed septum	Two (2); fill completely, no headspace	Cool to 4° C (ice in cooler), Hydrochloric acid to pH <2	14 days
Semi-volatile Organic Compounds (SVOCs)	1,000-ml amber glass jar	One (1); fill completely	Cool to 4° C (ice in cooler)	7/40 days
Pesticides	1,000-ml amber glass jar	One (1); fill completely	Cool to 4° C (ice in cooler)	7/40 days
Polychlorinated biphenyls (PCBs)	1,000-ml amber glass jar	One (1); fill completely	Cool to 4° C (ice in cooler)	7/40 days
Metals	250-ml HDPE	One (1); fill completely	Cool to 4° C (ice in cooler) Nitric acid to pH <2	180 days (28 for mercury)
Cyanide	1,000-mL HDPE		Cool to 4° C (ice in cooler) Nitric acid to pH <2	14 days
1,4-Dioxane	40-ml glass vial with Teflon-backed septum	Three (3); fill completely, no headspace	Cool to 4° C (ice in cooler), Hydrochloric acid to pH <2	14 days
PFAS	250-mL HDPE, no Teflon	Two (2); fill completely	Cool to 4° C (ice in cooler), Trizma	14 days

Note:

All sample bottles will be prepared in accordance with USEPA bottle washing procedures.

Consult with laboratory as bottleware may vary by laboratory.

Holding time begins at the time of sample collection.

**TABLE 11-2
Soil Samples**

Type of Analysis	Type and Size of Container	Number of Containers and Sample Volume (per sample)	Preservation	Holding Time Until Extraction/ Analysis
VOCs	4-oz, glass jar with Teflon-lined cap	One (1), fill as completely as possible	Cool to 4° C (ice in cooler)	14 days
VOCs via EPA 5035	40 mL vials with sodium bisulfate, methanol, and/or DI water	Three (3), 5 grams each	Cool to 4° C (ice in cooler)	2 days*
SVOCs	4-oz, glass jar with Teflon-lined cap	One (1), fill as completely as possible	Cool to 4° C (ice in cooler)	7/40 days
PCBs	4-oz, glass jar with Teflon-lined cap	One (1), fill as completely as possible	Cool to 4° C (ice in cooler)	7/40 days
Pesticides	4-oz, glass jar with Teflon-lined cap	One (1), fill as completely as possible	Cool to 4° C (ice in cooler)	14/40 days
Metals	4-oz, glass jar with Teflon-lined cap	One (1), fill as completely as possible	Cool to 4° C (ice in cooler)	180 days (28 for mercury)
Cyanide	4-oz, glass jar with Teflon-lined cap	One (1), fill as completely as possible	Cool to 4° C (ice in cooler)	14 days
1,4-Dioxane	40 mL vials with sodium bisulfate, methanol, and/or DI water	Three (3), 5 grams each	Cool to 4° C (ice in cooler)	2 days*
PFAS	8-oz HDPE, no Teflon	One (1); fill as completely as possible	Cool to 4° C (ice in cooler)	28 days

Note:

**Or freeze within holding time.*

All sample bottles will be prepared in accordance with USEPA bottle washing procedures.

Consult with laboratory as bottleware may vary by laboratory.

Holding time begins at the time of sample collection.

**Table 11-3
Air Samples**

Type of Analysis	Type and Size of Container	Number of Containers and Sample Volume (per sample)	Preservation	Holding Time Until Extraction/ Analysis
VOCs	1 - Liter Summa® Canister	One (1) 1-Liter 1.4- Liter for MS/MSD	N/A	14 days

Note:

All sample bottles will be prepared in accordance with USEPA bottle washing procedures.

Consult with laboratory as bottleware may vary by laboratory.

Holding time begins at the time of sample collection.

