

Periodic Review Report

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

October 2022

B0001-001-300



PERIODIC REVIEW REPORT

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

October 2022

0001-001-300

Prepared for:

Mercury Aircraft, Inc.
Hammondsport, New York

Prepared By:



Benchmark Civil/Environmental Engineering & Geology, PLLC
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PERIODIC REVIEW REPORT

Urbana Landfill Site

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PERIODIC REVIEW REPORT

Urbana Landfill Site

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1.0 INTRODUCTION

Benchmark Civil/Environmental Engineering and Geology, PLLC (Benchmark), 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, 2021 through June 30, 2022. 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 an 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.

Benchmark recommends a change to the sampling frequency of the groundwater treatment system discharge from monthly to quarterly; sampling will be performed by Benchmark staff. 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.

2.0 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.

3.0 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 monthly 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.

Table 1, attached, presents a summary of the effluent results for the period of August 2021 through October 2022. The results indicate non-detectable concentrations with only a trace level of acetone detected below the associated GWQSGVs during the August 2021 through May 2022 sampling events. Results for the October 2022 sampling event were all non-detect. A copy of the laboratory data package is presented in Appendix B of this report

Over 18,877,250 gallons of water have been treated through October 2022.

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.

3.2.1 July 2020 Analytical Results Summary

All samples fall 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 (SVE) 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. Benchmark observed that the trailer has 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.

4.0 OPERATION & 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. The unit was professionally serviced by the manufacturer, Calgon Carbon, in July of 2019.

Effluent monitoring results are presented in Table 1. Since the startup of the groundwater treatment system in 2003, monthly effluent sampling results have indicated compliance with discharge limits to remove VOCs to non-detect or near non-detect levels for the past 19 years. Therefore, Benchmark verbally requested approval to reduce the sampling frequency from monthly to quarterly. NYSDEC has indicated that the request should be approvable pending submission of this PRR. If approved, the next sampling event will be performed in January 2023.

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)

4.2.1 Landfill Site Inspection

An inspection of the landfill cover system was performed on May 5, 2022. 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 was performed by the Town of Urbana during the summer season 2022. A photo log of the site walkover is presented in Appendix C of this report.

4.3 Stream Bank Stabilization

Inspection of the stream bank stabilization was performed during the May 5, 2022, 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.

5.0 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.

6.0 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.

Concentrations for both total PFOA and PFOS & total PFAS fell well below the NYSDEC Emergent Contaminant thresholds at all wells except MW-108S. VOC concentrations similar with past monitoring events, with no detections in upgradient well MW-101S. Based on these sampling results, no further sampling for emerging contaminants is proposed.

If approved by the NYSDEC, the groundwater treatment system discharge sampling frequency will be reduced from monthly to quarterly. Benchmark staff will perform the work on behalf of Mercury Aircraft.

7.0 DECLARATIONS AND LIMITATIONS

Benchmark 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 Benchmark.

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 Benchmark Civil/Environmental Engineering and Geology, PLLC.

TABLE

TABLE 1

SUMMARY OF EFFLUENT GROUNDWATER TREATMENT SYSTEM RESULTS

**TOWN OF URBANA LANDFILL
URBANA, NEW YORK**

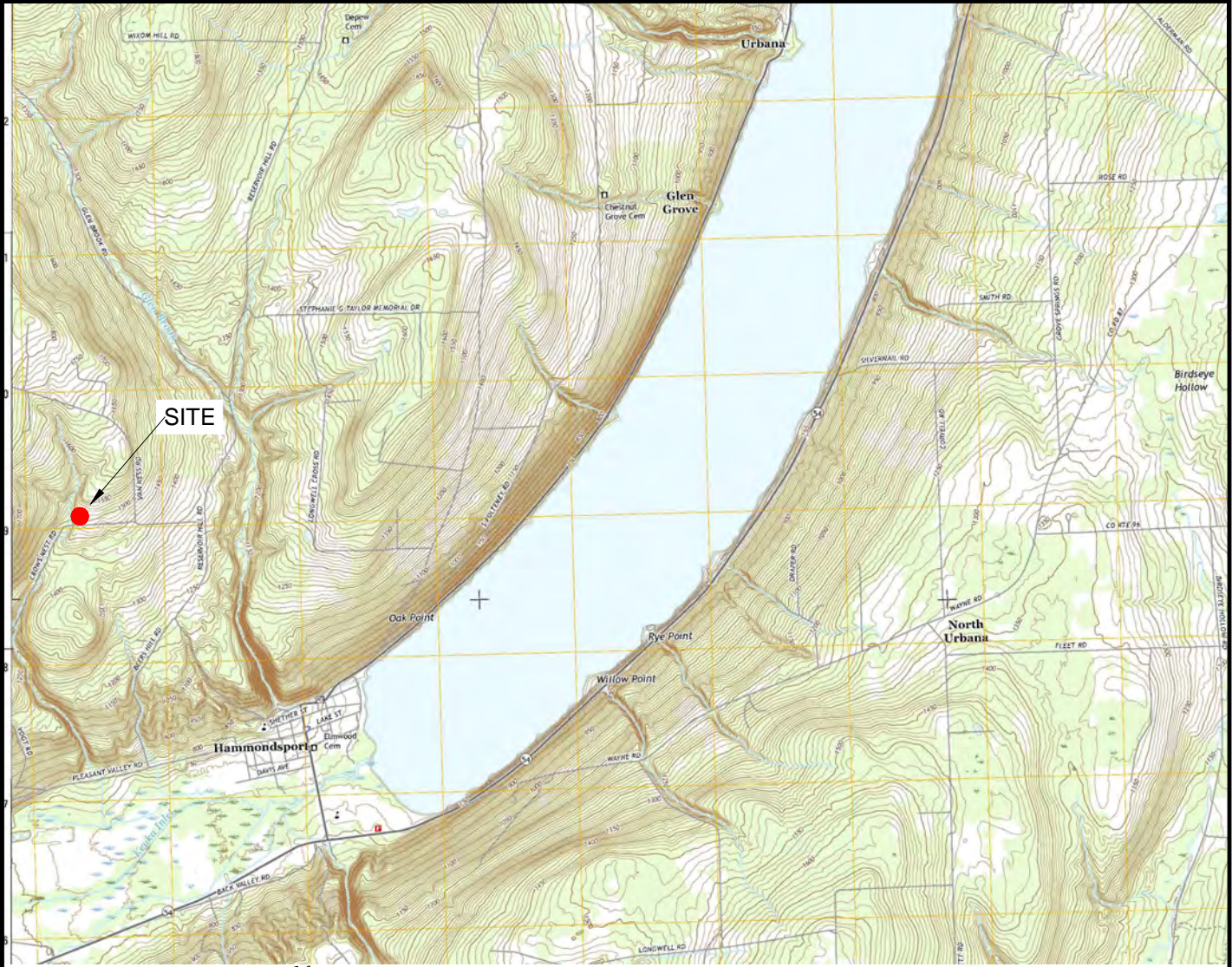
Effluent Sampling Event	Volume Data (Gallons)		Volatile Organic Compounds (VOCs) (mg/l)	
	Total Volume	Period Total	Acetone	Total VOCs
August 2021	17,873,860	452,610	0.0420	0.0420
September 2021	17,974,230	100,370	0.0120	0.0120
October 2021	18,063,070	88,840	0.0290	0.0290
January 2022	18,343,450	280,380	ND	ND
May 2022	18,685,810	342,360	0.0180	0.0180
October 2022	18,877,250	191,440	ND	ND

Definitions:

ND = Parameter not detected above laboratory detection limit.

FIGURES

FIGURE 1



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



QUADRANGLE LOCATION

SITE LOCATION AND VICINITY MAP

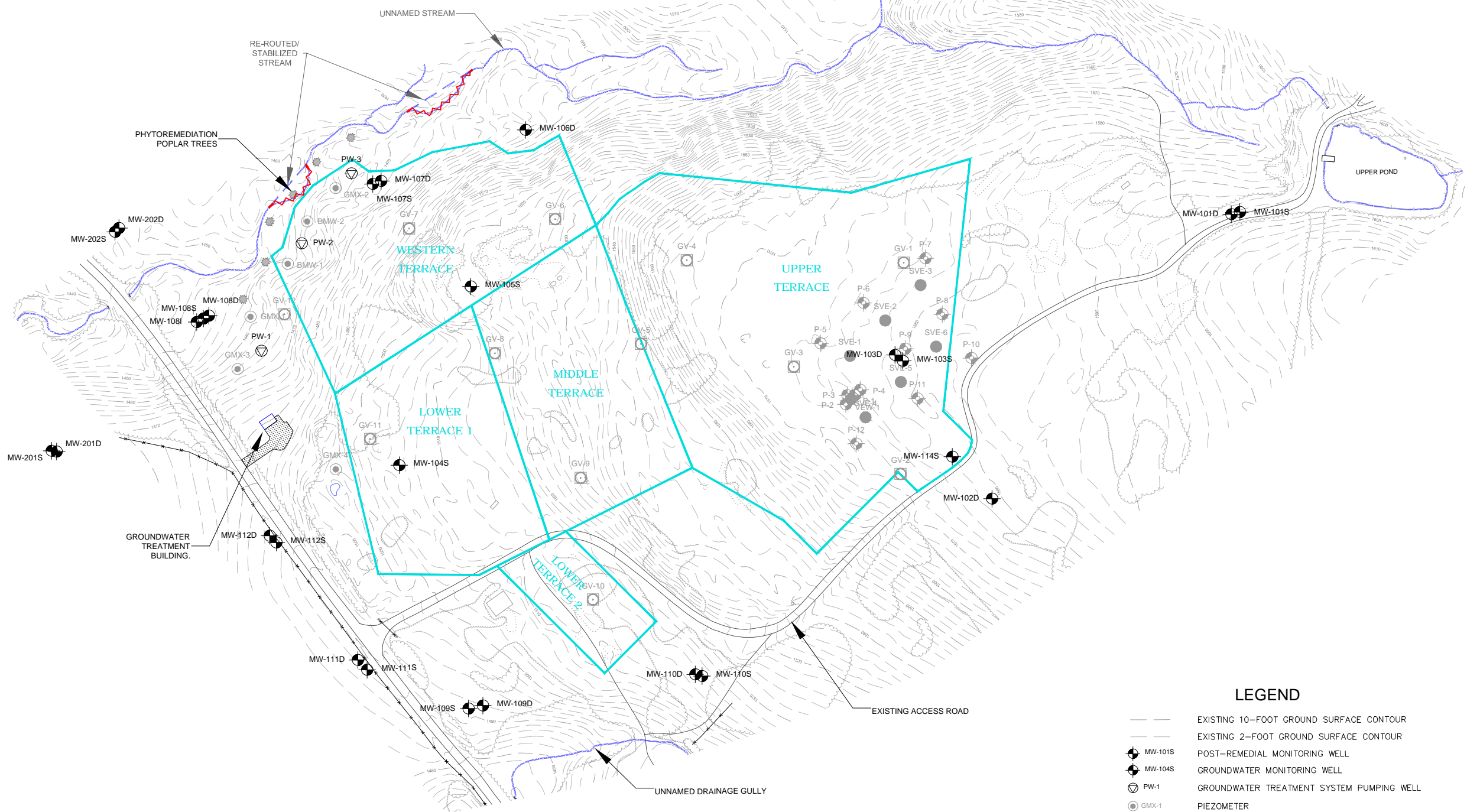
BENCHMARK
ENVIRONMENTAL
ENGINEERING &
SCIENCE, PLLC

2558 HAMBURG TURNPIKE
SUITE 300
BUFFALO, NY 14218
(716) 856-0599

PROJECT NO.: 0001-001-300
DATE: JULY 2018
DRAFTED BY: CMC/CCB

PERIODIC REVIEW REPORT
URBANA LANDFILL SITE
NYSDEC SITE No. 8-51-007
URBANA, NEW YORK
PREPARED FOR
MERCURY AIRCRAFT, INC.

DISCLAIMER:
PROPERTY OF BENCHMARK ENVIRONMENTAL ENGINEERING & SCIENCE, PLLC. IMPORTANT: THIS DRAWING PRINT IS LOANED FOR MUTUAL ASSISTANCE AND AS SUCH IS SUBJECT TO RECALL AT ANY TIME. INFORMATION CONTAINED HEREON IS NOT TO BE DISCLOSED OR REPRODUCED IN ANY FORM FOR THE BENEFIT OF PARTIES OTHER THAN NECESSARY SUBCONTRACTORS & SUPPLIERS WITHOUT THE WRITTEN CONSENT OF BENCHMARK ENVIRONMENTAL ENGINEERING & SCIENCE, PLLC.



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

LEGEND

	EXISTING 10-FOOT GROUND SURFACE CONTOUR
	EXISTING 2-FOOT GROUND SURFACE CONTOUR
	POST-REMEDIAL MONITORING WELL
	GROUNDWATER MONITORING WELL
	GROUNDWATER TREATMENT SYSTEM PUMPING WELL
	PIEZOMETER
	APPROX. TERRACE LIMITS
	SOIL VAPOR EXTRACTION (SVE) WELL
	SVE PIEZOMETER
	PILOT TEST SVE PIEZOMETER
	GAS VENT

SITE PLAN

PERIODIC REVIEW REPORT
URBANA LANDFILL SITE
NYSDEC SITE No. 8-51-007
URBANA, NEW YORK
PREPARED FOR
MERCURY AIRCRAFT, INC.



JOB NO.: 0001-001-300

FIGURE 2

DISCLAIMER: PROPERTY OF BENCHMARK ENVIRONMENTAL ENGINEERING & SCIENCE, PLLC. IMPORTANT: THIS DRAWING PRINT IS LOANED FOR MUTUAL ASSISTANCE AND AS SUCH IS SUBJECT TO RECALL AT ANY TIME. INFORMATION CONTAINED HEREON IS NOT TO BE DISCLOSED OR REPRODUCED IN ANY FORM FOR THE BENEFIT OF PARTIES OTHER THAN NECESSARY SUBCONTRACTORS & SUPPLIERS WITHOUT THE WRITTEN CONSENT OF BENCHMARK ENVIRONMENTAL ENGINEERING & SCIENCE, PLLC.

APPENDIX A

INSTITUTIONAL AND ENGINEERING CONTROLS CERTIFICATION FORM



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, 2021 to June 30, 2022		
		YES NO
1. Is the information above correct?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
3. Has there been any change of use at the site during this Reporting Period (see 6NYCRR 375-1.11(d))?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
4. Have any federal, state, and/or local permits (e.g., building, discharge) been issued for or at the property during this Reporting Period?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>
		Box 2
		YES NO
6. Is the current site use consistent with the use(s) listed below? Industrial	<input checked="" type="checkbox"/>	<input type="checkbox"/>
7. Are all ICs in place and functioning as designed?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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

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 complete.

YES NO

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

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 at Mercury Corp 8126 Cty Rt 88 Hammondsport NY 14840,
print name 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

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 at Benchmark Env 2558 Hamburg Tpk Buffalo NY 14218
print name print business address

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

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



10-27-22

Date

(Required for PE)

APPENDIX B

GROUNDWATER TREATMENT SYSTEM ANALYTICAL RESULTS



ANALYTICAL REPORT

Lab Number:	L2142794
Client:	Benchmark & Turnkey Companies 2558 Hamburg Turnpike Suite 300 Buffalo, NY 14218
ATTN:	Rick Dubisz
Phone:	(716) 856-0635
Project Name:	URBANA LF - GWTS
Project Number:	B0001-001-300
Report Date:	08/17/21

The original project report/data package is held by Alpha Analytical. This report/data package is paginated and should be reproduced only in its entirety. Alpha Analytical holds no responsibility for results and/or data that are not consistent with the original.

