# Periodic Review Report

## 2424 Hamburg Turnpike Site
## BCP Site Number: C915296
## Lackawanna, New York

May 2023
Revised September 2023

0689-022-001

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**MLG Contracting Inc.**

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## 2424 Hamburg Turnpike Site C915296
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# 1.0 EXECUTIVE SUMMARY

The 2424 Hamburg Turnpike Site (C915296) was a former automobile filling and service station. Prior to implementation of interim and final remedial measures the Site exhibited localized volatile organic contaminants (VOCs) in groundwater, localized semi-volatile organic contaminants (SVOCs) in soil, and metals contaminants in soil. The Site has had two documented petroleum spills prior to entering the BCP program. Remedial activities completed prior to NYSDEC issuance of a Certificate of Completion in December 2019 included: removal of hydraulic lifts, petroleum underground storage tanks (USTs), and petroleum piping, and petroleum-impacted soil; and installation of a dual-phase extraction (DPE) system. The DPE system has removed over 6,450 pounds of VOCs from the soil and groundwater since start-up in November 2019. It appears that the DPE system was effectively removing residual impacts for the first year of operation but has observed diminishing returns for the last two years. The Site is in compliance with the SMP, engineering, and institutional control requirements.

# 2.0 INTRODUCTION

Benchmark Civil/Environmental Engineering and Geology, PLLC (Benchmark), in association with TurnKey Environmental Restoration, LLC (TurnKey) have prepared this Periodic Review Report (PRR), on behalf of MLG Contracting Inc. to summarize the post-COC status of New York State Department of Environmental Conservation (NYSDEC) Brownfield Cleanup Program (BCP) Site No. C915296, located in the City of Lackawanna, Erie County, New York (Site; see Figure 1).

This PRR has been prepared for the 2424 Hamburg Turnpike Site in accordance with NYSDEC DER-10 *Technical Guidance for Site Investigation and Remediation* (May 2010). The NYSDEC's Institutional and Engineering Controls (IC/EC) Certification Form has been completed for the Site (see Appendix A). This PRR and the associated inspection forms have been completed for the April 24, 2022 to April 24, 2023 reporting period.

## 2.1 Site Background

The Site is located at 2424 Hamburg Turnpike, in the City of Lackawanna, County of Erie, New York and is identified as S.B.L No. 141.59-5-2 on the Erie County Tax Map. The 1.04-acre BCP Site is currently unoccupied with a vacant commercial building, bound by an active gasoline station to the north, a retail store to the south, vacant land to the east and Hamburg Turnpike (aka NY State Route 5) with vacant industrial land across Route 5 to the west (see Figure 2).

The Site was historically used as an automobile filling and service station (Stop-N-Gas) beginning in at least 1957 when three 10,000-gallon underground storage tanks (USTs) were installed on-site. Petroleum bulk storage (PBS) records indicate that the three USTs were closed/removed in 1994. Subsequent to the automobile filling and service station operations, the Site operated as a retail store. Historic Sanborn maps and aerial photographs indicate that prior to the current on-site development, the Site was vacant land from at least 1926 through at least 1951.

## 2.2 Remedial History

After acceptance into the NYS BCP in November 2015, a Remedial Investigation/ Alternatives Analysis (RI/AA) Work Plan and a Work Plan for Interim Remedial Measures were prepared and submitted to the NYSDEC for review and approval. Interim Remedial Measures (IRM) activities were completed to address the removal of seven hydraulic lifts; excavation of

grossly contaminated soil/fill; groundwater management; and excavation backfilling. A Remedial Action Work Plan (RAWP) was prepared and approved by the NYSDEC detailing the removal of petroleum piping, installation of a dual-phase extraction (DPE) system, and installation of site-wide cover system. The cleanup was successful in achieving the remedial objectives for the Site. The Site Management Plan (SMP) and Final Engineering Report (FER) were approved by the Department in December 2019. The NYSDEC issued a COC for the Site on December 24, 2019.

## 3.0 SITE OVERVIEW

Previous investigations identified environmental contamination on-Site that required remediation. 2424 Hamburg Turnpike, LLC entered into a Brownfield Cleanup Agreement (BCA) with the NYSDEC to remediate the Site. BCP investigations and remediation were completed between 2015 and 2019.

The remedial activities included:

- Removal and disposal of seven in-ground lifts from the former automotive repair building.
- Excavation and off-site disposal of non-hazardous soil/fill exceeding the Part 375 Commercial Soil Cleanup Objectives (SCOs) encountered during in-ground lift removal activities.
- Demolition of the on-Site shed located in the southeast corner of the site, and demolition of the elevated concrete floor slabs located north of the shed and at the northern portion of the site.
- Excavation and off-site disposal of petroleum piping and non-hazardous soil/fill exceeding the Part 375 Commercial SCOs between the former tank field and the fuel dispensing islands.
- Installation of a dual-phase extraction (DPE) system to mitigate remaining contamination within the subsurface soil/fill and the groundwater.
- Replacement of existing exterior asphalt/concrete cover with a new primarily asphalt pavement cover over approximately 0.73 acres.
- Placement of a vegetated soil cover with a minimum of 12 inches of imported borrow soil meeting Part 375 Commercial SCOs over approximately 0.3 acres.
- And replacement of approximately 2,500 square feet of 6-inch-thick reinforced concrete floor in the garage bay of the building

Documentation of the completed remedial action activities described above are provided in the FER.

Remedial activities were completed in October 2019. The FER and SMP for the Site were approved by the Department in December 2019. The Certificate of Completion (COC) was issued for the Site on December 24, 2019. A Change of Use (COU) form was signed and submitted to the Department on March 8, 2022, notifying the Department of the change in ownership and transferring the COC. 2424 Hamburg Turnpike, LLC sold the Site on March 16, 2022 to MLG Contracting Inc. Four building permits (general repairs to building, electric, plumbing, and fencing) were issued from the City of Lackawanna during this reporting period. The permits and planned scope of work did not include intrusive work during this reporting period and did not involve removal or disruption of the cover system. Fence posts were installed in Fall 2022 using direct-push methods. There was no generation of soil/fill materials during the installation. The location of the fencing and fence post detail is provided on Figure 2 of this report. A copy of the permits are included in Appendix A.

## 4.0 REMEDY PERFORMANCE

The Site is in compliance with the SMP. The cover system is maintained in accordance with the approved SMP. The completed IC/EC Certification form and site photographs are included in Appendix A and Appendix B, respectively.

Post-remedial inspections, groundwater monitoring, and operation and maintenance of the DPE system have been completed at the Site. DPE influent air analytical and DPE groundwater analytical results used for mass removal calculations are summarized on Table 1.

Groundwater elevation data are summarized on Table 2, with representative groundwater isopotential shown on Figures 3 for the associated sampling event. Groundwater sample analytical results are summarized on Table 3, with laboratory analytical data reports provided electronically in Appendix C.

## 5.0 SITE MANAGEMENT PLAN

The SMP was prepared for the Site and approved by the Department in December 2019. The SMP includes an Institutional and Engineering Control (IC/EC) Plan, Operation, Monitoring and Maintenance (OM&M) Plan, an Excavation Work Plan (EWP), and a copy of

the Environmental Easements. A brief description of the components of the SMP is presented below.

## 5.1 Operation, Monitoring and Maintenance Plan

The OM&M Plan addresses three major remedial components: the DPE system; groundwater monitoring; and the annual inspection & certification.

### *5.1.1 DPE System*

The DPE system is comprised of 14 DPE wells, 2-inch diameter HDPE conveyance piping, and the DPE remedial system. The DPE system extracts soil vapor and groundwater. The soil vapor is discharged through a stack at the top of the building. The groundwater is treated with a carbon filter and discharged to the publicly operated treatment works (POTW) in accordance with the sewer discharge permit. A copy of the current sewer discharge permit and sampling results from this reporting period are included in Appendix D.

Installation of the DPE system was completed between August and September 2019. System startup and optimization was completed between November and December 2019.

Routine DPE system monitoring was completed during the reporting period, including field measurements of system soil vapor influent air with photoionization detector (PID), vacuum readings on the DPE wells, effluent water flow meter readings, and routine system maintenance.

**DPE System Operation**

The DPE system has been operating since November 8, 2019, with two major shutdowns for the winter (December 22, 2020 through April 19, 2021 and system has currently been off since December 9, 2022). Since startup, a total of 6,412 pounds of vapor-phase volatile organic carbons (VOCs) has been removed from the shallow vadose zone (see Table 4). Additionally, approximately 1,548,000 gallons of groundwater containing approximately 49 pounds of aqueous-phase VOCs has been removed and treated (see Table 1). The primary purpose of the liquid phase removal is to depress the water table slightly and expose the petroleum "smear zone" for vacuum extraction. The carbon that treats the groundwater was not replaced during the reporting period because no flow restrictions were observed. All sewer compliance sampling results were within limits during this monitoring period (see Appendix D).

The DPE system estimated mass removal is calculated by using the following method. The sum of the air phase hydrocarbon (APH) soil gas sample results provided in Table 1 in

micrograms per meter cubed (ug/$m^3$) is divided by the PID reading collected during the sampling, resulting in a correction factor that is used until the next influent soil gas sample is collected. The correction factor is multiplied by the PID reading resulting in a corrected concentration. This corrected concentration is multiplied by a flow rate and time resulting in a mass. Table 4 provides a Summary of VOC mass removal from the vapor phase of the DPE system. A graph of the accumulative mass removed VS time is provided in Figure 4.

The DPE system works well at this site in seasonally dry and warm conditions when impacted soil vapor is effectively being extracted from the shallow vadose zone, as evident from the cumulative mass of VOCs removed thus far. Based on the slow removal rate trends observed from December 2019 through June 2020 a request to temporarily shut down the system for the winter was submitted to the Department and was approved on December 21, 2020. The DPE system was shut down from December 22, 2020 through April 19, 2021. The DPE system was not shut down in December 2021 in an attempt to achieve conditions warranting permanent termination of DPE operations. The DPE system was shut down for the winter in December 2022 and is currently off. We are proposing to keep the system off while we assess if the DPE system has met the requirements for shut down per the SMP. As depicted in Figure 4 and Table 4, the DPE system during the first year of operation removed approximately 5,700 pounds of VOCs and only 700 pounds of VOCs in the two following years. A rare dry and hot weather pattern in the summer/early fall of 2022 was responsible for removing approximately 545 of the 700 pounds mentioned above. The DPE system appears to have reached a point of diminishing returns with mass removal rates typically less than 0.3 pounds per day (for the last two years).

Table 5 provides a summary of the PID readings from individual DPE wells. The DPE well PID readings are consistent with the system influent PID readings and have decreased over time. During this monitoring period we reduced the vacuum at DPE-1 and DPE-10 to lessen the radius of influence to see if the total VOC concentration at MW-2 drops. After the adjustments were made, we waited one month for the groundwater to reach equilibrium before collecting groundwater samples from MW-2 and MW-3 for VOCs.

### *5.1.2 Groundwater Monitoring*

Groundwater monitoring has been completed annually since receiving the COC in December 2019. Groundwater monitoring was completed on December 7, 2022 for this reporting period. Groundwater monitoring logs are provided in Appendix E. Groundwater analytical results were submitted to EQuIS on May 8, 2023.

Groundwater analytical results are summarized on Table 3, Figure 5, and laboratory analytical data reports are provided in Appendix C. Analytical results show a decrease in many VOC compounds (Ethylbenzene, Isopropylbenzene, and Total Xylenes) at MW-2 since the 2020 sampling event. Based on the December 2022 groundwater data it appears that reducing the vacuum at DPE-1 and DPE-10 had little to no effect on the groundwater results. The total detected VOCs at MW-2 and MW-3 are approximately 0.56 and 0.08 ppm, respectively.

### *5.1.3 Annual Inspection and Certification*

Annual inspection and certification are required to verify, certify, and attest that the institutional controls (ICs) and/or engineering controls (ECs) employed at the Site:

- Are in place and effective;
- Are performing as designed;
- That nothing has occurred that would impair the ability of the controls to protect the public health and environment;
- That nothing has occurred that would constitute a violation or failure to comply with any operation and maintenance plan for such controls;
- Access is available to the Site to evaluate continued operation and maintenance of such controls.

The site inspection was completed on April 19, 2023, for the current reporting period. The property is being used in accordance with the commercial or industrial uses. At the time of the inspection the interior of the building was being renovated. No observable indication of intrusive activities was noted during the Site inspection. No observable use of groundwater was noted during the reporting period. No erosion of the cover system was noted during the site inspection.

The completed Site Management Periodic Review Report Notice – Institutional and Engineering Controls Certification Form is included in Appendix A. A photolog of the most recent Site inspection is included in Appendix B.

## 5.2 Excavation Work Plan

An Excavation Work Plan (EWP) was included in the approved-SMP for the Site. The EWP provides guidelines for the management of soil and fill material during any future intrusive actives.

No intrusive activities requiring management of on-Site soil or fill material; or the placement of backfill materials occurred during the monitoring period.

## 5.3 Engineering and Institutional Control Requirements and Compliance

As detailed in the Environmental Easements, several IC/ECs need to be maintained as a requirmement of the BCAs for the Site.

### *5.3.1 Institutional Controls*

- Groundwater-Use Restriction – the use of groundwater for potable and non-potable purposes is prohibited without water quality treatment as determined by the NYSDOH or County DOH;
- Land-Use Restriction: The controlled property may be used for commercial and industrial uses as defined by Part 375-1.8(g), although land use is subject to local zoning laws; and
- Implementation of the SMP. Requires compliance with the Department- approved Site Management Plan

### *5.3.2 Engineering Controls*

- All engineering controls must be operated, maintained, and inspected as specified in the SMP;
- Dual-Phase Extraction – Based on the remaining VOC impacts in unsaturated and shallow saturated soil, an in-situ dual-phase soil vapor and groundwater extraction system was selected as an engineering control to treat the remaining impacts. DPE is an in-situ remediation technology that uses a blower to remove both contaminated groundwater and hydrocarbon vapor (i.e., soil gas) from the subsurface. The DPE system is evaluated based on mass removal trends, groundwater depression, groundwater quality improvements, and soil sampling (prior to discontinuation). DPE System has been operated and maintained in compliance with the SMP; and

- Cover System – Exposure to remaining soil contamination at the Site is mitigated by a cover system placed over the Site. This cover system is comprised of a minimum of 12 inches of DER-10 compliant soil material over demarcation layer, and hardscape elements of the redevelopment, including asphalt, concrete-covered sidewalks, and concrete building slabs. The cover system is evaluated by observing that the cover is intact without signs of excavation or erosion. The cover system, including buildings, concrete sidewalks, asphalt, and landscaped vegetated soil are being maintained in compliance with the SMP.

At the time of the site inspection, the Site was compliant with the engineering and institutional control requirements.

## 6.0 CONCLUSIONS AND RECOMMENDATIONS

The Site is compliant with the SMP, engineering, and institutional control requirements. Land use and groundwater use restrictions have been adhered to during this monitoring period. The DPE system has been effective at lowering the groundwater table, treating impacted groundwater, and removing VOCs from the soil, evident from the mass removal trends on Table 4. The cover system has prevented contact to remaining contamination by providing a barrier that has not been breached during this monitoring period.

The SMP, engineering, and institutional controls have been effective. During the first year of operation the DPE system removed approximately 5,700 pounds of VOCs and only 700 pounds of VOCs in the two following years. A rare dry and hot weather pattern in the summer/early fall of 2022 was responsible for removing approximately 545 of the 700 pounds mentioned above. The DPE system appears to have reached a point of diminishing returns with mass removal rates typically less than 0.3 pounds per day (for the last two years). Benchmark will submit to the Department in the Fall 2023, a separate work plan to collect soil samples to assess if the DPE system has met the requirements for shut down per the SMP. Benchmark plans on temporarily leaving the DPE system off until the results of the soil sampling have been reported. The DPE system will remain in-place and operational until approval from the Department (NYSDEC) is given to remove the system from the site. We plan on completing the next annual groundwater monitoring in the Fall of 2023 and a site inspection in the Spring of 2024. The next PRR report will be submitted in May 2024.

# 7.0 DECLARATION/LIMITATION

A Benchmark principal engineer, licensed in New York and with direct supervisory responsibility conducted the annual site inspections for the 2424 Hamburg Turnpike Site BCP Site No. C915296, located in Lackawanna, New York, according to generally accepted practices. This report complied with the scope of work provided to MLG Contracting by Benchmark-TurnKey.

This report has been prepared for the exclusive use of MLG Contracting 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 MLG Contracting Inc. Use of or reliance upon this report or its findings by any other person or entity is prohibited without written permission of Benchmark-TurnKey.

# TABLES

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**Table 1 - Summary of DPE System Analytical for Mass Removal Calculations**

**2424 Hamburg Turnpike**
**2424 Hamburg Turnpike LLC**

| Parameters [1] | DPE Influent Vapor Sample 11-15-19 | | DPE Influent Vapor Sample 11-18-21 | | DPE Influent Vapor Sample 9-29-22 | |
|---|---|---|---|---|---|---|
| | TO-15 VOCs (ug/m$^3$) | APH (ug/m$^3$) | TO-15 VOCs (ug/m$^3$) | APH (ug/m$^3$) | TO-15 VOCs (ug/m$^3$) | APH (ug/m$^3$) |
| Dichlorodifluoromethane | ND | NA | 1.62 | NA | 2.39 | NA |
| Chloromethane | ND | NA | ND | NA | 0.522 | NA |
| Acetone | ND | NA | ND | NA | 3.94 | NA |
| Trichlorofluoromethane | ND | NA | ND | NA | 1.36 | NA |
| Carbon disulfide | ND | NA | 1.49 | NA | 2.11 | NA |
| Freon-113 | ND | NA | ND | NA | 3.39 | NA |
| Chloroform | ND | NA | ND | NA | 1.05 | NA |
| Tetrahydrofuran | ND | NA | ND | NA | 2.49 | NA |
| n-Hexane | 166,000 | NA | 38.8 | NA | 44.8 | NA |
| Benzene | 1,550 | 1,900 | 34.5 | 35 | 21 | 21 |
| Cyclohexane | 36,500 | NA | 39.2 | NA | 35.1 | NA |
| Xylene (total) | 119,000 | 117,000 | 168.7 | 165 | 56.5 | 49 |
| 2,2,4-Trimethylpentane | 258,000 | NA | 113 | NA | 144 | NA |
| Heptane | 132,000 | NA | 8.4 | NA | 14.7 | NA |
| Toluene | 18,900 | 19,000 | 31.3 | 35 | 14.5 | 14 |
| Ethylbenzene | 26,900 | 27,000 | 71.7 | 74 | 22.9 | 19 |
| Styrene | ND | NA | ND | NA | 0.928 | NA |
| 4-Ethyltoluene | 13,200 | NA | 33.4 | NA | 9.93 | NA |
| 1,3,5-Trimethylbenzene | 17,400 | NA | 32.4 | NA | 8.95 | NA |
| 1,2,4-Trimethylbenzene | 40,200 | NA | 147 | NA | 44.4 | NA |
| | | | | | | |
| Naphthalene | NA | ND | NA | 24 | NA | 2.8 |
| | | | | | | |
| Tentatively Identified Compounds (TICs) (ppbV) | 317,000 | NA | 250.8 | NA | NA | NA |
| | | | | | | |
| | | | | | | |
| C5-C8 Aliphatics | NA | 5,200,000 | NA | 1,600 | NA | 3,700 |
| C9-C12 Aliphatics | NA | 330,000 | NA | 160 | NA | 350 |
| C9-C10 Aromatics | NA | 160,000 | NA | 700 | NA | 200 |
| Sum of APH (ug/m$^3$) | NA | 5,854,900 | NA | 2,793 | NA | 4,356 |
| Correlation Between APH Results and PID Readings | | | | | | |
| PID Reading at Time of Sample | 1260 ppm | | 0.2 ppm | | 2.5 ppm | |
| Sum of APH (ug/m$^3$) | 5,854,900 | | 2,793 | | 4,356 | |
| Sum of APH (mg/m$^3$) | 5,855 | | 2.79 | | 4.36 | |
| (APH/PID) 1 ppm on PID = | 4.65 mg/m$^3$ | | 13.97 mg/m$^3$ | | 1.74 mg/m$^3$ | |

**Notes:**

1) Only parameters detected in at least one sample are presented in this table.