13.0 Sample Custody and Shipment

13.1 Sample Identification

All containers of samples collected from the project will be identified using the following format on a label or tag fixed to the sample container:

AA-BB-CC-DD-EE

- AA: This set of initials indicates an abbreviation for the Site from which the sample was collected.
- BB This set of initials represents the type of sample (e.g., SB for soil boring and MW for monitoring well)
- CC: These initials identify the unique sample location number.
- DD: These initials identify the sample start depth (if soil sample)
- EE These initials identify the sample end depth (if soil sample)

Each sample will be labeled, chemically preserved (if required) and sealed immediately after collection. To minimize handling of sample containers, labels will be filled out prior to sample collection when possible. The sample label will be filled out using waterproof ink and will be firmly affixed to the sample containers. The sample label will give the following information:

- Date and time of collection
- Sample identification
- Analysis required
- Project name/number
- Preservation

Sample tags attached to or affixed around the sample container must be used to properly identify all samples collected in the field. The sample tags are to be placed on the bottles so as not to obscure any QC lot numbers on the bottles; sample information must be printed in a legible manner using waterproof ink. Field identification must be sufficient to enable cross-reference with the logbook.

For chain-of-custody purposes, all QC samples are subject to exactly the same custodial procedures and documentation as "real" samples.

13.2 Chain of Custody

This section describes standard operating procedures for sample identification and chain-of-custody to be utilized for all field activities. The purpose of these procedures is to ensure that the quality of the samples is maintained during their collection, transportation, and storage through analysis. All chain-of-custody requirements comply with standard operating procedures indicated in USEPA sample handling protocol.

Sample identification documents must be carefully prepared so that sample identification and chain-of-custody can be maintained and sample disposition controlled. Sample identification documents include:

- Field notebooks;
- Sample label; and
- Chain-of-custody records.

The primary objective of the chain-of-custody procedures is to provide an accurate written or computerized record that can be used to trace the possession and handling of a sample from collection to completion of all required analyses. A sample is in custody if it is:

- In someone's physical possession;
- In someone's view;
- Locked up; or
- Kept in a secured area that is restricted to authorized personnel.

As few persons as possible should handle samples. Sample bottles will be obtained pre-cleaned from the a laboratory. Sample containers should only be opened immediately prior to sample collection. The sample collector is personally responsible for the care and custody of samples collected until they are transferred to another person or dispatched properly under chain-of-custody rules. The sample collector will record sample data in the field notebook and/or field logs.

The chain-of-custody record must be fully completed in duplicate, using black carbon paper where possible, by the field technician who has been designated by the project manager as responsible for sample shipment to the appropriate laboratory for analysis. In addition, if samples are known to require rapid turnaround in the laboratory because of project time constraints or analytical concerns (e.g., extraction time or sample retention period limitations, etc.), the person completing the chain-of-custody record should note these constraints on the chain of custody.

13.3 Transfer of Custody and Shipment

The coolers in which the samples are packed must be accompanied by a chain-of-custody record. When transferring samples, the individuals relinquishing and receiving them must sign, date, and note the time on the chain-of-custody record. This record documents sample custody transfer.

Shipping containers must be sealed with custody seals for shipment to the laboratory. The method of shipment, name of courier, and other pertinent information are entered on the chain-of-custody.

All shipments must be accompanied by the chain-of-custody record identifying their contents. The original record accompanies the shipment. The other copies are distributed appropriately to the site manager.

13.4 Custody Seals

Custody seals are preprinted adhesive-backed seals. Sample shipping containers (coolers, cardboard boxes, etc., as appropriate) are sealed in as many places as necessary to ensure security. Seals must be signed and dated before shipment. On receipt at the laboratory, the custodian must check (and certify, by completing the package receipt log and LABMIS entries) that seals on boxes and bottles are intact. Strapping tape should be placed over the seals to ensure that seals are not accidentally broken during shipment.

13.5 Sample Packaging

Samples must be packaged carefully to avoid breakage or contamination and must be shipped to the laboratory at proper temperatures. The following sample packaging requirements will be followed:

- Sample bottle lids must never be mixed. All sample lids must stay with the original containers.
- The label should not cover any bottle preparation QC lot numbers.
- All sample bottles are placed in a plastic bag and/or individual bubble wrap sleeves to minimize the potential for cross-contamination and breaking.
- Shipping coolers must be partially filled with packing materials and ice when required, to prevent the bottles from moving during shipment.
- The sample bottles must be placed in the cooler in such a way as to ensure that they do not directly come in contact with other samples. Ice will be added to the cooler to ensure that the samples reach the laboratory at temperatures no greater than 4 °C.
- Any remaining space in the cooler should be filled with inert packing material. Under no circumstances should material such as sawdust, sand, etc., be used.
- A chain of custody record must be placed in a plastic bag inside the cooler. Custody seals must be affixed to the sample cooler.