Certifications & Approvals: MA (M-MA086), NH NELAP (2064), CT (PH-0574), IL (200077), ME (MA00086), MD (348), NJ (MA935), NY (11148), NC (25700/666), PA (68-03671), RI (LAO00065), TX (T104704476), VT (VT-0935), VA (460195), USDA (Permit #P330-17-00196).

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



Project Name: URBANA LF - GWTS
Project Number: B0001-001-300

Lab Number: L2142794
Report Date: 08/17/21

Alpha Sample ID	Client ID	Matrix	Sample Location	Collection Date/Time	Receive Date
L2142794-01	URBANA LF - AUGUST EFFLUENT	WATER	URBANA, NY	08/05/21 09:45	08/10/21

Project Name: URBANA LF - GWTS
Project Number: B0001-001-300

Lab Number: L2142794
Report Date: 08/17/21

Case Narrative

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

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

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

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

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

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

Project Name: URBANA LF - GWTS
Project Number: B0001-001-300

Lab Number: L2142794
Report Date: 08/17/21

Case Narrative (continued)

Report Submission

All non-detect (ND) or estimated concentrations (J-qualified) have been quantitated to the limit noted in the MDL column.

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

Authorized Signature:  Melissa Sturgis

Title: Technical Director/Representative

Date: 08/17/21

ORGANICS

VOLATILES

Project Name: URBANA LF - GWTS
Project Number: B0001-001-300

Lab Number: L2142794
Report Date: 08/17/21

SAMPLE RESULTS

Lab ID: L2142794-01
 Client ID: URBANA LF - AUGUST EFFLUENT
 Sample Location: URBANA, NY

Date Collected: 08/05/21 09:45
 Date Received: 08/10/21
 Field Prep: Not Specified

Sample Depth:

Matrix: Water
 Analytical Method: 1,8260C
 Analytical Date: 08/12/21 14:05
 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: URBANA LF - GWTS**Lab Number:** L2142794**Project Number:** B0001-001-300**Report Date:** 08/17/21**SAMPLE RESULTS**

Lab ID: L2142794-01
 Client ID: URBANA LF - AUGUST EFFLUENT
 Sample Location: URBANA, NY

Date Collected: 08/05/21 09:45
 Date Received: 08/10/21
 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	42		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	101		70-130
4-Bromofluorobenzene	102		70-130
Dibromofluoromethane	101		70-130

Project Name: URBANA LF - GWTS
Project Number: B0001-001-300

Lab Number: L2142794
Report Date: 08/17/21

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260C
Analytical Date: 08/12/21 08:13
Analyst: PD

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 01 Batch: WG1534439-5					
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 - GWTS
Project Number: B0001-001-300

Lab Number: L2142794
Report Date: 08/17/21

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260C
Analytical Date: 08/12/21 08:13
Analyst: PD

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 01 Batch: WG1534439-5					
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 - GWTS
Project Number: B0001-001-300

Lab Number: L2142794
Report Date: 08/17/21

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260C
Analytical Date: 08/12/21 08:13
Analyst: PD

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 01 Batch: WG1534439-5					

Surrogate	%Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	105		70-130
Toluene-d8	101		70-130
4-Bromofluorobenzene	107		70-130
Dibromofluoromethane	101		70-130

Lab Control Sample Analysis

Batch Quality Control

Project Name: URBANA LF - GWTS

Lab Number: L2142794

Project Number: B0001-001-300

Report Date: 08/17/21

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01 Batch: WG1534439-3 WG1534439-4								
Methylene chloride	100		100		70-130	0		20
1,1-Dichloroethane	100		100		70-130	0		20
Chloroform	100		100		70-130	0		20
Carbon tetrachloride	87		96		63-132	10		20
1,2-Dichloropropane	100		100		70-130	0		20
Dibromochloromethane	82		88		63-130	7		20
1,1,2-Trichloroethane	100		100		70-130	0		20
Tetrachloroethene	100		100		70-130	0		20
Chlorobenzene	100		100		75-130	0		20
Trichlorofluoromethane	110		110		62-150	0		20
1,2-Dichloroethane	100		100		70-130	0		20
1,1,1-Trichloroethane	96		99		67-130	3		20
Bromodichloromethane	92		96		67-130	4		20
trans-1,3-Dichloropropene	95		96		70-130	1		20
cis-1,3-Dichloropropene	94		97		70-130	3		20
Bromoform	76		84		54-136	10		20
1,1,2,2-Tetrachloroethane	110		110		67-130	0		20
Benzene	100		100		70-130	0		20
Toluene	100		100		70-130	0		20
Ethylbenzene	110		100		70-130	10		20
Chloromethane	110		110		64-130	0		20
Bromomethane	110		120		39-139	9		20
Vinyl chloride	110		110		55-140	0		20

Lab Control Sample Analysis

Batch Quality Control

Project Name: URBANA LF - GWTS

Lab Number: L2142794

Project Number: B0001-001-300

Report Date: 08/17/21

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01 Batch: WG1534439-3 WG1534439-4								
Chloroethane	110		110		55-138	0		20
1,1-Dichloroethene	110		110		61-145	0		20
trans-1,2-Dichloroethene	110		110		70-130	0		20
Trichloroethene	99		100		70-130	1		20
1,2-Dichlorobenzene	110		110		70-130	0		20
1,3-Dichlorobenzene	100		100		70-130	0		20
1,4-Dichlorobenzene	100		110		70-130	10		20
Methyl tert butyl ether	110		110		63-130	0		20
p/m-Xylene	105		105		70-130	0		20
o-Xylene	105		105		70-130	0		20
cis-1,2-Dichloroethene	98		100		70-130	2		20
Styrene	110		110		70-130	0		20
Dichlorodifluoromethane	110		110		36-147	0		20
Acetone	110		110		58-148	0		20
Carbon disulfide	110		110		51-130	0		20
2-Butanone	110		120		63-138	9		20
4-Methyl-2-pentanone	110		120		59-130	9		20
2-Hexanone	110		120		57-130	9		20
Bromochloromethane	100		100		70-130	0		20
1,2-Dibromoethane	100		110		70-130	10		20
1,2-Dibromo-3-chloropropane	76		86		41-144	12		20
Isopropylbenzene	110		110		70-130	0		20
1,2,3-Trichlorobenzene	100		110		70-130	10		20

Lab Control Sample Analysis

Batch Quality Control

Project Name: URBANA LF - GWTS

Lab Number: L2142794

Project Number: B0001-001-300

Report Date: 08/17/21

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01 Batch: WG1534439-3 WG1534439-4								
1,2,4-Trichlorobenzene	100		100		70-130	0		20
Methyl Acetate	110		120		70-130	9		20
Cyclohexane	110		110		70-130	0		20
1,4-Dioxane	108		110		56-162	2		20
Freon-113	110		110		70-130	0		20
Methyl cyclohexane	110		110		70-130	0		20

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
1,2-Dichloroethane-d4	101		104		70-130
Toluene-d8	102		101		70-130
4-Bromofluorobenzene	102		102		70-130
Dibromofluoromethane	96		98		70-130

Project Name: URBANA LF - GWTS

Lab Number: L2142794

Project Number: B0001-001-300

Report Date: 08/17/21

Sample Receipt and Container Information

Were project specific reporting limits specified?

YES

Cooler Information

Cooler	Custody Seal
A	Absent

Container Information

Container ID	Container Type	Cooler	Initial pH	Final pH	Temp deg C	Pres	Seal	Frozen Date/Time	Analysis(*)
L2142794-01A	Vial HCl preserved	A	NA		2.8	Y	Absent		NYTCL-8260-R2(14)
L2142794-01B	Vial HCl preserved	A	NA		2.8	Y	Absent		NYTCL-8260-R2(14)
L2142794-01C	Vial HCl preserved	A	NA		2.8	Y	Absent		NYTCL-8260-R2(14)

*Values in parentheses indicate holding time in days



Project Name: URBANA LF - GWTS
Project Number: B0001-001-300

Lab Number: L2142794
Report Date: 08/17/21

GLOSSARY

Acronyms

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

Report Format: DU Report with 'J' Qualifiers



Project Name: URBANA LF - GWTS
Project Number: B0001-001-300

Lab Number: L2142794
Report Date: 08/17/21

Footnotes

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

Terms

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

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

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

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

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

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

PFAS Total: With respect to PFAS analyses, the 'PFAS, Total (5)' result is defined as the summation of results for: PFHpA, PFHxS, PFOA, PFNA and PFOS. In addition, the 'PFAS, Total (6)' result is defined as the summation of results 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.

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

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

Data Qualifiers

- A** - Spectra identified as "Aldol Condensates" are byproducts of the extraction/concentration procedures when acetone is introduced in the process.
- B** - The analyte was detected above the reporting limit in the associated method blank. Flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For MCP-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For DOD-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank AND the analyte was detected above one-half the reporting limit (or above the reporting limit for common lab contaminants) in the associated method blank. For NJ-Air-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte above the reporting limit. For NJ-related projects (excluding Air), flag only applies to associated field samples that have detectable concentrations of the analyte, which was detected above the reporting limit in the associated method blank or above five times the reporting limit for common lab contaminants (Phthalates, Acetone, Methylene Chloride, 2-Butanone).
- C** - Co-elution: The target analyte co-elutes with a known lab standard (i.e. surrogate, internal standards, etc.) for co-extracted analyses.
- D** - Concentration of analyte was quantified from diluted analysis. Flag only applies to field samples that have detectable concentrations of the analyte.
- E** - Concentration of analyte exceeds the range of the calibration curve and/or linear range of the instrument.
- F** - The ratio of quantifier ion response to qualifier ion response falls outside of the laboratory criteria. Results are considered to be an estimated maximum concentration.
- G** - The concentration may be biased high due to matrix interferences (i.e. co-elution) with non-target compound(s). The result should be considered estimated.
- H** - The analysis of pH was performed beyond the regulatory-required holding time of 15 minutes from the time of sample collection.
- I** - The lower value for the two columns has been reported due to obvious interference.
- J** - Estimated value. The Target analyte concentration is below the quantitation limit (RL), but above the Method Detection Limit (MDL) or Estimated Detection Limit (EDL) for SPME-related analyses. This represents an estimated concentration for Tentatively Identified Compounds (TICs).
- M** - Reporting Limit (RL) exceeds the MCP CAM Reporting Limit for this analyte.
- ND** - Not detected at the method detection limit (MDL) for the sample, or estimated detection limit (EDL) for SPME-related analyses.

Report Format: DU Report with 'J' Qualifiers



Project Name: URBANA LF - GWTS
Project Number: B0001-001-300

Lab Number: L2142794
Report Date: 08/17/21

Data Qualifiers

- NJ** - Presumptive evidence of compound. This represents an estimated concentration for Tentatively Identified Compounds (TICs), where the identification is based on a mass spectral library search.
- P** - The RPD between the results for the two columns exceeds the method-specified criteria.
- Q** - The quality control sample exceeds the associated acceptance criteria. For DOD-related projects, LCS and/or Continuing Calibration Standard exceedences are also qualified on all associated sample results. Note: This flag is not applicable for matrix spike recoveries when the sample concentration is greater than 4x the spike added or for batch duplicate RPD when the sample concentrations are less than 5x the RL. (Metals only.)
- R** - Analytical results are from sample re-analysis.
- RE** - Analytical results are from sample re-extraction.
- S** - Analytical results are from modified screening analysis.

Project Name: URBANA LF - GWTS
Project Number: B0001-001-300

Lab Number: L2142794
Report Date: 08/17/21

REFERENCES

- 1 Test Methods for Evaluating Solid Waste: Physical/Chemical Methods. EPA SW-846. Third Edition. Updates I - VI, 2018.

LIMITATION OF LIABILITIES

Alpha Analytical performs services with reasonable care and diligence normal to the analytical testing laboratory industry. In the event of an error, the sole and exclusive responsibility of Alpha Analytical shall be to re-perform the work at it's own expense. In no event shall Alpha Analytical be held liable for any incidental, consequential or special damages, including but not limited to, damages in any way connected with the use of, interpretation of, information or analysis provided by Alpha Analytical.

We strongly urge our clients to comply with EPA protocol regarding sample volume, preservation, cooling, containers, sampling procedures, holding time and splitting of samples in the field.



Certification Information

The following analytes are not included in our Primary NELAP Scope of Accreditation:

Westborough Facility

EPA 624/624.1: m/p-xylene, o-xylene, Naphthalene

EPA 625/625.1: alpha-Terpeneol

EPA 8260C/8260D: NPW: 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene, Azobenzene; SCM: Iodomethane (methyl iodide), 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene.

EPA 8270D/8270E: NPW: Dimethylnaphthalene, 1,4-Diphenylhydrazine, alpha-Terpeneol; SCM: Dimethylnaphthalene, 1,4-Diphenylhydrazine.

SM4500: NPW: Amenable Cyanide; SCM: Total Phosphorus, TKN, NO₂, NO₃.

Mansfield Facility

SM 2540D: TSS

EPA 8082A: NPW: PCB: 1, 5, 31, 87,101, 110, 141, 151, 153, 180, 183, 187.

EPA TO-15: Halothane, 2,4,4-Trimethyl-2-pentene, 2,4,4-Trimethyl-1-pentene, Thiophene, 2-Methylthiophene,

3-Methylthiophene, 2-Ethylthiophene, 1,2,3-Trimethylbenzene, Indan, Indene, 1,2,4,5-Tetramethylbenzene, Benzothiophene, 1-Methylnaphthalene.

Biological Tissue Matrix: EPA 3050B

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

Westborough Facility:

Drinking Water

EPA 300.0: Chloride, Nitrate-N, Fluoride, Sulfate; **EPA 353.2:** Nitrate-N, Nitrite-N; **SM4500NO3-F:** Nitrate-N, Nitrite-N; **SM4500F-C, SM4500CN-CE,**

EPA 180.1, SM2130B, SM4500CI-D, SM2320B, SM2540C, SM4500H-B, SM4500NO2-B

EPA 332: Perchlorate; **EPA 524.2:** THMs and VOCs; **EPA 504.1:** EDB, DBCP.

Microbiology: **SM9215B; SM9223-P/A, SM9223B-Colilert-QT, SM9222D.**

Non-Potable Water

SM4500H,B, EPA 120.1, SM2510B, SM2540C, SM2320B, SM4500CL-E, SM4500F-BC, SM4500NH3-BH: Ammonia-N and Kjeldahl-N, **EPA 350.1:**

Ammonia-N, **LCHAT 10-107-06-1-B:** Ammonia-N, **EPA 351.1, SM4500NO3-F, EPA 353.2:** Nitrate-N, **SM4500P-E, SM4500P-B, E, SM4500SO4-E,**

SM5220D, EPA 410.4, SM5210B, SM5310C, SM4500CL-D, EPA 1664, EPA 420.1, SM4500-CN-CE, SM2540D, EPA 300: Chloride, Sulfate, Nitrate.

