NEW YORK STATE | Department of Environmental Conservation

KATHY HOCHUL
Governor

AMANDA LEFTON
Acting Commissioner

March 14, 2025

Thomas Forbes
Roux Inc.
2558 Hamburg Turnpike
Suite 300
Buffalo, New York 14218

Re: Site Management
Periodic Review Report
Urbana Landfill Site
Site No.: 851007
Hammondsport (T), Steuben (C)

Dear Mr. Forbes,

The New York State Department of Environmental Conservation (Department) has completed a review of your Periodic Review Report (PRR) submitted on July 30, 2024, and revised on November 18, 2024, and IC/EC Certification for following period: June 30, 2023, through June 30, 2024, for the Urbana Landfill site (Site) located at Crow's Nest Road, Hammondsport, New York. Based on the information presented, the Department has the following comments.

1. Section [4].2.1 Landfill Cover System: The PRR states, "*the protective casing at monitoring well MW-101 was repaired in May 2024*". The Department understands that the repaired protective casing completed at monitoring well MW-101 is the same monitoring well as MW-101s.

2. Table 1: The Volatile Organic Compounds (VOCs) columns have the results reported in milligrams per Liter (mg/L). The Department understands that 'mg/L' are the incorrect units for reporting VOCs in groundwater. All future PRR submittals must report VOCs in groundwater results in micrograms per Liter (µg/L) to correspond with relevant ambient water quality standards (AWQS).

3. Table 2: New Emerging Contaminant (EC) samples were collected during the May 9th, 2024, sampling event, but the 2020 EC analytical results are the only results reported in the PRR. The Department requires that all future PRR submittals include both the latest and previous EC results.

The May 9th, 2024, EC sampling event collected influent and effluent samples from the groundwater treatment building. The results were reported in the July 30th, 2024, submittal. Total PFOA and PFOS is 109.3 nano-grams/Liter (ng/L) in the influent and 30.2 ng/L in the effluent, and 1,4-Dioxane is 1.95 µg/L in the influent and non-detect in the

effluent. These PFAS effluent results suggest that the current treatment system is inadequate for dealing with PFAS compounds.

Based on the information presented in the PRR and the information presented in the Emerging Contaminants Sampling Results Report submitted on July 30, 2024, the Department is requesting the submittal of a Corrective Measures Work Plan (CMWP) to the Department and NYSDOH for review and approval. The Department requests that the CMWP is submitted within **45-days of the date of this letter**. The CMWP will provide procedures, methods, and a schedule for correcting the deficiencies and issues presented below:

- The development of a Remedial System Optimization (RSO) for the Site's Groundwater Treatment System to address the concentration of emerging contaminants being discharged as post-treated groundwater effluent.

- Development of a plan for sampling nearby private residential water wells. Samples will be collected for PFAS (EPA Method 537), 1,4-Dioxane (EPA Method 522), and VOCs + TICs (EPA Method 8260). Private water wells will have to be sampled at following addresses:

Street Number	Street	Tax Parcel
7809	Van Ness Rd	103.00-01-004.100
7843	Van Ness Rd	104.00-01-001.140
	Reservoir Hill Rd	104.00-01-001.550
8841	Glen Brook Rd	104.00-01-001.530
	Glen Brook Rd	104.00-01-001.150
8880	Two Rod Rd	103.00-01-029.200
	Vogt Rd	103.00-01-012.200
8525	Vogt Rd	103.00-01-012.120
8496	Reservoir Hill Rd	104.00-01-037.000
7809	Van Ness Rd	103.00-01-004.100
8858	Two Rod Rd	103.00-01-029.111
8519	Reservoir Hill Rd	104.00-01-038.000
8594	Reservoir Hill Rd	104.00-01-039.000
7833	Crows Nest Rd	103.00-01-005.100
8764	Reservoir Hill Rd	104.00-01-046.200
8595	Reservoir Hill Rd	104.00-01-042.000
7874	Van Ness Rd	103.00-01-005.200
8680	Reservoir Hill Rd	104.00-01-045.120
8660	Vogt Rd	103.00-01-031.200
7695	Crows Nest Rd	103.00-01-010.000
8651	Reservoir Hill Rd	104.00-01-041.110

8593	Reservoir Hill Rd	104.00-01-040.100
8570	Reservoir Hill Rd	104.00-01-040.200
7860	Van Ness Rd	103.00-01-005.400
7790	Van Ness Rd	103.00-01-004.200
8621	Reservoir Hill Rd	104.00-01-043.000
7846	Van Ness Rd	103.00-01-005.300
7720	Van Ness Rd	103.00-01-002.311
7715	Van Ness Rd	103.00-01-002.100
8950	Glen Brook Rd	104.00-01-001.350
8997	Glen Brook Rd	104.00-01-001.200
9037	Reservoir Hill Rd	104.00-01-001.410
9002	Glen Brook Rd	089.00-01-032.100
9024	Glen Brook Rd	089.00-01-032.200
8907	Reservoir Hill Rd	104.00-01-001.510
8890	Glen Brook Rd	104.00-01-047.000
8009	Spencer Rd	104.00-01-001.450
8881	Reservoir Hill Rd	104.00-01-001.520
9075	Glen Brook Rd	089.00-01-013.220
9100	Two Rod Rd	089.00-01-014.100
9130	Glen Brook Rd	089.00-01-024.100
9045	Glen Brook Rd	089.00-01-013.210
8922	Longwell Cross Rd	104.00-01-049.120
8821	Longwell Cross Rd	104.00-01-049.111
9071	Greyton H Taylor Memorial Dr	090.00-01-048.000
8941	Longwell Cross Rd	090.00-01-047.000
9013	Reservoir Hill Rd	104.00-01-001.420
8935	Reservoir Hill Road	104.00-01-001.470
8880	Glen Brook Rd	104.00-01-083.200

Within **14-days of the date of this letter** a detailed schedule outlining the corrective measures timeline will be submitted to the Department and the NYSDOH.

The Department must be notified with a minimum of a 7-day advance notice for any field work to be conduct on-site so that Department oversight can be provided. The notification must include an anticipated start date and time for the site's field work.

If you have any questions or concerns regarding this letter or need further assistance with the Site, please feel free to contact me at (585) 226-5349 or via email at Joshua.Ramsey@dec.ny.gov.

Sincerely,

Joshua J. Ramsey
Project Manager

ec:
Joseph Meade (Mercury)
Justin Deming (NYSDOH)
Michael Izdebski (NYSDOH)
David Pratt (NYSDEC)
Michael Ormanoski (NYSDEC)

cc:
Steve & Tammi Perkins (Property Owners)

Period Review Report

Urbana Landfill Site
NYSDEC Site No. 8-51-007
Urbana, New York

July 2024

Prepared by:

Roux Environmental Engineering and Geology, D.P.C.
2558 Hamburg Turnpike, Suite 300
Buffalo, New York 14218

Table of Contents

Tables

Figures

Appendices

1. Introduction

Roux Environmental Engineering & Geology, D.P.C (Roux) *(Formally Benchmark Civil/Environmental Engineering and Geology, PLLC),* has prepared this Periodic Review Report (PRR) for the Urbana Landfill site (Site No.8-51-007) on behalf of Mercury Aircraft, Inc. This PRR documents implementation of post-remedial measures undertaken at the site during the reporting period of June 30, 2023, through June 30, 2024. This PRR has been prepared in accordance with the NYSDEC DER-10 Technical Guidance for Site Investigation and Remediation (May 2010). NYSDEC's Institutional and Engineering Controls Certification Forms have been prepared for the Site as well.

1.1 Background

The Urbana Landfill is located on Crow's Nest Road, approximately one mile northwest of the Village of Hammondsport, New York in Steuben County as shown on Figures 1 and 2. The landfill, which received municipal and industrial wastes, was classified by the New York State Department of Environmental Conservation (NYSDEC) as a Class 2 inactive hazardous waste disposal site (Site No. 8-51-007), indicating that it posed a significant threat to public health or the environment, and that remedial action was required. The landfill property encompasses an area of 20 acres, with approximately 13 acres dedicated to waste disposal. The property is currently owned by Steven and Tammy Perkins.

The New York State Department of Environmental Conservation (NYSDEC) performed a remedial investigation (RI) at the site in 1997 to determine the extent of contamination from past disposal practices. Industrial users of the landfill included Mercury Aircraft, Inc. who voluntarily reported the disposal of small quantities of chlorinated solvent still bottoms and paint sludge at the landfill. Mercury Aircraft subsequently retained Benchmark Environmental Engineering & Science, PLLC (Benchmark) to complete additional investigations at the site and to develop a Remedial Action Work Plan for the landfill. Mercury Aircraft executed a NYSDEC-issued Order on Consent covering design and construction of the remedial measures on June 21, 2000. Design plans and specifications were prepared by Benchmark and approved by NYSDEC in April 2001. Benchmark was retained by Mercury Aircraft to perform the remedial construction on a design-build basis. In accordance with the ROD, remedial measures implemented at the site included:

- Enhancement of the existing landfill cover;
- Collection and treatment of contaminated groundwater;
- Installation of a soil vapor extraction (SVE) system within "Hotspot 5" on the upper terrace of the landfill (SVE operations were deemed complete and terminated in 2004).
- Stream bank relocation/stabilization

1.2 Compliance and Recommendations

The groundwater collection and treatment system are operated and maintained by Mercury Aircraft in accordance with a "Post Remedial Operation and Maintenance Plan" (O&M Plan) dated May 2003. Discharge sampling is performed as a component of that work. In addition, the Town of Urbana performs seasonal mowing and maintenance of the cover system and stream bank and maintains site access roads.

As further described in this report, the remedial measures remain protective of human health and the environment. No significant compliance issues have arisen related to the post-remedial measures undertaken to date.

No other changes to the treatment system operation, landfill engineering controls or reporting approach are recommended at this time. Executed institutional and engineering control (IC/EC) certification forms are included in Appendix A.

2. Site Overview

The Urbana Landfill encompasses an area of approximately 20 acres, of which approximately 13 acres were used for landfilling purposes. The Remedial Investigation (RI) and subsequent remedial action broke the site into sub-parcels based on elevation and topography. These sub-parcels, deemed the upper, middle, lower and western terraces, were allegedly subject to various trench filling operations, with the middle and lower terraces used more extensively for disposal than other areas. The landfill was officially closed in September of 1978, at which point two feet of cover soil were placed over the Site.

In 1982 it was reported that the Site had improper final cover and uncontrolled access. It was subsequently added to the NYSDEC Registry of Inactive Hazardous Waste Sites as a Class 2a Site, meaning additional information was required before the NYSDEC could determine the significance of the threat posed by the site conditions. The NYSDEC and New York State Department of Health (NYSDOH) conducted sampling at the Site in 1988 and again in 1992. In 1994 it was classified as a Class 2 site, indicating that it posed a significant threat to human health and/or the environment and that remedial action is required.

The geology of the site is described as glacial till overlying fractured shale and sandstone. The till deposits consist of sandstone and shale. Soils occupying the stream valley along the west side of the site are comprised of till and recent fluvial deposits (sand, gravel and cobbles) in the upper part, and boulders and till with a veneer of stream deposits in the lower portion near Crow's Nest Road.

There are two aquifers at the site; the overburden aquifer and the bedrock aquifer. Depth to groundwater at the Urbana Landfill ranges from 4.5' below ground surface (fbgs) to 28' fbgs in the overburden. The bedrock/groundwater interface is generally the most productive zone of groundwater in the overburden. In general overburden and upper bedrock groundwater flow is to the southwest toward the stream valley near Crow's Nest Road. Groundwater velocity is estimated at 0.55 to 1.8 feet per day.

Prior to remedial activities groundwater impacts were detected in several of the onsite shallow and intermediate monitoring wells, primarily in the southwest area of the site and at MW-103S on the upper terrace. Contaminants of concern (COCs) were generally limited to chlorinated volatile organic compounds (VOCs) and to a lesser extent petroleum-based VOCs. Certain metals were also present above NY State Class GA Groundwater Quality Standards and Guidance Values (GQSGVs) but were largely comprised of naturally-occurring minerals (iron, calcium, potassium, sodium, etc.). Soil gas and subsurface soil sampling suggested the presence of certain "hotspot" areas within the landfill as characterized by elevated chlorinated VOC data, with "Hotspot 5" on the upper terrace of the landfill characterized by the highest concentration of VOCs.

Mercury Aircraft, Inc. voluntarily agreed to implement remedial measures at the Site following completion of the RI/FS. The basis for the remedial approach and design are presented in detail in the May 2000 Remedial Action Work Plan and April 2001 Design Plans and Specifications prepared by Benchmark. A brief description of the remedial measures implemented at the site is provided below.

2.1 Landfill Cover System

Supplemental (pre-design) investigation work performed by Mercury Aircraft indicated that much of the existing landfill had sufficient cover thickness and low permeability to provide an effective hydraulic barrier against infiltration consistent with the substantive requirements of 6NYCRR Part 360. To preclude contact with the waste and limit leachate generation, areas of the site where sufficient cover soil was not already present were enhanced with soil cover to provide a minimum of 24 inches of soil cover. The supplemental cover placed consisted of up to 18 inches of low permeability barrier layer and 6 inches of topsoil and was seeded to promote vegetative (grass) cover.

A gas venting system, which consisted of gas venting wells, was installed at approximately one per acre. The gas venting wells were constructed to fully penetrate the cover system and unsaturated fill material. Gas vents were completed with a perforated PVC pipe, backfilled with select granular fill, and a solid riser pipe extending a minimum of three feet above the final cover system.

2.2 Groundwater Recovery and Treatment System

Contaminated groundwater is currently recovered along the western perimeter of the landfill between Crow's Nest Road and monitoring well MW-107 using submersible pumps in three vertical recovery wells. The groundwater is pumped to treatment equipment housed in a pre-cast concrete building located near Crow's Nest Road.

The treatment process incorporates advanced oxidation technology (AOT). AOT is a destructive process incorporating ultraviolet light and hydrogen peroxide to form hydroxyl radicals, which are powerful oxidizers that convert chlorinated organics to carbon dioxide, water, and chloride salts. The groundwater treatment process also incorporates an influent day tank to temporarily store groundwater and facilitate batch process treatment. A filtration system (bag filters) installed ahead of the day tank mitigates solids build-up in the tank and increases AOT efficiency. Groundwater is pumped from the day tank through the AOT unit. A hydrogen peroxide feed system incorporating a storage tank, metering pump, and control panel is installed in-line with the AOT unit. The feed system delivers 34 percent hydrogen peroxide to the groundwater influent line upstream of the AOT unit. Treated groundwater is discharged via gravity to an infiltration chamber located downgradient of the recovery wells.

2.3 Hot Spot 5 Remediation

Hot Spot 5, located in the upper terrace of the landfill, was remediated through SVE remediation. The SVE system was comprised of a series of six vertical extraction wells piped to a trailer-mounted vapor extraction system. The SVE system was started in June 2002 and operated until June 2004, with temporary shutdown of the trailer during the period of November through March to mitigate potential freeze-up of the SVE equipment and collection wells. Post-treatment confirmation sampling confirmed that the system had achieved remedial goals, and the trailer and extraction wells were permanently decommissioned.

2.4 Stream Bank Stabilization

NYSDEC requested that 30 feet of separation be maintained between the landfill and an unnamed stream located to the west of the landfill. This was accomplished by regrading and consolidating portions of the waste along the west bank of the landfill and by relocating and stabilizing (with riprap) two sections of the stream away from the landfill.