APH = Air-phase Petroleum Hydrocarbons

NA = Not Analyzed

| Parameters [1] | DPE Influent GW Sample 11-12-19 |
|---|---|
| CP-51 List VOCs (ug/L) | |
| Benzene | 21 |
| Toluene | 230 |
| Ethylbenzene | 300 |
| p/m-Xylene | 1200 |
| o-Xylene | 420 |
| n-Butylbenzene | 20 J |
| sec-Butylbenzene | 12 J |
| Isopropylbenzene | 39 |
| p-Isopropylbenzene | 7.8 J |
| n-Isopropylbenzene | 100 |
| 1,3,5-Trimethylbenzene | 320 |
| 1,2,4-Trimethylbenzene | 1100 |
| | |
| Subtotal | 3770 |
| VOC Mass Removal from Groundwater (GW) Treatment Since 11/08/19 | |
| Sum of VOCs (ug/L) | 3770 |
| Sum of VOCs (mg/L) | 3.77 |
| Water Treated by the DPE System (gallons) | 1,548,380 |
| Water Treated by the DPE System (liters) | 5,861,238 |
| GW VOCs Treated by the DPE System (mg) | 22,095,694 |
| GW VOCs Treated by the DPE System (lbs) | 48.72 |

**Notes:**

1) Only parameters detected in at least one sample are presented in this table.

J = Estimated value; result is less than the sample quantitation limit but greater than zero.

GW VOCs treated by DPE system (mg) = sum of VOCs (mg/L) * water treated (liters)

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**TABLE 2**

**SUMMARY OF GROUNDWATER ELEVATIONS**
**PERIODIC REVIEW REPORT**

**2424 HAMBURG TURNPIKE SITE**
**BCP SITE NO. C915296**
**LACKAWANNA, NEW YORK**

| Location | Grade | TOR Elevation (feet) | December 7, 2022 | |
|---|---|---|---|---|
| | | | DTW (fbTOR) | Groundwater Elevation (feet) |
| MW-1 | 581.20 | 580.77 | 5.98 | 574.8 |
| MW-2 | 578.16 | 577.96 | 4.11 | 573.9 |
| MW-3 | 577.46 | 577.09 | 2.15 | 574.9 |
| MW-4 | 577.52 | 577.07 | 2.00 | 575.1 |
| MW-5 | 576.44 | 575.82 | 2.26 | 573.6 |
| DPE-1 | 577.84 | 577.37 | 2.59 | 574.8 |
| DPE-2 | 577.39 | 576.94 | 5.80 | 571.1 |
| DPE-3 | 577.60 | 577.09 | 2.21 | 574.9 |
| DPE-4 | 577.19 | 576.58 | NA | NA |
| DPE-5 | 576.96 | 576.37 | 1.98 | 574.4 |
| DPE-6 | 577.54 | 577.16 | 2.10 | 575.1 |
| DPE-7 | 577.95 | 577.36 | 2.25 | 575.1 |
| DPE-8 | 578.22 | 577.13 | 2.15 | 575.0 |
| DPE-9 | 577.97 | 577.64 | 2.72 | 574.9 |
| DPE-10 | 578.15 | 577.62 | 2.68 | 574.9 |
| DPE-11 | 577.52 | 577.21 | NA | NA |
| DPE-12 | 577.92 | 577.48 | 3.85 | 573.6 |
| DPE-13 | 579.72 | 579.49 | 3.95 | 575.5 |
| DPE-14 | 580.46 | 580.06 | 4.82 | 575.2 |

**Notes:**

TOR = Top of riser
DTW = Depth to water
fb = feet below
NA = Not available (DPE-4 manhole was filled with surface water. DPE-11 has a shipping container parked over it.)

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**TABLE 3**

**SUMMARY OF GROUNDWATER ANALYTICAL RESULTS**
**PERIODIC REVIEW REPORT**

**2424 HAMBURG TURNPIKE SITE**
**BCP SITE NO. C915296**
**LACKAWANNA, NEW YORK**

| Parameter [1] | NYSDEC Class GA GWQS[2] | MW-1 11/16/21 | MW-1 12/07/22 | MW-2 7/27/16 | MW-2 10/15/20 | MW-2 11/16/21 | MW-2 12/07/22 | MW-3 7/27/16 | MW-3 10/15/20 | MW-3 11/16/21 | MW-3 12/07/22 | MW-4 11/16/21 | MW-4 12/07/22 | MW-5 11/16/21 | MW-5 12/07/22 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| ***Field Measurements*** | | | | | | | | | | | | | | | |
| Dissolved Oxygen (mg/L) | -- | 1.84 | 1.22 | 0.91 | NA | 2.24 | 1.13 | 0.73 | NA | 0.75 | 1.75 | 1.32 | 1.07 | NA | 1.7 |
| Field pH (S.U.) | **12.5** | 7.21 | 7.37 | 6.79 | 6.88 | 7.1 | 7.44 | 6.57 | 6.86 | 7.62 | 7.39 | 6.57 | 7.25 | 6.44 | 6.61 |
| Redox Potential (mV) | -- | -141 | -123 | -109 | -91 | -86 | -81 | -86 | -88 | -140 | -125 | 33 | -93 | -46 | -47 |
| Specific Conductance (umhos/cm) | -- | 1150 | 1409 | 1253 | 1100 | 1509 | 3147 | 1059 | 897.5 | 510.8 | 522.1 | 567.5 | 890.7 | 1138 | 1111 |
| Temperature (deg C) | -- | 12.7 | 11.4 | 21.4 | 18.3 | 15.7 | 12.2 | 21.3 | 20.4 | 15.4 | 12.6 | 15.8 | 10.9 | 13.0 | 11.3 |
| Turbidity (NTU) | -- | >1000 | 783 | 672 | 12.10 | >1000 | 138 | 114 | 15.3 | 29.80 | 32.4 | 55.4 | 451 | 35.6 | >1000 |
| ***TCL Volatile Organic Compounds (VOCs) - mg/L*** | | | | | | | | | | | | | | | |
| Acetone | **0.05** | NA | NA | 0.012 | NA | ND | ND | 0.0044 | ND | ND | ND | NA | NA | NA | NA |
| Benzene | **0.001** | NA | NA | **0.0089** | **0.063 D** | **0.059 D** | **0.11 D** | **0.0088** | **0.0097** | **0.0081** | **0.016** | NA | NA | NA | NA |
| Carbon disulfide | **0.06** | NA | NA | 0.0004 | ND | ND | ND | ND | ND | ND | ND | NA | NA | NA | NA |
| Cyclohexane | -- | NA | NA | ND | 0.083 D | 0.066 D | 0.061 D | ND | 0.0036 | 0.0079 | 0.012 | NA | NA | NA | NA |
| Ethylbenzene | **0.005** | NA | NA | **0.0063** | **0.27 D** | **0.2 D** | **0.11 D** | 0.0035 | 0.005 | **0.014** | **0.013** | NA | NA | NA | NA |
| Isopropylbenzene (Cumene) | **0.005** | NA | NA | ND | **0.023 D** | **0.02 D** | **0.017 D** | ND | 0.0032 | **0.0054** | 0.0043 | NA | NA | NA | NA |
| m,p-Xylenes | **0.005** | NA | NA | ND | **0.48 D** | **0.13 D** | **0.11 D** | ND | **0.0056** | 0.0034 | **0.01** | NA | NA | NA | NA |
| Methyl tert-butyl ether | **0.01** | NA | NA | 0.0051 | 0.0027 D | 0.0028 D | ND | 0.0005 | ND | ND | ND | NA | NA | NA | NA |
| Methylcyclohexane | -- | NA | NA | ND | 0.03 D | 0.025 D | 0.023 D | 0.00097 | ND | 0.016 | 0.015 | NA | NA | NA | NA |
| O-Xylene | **0.005** | NA | NA | ND | **0.017 D** | **0.022 D** | **0.094 D** | ND | 0.0021 | 0.0045 | 0.0048 | NA | NA | NA | NA |
| Toluene | **0.005** | NA | NA | **0.0086** | **0.014 D** | **0.016 D** | **0.034 D** | 0.005 | 0.0022 | 0.00083 | 0.0049 | NA | NA | NA | NA |
| Xylenes, Total | **0.005** | NA | NA | **0.04** | **0.497 D** | **0.152 D** | **0.204 D** | **0.0095** | **0.0077** | **0.0079** | **0.0148** | NA | NA | NA | NA |
| *TOTAL VOCs* | -- | NA | NA | 0.0000813 | 0.0009827 D | 0.0005408 D | 0.000559 D | 0.00003267 | 0.0000314 | 0.00006013 | 0.00008 | NA | NA | NA | NA |

**Notes:**
1. Only those parameters detected at a minimum of one sample location are presented in this table; all other compounds were reported as non-detect.
2. Values per NYSDEC TOGS 1.1.1 Class GA Groundwater Quality Standards (GWQS).

**Definitions:**
D = Concentration of analyte was quantified from diluted analysis.
ND = Parameter not detected above laboratory detection limit.
NA = Not Analyzed
"--" = No GWQS available.
J = Estimated value; result is less than the sample quantitation limit but greater than zero.
ug/L = micrograms per liter

**Exceeds NYSDEC Class GA GWQS**

BENCHMARK TURNKEY

**Table 4 - Summary of DPE System VOC Mass Removal**

**2424 Hamburg Turnpike**
**2424 Hamburg Turnpike LLC**

| Date | Influent (Untreated) PID Reading[5] (ppm) | Corrected Influent Concentration[1,2,3] (mg/m3) | Corrected Influent Concentration[1,2,3] (lb/CF) | Vacuum at Blower (in Hg) | Air Flow Rate (CFM) | Volume of Air Processed Since Last Monitoring Period (CF) | VOCs Removed Since Last Monitoring Period (lb) | Rate of VOC Removal (lb/day) | Total VOCs Removal to Date[6] (lb) | Notes |
|---|---|---|---|---|---|---|---|---|---|---|
| 11/08/19 | 808 | 3757 | 2.346E-04 | 14.0 | 194 | 0 | 0 | 0.0 | 0 | |
| 11/11/19 | 1,146 | 5329 | 3.327E-04 | 12.0 | 195 | 771572 | 218.8 | 79.6 | 218.83 | |
| 11/11/19 | 1,240 | 5766 | 3.600E-04 | 12.0 | 195 | 11714 | 4.1 | 97.4 | 222.89 | |
| 11/12/19 | 1,270 | 5906 | 3.687E-04 | 12.0 | 195 | 304568 | 111.0 | 102.4 | 333.84 | |
| 11/12/19 | 770 | 3581 | 2.235E-04 | 7.0 | 197 | 11773 | 3.5 | 83.7 | 337.33 | |
| 11/13/19 | 610 | 2837 | 1.771E-04 | 8.0 | 197 | 260055 | 52.1 | 56.8 | 389.42 | |
| 11/13/19 | 900 | 4185 | 2.613E-04 | 9.0 | 196 | 47188 | 10.3 | 62.1 | 399.76 | |
| 11/14/19 | 730 | 3395 | 2.119E-04 | 8.5 | 197 | 200448 | 47.4 | 67.0 | 447.18 | |
| 11/14/19 | 960 | 4464 | 2.787E-04 | 10.3 | 196 | 11776 | 2.9 | 69.3 | 450.07 | |
| 11/15/19 | 1,550 | 7208 | 4.499E-04 | 10.5 | 196 | 282049 | 102.8 | 102.8 | 552.83 | |
| 11/18/19 | 920 | 4278 | 2.671E-04 | 10.0 | 196 | 858158 | 307.7 | 101.1 | 860.48 | |
| 11/20/19 | 400 | 1860 | 1.161E-04 | 9.5 | 196 | 553069 | 106.0 | 54.1 | 966.45 | |
| 11/21/19 | 570 | 2651 | 1.655E-04 | 9.5 | 196 | 306107 | 43.1 | 39.8 | 1009.54 | |
| 11/21/19 | 200 | 930 | 5.806E-05 | 6.2 | 198 | 23625 | 2.6 | 31.7 | 1012.18 | |
| 11/22/19 | 79 | 367 | 2.293E-05 | 6.5 | 197 | 284349 | 11.5 | 11.5 | 1023.70 | |
| 11/22/19 | 370 | 1721 | 1.074E-04 | 10.5 | 196 | 23594 | 1.5 | 18.5 | 1025.24 | |
| 11/25/19 | 580 | 2697 | 1.684E-04 | 9.0 | 196 | 811952 | 112.0 | 38.9 | 1137.20 | |
| 11/26/19 | 370 | 1721 | 1.074E-04 | 9.0 | 196 | 271059 | 37.4 | 39.0 | 1174.57 | |
| 11/26/19 | 750 | 3488 | 2.177E-04 | 12.8 | 195 | 23480 | 3.8 | 45.8 | 1178.39 | |
| 11/27/19 | 810 | 3767 | 2.351E-04 | 11.0 | 196 | -175748 | -39.8 | 63.7 | 1138.59 | |
| 12/02/19 | 380 | 1767 | 1.103E-04 | 14.0 | 194 | 1848967 | 319.4 | 48.5 | 1457.95 | |
| 12/02/19 | 1,080 | 5022 | 3.135E-04 | 17.0 | 193 | 11631 | 2.5 | 59.2 | 1460.42 | |
| 12/04/19 | 1,000 | 4650 | 2.903E-04 | 18.0 | 193 | 602367 | 181.9 | 83.9 | 1642.27 | |
| 12/09/19 | 860 | 3999 | 2.496E-04 | 17.7 | 193 | 1354356 | 365.6 | 75.0 | 2007.91 | |
| 12/09/19 | 450 | 2093 | 1.306E-04 | 15.0 | 194 | 11611 | 2.2 | 53.0 | 2010.12 | |
| 12/11/19 | 420 | 1953 | 1.219E-04 | 15.0 | 194 | 570514 | 72.0 | 35.3 | 2082.16 | |
| 12/18/19 | 240 | 1116 | 6.967E-05 | 17.5 | 193 | 1962692 | 188.0 | 26.7 | 2270.18 | |
| 12/18/19 | 218 | 1014 | 6.328E-05 | 15.0 | 194 | 11614 | 0.8 | 18.5 | 2270.95 | |
| 12/20/19 | 206 | 958 | 5.980E-05 | 13.0 | 195 | 513340 | 31.6 | 17.2 | 2302.54 | |
| 01/02/20 | 150 | 698 | 4.354E-05 | 14.0 | 194 | 2709448 | 140.0 | 14.5 | 2442.54 | Restart system |
| 01/02/20 | 40 | 186 | 1.161E-05 | 15.6 | 194 | 11648 | 0.3 | 7.7 | 2442.86 | |
| 01/02/20 | 20 | 93 | 5.806E-06 | 16.5 | 193 | 23237 | 0.2 | 2.4 | 2443.07 | |
| 01/03/20 | 11 | 51 | 3.193E-06 | 14.8 | 194 | 244183 | 1.1 | 1.3 | 2444.16 | |
| 01/03/20 | 73 | 339 | 2.119E-05 | 12.0 | 195 | 11681 | 0.1 | 3.4 | 2444.31 | |
| 01/06/20 | 120 | 558 | 3.483E-05 | 14.0 | 194 | 830025 | 23.3 | 7.9 | 2467.56 | |
| 01/06/20 | 132 | 614 | 3.832E-05 | 15.0 | 194 | 11655 | 0.4 | 10.2 | 2467.98 | |
| 01/08/20 | 168 | 781 | 4.877E-05 | 13.5 | 195 | 559723 | 24.4 | 12.2 | 2492.36 | |
| 01/14/20 | 125 | 581 | 3.629E-05 | 13.0 | 195 | 1647525 | 70.1 | 11.9 | 2562.42 | |
| 01/21/20 | 122 | 567 | 3.542E-05 | 12.0 | 195 | 1989395 | 71.3 | 10.1 | 2633.74 | |
| 01/27/20 | 90 | 419 | 2.613E-05 | 13.0 | 195 | 1650028 | 50.8 | 8.6 | 2684.52 | |
| 02/05/20 | 68 | 316 | 1.974E-05 | 14.0 | 194 | 2534268 | 58.1 | 6.4 | 2742.63 | |
| 02/13/20 | 10 | 45 | 2.787E-06 | 11.3 | 196 | 1474046 | 16.6 | 3.2 | 2759.24 | Restart System |
| 02/25/20 | 25 | 115 | 7.170E-06 | 12.6 | 195 | 70292 | 0.3 | 1.4 | 2759.59 | Restart System |
| 02/28/20 | 11 | 53 | 3.280E-06 | 13.0 | 195 | 397638 | 2.1 | 1.5 | 2761.66 | Restart System |
| 03/04/20 | 13 | 60 | 3.774E-06 | 13.7 | 195 | 1191585 | 4.2 | 1.0 | 2765.87 | Restart System |
| 03/11/20 | 9 | 42 | 2.613E-06 | 12.5 | 195 | 1940228 | 6.2 | 0.9 | 2772.06 | |
| 03/17/20 | 62 | 287 | 1.791E-05 | 12.3 | 195 | 1673771 | 17.2 | 2.9 | 2789.24 | |
| 03/20/20 | 30 | 140 | 8.767E-06 | 12.1 | 195 | 737694 | 9.8 | 3.7 | 2799.08 | Restart System |
| 04/14/20 | 13 | 58 | 3.629E-06 | 10.0 | 196 | 46947 | 0.3 | 1.7 | 2799.37 | Restart System |
| 04/15/20 | 20 | 92 | 5.748E-06 | 12.5 | 195 | 363689 | 1.7 | 1.3 | 2801.07 | |
| 04/24/20 | 20 | 92 | 5.748E-06 | 12.0 | 195 | 23416 | 0.1 | 1.6 | 2801.21 | Restart System |
| 04/27/20 | 70 | 324 | 2.023E-05 | 11.5 | 195 | 949326 | 12.3 | 3.7 | 2813.54 | |
| 05/01/20 | 20 | 94 | 5.864E-06 | 13.7 | 195 | 772197 | 10.1 | 3.7 | 2823.62 | Restart System |
| 05/01/20 | 6 | 27 | 1.713E-06 | 10.0 | 196 | 35153 | 0.1 | 1.1 | 2823.75 | |
| 05/04/20 | 43 | 202 | 1.260E-05 | 12.0 | 195 | 868599 | 6.2 | 2.0 | 2829.97 | |
| 05/06/20 | 64 | 299 | 1.869E-05 | 11.5 | 195 | 609444 | 9.5 | 4.4 | 2839.50 | |
| 05/06/20 | 72 | 334 | 2.087E-05 | 11.6 | 195 | 11725 | 0.2 | 5.6 | 2839.73 | |
| 05/12/20 | 78 | 361 | 2.253E-05 | 11.0 | 196 | 1630571 | 35.4 | 6.1 | 2875.12 | |
| 05/19/20 | 25 | 114 | 7.112E-06 | 10.5 | 196 | 1949462 | 28.9 | 4.2 | 2904.00 | |
| 05/19/20 | 38 | 178 | 1.109E-05 | 11.0 | 196 | 35231 | 0.3 | 2.6 | 2904.33 | |
| 06/03/20 | 4 | 20 | 1.248E-06 | 8.0 | 197 | 894773 | 5.5 | 1.7 | 2909.85 | Restart System |
| 06/03/20 | 4 | 20 | 1.248E-06 | 8.0 | 197 | 70853 | 0.1 | 0.4 | 2909.93 | Turn System off too much water |
| 06/04/20 | 4 | 16 | 1.016E-06 | 12.5 | 195 | 35267 | 0.0 | 0.3 | 2909.97 | Restart system. Turn System off too much water |
| 06/12/20 | 8 | 37 | 2.293E-06 | 13.2 | 195 | 46776 | 0.1 | 0.5 | 2910.05 | Restart system |
| 06/15/20 | 17 | 80 | 5.022E-06 | 11.3 | 196 | 854702 | 3.1 | 1.0 | 2913.18 | |
| 06/15/20 | 28 | 131 | 8.157E-06 | 12.0 | 195 | 11722 | 0.1 | 1.9 | 2913.25 | |
| 06/17/20 | 80 | 372 | 2.322E-05 | 10.0 | 196 | 551678 | 8.7 | 4.4 | 2921.91 | |
| 06/17/20 | 130 | 606 | 3.785E-05 | 13.0 | 195 | 11726 | 0.4 | 8.6 | 2922.27 | |
| 06/23/20 | 130 | 606 | 3.782E-05 | 11.0 | 196 | 1675125 | 63.4 | 10.6 | 2985.65 | |
| 06/24/20 | 84 | 388 | 2.424E-05 | 12.0 | 195 | 257972 | 8.0 | 8.7 | 2993.66 | Turned system off for carbon change out |
| 06/25/20 | 84 | 390 | 2.433E-05 | 13.8 | 195 | 35079 | 0.9 | 6.8 | 2994.51 | Restart system |
| 06/30/20 | 1,500 | 6975 | 4.354E-04 | 12.3 | 195 | 1449474 | 333.2 | 64.5 | 3327.72 | |
| 07/02/20 | 1,500 | 6975 | 4.354E-04 | 12.0 | 195 | 491846 | 214.2 | 122.4 | 3541.88 | |
| 07/02/20 | 1,500 | 6975 | 4.354E-04 | 12.0 | 195 | 81999 | 35.7 | 122.4 | 3577.59 | |
| 07/08/20 | 1,240 | 5766 | 3.600E-04 | 11.5 | 195 | 1640811 | 652.5 | 111.9 | 4230.14 | |
| 07/14/20 | 362 | 1683 | 1.051E-04 | 12.0 | 195 | 1664251 | 387.0 | 65.4 | 4617.11 | |
| 07/14/20 | 393 | 1827 | 1.141E-04 | 12.0 | 195 | 11714 | 1.3 | 30.8 | 4618.40 | |
| 08/09/20 | 100 | 465 | 2.906E-05 | 16.0 | 194 | 6020079 | 430.9 | 20.0 | 5049.26 | Restart system |
| 08/09/20 | 76 | 355 | 2.215E-05 | 13.0 | 195 | 11655 | 0.3 | 7.2 | 5049.56 | |
| 08/16/20 | 87 | 403 | 2.514E-05 | 12.0 | 195 | 1965991 | 46.5 | 6.6 | 5096.04 | |
| 08/22/20 | 87 | 403 | 2.514E-05 | 11.0 | 196 | 1711995 | 43.0 | 7.1 | 5139.08 | |
| 08/22/20 | 112 | 522 | 3.260E-05 | 12.8 | 195 | 11717 | 0.3 | 8.1 | 5139.42 | |
| 08/29/20 | 186 | 864 | 5.391E-05 | 12.7 | 195 | 1918211 | 83.0 | 12.1 | 5222.39 | |
| 09/05/20 | 205 | 953 | 5.948E-05 | 12.0 | 195 | 1966587 | 111.5 | 15.9 | 5333.88 | |
| 09/12/20 | 139 | 644 | 4.021E-05 | 12.0 | 195 | 1944551 | 96.9 | 14.0 | 5430.80 | |
| 09/20/20 | 161 | 748 | 4.671E-05 | 11.5 | 195 | 2226815 | 96.8 | 12.2 | 5527.57 | |
| 09/27/20 | 188 | 876 | 5.466E-05 | 11.3 | 196 | 1993822 | 101.1 | 14.3 | 5628.63 | |
| 09/27/20 | 309 | 1435 | 8.955E-05 | 8.5 | 197 | 35292 | 2.5 | 20.4 | 5631.17 | |
| 10/01/20 | 4 | 17 | 1.045E-06 | 13.0 | 195 | 763344 | 34.6 | 12.8 | 5665.75 | |
| 10/03/20 | 22 | 104 | 6.503E-06 | 11.3 | 196 | 538688 | 2.0 | 1.1 | 5667.78 | |
| 10/10/20 | 24 | 113 | 7.025E-06 | 10.3 | 196 | 1972751 | 13.3 | 1.9 | 5681.13 | |
| 10/18/20 | 26 | 121 | 7.577E-06 | 10.5 | 196 | 2256390 | 16.5 | 2.1 | 5697.60 | |
| 10/18/20 | 20 | 94 | 5.893E-06 | 11.7 | 195 | 23471 | 0.2 | 1.9 | 5697.76 | |
| 10/25/20 | 14 | 66 | 4.151E-06 | 16.0 | 194 | 1668863 | 8.4 | 1.4 | 5706.14 | |
| 10/25/20 | 6.8 | 32 | 1.974E-06 | 12.6 | 195 | 11660 | 0.0 | 0.9 | 5706.18 | |
| 10/31/20 | 6.2 | 29 | 1.800E-06 | 10.6 | 196 | 1617861 | 3.1 | 0.5 | 5709.23 | |
| 11/07/20 | 3.7 | 17 | 1.074E-06 | 10.0 | 196 | 2080529 | 3.0 | 0.4 | 5712.22 | |
| 11/19/20 | 9.4 | 44 | 2.729E-06 | 9.9 | 196 | 3352365 | 6.4 | 0.5 | 5718.59 | |
| 12/03/20 | 4.0 | 19 | 1.161E-06 | 11.6 | 195 | 1550175 | 3.0 | 0.5 | 5721.61 | |
| 12/11/20 | 2.6 | 12 | 7.548E-07 | 10.5 | 196 | 4553819 | 4.4 | 0.3 | 5725.97 | |
| 12/17/20 | 2.3 | 11 | 6.677E-07 | 9.5 | 196 | 1681895 | 1.2 | 0.2 | 5727.17 | |
| 12/22/20 | 2.6 | 12 | 7.548E-07 | 11.5 | 195 | 1433459 | 1.0 | 0.2 | 5728.19 | System shut down for winter |
| 04/19/21 | 19.6 | 91 | 5.690E-06 | 14.0 | 194 | 35089 | 0.1 | 0.9 | 5728.30 | System Startup |
| 04/30/21 | 21.3 | 99 | 6.183E-06 | 14.0 | 194 | 3033373 | 18.0 | 1.7 | 5746.31 | |
| 04/30/21 | 16.4 | 76 | 4.761E-06 | 12.5 | 195 | 35054 | 0.2 | 1.5 | 5746.50 | |