EPA 624.1: Volatile Halocarbons & Aromatics,

EPA 608.3: Chlordane, Toxaphene, Aldrin, alpha-BHC, beta-BHC, gamma-BHC, delta-BHC, Dieldrin, DDD, DDE, DDT, Endosulfan I, Endosulfan II,

Endosulfan sulfate, Endrin, Endrin Aldehyde, Heptachlor, Heptachlor Epoxide, PCBs

EPA 625.1: SVOC (Acid/Base/Neutral Extractables), **EPA 600/4-81-045:** PCB-Oil.

Microbiology: **SM9223B-Colilert-QT; Enterolert-QT, SM9221E, EPA 1600, EPA 1603, SM9222D.**

Mansfield Facility:

Drinking Water

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

EPA 522, EPA 537.1.

Non-Potable Water


EPA 200.7: Al, Sb, As, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Mg, Mn, Mo, Ni, K, Se, Ag, Na, Sr, TL, Ti, V, Zn.

EPA 200.8: Al, Sb, As, Be, Cd, Cr, Cu, Fe, Pb, Mn, Ni, K, Se, Ag, Na, TL, Zn.

EPA 245.1 Hg.

SM2340B

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

 NEW YORK CHAIN OF CUSTODY Westborough, MA 01581 8 Walkup Dr. TEL: 508-898-9220 FAX: 508-898-9193	NEW YORK CHAIN OF CUSTODY Mansfield, MA 02048 320 Forbes Blvd TEL: 508-822-9300 FAX: 508-822-3288	Service Centers Mahwah, NJ 07430: 35 Whitney Rd, Suite 5 Albany, NY 12205: 14 Walker Way Tonawanda, NY 14150: 275 Cooper Ave, Suite 105	Page 1 of 1	Date Rec'd in Lab 08/11/21	ALPHA Job # 62142794	
		Project Information Project Name: <u>URBANA LF - GWTS</u> Project Location: <u>URBANA NY</u> Project # <u>BOWEN-001-300</u> (Use Project name as Project #) <input checked="" type="checkbox"/>		Deliverables <input type="checkbox"/> ASP-A <input type="checkbox"/> ASP-B <input type="checkbox"/> EQUIS (1 File) <input type="checkbox"/> EQUIS (4 File) <input type="checkbox"/> Other		Billing Information <input type="checkbox"/> Same as Client Info PO #
Client Information Client: <u>SPRICKMAN ENV ENG & SA</u> Address: <u>258 NANTUCKET TOWER</u> <u>BUFFALO NY 14217</u> Phone: <u>76-856-0399</u> Fax: Email: <u>RIK@DUSE</u>		Project Manager: ALPHAQuote #: Turn-Around Time Standard <input checked="" type="checkbox"/> Due Date: Rush (only if pre approved) <input type="checkbox"/> # of Days:		Regulatory Requirement <input type="checkbox"/> NY TOGS <input type="checkbox"/> NY Part 375 <input type="checkbox"/> AWQ Standards <input type="checkbox"/> NY CP-51 <input type="checkbox"/> NY Restricted Use <input type="checkbox"/> Other <input type="checkbox"/> NY Unrestricted Use <input type="checkbox"/> NYC Sewer Discharge		Disposal Site Information Please identify below location of applicable disposal facilities. Disposal Facility: <input type="checkbox"/> NJ <input type="checkbox"/> NY <input type="checkbox"/> Other:
These samples have been previously analyzed by Alpha <input type="checkbox"/> Other project specific requirements/comments: Please specify Metals or TAL				ANALYSIS		Sample Filtration <input type="checkbox"/> Done <input type="checkbox"/> Lab to do Preservation <input type="checkbox"/> Lab to do (Please Specify below) Sample Specific Comments
Total BOTTLES						
ALPHA Lab ID (Lab Use Only)	Sample ID	Collection Date Time	Sample Matrix	Sampler's Initials	VUCS 8260	
<u>42774-01</u>	<u>URBANA LF-ANALYST EFFLUENT</u>	<u>8/15/21</u> <u>0945</u>	<u>W</u>	<u>RLD</u>	<input checked="" type="checkbox"/>	
Preservative Code: A = None B = HCl C = HNO ₃ D = H ₂ SO ₄ E = NaOH F = MeOH G = NaHSO ₄ H = Na ₂ S ₂ O ₃ K/E = Zn Ac/NaOH O = Other		Container Code: P = Plastic A = Amber Glass V = Vial G = Glass B = Bacteria Cup C = Cube O = Other E = Encore D = BOD Bottle		Westboro: Certification No: MA935 Mansfield: Certification No: MA015		Container Type <u>B</u> Preservative <input checked="" type="checkbox"/>
Relinquished By: <u>[Signature]</u> Date/Time: <u>8/10/21 10:10</u> <u>[Signature]</u> <u>8/10/21 1520</u>		Received By: <u>[Signature]</u> Date/Time: <u>8/10/21 1505</u> <u>[Signature]</u> <u>8/11/21 00:35</u>		Please print clearly, legibly and completely. Samples can not be logged in and turnaround time clock will not start until any ambiguities are resolved. BY EXECUTING THIS COC, THE CLIENT HAS READ AND AGREES TO BE BOUND BY ALPHA'S TERMS & CONDITIONS. (See reverse side.)		
Form No: 01-25 HC (rev. 30-Sept-2013)						



ANALYTICAL REPORT

Lab Number:	L2149652
Client:	Benchmark & Turnkey Companies 2558 Hamburg Turnpike Suite 300 Buffalo, NY 14218
ATTN:	Rick Dubisz
Phone:	(716) 856-0635
Project Name:	URBANA LF
Project Number:	B0001-001-300
Report Date:	09/21/21

The original project report/data package is held by Alpha Analytical. This report/data package is paginated and should be reproduced only in its entirety. Alpha Analytical holds no responsibility for results and/or data that are not consistent with the original.

Certifications & Approvals: MA (M-MA086), NH NELAP (2064), CT (PH-0574), IL (200077), ME (MA00086), MD (348), NJ (MA935), NY (11148), NC (25700/666), PA (68-03671), RI (LAO00065), TX (T104704476), VT (VT-0935), VA (460195), USDA (Permit #P330-17-00196).

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



Project Name: URBANA LF
Project Number: B0001-001-300

Lab Number: L2149652
Report Date: 09/21/21

Alpha Sample ID	Client ID	Matrix	Sample Location	Collection Date/Time	Receive Date
L2149652-01	URBANA - PROCESS EFFLUENT	WATER	URBANA, NY	09/14/21 07:10	09/15/21

Project Name: URBANA LF
Project Number: B0001-001-300

Lab Number: L2149652
Report Date: 09/21/21

Case Narrative

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

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

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

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

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

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

Project Name: URBANA LF
Project Number: B0001-001-300

Lab Number: L2149652
Report Date: 09/21/21


Case Narrative (continued)

Report Submission

All non-detect (ND) or estimated concentrations (J-qualified) have been quantitated to the limit noted in the MDL column.

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

Authorized Signature:

 Michelle M. Morris

Title: Technical Director/Representative

Date: 09/21/21

ORGANICS

VOLATILES

Project Name: URBANA LF
Project Number: B0001-001-300

Lab Number: L2149652
Report Date: 09/21/21

SAMPLE RESULTS

Lab ID: L2149652-01
 Client ID: URBANA - PROCESS EFFLUENT
 Sample Location: URBANA, NY

Date Collected: 09/14/21 07:10
 Date Received: 09/15/21
 Field Prep: Not Specified

Sample Depth:
 Matrix: Water
 Analytical Method: 1,8260C
 Analytical Date: 09/20/21 11:33
 Analyst: MAB

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: B0001-001-300

Lab Number: L2149652
Report Date: 09/21/21

SAMPLE RESULTS

Lab ID: L2149652-01
 Client ID: URBANA - PROCESS EFFLUENT
 Sample Location: URBANA, NY

Date Collected: 09/14/21 07:10
 Date Received: 09/15/21
 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	12		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	96		70-130
Toluene-d8	104		70-130
4-Bromofluorobenzene	112		70-130
Dibromofluoromethane	101		70-130

Project Name: URBANA LF
Project Number: B0001-001-300

Lab Number: L2149652
Report Date: 09/21/21

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260C
Analytical Date: 09/20/21 11:07
Analyst: NLK

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 01 Batch: WG1548864-5					
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: B0001-001-300

Lab Number: L2149652
Report Date: 09/21/21

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260C
Analytical Date: 09/20/21 11:07
Analyst: NLK

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 01 Batch: WG1548864-5					
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: B0001-001-300

Lab Number: L2149652
Report Date: 09/21/21

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260C
Analytical Date: 09/20/21 11:07
Analyst: NLK

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 01 Batch: WG1548864-5					

Surrogate	%Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	95		70-130
Toluene-d8	102		70-130
4-Bromofluorobenzene	111		70-130
Dibromofluoromethane	103		70-130

Lab Control Sample Analysis

Batch Quality Control

Project Name: URBANA LF
Project Number: B0001-001-300

Lab Number: L2149652
Report Date: 09/21/21

Parameter	LCS		LCSD		%Recovery Limits	RPD	Qual	RPD Limits
	%Recovery	Qual	%Recovery	Qual				
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01 Batch: WG1548864-3 WG1548864-4								
Methylene chloride	110		110		70-130	0		20
1,1-Dichloroethane	120		120		70-130	0		20
Chloroform	110		100		70-130	10		20
Carbon tetrachloride	86		85		63-132	1		20
1,2-Dichloropropane	110		110		70-130	0		20
Dibromochloromethane	83		82		63-130	1		20
1,1,2-Trichloroethane	88		88		70-130	0		20
Tetrachloroethene	89		83		70-130	7		20
Chlorobenzene	99		97		75-130	2		20
Trichlorofluoromethane	90		87		62-150	3		20
1,2-Dichloroethane	98		97		70-130	1		20
1,1,1-Trichloroethane	94		90		67-130	4		20
Bromodichloromethane	96		96		67-130	0		20
trans-1,3-Dichloropropene	92		90		70-130	2		20
cis-1,3-Dichloropropene	93		94		70-130	1		20
Bromoform	77		79		54-136	3		20
1,1,2,2-Tetrachloroethane	88		91		67-130	3		20
Benzene	100		100		70-130	0		20
Toluene	100		100		70-130	0		20
Ethylbenzene	100		99		70-130	1		20
Chloromethane	160	Q	160	Q	64-130	0		20
Bromomethane	70		65		39-139	7		20
Vinyl chloride	96		89		55-140	8		20

Lab Control Sample Analysis

Batch Quality Control

Project Name: URBANA LF
Project Number: B0001-001-300

Lab Number: L2149652
Report Date: 09/21/21

Parameter	LCS		LCSD		%Recovery Limits	RPD	Qual	RPD Limits
	%Recovery	Qual	%Recovery	Qual				
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01 Batch: WG1548864-3 WG1548864-4								
Chloroethane	72		67		55-138	7		20
1,1-Dichloroethene	100		100		61-145	0		20
trans-1,2-Dichloroethene	110		110		70-130	0		20
Trichloroethene	92		90		70-130	2		20
1,2-Dichlorobenzene	96		93		70-130	3		20
1,3-Dichlorobenzene	96		93		70-130	3		20
1,4-Dichlorobenzene	98		95		70-130	3		20
Methyl tert butyl ether	76		77		63-130	1		20
p/m-Xylene	100		95		70-130	5		20
o-Xylene	100		95		70-130	5		20
cis-1,2-Dichloroethene	110		100		70-130	10		20
Styrene	100		95		70-130	5		20
Dichlorodifluoromethane	96		93		36-147	3		20
Acetone	100		95		58-148	5		20
Carbon disulfide	110		110		51-130	0		20
2-Butanone	92		90		63-138	2		20
4-Methyl-2-pentanone	79		78		59-130	1		20
2-Hexanone	90		90		57-130	0		20
Bromochloromethane	100		99		70-130	1		20
1,2-Dibromoethane	83		84		70-130	1		20
1,2-Dibromo-3-chloropropane	72		77		41-144	7		20
Isopropylbenzene	98		94		70-130	4		20
1,2,3-Trichlorobenzene	89		89		70-130	0		20

Lab Control Sample Analysis

Batch Quality Control

Project Name: URBANA LF
Project Number: B0001-001-300

Lab Number: L2149652
Report Date: 09/21/21

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01 Batch: WG1548864-3 WG1548864-4								
1,2,4-Trichlorobenzene	92		94		70-130	2		20
Methyl Acetate	110		110		70-130	0		20
Cyclohexane	110		100		70-130	10		20
1,4-Dioxane	70		76		56-162	8		20
Freon-113	90		85		70-130	6		20
Methyl cyclohexane	74		68	Q	70-130	8		20

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
1,2-Dichloroethane-d4	97		95		70-130
Toluene-d8	104		105		70-130
4-Bromofluorobenzene	110		112		70-130
Dibromofluoromethane	99		96		70-130

Project Name: URBANA LF
Project Number: B0001-001-300

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(*)
L2149652-01A	Vial HCl preserved	A	NA		4.1	Y	Absent		NYTCL-8260-R2(14)
L2149652-01B	Vial HCl preserved	A	NA		4.1	Y	Absent		NYTCL-8260-R2(14)

Project Name: URBANA LF
Project Number: B0001-001-300

Lab Number: L2149652
Report Date: 09/21/21

GLOSSARY

Acronyms

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

Report Format: DU Report with 'J' Qualifiers



Project Name: URBANA LF
Project Number: B0001-001-300

Lab Number: L2149652
Report Date: 09/21/21

Footnotes

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

Terms

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

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

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

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

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

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

PFAS Total: With respect to PFAS analyses, the 'PFAS, Total (5)' result is defined as the summation of results for: PFHpA, PFHxS, PFOA, PFNA and PFOS. In addition, the 'PFAS, Total (6)' result is defined as the summation of results 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.

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

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

Data Qualifiers

- A** - Spectra identified as "Aldol Condensates" are byproducts of the extraction/concentration procedures when acetone is introduced in the process.
- B** - The analyte was detected above the reporting limit in the associated method blank. Flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For MCP-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For DOD-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank AND the analyte was detected above one-half the reporting limit (or above the reporting limit for common lab contaminants) in the associated method blank. For NJ-Air-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte above the reporting limit. For NJ-related projects (excluding Air), flag only applies to associated field samples that have detectable concentrations of the analyte, which was detected above the reporting limit in the associated method blank or above five times the reporting limit for common lab contaminants (Phthalates, Acetone, Methylene Chloride, 2-Butanone).
- C** - Co-elution: The target analyte co-elutes with a known lab standard (i.e. surrogate, internal standards, etc.) for co-extracted analyses.
- D** - Concentration of analyte was quantified from diluted analysis. Flag only applies to field samples that have detectable concentrations of the analyte.
- E** - Concentration of analyte exceeds the range of the calibration curve and/or linear range of the instrument.
- F** - The ratio of quantifier ion response to qualifier ion response falls outside of the laboratory criteria. Results are considered to be an estimated maximum concentration.
- G** - The concentration may be biased high due to matrix interferences (i.e. co-elution) with non-target compound(s). The result should be considered estimated.
- H** - The analysis of pH was performed beyond the regulatory-required holding time of 15 minutes from the time of sample collection.
- I** - The lower value for the two columns has been reported due to obvious interference.
- J** - Estimated value. The Target analyte concentration is below the quantitation limit (RL), but above the Method Detection Limit (MDL) or Estimated Detection Limit (EDL) for SPME-related analyses. This represents an estimated concentration for Tentatively Identified Compounds (TICs).
- M** - Reporting Limit (RL) exceeds the MCP CAM Reporting Limit for this analyte.
- ND** - Not detected at the method detection limit (MDL) for the sample, or estimated detection limit (EDL) for SPME-related analyses.