13.6 Sample Shipment

Shipping containers are to be custody-sealed for shipment as appropriate. The container custody seal will consist of tape wrapped around the package and custody seals affixed in such a way that access to the container can be gained only by cutting the filament tape and breaking the seal. Chain of custody seals shall be placed on the container, signed, and dated prior to taping the container to ensure the chain of custody seals will not be destroyed during shipment. In addition, the coolers must also be labeled and placarded in accordance with DOT regulations if shipping medium and

high hazard samples.

Field personnel will make arrangements for transportation of samples to the lab. The lab must be notified as early as possible regarding samples intended for Saturday delivery. The transportation and handling of samples must be accomplished in a manner that not only protects the integrity of the sample, but also prevents any detrimental effects due to the possible hazardous nature of samples. Regulations for packaging, marking, labeling, and shipping hazardous materials are promulgated by the United States DOT in the Code of Federal Regulation, 49 CFR 171 through 177. All samples will be delivered to the laboratory and analyzed within the holding times specified by the analytical method for that particular analyte.

All chain-of-custody requirements must comply with standard operating procedures in the USEPA sample handling protocol.

13.7 Laboratory Custody Procedures

A designated sample custodian accepts custody of the shipped samples and verifies that the sample identification number matches that on the chain-of-custody record and traffic reports, if required. Pertinent information as to shipment, pickup, and courier is entered on the chain of custody or attached forms.

14.0 Deliverables

This section will describe laboratory requirement and procedures to be followed for laboratory analysis. Samples collected in New York State will be analyzed by a New York State Department of Health (NYSDOH) Environmental Laboratory Accreditation Program (ELAP)-certified laboratory. When required, analyses will be conducted in accordance with the most current NYSDEC Analytical Services Protocol (ASP). For example, ASP Category B reports will be completed by the laboratory for samples representing the final delineation of the Remedial Investigation, confirmation samples, samples to determine closure of a system, and correlation samples taken using field testing technologies analyzed by an ELAP-certified laboratory to determine correlation to field results. Data Usability Summary Reports will be completed by a third party for samples requiring ASP Category B format reports. Electronic data deliverables (EDDs) will also be generated by the laboratory in EQUIS format for samples requiring ASP Category B format reports.

NYSDEC DER-10 DUSR requirements are as follows:

- a) Background. The Data Usability Summary Report (DUSR) provides a thorough evaluation of analytical data with the primary objective to determine whether or not the data, as presented, meets the site/project specific criteria for data quality and data use.
 1. The development of the DUSR must be carried out by an experienced environmental scientists, such as the project Quality Assurance Officer, who is fully capable of conducting a full data validation. The DUSR is developed from:

- i. A DEC ASP Category B Data Deliverable; or
 - ii. The *USEPA Contract Laboratory Program National Functional Data Validation Standard Operating Procedures for Data Evaluation and Validation*.
- 2. The DUSR and the data deliverables package will be reviewed by DER staff. If full third party data validation is found to be necessary (e.g. pending litigation) this can be carried out at a later date on the same data package used for the development of the DUSR.
- b) Personnel Requirements. The person preparing the DUSR must be pre-approved by DER. The person must submit their qualifications to DER documenting experience in analysis and data validation. Data validator qualifications are available on DEC's website identified in the table of contents.
- c) Preparation of a DUSR. The DUSR is developed by reviewing and evaluating the analytical data package. In order for the DUSR to be acceptable, during the course of this review the following questions applicable to the analysis being reviewed must be answered in the affirmative.
 - 1. Is the data package complete as defined under the requirements for the most current DEC ASP Category B or USEPA CLP data deliverables?
 - 2. Have all holding times been met?
 - 3. Do all the QC data; blanks, instrument tunings, calibration standards, calibration verifications, surrogate recoveries, spike recoveries, replicate analyses, laboratory controls and sample data fall within the protocol required limits and specifications?
 - 4. Have all of the data been generated using established and agreed upon analytical protocols?
 - 5. Does an evaluation of the raw data confirm the results provided in the data summary sheets and quality control verification forms?
 - 6. Have the correct data qualifiers been used and are they consistent with the most current DEC ASP?
 - 7. Have any quality control (QC) exceedances been specifically noted in the DUSR and have the corresponding QC summary sheets from the data package been attached to the DUSR?
- d) Documenting the validation process in the DUSR. Once the data package has been reviewed and the above questions asked and answered the DUSR proceeds to describe the samples and the analytical parameters, including data deficiencies, analytical protocol deviations and quality control problems are identified and their effect on the data is discussed.