2.5 Deed Restriction

In fall of 2015 the NYSDEC provided written request that a deed restriction be placed upon the area of the Urbana Landfill property that was subject to historic disposal and subsequent remedial measures. Mercury Aircraft subsequently retained a Licensed Professional Surveyor to provide a formal boundary survey of the inactive landfill property, which was based upon the limits of the landfill as established during the Remedial Investigation and subsequent pre-remedial design investigation and cleanup work. The deed restriction was filed with Steuben County by Mercury Aircraft on behalf of the property owners in March of 2017.

3. Post Remedial Monitoring Compliance

Components of the post remedial monitoring plan are described below.

3.1 Groundwater Recovery and Treatment System

Contaminated groundwater is recovered along the western perimeter of the landfill between Crow's Nest Road and MW-107 using submersible pumps in three vertical recovery wells. The groundwater is pumped to treatment equipment housed in a pre-cast concrete building located near Crow's Nest Road and treated via an Advanced Oxidation Technology (AOT) process as described in Section 2.2. Effluent samples and flow measurements are collected on a quarterly basis. Effluent samples are analyzed for Target Compound List VOCs via Method 8260. In June 2011 the NYSDEC approved a reduced reporting frequency whereby monthly data is reported to the Department on a quarterly basis unless discharge concentrations exceed Class GA Groundwater Quality Standards & Guidance Values (GWQSGVs), in which case notification is required upon receipt of the non-conformant data. In December 2022 the NYSDEC approved a reduced sampling frequency of the treatment system effluent from monthly to quarterly.

Table 1, attached, presents a summary of the effluent results for the period of December 2023 through July 2024. The results indicate non-detectable concentrations with only a trace level of acetone detected below the associated GWQSGVs during the sampling events. A copy of the laboratory data package is presented in Appendix B of this report.

Over 20,269,950 gallons of water have been treated through July 2024.

3.2 Groundwater Monitoring

Post remedial monitoring of all the site groundwater monitoring wells was performed in January 2009, with select wells resampled in July 2020 for VOCs and emerging contaminants. The monitoring was performed as requested by the NYSDEC in consideration of potential reclassification of the site.

The July 2020 groundwater sampling was performed in general accordance with the NYSDEC-approved July 16, 2020, Work Plan, with the analytical results presented in Appendix C of this report.

At the time of collection (July 2020), all samples fell below NYSDEC guidance of 70 ng/L for total PFOA and PFOS compounds and 500 ng/L for total PFAS with the exception of MW-108S, which exhibited slight exceedance of the 70 ng/L criteria. 1,4 – Dioxane was reported as non-detect at all monitoring locations with the exception of MW-107S and MW-108S which exhibited concentrations above the 0.35 ng/L criteria.

Monitoring wells MW-104S, MW-108S and MW-108I exhibited VOC concentrations lower than previous sampling events. VOC concentrations in monitoring wells MW-107S and 202S were generally consistent with historical sampling events. Monitoring wells MW-107D and 101S (upgradient) yielded non-detect

concentrations for all VOC analytes. Monitoring well MW-103D exhibited VOC concentrations one magnitude higher than the previous sampling events. The elevated VOC concentrations exhibited in monitoring well MW-103D may be attributed to seasonal groundwater fluctuations.

3.3 Soil Vapor Extraction System

As indicated in Section 2.4 the SVE system was decommissioned in July 2004, and as such the SVE operation is not part of the post remedial monitoring program.

3.4 Deed Restriction

At the time of the Site Inspection the property appeared conformant with the deed restriction. No permanent buildings were present on the property other than the groundwater treatment system, and no evidence of groundwater use was observed. A mobile home was observed west of the access road in the middle terrace of the landfill. Roux observed that the trailer had no utility connections, nor was it furnished. The property owner (Steven Perkins) was contacted concerning the trailer; Mr. Perkins indicated that it is temporarily parked at that location and being refurbished by a member of his family but is not being used for any residential purpose.

4. Operations & Maintenance Compliance

Major components of the Operation and Maintenance Plan include the Groundwater Treatment System and the Landfill Cover System. Specific Operation & Maintenance (O&M) requirements are presented below.

4.1 Groundwater Treatment System

O&M activities of the Groundwater Treatment System include periodic maintenance of the treatment system equipment and monthly compliance effluent discharge monitoring. Periodic maintenance completed during this monitoring period included changing of the treatment system filtration bag filters,and refilling of the hydrogen peroxide feed storage tank. A log sheet documenting these activities is maintained within the groundwater treatment system building.

Effluent monitoring results are presented in Table 1. Since the startup of the groundwater treatment system in 2003, effluent sampling results have indicated compliance with discharge limits to remove VOCs to non-detect or near non-detect levels for the past 20 years.

4.2 Landfill Cover System

O&M activities of the Landfill Cover System include the following:

- Monitoring well repair (as necessary)
- Cover system and stream riprap inspection
- Gas venting system inspection
- Semi-annual cover system mowing
- Minor cover system/riprap repairs (as necessary)

- Repair/replace poplar trees (as necessary)
- Maintain and plow access road and groundwater treatment system driveway as necessary
- Fencing/gate repair (as necessary)

1.2.1 Landfill Cover System

An inspection of the landfill cover system was performed on May 9, 2024. Observations made during the inspection indicate the vegetative cover is well established, with no evidence of erosion. There were no indications of leachate breakouts and /or staining on the cover system. Mowing of the cover system turf will be performed by the Town of Urbana during the summer season 2024. Additionally, the protective casing at monitoring well MW-101 was repaired in May 2024.

A photo log of the site walkover is presented in Appendix C of this report.

4.2 Stream Bank Stabilization

Inspection of the stream bank stabilization was performed during the May 9, 2024, site reconnaissance. The inspection indicated that vegetation has grown into the riprap and stone bedding (as expected), but no encroachment of the stream toward the landfill has occurred.

5. Down Gradient Properties

No development has occurred on down-gradient properties proximate to the site during this reporting period. If development does occur, a Soil Vapor Intrusion (SVI) evaluation will be performed on the down gradient property. This SVI evaluation submittal will be reviewed and approved by NYSDOH and NYSDEC.

6. Conclusions and Recommendations

The subject property in compliance with current post-remedial Site Management requirements. No development of the property or changes in use that would result in increased human health exposure or fish and wildlife impact were observed. The institutional and engineering controls remain in effect. Components of the post-closure requirements have achieved the remedial action objectives for the site.

7. Declarations and Limitations

Roux personnel conducted the IC/EC inspection for the property addressed as Town of Urbana Landfill, Urbana, New York, according to generally accepted practices. This report complies with the scope of work provided to Mercury Aircraft Inc. by Roux.

This report has been prepared for the exclusive use of Mercury Aircraft, Inc. The contents of this report are limited to information available at the time of the site inspection. The findings herein may be relied upon only at the discretion of Mercury Aircraft, Inc. Use of or reliance upon this report or its findings by any other person or entity is prohibited without written permission of Roux Environmental Engineering and Geology, D.P.C.

FIGURES

BASE MAP - USGS HAMMONDSPORT AND RHEIMS, NEW YORK QUADRANGLES. DATED 2019.

QUADRANGLE LOCATION

N

4,000' 0' 4,000' 8,000'

SCALE: 1 INCH = 4,000 FEET
SCALE IN FEET
(approximate)

Title:

SITE LOCATION AND VICINITY MAP

PERIODIC REVIEW REPORT

URBANA LANDFILL SITE
NYSDEC SITE NO. 8-51-007
URBANA, NEW YORK

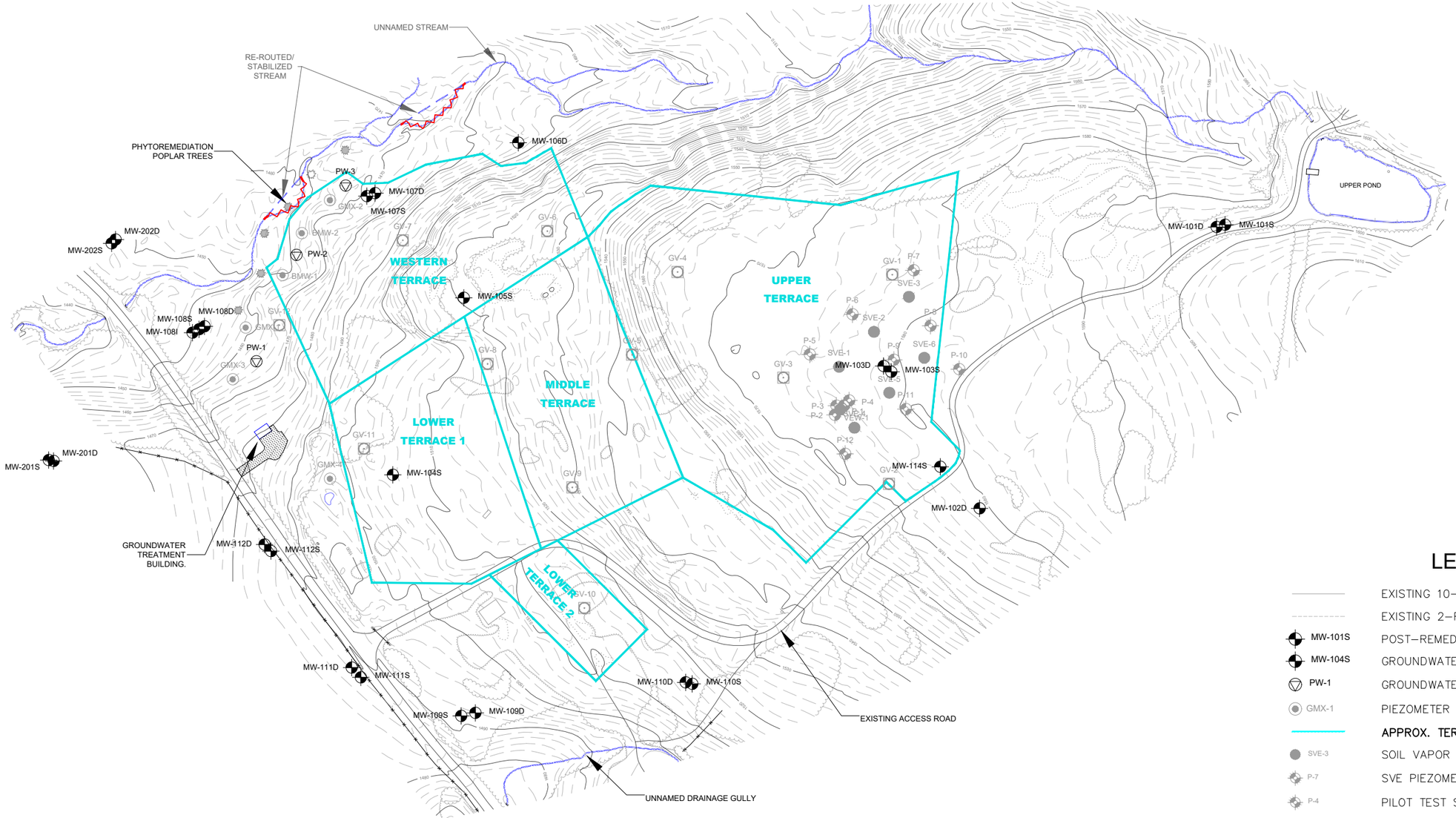
Prepared for:

MERCURY AIRCRAFT, INC.

ROUX

Compiled by: RFL	Date: JULY 2024	FIGURE
Prepared by: RFL	Scale: AS SHOWN	1
Project Mgr: THF	Project: XX	
File: FIGURE 1; SITE LOC & VIC MAP.DWG		

F:\CAD\BENCHMARK\MERCURY AIRCRAFT\POST-CLOSURE MONITORING PLAN\PERIODIC REVIEW REPORT\2024\FIGURE 1; SITE LOC & VIC MAP.DWG



150' 0' 150' 300'

SCALE: 1 INCH = 150 FEET
SCALE IN FEET
(approximate)

LEGEND

	EXISTING 10–FOOT GROUND SURFACE CONTOUR
	EXISTING 2–FOOT GROUND SURFACE CONTOUR
MW-101S	POST–REMEDIAL MONITORING WELL
MW-104S	GROUNDWATER MONITORING WELL
PW-1	GROUNDWATER TREATMENT SYSTEM PUMPING WELL
GMX-1	PIEZOMETER
	APPROX. TERRACE LIMITS
SVE-3	SOIL VAPOR EXTRACTION (SVE) WELL
P-7	SVE PIEZOMETER
P-4	PILOT TEST SVE PIEZOMETER
GV	GAS VENT

Title:

SITE PLAN
PERIODIC REVIEW REPORT

URBANA LANDFILL SITE
NYSDEC SITE NO. 8-51-007
URBANA, NEW YORK

Prepared for:
MERCURY AIRCRAFT, INC.

ROUX

Compiled by: RFL	Date: JULY 2024
Prepared by: RFL	Scale: AS SHOWN
Project Mgr: THF	Project: XX
File: FIGURE 2 - SITE PLAN.DWG	

FIGURE 2

F:\CAD\BENCHMARK\MERCURY AIRCRAFT\POST-CLOSURE MONITORING PLAN\PERIODIC REVIEW REPORT\2018\FIGURE 2 - SITE PLAN.DWG

Tables

TABLE 1

SUMMARY OF EFFLUENT GROUNDWATER TREATMENT SYSTEM RESULTS

TOWN OF URBANA LANDFILL
URBANA, NEW YORK

Effluent Sampling Event	Volume Data (Gallons)		Volatile Organic Compounds (VOCs) (mg/l)	
	Total Volume	Period Total	Acetone	Total VOCs
December 2023	19,709,250	192,960	0.028	0.028
May 2024	20,100,840	391,590	0.020	0.020
July 2024	20,269,950	169,110	0.013	0.013

APPENDIX A

SITE INSPECTION (IC/EC) FORMS

Enclosure 2
NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION
Site Management Periodic Review Report Notice
Institutional and Engineering Controls Certification Form

Site Details **Box 1**

Site No. 851007

Site Name Urbana Landfill

Site Address: Crow's Nest Road Zip Code: 14840
City/Town: Hammondsport
County: Steuben
Site Acreage: 14.170

Reporting Period: June 30, 2023 to June 30, 2024

	YES	NO
1. Is the information above correct?	X	
If NO, include handwritten above or on a separate sheet.		
2. Has some or all of the site property been sold, subdivided, merged, or undergone a tax map amendment during this Reporting Period?		X
3. Has there been any change of use at the site during this Reporting Period (see 6NYCRR 375-1.11(d))?		X
4. Have any federal, state, and/or local permits (e.g., building, discharge) been issued for or at the property during this Reporting Period?		X
If you answered YES to questions 2 thru 4, include documentation or evidence that documentation has been previously submitted with this certification form.		
5. Is the site currently undergoing development?		X

Box 2

	YES	NO
6. Is the current site use consistent with the use(s) listed below? Industrial	X	
7. Are all ICs in place and functioning as designed?	X	

IF THE ANSWER TO EITHER QUESTION 6 OR 7 IS NO, sign and date below and DO NOT COMPLETE THE REST OF THIS FORM. Otherwise continue.

A Corrective Measures Work Plan must be submitted along with this form to address these issues.

Signature of Owner, Remedial Party or Designated Representative Date

SITE NO. 851007 **Box 3**

Description of Institutional Controls

Parcel	Owner	Institutional Control
103.00-01-005.100	Steve and Tammi Perkins	Site Management Plan

The PRP must operate the groundwater treatment system until the Record of Decision cleanup goals are achieved.