**Table 4 - Summary of DPE System VOC Mass Removal**

**2424 Hamburg Turnpike**
**2424 Hamburg Turnpike LLC**

| Date | Influent (Untreated) PID Reading[5] (ppm) | Corrected Influent Concentration[1,2,3] (mg/m3) | Corrected Influent Concentration[1,2,3] (lb/CF) | Vacuum at Blower (in Hg) | Air Flow Rate (CFM) | Volume of Air Processed Since Last Monitoring Period (CF) | VOCs Removed Since Last Monitoring Period (lb) | Rate of VOC Removal (lb/day) | Total VOCs Removal to Date[6] (lb) | Notes |
|---|---|---|---|---|---|---|---|---|---|---|
| 05/08/21 | 1.5 | 7 | 4.354E-07 | 12.0 | 195 | 2283107 | 5.9 | 0.7 | 5752.43 | |
| 05/12/21 | 1.3 | 6 | 3.774E-07 | 12.3 | 195 | 1053955 | 0.4 | 0.1 | 5752.86 | |
| 05/21/21 | 2.6 | 12 | 7.548E-07 | 11.3 | 196 | 2507843 | 1.4 | 0.2 | 5754.28 | |
| 05/27/21 | 2.1 | 10 | 6.096E-07 | 11.0 | 196 | 1666268 | 1.1 | 0.2 | 5755.41 | |
| 06/02/21 | 1.1 | 5 | 3.193E-07 | 11.5 | 195 | 1736323 | 0.8 | 0.1 | 5756.22 | |
| 06/10/21 | 2.5 | 12 | 7.257E-07 | 12.0 | 195 | 23440 | 0.0 | 0.1 | 5756.23 | Restart system after tank high alarm |
| 06/15/21 | 1.5 | 7 | 4.354E-07 | 11.0 | 196 | 1336763 | 0.8 | 0.2 | 5757.01 | Turned system off to drain carbon turned on 6-16 |
| 06/24/21 | 1.4 | 7 | 4.064E-07 | 10.5 | 196 | 2337006 | 1.0 | 0.1 | 5757.99 | |
| 07/02/21 | 16.7 | 78 | 4.848E-06 | 14.5 | 194 | 2223442 | 5.8 | 0.7 | 5763.83 | |
| 07/08/21 | 1.7 | 8 | 4.935E-07 | 10.5 | 196 | 1661730 | 4.4 | 0.8 | 5768.27 | |
| 07/15/21 | 0.6 | 3 | 1.742E-07 | 12.3 | 195 | 1958636 | 0.7 | 0.1 | 5768.93 | |
| 07/23/21 | 1.0 | 5 | 2.903E-07 | 14.0 | 194 | 876520 | 0.2 | 0.1 | 5769.13 | Restart system on 7-22-22 after tank high alarm |
| 07/29/21 | 1.3 | 6 | 3.774E-07 | 13.8 | 195 | 1622017 | 0.5 | 0.1 | 5769.67 | |
| 08/06/21 | 1.3 | 6 | 3.774E-07 | 12.8 | 195 | 2243211 | 0.8 | 0.1 | 5770.52 | |
| 08/06/21 | 3.6 | 17 | 1.045E-06 | 12.2 | 195 | 11702 | 0.0 | 0.2 | 5770.53 | |
| 08/12/21 | 2.0 | 9 | 5.806E-07 | 11.6 | 195 | 1722329 | 1.4 | 0.2 | 5771.93 | |
| 08/20/21 | 1.3 | 6 | 3.774E-07 | 13.2 | 195 | 2270710 | 1.1 | 0.1 | 5773.01 | |
| 08/27/21 | 5.0 | 23 | 1.451E-06 | 11.6 | 195 | 1966388 | 1.8 | 0.3 | 5774.81 | |
| 09/03/21 | 6.4 | 30 | 1.858E-06 | 11.2 | 196 | 1970365 | 3.3 | 0.5 | 5778.07 | |
| 09/08/21 | 26.3 | 122 | 7.635E-06 | 12.8 | 195 | 1405699 | 6.7 | 1.3 | 5784.74 | |
| 09/16/21 | 0.9 | 4 | 2.613E-07 | 14.0 | 194 | 2172670 | 8.6 | 1.1 | 5793.32 | |
| 09/24/21 | 1.0 | 5 | 2.903E-07 | 13.4 | 195 | 2323110 | 0.6 | 0.1 | 5793.96 | |
| 09/30/21 | 1.4 | 7 | 4.064E-07 | 11.9 | 195 | 1637828 | 0.6 | 0.1 | 5794.53 | |
| 10/07/21 | 3.0 | 14 | 8.709E-07 | 15.6 | 194 | 1330692 | 0.8 | 0.2 | 5795.38 | |
| 10/14/21 | 0.9 | 4 | 2.613E-07 | 12.3 | 195 | 1925221 | 1.1 | 0.2 | 5796.47 | |
| 10/29/21 | 1.1 | 5 | 3.193E-07 | 15.3 | 194 | 2766158 | 0.8 | 0.1 | 5797.27 | Restart system atfter power failure |
| 11/05/21 | 1.1 | 5 | 3.193E-07 | 16.0 | 194 | 1976720 | 0.6 | 0.1 | 5797.91 | |
| 11/12/21 | 2.4 | 11 | 6.967E-07 | 16.0 | 194 | 1638347 | 0.8 | 0.1 | 5798.74 | |
| 11/18/21 | 0.2 | 3 | 1.744E-07 | 18.4 | 193 | 1031606 | 0.4 | 0.1 | 5799.19 | |
| 11/18/21 | 1.7 | 24 | 1.482E-06 | 18.2 | 193 | 23130 | 0.0 | 0.2 | 5799.21 | Turn DPE-11 and 12 on |
| 11/24/21 | 1.4 | 20 | 1.221E-06 | 16.9 | 193 | 567557 | 0.8 | 0.4 | 5799.97 | |
| 12/02/21 | 0.4 | 6 | 3.487E-07 | 16.1 | 194 | 2251883 | 1.8 | 0.2 | 5801.74 | |
| 12/08/21 | 0.5 | 7 | 4.359E-07 | 16.5 | 193 | 1683795 | 0.7 | 0.1 | 5802.40 | |
| 12/16/21 | 0.5 | 7 | 4.359E-07 | 16.4 | 194 | 2205677 | 1.0 | 0.1 | 5803.36 | |
| 12/22/21 | 0.0 | 0 | 0.000E+00 | 16.5 | 193 | 1671671 | 0.4 | 0.1 | 5803.73 | |
| 01/05/22 | 0.0 | 0 | 0.000E+00 | 16.8 | 193 | 3887372 | 0.0 | 0.0 | 5803.73 | |
| 01/13/22 | 0.1 | 1 | 8.718E-08 | 15.3 | 194 | 2195858 | 0.1 | 0.0 | 5803.82 | |
| 01/18/22 | 0.9 | 13 | 7.846E-07 | 15.1 | 194 | 826328 | 0.4 | 0.1 | 5804.18 | Restart system after tank high alarm |
| 01/28/22 | 6.8 | 95 | 5.928E-06 | 16.0 | 194 | 2802862 | 9.4 | 0.9 | 5813.59 | |
| 02/11/22 | 10.4 | 145 | 9.067E-06 | 16.7 | 193 | 1521067 | 11.4 | 2.1 | 5824.99 | Restart system after tank high alarm |
| 02/18/22 | 4.7 | 66 | 4.097E-06 | 21.3 | 192 | 1120202 | 7.4 | 1.8 | 5832.37 | 2-14-22 Clean EQ tank floats and restart system |
| 02/18/22 | 5.9 | 82 | 5.144E-06 | 19.6 | 192 | 11514 | 0.1 | 1.3 | 5832.42 | Increased flow at DPE-4, 13, and 14. |
| 03/09/22 | 0.2 | 3 | 1.744E-07 | 16.4 | 194 | 5195891 | 13.8 | 0.7 | 5846.24 | |
| 03/15/22 | 0.1 | 1 | 8.718E-08 | 15.9 | 194 | 1544919 | 0.2 | 0.0 | 5846.44 | |
| 03/25/22 | 0.3 | 4 | 2.615E-07 | 17.6 | 193 | 2854025 | 0.5 | 0.0 | 5846.94 | |
| 04/01/22 | 0.1 | 1 | 8.718E-08 | 17.4 | 193 | 1934524 | 0.3 | 0.0 | 5847.27 | |
| 04/06/22 | 0.3 | 4 | 2.615E-07 | 17.2 | 193 | 1390645 | 0.2 | 0.0 | 5847.52 | |
| 04/15/22 | 0.1 | 1 | 8.718E-08 | 17.8 | 193 | 2502139 | 0.4 | 0.0 | 5847.95 | |
| 04/21/22 | 0.2 | 3 | 1.744E-07 | 17.5 | 193 | 1679162 | 0.2 | 0.0 | 5848.17 | |
| 04/27/22 | 0.6 | 8 | 5.231E-07 | 19.2 | 192 | 1607376 | 0.6 | 0.1 | 5848.73 | |
| 05/05/22 | 1.1 | 15 | 9.590E-07 | 19.0 | 192 | 2205306 | 1.6 | 0.2 | 5850.37 | Meter = 470708 before calibration |
| 05/13/22 | 0.7 | 10 | 6.103E-07 | 18.0 | 193 | 2219579 | 1.7 | 0.2 | 5852.11 | |
| 05/19/22 | 0.3 | 4 | 2.615E-07 | 18.3 | 193 | 1700583 | 0.7 | 0.1 | 5852.85 | |
| 05/26/22 | 0.0 | 0 | 0.000E+00 | 17.5 | 193 | 2002390 | 0.3 | 0.0 | 5853.11 | |
| 06/02/22 | 0.6 | 8 | 5.231E-07 | 17.6 | 193 | 1922743 | 0.5 | 0.1 | 5853.61 | |
| 06/23/22 | 1.1 | 15 | 9.590E-07 | 17.4 | 193 | 5861491 | 4.3 | 0.2 | 5857.96 | |
| 06/30/22 | 0.4 | 6 | 3.487E-07 | 16.7 | 193 | 1855140 | 1.2 | 0.2 | 5859.17 | |
| 07/07/22 | 14.7 | 205 | 1.282E-05 | 16.9 | 193 | 2053296 | 13.5 | 1.8 | 5872.69 | |
| 07/21/22 | 14.4 | 201 | 1.255E-05 | 17.4 | 193 | 3848630 | 48.8 | 3.5 | 5921.51 | |
| 07/28/22 | 5.6 | 78 | 4.882E-06 | 17.2 | 193 | 1981669 | 17.3 | 2.4 | 5938.78 | Flow meter battery died need to get a replacement |
| 08/05/22 | 11.6 | 162 | 1.011E-05 | 14.5 | 194 | 2196753 | 16.5 | 2.1 | 5955.25 | |
| 08/10/22 | 60.7 | 848 | 5.292E-05 | 13.5 | 195 | 1341684 | 42.3 | 8.8 | 5997.54 | |
| 08/26/22 | 83.4 | 1165 | 7.271E-05 | 12.5 | 195 | 4465767 | 280.5 | 17.6 | 6278.05 | |
| 09/06/22 | 21.4 | 299 | 1.866E-05 | 12.8 | 195 | 1169877 | 53.4 | 12.8 | 6331.49 | Owner turned breaker off and forgot to turn back on. |
| 09/15/22 | 17.2 | 240 | 1.500E-05 | 12.6 | 195 | 2503284 | 42.1 | 4.7 | 6373.61 | |
| 09/29/22 | 10.5 | 18.3 | 1.142E-06 | 14.2 | 194 | 3843056 | 31.0 | 2.3 | 6404.62 | |
| 10/07/22 | 1.3 | 2.3 | 1.414E-07 | 13.3 | 195 | 1365710 | 0.9 | 0.2 | 6405.50 | Owner turned breaker off and forgot to turn back on. |
| 10/13/22 | 10.4 | 18.1 | 1.131E-06 | 14.6 | 194 | 1668525 | 1.1 | 0.2 | 6406.56 | |
| 10/21/22 | 0.8 | 1.4 | 8.702E-08 | 14.4 | 194 | 2191137 | 1.3 | 0.2 | 6407.89 | |
| 10/28/22 | 2.0 | 3.5 | 2.175E-07 | 14.3 | 194 | 1946975 | 0.3 | 0.0 | 6408.19 | |
| 11/04/22 | 3.6 | 6.3 | 3.916E-07 | 14.4 | 194 | 1014293 | 0.3 | 0.1 | 6408.50 | System off because pump clogged. Cleaned and restart. |
| 11/04/22 | 2.1 | 3.7 | 2.284E-07 | 13.9 | 194 | 23327 | 0.0 | 0.1 | 6408.50 | Reduced vacuum in DPE-1, 3, 9, 10, 11, and 13 |
| 11/09/22 | 13.8 | 24.0 | 1.501E-06 | 13.6 | 195 | 1365710 | 1.2 | 0.2 | 6409.69 | On 11/4/22 increased vacuum in DPE-6, 7, and 8 |
| 11/16/22 | 1.7 | 3.0 | 1.849E-07 | 14.8 | 194 | 1912582 | 1.6 | 0.2 | 6411.30 | |
| 11/23/22 | 0.8 | 1.4 | 8.702E-08 | 15.4 | 194 | 2002215 | 0.3 | 0.0 | 6411.57 | |
| 12/01/22 | 0.2 | 0.3 | 2.175E-08 | 18.0 | 193 | 2181347 | 0.1 | 0.0 | 6411.69 | |
| 12/09/22 | 0.2 | 0.3 | 2.175E-08 | 15.2 | 194 | 2251424 | 0.0 | 0.0 | 6411.74 | Turned system off for winter |

**Notes:**

1. The estimated mass of contamination recovered is based on ratio of the sum of the volatile organic carbons (VOCs) as measured by a vapor sample collected on November 15, 2019 with a summa canister compared to a contemporaneous PID reading. The average concentration of VOCs was 4.65 mg/m3 per 1 ppm PID reading.