15.0 Equipment Calibration

All instruments and equipment used during sampling and analysis will be operated, calibrated, and maintained according to the manufacturer's guidelines and recommendations as well as criteria set

forth in the applicable analytical methodology references. Operation, calibration, and maintenance will be performed by personnel properly trained in these procedures. Section 11 lists the major instruments to be used for sampling and analysis. In addition, brief descriptions of calibration procedures for major field and laboratory instruments follow.

15.1 Photovac/MiniRae Photoionization Detector (PID)

Standard operating procedures for the PID require that routine maintenance and calibration be performed every six months. Field calibration will be performed on a daily basis. The packages used for calibration are non-toxic analyzed gas mixtures available in pressurized containers. All calibration procedures will follow the manufacturer recommendations.

15.2 Conductance, Temperature, and pH Tester

Temperature and conductance instruments are factory calibrated. Temperature accuracy can be checked against an NBS certified thermometer prior to field use if necessary. Conductance accuracy may be checked with a solution of known conductance and recalibration can be instituted, if necessary.

15.3 O₂/Explosimeter

The specific meter used at the time of work shall be calibrated in accordance with manufacturer recommendations. The model 260 O₂/ Explosimeter is described below.

The primary maintenance item of the Model 260 is the rechargeable 2.4 volt (V) nickel cadmium battery. The battery is recharged by removing the screw cap covering receptacle and connecting one end of the charging cable to the instrument and the other end to a 115V AC outlet.

The battery can also be recharged using a 12V DC source. An accessory battery charging cable is available, one end of which plugs into the Model 260 while the other end is fitted with an automobile cigarette lighter plug.

Recommended charging time is 16 hours.

Before the calibration of the combustible gas indicator can be checked, the Model 260 must be in operating condition. Calibration check-adjustment is made as follows:

1. Attach the flow control to the recommended calibration gas tank.
2. Connect the adapter-hose to the flow control.
3. Open flow control valve.
4. Connect the adapter-hose fitting to the inlet of the instrument; after about 15 seconds the LEL meter pointer should be stable and within the range specified on the calibration sheet accompanying the calibration equipment. If the meter pointer is not in the correct range, stop the flow; remove the right hand side cover. Turn on the flow and adjust the "S" control with a small screwdriver to obtain a reading as specified on the calibration

sheet.

5. Disconnect the adapter-hose fitting from the instrument.
6. Close the flow control valve.
7. Remove the adapter-hose from the flow control.
8. Remove the flow control from the calibration gas tank.
9. Replace the side cover on the Model 260.

CAUTION: Calibration gas tank contents are under pressure. Use no oil, grease, or flammable solvents on the flow control or the calibration gas tank. Do not store calibration gas tank near heat or fire or in rooms used for habitation. Do not throw in fire, incinerate, or puncture. Keep out of reach of children. It is illegal and hazardous to refill this tank. Do not attach the calibration gas tank to any other apparatus than described above. Do not attach any gas tank other than MSA calibration tanks to the regulator.