Box 4

Description of Engineering Controls

Parcel	Engineering Control
103.00-01-005.100	Groundwater Treatment System

Box 5

Periodic Review Report (PRR) Certification Statements

1. I certify by checking "YES" below that:

   a) the Periodic Review report and all attachments were prepared under the direction of, and reviewed by, the party making the Engineering Control certification;

   b) to the best of my knowledge and belief, the work and conclusions described in this certification are in accordance with the requirements of the site remedial program, and generally accepted engineering practices; and the information presented is accurate and compete.

YES	NO
X	☐

2. For each Engineering control listed in Box 4, I certify by checking "YES" below that all of the following statements are true:

   (a) The Engineering Control(s) employed at this site is unchanged since the date that the Control was put in-place, or was last approved by the Department;

   (b) nothing has occurred that would impair the ability of such Control, to protect public health and the environment;

   (c) access to the site will continue to be provided to the Department, to evaluate the remedy, including access to evaluate the continued maintenance of this Control;

   (d) nothing has occurred that would constitute a violation or failure to comply with the Site Management Plan for this Control; and

   (e) if a financial assurance mechanism is required by the oversight document for the site, the mechanism remains valid and sufficient for its intended purpose established in the document.

YES	NO
X	☐

IF THE ANSWER TO QUESTION 2 IS NO, sign and date below and DO NOT COMPLETE THE REST OF THIS FORM. Otherwise continue.

A Corrective Measures Work Plan must be submitted along with this form to address these issues.

Signature of Owner, Remedial Party or Designated Representative

Date

IC CERTIFICATIONS
SITE NO. 851007

Box 6

SITE OWNER OR DESIGNATED REPRESENTATIVE SIGNATURE

I certify that all information and statements in Boxes 1,2, and 3 are true. I understand that a false statement made herein is punishable as a Class "A" misdemeanor, pursuant to Section 210.45 of the Penal Law.

I Joseph F.Meade IV (print name) at Mercury Corp 8126 Cty Rt 88 Hammondsport, NY (print business address)

am certifying as Remedial Party (Owner or Remedial Party)

for the Site named in the Site Details Section of this form.

Signature of Owner, Remedial Party, or Designated Representative Rendering Certification

10/10/24
Date

EC CERTIFICATIONS

Box 7

Professional Engineer Signature

I certify that all information in Boxes 4 and 5 are true. I understand that a false statement made herein is punishable as a Class "A" misdemeanor, pursuant to Section 210.45 of the Penal Law.

I Thomas H. Forbes (print name) at Roux Environmental Eng & Geo - D.P.C. Buffalo NY (print business address),

am certifying as a Professional Engineer for the _____ (Owner or Remedial Party)

STATE OF NEW YORK
THOMAS H. FORBES
No. 70550-1
LICENSED PROFESSIONAL ENGINEER

Signature of Professional Engineer, for the Owner or Remedial Party, Rendering Certification

Stamp (Required for PE)

7-29-24
Date

APPENDIX B

GROUNDWATER TREATMENT SYSTEM ANALYTICAL RESULTS

ANALYTICAL REPORT

Lab Number:	L2375488
Client:	Roux 2558 Hamburg Turnpike Suite 300 Buffalo, NY 14218
ATTN:	Rick Dubisz
Phone:	(716) 856-0599
Project Name:	URBANA LF
Project Number:	B0001-022-001
Report Date:	12/29/23

Certifications & Approvals: MA (M-MA086), NH NELAP (2064), CT (PH-0826), IL (200077), IN (C-MA-03), KY (KY98045), ME (MA00086), MD (348), NJ (MA935), NY (11148), NC (25700/666), OH (CL108), OR (MA-1316), PA (68-03671), RI (LAO00065), TX (T104704476), VT (VT-0935), VA (460195), USDA (Permit #525-23-122-91930).

Eight Walkup Drive, Westborough, MA 01581-1019
508-898-9220 (Fax) 508-898-9193 800-624-9220 - www.alphalab.com

Project Name: URBANA LF
Project Number: B0001-022-001

Lab Number: L2375488
Report Date: 12/29/23

Alpha Sample ID	Client ID	Matrix	Sample Location	Collection Date/Time	Receive Date
L2375488-01	PROCESS EFFLUENT	WATER	URBANA NY	12/19/23 09:30	12/21/23

Project Name:	URBANA LF	**Lab Number:**	L2375488
Project Number:	B0001-022-001	**Report Date:**	12/29/23

Case Narrative

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

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

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

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

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

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

Project Name:	URBANA LF	**Lab Number:**	L2375488
Project Number:	B0001-022-001	**Report Date:**	12/29/23

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: Caitlin Walukevich

Caitlin Walukevich

Title: Technical Director/Representative

Date: 12/29/23

ORGANICS

VOLATILES

Project Name: URBANA LF
Project Number: B0001-022-001
Lab Number: L2375488
Report Date: 12/29/23

SAMPLE RESULTS

Lab ID: L2375488-01
Client ID: PROCESS EFFLUENT
Sample Location: URBANA NY
Date Collected: 12/19/23 09:30
Date Received: 12/21/23
Field Prep: Not Specified

Sample Depth:
Matrix: Water
Analytical Method: 1,8260D
Analytical Date: 12/27/23 13:19
Analyst: MAG

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methylene chloride	ND		ug/l	2.5	0.70	1
1,1-Dichloroethane	ND		ug/l	2.5	0.70	1
Chloroform	ND		ug/l	2.5	0.70	1
Carbon tetrachloride	ND		ug/l	0.50	0.13	1
1,2-Dichloropropane	ND		ug/l	1.0	0.14	1
Dibromochloromethane	ND		ug/l	0.50	0.15	1
1,1,2-Trichloroethane	ND		ug/l	1.5	0.50	1
Tetrachloroethene	ND		ug/l	0.50	0.18	1
Chlorobenzene	ND		ug/l	2.5	0.70	1
Trichlorofluoromethane	ND		ug/l	2.5	0.70	1
1,2-Dichloroethane	ND		ug/l	0.50	0.13	1
1,1,1-Trichloroethane	ND		ug/l	2.5	0.70	1
Bromodichloromethane	ND		ug/l	0.50	0.19	1
trans-1,3-Dichloropropene	ND		ug/l	0.50	0.16	1
cis-1,3-Dichloropropene	ND		ug/l	0.50	0.14	1
Bromoform	ND		ug/l	2.0	0.65	1
1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	0.17	1
Benzene	ND		ug/l	0.50	0.16	1
Toluene	ND		ug/l	2.5	0.70	1
Ethylbenzene	ND		ug/l	2.5	0.70	1
Chloromethane	ND		ug/l	2.5	0.70	1
Bromomethane	ND		ug/l	2.5	0.70	1
Vinyl chloride	ND		ug/l	1.0	0.07	1
Chloroethane	ND		ug/l	2.5	0.70	1
1,1-Dichloroethene	ND		ug/l	0.50	0.17	1
trans-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1
Trichloroethene	ND		ug/l	0.50	0.18	1
1,2-Dichlorobenzene	ND		ug/l	2.5	0.70	1

Project Name: URBANA LF **Lab Number:** L2375488

Project Number: B0001-022-001 **Report Date:** 12/29/23

SAMPLE RESULTS

Lab ID: L2375488-01 Date Collected: 12/19/23 09:30

Client ID: PROCESS EFFLUENT Date Received: 12/21/23

Sample Location: URBANA NY Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
1,3-Dichlorobenzene	ND		ug/l	2.5	0.70	1
1,4-Dichlorobenzene	ND		ug/l	2.5	0.70	1
Methyl tert butyl ether	ND		ug/l	2.5	0.70	1
p/m-Xylene	ND		ug/l	2.5	0.70	1
o-Xylene	ND		ug/l	2.5	0.70	1
cis-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1
Styrene	ND		ug/l	2.5	0.70	1
Dichlorodifluoromethane	ND		ug/l	5.0	1.0	1
Acetone	28		ug/l	5.0	1.5	1
Carbon disulfide	ND		ug/l	5.0	1.0	1
2-Butanone	ND		ug/l	5.0	1.9	1
4-Methyl-2-pentanone	ND		ug/l	5.0	1.0	1
2-Hexanone	ND		ug/l	5.0	1.0	1
Bromochloromethane	ND		ug/l	2.5	0.70	1
1,2-Dibromoethane	ND		ug/l	2.0	0.65	1
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	0.70	1
Isopropylbenzene	ND		ug/l	2.5	0.70	1
1,2,3-Trichlorobenzene	ND		ug/l	2.5	0.70	1
1,2,4-Trichlorobenzene	ND		ug/l	2.5	0.70	1
Methyl Acetate	ND		ug/l	2.0	0.23	1
Cyclohexane	ND		ug/l	10	0.27	1
1,4-Dioxane	ND		ug/l	250	61.	1
Freon-113	ND		ug/l	2.5	0.70	1
Methyl cyclohexane	ND		ug/l	10	0.40	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	107		70-130
Toluene-d8	106		70-130
4-Bromofluorobenzene	102		70-130
Dibromofluoromethane	103		70-130

Project Name: URBANA LF
Project Number: B0001-022-001
Lab Number: L2375488
Report Date: 12/29/23

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260D
Analytical Date: 12/27/23 08:59
Analyst: PID

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 01 Batch: WG1868758-5					
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
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
1,2-Dichlorobenzene	ND		ug/l	2.5	0.70
1,3-Dichlorobenzene	ND		ug/l	2.5	0.70

Project Name: URBANA LF
Project Number: B0001-022-001
Lab Number: L2375488
Report Date: 12/29/23

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260D
Analytical Date: 12/27/23 08:59
Analyst: PID

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 01 Batch: WG1868758-5					
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
cis-1,2-Dichloroethene	ND		ug/l	2.5	0.70
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
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
1,2-Dibromoethane	ND		ug/l	2.0	0.65
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	0.70
Isopropylbenzene	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
Methyl Acetate	ND		ug/l	2.0	0.23
Cyclohexane	ND		ug/l	10	0.27
1,4-Dioxane	ND		ug/l	250	61.
Freon-113	ND		ug/l	2.5	0.70
Methyl cyclohexane	ND		ug/l	10	0.40

Project Name: URBANA LF
Project Number: B0001-022-001
Lab Number: L2375488
Report Date: 12/29/23

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260D
Analytical Date: 12/27/23 08:59
Analyst: PID

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 01 Batch: WG1868758-5					

Surrogate	%Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	101		70-130
Toluene-d8	107		70-130
4-Bromofluorobenzene	103		70-130
Dibromofluoromethane	98		70-130

Lab Control Sample Analysis
Batch Quality Control

Project Name: URBANA LF
Project Number: B0001-022-001

Lab Number: L2375488
Report Date: 12/29/23

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: WG1868758-3 WG1868758-4								
Methylene chloride	100		97		70-130	3		20
1,1-Dichloroethane	100		100		70-130	0		20
Chloroform	100		100		70-130	0		20
Carbon tetrachloride	100		94		63-132	6		20
1,2-Dichloropropane	110		100		70-130	10		20
Dibromochloromethane	100		96		63-130	4		20
1,1,2-Trichloroethane	110		100		70-130	10		20
Tetrachloroethene	100		100		70-130	0		20
Chlorobenzene	110		100		75-130	10		20
Trichlorofluoromethane	100		96		62-150	4		20
1,2-Dichloroethane	100		99		70-130	1		20
1,1,1-Trichloroethane	100		95		67-130	5		20
Bromodichloromethane	100		95		67-130	5		20
trans-1,3-Dichloropropene	100		100		70-130	0		20
cis-1,3-Dichloropropene	100		95		70-130	5		20
Bromoform	93		90		54-136	3		20
1,1,2,2-Tetrachloroethane	100		100		67-130	0		20
Benzene	110		99		70-130	11		20
Toluene	110		100		70-130	10		20
Ethylbenzene	110		100		70-130	10		20
Chloromethane	100		96		64-130	4		20
Bromomethane	**32**	Q	**32**	Q	39-139	0		20
Vinyl chloride	100		98		55-140	2		20

Lab Control Sample Analysis
Batch Quality Control

Project Name: URBANA LF
Project Number: B0001-022-001

Lab Number: L2375488
Report Date: 12/29/23

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: WG1868758-3 WG1868758-4								
Chloroethane	110		100		55-138	10		20
1,1-Dichloroethene	99		94		61-145	5		20
trans-1,2-Dichloroethene	100		95		70-130	5		20
Trichloroethene	100		95		70-130	5		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	90		87		63-130	3		20
p/m-Xylene	110		100		70-130	10		20
o-Xylene	110		100		70-130	10		20
cis-1,2-Dichloroethene	100		96		70-130	4		20
Styrene	110		105		70-130	5		20
Dichlorodifluoromethane	93		89		36-147	4		20
Acetone	100		93		58-148	7		20
Carbon disulfide	100		96		51-130	4		20
2-Butanone	97		92		63-138	5		20
4-Methyl-2-pentanone	97		98		59-130	1		20
2-Hexanone	90		88		57-130	2		20
Bromochloromethane	100		94		70-130	6		20
1,2-Dibromoethane	100		99		70-130	1		20
1,2-Dibromo-3-chloropropane	89		89		41-144	0		20
Isopropylbenzene	110		100		70-130	10		20
1,2,3-Trichlorobenzene	90		88		70-130	2		20

Lab Control Sample Analysis

Batch Quality Control

Project Name: URBANA LF

Project Number: B0001-022-001

Lab Number: L2375488

Report Date: 12/29/23

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: WG1868758-3 WG1868758-4								
1,2,4-Trichlorobenzene	94		91		70-130	3		20
Methyl Acetate	100		97		70-130	3		20
Cyclohexane	100		98		70-130	2		20
1,4-Dioxane	88		80		56-162	10		20
Freon-113	100		95		70-130	5		20
Methyl cyclohexane	97		91		70-130	6		20

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
1,2-Dichloroethane-d4	101		102		70-130
Toluene-d8	107		106		70-130
4-Bromofluorobenzene	104		103		70-130
Dibromofluoromethane	99		98		70-130

Project Name: URBANA LF
Project Number: B0001-022-001

Lab Number: L2375488
Report Date: 12/29/23

Sample Receipt and Container Information

Were project specific reporting limits specified? YES

Cooler Information

Cooler	Custody Seal
A	Absent

Container Information

Container ID	Container Type	Cooler	Initial pH	Final pH	Temp deg C	Pres	Seal	Frozen Date/Time	Analysis(*)
L2375488-01A	Vial HCl preserved	A	NA		3.5	Y	Absent		NYTCL-8260-R2(14)
L2375488-01B	Vial HCl preserved	A	NA		3.5	Y	Absent		NYTCL-8260-R2(14)
L2375488-01C	Vial HCl preserved	A	NA		3.5	Y	Absent		NYTCL-8260-R2(14)

*Values in parentheses indicate holding time in days

Project Name:	URBANA LF	**Lab Number:**	L2375488
Project Number:	B0001-022-001	**Report Date:**	12/29/23