2. The estimated mass of contamination recovered is based on ratio of the sum of the volatile organic carbons (VOCs) as measured by a vapor sample collected on November 18, 2021 with a summa canister compared to a contemporaneous PID reading. The average concentration of VOCs was 13.97 mg/m3 per 1 ppm PID reading. This conversion factor was used after November 18, 2021.

3. The estimated mass of contamination recovered is based on ratio of the sum of the volatile organic carbons (VOCs) as measured by a vapor sample collected on September 29, 2022 with a summa canister compared to a contemporaneous PID reading. The average concentration of VOCs was 1.74 mg/m3 per 1 ppm PID reading. This conversion factor was used after September 29, 2022.

4. VOCs = volatile organic compounds; ppm= parts per million; mg/m3 = milligrams per cubic meter; lb/cf = pounds of VOCs per cubic foot; in Hg = inches of mercury; CFM = cubic feet per minute; CF = cubic feet; lb = pounds

5. Please note the "influent" PID reading refers to untreated incoming vapor. The samples and PID readings are collected from the discharge side of the blower where positive pressure facilitates sample collection. There is no vapor phase treatment; and as such no difference between incoming or exiting concentrations across the DPE system.

6. The mass of VOCs removed is calculated by using the APH/PID ($mg/m^3$) located on Table 1 * Influent PID reading (ppm) = Corrected influent (mg/m3), convert this to lb/cf. Take the vacuum reading (in Hg) and covert to CFM using the blower curve formula specific to the blower used. Take the CFM * elapsed time (minutes) = volume of air processed (CF) * the corrected influent concentration (lb/CF) = VOC's removed (lb)

BENCHMARK TURNKEY

**Table 5 - Summary of DPE Well PID Readings**

**2424 Hamburg Turnpike**
**2424 Hamburg Turnpike LLC**

| Date: | 11/26/2019 | | 7/2/2020 | | 9/27/2020 | | 10/3/2020 | | 4/30/2021 | | 8/6/2021 | | 11/18/2021 | | 4/15/2022 | | 11/4/2022 | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Well ID** | PID (ppm) | Vac. (inch Hg) | PID (ppm) | Vac. (inch Hg) | PID (ppm) | Vac. (inch Hg) | PID (ppm) | Vac. (inch Hg) | PID (ppm) | Vac. (inch Hg) | PID (ppm) | Vac. (inch Hg) | PID (ppm) | Vac. (inch Hg) | PID (ppm) | Vac. (inch Hg) | PID (ppm) | Vac. (inch Hg) |
| DPE-1 | 365.0 | 16.0 | 42.3 | 17.5 | 720.0 | 10.5 | 24.2 | 14.5 | 14.1 | 18.5 | 5.0 | 20.0 | 1.6 | 21.5 | 0.8 | 14.5 | 1.4 | 18.0 |
| DPE-2 | 65.0 | 17.5 | 855.0 | 22.0 | 136.4 | 20.5 | 61.0 | 22.5 | 22.7 | 24.5 | 21.0 | 24.0 | 5.6 | 24.5 | 2.0 | 24.0 | 6.6 | 21.0 |
| DPE-3 | 970.0 | 20.0 | 314.0 | 20.5 | 202.0 | 15.3 | 15.5 | 19.0 | 19.6 | 23.0 | 26.0 | 22.0 | 1.5 | 24.5 | 5.6 | 22.5 | 5.1 | 20.6 |
| DPE-4 | 60.0 | 5.0 | 710.0 | 19.0 | 144.3 | 19.5 | 31.6 | 22.0 | 12.3 | 13.5 | 5.0 | 16.5 | 3.7 | 17.3 | 1.8 | 21.5 | 2.9 | 23.0 |
| DPE-5 | 15.0 | 21.0 | 600.0 | 22.5 | 101.5 | 22.0 | 5.2 | 24.5 | NC | NC | 4.5 | 24.0 | 0.8 | 24.5 | 2.4 | 22.0 | 5.0 | 22.2 |
| DPE-6 | 30.0 | 24.0 | 110.0 | 20.0 | NC | NC | 6.9 | 22.0 | 11.3 | 24.5 | 1.3 | 23.0 | 0.7 | 24.5 | 2.0 | 21.5 | 1.7 | 20.0 |
| DPE-7 | 8.9 | 6.5 | 7.1 | 10.5 | NC | NC | NC | NC | NC | NC | 0.0 | 11.0 | 0.0 | 12.0 | 0.4 | 8.0 | 0.6 | 8.6 |
| DPE-8 | 4.9 | 19.5 | 0.1 | 23.5 | NC | NC | NC | NC | NC | NC | NC | NC | NC | NC | NC | NC | NC | NC |
| DPE-9 | 1990.0 | 22.5 | 488.0 | 22.5 | 202.0 | 15.3 | 15.5 | 19.0 | 37.2 | 24.0 | 16.0 | 24.0 | 0.8 | 24.5 | 2.6 | 23.0 | 2.5 | 23.6 |
| DPE-10 | 300.0 | 24.0 | 39.3 | 19.8 | 720.0 | 10.5 | 24.2 | 14.5 | 27.5 | 21.5 | 40.0 | 19.0 | 21.5 | 20.3 | 5.4 | 19.1 | 8.6 | 18.5 |
| DPE-11 | 8.3 | 20.0 | 19.4 | 25.0 | NC | NC | NC | NC | NC | NC | 1.2 | 24.0 | 1.3 | 24.5 | 2.9 | 22.5 | 2.4 | 23.6 |
| DPE-12 | 8.3 | 20.0 | 12.3 | 24.5 | NC | NC | NC | NC | NC | NC | 3.0 | 23.0 | 1.5 | 24.0 | 1.6 | 19.0 | 10.9 | 22.5 |
| DPE-13 | 8.3 | 20.0 | 11.8 | 20.7 | NC | NC | NC | NC | NC | NC | 0.8 | 22.0 | 0.2 | 22.0 | 5.2 | 22.0 | 2.6 | 21.0 |
| DPE-14 | 8.3 | 20.0 | NC | NC | NC | NC | NC | NC | NC | NC | 2.0 | 24.0 | 0.5 | 23.5 | 2.9 | 21.0 | 2.6 | 22.0 |

**Notes:**

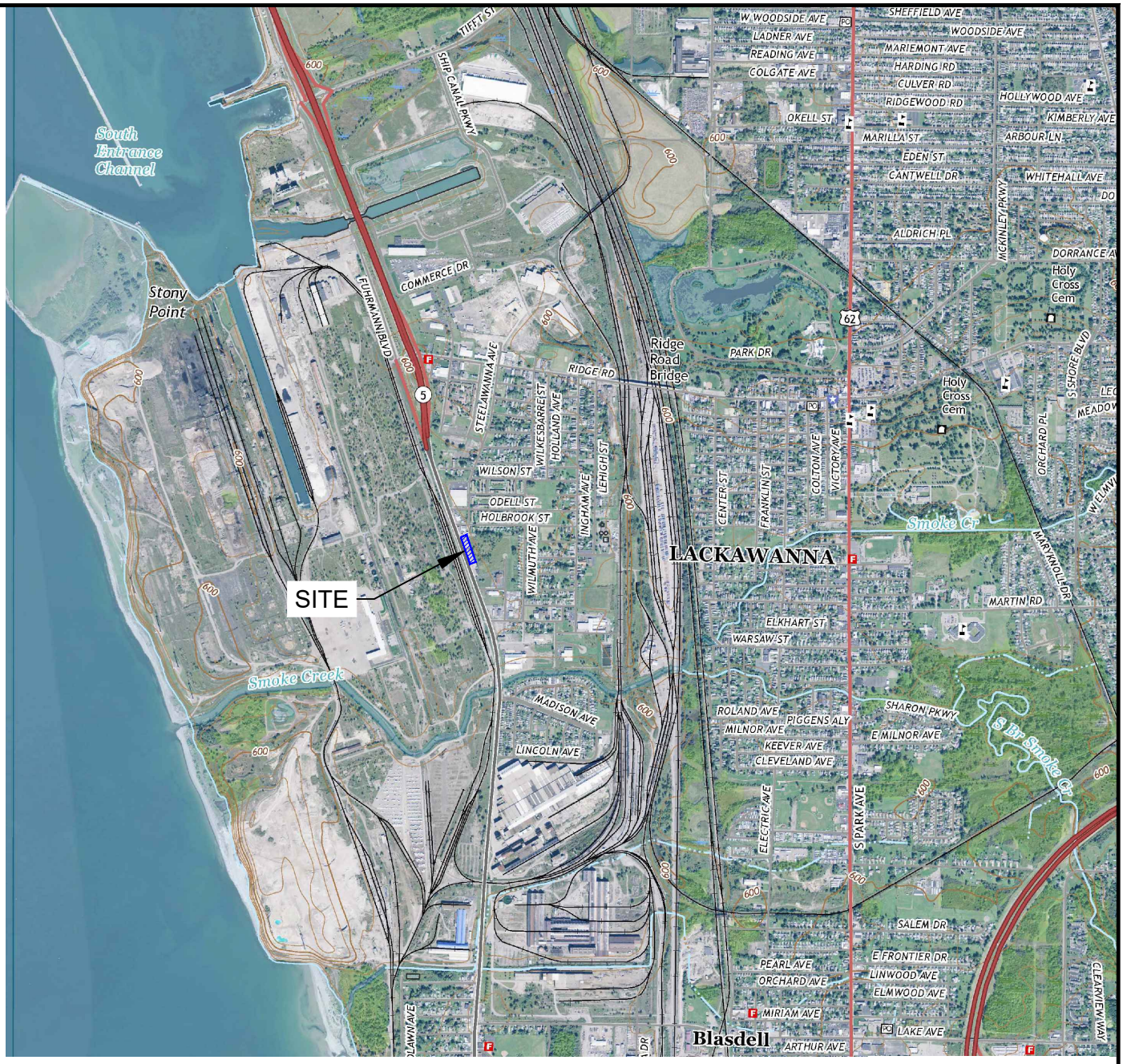
= Highlighted cells reading was taken with DPE-11, DPE-12, DPE-13, and DPE-14 open.
= Highlighted cells reading was taken with DPE-1 and DPE-10 open.
= Highlighted cells reading was taken with DPE-3 and DPE-9 open.
= Highlighted cells reading was taken with DPE-9 open.
= Highlighted cells reading was taken with DPE-2 and DPE-9 open.
= Highlighted cells reading was taken with DPE-2 open.

NC = Not Collected

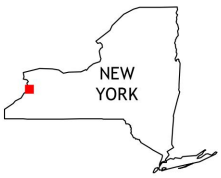
# FIGURES

F:\CAD\Benchmark\2424 Hamburg Turnpike, LLC\0-PRR\Figure 1; Site Location and Vicinity Map.dwg, 5/8/2023 3:30:40 PM

# FIGURE 1




APPROXIMATE SCALE 1" = 2,500'
BASE MAP IS USGS 2016 BUFFALO SE QUADRANGLE.





BENCHMARK

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


PROJECT NO.: 0689-022-001

DATE:

DRAFTED BY: RFL/CCB

## SITE LOCATION & VICINITY MAP

PERIODIC REVIEW REPORT

2424 HAMBURG TURNPIKE SITE
BCP SITE NO. C915296
LACKAWANNA, NEW YORK

PREPARED FOR

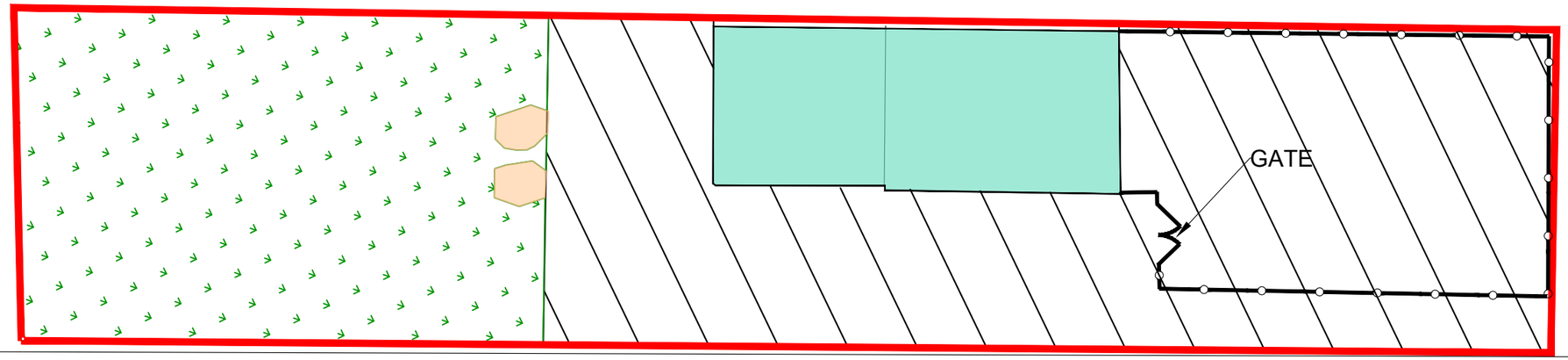
MLG CONTRACTING, INC.

LEGEND:

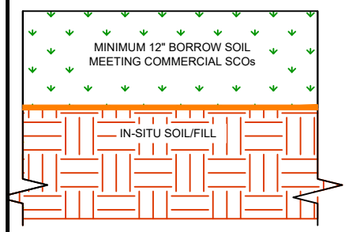
- BCP AND PROPERTY BOUNDARY
- STRUCTURE / BUILDING WITH CONCRETE FLOOR
- ASPHALT COVER
- POURED CONCRETE
- SOIL COVER
- FENCE

40' 0' 40' 80'

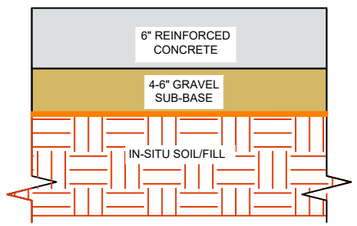
SCALE: 1 INCH = 40 FEET
SCALE IN FEET
(approximate)



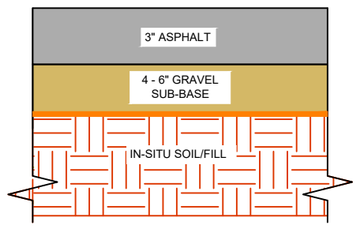

VEGETATIVE COVER SYSTEM DETAIL
NTS



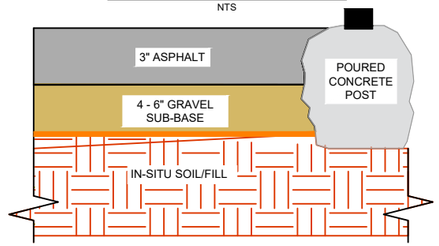

CONCRETE COVER SYSTEM DETAIL
NTS



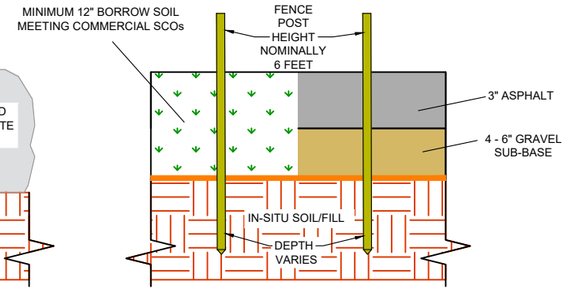

PAVEMENT COVER SYSTEM DETAIL
NTS




PAVEMENT / BILLBOARD POST TIE-IN COVER SYSTEM DETAIL
NTS




FENCE POST DETAIL
(DIRECT PUSH)
NTS




DEMARCATION LAYER

DATE: MAY 2023
DRAFTED BY: CMC/CCB

BENCHMARK

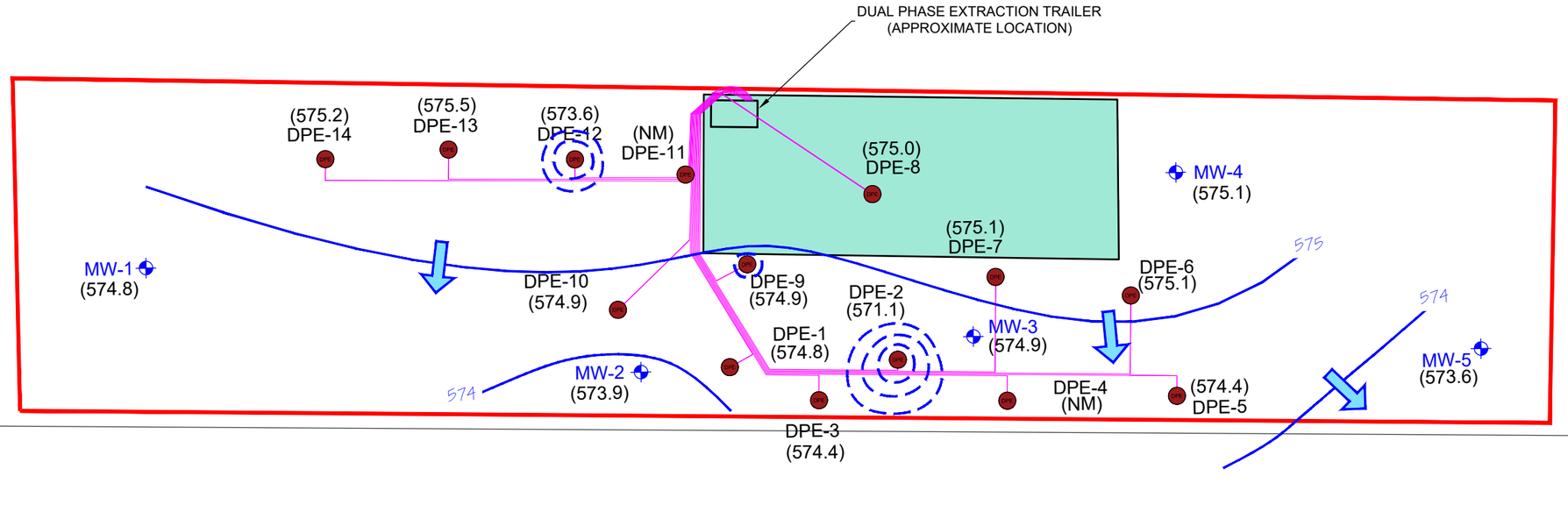
2558 HAMBURG TURNPIKE, SUITE 300, BUFFALO, NY 14218,
(716) 856-0599

JOB NO.: 0689-022-001

# SITE PLAN

PERIODIC REVIEW REPORT
2424 HAMBURG TURNPIKE SITE
BCP SITE NO. C915296
LACKAWANNA, NEW YORK
PREPARED FOR
MLG CONTRACTING, INC.