15.4 Nephelometer (Turbidity Meter)

LaMotte 2020WE Turbidity Meter is calibrated before each use. The default units are set to NTU and the default calibration curve is formazin. A 0 NTU Standard (Code 1480) is included with the meter. To calibrate, rinse a clean tube three times with the blank. Fill the tube to the fill line with the blank. Insert the tube into the chamber, close the lid, and select “scan blank”.

TABLE 14-4
List of Major Instruments
for Sampling and Analysis

<ul style="list-style-type: none">• MSA 360 O₂ /Explosimeter• Geotech Geopump II AC/DC Peristaltic Pump• QED MP50 Controller and QED Sample Pro MicroPurge Bladder Pimp• Horiba U-53 Multi-Parameter Water Quality Meter• LaMotte 2020WE Turbidity Meter• EM-31 Geomics Electromagnetic Induction Device• Mini Rae Photoionization Detectors (3,000, ppbRAE, etc.)

16.0 Internal Quality Control Checks

QC data are necessary to determine precision and accuracy and to demonstrate the absence of interferences and/or contamination of field equipment. Field-based QC will comprise at least 10%

of each data set generated and will consist of standards, replicates, spikes, and blanks. Field duplicates and field blanks will be analyzed by the laboratory as samples and will not necessarily be identified to the laboratory as duplicates or blanks. For each matrix, field duplicates will be provided at a rate of one per 10 samples collected or one per shipment, whichever is greater. Field blanks which may consist of trip, routine field, and/or rinsate blanks will be provided at a rate of one per 20 samples collected for each media, or one per shipment, whichever is greater. Frequency of QC data may vary from project to project; refer to the project-specific work plan for QC requirements.

Calculations will be performed for recoveries and standard deviations along with review of retention times, response factors, chromatograms, calibration, tuning, and all other QC information generated. All QC data, including split samples, will be documented in the site logbook and/or appropriate field logs. QC records will be retained and results reported with sample data.

16.1 Field Blanks

Various types of blanks are used to check the cleanliness of field handling methods. The following types of blanks may be used: the trip blank, the routine field blank, and the field equipment blank. They are analyzed in the laboratory as samples, and their purpose is to assess the sampling and transport procedures as possible sources of sample contamination. Field staff may add blanks if field circumstances are such that they consider normal procedures are not sufficient to prevent or control sample contamination, or at the direction of the project manager. Rigorous documentation of all blanks in the site logbooks is mandatory.

- **Routine Field Blanks** or bottle blanks are blank samples prepared in the field to assess ambient field conditions. They will be prepared by filling empty sample containers with deionized water and any necessary preservatives. They will be handled like a sample and shipped to the laboratory for analysis.
- **Trip Blanks** are similar to routine field blanks with the exception that they are **not** exposed to field conditions. Their analytical results give the overall level of contamination from everything except ambient field conditions. For the RI/FS, one trip blank will be collected with every shipment of water samples for VOC analysis. Each trip blank will be prepared by filling a 40-ml vial with deionized water prior to the sampling trip, transported to the site, handled like a sample, and returned to the laboratory for analysis without being opened in the field. Trip blanks may be provided by the laboratory, shipped with the bottleware, and kept with the sampling containers until analysis.
- **Field Equipment Blanks** are blank samples (sometimes called transfer blanks or rinsate blanks) designed to demonstrate that sampling equipment has been properly prepared and cleaned before field use, and that cleaning procedures between samples are sufficient to minimize cross contamination. If a sampling team is familiar with a particular site, they may be able to predict which areas or samples are likely to have the highest concentration of contaminants. Unless other constraints apply, these samples should be taken last to avoid excessive contamination of sampling equipment.

16.2 Duplicates

Duplicate samples are collected to check the consistency of sampling and analysis procedures. The following types of duplicates may be collected.

- **Blind duplicate** samples consist of a set of two samples collected independently at a sampling location during a single sampling event. Blind duplicates are designed to assess the consistency of the overall sampling and analytical system. Blind duplicate samples should not be distinguishable by the person performing the analysis.
- **Matrix Spike and Matrix Spike Duplicates (MS/MSDs)** consist of a set of three samples collected independently at a sampling location during a single sampling event. These samples are for laboratory quality control checks.

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