GLOSSARY

Acronyms

DL	- Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the limit of quantitation (LOQ). The DL includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)
EDL	- Estimated Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The EDL includes any adjustments from dilutions, concentrations or moisture content, where applicable. The use of EDLs is specific to the analysis of PAHs using Solid-Phase Microextraction (SPME).
EMPC	- Estimated Maximum Possible Concentration: The concentration that results from the signal present at the retention time of an analyte when the ions meet all of the identification criteria except the ion abundance ratio criteria. An EMPC is a worst-case estimate of the concentration.
EPA	- Environmental Protection Agency.
LCS	- Laboratory Control Sample: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.
LCSD	- Laboratory Control Sample Duplicate: Refer to LCS.
LFB	- Laboratory Fortified Blank: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.
LOD	- Limit of Detection: This value represents the level to which a target analyte can reliably be detected for a specific analyte in a specific matrix by a specific method. The LOD includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)
LOQ	- Limit of Quantitation: The value at which an instrument can accurately measure an analyte at a specific concentration. The LOQ includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.) Limit of Quantitation: The value at which an instrument can accurately measure an analyte at a specific concentration. The LOQ includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)
MDL	- Method Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The MDL includes any adjustments from dilutions, concentrations or moisture content, where applicable.
MS	- Matrix Spike Sample: A sample prepared by adding a known mass of target analyte to a specified amount of matrix sample for which an independent estimate of target analyte concentration is available. For Method 332.0, the spike recovery is calculated using the native concentration, including estimated values.
MSD	- Matrix Spike Sample Duplicate: Refer to MS.
NA	- Not Applicable.
NC	- Not Calculated: Term is utilized when one or more of the results utilized in the calculation are non-detect at the parameter's reporting unit.
NDPA/DPA	- N-Nitrosodiphenylamine/Diphenylamine.
NI	- Not Ignitable.
NP	- Non-Plastic: Term is utilized for the analysis of Atterberg Limits in soil.
NR	- No Results: Term is utilized when 'No Target Compounds Requested' is reported for the analysis of Volatile or Semivolatile Organic TIC only requests.
RL	- Reporting Limit: The value at which an instrument can accurately measure an analyte at a specific concentration. The RL includes any adjustments from dilutions, concentrations or moisture content, where applicable.
RPD	- Relative Percent Difference: The results from matrix and/or matrix spike duplicates are primarily designed to assess the precision of analytical results in a given matrix and are expressed as relative percent difference (RPD). Values which are less than five times the reporting limit for any individual parameter are evaluated by utilizing the absolute difference between the values; although the RPD value will be provided in the report.
SRM	- Standard Reference Material: A reference sample of a known or certified value that is of the same or similar matrix as the associated field samples.
STLP	- Semi-dynamic Tank Leaching Procedure per EPA Method 1315.
TEF	- Toxic Equivalency Factors: The values assigned to each dioxin and furan to evaluate their toxicity relative to 2,3,7,8-TCDD.
TEQ	- Toxic Equivalent: The measure of a sample's toxicity derived by multiplying each dioxin and furan by its corresponding TEF and then summing the resulting values.
TIC	- Tentatively Identified Compound: A compound that has been identified to be present and is not part of the target compound list (TCL) for the method and/or program. All TICs are qualitatively identified and reported as estimated concentrations.

Report Format: DU Report with 'J' Qualifiers

Project Name:	URBANA LF	**Lab Number:**	L2375488
Project Number:	B0001-022-001	**Report Date:**	12/29/23

Footnotes

1 - The reference for this analyte should be considered modified since this analyte is absent from the target analyte list of the original method.

Terms

Analytical Method: Both the document from which the method originates and the analytical reference method. (Example: EPA 8260B is shown as 1,8260B.) The codes for the reference method documents are provided in the References section of the Addendum.

Chlordane: The target compound Chlordane (CAS No. 57-74-9) is reported for GC ECD analyses. Per EPA,this compound "refers to a mixture of chlordane isomers, other chlorinated hydrocarbons and numerous other components." (Reference: USEPA Toxicological Review of Chlordane, In Support of Summary Information on the Integrated Risk Information System (IRIS), December 1997.)

Difference: With respect to Total Oxidizable Precursor (TOP) Assay analysis, the difference is defined as the Post-Treatment value minus the Pre-Treatment value.

Final pH: As it pertains to Sample Receipt & Container Information section of the report, Final pH reflects pH of container determined after adjustment at the laboratory, if applicable. If no adjustment required, value reflects Initial pH.

Frozen Date/Time: With respect to Volatile Organics in soil, Frozen Date/Time reflects the date/time at which associated Reagent Water-preserved vials were initially frozen. Note: If frozen date/time is beyond 48 hours from sample collection, value will be reflected in 'bold'.

Gasoline Range Organics (GRO): Gasoline Range Organics (GRO) results include all chromatographic peaks eluting from Methyl tert butyl ether through Naphthalene, with the exception of GRO analysis in support of State of Ohio programs, which includes all chromatographic peaks eluting from Hexane through Dodecane.

Initial pH: As it pertains to Sample Receipt & Container Information section of the report, Initial pH reflects pH of container determined upon receipt, if applicable.

PAH Total: With respect to Alkylated PAH analyses, the 'PAHs, Total' result is defined as the summation of results for all or a subset of the following compounds: Naphthalene, C1-C4 Naphthalenes, 2-Methylnaphthalene, 1-Methylnaphthalene, Biphenyl, Acenaphthylene, Acenaphthene, Fluorene, C1-C3 Fluorenes, Phenanthrene, C1-C4 Phenanthrenes/Anthracenes, Anthracene, Fluoranthene, Pyrene, C1-C4 Fluoranthenes/Pyrenes, Benz(a)anthracene, Chrysene, C1-C4 Chrysenes, Benzo(b)fluoranthene, Benzo(j)+(k)fluoranthene, Benzo(e)pyrene, Benzo(a)pyrene, Perylene, Indeno(1,2,3-cd)pyrene, Dibenz(ah)+(ac)anthracene, Benzo(g,h,i)perylene. If a 'Total' result is requested, the results of its individual components will also be reported.

PFAS Total: With respect to PFAS analyses, the 'PFAS, Total (5)' result is defined as the summation of results for: PFHpA, PFHxS, PFOA, PFNA and PFOS. In addition, the 'PFAS, Total (6)' result is defined as the summation of results for: PFHpA, PFHxS, PFOA, PFNA, PFDA and PFOS. For MassDEP DW compliance analysis only, the 'PFAS, Total (6)' result is defined as the summation of results at or above the RL. Note: If a 'Total' result is requested, the results of its individual components will also be reported.

Total: With respect to Organic analyses, a 'Total' result is defined as the summation of results for individual isomers or Aroclors. If a 'Total' result is requested, the results of its individual components will also be reported. This is applicable to 'Total' results for methods 8260, 8081 and 8082.

Data Qualifiers

A - Spectra identified as "Aldol Condensates" are byproducts of the extraction/concentration procedures when acetone is introduced in the process.

B - The analyte was detected above the reporting limit in the associated method blank. Flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For MCP-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For DOD-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank AND the analyte was detected above one-half the reporting limit (or above the reporting limit for common lab contaminants) in the associated method blank. For NJ-Air-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte above the reporting limit. For NJ-related projects (excluding Air), flag only applies to associated field samples that have detectable concentrations of the analyte, which was detected above the reporting limit in the associated method blank or above five times the reporting limit for common lab contaminants (Phthalates, Acetone, Methylene Chloride, 2-Butanone).

C - Co-elution: The target analyte co-elutes with a known lab standard (i.e. surrogate, internal standards, etc.) for co-extracted analyses.

D - Concentration of analyte was quantified from diluted analysis. Flag only applies to field samples that have detectable concentrations of the analyte.

E - Concentration of analyte exceeds the range of the calibration curve and/or linear range of the instrument.

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

G - The concentration may be biased high due to matrix interferences (i.e, co-elution) with non-target compound(s). The result should be considered estimated.

H - The analysis of pH was performed beyond the regulatory-required holding time of 15 minutes from the time of sample collection.

I - The lower value for the two columns has been reported due to obvious interference.

J - Estimated value. 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

Report Format: DU Report with 'J' Qualifiers

Project Name:	URBANA LF	**Lab Number:**	L2375488
Project Number:	B0001-022-001	**Report Date:**	12/29/23

Data Qualifiers

Identified Compounds (TICs). For calculated parameters, this represents that one or more values used in the calculation were estimated.

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 the identification is based on a mass spectral library search.

P - The RPD between the results for the two columns exceeds the method-specified criteria.

Q - The quality control sample exceeds the associated acceptance criteria. For DOD-related projects, LCS and/or Continuing Calibration Standard exceedences are also qualified on all associated sample results. Note: This flag is not applicable for matrix spike recoveries when the sample concentration is greater than 4x the spike added or for batch duplicate RPD when the sample concentrations are less than 5x the RL. (Metals only.)

R - Analytical results are from sample re-analysis.

RE - Analytical results are from sample re-extraction.

S - Analytical results are from modified screening analysis.

V - The surrogate associated with this target analyte has a recovery outside the QC acceptance limits. (Applicable to MassDEP DW Compliance samples only.)

Z - The batch matrix spike and/or duplicate associated with this target analyte has a recovery/RPD outside the QC acceptance limits. (Applicable to MassDEP DW Compliance samples only.)

Project Name:	URBANA LF	**Lab Number:**	L2375488
Project Number:	B0001-022-001	**Report Date:**	12/29/23

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 624.1: m/p-xylene, o-xylene, Naphthalene
EPA 625.1: alpha-Terpineol
EPA 8260D: NPW: 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene, Azobenzene; SCM: Iodomethane (methyl iodide), 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene.
EPA 8270E: NPW: Dimethylnaphthalene,1,4-Diphenylhydrazine, alpha-Terpineol; SCM: Dimethylnaphthalene,1,4-Diphenylhydrazine.
SM4500: NPW: Amenable Cyanide; SCM: Total Phosphorus, TKN, NO2, NO3.

Mansfield Facility
SM 2540D: TSS.
EPA TO-15: Halothane, 2,4,4-Trimethyl-2-pentene, 2,4,4-Trimethyl-1-pentene, Thiophene, 2-Methylthiophene, 3-Methylthiophene, 2-Ethylthiophene, 1,2,3-Trimethylbenzene, Indan, Indene, 1,2,4,5-Tetramethylbenzene, Benzothiophene, 1-Methylnaphthalene.
Biological Tissue Matrix: EPA 3050B

The following analytes are included in our Massachusetts DEP Scope of Accreditation

Westborough Facility:

Drinking Water
EPA 300.0: Chloride, Nitrate-N, Fluoride, Sulfate; **EPA 353.2**: Nitrate-N, Nitrite-N; **SM4500NO3-F**: Nitrate-N, Nitrite-N; **SM4500F-C, SM4500CN-CE, EPA 180.1, SM2130B, SM4500Cl-D, SM2320B, SM2540C, SM4500H-B, SM4500NO2-B**
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).
Microbiology: **SM9223B-Colilert-QT; Enterolert-QT, SM9221E, EPA 1600, EPA 1603, SM9222D.**

Mansfield Facility:

Drinking Water
EPA 200.7: Al, Ba, Cd, Cr, Cu, Fe, Mn, Ni, Na, Ag, Ca, Zn. **EPA 200.8:** Al, Sb, As, Ba, Be, Cd, Cr, Cu, Pb, Mn, Ni, Se, Ag, TL, Zn. **EPA 245.1** Hg.
EPA 522, EPA 537.1.

Non-Potable Water
EPA 200.7: Al, Sb, As, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Mg, Mn, Mo, Ni, K, Se, Ag, Na, Sr, TL, Ti, V, Zn.
EPA 200.8: Al, Sb**,** As, Be, Cd, Cr, Cu, Fe, Pb, Mn, Ni, K, Se, Ag, Na, TL, Zn.
EPA 245.1 Hg.
SM2340B

For a complete listing of analytes and methods, please contact your Alpha Project Manager.

NEW YORK CHAIN OF CUSTODY

ALPHA ANALYTICAL

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: 12/22/23

ALPHA Job #: L2375488

Client Information
Client: Roux Env Eng DPC
Address: 2558 Hamburg Turnpike
Buffalo NY 14218
Phone: 716-856-0599
Fax:
Email: roux

Project Information
Project Name: URBAN LF
Project Location: Urban NY
Project #: B0001-022-001
(Use Project name as Project #) ☑
Project Manager:
ALPHAQuote #:

Turn-Around Time
Standard ☑ Due Date:
Rush (only if pre approved) ☐ # of Days:

Deliverables
☐ ASP-A ☐ ASP-B
☐ EQuIS (1 File) ☐ EQuIS (4 File)
☐ Other

Regulatory Requirement
☐ NY TOGS ☐ NY Part 375
☐ AWQ Standards ☐ NY CP-51
☐ NY Restricted Use ☐ Other
☐ NY Unrestricted Use
☐ NYC Sewer Discharge

Billing Information
☐ Same as Client Info
PO #

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 specify Metals or TAL.

ANALYSIS

Sample Filtration
☐ Done
☐ Lab to do
Preservation
☐ Lab to do
(Please Specify below)

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection Date	Collection Time	Sample Matrix	Sampler's Initials	TCL VOC 8260	Total Bottle	Sample Specific Comments
75488-01	Process Effluent	12-19-23	0930	W	RLO	✓		

Preservative Code:
A = None
B = HCl
C = HNO_3
D = H_2SO_4
E = NaOH
F = MeOH
G = $NaHSO_4$
H = $Na_2S_2O_3$
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	V												
Preservative	B												

Relinquished By:	Date/Time	Received By:	Date/Time
	12-21-23 0931	AMC	12/21/23 1230
AMC	12/21/23 1330		12/22/23 0030

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.)

Form No: 01-25 HC (rev. 30-Sept-2013)

ANALYTICAL REPORT

Lab Number:	L2425967
Client:	Roux 2558 Hamburg Turnpike Suite 300 Buffalo, NY 14218
ATTN:	Thomas Forbes
Phone:	(716) 856-0599
Project Name:	URBANA LF
Project Number:	4362.0002B000
Report Date:	05/16/24

Certifications & Approvals: MA (M-MA086), NH NELAP (2064), CT (PH-0826), IL (200077), IN (C-MA-03), KY (KY98045), ME (MA00086), MD (348), NJ (MA935), NY (11148), NC (25700/666), OR (MA-1316), PA (68-03671), RI (LAO00065), TX (T104704476), VT (VT-0935), VA (460195), USDA (Permit #525-23-122-91930A1).

Eight Walkup Drive, Westborough, MA 01581-1019
508-898-9220 (Fax) 508-898-9193 800-624-9220 - www.alphalab.com

Project Name: URBANA LF
Project Number: 4362.0002B000

Lab Number: L2425967
Report Date: 05/16/24

Alpha Sample ID	Client ID	Matrix	Sample Location	Collection Date/Time	Receive Date
L2425967-01	PROCESS EFFLUENT	WATER	URBANA, NY	05/09/24 10:10	05/10/24

Project Name:	URBANA LF	**Lab Number:**	L2425967
Project Number:	4362.0002B000	**Report Date:**	05/16/24

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:	URBANA LF	**Lab Number:**	L2425967
Project Number:	4362.0002B000	**Report Date:**	05/16/24

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

L2425967-01: The sample identified as "PROCESS EFFLUENT" on the chain of custody was identified as "TREATMENT EFFLUENT" on the container label. At the client's request, the sample is reported as "PROCESS EFFLUENT".