**FIGURE 2**





SCALE: 1 INCH = 40 FEET
SCALE IN FEET
(approximate)

LEGEND:

- BCP AND PROPERTY BOUNDARY
- EXISTING STRUCTURE
- MW-1 — RI MONITORING WELL
- DPE SYSTEM PIPING
- DPE-1 — DUAL PHASE (SOIL VAPOR AND GROUNDWATER) EXTRACTION WELL (14)
- GROUNDWATER DEPRESSION CONTOUR LINE CAUSED FROM DPE WATER EXTRACTION
- 574 — GROUNDWATER CONTOUR LINE
- GROUNDWATER FLOW DIRECTION

NOTE:
NM = NOT MEASURED

DATE: MAY 2023
DRAFTED BY: CMC

F:\CAD\Benchmark\2424 Hamburg Turnpike, LLC\O-PRR\2022-2023\Figure 3; Groundwater Isopotential Map.dwg, 5/8/2023 3:41:56 PM

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

JOB NO.: 0689-022-001

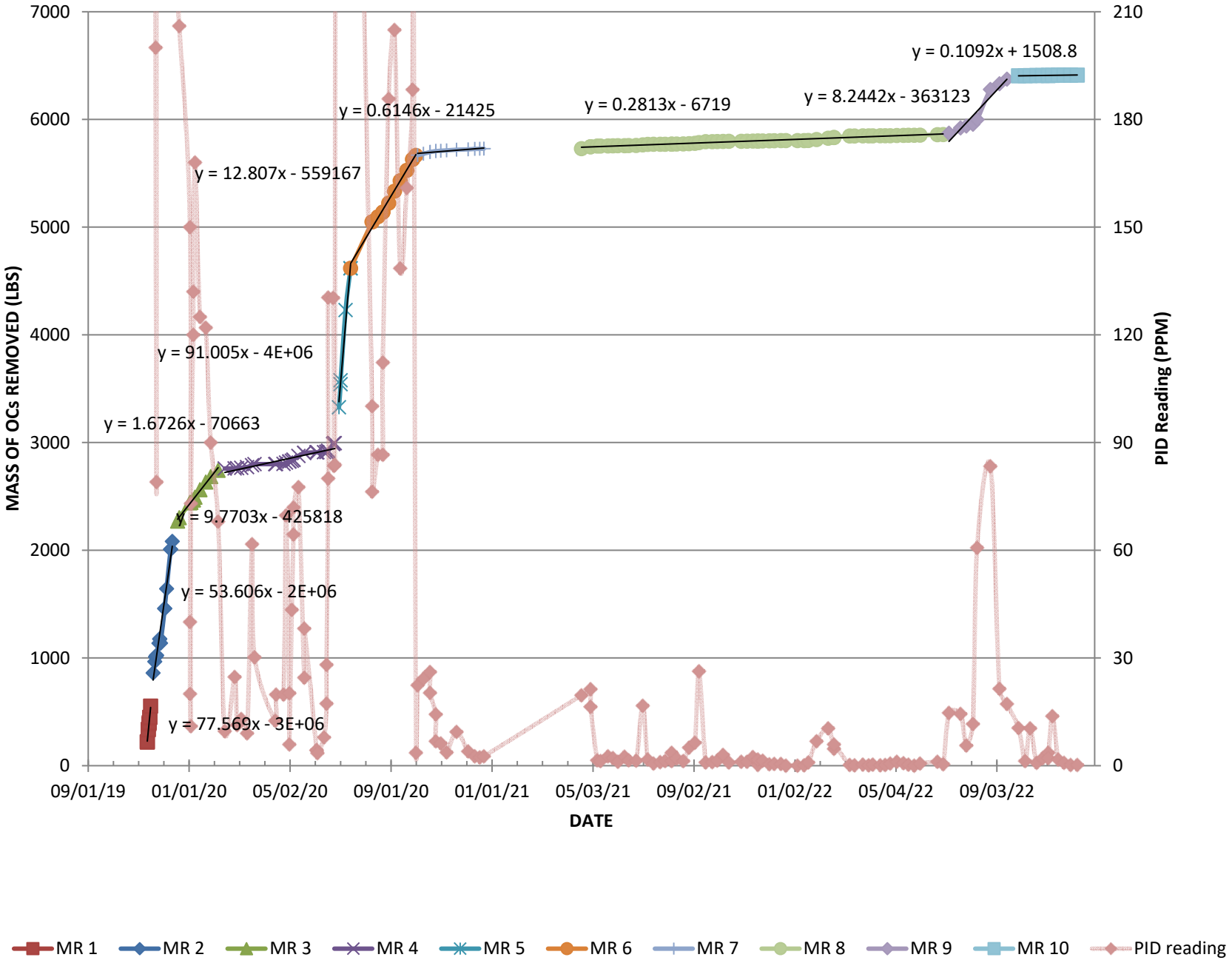
# GROUNDWATER ISOPOTENTIAL MAP
## DECEMBER 7, 2022
PERIODIC REVIEW REPORT

2424 HAMBURG TURNPIKE SITE
BCP SITE NO. C915296
LACKAWANNA, NEW YORK

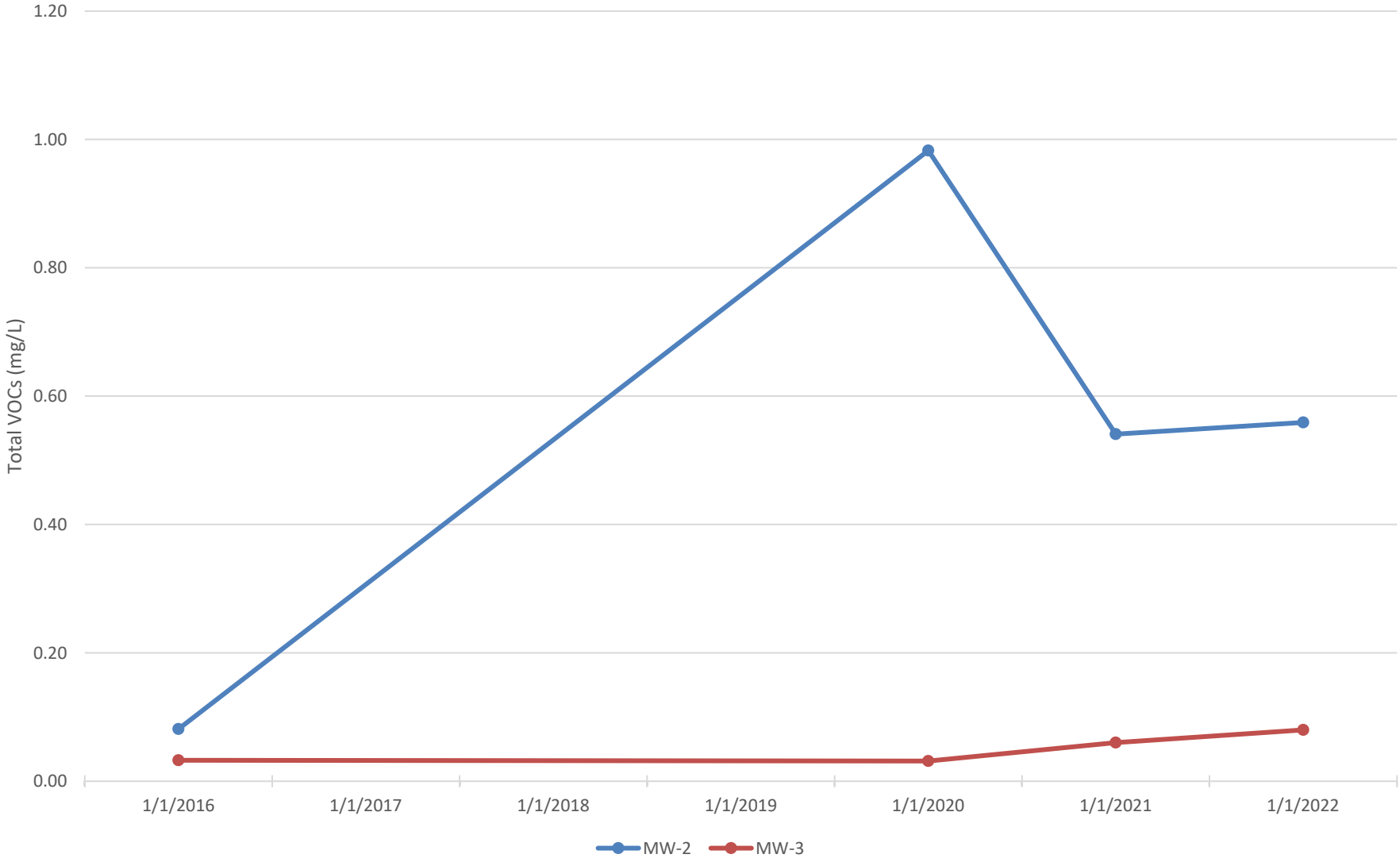
PREPARED FOR
MLG CONTRACTING, INC.

**FIGURE 3**

# FIGURE 4
# 2424 Hamburg Turnpike
# Estimated Mass Removal



# FIGURE 5
# 2424 Hamburg Turnpike
# Total VOCs in Groundwater



# APPENDIX A

## NYSDEC CERTIFICATION, NOTIFICATION FORMS, AND PERMITS ISSUED

**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.** **C915296**

**Site Name 2424 Hamburg Turnpike**

Site Address: 2424 Hamburg Turnpike Zip Code: 14218
City/Town: Lackawanna
County: Erie
Site Acreage: 1.040

Reporting Period: April 24, 2022 to April 24, 2023

| | YES | NO |
|---|---|---|
| 1. Is the information above correct? | ☑ | ☐ |
| 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? | ☐ | ☑ |
| 3. Has there been any change of use at the site during this Reporting Period (see 6NYCRR 375-1.11(d))? | ☐ | ☑ |
| 4. Have any federal, state, and/or local permits (e.g., building, discharge) been issued for or at the property during this Reporting Period? | ☑ | ☐ |
| **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? | ☐ | ☑ |

**Box 2**

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

**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

**Box 2A**

| | YES | NO |
|---|---|---|
| 8. Has any new information revealed that assumptions made in the Qualitative Exposure Assessment regarding offsite contamination are no longer valid? | ☐ | ☑ |

**If you answered YES to question 8, include documentation or evidence that documentation has been previously submitted with this certification form.**

| | | |
|---|---|---|
| 9. Are the assumptions in the Qualitative Exposure Assessment still valid? (The Qualitative Exposure Assessment must be certified every five years) | ☑ | ☐ |

**If you answered NO to question 9, the Periodic Review Report must include an updated Qualitative Exposure Assessment based on the new assumptions.**

**SITE NO. C915296**

**Box 3**

**Description of Institutional Controls**

| Parcel | Owner | Institutional Control |
|---|---|---|
| **141.59-5-2** | MLG Contracting Inc. | Ground Water Use Restriction<br>Landuse Restriction<br>Site Management Plan<br>O&M Plan<br>IC/EC Plan<br><br>Monitoring Plan<br>Building Use Restriction |

**Box 4**

**Description of Engineering Controls**

| Parcel | Engineering Control |
|---|---|
| **141.59-5-2** | Vapor Mitigation<br>Air Sparging/Soil Vapor Extraction<br>Cover System |

Dual-phase extraction system and site cover

**Box 5**

**Periodic Review Report (PRR) Certification Statements**

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

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

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

| YES | NO |
|---|---|
| ☑ | ☐ |

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. C915296**

**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 Michael Giordano at 2205 Hopkins Rd Getzville NY 14068
print name print business address

am certifying as Owner (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

5/18/23
Date

**EC CERTIFICATIONS**

Site No. C915296

**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 Forbes, P.E. at 2558 Hamburg Turnpike, Buffalo, NY 14218.
print name print business address

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


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

Stamp (Required for PE)

4-19-23
Date

**City of Lackawanna**
**Office of Code Enforcement**

714 Ridge Road – Room 311
Lackawanna, NY 14218
Tel: (716) 827-6474 Fax: (716) 827-1866
Email: shayes@lackny.com

# Building Permit

# Notice

## Permit No.: **22-0150**
## has been issued for this building
## **2424 Hamburg Tpke**

**Unit/Lot No.:**

**This notice is to be fastened on a part of the building for which it is issued where it may be seen plainly by all persons**

**All work on this building must be done in accordance with the Ordinances of the Building Code of the City of Lackawanna**

**Work must commence within SIX months of May 9, 2022.**

**EXPIRATION DATE: May 8, 2023**

| | | |
|---|---|---|
| Tax Map No.: 141.59-5-2 | Owner Information: 2424 Hamburg Turnpike, LLC | Permit Type: Construction - Commercial<br>Permit Use: Alteration-Commercial |

Code Enforcement Officer / Building Inspector

# City of Lackawanna
# Office of Code Enforcement

714 Ridge Road – Room 311
Lackawanna, NY 14218
Tel: (716) 827-6474 Fax: (716) 827-1866
Email: shayes@lackny.com

# BUILDING PERMIT DOCUMENTATION

| Application #: 22-0158 | Parcel #: 141.59-5-2 |
|---|---|
| **I. LOCATION OF PROPERTY** | Address: 2424 Hamburg Tpke<br>Unit ID:<br>Subdivision: Lot Area: sq.ft. |

## II. TYPE AND COST OF BUILDING

| | |
|---|---|
| A. TYPE OF IMPROVEMENT<br><br>B. CURRENT ZONING:<br>C. PROPOSED ZONING: | D. PROPOSED USE:<br><br>E. COST<br>Total Cost of Improvement $<br>(including material &labor) |
| F. EXISTING USE<br>G. DESCRIPTION OF WORK - Use additional pages if necessary | |

## III CHARACTERISTICS OF BUILDING - For new buildings, additions, and alterations complete Parts g-n; for all others, skip to Section IV.

| | | |
|---|---|---|
| H. STRUCTURE TYPE | J. TYPE OF SEWAGE SYSTEM<br>Public | N. DIMENSIONS<br>No. of stories:<br>Total Sq. Ft: |
| I. FUEL FIRED APPLIANCES | K. TYPE OF WATER SUPPLY<br>Public | O. OFF STREET PARKING<br>No. of spaces: |
| | L. IMPERVIOUS COVERAGE | P. RESIDENTIAL BUILDINGS<br>No. of bedrooms:<br>No. of bathrooms: |
| | M. STRUCTURED SPRINKLERED<br>No | |
| | Will there be an elevator?<br>Yes ☐ No ☐ | |

## IV. IDENTIFICATION - To be completed by all applicants.

| Name | Mailing Address | E-,mail Address | Telephone # |
|---|---|---|---|
| 1. Owner/Lessee<br>2424 Hamburg Turnpike, LLC | 2558 Hamburg Tpke Ste 300,<br>Lackawanna, NY 14218 | | |
| 2. Contractor | | | |
| 3. Applicant<br>MLG Contracting Inc. | 2205 Hopkins Rd. Getzville NY<br>14068 | | |

The undersigned agrees to conform to all applicable laws of this jurisdiction. The issuance of this permit does not relieve the owners, or any other person or persons in possession or control of the building, or any part thereof, from obtaining such other permit or licenses as may be prescribed by law for the uses or purposes for which the land or building is designed or intended, nor from complying with any lawful order issued with the object of maintaining the building or land in a safe or lawful condition, nor from complying from any regulations specified in property deed restrictions or regulations specified by any homeowners' association. Permit may expire if work described therein has not begun within 6 months after issuance or if work lapses with no activity for a period of 6 months.

Contractor's Registration Number: _
Contractor's Workers Comp No.:

License Expires: _
Expiration Date:

| | | |
|---|---|---|
| Applicant's Signature | Applicant's Address: 2205 Hopkins Rd. Getzville NY 14068 | Application Date: May 9, 2022 |
| Owner's Signature | | |

## V. VALIDATION

**Building Permit Number: 22-0150**

| Date | Description | Paid Date | Amount | Paid | Balance |
|---|---|---|---|---|---|
| May 9, 2022 | Commercial Construction Repairs/Alterations - Filing Fee | | $10.00 | | |
| May 9, 2022 | Commercial Construction Additions - Plan Review | | $90.00 | | |
| May 9, 2022 | TOTAL: Permit Fees | | $100.00 | | $100.00 |
| | Credit/Debit Card 1003 | May 9, 2022 | | $100.00 | $0.00 |
| | **TOTAL FEES** | | $100.00 | | |
| | **TOTAL PAID** | | | $100.00 | |
| | **TOTAL DUE** | | | | $0.00 |

Permit Issued on: May 9, 2022

Approved by: _____
Building Inspector

# City of Lackawanna
# Office of Code Enforcement

714 Ridge Road – Room 311
Lackawanna, NY 14218
Tel: (716) 827-6474 Fax: (716) 827-1866
Email: shayes@lackny.com

## BUILDING PERMIT CRITERIA -** *APPLICANT KEEPS THIS PAGE* **

CONSTRUCTION INFORMATION:The following information must be submitted with this application:
- Two (2) sets of plans.(for new residential and commercial builds, both sets must be stapled & signed)
- A cross-section diagram/specification sheet showing all components of the project (i.e., insulation, roof pitch, footings, joists).
- Floor plan showing dimensions of the structure, window locations and sizes, doorways and openings, and any other details that might be included.
- Exterior elevations.

Note: In many cases, New York law requires stamped architectural drawings.

PLOT PLAN: An instrument survey or tape location map must accompany the application, showing as follows:
- Outline of the property.
- Location of all buildings or structures.
- Where the proposed structure will be constructed.
- Distances from the building to the front, rear, and side lot lines.

INSPECTIONS: Inspections are required during the building process; at least 24 HOURS NOTICE is necessary to schedule the required inspection. Items not previously inspected shall be uncovered or exposed for the inspector, so be sure to schedule all pertinent inspections. It is your responsibility.
- Post holes
- Footing - before concrete. Call with a pour time.
- Wall-after water proofing, prior to back fill.
- Rough Plumbing- underground prior to backfill. System to be filled.
- Rough Framing- after mechanicals and prior to insulation. .
- Insulation- before interior wall surfaces.
- Fireplace- masonry before first flue tile/ insert and before clearances are blocked.
- Final electric- by agency- see below.
- Final- when all work is complete and structure is ready to be used.
- Certificate of Occupancy or Certificate of Compliance will be issued.