Report Format: DU Report with 'J' Qualifiers



Project Name: URBANA LF
Project Number: B0001-001-300

Lab Number: L2149652
Report Date: 09/21/21

Data Qualifiers

- NJ** - Presumptive evidence of compound. This represents an estimated concentration for Tentatively Identified Compounds (TICs), where the identification is based on a mass spectral library search.
- P** - The RPD between the results for the two columns exceeds the method-specified criteria.
- Q** - The quality control sample exceeds the associated acceptance criteria. For DOD-related projects, LCS and/or Continuing Calibration Standard exceedences are also qualified on all associated sample results. Note: This flag is not applicable for matrix spike recoveries when the sample concentration is greater than 4x the spike added or for batch duplicate RPD when the sample concentrations are less than 5x the RL. (Metals only.)
- R** - Analytical results are from sample re-analysis.
- RE** - Analytical results are from sample re-extraction.
- S** - Analytical results are from modified screening analysis.
- 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
Project Number: B0001-001-300

Lab Number: L2149652
Report Date: 09/21/21

REFERENCES

- 1 Test Methods for Evaluating Solid Waste: Physical/Chemical Methods. EPA SW-846. Third Edition. Updates I - VI, 2018.

LIMITATION OF LIABILITIES

Alpha Analytical performs services with reasonable care and diligence normal to the analytical testing laboratory industry. In the event of an error, the sole and exclusive responsibility of Alpha Analytical shall be to re-perform the work at it's own expense. In no event shall Alpha Analytical be held liable for any incidental, consequential or special damages, including but not limited to, damages in any way connected with the use of, interpretation of, information or analysis provided by Alpha Analytical.

We strongly urge our clients to comply with EPA protocol regarding sample volume, preservation, cooling, containers, sampling procedures, holding time and splitting of samples in the field.



Certification Information

The following analytes are not included in our Primary NELAP Scope of Accreditation:

Westborough Facility

EPA 624/624.1: m/p-xylene, o-xylene, Naphthalene

EPA 625/625.1: alpha-Terpeneol

EPA 8260C/8260D: NPW: 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene, Azobenzene; SCM: Iodomethane (methyl iodide), 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene.

EPA 8270D/8270E: NPW: Dimethylnaphthalene, 1,4-Diphenylhydrazine, alpha-Terpeneol; SCM: Dimethylnaphthalene, 1,4-Diphenylhydrazine.

SM4500: NPW: Amenable Cyanide; SCM: Total Phosphorus, TKN, NO₂, NO₃.

Mansfield Facility

SM 2540D: TSS

EPA 8082A: NPW: PCB: 1, 5, 31, 87,101, 110, 141, 151, 153, 180, 183, 187.

EPA TO-15: Halothane, 2,4,4-Trimethyl-2-pentene, 2,4,4-Trimethyl-1-pentene, Thiophene, 2-Methylthiophene,

3-Methylthiophene, 2-Ethylthiophene, 1,2,3-Trimethylbenzene, Indan, Indene, 1,2,4,5-Tetramethylbenzene, Benzothiophene, 1-Methylnaphthalene.

Biological Tissue Matrix: EPA 3050B

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

Westborough Facility:

Drinking Water

EPA 300.0: Chloride, Nitrate-N, Fluoride, Sulfate; **EPA 353.2:** Nitrate-N, Nitrite-N; **SM4500NO3-F:** Nitrate-N, Nitrite-N; **SM4500F-C, SM4500CN-CE,**

EPA 180.1, SM2130B, SM4500CI-D, SM2320B, SM2540C, SM4500H-B, SM4500NO2-B

EPA 332: Perchlorate; **EPA 524.2:** THMs and VOCs; **EPA 504.1:** EDB, DBCP.

Microbiology: **SM9215B; SM9223-P/A, SM9223B-Colilert-QT, SM9222D.**

Non-Potable Water

SM4500H,B, EPA 120.1, SM2510B, SM2540C, SM2320B, SM4500CL-E, SM4500F-BC, SM4500NH3-BH: Ammonia-N and Kjeldahl-N, **EPA 350.1:**

Ammonia-N, **LCHAT 10-107-06-1-B:** Ammonia-N, **EPA 351.1, SM4500NO3-F, EPA 353.2:** Nitrate-N, **SM4500P-E, SM4500P-B, E, SM4500SO4-E,**

SM5220D, EPA 410.4, SM5210B, SM5310C, SM4500CL-D, EPA 1664, EPA 420.1, SM4500-CN-CE, SM2540D, EPA 300: Chloride, Sulfate, Nitrate.

EPA 624.1: Volatile Halocarbons & Aromatics,

EPA 608.3: Chlordane, Toxaphene, Aldrin, alpha-BHC, beta-BHC, gamma-BHC, delta-BHC, Dieldrin, DDD, DDE, DDT, Endosulfan I, Endosulfan II,

Endosulfan sulfate, Endrin, Endrin Aldehyde, Heptachlor, Heptachlor Epoxide, PCBs

EPA 625.1: SVOC (Acid/Base/Neutral Extractables), **EPA 600/4-81-045:** PCB-Oil.

Microbiology: **SM9223B-Colilert-QT; Enterolert-QT, SM9221E, EPA 1600, EPA 1603, SM9222D.**

Mansfield Facility:

Drinking Water

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

EPA 522, EPA 537.1.

Non-Potable Water

EPA 200.7: Al, Sb, As, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Mg, Mn, Mo, Ni, K, Se, Ag, Na, Sr, TL, Ti, V, Zn.

EPA 200.8: Al, Sb, As, Be, Cd, Cr, Cu, Fe, Pb, Mn, Ni, K, Se, Ag, Na, TL, Zn.

EPA 245.1 Hg.

SM2340B

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



ANALYTICAL REPORT

Lab Number:	L2157279
Client:	Benchmark & Turnkey Companies 2558 Hamburg Turnpike Suite 300 Buffalo, NY 14218
ATTN:	Tom Forbes
Phone:	(716) 856-0599
Project Name:	URBANA L.F.
Project Number:	B0001-001-300
Report Date:	10/25/21

The original project report/data package is held by Alpha Analytical. This report/data package is paginated and should be reproduced only in its entirety. Alpha Analytical holds no responsibility for results and/or data that are not consistent with the original.

Certifications & Approvals: MA (M-MA086), NH NELAP (2064), CT (PH-0574), IL (200077), ME (MA00086), MD (348), NJ (MA935), NY (11148), NC (25700/666), PA (68-03671), RI (LAO00065), TX (T104704476), VT (VT-0935), VA (460195), USDA (Permit #P330-17-00196).

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



Project Name: URBANA L.F.
Project Number: B0001-001-300

Lab Number: L2157279
Report Date: 10/25/21

Alpha Sample ID	Client ID	Matrix	Sample Location	Collection Date/Time	Receive Date
L2157279-01	PROCESS EFFLUENT	WATER	URBANA NY	10/18/21 10:45	10/19/21

Project Name: URBANA L.F.
Project Number: B0001-001-300

Lab Number: L2157279
Report Date: 10/25/21

Case Narrative

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

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

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

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

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

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

Project Name: URBANA L.F.
Project Number: B0001-001-300

Lab Number: L2157279
Report Date: 10/25/21


Case Narrative (continued)

Report Submission

All non-detect (ND) or estimated concentrations (J-qualified) have been quantitated to the limit noted in the MDL column.

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

Authorized Signature:

 Michelle M. Morris

Title: Technical Director/Representative

Date: 10/25/21

ORGANICS

VOLATILES

Project Name: URBANA L.F.
Project Number: B0001-001-300

Lab Number: L2157279
Report Date: 10/25/21

SAMPLE RESULTS

Lab ID: L2157279-01
 Client ID: PROCESS EFFLUENT
 Sample Location: URBANA NY

Date Collected: 10/18/21 10:45
 Date Received: 10/19/21
 Field Prep: Not Specified

Sample Depth:

Matrix: Water
 Analytical Method: 1,8260C
 Analytical Date: 10/23/21 11:54
 Analyst: PD

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 L.F.
Project Number: B0001-001-300

Lab Number: L2157279
Report Date: 10/25/21

SAMPLE RESULTS

Lab ID: L2157279-01
 Client ID: PROCESS EFFLUENT
 Sample Location: URBANA NY

Date Collected: 10/18/21 10:45
 Date Received: 10/19/21
 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	29		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	106		70-130
Toluene-d8	100		70-130
4-Bromofluorobenzene	97		70-130
Dibromofluoromethane	107		70-130

Project Name: URBANA L.F.
Project Number: B0001-001-300

Lab Number: L2157279
Report Date: 10/25/21

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260C
Analytical Date: 10/23/21 10:12
Analyst: LAC

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 01 Batch: WG1562575-5					
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 L.F.
Project Number: B0001-001-300

Lab Number: L2157279
Report Date: 10/25/21

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260C
Analytical Date: 10/23/21 10:12
Analyst: LAC

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 01 Batch: WG1562575-5					
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 L.F.
Project Number: B0001-001-300

Lab Number: L2157279
Report Date: 10/25/21

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260C
Analytical Date: 10/23/21 10:12
Analyst: LAC

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 01 Batch: WG1562575-5					

Surrogate	%Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	105		70-130
Toluene-d8	97		70-130
4-Bromofluorobenzene	96		70-130
Dibromofluoromethane	107		70-130

Lab Control Sample Analysis

Batch Quality Control

Project Name: URBANA L.F.
Project Number: B0001-001-300

Lab Number: L2157279
Report Date: 10/25/21

Parameter	LCS		LCSD		%Recovery Limits	RPD	Qual	RPD Limits
	%Recovery	Qual	%Recovery	Qual				
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01 Batch: WG1562575-3 WG1562575-4								
Methylene chloride	100		100		70-130	0		20
1,1-Dichloroethane	110		110		70-130	0		20
Chloroform	110		110		70-130	0		20
Carbon tetrachloride	98		100		63-132	2		20
1,2-Dichloropropane	110		110		70-130	0		20
Dibromochloromethane	87		94		63-130	8		20
1,1,2-Trichloroethane	98		100		70-130	2		20
Tetrachloroethene	110		110		70-130	0		20
Chlorobenzene	110		110		75-130	0		20
Trichlorofluoromethane	100		100		62-150	0		20
1,2-Dichloroethane	100		100		70-130	0		20
1,1,1-Trichloroethane	110		110		67-130	0		20
Bromodichloromethane	99		100		67-130	1		20
trans-1,3-Dichloropropene	85		92		70-130	8		20
cis-1,3-Dichloropropene	88		94		70-130	7		20
Bromoform	84		92		54-136	9		20
1,1,2,2-Tetrachloroethane	98		100		67-130	2		20
Benzene	110		100		70-130	10		20
Toluene	100		100		70-130	0		20
Ethylbenzene	110		110		70-130	0		20
Chloromethane	120		110		64-130	9		20
Bromomethane	94		91		39-139	3		20
Vinyl chloride	97		94		55-140	3		20

Lab Control Sample Analysis

Batch Quality Control

Project Name: URBANA L.F.
Project Number: B0001-001-300

Lab Number: L2157279
Report Date: 10/25/21

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01 Batch: WG1562575-3 WG1562575-4								
Chloroethane	110		100		55-138	10		20
1,1-Dichloroethene	110		100		61-145	10		20
trans-1,2-Dichloroethene	110		100		70-130	10		20
Trichloroethene	110		100		70-130	10		20
1,2-Dichlorobenzene	110		110		70-130	0		20
1,3-Dichlorobenzene	110		110		70-130	0		20
1,4-Dichlorobenzene	110		110		70-130	0		20
Methyl tert butyl ether	95		100		63-130	5		20
p/m-Xylene	110		110		70-130	0		20
o-Xylene	110		110		70-130	0		20
cis-1,2-Dichloroethene	110		110		70-130	0		20
Styrene	115		115		70-130	0		20
Dichlorodifluoromethane	88		87		36-147	1		20
Acetone	86		92		58-148	7		20
Carbon disulfide	99		99		51-130	0		20
2-Butanone	87		100		63-138	14		20
4-Methyl-2-pentanone	80		90		59-130	12		20
2-Hexanone	82		93		57-130	13		20
Bromochloromethane	100		110		70-130	10		20
1,2-Dibromoethane	99		100		70-130	1		20
1,2-Dibromo-3-chloropropane	82		94		41-144	14		20
Isopropylbenzene	120		110		70-130	9		20
1,2,3-Trichlorobenzene	86		95		70-130	10		20

Lab Control Sample Analysis

Batch Quality Control

Project Name: URBANA L.F.
Project Number: B0001-001-300

Lab Number: L2157279
Report Date: 10/25/21

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01 Batch: WG1562575-3 WG1562575-4								
1,2,4-Trichlorobenzene	95		100		70-130	5		20
Methyl Acetate	85		89		70-130	5		20
Cyclohexane	110		110		70-130	0		20
1,4-Dioxane	112		106		56-162	6		20
Freon-113	110		110		70-130	0		20
Methyl cyclohexane	100		100		70-130	0		20

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
1,2-Dichloroethane-d4	99		100		70-130
Toluene-d8	101		100		70-130
4-Bromofluorobenzene	104		100		70-130
Dibromofluoromethane	101		101		70-130

Project Name: URBANA L.F.

Project Number: B0001-001-300

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(*)
L2157279-01A	Vial HCl preserved	A	NA		3.2	Y	Absent		NYTCL-8260-R2(14)
L2157279-01B	Vial HCl preserved	A	NA		3.2	Y	Absent		NYTCL-8260-R2(14)

Project Name: URBANA L.F.
Project Number: B0001-001-300

Lab Number: L2157279
Report Date: 10/25/21

GLOSSARY

Acronyms

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

Report Format: DU Report with 'J' Qualifiers



Project Name: URBANA L.F.
Project Number: B0001-001-300

Lab Number: L2157279
Report Date: 10/25/21

Footnotes

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

Terms

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

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

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

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

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

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

PFAS Total: With respect to PFAS analyses, the 'PFAS, Total (5)' result is defined as the summation of results for: PFHpA, PFHxS, PFOA, PFNA and PFOS. In addition, the 'PFAS, Total (6)' result is defined as the summation of results 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.