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: 05/16/24

ORGANICS

VOLATILES

Project Name: URBANA LF
Project Number: 4362.0002B000
Lab Number: L2425967
Report Date: 05/16/24

SAMPLE RESULTS

Lab ID: L2425967-01
Client ID: PROCESS EFFLUENT
Sample Location: URBANA, NY
Date Collected: 05/09/24 10:10
Date Received: 05/10/24
Field Prep: Not Specified

Sample Depth:
Matrix: Water
Analytical Method: 1,8260D
Analytical Date: 05/15/24 21:45
Analyst: MJV

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methylene chloride	ND		ug/l	2.5	0.70	1
1,1-Dichloroethane	ND		ug/l	2.5	0.70	1
Chloroform	ND		ug/l	2.5	0.70	1
Carbon tetrachloride	ND		ug/l	0.50	0.13	1
1,2-Dichloropropane	ND		ug/l	1.0	0.14	1
Dibromochloromethane	ND		ug/l	0.50	0.15	1
1,1,2-Trichloroethane	ND		ug/l	1.5	0.50	1
Tetrachloroethene	ND		ug/l	0.50	0.18	1
Chlorobenzene	ND		ug/l	2.5	0.70	1
Trichlorofluoromethane	ND		ug/l	2.5	0.70	1
1,2-Dichloroethane	ND		ug/l	0.50	0.13	1
1,1,1-Trichloroethane	ND		ug/l	2.5	0.70	1
Bromodichloromethane	ND		ug/l	0.50	0.19	1
trans-1,3-Dichloropropene	ND		ug/l	0.50	0.16	1
cis-1,3-Dichloropropene	ND		ug/l	0.50	0.14	1
Bromoform	ND		ug/l	2.0	0.65	1
1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	0.17	1
Benzene	ND		ug/l	0.50	0.16	1
Toluene	ND		ug/l	2.5	0.70	1
Ethylbenzene	ND		ug/l	2.5	0.70	1
Chloromethane	ND		ug/l	2.5	0.70	1
Bromomethane	ND		ug/l	2.5	0.70	1
Vinyl chloride	ND		ug/l	1.0	0.07	1
Chloroethane	ND		ug/l	2.5	0.70	1
1,1-Dichloroethene	ND		ug/l	0.50	0.17	1
trans-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1
Trichloroethene	ND		ug/l	0.50	0.18	1
1,2-Dichlorobenzene	ND		ug/l	2.5	0.70	1

Project Name: URBANA LF
Project Number: 4362.0002B000
Lab Number: L2425967
Report Date: 05/16/24

SAMPLE RESULTS

Lab ID: L2425967-01
Client ID: PROCESS EFFLUENT
Sample Location: URBANA, NY
Date Collected: 05/09/24 10:10
Date Received: 05/10/24
Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
1,3-Dichlorobenzene	ND		ug/l	2.5	0.70	1
1,4-Dichlorobenzene	ND		ug/l	2.5	0.70	1
Methyl tert butyl ether	ND		ug/l	2.5	0.17	1
p/m-Xylene	ND		ug/l	2.5	0.70	1
o-Xylene	ND		ug/l	2.5	0.70	1
cis-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1
Styrene	ND		ug/l	2.5	0.70	1
Dichlorodifluoromethane	ND		ug/l	5.0	1.0	1
Acetone	20		ug/l	5.0	1.5	1
Carbon disulfide	ND		ug/l	5.0	1.0	1
2-Butanone	ND		ug/l	5.0	1.9	1
4-Methyl-2-pentanone	ND		ug/l	5.0	1.0	1
2-Hexanone	ND		ug/l	5.0	1.0	1
Bromochloromethane	ND		ug/l	2.5	0.70	1
1,2-Dibromoethane	ND		ug/l	2.0	0.65	1
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	0.70	1
Isopropylbenzene	ND		ug/l	2.5	0.70	1
1,2,3-Trichlorobenzene	ND		ug/l	2.5	0.70	1
1,2,4-Trichlorobenzene	ND		ug/l	2.5	0.70	1
Methyl Acetate	ND		ug/l	2.0	0.23	1
Cyclohexane	ND		ug/l	10	0.27	1
1,4-Dioxane	ND		ug/l	250	61.	1
Freon-113	ND		ug/l	2.5	0.70	1
Methyl cyclohexane	ND		ug/l	10	0.40	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	98		70-130
Toluene-d8	99		70-130
4-Bromofluorobenzene	100		70-130
Dibromofluoromethane	100		70-130

Project Name: URBANA LF
Project Number: 4362.0002B000
Lab Number: L2425967
Report Date: 05/16/24

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260D
Analytical Date: 05/15/24 16:08
Analyst: TMS

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 01 Batch: WG1921807-5					
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
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
1,2-Dichlorobenzene	ND		ug/l	2.5	0.70
1,3-Dichlorobenzene	ND		ug/l	2.5	0.70

Project Name: URBANA LF
Project Number: 4362.0002B000
Lab Number: L2425967
Report Date: 05/16/24

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260D
Analytical Date: 05/15/24 16:08
Analyst: TMS

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 01 Batch: WG1921807-5					
1,4-Dichlorobenzene	ND		ug/l	2.5	0.70
Methyl tert butyl ether	ND		ug/l	2.5	0.17
p/m-Xylene	ND		ug/l	2.5	0.70
o-Xylene	ND		ug/l	2.5	0.70
cis-1,2-Dichloroethene	ND		ug/l	2.5	0.70
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
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
1,2-Dibromoethane	ND		ug/l	2.0	0.65
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	0.70
Isopropylbenzene	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
Methyl Acetate	ND		ug/l	2.0	0.23
Cyclohexane	ND		ug/l	10	0.27
1,4-Dioxane	ND		ug/l	250	61.
Freon-113	ND		ug/l	2.5	0.70
Methyl cyclohexane	ND		ug/l	10	0.40

Project Name: URBANA LF
Project Number: 4362.0002B000
Lab Number: L2425967
Report Date: 05/16/24

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260D
Analytical Date: 05/15/24 16:08
Analyst: TMS

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 01 Batch: WG1921807-5					

Surrogate	%Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	96		70-130
Toluene-d8	98		70-130
4-Bromofluorobenzene	100		70-130
Dibromofluoromethane	100		70-130

Lab Control Sample Analysis

Batch Quality Control

Project Name: URBANA LF

Project Number: 4362.0002B000

Lab Number: L2425967

Report Date: 05/16/24

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: WG1921807-3 WG1921807-4								
Methylene chloride	94		110		70-130	16		20
1,1-Dichloroethane	94		110		70-130	16		20
Chloroform	95		110		70-130	15		20
Carbon tetrachloride	97		110		63-132	13		20
1,2-Dichloropropane	94		110		70-130	16		20
Dibromochloromethane	95		110		63-130	15		20
1,1,2-Trichloroethane	97		110		70-130	13		20
Tetrachloroethene	100		110		70-130	10		20
Chlorobenzene	100		110		75-130	10		20
Trichlorofluoromethane	100		120		62-150	18		20
1,2-Dichloroethane	92		110		70-130	18		20
1,1,1-Trichloroethane	97		110		67-130	13		20
Bromodichloromethane	92		110		67-130	18		20
trans-1,3-Dichloropropene	95		100		70-130	5		20
cis-1,3-Dichloropropene	91		110		70-130	19		20
Bromoform	98		110		54-136	12		20
1,1,2,2-Tetrachloroethane	100		110		67-130	10		20
Benzene	94		110		70-130	16		20
Toluene	99		110		70-130	11		20
Ethylbenzene	99		110		70-130	11		20
Chloromethane	95		110		64-130	15		20
Bromomethane	100		120		39-139	18		20
Vinyl chloride	99		110		55-140	11		20

Lab Control Sample Analysis
Batch Quality Control

Project Name: URBANA LF
Project Number: 4362.0002B000

Lab Number: L2425967
Report Date: 05/16/24

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: WG1921807-3 WG1921807-4								
Chloroethane	99		120		55-138	19		20
1,1-Dichloroethene	94		110		61-145	16		20
trans-1,2-Dichloroethene	95		110		70-130	15		20
Trichloroethene	94		110		70-130	16		20
1,2-Dichlorobenzene	100		110		70-130	10		20
1,3-Dichlorobenzene	110		110		70-130	0		20
1,4-Dichlorobenzene	110		110		70-130	0		20
Methyl tert butyl ether	90		110		63-130	20		20
p/m-Xylene	100		110		70-130	10		20
o-Xylene	100		110		70-130	10		20
cis-1,2-Dichloroethene	96		110		70-130	14		20
Styrene	100		110		70-130	10		20
Dichlorodifluoromethane	97		110		36-147	13		20
Acetone	95		110		58-148	15		20
Carbon disulfide	95		110		51-130	15		20
2-Butanone	90		110		63-138	20		20
4-Methyl-2-pentanone	90		110		59-130	20		20
2-Hexanone	80		95		57-130	17		20
Bromochloromethane	97		110		70-130	13		20
1,2-Dibromoethane	97		110		70-130	13		20
1,2-Dibromo-3-chloropropane	100		110		41-144	10		20
Isopropylbenzene	110		110		70-130	0		20
1,2,3-Trichlorobenzene	110		110		70-130	0		20

Lab Control Sample Analysis
Batch Quality Control

Project Name: URBANA LF
Project Number: 4362.0002B000

Lab Number: L2425967
Report Date: 05/16/24

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: WG1921807-3 WG1921807-4								
1,2,4-Trichlorobenzene	100		110		70-130	10		20
Methyl Acetate	84		100		70-130	17		20
Cyclohexane	94		110		70-130	16		20
1,4-Dioxane	86		108		56-162	**23**	Q	20
Freon-113	97		110		70-130	13		20
Methyl cyclohexane	96		110		70-130	14		20

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
1,2-Dichloroethane-d4	99		100		70-130
Toluene-d8	102		99		70-130
4-Bromofluorobenzene	102		100		70-130
Dibromofluoromethane	101		102		70-130

Project Name: URBANA LF
Project Number: 4362.0002B000

Lab Number: L2425967
Report Date: 05/16/24

Sample Receipt and Container Information

Were project specific reporting limits specified? YES

Cooler Information

Cooler	Custody Seal
A	Absent
B	Absent

Container Information

Container ID	Container Type	Cooler	Initial pH	Final pH	Temp deg C	Pres	Seal	Frozen Date/Time	Analysis(*)
L2425967-01A	Vial HCl preserved	A	NA		3.7	Y	Absent		NYTCL-8260-R2(14)
L2425967-01B	Vial HCl preserved	A	NA		3.7	Y	Absent		NYTCL-8260-R2(14)
L2425967-01C	Vial HCl preserved	A	NA		3.7	Y	Absent		NYTCL-8260-R2(14)

*Values in parentheses indicate holding time in days

Project Name:	URBANA LF	**Lab Number:**	L2425967
Project Number:	4362.0002B000	**Report Date:**	05/16/24

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:	URBANA LF	**Lab Number:**	L2425967
Project Number:	4362.0002B000	**Report Date:**	05/16/24

Footnotes

1 - The reference for this analyte should be considered modified since this analyte is absent from the target analyte list of the original method.

Terms

Analytical Method: Both the document from which the method originates and the analytical reference method. (Example: EPA 8260B is shown as 1,8260B.) The codes for the reference method documents are provided in the References section of the Addendum.

Chlordane: The target compound Chlordane (CAS No. 57-74-9) is reported for GC ECD analyses. Per EPA,this compound "refers to a mixture of chlordane isomers, other chlorinated hydrocarbons and numerous other components." (Reference: USEPA Toxicological Review of Chlordane, In Support of Summary Information on the Integrated Risk Information System (IRIS), December 1997.)

Difference: With respect to Total Oxidizable Precursor (TOP) Assay analysis, the difference is defined as the Post-Treatment value minus the Pre-Treatment value.

Final pH: As it pertains to Sample Receipt & Container Information section of the report, Final pH reflects pH of container determined after adjustment at the laboratory, if applicable. If no adjustment required, value reflects Initial pH.

Frozen Date/Time: With respect to Volatile Organics in soil, Frozen Date/Time reflects the date/time at which associated Reagent Water-preserved vials were initially frozen. Note: If frozen date/time is beyond 48 hours from sample collection, value will be reflected in 'bold'.

Gasoline Range Organics (GRO): Gasoline Range Organics (GRO) results include all chromatographic peaks eluting from Methyl tert butyl ether through Naphthalene, with the exception of GRO analysis in support of State of Ohio programs, which includes all chromatographic peaks eluting from Hexane through Dodecane.

Initial pH: As it pertains to Sample Receipt & Container Information section of the report, Initial pH reflects pH of container determined upon receipt, if applicable.

PAH Total: With respect to Alkylated PAH analyses, the 'PAHs, Total' result is defined as the summation of results for all or a subset of the following compounds: Naphthalene, C1-C4 Naphthalenes, 2-Methylnaphthalene, 1-Methylnaphthalene, Biphenyl, Acenaphthylene, Acenaphthene, Fluorene, C1-C3 Fluorenes, Phenanthrene, C1-C4 Phenanthrenes/Anthracenes, Anthracene, Fluoranthene, Pyrene, C1-C4 Fluoranthenes/Pyrenes, Benz(a)anthracene, Chrysene, C1-C4 Chrysenes, Benzo(b)fluoranthene, Benzo(j)+(k)fluoranthene, Benzo(e)pyrene, Benzo(a)pyrene, Perylene, Indeno(1,2,3-cd)pyrene, Dibenz(ah)+(ac)anthracene, Benzo(g,h,i)perylene. If a 'Total' result is requested, the results of its individual components will also be reported.

PFAS Total: With respect to PFAS analyses, the 'PFAS, Total (5)' result is defined as the summation of results for: PFHpA, PFHxS, PFOA, PFNA and PFOS. In addition, the 'PFAS, Total (6)' result is defined as the summation of results for: PFHpA, PFHxS, PFOA, PFNA, PFDA and PFOS. For MassDEP DW compliance analysis only, the 'PFAS, Total (6)' result is defined as the summation of results at or above the RL. Note: If a 'Total' result is requested, the results of its individual components will also be reported.

Total: With respect to Organic analyses, a 'Total' result is defined as the summation of results for individual isomers or Aroclors. If a 'Total' result is requested, the results of its individual components will also be reported. This is applicable to 'Total' results for methods 8260, 8081 and 8082.

Data Qualifiers

A - Spectra identified as "Aldol Condensates" are byproducts of the extraction/concentration procedures when acetone is introduced in the process.

B - The analyte was detected above the reporting limit in the associated method blank. Flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For MCP-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For DOD-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank AND the analyte was detected above one-half the reporting limit (or above the reporting limit for common lab contaminants) in the associated method blank. For NJ-Air-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte above the reporting limit. For NJ-related projects (excluding Air), flag only applies to associated field samples that have detectable concentrations of the analyte, which was detected above the reporting limit in the associated method blank or above five times the reporting limit for common lab contaminants (Phthalates, Acetone, Methylene Chloride, 2-Butanone).

C - Co-elution: The target analyte co-elutes with a known lab standard (i.e. surrogate, internal standards, etc.) for co-extracted analyses.

D - Concentration of analyte was quantified from diluted analysis. Flag only applies to field samples that have detectable concentrations of the analyte.

E - Concentration of analyte exceeds the range of the calibration curve and/or linear range of the instrument.

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

G - The concentration may be biased high due to matrix interferences (i.e, co-elution) with non-target compound(s). The result should be considered estimated.

H - The analysis of pH was performed beyond the regulatory-required holding time of 15 minutes from the time of sample collection.

I - The lower value for the two columns has been reported due to obvious interference.

J - Estimated value. 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

Report Format: DU Report with 'J' Qualifiers

Project Name:	URBANA LF	**Lab Number:**	L2425967
Project Number:	4362.0002B000	**Report Date:**	05/16/24

Data Qualifiers

Identified Compounds (TICs). For calculated parameters, this represents that one or more values used in the calculation were estimated.

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 the identification is based on a mass spectral library search.

P - The RPD between the results for the two columns exceeds the method-specified criteria.

Q - The quality control sample exceeds the associated acceptance criteria. For DOD-related projects, LCS and/or Continuing Calibration Standard exceedences are also qualified on all associated sample results. Note: This flag is not applicable for matrix spike recoveries when the sample concentration is greater than 4x the spike added or for batch duplicate RPD when the sample concentrations are less than 5x the RL. (Metals only.)