ELECTRICAL INSPECTIONS:Final electrical inspection certificates are required by the Building Department before a certificate of occupancy/compliance will be issued. The City of Lackawanna recognizes Commonwealth Electrical Services for final electrical inspections. It is the property owner's responsibility to contact one of the approved agencies to schedule a final inspection.
ADDITIONAL INFORMATION:The Building Permit Notice must be posted in a conspicuous place at the construction site so that it is visible from the road. PLEASE NOTE: All of the above information is required prior to a permit being issued. Payment is due at that time to the "City of Lackawanna" by cash or check only. The Building Permit expires 1 year from date of issuance. Permit is void if construction is not started within 6 months of date of issuance. A final inspection is required. 10112

**City of Lackawanna**
**Office of Code Enforcement**

714 Ridge Road – Room 311
Lackawanna, NY 14218
Tel: (716) 827-6474 Fax: (716) 827-1866
Email: shayes@lackny.com

# Building Permit

# Notice

## Permit No.: **22-0501**
## has been issued for this building
## **2424 Hamburg Tpke**

**Unit/Lot No.:**

**This notice is to be fastened on a part of the building for which it is issued where it may be seen plainly by all persons**

**All work on this building must be done in accordance with the Ordinances of the Building Code of the City of Lackawanna**

**Work must commence within SIX months of October 4, 2022.**

**EXPIRATION DATE: October 3, 2023**

| | | |
|---|---|---|
| Tax Map No.: 141.59-5-2 | Owner Information: 2424 Hamburg Turnpike, LLC | Permit Type: Construction - Commercial<br>Permit Use: Fence- Commercial |

Scott Hayes

Code Enforcement Officer / Building Inspector

# City of Lackawanna
# Office of Code Enforcement

714 Ridge Road – Room 311
Lackawanna, NY 14218
Tel: (716) 827-6474 Fax: (716) 827-1866
Email: shayes@lackny.com

# BUILDING PERMIT DOCUMENTATION

| Application #: 22-0444 | Parcel #: 141.59-5-2 |
|---|---|

| | |
|---|---|
| **I. LOCATION OF PROPERTY** | Address: 2424 Hamburg Tpke<br>Unit ID:<br>Subdivision: Lot Area: sq.ft. |

## II. TYPE AND COST OF BUILDING

| | |
|---|---|
| A. TYPE OF IMPROVEMENT<br>Fence<br>B. CURRENT ZONING: MC/I - MIXED COMMERICAL-INDUSTRIAL<br>C. PROPOSED ZONING: | D. PROPOSED USE:<br><br>E. COST<br>Total Cost of Improvement (including material &labor) $10,000.00 |

F. EXISTING USE B Business
G. DESCRIPTION OF WORK - Use additional pages if necessary
Install 329 feet of 6 foot chain link with 3 strands of barbed wire topper. Barber wire is approved to be in commercial zones.

## III CHARACTERISTICS OF BUILDING - For new buildings, additions, and alterations complete Parts g-n; for all others, skip to Section IV.

| | | |
|---|---|---|
| H. STRUCTURE TYPE | J. TYPE OF SEWAGE SYSTEM<br>Public | N. DIMENSIONS<br>No. of stories:<br>Total Sq. Ft: |
| I. FUEL FIRED APPLIANCES | K. TYPE OF WATER SUPPLY<br>Public | O. OFF STREET PARKING<br>No. of spaces: |
| | L. IMPERVIOUS COVERAGE | P. RESIDENTIAL BUILDINGS<br>No. of bedrooms:<br>No. of bathrooms: |
| | M. STRUCTURED SPRINKLERED<br>No | |
| | Will there be an elevator?<br>Yes ☐ No ☐ | |

## IV. IDENTIFICATION - To be completed by all applicants.

| Name | Mailing Address | E-mail Address | Telephone # |
|---|---|---|---|
| 1. Owner/Lessee<br>2424 Hamburg Turnpike, LLC | 2558 Hamburg Tpke Ste 300,<br>Lackawanna, NY 14218 | | |
| 2. Contractor | | | |
| 3. Applicant<br>MLG Contracting Inc. | 2205 Hopkins Rd., Getzville, NY 14068 | | 7168633062 |

The undersigned agrees to conform to all applicable laws of this jurisdiction. The issuance of this permit does not relieve the owners, or any other person or persons in possession or control of the building, or any part thereof, from obtaining such other permit or licenses as may be prescribed by law for the uses or purposes for which the land or building is designed or intended, nor from complying with any lawful order issued with the object of maintaining the building or land in a safe or lawful condition, nor from complying from any regulations specified in property deed restrictions or regulations specified by any homeowners' association. Permit may expire if work described therein has not begun within 6 months after issuance or if work lapses with no activity for a period of 6 months.

Contractor's Registration Number: _ License Expires: _
Contractor's Workers Comp No.: Expiration Date:

| | | |
|---|---|---|
| Applicant's Signature<br><br>Owner's Signature | Applicant's Address: 2205 Hopkins Rd., Getzville, NY 14068 | Application Date: September 8, 2022 |

## V. VALIDATION

**Building Permit Number: 22-0501**

| Date | Description | Paid Date | Amount | Paid | Balance |
|---|---|---|---|---|---|
| September 8, 2022 | Fence - Filing Fee | | $57.90 | | |
| September 8, 2022 | TOTAL: Permit Fees | | $57.90 | | $57.90 |
| | Check 5834 | October 4, 2022 | | $57.90 | $0.00 |
| | **TOTAL FEES** | | $57.90 | | |
| | **TOTAL PAID** | | | $57.90 | |
| | **TOTAL DUE** | | | | $0.00 |

Permit Issued on: October 4, 2022

Approved by: Scott Hayes
Building Inspector

# City of Lackawanna
# Office of Code Enforcement

714 Ridge Road – Room 311
Lackawanna, NY 14218
Tel: (716) 827-6474 Fax: (716) 827-1866
Email: shayes@lackny.com

## BUILDING PERMIT CRITERIA -***APPLICANT KEEPS THIS PAGE***

CONSTRUCTION INFORMATION:The following information must be submitted with this application:
- Two (2) sets of plans.(for new residential and commercial builds, both sets must be stapled & signed)
- A cross-section diagram/specification sheet showing all components of the project (i.e., insulation, roof pitch, footings, joists).
- Floor plan showing dimensions of the structure, window locations and sizes, doorways and openings, and any other details that might be included.
- Exterior elevations.

Note: In many cases, New York law requires stamped architectural drawings.

PLOT PLAN: An instrument survey or tape location map must accompany the application, showing as follows:
- Outline of the property.
- Location of all buildings or structures.
- Where the proposed structure will be constructed.
- Distances from the building to the front, rear, and side lot lines.

INSPECTIONS: Inspections are required during the building process; at least 24 HOURS NOTICE is necessary to schedule the required inspection. Items not previously inspected shall be uncovered or exposed for the inspector, so be sure to schedule all pertinent inspections. It is your responsibility.
- Post holes
- Footing - before concrete. Call with a pour time.
- Wall-after water proofing, prior to back fill.
- Rough Plumbing- underground prior to backfill. System to be filled.
- Rough Framing- after mechanicals and prior to insulation. .
- Insulation- before interior wall surfaces.
- Fireplace- masonry before first flue tile/ insert and before clearances are blocked.
- Final electric- by agency- see below.
- Final- when all work is complete and structure is ready to be used.
- Certificate of Occupancy or Certificate of Compliance will be issued.

ELECTRICAL INSPECTIONS:Final electrical inspection certificates are required by the Building Department before a certificate of occupancy/compliance will be issued. The City of Lackawanna recognizes Commonwealth Electrical Services for final electrical inspections. It is the property owner's responsibility to contact one of the approved agencies to schedule a final inspection.
ADDITIONAL INFORMATION:The Building Permit Notice must be posted in a conspicuous place at the construction site so that it is visible from the road. PLEASE NOTE: All of the above information is required prior to a permit being issued. Payment is due at that time to the "City of Lackawanna" by cash or check only. The Building Permit expires 1 year from date of issuance. Permit is void if construction is not started within 6 months of date of issuance. A final inspection is required. 10112

**City of Lackawanna**
**Office of Code Enforcement**

714 Ridge Road – Room 311
Lackawanna, NY 14218
Tel: (716) 827-6474 Fax: (716) 827-1866
Email: shayes@lackny.com

# Building Permit

# Notice

## Permit No.: **23-0067**
## has been issued for this building
## **2424 Hamburg Tpke**

**Unit/Lot No.:**

**This notice is to be fastened on a part of the building for which it is issued where it may be seen plainly by all persons**

**All work on this building must be done in accordance with the Ordinances of the Building Code of the City of Lackawanna**

**Work must commence within SIX months of February 27, 2023.**

**EXPIRATION DATE: February 26, 2024**

| | | |
|---|---|---|
| Tax Map No.: 141.59-5-2 | Owner Information: MLG Contracting, Inc., | Permit Type: Construction - Commercial<br>Permit Use: Electrical-Commercial |

Code Enforcement Officer / Building Inspector

CP- 24315

**City of Lackawanna**
**Office of Code Enforcement**

714 Ridge Road – Room 311
Lackawanna, NY 14218
Tel: (716) 827-6474 Fax: (716) 827-1866
Email: shayes@lackny.com

# Building Permit

# Notice

## Permit No.: **23-0074**
## has been issued for this building
## **2424 Hamburg Tpke**

**Unit/Lot No.:**

**This notice is to be fastened on a part of the building for which it is issued where it may be seen plainly by all persons**

**All work on this building must be done in accordance with the Ordinances of the Building Code of the City of Lackawanna**

**Work must commence within SIX months of February 28, 2023.**

**EXPIRATION DATE: February 27, 2024**

| | | |
|---|---|---|
| Tax Map No.: 141.59-5-2 | Owner Information: MLG Contracting, Inc., | Permit Type: Plumbing<br>Permit Use: Commercial-Plumbing |

Code Enforcement Officer / Building Inspector

The undersigned agrees to conform to all applicable laws of this jurisdiction. The issuance of this permit does not relieve the owners, or any other person or persons in possession or control of the building, or any part thereof, from obtaining such other permit or licenses as may be prescribed by law for the uses or purposes for which the land or building is designed or intended, nor from complying with any lawful order issued with the object of maintaining the building or land in a safe or lawful condition, nor from complying from any regulations specified in property deed restrictions or regulations specified by any homeowners' association. Permit may expire if work described therein has not begun within 6 months after issuance or if work lapses with no activity for a period of 6 months.

Contractor's Registration Number: _ License Expires: _
Contractor's Workers Comp No.: Expiration Date:

| | | |
|---|---|---|
| Applicant's Signature | Applicant's Address: 2286 South Park Ave Buffalo NY 14220 | Application Date: February 28, 2023 |
| Owner's Signature | | |

## V. VALIDATION

**Building Permit Number: 23-0074**

| Date | Description | Paid Date | Amount | Paid | Balance |
|---|---|---|---|---|---|
| February 28, 2023 | Commercial Plumbing (includes multi-dwelling) - Filing Fee | | $115.00 | | |
| February 28, 2023 | TOTAL: Permit Fees | | $115.00 | | $115.00 |
| | Credit/Debit Card 3846067169 | February 28, 2023 | | $115.00 | $0.00 |
| | **TOTAL FEES** | | $115.00 | | |
| | **TOTAL PAID** | | | $115.00 | |
| | **TOTAL DUE** | | | | $0.00 |

Permit Issued on: February 28, 2023

Approved by: _____
Building Inspector

# APPENDIX B

## SITE PHOTO LOG

# SITE PHOTOGRAPHS

**Photo 1:**


**Photo 2:**

**Photo 3:**

**Photo 4:**


Photo 1: 2424 Hamburg Turnpike Building (Looking SE)

Photo 2: Asphalt cover (Looking NE)

Photo 3: Vegetated soil cover (Looking N)

Photo 4: Vegetated soil cover (Looking SW)

# SITE PHOTOGRAPHS

**Photo 5:**

**Photo 6:**

**Photo 7:**

**Photo 8:**

Photo 5: South half of building with concrete floor. Painters working on inside. (Looking NW)

Photo 6: North half of building with garage doors and concrete floor (Looking NE)

Photo 7: Dual phase extraction system manifold piping (Looking E)

Photo 8: Dual phase extraction system (Looking N)

# APPENDIX C

## LABORATORY ANALYTICAL DATA REPORTS

# ANALYTICAL REPORT

| | |
|---|---|
| Lab Number: | L2269111 |
| Client: | Benchmark & Turnkey Companies<br>2558 Hamburg Turnpike<br>Suite 300<br>Buffalo, NY 14218 |
| ATTN: | Brock Greene |
| Phone: | (716) 856-0599 |
| Project Name: | 2424 HAMBURG TURNPIKE |
| Project Number: | B0345-021-001-2 |
| Report Date: | 12/21/22 |



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:** 2424 HAMBURG TURNPIKE
**Project Number:** B0345-021-001-2

**Lab Number:** L2269111
**Report Date:** 12/21/22

| Alpha Sample ID | Client ID | Matrix | Sample Location | Collection Date/Time | Receive Date |
|---|---|---|---|---|---|
| L2269111-01 | MW-2 | WATER | BUFFALO, NY | 12/07/22 12:00 | 12/08/22 |
| L2269111-02 | MW-3 | WATER | BUFFALO, NY | 12/07/22 11:20 | 12/08/22 |

| | | | |
|---|---|---|---|
| **Project Name:** | 2424 HAMBURG TURNPIKE | **Lab Number:** | L2269111 |
| **Project Number:** | B0345-021-001-2 | **Report Date:** | 12/21/22 |

## 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:** 2424 HAMBURG TURNPIKE **Lab Number:** L2269111
**Project Number:** B0345-021-001-2 **Report Date:** 12/21/22

**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: Kelly O'Neill

Title: Technical Director/Representative Date: 12/21/22

# ORGANICS

# VOLATILES

**Project Name:** 2424 HAMBURG TURNPIKE **Lab Number:** L2269111

**Project Number:** B0345-021-001-2 **Report Date:** 12/21/22

## SAMPLE RESULTS

Lab ID: L2269111-01 D
Client ID: MW-2
Sample Location: BUFFALO, NY

Date Collected: 12/07/22 12:00
Date Received: 12/08/22
Field Prep: Not Specified

Sample Depth:
Matrix: Water
Analytical Method: 1,8260D
Analytical Date: 12/14/22 16:46
Analyst: LAC

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor |
|---|---|---|---|---|---|---|
| **Volatile Organics by GC/MS - Westborough Lab** | | | | | | |
| Methylene chloride | ND | | ug/l | 6.2 | 1.8 | 2.5 |
| 1,1-Dichloroethane | ND | | ug/l | 6.2 | 1.8 | 2.5 |
| Chloroform | ND | | ug/l | 6.2 | 1.8 | 2.5 |
| Carbon tetrachloride | ND | | ug/l | 1.2 | 0.34 | 2.5 |
| 1,2-Dichloropropane | ND | | ug/l | 2.5 | 0.34 | 2.5 |
| Dibromochloromethane | ND | | ug/l | 1.2 | 0.37 | 2.5 |
| 1,1,2-Trichloroethane | ND | | ug/l | 3.8 | 1.2 | 2.5 |
| Tetrachloroethene | ND | | ug/l | 1.2 | 0.45 | 2.5 |
| Chlorobenzene | ND | | ug/l | 6.2 | 1.8 | 2.5 |
| Trichlorofluoromethane | ND | | ug/l | 6.2 | 1.8 | 2.5 |
| 1,2-Dichloroethane | ND | | ug/l | 1.2 | 0.33 | 2.5 |
| 1,1,1-Trichloroethane | ND | | ug/l | 6.2 | 1.8 | 2.5 |
| Bromodichloromethane | ND | | ug/l | 1.2 | 0.48 | 2.5 |
| trans-1,3-Dichloropropene | ND | | ug/l | 1.2 | 0.41 | 2.5 |
| cis-1,3-Dichloropropene | ND | | ug/l | 1.2 | 0.36 | 2.5 |
| Bromoform | ND | | ug/l | 5.0 | 1.6 | 2.5 |
| 1,1,2,2-Tetrachloroethane | ND | | ug/l | 1.2 | 0.42 | 2.5 |
| Benzene | 110 | | ug/l | 1.2 | 0.40 | 2.5 |
| Toluene | 34 | | ug/l | 6.2 | 1.8 | 2.5 |
| Ethylbenzene | 110 | | ug/l | 6.2 | 1.8 | 2.5 |
| Chloromethane | ND | | ug/l | 6.2 | 1.8 | 2.5 |
| Bromomethane | ND | | ug/l | 6.2 | 1.8 | 2.5 |
| Vinyl chloride | ND | | ug/l | 2.5 | 0.18 | 2.5 |
| Chloroethane | ND | | ug/l | 6.2 | 1.8 | 2.5 |
| 1,1-Dichloroethene | ND | | ug/l | 1.2 | 0.42 | 2.5 |
| trans-1,2-Dichloroethene | ND | | ug/l | 6.2 | 1.8 | 2.5 |
| Trichloroethene | ND | | ug/l | 1.2 | 0.44 | 2.5 |
| 1,2-Dichlorobenzene | ND | | ug/l | 6.2 | 1.8 | 2.5 |

**Project Name:** 2424 HAMBURG TURNPIKE **Lab Number:** L2269111

**Project Number:** B0345-021-001-2 **Report Date:** 12/21/22

## SAMPLE RESULTS

Lab ID: L2269111-01 D
Client ID: MW-2
Sample Location: BUFFALO, NY

Date Collected: 12/07/22 12:00
Date Received: 12/08/22
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 | 6.2 | 1.8 | 2.5 |
| 1,4-Dichlorobenzene | ND | | ug/l | 6.2 | 1.8 | 2.5 |
| Methyl tert butyl ether | ND | | ug/l | 6.2 | 1.8 | 2.5 |
| p/m-Xylene | 94 | | ug/l | 6.2 | 1.8 | 2.5 |
| o-Xylene | 110 | | ug/l | 6.2 | 1.8 | 2.5 |
| cis-1,2-Dichloroethene | ND | | ug/l | 6.2 | 1.8 | 2.5 |
| Styrene | ND | | ug/l | 6.2 | 1.8 | 2.5 |
| Dichlorodifluoromethane | ND | | ug/l | 12 | 2.5 | 2.5 |
| Acetone | ND | | ug/l | 12 | 3.6 | 2.5 |
| Carbon disulfide | ND | | ug/l | 12 | 2.5 | 2.5 |
| 2-Butanone | ND | | ug/l | 12 | 4.8 | 2.5 |
| 4-Methyl-2-pentanone | ND | | ug/l | 12 | 2.5 | 2.5 |
| 2-Hexanone | ND | | ug/l | 12 | 2.5 | 2.5 |
| Bromochloromethane | ND | | ug/l | 6.2 | 1.8 | 2.5 |
| 1,2-Dibromoethane | ND | | ug/l | 5.0 | 1.6 | 2.5 |
| 1,2-Dibromo-3-chloropropane | ND | | ug/l | 6.2 | 1.8 | 2.5 |
| Isopropylbenzene | 17 | | ug/l | 6.2 | 1.8 | 2.5 |
| 1,2,3-Trichlorobenzene | ND | | ug/l | 6.2 | 1.8 | 2.5 |
| 1,2,4-Trichlorobenzene | ND | | ug/l | 6.2 | 1.8 | 2.5 |
| Methyl Acetate | ND | | ug/l | 5.0 | 0.58 | 2.5 |
| Cyclohexane | 61 | | ug/l | 25 | 0.68 | 2.5 |
| 1,4-Dioxane | ND | | ug/l | 620 | 150 | 2.5 |
| Freon-113 | ND | | ug/l | 6.2 | 1.8 | 2.5 |
| Methyl cyclohexane | 23 | J | ug/l | 25 | 0.99 | 2.5 |

| Surrogate | % Recovery | Qualifier | Acceptance Criteria |
|---|---|---|---|
| 1,2-Dichloroethane-d4 | 96 | | 70-130 |
| Toluene-d8 | 101 | | 70-130 |
| 4-Bromofluorobenzene | 99 | | 70-130 |
| Dibromofluoromethane | 90 | | 70-130 |

**Project Name:** 2424 HAMBURG TURNPIKE **Lab Number:** L2269111

**Project Number:** B0345-021-001-2 **Report Date:** 12/21/22

## SAMPLE RESULTS

Lab ID: L2269111-02
Client ID: MW-3
Sample Location: BUFFALO, NY

Date Collected: 12/07/22 11:20
Date Received: 12/08/22
Field Prep: Not Specified

Sample Depth:
Matrix: Water
Analytical Method: 1,8260D
Analytical Date: 12/14/22 16:21
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 | 16 | | ug/l | 0.50 | 0.16 | 1 |
| Toluene | 4.9 | | ug/l | 2.5 | 0.70 | 1 |
| Ethylbenzene | 13 | | 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:** 2424 HAMBURG TURNPIKE **Lab Number:** L2269111