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

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

Data Qualifiers

- A** - Spectra identified as "Aldol Condensates" are byproducts of the extraction/concentration procedures when acetone is introduced in the process.
- B** - The analyte was detected above the reporting limit in the associated method blank. Flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For MCP-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For DOD-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank AND the analyte was detected above one-half the reporting limit (or above the reporting limit for common lab contaminants) in the associated method blank. For NJ-Air-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte above the reporting limit. For NJ-related projects (excluding Air), flag only applies to associated field samples that have detectable concentrations of the analyte, which was detected above the reporting limit in the associated method blank or above five times the reporting limit for common lab contaminants (Phthalates, Acetone, Methylene Chloride, 2-Butanone).
- C** - Co-elution: The target analyte co-elutes with a known lab standard (i.e. surrogate, internal standards, etc.) for co-extracted analyses.
- D** - Concentration of analyte was quantified from diluted analysis. Flag only applies to field samples that have detectable concentrations of the analyte.
- E** - Concentration of analyte exceeds the range of the calibration curve and/or linear range of the instrument.
- F** - The ratio of quantifier ion response to qualifier ion response falls outside of the laboratory criteria. Results are considered to be an estimated maximum concentration.
- G** - The concentration may be biased high due to matrix interferences (i.e. co-elution) with non-target compound(s). The result should be considered estimated.
- H** - The analysis of pH was performed beyond the regulatory-required holding time of 15 minutes from the time of sample collection.
- I** - The lower value for the two columns has been reported due to obvious interference.
- J** - Estimated value. The Target analyte concentration is below the quantitation limit (RL), but above the Method Detection Limit (MDL) or Estimated Detection Limit (EDL) for SPME-related analyses. This represents an estimated concentration for Tentatively Identified Compounds (TICs).
- M** - Reporting Limit (RL) exceeds the MCP CAM Reporting Limit for this analyte.
- ND** - Not detected at the method detection limit (MDL) for the sample, or estimated detection limit (EDL) for SPME-related analyses.

Report Format: DU Report with 'J' Qualifiers



Project Name: URBANA L.F.
Project Number: B0001-001-300

Lab Number: L2157279
Report Date: 10/25/21

Data Qualifiers

- NJ** - Presumptive evidence of compound. This represents an estimated concentration for Tentatively Identified Compounds (TICs), where the identification is based on a mass spectral library search.
- P** - The RPD between the results for the two columns exceeds the method-specified criteria.
- Q** - The quality control sample exceeds the associated acceptance criteria. For DOD-related projects, LCS and/or Continuing Calibration Standard exceedences are also qualified on all associated sample results. Note: This flag is not applicable for matrix spike recoveries when the sample concentration is greater than 4x the spike added or for batch duplicate RPD when the sample concentrations are less than 5x the RL. (Metals only.)
- R** - Analytical results are from sample re-analysis.
- RE** - Analytical results are from sample re-extraction.
- S** - Analytical results are from modified screening analysis.
- 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 L.F.
Project Number: B0001-001-300

Lab Number: L2157279
Report Date: 10/25/21

REFERENCES

- 1 Test Methods for Evaluating Solid Waste: Physical/Chemical Methods. EPA SW-846. Third Edition. Updates I - VI, 2018.

LIMITATION OF LIABILITIES

Alpha Analytical performs services with reasonable care and diligence normal to the analytical testing laboratory industry. In the event of an error, the sole and exclusive responsibility of Alpha Analytical shall be to re-perform the work at it's own expense. In no event shall Alpha Analytical be held liable for any incidental, consequential or special damages, including but not limited to, damages in any way connected with the use of, interpretation of, information or analysis provided by Alpha Analytical.

We strongly urge our clients to comply with EPA protocol regarding sample volume, preservation, cooling, containers, sampling procedures, holding time and splitting of samples in the field.



Certification Information

The following analytes are not included in our Primary NELAP Scope of Accreditation:

Westborough Facility

EPA 624/624.1: m/p-xylene, o-xylene, Naphthalene

EPA 625/625.1: alpha-Terpeneol

EPA 8260C/8260D: NPW: 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene, Azobenzene; SCM: Iodomethane (methyl iodide), 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene.

EPA 8270D/8270E: NPW: Dimethylnaphthalene, 1,4-Diphenylhydrazine, alpha-Terpeneol; SCM: Dimethylnaphthalene, 1,4-Diphenylhydrazine.

SM4500: NPW: Amenable Cyanide; SCM: Total Phosphorus, TKN, NO₂, NO₃.

Mansfield Facility

SM 2540D: TSS

EPA 8082A: NPW: PCB: 1, 5, 31, 87,101, 110, 141, 151, 153, 180, 183, 187.

EPA TO-15: Halothane, 2,4,4-Trimethyl-2-pentene, 2,4,4-Trimethyl-1-pentene, Thiophene, 2-Methylthiophene,

3-Methylthiophene, 2-Ethylthiophene, 1,2,3-Trimethylbenzene, Indan, Indene, 1,2,4,5-Tetramethylbenzene, Benzothiophene, 1-Methylnaphthalene.

Biological Tissue Matrix: EPA 3050B

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

Westborough Facility:

Drinking Water

EPA 300.0: Chloride, Nitrate-N, Fluoride, Sulfate; **EPA 353.2:** Nitrate-N, Nitrite-N; **SM4500NO3-F:** Nitrate-N, Nitrite-N; **SM4500F-C, SM4500CN-CE,**

EPA 180.1, SM2130B, SM4500CI-D, SM2320B, SM2540C, SM4500H-B, SM4500NO2-B

EPA 332: Perchlorate; **EPA 524.2:** THMs and VOCs; **EPA 504.1:** EDB, DBCP.

Microbiology: **SM9215B; SM9223-P/A, SM9223B-Colilert-QT, SM9222D.**

Non-Potable Water

SM4500H,B, EPA 120.1, SM2510B, SM2540C, SM2320B, SM4500CL-E, SM4500F-BC, SM4500NH3-BH: Ammonia-N and Kjeldahl-N, **EPA 350.1:**

Ammonia-N, **LCHAT 10-107-06-1-B:** Ammonia-N, **EPA 351.1, SM4500NO3-F, EPA 353.2:** Nitrate-N, **SM4500P-E, SM4500P-B, E, SM4500SO4-E,**

SM5220D, EPA 410.4, SM5210B, SM5310C, SM4500CL-D, EPA 1664, EPA 420.1, SM4500-CN-CE, SM2540D, EPA 300: Chloride, Sulfate, Nitrate.

EPA 624.1: Volatile Halocarbons & Aromatics,

EPA 608.3: Chlordane, Toxaphene, Aldrin, alpha-BHC, beta-BHC, gamma-BHC, delta-BHC, Dieldrin, DDD, DDE, DDT, Endosulfan I, Endosulfan II,

Endosulfan sulfate, Endrin, Endrin Aldehyde, Heptachlor, Heptachlor Epoxide, PCBs

EPA 625.1: SVOC (Acid/Base/Neutral Extractables), **EPA 600/4-81-045:** PCB-Oil.

Microbiology: **SM9223B-Colilert-QT; Enterolert-QT, SM9221E, EPA 1600, EPA 1603, SM9222D.**

Mansfield Facility:

Drinking Water

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

EPA 522, EPA 537.1.

Non-Potable Water


EPA 200.7: Al, Sb, As, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Mg, Mn, Mo, Ni, K, Se, Ag, Na, Sr, TL, Ti, V, Zn.

EPA 200.8: Al, Sb, As, Be, Cd, Cr, Cu, Fe, Pb, Mn, Ni, K, Se, Ag, Na, TL, Zn.

EPA 245.1 Hg.

SM2340B

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

 NEW YORK CHAIN OF CUSTODY Westborough, MA 01581 8 Walkup Dr. TEL: 508-898-9220 FAX: 508-898-9193		Service Centers Mahwah, NJ 07430: 35 Whitney Rd, Suite 5 Albany, NY 12205: 14 Walker Way Tonawanda, NY 14150: 275 Cooper Ave, Suite 105		Page / of /		Date Rec'd in Lab 10/20/21		ALPHA Job # L2157279																																																																																																																				
				Westborough, MA 01581 8 Walkup Dr. TEL: 508-898-9220 FAX: 508-898-9193		Mansfield, MA 02048 320 Forbes Blvd TEL: 508-822-9300 FAX: 508-822-3288																																																																																																																						
Project Information Project Name: URBANA L.F. Project Location: URBANA NY Project # 15001-001-300					Deliverables <input type="checkbox"/> ASP-A <input type="checkbox"/> ASP-B <input type="checkbox"/> EQUIS (1 File) <input type="checkbox"/> EQUIS (4 File) <input type="checkbox"/> Other			Billing Information <input type="checkbox"/> Same as Client Info PO #																																																																																																																				
Client Information Client: Benchmark Env Eng Address: 2558 Hamburg Turnpike BUFFALO, NY 14218 Phone: 716-956-0599 Fax: Email: rjvase@benchmark.com					Regulatory Requirement <input type="checkbox"/> NY TOGS <input type="checkbox"/> NY Part 375 <input type="checkbox"/> AWD Standards <input type="checkbox"/> NY CP-51 <input type="checkbox"/> NY Restricted Use <input type="checkbox"/> Other <input type="checkbox"/> NY Unrestricted Use <input type="checkbox"/> NYC Sewer Discharge			Disposal Site Information Please identify below location of applicable disposal facilities. Disposal Facility: <input type="checkbox"/> NJ <input type="checkbox"/> NY <input type="checkbox"/> Other:																																																																																																																				
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Preservative Code: A = None B = HCl C = HNO ₃ D = H ₂ SO ₄ E = NaOH F = MeOH G = NaHSO ₄ H = Na ₂ S ₂ O ₃ K/E = Zn Ac/NaOH O = Other		Container Code P = Plastic A = Amber Glass V = Vial G = Glass B = Bacteria Cup C = Cube O = Other E = Encore D = BOD Bottle		Westboro: Certification No: MA935 Mansfield: Certification No: MA015		Container Type Preservative		Please print clearly, legibly and completely. Samples can not be logged in and turnaround time clock will not start until any ambiguities are resolved. BY EXECUTING THIS COC, THE CLIENT HAS READ AND AGREES TO BE BOUND BY ALPHA'S TERMS & CONDITIONS. (See reverse side.)																																																																																																																				
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PARADIGM
ENVIRONMENTAL SERVICES, INC.

Analytical Report For
Mercury Aircraft, Inc.

For Lab Project ID

220357

Referencing

Urbana

Prepared

Wednesday, February 2, 2022

Any noncompliant QC parameters or other notes impacting data interpretation are flagged or documented on the final report or are noted below.

A handwritten signature in blue ink, appearing to read "K. R. Hansen", is written over a horizontal line.

Certifies that this report has been approved by the Technical Director or Designee

179 Lake Avenue • Rochester, NY 14608 • (585) 647-2530 • Fax (585) 647-3311 • ELAP ID# 10958

This report is part of a multipage document and should only be evaluated in its entirety. The Chain of Custody provides additional sample information, including compliance with the sample condition requirements upon receipt.

Report Prepared Wednesday, February 2, 2022



Client: Mercury Aircraft, Inc.

Project Reference: Urbana

Sample Identifier: Urbana Effluent

Lab Sample ID: 220357-01

Date Sampled: 1/25/2022 9:18

Matrix: Wastewater

Date Received 1/26/2022

Volatile Organics

Analyte	Result	Units	Qualifier	Date Analyzed
1,1,1-Trichloroethane	< 2.00	ug/L		1/27/2022 17:05
1,1,2,2-Tetrachloroethane	< 2.00	ug/L		1/27/2022 17:05
1,1,2-Trichloroethane	< 2.00	ug/L		1/27/2022 17:05
1,1-Dichloroethane	< 2.00	ug/L		1/27/2022 17:05
1,1-Dichloroethene	< 2.00	ug/L		1/27/2022 17:05
1,2,3-Trichlorobenzene	< 5.00	ug/L		1/27/2022 17:05
1,2,4-Trichlorobenzene	< 5.00	ug/L		1/27/2022 17:05
1,2-Dibromo-3-Chloropropane	< 10.0	ug/L		1/27/2022 17:05
1,2-Dibromoethane	< 2.00	ug/L		1/27/2022 17:05
1,2-Dichlorobenzene	< 2.00	ug/L		1/27/2022 17:05
1,2-Dichloroethane	< 2.00	ug/L		1/27/2022 17:05
1,2-Dichloropropane	< 2.00	ug/L		1/27/2022 17:05
1,3-Dichlorobenzene	< 2.00	ug/L		1/27/2022 17:05
1,4-Dichlorobenzene	< 2.00	ug/L		1/27/2022 17:05
1,4-Dioxane	< 10.0	ug/L		1/27/2022 17:05
2-Butanone	< 10.0	ug/L		1/27/2022 17:05
2-Hexanone	< 5.00	ug/L		1/27/2022 17:05
4-Methyl-2-pentanone	< 5.00	ug/L		1/27/2022 17:05
Acetone	< 10.0	ug/L		1/27/2022 17:05
Benzene	< 1.00	ug/L		1/27/2022 17:05
Bromochloromethane	< 5.00	ug/L		1/27/2022 17:05
Bromodichloromethane	< 2.00	ug/L		1/27/2022 17:05
Bromoform	< 5.00	ug/L		1/27/2022 17:05
Bromomethane	< 2.00	ug/L		1/27/2022 17:05
Carbon disulfide	< 2.00	ug/L		1/27/2022 17:05
Carbon Tetrachloride	< 2.00	ug/L		1/27/2022 17:05
Chlorobenzene	< 2.00	ug/L		1/27/2022 17:05
Chloroethane	< 2.00	ug/L		1/27/2022 17:05

This report is part of a multipage document and should only be evaluated in its entirety. The Chain of Custody provides additional sample information, including compliance with the sample condition requirements upon receipt.



Client: Mercury Aircraft, Inc.

Project Reference: Urbana

Sample Identifier: Urbana Effluent

Lab Sample ID: 220357-01

Date Sampled: 1/25/2022 9:18

Matrix: Wastewater

Date Received 1/26/2022

Chloroform	< 2.00	ug/L	1/27/2022 17:05
Chloromethane	< 2.00	ug/L	1/27/2022 17:05
cis-1,2-Dichloroethene	< 2.00	ug/L	1/27/2022 17:05
cis-1,3-Dichloropropene	< 2.00	ug/L	1/27/2022 17:05
Cyclohexane	< 10.0	ug/L	1/27/2022 17:05
Dibromochloromethane	< 2.00	ug/L	1/27/2022 17:05
Dichlorodifluoromethane	< 2.00	ug/L	1/27/2022 17:05
Ethylbenzene	< 2.00	ug/L	1/27/2022 17:05
Freon 113	< 2.00	ug/L	1/27/2022 17:05
Isopropylbenzene	< 2.00	ug/L	1/27/2022 17:05
m,p-Xylene	< 2.00	ug/L	1/27/2022 17:05
Methyl acetate	< 2.00	ug/L	1/27/2022 17:05
Methyl tert-butyl Ether	< 2.00	ug/L	1/27/2022 17:05
Methylcyclohexane	< 2.00	ug/L	1/27/2022 17:05
Methylene chloride	< 5.00	ug/L	1/27/2022 17:05
o-Xylene	< 2.00	ug/L	1/27/2022 17:05
Styrene	< 5.00	ug/L	1/27/2022 17:05
Tetrachloroethene	< 2.00	ug/L	1/27/2022 17:05
Toluene	< 2.00	ug/L	1/27/2022 17:05
trans-1,2-Dichloroethene	< 2.00	ug/L	1/27/2022 17:05
trans-1,3-Dichloropropene	< 2.00	ug/L	1/27/2022 17:05
Trichloroethene	< 2.00	ug/L	1/27/2022 17:05
Trichlorofluoromethane	< 2.00	ug/L	1/27/2022 17:05
Vinyl chloride	< 2.00	ug/L	1/27/2022 17:05



Client: Mercury Aircraft, Inc.