R - Analytical results are from sample re-analysis.

RE - Analytical results are from sample re-extraction.

S - Analytical results are from modified screening analysis.

V - The surrogate associated with this target analyte has a recovery outside the QC acceptance limits. (Applicable to MassDEP DW Compliance samples only.)

Z - The batch matrix spike and/or duplicate associated with this target analyte has a recovery/RPD outside the QC acceptance limits. (Applicable to MassDEP DW Compliance samples only.)

Report Format: DU Report with 'J' Qualifiers

Project Name:	URBANA LF	**Lab Number:**	L2425967
Project Number:	4362.0002B000	**Report Date:**	05/16/24

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 624.1: m/p-xylene, o-xylene, Naphthalene
EPA 625.1: alpha-Terpineol
EPA 8260D: NPW: 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene; SCM: Iodomethane (methyl iodide), 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene.
EPA 8270E: NPW: Dimethylnaphthalene,1,4-Diphenylhydrazine, alpha-Terpineol, Azobenzene; SCM: Dimethylnaphthalene,1,4-Diphenylhydrazine.
SM4500: NPW: Amenable Cyanide; SCM: Total Phosphorus, TKN, NO2, NO3.

Mansfield Facility
SM 2540D: TSS.
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.
Nonpotable Water: EPA RSK-175 Dissolved 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, SM4500Cl-D, SM2320B, SM2540C, SM4500H-B, SM4500NO2-B**
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).
Microbiology: **SM9223B-Colilert-QT; Enterolert-QT, EPA 1600, EPA 1603, SM9222D.**

Mansfield Facility:

Drinking Water
EPA 200.7: Al, Ba, Cd, Cr, Cu, Fe, Mn, Ni, Na, Ag, Ca, Zn. **EPA 200.8:** Al, Sb, As, Ba, Be, Cd, Cr, Cu, Pb, Mn, Ni, Se, Ag, TL, Zn. **EPA 245.1** Hg.
EPA 522, EPA 537.1.

Non-Potable Water
EPA 200.7: Al, Sb, As, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Mg, Mn, Mo, Ni, K, Se, Ag, Na, Sr, TL, Ti, V, Zn.
EPA 200.8: Al, Sb**,** As, Be, Cd, Cr, Cu, Fe, Pb, Mn, Ni, K, Se, Ag, Na, TL, Zn.
EPA 245.1 Hg.
SM2340B

For a complete listing of analytes and methods, please contact your Alpha Project Manager.

NEW YORK CHAIN OF CUSTODY

ALPHA

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: 5/11/24

ALPHA Job #: L2425967

Project Information

Project Name: URBANA LF
Project Location: URBANA NY
Project #: 4362.0002B000
(Use Project name as Project #) ☑
Project Manager: T. Forbes
ALPHAQuote #:

Client Information

Client: Roux Env Eng & GEO
Address: 2558 Hamburg Turnpike BUFFALO, NY 14218
Phone: 716-857-0599
Fax:
Email: rjubasz@rouxinc.com

Turn-Around Time

Standard ☑ Due Date:
Rush (only if pre approved) ☐ # of Days:

Deliverables

☐ ASP-A ☐ ASP-B
☐ EQuIS (1 File) ☐ EQuIS (4 File)
☐ Other

Billing Information

☐ Same as Client Info
PO #

Regulatory Requirement

☐ NY TOGS ☐ NY Part 375
☐ AWQ Standards ☐ NY CP-51
☐ NY Restricted Use ☐ Other
☐ 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 specify Metals or TAL.

Sample Filtration
☐ Done
☐ Lab to do
Preservation
☐ Lab to do
(Please Specify below)

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection Date	Collection Time	Sample Matrix	Sampler's Initials	ANALYSIS: VOCs 8260								Sample Specific Comments	Total Bottles
25967-01	Process Effluent	5/9/24	1010	W	W	✓									

Preservative Code	Container Code
A = None	P = Plastic
B = HCl	A = Amber Glass
C = HNO_3	V = Vial
D = H_2SO_4	G = Glass
E = NaOH	B = Bacteria Cup
F = MeOH	C = Cube
G = $NaHSO_4$	O = Other
H = $Na_2S_2O_3$	E = Encore
K/E = Zn Ac/NaOH	D = BOD Bottle
O = Other	

Westboro: Certification No: MA935
Mansfield: Certification No: MA015

	VOCs 8260
Container Type	V
Preservative	B

Relinquished By:	Date/Time	Received By:	Date/Time
[signature]	5/9/24	[signature] PA	5/10/24 1410
[signature] PA	5/10/24 1510	[signature]	5/11/24 0100

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.)

Form No: 01-25 HC (rev. 30-Sept-2013)

ANALYTICAL REPORT

Lab Number:	L2439877
Client:	Roux 2558 Hamburg Turnpike Suite 300 Buffalo, NY 14218
ATTN:	Rick Dubisz
Phone:	(716) 856-0599
Project Name:	URABANA LF
Project Number:	4362.0002B000
Report Date:	07/22/24

Certifications & Approvals: MA (M-MA086), NH NELAP (2064), CT (PH-0826), IL (200077), IN (C-MA-03), KY (KY98045), ME (MA00086), MD (348), NJ (MA935), NY (11148), NC (25700/666), OR (MA-1316), PA (68-03671), RI (LAO00065), TX (T104704476), VT (VT-0935), VA (460195), USDA (Permit #525-23-122-91930A1).

Eight Walkup Drive, Westborough, MA 01581-1019
508-898-9220 (Fax) 508-898-9193 800-624-9220 - www.alphalab.com

Project Name: URABANA LF
Project Number: 4362.0002B000

Lab Number: L2439877
Report Date: 07/22/24

Alpha Sample ID	Client ID	Matrix	Sample Location	Collection Date/Time	Receive Date
L2439877-01	PROCESS EFFLUENT	WATER	URBANA NY	07/16/24 09:00	07/16/24

Project Name:	URABANA LF	**Lab Number:**	L2439877
Project Number:	4362.0002B000	**Report Date:**	07/22/24

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:	URABANA LF	**Lab Number:**	L2439877
Project Number:	4362.0002B000	**Report Date:**	07/22/24

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

The analysis performed was specified by the client.

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 O'Neill

Title: Technical Director/Representative Date: 07/22/24

ORGANICS

VOLATILES

Project Name: URABANA LF
Project Number: 4362.0002B000
Lab Number: L2439877
Report Date: 07/22/24

SAMPLE RESULTS

Lab ID: L2439877-01
Client ID: PROCESS EFFLUENT
Sample Location: URBANA NY
Date Collected: 07/16/24 09:00
Date Received: 07/16/24
Field Prep: Not Specified

Sample Depth:
Matrix: Water
Analytical Method: 1,8260D
Analytical Date: 07/18/24 10:01
Analyst: LAC

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methylene chloride	ND		ug/l	2.5	0.70	1
1,1-Dichloroethane	ND		ug/l	2.5	0.70	1
Chloroform	ND		ug/l	2.5	0.70	1
Carbon tetrachloride	ND		ug/l	0.50	0.13	1
1,2-Dichloropropane	ND		ug/l	1.0	0.14	1
Dibromochloromethane	ND		ug/l	0.50	0.15	1
1,1,2-Trichloroethane	ND		ug/l	1.5	0.50	1
Tetrachloroethene	ND		ug/l	0.50	0.18	1
Chlorobenzene	ND		ug/l	2.5	0.70	1
Trichlorofluoromethane	ND		ug/l	2.5	0.70	1
1,2-Dichloroethane	ND		ug/l	0.50	0.13	1
1,1,1-Trichloroethane	ND		ug/l	2.5	0.70	1
Bromodichloromethane	ND		ug/l	0.50	0.19	1
trans-1,3-Dichloropropene	ND		ug/l	0.50	0.16	1
cis-1,3-Dichloropropene	ND		ug/l	0.50	0.14	1
Bromoform	ND		ug/l	2.0	0.65	1
1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	0.17	1
Benzene	ND		ug/l	0.50	0.16	1
Toluene	ND		ug/l	2.5	0.70	1
Ethylbenzene	ND		ug/l	2.5	0.70	1
Chloromethane	ND		ug/l	2.5	0.70	1
Bromomethane	ND		ug/l	2.5	0.70	1
Vinyl chloride	ND		ug/l	1.0	0.07	1
Chloroethane	ND		ug/l	2.5	0.70	1
1,1-Dichloroethene	ND		ug/l	0.50	0.17	1
trans-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1
Trichloroethene	ND		ug/l	0.50	0.18	1
1,2-Dichlorobenzene	ND		ug/l	2.5	0.70	1

Project Name: URABANA LF
Project Number: 4362.0002B000
Lab Number: L2439877
Report Date: 07/22/24

SAMPLE RESULTS

Lab ID: L2439877-01
Client ID: PROCESS EFFLUENT
Sample Location: URBANA NY
Date Collected: 07/16/24 09:00
Date Received: 07/16/24
Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
1,3-Dichlorobenzene	ND		ug/l	2.5	0.70	1
1,4-Dichlorobenzene	ND		ug/l	2.5	0.70	1
Methyl tert butyl ether	ND		ug/l	2.5	0.17	1
p/m-Xylene	ND		ug/l	2.5	0.70	1
o-Xylene	ND		ug/l	2.5	0.70	1
cis-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1
Styrene	ND		ug/l	2.5	0.70	1
Dichlorodifluoromethane	ND		ug/l	5.0	1.0	1
Acetone	13		ug/l	5.0	1.5	1
Carbon disulfide	ND		ug/l	5.0	1.0	1
2-Butanone	ND		ug/l	5.0	1.9	1
4-Methyl-2-pentanone	ND		ug/l	5.0	1.0	1
2-Hexanone	ND		ug/l	5.0	1.0	1
Bromochloromethane	ND		ug/l	2.5	0.70	1
1,2-Dibromoethane	ND		ug/l	2.0	0.65	1
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	0.70	1
Isopropylbenzene	ND		ug/l	2.5	0.70	1
1,2,3-Trichlorobenzene	ND		ug/l	2.5	0.70	1
1,2,4-Trichlorobenzene	ND		ug/l	2.5	0.70	1
Methyl Acetate	ND		ug/l	2.0	0.23	1
Cyclohexane	ND		ug/l	10	0.27	1
1,4-Dioxane	ND		ug/l	250	61.	1
Freon-113	ND		ug/l	2.5	0.70	1
Methyl cyclohexane	ND		ug/l	10	0.40	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	111		70-130
Toluene-d8	104		70-130
4-Bromofluorobenzene	107		70-130
Dibromofluoromethane	99		70-130

Project Name: URABANA LF
Project Number: 4362.0002B000
Lab Number: L2439877
Report Date: 07/22/24

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260D
Analytical Date: 07/18/24 09:13
Analyst: MJV

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 01 Batch: WG1948724-5					
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
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
1,2-Dichlorobenzene	ND		ug/l	2.5	0.70
1,3-Dichlorobenzene	ND		ug/l	2.5	0.70

Project Name: URABANA LF
Project Number: 4362.0002B000
Lab Number: L2439877
Report Date: 07/22/24

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260D
Analytical Date: 07/18/24 09:13
Analyst: MJV

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 01 Batch: WG1948724-5					
1,4-Dichlorobenzene	ND		ug/l	2.5	0.70
Methyl tert butyl ether	ND		ug/l	2.5	0.17
p/m-Xylene	ND		ug/l	2.5	0.70
o-Xylene	ND		ug/l	2.5	0.70
cis-1,2-Dichloroethene	ND		ug/l	2.5	0.70
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
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
1,2-Dibromoethane	ND		ug/l	2.0	0.65
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	0.70
Isopropylbenzene	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
Methyl Acetate	ND		ug/l	2.0	0.23
Cyclohexane	ND		ug/l	10	0.27
1,4-Dioxane	ND		ug/l	250	61.
Freon-113	ND		ug/l	2.5	0.70
Methyl cyclohexane	ND		ug/l	10	0.40

Project Name: URABANA LF
Project Number: 4362.0002B000
Lab Number: L2439877
Report Date: 07/22/24

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260D
Analytical Date: 07/18/24 09:13
Analyst: MJV

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 01 Batch: WG1948724-5					

Surrogate	%Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	113		70-130
Toluene-d8	105		70-130
4-Bromofluorobenzene	109		70-130
Dibromofluoromethane	98		70-130

Lab Control Sample Analysis

Batch Quality Control

Project Name: URABANA LF

Project Number: 4362.0002B000

Lab Number: L2439877

Report Date: 07/22/24

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: WG1948724-3 WG1948724-4								
Methylene chloride	100		96		70-130	4		20
1,1-Dichloroethane	110		100		70-130	10		20
Chloroform	100		99		70-130	1		20
Carbon tetrachloride	95		94		63-132	1		20
1,2-Dichloropropane	110		100		70-130	10		20
Dibromochloromethane	95		93		63-130	2		20
1,1,2-Trichloroethane	110		110		70-130	0		20
Tetrachloroethene	98		95		70-130	3		20
Chlorobenzene	110		99		75-130	11		20
Trichlorofluoromethane	99		100		62-150	1		20
1,2-Dichloroethane	110		110		70-130	0		20
1,1,1-Trichloroethane	100		97		67-130	3		20
Bromodichloromethane	100		98		67-130	2		20
trans-1,3-Dichloropropene	100		97		70-130	3		20
cis-1,3-Dichloropropene	95		92		70-130	3		20
Bromoform	85		89		54-136	5		20
1,1,2,2-Tetrachloroethane	110		120		67-130	9		20
Benzene	110		100		70-130	10		20
Toluene	110		110		70-130	0		20
Ethylbenzene	110		100		70-130	10		20
Chloromethane	96		90		64-130	6		20
Bromomethane	**140**	Q	120		39-139	15		20
Vinyl chloride	110		110		55-140	0		20

Lab Control Sample Analysis
Batch Quality Control

Project Name: URABANA LF
Project Number: 4362.0002B000

Lab Number: L2439877
Report Date: 07/22/24

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: WG1948724-3 WG1948724-4								
Chloroethane	**140**	Q	130		55-138	7		20
1,1-Dichloroethene	98		100		61-145	2		20
trans-1,2-Dichloroethene	100		96		70-130	4		20
Trichloroethene	100		97		70-130	3		20
1,2-Dichlorobenzene	100		110		70-130	10		20
1,3-Dichlorobenzene	100		110		70-130	10		20
1,4-Dichlorobenzene	100		110		70-130	10		20
Methyl tert butyl ether	90		88		63-130	2		20
p/m-Xylene	105		100		70-130	5		20
o-Xylene	110		100		70-130	10		20
cis-1,2-Dichloroethene	99		96		70-130	3		20
Styrene	110		105		70-130	5		20
Dichlorodifluoromethane	97		95		36-147	2		20
Acetone	90		86		58-148	5		20
Carbon disulfide	100		95		51-130	5		20
2-Butanone	90		97		63-138	7		20
4-Methyl-2-pentanone	100		100		59-130	0		20
2-Hexanone	93		98		57-130	5		20
Bromochloromethane	88		88		70-130	0		20
1,2-Dibromoethane	100		100		70-130	0		20
1,2-Dibromo-3-chloropropane	79		78		41-144	1		20
Isopropylbenzene	110		110		70-130	0		20
1,2,3-Trichlorobenzene	90		97		70-130	7		20

Lab Control Sample Analysis

Batch Quality Control

Project Name: URABANA LF

Project Number: 4362.0002B000

Lab Number: L2439877

Report Date: 07/22/24

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: WG1948724-3 WG1948724-4								
1,2,4-Trichlorobenzene	92		97		70-130	5		20
Methyl Acetate	87		86		70-130	1		20
Cyclohexane	99		97		70-130	2		20
1,4-Dioxane	100		96		56-162	4		20
Freon-113	100		97		70-130	3		20
Methyl cyclohexane	96		89		70-130	8		20

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
1,2-Dichloroethane-d4	116		117		70-130
Toluene-d8	107		105		70-130
4-Bromofluorobenzene	101		104		70-130
Dibromofluoromethane	99		98		70-130

Project Name: URABANA LF
Project Number: 4362.0002B000

Lab Number: L2439877
Report Date: 07/22/24

Sample Receipt and Container Information

Were project specific reporting limits specified? YES

Cooler Information

Cooler	Custody Seal
A	Absent
B	Absent

Container Information

Container ID	Container Type	Cooler	Initial pH	Final pH	Temp deg C	Pres	Seal	Frozen Date/Time	Analysis(*)
L2439877-01A	Vial HCl preserved	B	NA		2.8	Y	Absent		NYTCL-8260-R2(14)
L2439877-01B	Vial HCl preserved	B	NA		2.8	Y	Absent		NYTCL-8260-R2(14)
L2439877-01C	Vial HCl preserved	B	NA		2.8	Y	Absent		NYTCL-8260-R2(14)

*Values in parentheses indicate holding time in days

Project Name:	URABANA LF	**Lab Number:**	L2439877
Project Number:	4362.0002B000	**Report Date:**	07/22/24

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:	URABANA LF	**Lab Number:**	L2439877
Project Number:	4362.0002B000	**Report Date:**	07/22/24

Footnotes

1 - The reference for this analyte should be considered modified since this analyte is absent from the target analyte list of the original method.