**Project Number:** B0345-021-001-2 **Report Date:** 12/21/22

## SAMPLE RESULTS

Lab ID: L2269111-02 Date Collected: 12/07/22 11:20

Client ID: MW-3 Date Received: 12/08/22

Sample Location: BUFFALO, NY Field Prep: Not Specified

Sample Depth:

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor |
|---|---|---|---|---|---|---|
| **Volatile Organics by GC/MS - Westborough Lab** | | | | | | |
| 1,3-Dichlorobenzene | ND | | ug/l | 2.5 | 0.70 | 1 |
| 1,4-Dichlorobenzene | ND | | ug/l | 2.5 | 0.70 | 1 |
| Methyl tert butyl ether | ND | | ug/l | 2.5 | 0.70 | 1 |
| p/m-Xylene | 10 | | ug/l | 2.5 | 0.70 | 1 |
| o-Xylene | 4.8 | | 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 | ND | | 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 | 4.3 | | 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 | 12 | | 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 | 15 | | ug/l | 10 | 0.40 | 1 |

| Surrogate | % Recovery | Qualifier | Acceptance Criteria |
|---|---|---|---|
| 1,2-Dichloroethane-d4 | 87 | | 70-130 |
| Toluene-d8 | 104 | | 70-130 |
| 4-Bromofluorobenzene | 98 | | 70-130 |
| Dibromofluoromethane | 73 | | 70-130 |

**Project Name:** 2424 HAMBURG TURNPIKE **Lab Number:** L2269111

**Project Number:** B0345-021-001-2 **Report Date:** 12/21/22

# Method Blank Analysis
## Batch Quality Control

Analytical Method: 1,8260D
Analytical Date: 12/14/22 08:36
Analyst: PID

| Parameter | Result | Qualifier | Units | RL | MDL |
|---|---|---|---|---|---|
| Volatile Organics by GC/MS - Westborough Lab for sample(s): 01-02 Batch: WG1723441-5 | | | | | |
| 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:** 2424 HAMBURG TURNPIKE **Lab Number:** L2269111

**Project Number:** B0345-021-001-2 **Report Date:** 12/21/22

# Method Blank Analysis
## Batch Quality Control

Analytical Method: 1,8260D
Analytical Date: 12/14/22 08:36
Analyst: PID

| Parameter | Result | Qualifier | Units | RL | MDL |
|---|---|---|---|---|---|
| Volatile Organics by GC/MS - Westborough Lab for sample(s): 01-02 Batch: WG1723441-5 | | | | | |
| 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:** 2424 HAMBURG TURNPIKE **Lab Number:** L2269111

**Project Number:** B0345-021-001-2 **Report Date:** 12/21/22

# Method Blank Analysis
## Batch Quality Control

Analytical Method: 1,8260D
Analytical Date: 12/14/22 08:36
Analyst: PID

| Parameter | Result | Qualifier | Units | RL | MDL |
|---|---|---|---|---|---|
| Volatile Organics by GC/MS - Westborough Lab for sample(s): 01-02 Batch: WG1723441-5 | | | | | |

| Surrogate | %Recovery | Qualifier | Acceptance Criteria |
|---|---|---|---|
| 1,2-Dichloroethane-d4 | 103 | | 70-130 |
| Toluene-d8 | 99 | | 70-130 |
| 4-Bromofluorobenzene | 98 | | 70-130 |
| Dibromofluoromethane | 118 | | 70-130 |

# Lab Control Sample Analysis

## Batch Quality Control

**Project Name:** 2424 HAMBURG TURNPIKE

**Project Number:** B0345-021-001-2

**Lab Number:** L2269111

**Report Date:** 12/21/22

| Parameter | LCS %Recovery | Qual | LCSD %Recovery | Qual | %Recovery Limits | RPD | Qual | RPD Limits |
|---|---|---|---|---|---|---|---|---|
| Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-02 Batch: WG1723441-3 WG1723441-4 | | | | | | | | |
| Methylene chloride | 110 | | 110 | | 70-130 | 0 | | 20 |
| 1,1-Dichloroethane | 110 | | 110 | | 70-130 | 0 | | 20 |
| Chloroform | 95 | | 100 | | 70-130 | 5 | | 20 |
| Carbon tetrachloride | 100 | | 100 | | 63-132 | 0 | | 20 |
| 1,2-Dichloropropane | 100 | | 100 | | 70-130 | 0 | | 20 |
| Dibromochloromethane | 79 | | 81 | | 63-130 | 3 | | 20 |
| 1,1,2-Trichloroethane | 80 | | 84 | | 70-130 | 5 | | 20 |
| Tetrachloroethene | 98 | | 100 | | 70-130 | 2 | | 20 |
| Chlorobenzene | 99 | | 100 | | 75-130 | 1 | | 20 |
| Trichlorofluoromethane | 110 | | 110 | | 62-150 | 0 | | 20 |
| 1,2-Dichloroethane | 100 | | 93 | | 70-130 | 7 | | 20 |
| 1,1,1-Trichloroethane | 100 | | 100 | | 67-130 | 0 | | 20 |
| Bromodichloromethane | 91 | | 93 | | 67-130 | 2 | | 20 |
| trans-1,3-Dichloropropene | 82 | | 86 | | 70-130 | 5 | | 20 |
| cis-1,3-Dichloropropene | 90 | | 97 | | 70-130 | 7 | | 20 |
| Bromoform | 77 | | 79 | | 54-136 | 3 | | 20 |
| 1,1,2,2-Tetrachloroethane | 85 | | 87 | | 67-130 | 2 | | 20 |
| Benzene | 100 | | 100 | | 70-130 | 0 | | 20 |
| Toluene | 96 | | 98 | | 70-130 | 2 | | 20 |
| Ethylbenzene | 100 | | 100 | | 70-130 | 0 | | 20 |
| Chloromethane | 120 | | 120 | | 64-130 | 0 | | 20 |
| Bromomethane | 97 | | 97 | | 39-139 | 0 | | 20 |
| Vinyl chloride | 100 | | 110 | | 55-140 | 10 | | 20 |

# Lab Control Sample Analysis

## Batch Quality Control

**Project Name:** 2424 HAMBURG TURNPIKE

**Project Number:** B0345-021-001-2

**Lab Number:** L2269111

**Report Date:** 12/21/22

| Parameter | LCS %Recovery | Qual | LCSD %Recovery | Qual | %Recovery Limits | RPD | Qual | RPD Limits |
|---|---|---|---|---|---|---|---|---|
| Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-02 Batch: WG1723441-3 WG1723441-4 | | | | | | | | |
| Chloroethane | 110 | | 120 | | 55-138 | 9 | | 20 |
| 1,1-Dichloroethene | 110 | | 110 | | 61-145 | 0 | | 20 |
| trans-1,2-Dichloroethene | 110 | | 110 | | 70-130 | 0 | | 20 |
| Trichloroethene | 97 | | 98 | | 70-130 | 1 | | 20 |
| 1,2-Dichlorobenzene | 98 | | 100 | | 70-130 | 2 | | 20 |
| 1,3-Dichlorobenzene | 100 | | 100 | | 70-130 | 0 | | 20 |
| 1,4-Dichlorobenzene | 99 | | 100 | | 70-130 | 1 | | 20 |
| Methyl tert butyl ether | 83 | | 87 | | 63-130 | 5 | | 20 |
| p/m-Xylene | 105 | | 110 | | 70-130 | 5 | | 20 |
| o-Xylene | 105 | | 110 | | 70-130 | 5 | | 20 |
| cis-1,2-Dichloroethene | 110 | | 100 | | 70-130 | 10 | | 20 |
| Styrene | 100 | | 105 | | 70-130 | 5 | | 20 |
| Dichlorodifluoromethane | 110 | | 110 | | 36-147 | 0 | | 20 |
| Acetone | 100 | | 99 | | 58-148 | 1 | | 20 |
| Carbon disulfide | 120 | | 120 | | 51-130 | 0 | | 20 |
| 2-Butanone | 81 | | 89 | | 63-138 | 9 | | 20 |
| 4-Methyl-2-pentanone | 76 | | 83 | | 59-130 | 9 | | 20 |
| 2-Hexanone | 88 | | 98 | | 57-130 | 11 | | 20 |
| Bromochloromethane | 100 | | 100 | | 70-130 | 0 | | 20 |
| 1,2-Dibromoethane | 84 | | 87 | | 70-130 | 4 | | 20 |
| 1,2-Dibromo-3-chloropropane | 82 | | 86 | | 41-144 | 5 | | 20 |
| Isopropylbenzene | 100 | | 110 | | 70-130 | 10 | | 20 |
| 1,2,3-Trichlorobenzene | 90 | | 95 | | 70-130 | 5 | | 20 |

# Lab Control Sample Analysis

## Batch Quality Control

**Project Name:** 2424 HAMBURG TURNPIKE

**Project Number:** B0345-021-001-2

**Lab Number:** L2269111

**Report Date:** 12/21/22

| Parameter | LCS %Recovery | Qual | LCSD %Recovery | Qual | %Recovery Limits | RPD | Qual | RPD Limits |
|---|---|---|---|---|---|---|---|---|
| Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-02 Batch: WG1723441-3 WG1723441-4 | | | | | | | | |
| 1,2,4-Trichlorobenzene | 89 | | 94 | | 70-130 | 5 | | 20 |
| Methyl Acetate | 100 | | 100 | | 70-130 | 0 | | 20 |
| Cyclohexane | 110 | | 110 | | 70-130 | 0 | | 20 |
| 1,4-Dioxane | 86 | | 80 | | 56-162 | 7 | | 20 |
| Freon-113 | 120 | | 120 | | 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 | 97 | | 97 | | 70-130 |
| Toluene-d8 | 99 | | 100 | | 70-130 |
| 4-Bromofluorobenzene | 100 | | 101 | | 70-130 |
| Dibromofluoromethane | 104 | | 101 | | 70-130 |

**Project Name:** 2424 HAMBURG TURNPIKE
**Project Number:** B0345-021-001-2

**Lab Number:** L2269111
**Report Date:** 12/21/22

## 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(*) |
|---|---|---|---|---|---|---|---|---|---|
| L2269111-01A | Vial HCl preserved | A | NA | | 2.8 | Y | Absent | | NYTCL-8260-R2(14) |
| L2269111-01B | Vial HCl preserved | A | NA | | 2.8 | Y | Absent | | NYTCL-8260-R2(14) |
| L2269111-01C | Vial HCl preserved | A | NA | | 2.8 | Y | Absent | | NYTCL-8260-R2(14) |
| L2269111-02A | Vial HCl preserved | A | NA | | 2.8 | Y | Absent | | NYTCL-8260-R2(14) |
| L2269111-02B | Vial HCl preserved | A | NA | | 2.8 | Y | Absent | | NYTCL-8260-R2(14) |
| L2269111-02C | Vial HCl preserved | A | NA | | 2.8 | Y | Absent | | NYTCL-8260-R2(14) |



*Values in parentheses indicate holding time in days

| | | | |
|---|---|---|---|
| **Project Name:** | 2424 HAMBURG TURNPIKE | **Lab Number:** | L2269111 |
| **Project Number:** | B0345-021-001-2 | **Report Date:** | 12/21/22 |

## 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:** | 2424 HAMBURG TURNPIKE | **Lab Number:** | L2269111 |
| **Project Number:** | B0345-021-001-2 | **Report Date:** | 12/21/22 |

***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.

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

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

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

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

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

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

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

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

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

***Data Qualifiers***

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

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

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

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

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

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

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

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

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

**J** - Estimated value. The Target analyte concentration is below the quantitation limit (RL), but above the Method Detection Limit (MDL) or Estimated Detection Limit (EDL) for SPME-related analyses. This represents an estimated concentration for Tentatively

*Report Format: DU Report with 'J' Qualifiers*

| | | | |
|---|---|---|---|
| **Project Name:** | 2424 HAMBURG TURNPIKE | **Lab Number:** | L2269111 |
| **Project Number:** | B0345-021-001-2 | **Report Date:** | 12/21/22 |

***Data Qualifiers***

Identified Compounds (TICs).

**M** - Reporting Limit (RL) exceeds the MCP CAM Reporting Limit for this analyte.

**ND** - Not detected at the method detection limit (MDL) for the sample, or estimated detection limit (EDL) for SPME-related analyses.

**NJ** - Presumptive evidence of compound. This represents an estimated concentration for Tentatively Identified Compounds (TICs), where 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:** | 2424 HAMBURG TURNPIKE | **Lab Number:** | L2269111 |
| **Project Number:** | B0345-021-001-2 | **Report Date:** | 12/21/22 |

## 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-Terpineol
**EPA 8260C/8260D:** NPW: 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene, Azobenzene; SCM: Iodomethane (methyl iodide), 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene.
**EPA 8270D/8270E:** NPW: Dimethylnaphthalene,1,4-Diphenylhydrazine, alpha-Terpineol; SCM: Dimethylnaphthalene,1,4-Diphenylhydrazine.
**SM4500**: NPW: Amenable Cyanide; SCM: Total Phosphorus, TKN, NO2, NO3.

**Mansfield Facility**
**SM 2540D:** TSS
**EPA 8082A:** NPW: PCB: 1, 5, 31, 87,101, 110, 141, 151, 153, 180, 183, 187.
**EPA TO-15:** Halothane, 2,4,4-Trimethyl-2-pentene, 2,4,4-Trimethyl-1-pentene, Thiophene, 2-Methylthiophene, 3-Methylthiophene, 2-Ethylthiophene, 1,2,3-Trimethylbenzene, Indan, Indene, 1,2,4,5-Tetramethylbenzene, Benzothiophene, 1-Methylnaphthalene.
**Biological Tissue Matrix:** EPA 3050B

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

**Westborough Facility:**

***Drinking Water***
**EPA 300.0**: Chloride, Nitrate-N, Fluoride, Sulfate; **EPA 353.2**: Nitrate-N, Nitrite-N; **SM4500NO3-F**: Nitrate-N, Nitrite-N; **SM4500F-C, SM4500CN-CE, EPA 180.1, SM2130B, SM4500Cl-D, SM2320B, SM2540C, SM4500H-B, SM4500NO2-B**
**EPA 332**: Perchlorate; **EPA 524.2:** THMs and VOCs; **EPA 504.1:** EDB, DBCP.
**Microbiology**: **SM9215B; SM9223-P/A, SM9223B-Colilert-QT,SM9222D**.

***Non-Potable Water***
**SM4500H,B, EPA 120.1, SM2510B, SM2540C, SM2320B, SM4500CL-E, SM4500F-BC, SM4500NH3-BH:** Ammonia-N and Kjeldahl-N, **EPA 350.1**: Ammonia-N, **LACHAT 10-107-06-1-B**: Ammonia-N, **EPA 351.1, SM4500NO3-F, EPA 353.2**: Nitrate-N, **SM4500P-E, SM4500P-B, E, SM4500SO4-E, SM5220D, EPA 410.4, SM5210B, SM5310C, SM4500CL-D, EPA 1664, EPA 420.1, SM4500-CN-CE, SM2540D, EPA 300: Chloride, Sulfate, Nitrate.**
**EPA 624.1**: Volatile Halocarbons & Aromatics,
**EPA 608.3**: Chlordane, Toxaphene, Aldrin, alpha-BHC, beta-BHC, gamma-BHC, delta-BHC, Dieldrin, DDD, DDE, DDT, Endosulfan I, Endosulfan II, Endosulfan sulfate, Endrin, Endrin Aldehyde, Heptachlor, Heptachlor Epoxide, PCBs
**EPA 625.1**: SVOC (Acid/Base/Neutral Extractables), **EPA 600/4-81-045**: PCB-Oil.
**Microbiology**: **SM9223B-Colilert-QT; Enterolert-QT, SM9221E, EPA 1600, EPA 1603, SM9222D.**

**Mansfield Facility:**

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

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

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

# NEW YORK CHAIN OF CUSTODY

ALPHA ANALYTICAL

Westborough, MA 01581
8 Walkup Dr.
TEL: 508-898-9220
FAX: 508-898-9193

Mansfield, MA 02048
320 Forbes Blvd
TEL: 508-822-9300
FAX: 508-822-3288

Service Centers
Mahwah, NJ 07430: 35 Whitney Rd, Suite 5
Albany, NY 12205: 14 Walker Way
Tonawanda, NY 14150: 275 Cooper Ave, Suite 105

Page 1 of 1

Date Rec'd in Lab: 12/09/22

ALPHA Job #: L2269111

## Client Information

Client: Benchmark Environmental
Address: 2558 Hamburg Turnpike,Ste300
Buffalo, NY 14218
Phone: 716-856-0599
Fax:
Email: bgreene@bm-tk.com

## Project Information

Project Name: 2424 Hamburg Turnpike
Project Location: Buffalo, NY
Project #: B0345-021-001-2
(Use Project name as Project #) ☐
Project Manager:
ALPHAQuote #:

## Turn-Around Time

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

## Deliverables

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

## Regulatory Requirement

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

## Billing Information

☑ Same as Client Info
PO #

## Disposal Site Information

Please identify below location of applicable disposal facilities.

Disposal Facility:
☐ NJ ☐ NY
☐ Other: NA

These samples have been previously analyzed by Alpha ☑

**Other project specific requirements/comments:**

Email results to:

**Please specify Metals or TAL.**

| ALPHA Lab ID (Lab Use Only) | Sample ID | Collection Date | Collection Time | Sample Matrix | Sampler's Initials | ANALYSIS TCL 8260 | Sample Filtration | Total Bottles |
|---|---|---|---|---|---|---|---|---|
| L2269111-01 | MW-2 | 12-7-22 | 1200 | Water | CEH | X | | 3 |
| -02 | MW-3 | 12-7-22 | 1120 | Water | CEH | X | | 3 |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |

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

Container Type: V
Preservative: B

Preservative Code:
A = None
B = HCl
C = $HNO_3$
D = $H_2SO_4$
E = NaOH
F = MeOH
G = $NaHSO_4$
H = $Na_2S_2O_3$
K/E = Zn Ac/NaOH
O = Other

Container Code
P = Plastic
A = Amber Glass
V = Vial
G = Glass
B = Bacteria Cup
C = Cube
O = Other
E = Encore
D = BOD Bottle

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

| Relinquished By: | Date/Time | Received By: | Date/Time |
|---|---|---|---|
| Martin Herbst | 12-7-22 1300 | | |
| | 12/8/22 1445 | | 12/9/22 0830 |

Please print clearly, legibly and completely. Samples can not be logged in and turnaround time clock will not start until any ambiguities are resolved. BY EXECUTING THIS COC, THE CLIENT HAS READ AND AGREES TO BE BOUND BY ALPHA'S TERMS & CONDITIONS.

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

# APPENDIX D

## SEWER DISCHARGE PERMIT, COMPLIANCE REPORTS, AND ANALYTICAL DATA

APR 2 2 2021

# County of Erie

**MARK C. POLONCARZ**
County Executive

THOMAS R. HERSEY, JR
Commissioner

DEPARTMENT OF ENVIRONMENT AND PLANNING

JOSEPH L. FIEGL, P.E.
Deputy Commissioner

April 19, 2021

Brock Greene, Senior Project Environmental Scientist
Turnkey Environmental Restoration, LLC
2558 Hamburg Turnpike, Suite 300
Buffalo, New York 14218

RE: Erie County Sewer District No.6 (ECSD No.6)
Industrial Wastewater Discharge Permit LA-04
2424 Hamburg Turnpike, Lackawanna, New York

Dear Mr. Greene:

Enclosed please find an original copy of the Industrial Wastewater Discharge Permit for above referenced site. The Permit must be maintained on site and available for review upon request. Please note that the initial monitoring report, due August 8, 2021, is to include EPA 625, EPA 608 and Total Oil & Grease analysis.