Project Reference: Urbana

Sample Identifier: Urbana Effluent

Lab Sample ID: 220357-01

Date Sampled: 1/25/2022 9:18

Matrix: Wastewater

Date Received 1/26/2022

<u>Surrogate</u>	<u>Percent Recovery</u>	<u>Limits</u>	<u>Outliers</u>	<u>Date Analyzed</u>	
1,2-Dichloroethane-d4	104	77.9 - 132		1/27/2022	17:05
4-Bromofluorobenzene	138	62.6 - 133	*	1/27/2022	17:05
Pentafluorobenzene	109	88.9 - 114		1/27/2022	17:05
Toluene-D8	76.1	75.6 - 117		1/27/2022	17:05

Method Reference(s): EPA 8260C
EPA 5030C

Data File: z06910.D



Analytical Report Appendix

The reported results relate only to the samples as they have been received by the laboratory.

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All soil/sludge samples have been reported on a dry weight basis, unless qualified "reported as received". Other solids are reported as received.

Low level Volatiles blank reports for soil/solid matrix are based on a nominal 5 gram weight. Sample results and reporting limits are based on actual weight, which may be more or less than 5 grams.

The Chain of Custody provides additional information, including compliance with sample condition requirements upon receipt. Sample condition requirements are defined under the 2003 NELAC Standard, sections 5.5.8.3.1 and 5.5.8.3.2.

NYSDOH ELAP does not certify for all parameters. Paradigm Environmental Services or the indicated subcontracted laboratory does hold certification for all analytes where certification is offered by ELAP unless otherwise specified. Aliquots separated for certain tests, such as TCLP, are indicated on the Chain of Custody and final reports with an "A" suffix.

Data qualifiers are used, when necessary, to provide additional information about the data. This information may be communicated as a flag or as text at the bottom of the report. Please refer to the following list of analyte-specific, frequently used data flags and their meaning:

"<" = Analyzed for but not detected at or above the quantitation limit.

"E" = Result has been estimated, calibration limit exceeded.

"H" = Denotes a parameter analyzed outside of holding time.

"Z" = See case narrative.

"D" = Sample, Laboratory Control Sample, or Matrix Spike Duplicate results above Relative Percent Difference limit.

"M" = Matrix spike recoveries outside QC limits. Matrix bias indicated.

"B" = Method blank contained trace levels of analyte. Refer to included method blank report.

"J" = Result estimated between the quantitation limit and half the quantitation limit.

"L" = Laboratory Control Sample recovery outside accepted QC limits.

"P" = Concentration differs by more than 40% between the primary and secondary analytical columns.

"NC" = Not calculable. Applicable to RPD if sample or duplicate result is non-detect or estimated (see primary report for data flags). Applicable to MS if sample is greater or equal to ten times the spike added. Applicable to sample surrogates or MS if sample dilution is 10x or higher.

"" = Indicates any recoveries outside associated acceptance windows. Surrogate outliers in samples are presumed matrix effects. LCS demonstrates method compliance unless otherwise noted.*

"(1)" = Indicates data from primary column used for QC calculation.

"A" = denotes a parameter for which ELAP does not offer approval as part of their laboratory certification program.

"F" = denotes a parameter for which Paradigm does not carry certification, the results for which should therefore only be used where ELAP certification is not required, such as personal exposure assessment.

This report is part of a multipage document and should only be evaluated in its entirety. The Chain of Custody provides additional sample information, including compliance with the sample condition requirements upon receipt.

GENERAL TERMS AND CONDITIONS

LABORATORY SERVICES

These Terms and Conditions embody the whole agreement of the parties in the absence of a signed and executed contract between the Laboratory (LAB) and Client. They shall supersede all previous communications, representations, or agreements, either verbal or written, between the parties. The LAB specifically rejects all additional, inconsistent, or conflicting terms, whether printed or otherwise set forth in any purchase order or other communication from the Client to the LAB. The invalidity or unenforceability in whole or in part of any provision, term or condition hereof shall not affect in any way the validity or enforceability of the remainder of the Terms and Conditions. No waiver by LAB of any provision, term, or condition hereof or of any breach by or obligation of the Client hereunder shall constitute a waiver of such provision, term, or condition on any other occasion or a waiver of any other breach by or obligation of the Client. This agreement shall be administered and interpreted under the laws of the state which services are procured.

Warranty.

Recognizing that the nature of many samples is unknown and that some may contain potentially hazardous components, LAB warrants only that it will perform testing services, obtain findings, and prepare reports in accordance with generally accepted analytical laboratory principles and practices at the time of performance of services. LAB makes no other warranty, express or implied.

Scope and Compensation.

LAB agrees to perform the services described in the chain of custody to which these terms and conditions are attached. Unless the parties agree in writing to the contrary, the duties of LAB shall not be construed to exceed the services specifically described. LAB will use LAB default method for all tests unless specified otherwise on the Work Order.

Payment terms are net 30 days from the date of invoice. All overdue payments are subject to an interest charge of one and one-half percent (1-1/2%) per month or a portion thereof. Client shall also be responsible for costs of collection, including payment of reasonable attorney fees if such expense is incurred. The prices, unless stated, do not include any sale, use or other taxes. Such taxes will be added to invoice prices when required.

Prices.

Compensation for services performed will be based on the current Lab Analytical Fee Schedule or on quotations agreed to in writing by the parties. Turnaround time based charges are determined from the time of resolution of all work order questions. Testimony, court appearances or data compilation for legal action will be charged separately. Evaluation and reporting of initial screening runs may incur additional fees.

Limitations of Liability.

In the event of any error, omission, or other professional negligence, the sole and exclusive responsibility of LAB shall be to re-perform the deficient work at its own expense and LAB shall have no other liability whatsoever. All claims shall be deemed waived unless made in writing and received by LAB within ninety (90) days following completion of services.

LAB shall have no liability, obligation, or responsibility of any kind for losses, costs, expenses, or other damages (including but not limited to any special, direct, incidental or consequential damages) with respect to LAB's services or results.

All results provided by LAB are strictly for the use of its clients and LAB is in no way responsible for the use of such results by clients or third parties. All reports should be considered in their entirety, and LAB is not responsible for the separation, detachment, or other use of any portion of these reports. Client may not assign the lab report without the written consent of the LAB.

Client covenants and agrees, at its/his/her sole expense, to indemnify, protect, defend, and save harmless the LAB from and against any and all damages, losses, liabilities, obligations, penalties, claims, litigation, demands, defenses, judgments, suits, actions, proceedings, costs, disbursements and/or expenses (including, without limitation attorneys' and experts' fees and disbursements) of any kind whatsoever which may at any time be imposed upon, incurred by or asserted or awarded against client relating to, resulting from or arising out of (a) the breach of this agreement by this client, (b) the negligence of the client in handling, delivering or disclosing any hazardous substance, (c) the violation of the Client of any applicable law, (d) non-compliance by the Client with any environmental permit or (e) a material misrepresentation in disclosing the materials to be tested.

Hazard Disclosure.

Client represents and warrants that any sample delivered to LAB will be preceded or accompanied by complete written disclosure of the presence of any hazardous substances known or suspected by Client. Client further warrants that any sample containing any hazardous substance that is to be delivered to LAB will be packaged, labeled, transported, and delivered properly and in accordance with applicable laws.

Sample Handling.

Prior to LAB's acceptance of any sample (or after any revocation of acceptance), the entire risk of loss or of damage to such sample remains with Client. Samples are accepted when receipt is acknowledged on chain of custody documentation. In no event will LAB have any responsibility for the action or inaction of any carrier shipping or delivering any sample to or from LAB premises.

Client authorizes LAB to proceed with the analysis of samples as received by the laboratory, recognizing that any samples not in compliance with all current DOH-ELAP-NELAP requirements for containers, preservation or holding time will be noted as such on the final report.

Disposal of hazardous waste samples is the responsibility of the Client. If the Client does not wish such samples returned, LAB may add storage and disposal fees to the final invoice. Maximum storage time for samples is 30 days after completion of analysis unless modified by applicable state or federal laws. Client will be required to give the LAB written instructions concerning disposal of these samples.

LAB reserves the absolute right, exercisable at any time, to refuse to receive delivery of, refuse to accept, or revoke acceptance of any sample, which, in the sole judgment of LAB (a) is of unsuitable volume, (b) may be or become unsuitable for or may pose a risk in handling, transport, or processing for any health, safety, environmental or other reason whether or not due to the presence in the sample of any hazardous substance, and whether or not such presence has been disclosed to LAB by Client or (c) if the condition or sample date make the sample unsuitable for analysis.

Legal Responsibility.

LAB is solely responsible for performance of this contract, and no affiliated company, director, officer, employee, or agent shall have any legal responsibility hereunder, whether in contract or tort including negligence.

Assignment.

LAB may assign its performance obligations under this contract to other parties, as it deems necessary. LAB shall disclose to Client any assignee (subcontractor) by ELAP ID # on the submitted final report.

Force Majeure.

LAB shall have no responsibility or liability to the Client for any failure or delay in performance by LAB, which results in whole or in part from any cause or circumstance beyond the reasonable control of LAB. Such causes and circumstances shall include, but not limited to, acts of God, acts or orders of any government authority, strikes or other labor disputes, natural disasters, accidents, wars, civil disturbances, difficulties or delays in transportation, mail or delivery services, inability to obtain sufficient services or supplies from LAB's usual suppliers, or any other cause beyond LAB's reasonable control.

Law.

This contract shall be continued under the laws of the State of New York without regard to its conflicts of laws provision.

This report is part of a multipage document and should only be evaluated in its entirety. The Chain of Custody provides additional sample information, including compliance with the sample condition requirements upon receipt.

2012



Chain of Custody Supplement

Client: Mercury Corp Completed by: Molyvail
 Lab Project ID: 220357 Date: 1/26/12

Sample Condition Requirements

Per NELAC/ELAP 210/241/242/243/244

NELAC compliance with the sample condition requirements upon receipt

Condition	Yes	No	N/A
Container Type	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Comments	_____		
Transferred to method-compliant container	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Headspace (<1 mL)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Comments	_____		
Preservation	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Comments	_____		
Chlorine Absent (<0.10 ppm per test strip)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Comments	_____		
Holding Time	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Comments	_____		
Temperature	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Comments	<u>3°C ice</u>		
Compliant Sample Quantity/Type	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Comments	_____		



ANALYTICAL REPORT

Lab Number:	L2224223
Client:	Benchmark & Turnkey Companies 2558 Hamburg Turnpike Suite 300 Buffalo, NY 14218
ATTN:	Tom Forbes
Phone:	(716) 856-0599
Project Name:	URBANA LF
Project Number:	B0001-001-300
Report Date:	05/16/22

The original project report/data package is held by Alpha Analytical. This report/data package is paginated and should be reproduced only in its entirety. Alpha Analytical holds no responsibility for results and/or data that are not consistent with the original.

Certifications & Approvals: MA (M-MA086), NH NELAP (2064), CT (PH-0574), IL (200077), ME (MA00086), MD (348), NJ (MA935), NY (11148), NC (25700/666), PA (68-03671), RI (LAO00065), TX (T104704476), VT (VT-0935), VA (460195), USDA (Permit #P330-17-00196).

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



Project Name: URBANA LF
Project Number: B0001-001-300

Lab Number: L2224223
Report Date: 05/16/22

Alpha Sample ID	Client ID	Matrix	Sample Location	Collection Date/Time	Receive Date
L2224223-01	PROCESS EFFLUENT	WATER	URBANA, NY	05/05/22 14:20	05/06/22

Project Name: URBANA LF
Project Number: B0001-001-300

Lab Number: L2224223
Report Date: 05/16/22

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
Project Number: B0001-001-300

Lab Number: L2224223
Report Date: 05/16/22

Case Narrative (continued)

Report Submission

All non-detect (ND) or estimated concentrations (J-qualified) have been quantitated to the limit noted in the MDL column.

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

Authorized Signature:

Tiffani Morrissey - Tiffani Morrissey

Title: Technical Director/Representative

Date: 05/16/22

ORGANICS

VOLATILES

Project Name: URBANA LF
Project Number: B0001-001-300

Lab Number: L2224223
Report Date: 05/16/22

SAMPLE RESULTS

Lab ID: L2224223-01
 Client ID: PROCESS EFFLUENT
 Sample Location: URBANA, NY

Date Collected: 05/05/22 14:20
 Date Received: 05/06/22
 Field Prep: Not Specified

Sample Depth:

Matrix: Water
 Analytical Method: 1,8260C
 Analytical Date: 05/14/22 11:31
 Analyst: MV

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: B0001-001-300

Lab Number: L2224223
Report Date: 05/16/22

SAMPLE RESULTS

Lab ID: L2224223-01
 Client ID: PROCESS EFFLUENT
 Sample Location: URBANA, NY

Date Collected: 05/05/22 14:20
 Date Received: 05/06/22
 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	18		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	106		70-130
Toluene-d8	102		70-130
4-Bromofluorobenzene	98		70-130
Dibromofluoromethane	107		70-130

Project Name: URBANA LF
Project Number: B0001-001-300

Lab Number: L2224223
Report Date: 05/16/22

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260C
Analytical Date: 05/14/22 10:38
Analyst: PD

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 01 Batch: WG1638850-5					
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: B0001-001-300

Lab Number: L2224223
Report Date: 05/16/22

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260C
Analytical Date: 05/14/22 10:38
Analyst: PD

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 01 Batch: WG1638850-5					
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: B0001-001-300

Lab Number: L2224223
Report Date: 05/16/22

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260C
Analytical Date: 05/14/22 10:38
Analyst: PD

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 01 Batch: WG1638850-5					

Surrogate	%Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	107		70-130
Toluene-d8	101		70-130
4-Bromofluorobenzene	97		70-130
Dibromofluoromethane	107		70-130

Lab Control Sample Analysis

Batch Quality Control

Project Name: URBANA LF
Project Number: B0001-001-300

Lab Number: L2224223
Report Date: 05/16/22

Parameter	LCS		LCSD		%Recovery Limits	RPD	Qual	RPD Limits
	%Recovery	Qual	%Recovery	Qual				
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01 Batch: WG1638850-3 WG1638850-4								
Methylene chloride	100		100		70-130	0		20
1,1-Dichloroethane	100		99		70-130	1		20
Chloroform	100		95		70-130	5		20
Carbon tetrachloride	110		100		63-132	10		20
1,2-Dichloropropane	96		95		70-130	1		20
Dibromochloromethane	99		96		63-130	3		20
1,1,2-Trichloroethane	94		92		70-130	2		20
Tetrachloroethene	97		93		70-130	4		20
Chlorobenzene	98		96		75-130	2		20
Trichlorofluoromethane	98		93		62-150	5		20
1,2-Dichloroethane	98		98		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	90		86		70-130	5		20
cis-1,3-Dichloropropene	93		92		70-130	1		20
Bromoform	92		90		54-136	2		20
1,1,2,2-Tetrachloroethane	93		90		67-130	3		20
Benzene	98		98		70-130	0		20
Toluene	99		96		70-130	3		20
Ethylbenzene	96		93		70-130	3		20
Chloromethane	120		110		64-130	9		20
Bromomethane	110		100		39-139	10		20
Vinyl chloride	120		110		55-140	9		20