Terms

Analytical Method: Both the document from which the method originates and the analytical reference method. (Example: EPA 8260B is shown as 1,8260B.) The codes for the reference method documents are provided in the References section of the Addendum.

Chlordane: The target compound Chlordane (CAS No. 57-74-9) is reported for GC ECD analyses. Per EPA,this compound "refers to a mixture of chlordane isomers, other chlorinated hydrocarbons and numerous other components." (Reference: USEPA Toxicological Review of Chlordane, In Support of Summary Information on the Integrated Risk Information System (IRIS), December 1997.)

Difference: With respect to Total Oxidizable Precursor (TOP) Assay analysis, the difference is defined as the Post-Treatment value minus the Pre-Treatment value.

Final pH: As it pertains to Sample Receipt & Container Information section of the report, Final pH reflects pH of container determined after adjustment at the laboratory, if applicable. If no adjustment required, value reflects Initial pH.

Frozen Date/Time: With respect to Volatile Organics in soil, Frozen Date/Time reflects the date/time at which associated Reagent Water-preserved vials were initially frozen. Note: If frozen date/time is beyond 48 hours from sample collection, value will be reflected in 'bold'.

Gasoline Range Organics (GRO): Gasoline Range Organics (GRO) results include all chromatographic peaks eluting from Methyl tert butyl ether through Naphthalene, with the exception of GRO analysis in support of State of Ohio programs, which includes all chromatographic peaks eluting from Hexane through Dodecane.

Initial pH: As it pertains to Sample Receipt & Container Information section of the report, Initial pH reflects pH of container determined upon receipt, if applicable.

PAH Total: With respect to Alkylated PAH analyses, the 'PAHs, Total' result is defined as the summation of results for all or a subset of the following compounds: Naphthalene, C1-C4 Naphthalenes, 2-Methylnaphthalene, 1-Methylnaphthalene, Biphenyl, Acenaphthylene, Acenaphthene, Fluorene, C1-C3 Fluorenes, Phenanthrene, C1-C4 Phenanthrenes/Anthracenes, Anthracene, Fluoranthene, Pyrene, C1-C4 Fluoranthenes/Pyrenes, Benz(a)anthracene, Chrysene, C1-C4 Chrysenes, Benzo(b)fluoranthene, Benzo(j)+(k)fluoranthene, Benzo(e)pyrene, Benzo(a)pyrene, Perylene, Indeno(1,2,3-cd)pyrene, Dibenz(ah)+(ac)anthracene, Benzo(g,h,i)perylene. If a 'Total' result is requested, the results of its individual components will also be reported.

PFAS Total: With respect to PFAS analyses, the 'PFAS, Total (5)' result is defined as the summation of results for: PFHpA, PFHxS, PFOA, PFNA and PFOS. In addition, the 'PFAS, Total (6)' result is defined as the summation of results for: PFHpA, PFHxS, PFOA, PFNA, PFDA and PFOS. For MassDEP DW compliance analysis only, the 'PFAS, Total (6)' result is defined as the summation of results at or above the RL. Note: If a 'Total' result is requested, the results of its individual components will also be reported.

Total: With respect to Organic analyses, a 'Total' result is defined as the summation of results for individual isomers or Aroclors. If a 'Total' result is requested, the results of its individual components will also be reported. This is applicable to 'Total' results for methods 8260, 8081 and 8082.

Data Qualifiers

A - Spectra identified as "Aldol Condensates" are byproducts of the extraction/concentration procedures when acetone is introduced in the process.

B - The analyte was detected above the reporting limit in the associated method blank. Flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For MCP-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For DOD-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank AND the analyte was detected above one-half the reporting limit (or above the reporting limit for common lab contaminants) in the associated method blank. For NJ-Air-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte above the reporting limit. For NJ-related projects (excluding Air), flag only applies to associated field samples that have detectable concentrations of the analyte, which was detected above the reporting limit in the associated method blank or above five times the reporting limit for common lab contaminants (Phthalates, Acetone, Methylene Chloride, 2-Butanone).

C - Co-elution: The target analyte co-elutes with a known lab standard (i.e. surrogate, internal standards, etc.) for co-extracted analyses.

D - Concentration of analyte was quantified from diluted analysis. Flag only applies to field samples that have detectable concentrations of the analyte.

E - Concentration of analyte exceeds the range of the calibration curve and/or linear range of the instrument.

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

G - The concentration may be biased high due to matrix interferences (i.e, co-elution) with non-target compound(s). The result should be considered estimated.

H - The analysis of pH was performed beyond the regulatory-required holding time of 15 minutes from the time of sample collection.

I - The lower value for the two columns has been reported due to obvious interference.

J - Estimated value. 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

Report Format: DU Report with 'J' Qualifiers

Project Name:	URABANA LF	**Lab Number:**	L2439877
Project Number:	4362.0002B000	**Report Date:**	07/22/24

Data Qualifiers

Identified Compounds (TICs). For calculated parameters, this represents that one or more values used in the calculation were estimated.

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 the identification is based on a mass spectral library search.

P - The RPD between the results for the two columns exceeds the method-specified criteria.

Q - The quality control sample exceeds the associated acceptance criteria. For DOD-related projects, LCS and/or Continuing Calibration Standard exceedences are also qualified on all associated sample results. Note: This flag is not applicable for matrix spike recoveries when the sample concentration is greater than 4x the spike added or for batch duplicate RPD when the sample concentrations are less than 5x the RL. (Metals only.)

R - Analytical results are from sample re-analysis.

RE - Analytical results are from sample re-extraction.

S - Analytical results are from modified screening analysis.

V - The surrogate associated with this target analyte has a recovery outside the QC acceptance limits. (Applicable to MassDEP DW Compliance samples only.)

Z - The batch matrix spike and/or duplicate associated with this target analyte has a recovery/RPD outside the QC acceptance limits. (Applicable to MassDEP DW Compliance samples only.)

Report Format: DU Report with 'J' Qualifiers

Project Name:	URABANA LF	**Lab Number:**	L2439877
Project Number:	4362.0002B000	**Report Date:**	07/22/24

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 624.1: m/p-xylene, o-xylene, Naphthalene
EPA 625.1: alpha-Terpineol
EPA 8260D: NPW: 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene; SCM: Iodomethane (methyl iodide), 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene.
EPA 8270E: NPW: Dimethylnaphthalene,1,4-Diphenylhydrazine, alpha-Terpineol, Azobenzene; SCM: Dimethylnaphthalene,1,4-Diphenylhydrazine.
SM4500: NPW: Amenable Cyanide; SCM: Total Phosphorus, TKN, NO2, NO3.

Mansfield Facility
SM 2540D: TSS.
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.
Nonpotable Water: EPA RSK-175 Dissolved 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, SM4500Cl-D, SM2320B, SM2540C, SM4500H-B, SM4500NO2-B**
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).
Microbiology: **SM9223B-Colilert-QT; Enterolert-QT, EPA 1600, EPA 1603, SM9222D.**

Mansfield Facility:

Drinking Water
EPA 200.7: Al, Ba, Cd, Cr, Cu, Fe, Mn, Ni, Na, Ag, Ca, Zn. **EPA 200.8:** Al, Sb, As, Ba, Be, Cd, Cr, Cu, Pb, Mn, Ni, Se, Ag, TL, Zn. **EPA 245.1** Hg.
EPA 522, EPA 537.1.

Non-Potable Water
EPA 200.7: Al, Sb, As, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Mg, Mn, Mo, Ni, K, Se, Ag, Na, Sr, TL, Ti, V, Zn.
EPA 200.8: Al, Sb**,** As, Be, Cd, Cr, Cu, Fe, Pb, Mn, Ni, K, Se, Ag, Na, TL, Zn.
EPA 245.1 Hg.
SM2340B

For a complete listing of analytes and methods, please contact your Alpha Project Manager.

7/17/24

Serial_No:07222418:44

L2439877 23JUL24

ROUX – BENCH

NEW YORK CHAIN OF CUSTODY

ALPHA ANALYTICAL

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

Client Information

Client: Roux Env Eng & Geo
Address: 2558 Hamburg Turnpike
Buffalo, NY 14218
Phone: 716-856-0599
Fax:
Email: rudisz@rouxinc.com

Project Information

Project Name: UrBana LF
Project Location: UrBana NY
Project # 4362.0002B000
(Use Project name as Project #) ☑
Project Manager: R. Rudisz
ALPHAQuote #:

Turn-Around Time

Standard ☑ Due Date:
Rush (only if pre approved) ☐ # of Days:

Deliverables

☐ ASP-A ☐ ASP-B
☐ EQuIS (1 File) ☐ EQuIS (4 File)
☐ Other

Regulatory Requirement

☐ NY TOGS ☐ NY Part 375
☐ AWQ Standards ☐ NY CP-51
☐ NY Restricted Use ☐ Other
☐ NY Unrestricted Use
☐ NYC Sewer Discharge

Billing Information

☐ Same as Client Info
PO #

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 specify Metals or TAL.

ANALYSIS

8260 VOC

Sample Filtration
☐ Done
☐ Lab to do
Preservation
☐ Lab to do
(Please Specify below)

Total Bottles

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection Date	Collection Time	Sample Matrix	Sampler's Initials	Sample Specific Comments
39877-01	Process Effluent	7/16/24	0900	W	RUD	

Preservative Code:
A = None
B = HCl
C = HNO_3
D = H_2SO_4
E = NaOH
F = MeOH
G = $NaHSO_4$
H = $Na_2S_2O_3$
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: V
Preservative: B

Relinquished By:	Date/Time	Received By:	Date/Time
	7/16/24 1300	PACE	7/16/24 1445
PACE	7/16/24 1700		7-16-24 1700
	7-16-24 2230		7-16-24 2305
	7-16-24		2330
	0230		7/17/24 0200

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.)

Form No: 01-25 HC (rev. 30-Sept-2013)

APPENDIX C

SUMMARY OF 2020 GROUNDWATER ANALYTICAL RESULTS

BENCHMARK ENVIRONMENTAL ENGINEERING & SCIENCE, PLLC

TABLE 2

SUMMARY OF EMERGING CONTAMINANTS GROUNDWATER ANALYTICAL RESULTS

URBANA LANDFILL SITE
URBANA, NEW YORK

PARAMETERS	NYSDEC Emergent Contaminant Threshold [1]	Sample Location and Date							
		MW-101S	MW-103D	MW-104S	MW-107S	MW-107D	MW-108S	MW-108I	MW-202S
		7/29/2020	7/29/2020	7/29/2020	7/28/2020	7/28/2020	7/28/2020	7/28/2020	7/29/2020
1,4 Dioxane - ug/L									
1,4 Dioxane	**0.35**	ND < 0.40	ND < 0.20	ND < 0.20	3.4 E	ND < 0.20	0.52	ND < 0.20	0.24 J
Perfluorinated Alkyl Acids - ng/L									
Perfluorobutanoic acid (PFBA)	--	2 B	ND < 0.86	ND < 0.86	5.5	ND < 0.86	3.32	ND < 0.86	ND < 0.86
Perfluoropentanoic acid (PFPeA)	--	ND < 0.88	ND < 0.88	ND < 0.88	9.88 J	ND < 0.88	3.18	ND < 0.88	0.77 J
Perfluorobutanesulfonic acid (PFBS)	--	ND < 0.43	ND < 0.43	ND < 0.43	0.81 J	ND < 0.43	2.77	ND < 0.43	ND < 0.42
Perflurorohexanoic acid (PFHxA)	--	ND < 0.67	ND < 0.67	ND < 0.67	7.59	ND < 0.67	3.89	ND < 0.67	0.72 J
Perfluoroheptanoic acid (PFHpA)	--	ND < 0.84	ND < 0.84	ND < 0.84	2.21	ND < 0.84	2.98	ND < 0.84	ND < 0.79
Perfluorohexanesulfonic acid (PFHxS)	--	ND < 0.70	ND < 0.70	ND < 0.70	ND < 0.70	ND < 0.70	6.14	ND < 0.70	ND < 0.69
Perfluorooctanoic acid (PFOA)	--	0.86 J	ND < 0.70	ND < 0.70	4.54	ND < 0.70	26.4	ND < 0.70	1.92
1H,1H,2H,2H-Perfluorooctanesulfonic acid (6:2FTS)	--	ND < 4.82	ND < 4.82	ND < 4.82	ND < 4.81	ND < 4.82	ND < 5.23	ND < 4.82	ND < 4.75
Perfluoroheptanesulfonic acid (PFHpS)	--	ND < 0.83	ND < 0.83	ND < 0.83	ND < 0.83	ND < 0.83	1.92	ND < 0.83	ND < 0.82
Perfluorononanoic acid (PFNA)	--	ND < 0.24	ND < 0.24	ND < 0.24	ND < 0.24	ND < 0.24	0.93 J	ND < 0.24	ND < 0.23
Perfluorooctanesulfonic acid (PFOS)	--	4.12	ND < 0.53	ND < 0.53	0.98 J	ND < 0.53	50.5	ND < 0.53	0.6 J F2
Perfluorodecanoic acid (PFDA)	--	ND < 0.68	ND < 0.68	ND < 0.68	ND < 0.67	ND < 0.68	ND < 0.73	ND < 0.68	ND < 0.66
1H,1H,2H,2H-Perfluorodecanesulfonic acid (8:2FTS)	--	ND < 2.54	ND < 2.54	ND < 2.54	ND < 2.54	ND < 2.54	ND < 2.76	ND < 2.54	ND < 2.50
N-Methyl Perfluorooctanesulfonamidoacetic acid (NMeFOSAA)	--	ND <1.49	ND <1.49	ND <1.49	ND <1.49	ND <1.49	ND <1.43	ND <1.49	ND <1.47
Perfluoroundecanoic Acid (PFUnA)	--	ND < 0.68	ND < 0.68	ND < 0.68	ND < 0.68	ND < 0.68	ND < 0.74	ND < 0.68	ND < 0.67
Perfluorodecanesulfonic acid (PFDS)	--	ND < 0.79	ND < 0.79	ND < 0.79	ND < 0.79	ND < 0.79	ND < 0.86	ND < 0.79	ND < 0.78
Perfluorooctanesulfonamide (FOSA)	--	ND < 8.77	ND < 8.77	ND < 8.77	ND < 8.75	ND < 8.77	ND < 9.52	ND < 8.77	ND < 8.63
N-Ethyl Perfluorooctanesulfonamidoacetic Acid (NEtFOSAA)	--	ND <1.32	ND <1.32	ND <1.32	ND <1.31	ND <1.32	ND <1.43	ND <1.32	ND <1.29
Perfluorododecanoic Acid (PFDoA)	--	ND < 0.52	ND < 0.52	ND < 0.52	ND < 0.52	ND < 0.52	ND < 0.56	ND < 0.52	ND < 0.51
Perfluorotridecanoic Acid (PFTriA)	--	ND < 0.53	ND < 0.53	ND < 0.53	ND < 0.52	ND < 0.53	ND < 0.57	ND < 0.53	ND < 0.52
Perfluorotetradecanoic acid (PFTeA)	--	ND < 0.81	ND < 0.81	ND < 0.81	ND < 0.80	ND < 0.81	ND < 0.88	ND < 0.81	ND < 0.79
Total PFOA and PFOS	**70**	*5.0*	*0.0*	*0.0*	*5.5*	*0.0*	**76.9**	*0.0*	*2.5*
Total PFAS	**500**	*7.0*	*0.0*	*0.0*	*31.5*	*0.0*	*102.0*	*0.0*	*4.0*

Notes:

1. Contaminant threshold values per NYSDEC Emergent Contaminant Initial Site Sampling Results Checklist.

Definitions:

ng/L = nanograms per liter
ug/L = micrograms per liter
"--" = No contaminant threshold value available for the parameter.
ND < 3.7 = Parameter not detected above method detection limit.
J = Estimated Value - The target analyte concentration is below the Reporting Limit (RL) but above the the Method Detection Limit (MDL)
B = Compound was found in the Blank and Sample.
E = Result exceeded calibration range.
F2= MS/MSD RPD exceeds control limits.

BOLD = Result exceeds NYSDEC Emergent Contaminant Threshold.

BENCHMARK ENVIRONMENTAL ENGINEERING & SCIENCE, PLLC

TABLE 3

ANALYTICAL DATA SUMMARY

Groundwater Monitoring Event - January 2009/July 2020
Urbana Landfill - Site Code 8-51-007
Urbana, New York

PARAMETER	Monitoring Location																						GWQS [2]
	Jan-09	Jul-20	Jan-09	Jan-09	Jan-09	Jan-09	Jul-20	Jan-09	Jul-20	Jan-09	Jan-09	Jan-09	Jul-20	Jan-09	Jul-20	Jan-09	Jul-20	Jan-09	Jul-20	Jan-09	Jan-09	Jan-09	Jan-09	
	MW-101S		MW-101D	MW-102D	MW-103S	MW-103D		MW-104S		MW-105S	MW-106D	MW-107S		MW-107D		MW-108S		MW- 108I		MW-108D	MW-109S	MW-109D	MW-110S	
Field Measurements [6]:																								
pH (units)	6.87	6.98	7.48	7.74	(7)	7.24	7.00	6.35	6.43	6.76	7.65	7.21	7.19	7.33	7.88	7.16	6.57	6.84	6.63	7.63	7.11	7.49	(7)	6.5 - 8.5
Temperature (°C)	6.5	15.1	7.9	7.4	(7)	7.0	12.8	5.6	12,2	6.6	8.4	6.8	15.0	8.3	13.6	4.2	12.6	7.3	11.7	6.4	3.4	8.1	(7)	NA
Sp. Conductance (uS)	148	238	234.9	334	(7)	421	428	1050	1045	886	542.7	865	909	816.5	568	750	763	834	736	780	692.1	485	(7)	NA
Turbidity (NTU)	>100	>100	63	45	(7)	26.2	185	87	62.6	42.3	2	>100	66.1	16.4	38	38.6	56	195	245	6.17	78.7	5.43	(7)	NA
Eh (mV)	- 26	+ 81	+ 113	+ 63	(7)	+ 107	+ 73	- 48	- 70	- 76	+ 95	0	- 58	+ 94	- 70	+ 122	+ 115	+ 133	+ 116	+ 84	+ 68	+ 46	(7)	NA
Volatile Organic Compounds (ug/L):																								
Acetone	ND	ND	ND	ND	(7)	ND	ND	2.6 J	3.5 J	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	(7)	5
Benzene	ND	ND	ND	ND	(7)	ND	ND	**4.3**	**4.2**	0.56 J	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	(7)	1
1,1,1-Trichloroethane	ND	ND	ND	1.7	(7)	**84**	**800**	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	(7)	5
1,1-Dichloroethane	ND	ND	ND	ND	(7)	**45**	**300**	ND	ND	0.92 J	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	(7)	5
1,1-Dichloroethene	ND	ND	ND	ND	(7)	**9.1**	**130**	ND	ND	ND	ND	4.8	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	(7)	5
1,2-Dichlorobenzene	ND	ND	ND	ND	(7)	ND	ND	1.8	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	(7)	3
1,4-Dichlorobenzene	ND	ND	ND	ND	(7)	ND	ND	**5.9**	**2.9**	1.3	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	(7)	3
Chlorobenzene	ND	ND	ND	ND	(7)	ND	ND	**18**	**4.9**	1.8	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	(7)	5
Chloroethane	ND	ND	ND	ND	(7)	**20**	**11 J**	ND	ND	1.3	ND	**7.2**	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	(7)	5
cis-1,2-Dichloroethene	ND	ND	ND	ND	(7)	**23**	**270**	ND	ND	1.8	ND	**1100**	**740**	**0.57**	ND	**20**	**6.3**	**19**	**4.2**	2.3	ND	ND	(7)	5
Isopropylbenzene	ND	ND	ND	ND	(7)	ND	ND	4.3	2	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	(7)	5
Methylene Chloride	ND	ND	ND	ND	(7)	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	(7)	5
trans-1,2-Dichloroethene	ND	ND	ND	ND	(7)	ND	ND	ND	ND	ND	ND	3.8	ND	ND	ND	2	ND	0.66 J	ND	ND	ND	ND	(7)	5
Trichloroethene	ND	ND	ND	ND	(7)	**62**	**1300**	ND	ND	1.1	ND	**140**	**14 J**	ND	ND	**12**	**5.7**	**19**	**8.3**	0.78 J	ND	ND	(7)	5
Vinyl Chloride	ND	ND	ND	ND	(7)	**5.5**		ND	ND	0.82 J	ND	**290**	**360**	ND	ND	ND	ND	0.72 J	ND	ND	ND	ND	(7)	2
Xylenes, Total	ND	ND	ND	ND	(7)	ND	ND	**150**	**44**	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	(7)	5
Total VOCs	**0**		**0**	**1.7**	**0**	**248.6**	**2811**	**186.9**	**61.5**	**9.6**	**0**	**1545.8**	**1114**	**0.57**	**0**	**34**	**12**	**39.38**	**12.5**	**3.08**	**0**	**0**	**0**	**NA**

BENCHMARK ENVIRONMENTAL ENGINEERING & SCIENCE, PLLC

TABLE 3 (continued)

ANALYTICAL DATA SUMMARY

Groundwater Monitoring Event - January 2009/ July 2020
Urbana Landfill - Site Code 8-51-007
Urbana, New York

PARAMETER	Monitoring Location																GWQS [2]
	Jan-09	Jan-09	Jan-09	Jan-09	Jan-09	Jan-09	Jan-09	Jan-09	Jan-09	Jan-09	Jan-09	Jul-20	Jan-09	Jan-09	Jan-09	Jan-09	
	MW-110D	MW-111S	MW-111D	MW-112S	MW-112D	MW-113S	MW-113D	MW-114S	MW-201S	MW-201D	MW-202S		MW-202D	PW-1	PW-2	PW-3	
Field Measurements [6]:																	
pH (units)	7.13	(7)	6.98	6.72	**12.30**	6.93	(8)	(7)	7.17	**9.28**	8.09	6.88	**12.04**	6.62	6..63	6.88	6.5 - 8.5
Temperature (°C)	6.0	(7)	9.0	9.0	8.0	6.7	(8)	(7)	8.2	6.3	7.1	12.1	6.8	15.4	17.9	16.0	NA
Sp. Conductance (uS)	992	(7)	749	850	4124	670	(8)	(7)	676.6	180.1	151	277	1472	945	989	567	NA
Turbidity (NTU)	7.8	(7)	86	345	66	8.3	(8)	(7)	>100	28	532	16.4	3.8	13	12.8	13.1	NA
Eh (mV)	+ 16	(7)	+ 22	+ 138	- 85	+ 150	(8)	(7)	- 28	+ 7	+ 77	+ 63	- 61	- 22	- 13	0	NA
Volatile Organic Compounds (ug/L):																	
Acetone	ND	(7)	ND	ND	ND	ND	(8)	(7)	ND	ND	ND	ND	ND	ND	ND	**9.1**	5
Benzene	ND	(7)	ND	ND	ND	ND	(8)	(7)	ND	ND	ND	ND	ND	0.78 J	ND	ND	1
1,1,1-Trichloroethane	ND	(7)	ND	ND	ND	ND	(8)	(7)	ND	ND	ND	ND	ND	ND	ND	ND	5
1,1-Dichloroethane	ND	(7)	ND	ND	ND	ND	(8)	(7)	ND	ND	ND	ND	ND	0.95 J	ND	ND	5
1,1-Dichloroethene	ND	(7)	ND	ND	ND	ND	(8)	(7)	ND	ND	ND	ND	ND	2.2	2.2	ND	5
1,2-Dichlorobenzene	ND	(7)	ND	ND	ND	ND	(8)	(7)	ND	ND	ND	ND	ND	ND	ND	ND	3
1,4-Dichlorobenzene	ND	(7)	ND	ND	ND	ND	(8)	(7)	ND	ND	ND	ND	ND	ND	ND	ND	3
Chlorobenzene	ND	(7)	ND	ND	ND	ND	(8)	(7)	ND	ND	ND	ND	ND	ND	ND	ND	5
Chloroethane	ND	(7)	ND	ND	ND	ND	(8)	(7)	ND	ND	ND	ND	ND	**7.6**	ND	ND	5
cis-1,2-Dichloroethene	ND	(7)	ND	ND	ND	4	(8)	(7)	ND	ND	**20**	**54**	2	**530**	**400**	**39**	5
Isopropylbenzene	ND	(7)	ND	ND	ND	ND	(8)	(7)	ND	ND	ND	ND	ND	ND	ND	ND	5
Methylene Chloride	ND	(7)	ND	ND	ND	ND	(8)	(7)	ND	ND	ND	ND	ND	ND	ND	**8.3**	5
trans-1,2-Dichloroethene	ND	(7)	ND	ND	ND	ND	(8)	(7)	ND	ND	0.29 J	ND	ND	2.2	1.1	ND	5
Trichloroethene	ND	(7)	ND	ND	ND	ND	(8)	(7)	ND	ND	**40**	**91**	0.63 J	**210**	**27**	**5.3**	5
Vinyl Chloride	ND	(7)	ND	ND	ND	**4.5**	(8)	(7)	ND	ND	ND	ND	ND	**89**	**39**	ND	2
Xylenes, Total	ND	(7)	ND	ND	ND	ND	(8)	(7)	ND	ND	ND	ND	ND	ND	ND	ND	5
Total VOCs	**0**	**0**	**0**	**0**	**0**	**8.5**	**0**	**0**	**0**	**0**	**60.29**	**145**	**2.63**	**842.73**	**469.3**	**61.7**	**NA**

Notes:

1. Only those compounds detected above the method detection limit at a minimum of one sample location are reported in this table, all others were reported as non-detect.
2. NYSDEC Class "GA" Groundwater Quality Standards (GWQS) as per 6 NYCRR Part 703. Guidance value used when Standard value not available.
3. Matrix Spike/Matrix Spike Duplicate (MS/MSD) analysis performed on groundwater sample collected from MW-112S (Jan 09) & from MW-107 D/ MW-202S (Jul 20)
4. Blind Duplicate sample collected from MW-108D (Jan 09) and from MW-108S (Jul 20)
5. "ND" indicates parameter was not detected above laboratory reporting limit and is reported herein as not detected (ND).
6. Field measurements were collected immediately before sample collection.
7. Well was damaged, therefore no sample was obtained.
8. Well was frozen, therefore no sample was obtained.
9. " PW " = Pumping Well
10. " J " indicates the analyte was detected at a level less than the Reporting Limit (RL) and greater than or equal to the Method Detection Limit (MDL). Concentrations within this range are estimated.

= concentration exceeds the GWQS

APPENDIX D

PHOTO LOG

PHOTOGRAPHIC LOG

Client Name:	Site Location:	Project No.:
Mercury Aircraft, Inc	Town of Urbana Landfill- Urbana, New York	4362.0002B000

Photo No.	Date
1	05/09/24

Direction Photo Taken:
North

Description:
Site Conditions- groundwater treatment system

Photo No.	Date
2	05/09/24

Direction Photo Taken:
South

Description:
Site Conditions- groundwater treatment system

Prepared By: RLD

PHOTOGRAPHIC LOG

Client Name:	Site Location:	Project No.:
Mercury Aircraft, Inc	Town of Urbana Landfill- Urbana, New York	4362.0002B000

Photo No.	Date
3	05/09/24

Direction Photo Taken:
South

Description:
Site Conditions- groundwater treatment building

Photo No.	Date
4	07/10/23

Direction Photo Taken:
North

Description:
Site Conditions- western terrace looking northwest

Prepared By: RLD

PHOTOGRAPHIC LOG

Client Name:	Site Location:	Project No.:
Mercury Aircraft, Inc	Town of Urbana Landfill- Urbana, New York	4362.0002B000

Photo No.	Date
5	07/10/23

Direction Photo Taken:
West

Description:
Creek adjacent to landfill

Photo No.	Date
6	07/10/23

Direction Photo Taken:
West

Description:
Site Conditions - western terrace looking Northwest

Prepared By: RLD

PHOTOGRAPHIC LOG

Client Name:	Site Location:	Project No.:
Mercury Aircraft, Inc	Town of Urbana Landfill- Urbana, New York	4362.0002B000

Photo No.	Date
7	05/09/24

Direction Photo Taken:
West

Description:
Site Conditions- upper terrace looking southwest

Photo No.	Date
8	05/09/24

Direction Photo Taken:
East

Description:
Site conditions- upper terrace looking east

Prepared By: RLD

PHOTOGRAPHIC LOG

Client Name:	Site Location:	Project No.:
Mercury Aircraft, Inc	Town of Urbana Landfill- Urbana, New York	4362.0002B000

Photo No.	Date
9	05/09/24

Direction Photo Taken:
West

Description:
Site conditions- middle terrace looking west

Photo No.	Date
10	05/09/24

Direction Photo Taken:
West

Description:
Site Conditions- Lower terrace 2 looking southwest

Prepared By: RLD

PHOTOGRAPHIC LOG

Client Name:	Site Location:	Project No.:
Mercury Aircraft, Inc	Town of Urbana Landfill- Urbana, New York	4362.0002B000

Photo No.	Date
11	05/09/24

Direction Photo Taken:
Northeast

Description:
Site Conditions- Lower terrace 1 looking north

Photo No.	Date
12	05/09/24

Direction Photo Taken:
Southwest

Description:
Site Conditions- Landfill access road

Prepared By: RLD