Lab Control Sample Analysis

Batch Quality Control

Project Name: URBANA LF
Project Number: B0001-001-300

Lab Number: L2224223
Report Date: 05/16/22

Parameter	LCS		LCSD		%Recovery Limits	RPD	RPD Limits	
	%Recovery	Qual	%Recovery	Qual				
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01 Batch: WG1638850-3 WG1638850-4								
Chloroethane	140	Q	140	Q	55-138	0	20	
1,1-Dichloroethene	99		95		61-145	4	20	
trans-1,2-Dichloroethene	100		94		70-130	6	20	
Trichloroethene	93		93		70-130	0	20	
1,2-Dichlorobenzene	96		94		70-130	2	20	
1,3-Dichlorobenzene	96		93		70-130	3	20	
1,4-Dichlorobenzene	97		95		70-130	2	20	
Methyl tert butyl ether	81		80		63-130	1	20	
p/m-Xylene	100		95		70-130	5	20	
o-Xylene	95		95		70-130	0	20	
cis-1,2-Dichloroethene	100		96		70-130	4	20	
Styrene	95		95		70-130	0	20	
Dichlorodifluoromethane	140		130		36-147	7	20	
Acetone	78		75		58-148	4	20	
Carbon disulfide	100		99		51-130	1	20	
2-Butanone	82		71		63-138	14	20	
4-Methyl-2-pentanone	78		77		59-130	1	20	
2-Hexanone	68		67		57-130	1	20	
Bromochloromethane	100		110		70-130	10	20	
1,2-Dibromoethane	95		91		70-130	4	20	
1,2-Dibromo-3-chloropropane	86		85		41-144	1	20	
Isopropylbenzene	92		89		70-130	3	20	
1,2,3-Trichlorobenzene	80		83		70-130	4	20	

Lab Control Sample Analysis

Batch Quality Control

Project Name: URBANA LF
Project Number: B0001-001-300

Lab Number: L2224223
Report Date: 05/16/22

Parameter	LCS		LCSD		%Recovery Limits	RPD	Qual	RPD Limits
	%Recovery	Qual	%Recovery	Qual				
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01 Batch: WG1638850-3 WG1638850-4								
1,2,4-Trichlorobenzene	84		82		70-130	2		20
Methyl Acetate	84		82		70-130	2		20
Cyclohexane	96		91		70-130	5		20
1,4-Dioxane	82		84		56-162	2		20
Freon-113	100		99		70-130	1		20
Methyl cyclohexane	94		91		70-130	3		20

Surrogate	LCS		LCSD		Acceptance Criteria
	%Recovery	Qual	%Recovery	Qual	
1,2-Dichloroethane-d4	105		104		70-130
Toluene-d8	102		102		70-130
4-Bromofluorobenzene	94		94		70-130
Dibromofluoromethane	100		101		70-130

Project Name: URBANA LF
Project Number: B0001-001-300

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(*)
L2224223-01A	Vial HCl preserved	A	NA		3.0	Y	Absent		NYTCL-8260-R2(14)
L2224223-01B	Vial HCl preserved	A	NA		3.0	Y	Absent		NYTCL-8260-R2(14)
L2224223-01C	Vial HCl preserved	A	NA		3.0	Y	Absent		NYTCL-8260-R2(14)

Project Name: URBANA LF
Project Number: B0001-001-300

Lab Number: L2224223
Report Date: 05/16/22

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
Project Number: B0001-001-300

Lab Number: L2224223
Report Date: 05/16/22

Footnotes

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

Terms

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

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

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

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

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

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

PFAS Total: With respect to PFAS analyses, the 'PFAS, Total (5)' result is defined as the summation of results for: PFHpA, PFHxS, PFOA, PFNA and PFOS. In addition, the 'PFAS, Total (6)' result is defined as the summation of results 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.

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

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

Data Qualifiers

- A** - Spectra identified as "Aldol Condensates" are byproducts of the extraction/concentration procedures when acetone is introduced in the process.
- B** - The analyte was detected above the reporting limit in the associated method blank. Flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For MCP-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For DOD-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank AND the analyte was detected above one-half the reporting limit (or above the reporting limit for common lab contaminants) in the associated method blank. For NJ-Air-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte above the reporting limit. For NJ-related projects (excluding Air), flag only applies to associated field samples that have detectable concentrations of the analyte, which was detected above the reporting limit in the associated method blank or above five times the reporting limit for common lab contaminants (Phthalates, Acetone, Methylene Chloride, 2-Butanone).
- C** - Co-elution: The target analyte co-elutes with a known lab standard (i.e. surrogate, internal standards, etc.) for co-extracted analyses.
- D** - Concentration of analyte was quantified from diluted analysis. Flag only applies to field samples that have detectable concentrations of the analyte.
- E** - Concentration of analyte exceeds the range of the calibration curve and/or linear range of the instrument.
- F** - The ratio of quantifier ion response to qualifier ion response falls outside of the laboratory criteria. Results are considered to be an estimated maximum concentration.
- G** - The concentration may be biased high due to matrix interferences (i.e. co-elution) with non-target compound(s). The result should be considered estimated.
- H** - The analysis of pH was performed beyond the regulatory-required holding time of 15 minutes from the time of sample collection.
- I** - The lower value for the two columns has been reported due to obvious interference.
- J** - Estimated value. The Target analyte concentration is below the quantitation limit (RL), but above the Method Detection Limit (MDL) or Estimated Detection Limit (EDL) for SPME-related analyses. This represents an estimated concentration for Tentatively Identified Compounds (TICs).
- M** - Reporting Limit (RL) exceeds the MCP CAM Reporting Limit for this analyte.
- ND** - Not detected at the method detection limit (MDL) for the sample, or estimated detection limit (EDL) for SPME-related analyses.

Report Format: DU Report with 'J' Qualifiers



Project Name: URBANA LF
Project Number: B0001-001-300

Lab Number: L2224223
Report Date: 05/16/22

Data Qualifiers

- NJ** - Presumptive evidence of compound. This represents an estimated concentration for Tentatively Identified Compounds (TICs), where the identification is based on a mass spectral library search.
- P** - The RPD between the results for the two columns exceeds the method-specified criteria.
- Q** - The quality control sample exceeds the associated acceptance criteria. For DOD-related projects, LCS and/or Continuing Calibration Standard exceedences are also qualified on all associated sample results. Note: This flag is not applicable for matrix spike recoveries when the sample concentration is greater than 4x the spike added or for batch duplicate RPD when the sample concentrations are less than 5x the RL. (Metals only.)
- R** - Analytical results are from sample re-analysis.
- RE** - Analytical results are from sample re-extraction.
- S** - Analytical results are from modified screening analysis.
- 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
Project Number: B0001-001-300

Lab Number: L2224223
Report Date: 05/16/22

REFERENCES

- 1 Test Methods for Evaluating Solid Waste: Physical/Chemical Methods. EPA SW-846. Third Edition. Updates I - VI, 2018.

LIMITATION OF LIABILITIES

Alpha Analytical performs services with reasonable care and diligence normal to the analytical testing laboratory industry. In the event of an error, the sole and exclusive responsibility of Alpha Analytical shall be to re-perform the work at it's own expense. In no event shall Alpha Analytical be held liable for any incidental, consequential or special damages, including but not limited to, damages in any way connected with the use of, interpretation of, information or analysis provided by Alpha Analytical.

We strongly urge our clients to comply with EPA protocol regarding sample volume, preservation, cooling, containers, sampling procedures, holding time and splitting of samples in the field.



Certification Information

The following analytes are not included in our Primary NELAP Scope of Accreditation:

Westborough Facility

EPA 624/624.1: m/p-xylene, o-xylene, Naphthalene

EPA 625/625.1: alpha-Terpeneol

EPA 8260C/8260D: NPW: 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene, Azobenzene; SCM: Iodomethane (methyl iodide), 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene.

EPA 8270D/8270E: NPW: Dimethylnaphthalene, 1,4-Diphenylhydrazine, alpha-Terpeneol; SCM: Dimethylnaphthalene, 1,4-Diphenylhydrazine.

SM4500: NPW: Amenable Cyanide; SCM: Total Phosphorus, TKN, NO₂, NO₃.

Mansfield Facility

SM 2540D: TSS

EPA 8082A: NPW: PCB: 1, 5, 31, 87,101, 110, 141, 151, 153, 180, 183, 187.

EPA TO-15: Halothane, 2,4,4-Trimethyl-2-pentene, 2,4,4-Trimethyl-1-pentene, Thiophene, 2-Methylthiophene,

3-Methylthiophene, 2-Ethylthiophene, 1,2,3-Trimethylbenzene, Indan, Indene, 1,2,4,5-Tetramethylbenzene, Benzothiophene, 1-Methylnaphthalene.

Biological Tissue Matrix: EPA 3050B

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

Westborough Facility:

Drinking Water

EPA 300.0: Chloride, Nitrate-N, Fluoride, Sulfate; **EPA 353.2:** Nitrate-N, Nitrite-N; **SM4500NO3-F:** Nitrate-N, Nitrite-N; **SM4500F-C, SM4500CN-CE,**

EPA 180.1, SM2130B, SM4500CI-D, SM2320B, SM2540C, SM4500H-B, SM4500NO2-B

EPA 332: Perchlorate; **EPA 524.2:** THMs and VOCs; **EPA 504.1:** EDB, DBCP.

Microbiology: **SM9215B; SM9223-P/A, SM9223B-Colilert-QT, SM9222D.**

Non-Potable Water

SM4500H,B, EPA 120.1, SM2510B, SM2540C, SM2320B, SM4500CL-E, SM4500F-BC, SM4500NH3-BH: Ammonia-N and Kjeldahl-N, **EPA 350.1:**

Ammonia-N, **LCHAT 10-107-06-1-B:** Ammonia-N, **EPA 351.1, SM4500NO3-F, EPA 353.2:** Nitrate-N, **SM4500P-E, SM4500P-B, E, SM4500SO4-E,**

SM5220D, EPA 410.4, SM5210B, SM5310C, SM4500CL-D, EPA 1664, EPA 420.1, SM4500-CN-CE, SM2540D, EPA 300: Chloride, Sulfate, Nitrate.

EPA 624.1: Volatile Halocarbons & Aromatics,

EPA 608.3: Chlordane, Toxaphene, Aldrin, alpha-BHC, beta-BHC, gamma-BHC, delta-BHC, Dieldrin, DDD, DDE, DDT, Endosulfan I, Endosulfan II,

Endosulfan sulfate, Endrin, Endrin Aldehyde, Heptachlor, Heptachlor Epoxide, PCBs

EPA 625.1: SVOC (Acid/Base/Neutral Extractables), **EPA 600/4-81-045:** PCB-Oil.

Microbiology: **SM9223B-Colilert-QT; Enterolert-QT, SM9221E, EPA 1600, EPA 1603, SM9222D.**

Mansfield Facility:

Drinking Water

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

EPA 522, EPA 537.1.

Non-Potable Water

EPA 200.7: Al, Sb, As, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Mg, Mn, Mo, Ni, K, Se, Ag, Na, Sr, TL, Ti, V, Zn.

EPA 200.8: Al, Sb, As, Be, Cd, Cr, Cu, Fe, Pb, Mn, Ni, K, Se, Ag, Na, TL, Zn.

EPA 245.1 Hg.

SM2340B

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



PARADIGM
ENVIRONMENTAL SERVICES, INC.

Analytical Report For
Mercury Aircraft, Inc.

For Lab Project ID

225024

Referencing

Urbana Landfill

Prepared

Wednesday, October 26, 2022

Any noncompliant QC parameters or other notes impacting data interpretation are flagged or documented on the final report or are noted below.

A handwritten signature in blue ink, appearing to read "K. Hansen", is written over a horizontal line.

Certifies that this report has been approved by the Technical Director or Designee

179 Lake Avenue • Rochester, NY 14608 • (585) 647-2530 • Fax (585) 647-3311 • ELAP ID# 10958

This report is part of a multipage document and should only be evaluated in its entirety. The Chain of Custody provides additional sample information, including compliance with the sample condition requirements upon receipt.

Report Prepared Wednesday, October 26, 2022

Page 1 of 8



Client: Mercury Aircraft, Inc.

Project Reference: Urbana Landfill

Sample Identifier: Urbana Effluent

Lab Sample ID: 225024-01

Date Sampled: 10/19/2022 8:42

Matrix: Wastewater

Date Received: 10/20/2022

Volatile Organics

Analyte	Result	Units	Qualifier	Date Analyzed
1,1,1-Trichloroethane	< 2.00	ug/L		10/25/2022 15:13
1,1,2,2-Tetrachloroethane	< 2.00	ug/L		10/25/2022 15:13
1,1,2-Trichloroethane	< 2.00	ug/L		10/25/2022 15:13
1,1-Dichloroethane	< 2.00	ug/L		10/25/2022 15:13
1,1-Dichloroethene	< 2.00	ug/L		10/25/2022 15:13
1,2,3-Trichlorobenzene	< 5.00	ug/L		10/25/2022 15:13
1,2,4-Trichlorobenzene	< 5.00	ug/L		10/25/2022 15:13
1,2-Dibromo-3-Chloropropane	< 10.0	ug/L		10/25/2022 15:13
1,2-Dibromoethane	< 2.00	ug/L		10/25/2022 15:13
1,2-Dichlorobenzene	< 2.00	ug/L		10/25/2022 15:13
1,2-Dichloroethane	< 2.00	ug/L		10/25/2022 15:13
1,2-Dichloropropane	< 2.00	ug/L		10/25/2022 15:13
1,3-Dichlorobenzene	< 2.00	ug/L		10/25/2022 15:13
1,4-Dichlorobenzene	< 2.00	ug/L		10/25/2022 15:13
1,4-Dioxane	< 10.0	ug/L		10/25/2022 15:13
2-Butanone	< 10.0	ug/L		10/25/2022 15:13
2-Hexanone	< 5.00	ug/L		10/25/2022 15:13
4-Methyl-2-pentanone	< 5.00	ug/L		10/25/2022 15:13
Acetone	< 10.0	ug/L		10/25/2022 15:13
Benzene	< 1.00	ug/L		10/25/2022 15:13
Bromochloromethane	< 5.00	ug/L		10/25/2022 15:13
Bromodichloromethane	< 2.00	ug/L		10/25/2022 15:13
Bromoform	< 5.00	ug/L		10/25/2022 15:13
Bromomethane	< 2.00	ug/L		10/25/2022 15:13
Carbon disulfide	< 2.00	ug/L		10/25/2022 15:13
Carbon Tetrachloride	< 2.00	ug/L		10/25/2022 15:13
Chlorobenzene	< 2.00	ug/L		10/25/2022 15:13
Chloroethane	< 2.00	ug/L		10/25/2022 15:13

This report is part of a multipage document and should only be evaluated in its entirety. The Chain of Custody provides additional sample information, including compliance with the sample condition requirements upon receipt.



Client: Mercury Aircraft, Inc.

Project Reference: Urbana Landfill

Sample Identifier: Urbana Effluent

Lab Sample ID: 225024-01

Date Sampled: 10/19/2022 8:42

Matrix: Wastewater

Date Received 10/20/2022

Chloroform	< 2.00	ug/L	10/25/2022 15:13
Chloromethane	< 2.00	ug/L	10/25/2022 15:13
cis-1,2-Dichloroethene	< 2.00	ug/L	10/25/2022 15:13
cis-1,3-Dichloropropene	< 2.00	ug/L	10/25/2022 15:13
Cyclohexane	< 10.0	ug/L	10/25/2022 15:13
Dibromochloromethane	< 2.00	ug/L	10/25/2022 15:13
Dichlorodifluoromethane	< 2.00	ug/L	10/25/2022 15:13
Ethylbenzene	< 2.00	ug/L	10/25/2022 15:13
Freon 113	< 2.00	ug/L	10/25/2022 15:13
Isopropylbenzene	< 2.00	ug/L	10/25/2022 15:13
m,p-Xylene	< 2.00	ug/L	10/25/2022 15:13
Methyl acetate	< 2.00	ug/L	10/25/2022 15:13
Methyl tert-butyl Ether	< 2.00	ug/L	10/25/2022 15:13
Methylcyclohexane	< 2.00	ug/L	10/25/2022 15:13
Methylene chloride	< 5.00	ug/L	10/25/2022 15:13
o-Xylene	< 2.00	ug/L	10/25/2022 15:13
Styrene	< 5.00	ug/L	10/25/2022 15:13
Tetrachloroethene	< 2.00	ug/L	10/25/2022 15:13
Toluene	< 2.00	ug/L	10/25/2022 15:13
trans-1,2-Dichloroethene	< 2.00	ug/L	10/25/2022 15:13
trans-1,3-Dichloropropene	< 2.00	ug/L	10/25/2022 15:13
Trichloroethene	< 2.00	ug/L	10/25/2022 15:13
Trichlorofluoromethane	< 2.00	ug/L	10/25/2022 15:13
Vinyl chloride	< 2.00	ug/L	10/25/2022 15:13



Client: Mercury Aircraft, Inc.

Project Reference: Urbana Landfill

Sample Identifier: Urbana Effluent

Lab Sample ID: 225024-01

Date Sampled: 10/19/2022 8:42

Matrix: Wastewater

Date Received 10/20/2022

<u>Surrogate</u>	<u>Percent Recovery</u>	<u>Limits</u>	<u>Outliers</u>	<u>Date Analyzed</u>
1,2-Dichloroethane-d4	106	81.1 - 136		10/25/2022 15:13
4-Bromofluorobenzene	97.8	75.8 - 132		10/25/2022 15:13
Pentafluorobenzene	101	82 - 132		10/25/2022 15:13
Toluene-D8	103	64.6 - 137		10/25/2022 15:13

Method Reference(s): EPA 8260C
EPA 5030C
Data File: z12951.D



Analytical Report Appendix

The reported results relate only to the samples as they have been received by the laboratory.

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All soil/sludge samples have been reported on a dry weight basis, unless qualified "reported as received". Other solids are reported as received.

Low level Volatiles blank reports for soil/solid matrix are based on a nominal 5 gram weight. Sample results and reporting limits are based on actual weight, which may be more or less than 5 grams.

The Chain of Custody provides additional information, including compliance with sample condition requirements upon receipt. Sample condition requirements are defined under the 2003 NELAC Standard, sections 5.5.8.3.1 and 5.5.8.3.2.

NYSDOH ELAP does not certify for all parameters. Paradigm Environmental Services or the indicated subcontracted laboratory does hold certification for all analytes where certification is offered by ELAP unless otherwise specified. Aliquots separated for certain tests, such as TCLP, are indicated on the Chain of Custody and final reports with an "A" suffix.

Data qualifiers are used, when necessary, to provide additional information about the data. This information may be communicated as a flag or as text at the bottom of the report. Please refer to the following list of analyte-specific, frequently used data flags and their meaning:

"<" = Analyzed for but not detected at or above the quantitation limit.

"E" = Result has been estimated, calibration limit exceeded.

"H" = Denotes a parameter analyzed outside of holding time.

"Z" = See case narrative.

"D" = Sample, Laboratory Control Sample, or Matrix Spike Duplicate results above Relative Percent Difference limit.

"M" = Matrix spike recoveries outside QC limits. Matrix bias indicated.

"B" = Method blank contained trace levels of analyte. Refer to included method blank report.

"J" = Result estimated between the quantitation limit and half the quantitation limit.

"L" = Laboratory Control Sample recovery outside accepted QC limits.

"P" = Concentration differs by more than 40% between the primary and secondary analytical columns.

"NC" = Not calculable. Applicable to RPD if sample or duplicate result is non-detect or estimated (see primary report for data flags). Applicable to MS if sample is greater or equal to ten times the spike added. Applicable to sample surrogates or MS if sample dilution is 10x or higher.

"" = Indicates any recoveries outside associated acceptance windows. Surrogate outliers in samples are presumed matrix effects. LCS demonstrates method compliance unless otherwise noted.*

"(1)" = Indicates data from primary column used for QC calculation.

"A" = denotes a parameter for which ELAP does not offer approval as part of their laboratory certification program.

"F" = denotes a parameter for which Paradigm does not carry certification, the results for which should therefore only be used where ELAP certification is not required, such as personal exposure assessment.

This report is part of a multipage document and should only be evaluated in its entirety. The Chain of Custody provides additional sample information, including compliance with the sample condition requirements upon receipt.

GENERAL TERMS AND CONDITIONS

LABORATORY SERVICES

These Terms and Conditions embody the whole agreement of the parties in the absence of a signed and executed contract between the Laboratory (LAB) and Client. They shall supersede all previous communications, representations, or agreements, either verbal or written, between the parties. The LAB specifically rejects all additional, inconsistent, or conflicting terms, whether printed or otherwise set forth in any purchase order or other communication from the Client to the LAB. The invalidity or unenforceability in whole or in part of any provision, term or condition hereof shall not affect in any way the validity or enforceability of the remainder of the Terms and Conditions. No waiver by LAB of any provision, term, or condition hereof or of any breach by or obligation of the Client hereunder shall constitute a waiver of such provision, term, or condition on any other occasion or a waiver of any other breach by or obligation of the Client. This agreement shall be administered and interpreted under the laws of the state which services are procured.

Warranty.

Recognizing that the nature of many samples is unknown and that some may contain potentially hazardous components, LAB warrants only that it will perform testing services, obtain findings, and prepare reports in accordance with generally accepted analytical laboratory principles and practices at the time of performance of services. LAB makes no other warranty, express or implied.

Scope and Compensation.

LAB agrees to perform the services described in the chain of custody to which these terms and conditions are attached. Unless the parties agree in writing to the contrary, the duties of LAB shall not be construed to exceed the services specifically described. LAB will use LAB default method for all tests unless specified otherwise on the Work Order.

Payment terms are net 30 days from the date of invoice. All overdue payments are subject to an interest charge of one and one-half percent (1-1/2%) per month or a portion thereof. Client shall also be responsible for costs of collection, including payment of reasonable attorney fees if such expense is incurred. The prices, unless stated, do not include any sale, use or other taxes. Such taxes will be added to invoice prices when required.

Prices.

Compensation for services performed will be based on the current Lab Analytical Fee Schedule or on quotations agreed to in writing by the parties. Turnaround time based charges are determined from the time of resolution of all work order questions. Testimony, court appearances or data compilation for legal action will be charged separately. Evaluation and reporting of initial screening runs may incur additional fees.

Limitations of Liability.

In the event of any error, omission, or other professional negligence, the sole and exclusive responsibility of LAB shall be to re-perform the deficient work at its own expense and LAB shall have no other liability whatsoever. All claims shall be deemed waived unless made in writing and received by LAB within ninety (90) days following completion of services.

LAB shall have no liability, obligation, or responsibility of any kind for losses, costs, expenses, or other damages (including but not limited to any special, direct, incidental or consequential damages) with respect to LAB's services or results.

All results provided by LAB are strictly for the use of its clients and LAB is in no way responsible for the use of such results by clients or third parties. All reports should be considered in their entirety, and LAB is not responsible for the separation, detachment, or other use of any portion of these reports. Client may not assign the lab report without the written consent of the LAB.

Client covenants and agrees, at its/his/her sole expense, to indemnify, protect, defend, and save harmless the LAB from and against any and all damages, losses, liabilities, obligations, penalties, claims, litigation, demands, defenses, judgments, suits, actions, proceedings, costs, disbursements and/or expenses (including, without limitation attorneys' and experts' fees and disbursements) of any kind whatsoever which may at any time be imposed upon, incurred by or asserted or awarded against client relating to, resulting from or arising out of (a) the breach of this agreement by this client, (b) the negligence of the client in handling, delivering or disclosing any hazardous substance, (c) the violation of the Client of any applicable law, (d) non-compliance by the Client with any environmental permit or (e) a material misrepresentation in disclosing the materials to be tested.

Hazard Disclosure.

Client represents and warrants that any sample delivered to LAB will be preceded or accompanied by complete written disclosure of the presence of any hazardous substances known or suspected by Client. Client further warrants that any sample containing any hazardous substance that is to be delivered to LAB will be packaged, labeled, transported, and delivered properly and in accordance with applicable laws.

Sample Handling.

Prior to LAB's acceptance of any sample (or after any revocation of acceptance), the entire risk of loss or of damage to such sample remains with Client. Samples are accepted when receipt is acknowledged on chain of custody documentation. In no event will LAB have any responsibility for the action or inaction of any carrier shipping or delivering any sample to or from LAB premises.

Client authorizes LAB to proceed with the analysis of samples as received by the laboratory, recognizing that any samples not in compliance with all current DOH-ELAP-NELAP requirements for containers, preservation or holding time will be noted as such on the final report.

Disposal of hazardous waste samples is the responsibility of the Client. If the Client does not wish such samples returned, LAB may add storage and disposal fees to the final invoice. Maximum storage time for samples is 30 days after completion of analysis unless modified by applicable state or federal laws. Client will be required to give the LAB written instructions concerning disposal of these samples.

LAB reserves the absolute right, exercisable at any time, to refuse to receive delivery of, refuse to accept, or revoke acceptance of any sample, which, in the sole judgment of LAB (a) is of unsuitable volume, (b) may be or become unsuitable for or may pose a risk in handling, transport, or processing for any health, safety, environmental or other reason whether or not due to the presence in the sample of any hazardous substance, and whether or not such presence has been disclosed to LAB by Client or (c) if the condition or sample date make the sample unsuitable for analysis.

Legal Responsibility.

LAB is solely responsible for performance of this contract, and no affiliated company, director, officer, employee, or agent shall have any legal responsibility hereunder, whether in contract or tort including negligence.

Assignment.

LAB may assign its performance obligations under this contract to other parties, as it deems necessary. LAB shall disclose to Client any assignee (subcontractor) by ELAP ID # on the submitted final report.

Force Majeure.

LAB shall have no responsibility or liability to the Client for any failure or delay in performance by LAB, which results in whole or in part from any cause or circumstance beyond the reasonable control of LAB. Such causes and circumstances shall include, but not limited to, acts of God, acts or orders of any government authority, strikes or other labor disputes, natural disasters, accidents, wars, civil disturbances, difficulties or delays in transportation, mail or delivery services, inability to obtain sufficient services or supplies from LAB's usual suppliers, or any other cause beyond LAB's reasonable control.

Law.

This contract shall be continued under the laws of the State of New York without regard to its conflicts of laws provision.

This report is part of a multipage document and should only be evaluated in its entirety. The Chain of Custody provides additional sample information, including compliance with the sample condition requirements upon receipt.



CHAIN OF CUSTODY

REPORT TO:

INVOICE TO:

CLIENT: Mercury Corp.	CLIENT: Same	LAB PROJECT ID: 225024
ADDRESS: 8126 County Rt. 88	ADDRESS:	Quotation #: 225024
CITY: Hammondsport STATE: NY ZIP 14840	CITY: STATE: ZIP:	Email:
PHONE: 607-281-8280	PHONE:	
ATTN: Mark Hammond	ATTN:	
Matrix Codes: AQ - Aqueous Liquid NA - Non-Aqueous Liquid	WA - Water WG - Groundwater	DW - Drinking Water WW - Wastewater SO - Soil SL - Sludge SD - Solid PT - Paint WP - Wipe CK - Caulk OL - Oil AR - Air

DATE COLLECTED	TIME COLLECTED	COMPOSITE	GRAB	SAMPLE IDENTIFIER	MATRIX	NO. OF SAMPLES	ANALYSIS	REMARKS	PARADIGM LAB SAMPLE NUMBER
10-19-22	8:42 AM		X	Process Effluent	WW	2	8260 Halogens		01
				PW-1	WW	2	720928		
				PW-2	WW	2			
				Process Effluent	WW	2			

Turnaround Time	Report Supplements
Availability contingent upon lab approval; additional fees may apply.	
Standard 5 day <input checked="" type="checkbox"/>	None Required <input checked="" type="checkbox"/>
10 day <input type="checkbox"/>	Batch QC <input type="checkbox"/>
Rush 3 day <input type="checkbox"/>	Category A <input type="checkbox"/>
Rush 2 day <input type="checkbox"/>	Category B <input type="checkbox"/>
Rush 1 day <input type="checkbox"/>	Other <input type="checkbox"/>
Other <input type="checkbox"/>	Other EDD <input type="checkbox"/>

Received By: Mark Hammond Date/Time: 10-19-22 8:42 AM

Relinquished By: Mark Hammond Date/Time: 10-19-22 11:00 AM

Received @ Lab By: Samuel Thompson Date/Time: 10/20/22 1126

Total Cost:

102

2062



Chain of Custody Supplement

Client: Mercury Aircraft Completed by: EH
 Lab Project ID: 225024 Date: 10/20/22

Sample Condition Requirements
 Per NELAC/ELAP 210/241/242/243/244

Condition	NELAC compliance with the sample condition requirements upon receipt		
	Yes	No	N/A
Container Type	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Comments	_____		
Transferred to method-compliant container	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Headspace (<1 mL)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Comments	_____ _____		
Preservation	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Comments	_____ _____		
Chlorine Absent (<0.10 ppm per test strip)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Comments	_____ _____		
Holding Time	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Comments	_____ _____		
Temperature	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Comments	<u>6°C used</u>		
Compliant Sample Quantity/Type	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Comments	_____		

APPENDIX C

SUMMARY OF 2020 GROUNDWATER ANALYTICAL RESULTS

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
Perfluorohexanoic 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.

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	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	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

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.

9.1 = concentration exceeds the GWQS

APPENDIX D

PHOTO LOG

PHOTOGRAPHIC LOG




Client Name: Mercury Aircraft, Inc		Site Location: Town of Urbana Landfill- Urbana, New York	Project No.: 0001-001-300
Photo No. 5	Date 05/05/22		
Direction Photo Taken: North			
Description: Creek adjacent to landfill			

Photo No. 6	Date 05/05/22		
Direction Photo Taken: South			
Description: Stabilized creek			

PHOTOGRAPHIC LOG

Client Name: Mercury Aircraft, Inc		Site Location: Town of Urbana Landfill- Urbana, New York	Project No.: 0001-001-300
Photo No. 13	Date 05/05/22		
Direction Photo Taken: South			
Description: Site Conditions- Landfill access road			

Prepared By: RLD