Please review the permit carefully. If you should have any questions or concerns you may reach me at 823-5888, ext 223.

Sincerely,

Laura A. Surdej
Industrial Wastewater Specialist

Cc: G. Absolom/K. Kaminski/6.2.4 2424 Hamburg Turnpike
E. Eigenbrod
M. Dembski
Paul H Werthman, P.E. (Turnkey)
Tom Forbes, P.E. (Turnkey)

ERIE COUNTY SEWER DISTRICT #6

Industrial Wastewater Discharge Permit

Permit No. LA-04

In accordance with all terms and conditions of the Rules and Regulations for Erie County Sewer Districts, as adopted by Erie County Sewer District #6 (ECSD #6) and with any applicable provision of Federal or State law or regulation;

Permission is Hereby Granted To 2424 Hamburg Turnpike LLC

(Address) 2424 Hamburg Turnpike

Lackawanna, New York 14218

(Responsible Person) Paul H. Werthman P.E.

(Title) Managing Member

(Telephone No.) (716)856-0635 (Emergency Telephone No.)

(Standard Industrial Classification Code) (remedial site)

(Categorical Classification)

For the contribution of wastewaters containing regulated pollutants into the ECSD #6 sewerage system.

This permit, including the general provisions, is granted in accordance with the application filed on March 23, 2021 in the office of the ECSD #6 and in conformity with any plans, specifications and other data submitted to ECSD #6 in support of the above application, all of which are filed with and considered a part of this permit.

Effective this 10th day of May, 2021

To expire the 9th day of May, 2024

Glenn H. Absolom, Chief Treatment Plant Supervisor April 16, 2021 Date

ERIE COUNTY SEWER DISTRICT #6

DISCHARGE MONITORING REPORTING REQUIREMENTS

Industry 2424 Hamburg Turnpike LLC Permit No. LA-04

Effective Date May 10, 2021

During the period beginning the effective date of this permit and lasting until its expiration date, discharge monitoring results shall be summarized and reported by the permittee by the dates specified below:

| Sample Point | Initial Report | Subsequent Reports(1) |
|---|---|---|
| 001 | August 8, 2021 | Every February 8 and August 8 |

Report due dates cover the preceding six (6) month's report period.

| i.e. | Report Date | Report Covers This Reporting Period |
|---|---|---|
| | August 8 | February 9 - August 8 |
| | February 8 | August 9 - February 8 |

ERIE COUNTY SEWER DISTRICT #6

DISCHARGE LIMITATIONS AND MONITORING REQUIREMENTS

Industry 2424 Hamburg Turnpike LLC Permit No. LA-04 Effective Date May 10, 2021

During the period beginning the effective date of this Permit and lasting until the expiration date, discharge from the permitted facility's outfall(s) shall be limited and monitored by the permittee as specified below.

| Sample Point | Parameter | Discharge Limits | Sample Type | Sampling Frequency |
|---|---|---|---|---|
| 001 | pH | 5.0-12.0 | Grab | One Day |
| | Flow | 25,000 gallons | | Daily |
| | T. Phenols | monitor | Grab | One Day |
| | T. Cyanide (2) | 0.48 mg/l | Grab | One Day |
| | Barium | monitor | Grab | One Day |
| | Iron | Monitor | Grab | One Day |
| | Arsenic (2) | 0.18 mg/l | Grab | One Day |
| | Cadmium (2) | 0.26 mg/l | Grab | One Day |
| | Chromium (2) | 4.85 mg/l | Grab | One Day |
| | Copper (2) | 0.57 mg/l | Grab | One Day |
| | Lead (2) | 0.40 mg/l | Grab | One Day |
| | Mercury (2) | 0.06 mg/l | Grab | One Day |
| | Nickel (2) | 0.88 mg/l | Grab | One Day |
| | Selenium (2) | 0.17 mg/l | Grab | One Day |
| | Silver (2) | 0.01 mg/l | Grab | One Day |
| | Zinc (2) | 6.35 mg/l | Grab | One Day |
| | Total Oil & Grease (1) | 100 mg/l | Grab | One Day |
| | TTO: | 2.13 mg/l | | |
| | EPA 624 | | Grab | One Day |
| | EPA 625 (1) | | Grab | One Day |
| | EPA 608 (1) | | Grab | One Day |

All limits are in mg/l except pH and flow.
(1) See Special Requirements, page 4.
(2) Proposed local limits. See special requirements, page 4.

ERIE COUNTY SEWER DISTRICT #6

SPECIAL REQUIREMENTS

Industry 2424 Hamburg Turnpike LLC Permit No. LA-04

Effective Date May 10, 2021

1. The initial monitoring report, due August 8, 2021 shall include analysis for EPA 608, EPA 625 and Total Oil & Grease. If results are within acceptable limits, then subsequent analyses must only be reported annually, in August monitoring reports.

2. Total metals to include: As, Ba, Cd, Cr, Cu, Fe, Pb, Hg, Ni, Se, Ag, Zn.

3. Proposed Local Limit parameters are included in the monitoring. These limits are pending EPA approval and may be subject to change.

4. The Total Oil & Grease limit is based on the required test method EPA 1664A.

5. Flow should be recorded daily. Semi-annual reports shall include flow data for sampling period.

6. Once per year, the flow meter must be calibrated and certified by an outside source. A copy of this recertification must be submitted.

F:\CAD\Benchmark\2424 Hamburg Turnpike, LLC\Discharge Permit\Figure 1; Site Plan (Aerial).dwg

DATE: OCTOBER 2019
DRAFTED BY: CCB




# SITE PLAN (AERIAL)

2424 HAMBURG TURNPIKE SITE
BCP SITE NO. C915298
LACKAWANNA, NEW YORK
PREPARED FOR
2424 HAMBURG TURNPIKE, LLC

**FIGURE 1**


BENCHMARK
ENVIRONMENTAL ENGINEERING & SCIENCE, PLLC
2558 HAMBURG TURNPIKE
SUITE 300
BUFFALO, NY 14218
(716) 856-0599


JOB NO.: 0345-015-001

## GENERAL PROVISIONS

1. All submittals and correspondence shall be addressed to:

   Erie County Division of Sewerage Management
   Southtowns Water Resource Recovery Facility
   c/o Laura Surdej
   S-3690 Lakeshore Blvd.
   Buffalo, New York 14219

2. This permit shall not be transferred, reassigned or sold to a new owner, new user, different premises or a new or changed operation without the written approval of the District.

3. This permit shall be valid for a period of three years from the date of issuance. The applications for renewing this permit must be submitted at least 90 days prior to the expiration of this permit.

4. As U.S.E.P.A. or N.Y.S.D.E.C. adds or amended specific effluent guidelines, or as the Board deems necessary to protect employees or the sewerage works or operations, the conditions of this Industrial Wastewater Discharge Permit may be amended. Written notice of proposed changes shall be sent to the permittee.

5. When the permitted discharge is substantially altered in volume, character of strength, the permittee must notify the Board in writing 30 days prior to altering the discharge. If the Board determines that a new permit is necessary the permittee shall apply for a new permit for the altered discharge.

6. This permit may be revoked by the Board, if after a hearing, a violation is determined to exist and no corrective measures are taken within 30 days of such determination. If this permit is revoked, all discharges covered by this permit shall cease immediately.

7. The permittee, shall when requested, complete an Industrial Waste Survey. The permittee may be requested to update the survey annually.

8. The permittee shall submit monitoring reports as per the requirements listed in the attached Monitoring and Reporting Requirements.

9. Methods employed for flow measurements, sample collection and analyses shall conform to the Erie County Sewer District's "Sampling, Measurement and Analytical Guidelines."

10. The permittee shall notify immediately of changes that occur at the facility affecting the potential for a slug discharge to allow for reevaluation of slug control plan or other actions to prevent such discharges.

11. The permittee, shall maintain a Slug Control Plan as outlined in the "Spill Control/Solvent Management Guidelines".

12. In the event that any slug discharge or accidental discharge occurs at the facility for which this permit is issued the permittee shall immediately notify ECSD #6 by telephone (823-5888)of the quantity and character of such discharge.

    Within five days following all such discharges, the permittee shall submit a report describing the character and duration of the discharge, the cause of the discharge, and measures taken or that will be taken to prevent a recurrence of such discharge.

13. All records and information resulting from the monitoring activities required by the Permit including all records of analyses performed, calibration and maintenance of instrumentation, and recordings from continuous monitoring instrumentation shall be retained for a minimum of three years. If it is deemed necessary, this period shall be extended as is needed. Additionally, these records must be available for inspection and copying during normal business hours.

14. The monitoring report, which shall consist of the analysis, field log(s), map, certification statement and chain of possession log, must be submitted by the industry and not by a contract or consulting firm.

15. Monitoring reports must contain the following signed certification statement:

    *I certify, under penalty of law, that this document and all attachments were prepared under/by direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.*

16. If the permittee is not meeting the limits imposed by this permit, the permittee shall submit a compliance schedule for meeting the limits. The time limits proposed to meet full compliance must be approved by the Board. If a compliance schedule is established

because of a change in a Federal Categorical Pretreatment Regulation, then the federally established deadline will be the compliance time allowed.

No later than fourteen calendar days following each milestone date identified in the Schedule of Compliance, the permittee shall submit either a report of progress or, in the case of specific actions being required by identified dates, a written notice of compliance or noncompliance. In the latter case, the notice shall include the cause of noncompliance, any remedial action taken, and the probability of meeting the next schedule date requirement.

All reports, plans and/or specifications that propose new or modified waste treatment and/or disposal facilities must be approved, and signed and sealed by a professional engineer licensed to practice in New York State.

17. If sampling performed by the permittee indicates a violation, the permittee shall notify the Erie County Department of Environment and Planning, Division of Sewerage Management (823-8188) within 24 hours of becoming aware of the violation. The permittee shall also repeat the sampling and analysis and submit the results of the repeat analysis to the Division of Sewerage Management within 30 days after becoming aware of the violation.

18. The permittee shall be subject to a premium assessment not to exceed ten thousand dollars for each violation of the limits or requirements of this permit.

Each day a violation is shown to exist shall constitute a separate violation. A day shall be a twenty-four hour period beginning at 12:01 A.M. and ending the following 12:01 A.M. This permit may be revoked, if after a hearing, a violation is determined to exist and corrective measures are not taken within 30 days of such determination.

Nothing in this section shall be construed to limit the right of the Board to enforce, or avail themselves of the benefits of any and all other applicable laws and ordinances including injunctive relief.

19. The following definitions shall apply to this permit:

a. The "monthly average" discharge shall mean the arithmetic average of daily values, reported in appropriate units, for all calendar days during any calendar month that flow measurement and/or wastewater discharge sample analysis are required.

b. The "daily maximum" discharge shall mean the flow measurements and/or wastewater discharge analysis for any 24 hour period that reasonably represents the calendar day, when such measurements and analyses are taken as required.

c. "Daily" - each operating day.

d. "Weekly" - one day each week and a normal operating day.

e. "Monthly" - one day each month and normal operating day.

f. "Composite" shall mean a combination of individual (or continuously taken) samples obtained at regular intervals over the entire discharge day. The volume of each sample shall be proportional to the discharge flow rate. For continuous discharge, a minimum of forty-eight individual grab samples (at half hour intervals) shall be collected and combined to constitute a 24-hour composite sample. For intermittent discharges of less than 4 hours duration grab samples shall be taken at a minimum of 15 minute intervals.

g. "Grab" shall mean an individual sample collected over a period of time not exceeding fifteen minutes.

h. "Board" shall mean the Board of Managers of an Erie County Sewer District or its authorized representatives.

Strong Advocates, Effective Solutions, Integrated Implementation

August 1, 2022

Ms. Laura Surdej
Erie County Sewer/Southtowns Sewage Treatment Plant
2060 Lehigh St
Lackawanna, NY 14218

Re: ECSD No.6 Discharge Permit LA-04 – Discharge Report (February 2022 - July 2022)
For 2424 Hamburg Turnpike, Lackawanna, New York

Dear Ms. Surdej:

TurnKey Environmental Restoration, LLC (TurnKey) has prepared this correspondence on behalf of our client, 2424 Hamburg Turnpike LLC, for the treated groundwater at the above-referenced property location in accordance with Erie County Sewer District No. 6 (ECSD No. 6) Permit No. LA-04, effective May 10, 2021. As required by the permit, this report summarizes flow and compliance sample results for the report period from February 2022 through July 2022.

TurnKey personnel recorded totalizer (total gallons) weekly during the reporting period. Table 1 summarizes the total volume (gallons) and calculated daily flow (gallons per day) measured from February 2022 through July 2022.

On July 8, 2022, TurnKey personnel collected an effluent water sample and submitted the sample under chain-of-custody command to Alpha Analytical for laboratory analysis in accordance with the discharge permit. Table 2 summarizes the analytical results; Attachment 1 contains the Laboratory Analytical Report. All parameters meet corresponding permitted discharge limits.

As of July 29, 2022, approximately 206,263 gallons of water has been pre-treated and discharged during this monitoring period to the ECSD No.6 collection and conveyance system. The calculated daily flow for the reporting period has ranged between zero and 2,836 GPD, well below permitted flows of up to 25,000 GPD. The flow meter was subjected to third party annual calibration on May 5, 2022. The calibration certificate is presented as Attachment 2. We plan on calibrating the flow meter in May of 2023.

Please contact me if you have any questions or require additional information.

Sincerely,
TurnKey Environmental Restoration, LLC

Brock Greene
Sr. Project Environmental Scientist

# TABLES

TURNKEY ENVIRONMENTAL RESTORATION, LLC

## TABLE 1

## SUMMARY OF EFFLUENT FLOW

## 2424 HAMBURG TURNPIKE GROUNDWATER PRE-TREATMENT SYSTEM
**Lackawanna, New York**

| Date | Totalizer (gallons) | Gallons per Period (gallons) | Calculated GPD (gallons/day) |
|---|---|---|---|
| | | | Permit Limit 25,000 GPD |
| 2/11/22 | 385647 | 5,626 | 402 |
| 2/18/22 | 400261 | 14,614 | 2,088 |
| 3/9/22 | 422941 | 22,680 | 1,194 |
| 3/15/22 | 429933 | 6,992 | 1,165 |
| 3/25/22 | 435621 | 5,688 | 569 |
| 4/1/22 | 439250 | 3,629 | 518 |
| 4/6/22 | 441256 | 2,006 | 401 |
| 4/15/22 | 445886 | 4,630 | 514 |
| 4/22/22 | 453609 | 7,723 | 1,103 |
| 4/27/22 | 461827 | 8,218 | 1,644 |
| 5/5/22 | 470546 | 8,719 | 1,090 |
| 5/13/22 | 16453 | 16,615 | 2,077 |
| 5/19/22 | 26074 | 9,621 | 1,604 |
| 5/26/22 | 42429 | 16,355 | 2,336 |
| 6/2/22 | 62281 | 19,852 | 2,836 |
| 6/23/22 | 91809 | 29,528 | 1,406 |
| 6/30/22 | 97134 | 5,325 | 761 |
| 7/7/22 | 101809 | 4,675 | 668 |
| 7/21/22 | 110232 | 8,423 | 602 |
| 7/29/22 | 0 | 5,344 | 668 |

Gallons discharged this monitoring period = 206,263

Notes:

On 5/5/22 totalizer readings was 470,708. The flow meter was calibrated and the totalizer was reset to zero.

Flow meter battery was dead on 7/28/22 so a 668 GPD flow rate was used to estimate gallons treated.

On 7/29/22 the flow meter battery was changed and the flow meter was reset to zero.

# TABLE 2

## SUMMARY OF EFFLUENT WATER ANALYTICAL DATA

## 2424 HAMBURG TURNPIKE GROUNDWATER PRE-TREATMENT SYSTEM
## Lackawanna, New York

| Parameter [1] | Effluent 07/08/22 | Discharge Permit Limitations [2] |
|---|---|---|
| ***Volatile Organic Compounds (VOCs - Method 624) - mg/L*** | | |
| *All Compounds Non-Detect* | | -- |
| ***Semi-Volatile Organic Compounds (SVOCs - Method 625) - mg/L*** | | |
| *All Compounds Non-Detect* | | -- |
| ***Polychlorinated Biphenyls (PCBs ) (Method 608)- mg/L*** | | |
| *All Compounds Non-Detect* | | -- |
| ***Organochlorine Pesticide Compounds (Method 608) - mg/L*** | | |
| *All Compounds Non-Detect* | | -- |
| ***Metal Compounds (Method 200.7 Rev 4.4) - mg/L*** [3] | | |
| Barium | 0.044 | **Monitor** |
| Chromium | 0.002 J | **4.85** |
| Iron | 0.198 | **Monitor** |
| **TOTAL Metals (mg/L)** | **0.244 J** | **Monitor** |
| ***General Chemistry - mg/L*** | | |
| Cyanide, Total | 0.003 J | **0.48** |
| Phenolics, Total Recoverable | ND | **Monitor** |
| Oil & Grease | 0.75 J | **100** |
| Ph | 7.9 | **5-12** |
| ***Total Toxic Organic Pollutants (TTO)*** [4] | 0.0000 | **2.13** |

**Notes:**

1. Only those parameters detected are presented in this table; all others were reported as non-detect.
2. Per the Nov 2019 Erie County Sewer District No. 6 Discharge Permit LA-04
3. Metals include Ag, As, Ba, Cd, Cr, Cu, Fe, Hg, Ni, Pb, Se, and Zn
4. TTO is determined by totaling the reported compound concentrations detected via EPA Methods 608, 624, & 625.

**Definitions:**

J = Estimated value; result is less than the sample quantitation limit but greater than zero.
NS = Parameter not sampled for at this time.

# ATTACHMENT 1

**Laboratory Data**
**(in electronic copy only)**

# ANALYTICAL REPORT

| | |
|---|---|
| Lab Number: | L2236576 |
| Client: | Benchmark & Turnkey Companies<br>2558 Hamburg Turnpike<br>Suite 300<br>Buffalo, NY 14218 |
| ATTN: | Brock Greene |
| Phone: | (716) 856-0599 |
| Project Name: | 2424 HAMBURG TURNPIKE |
| Project Number: | B0345-025-001 |
| Report Date: | 07/22/22 |



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:** 2424 HAMBURG TURNPIKE
**Project Number:** B0345-025-001

**Lab Number:** L2236576
**Report Date:** 07/22/22

| Alpha Sample ID | Client ID | Matrix | Sample Location | Collection Date/Time | Receive Date |
|---|---|---|---|---|---|
| L2236576-01 | EFFLUENT | WATER | BUFFALO, NY | 07/08/22 11:00 | 07/08/22 |
| L2236576-02 | TRIP BLANK | WATER | BUFFALO, NY | 07/08/22 11:00 | 07/08/22 |

| | | | |
|---|---|---|---|
| **Project Name:** | 2424 HAMBURG TURNPIKE | **Lab Number:** | L2236576 |
| **Project Number:** | B0345-025-001 | **Report Date:** | 07/22/22 |

## 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:** | 2424 HAMBURG TURNPIKE | **Lab Number:** | L2236576 |
| **Project Number:** | B0345-025-001 | **Report Date:** | 07/22/22 |

**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.

The analysis of Phenolics was subcontracted. A copy of the laboratory report is included as an addendum. Please note: This data is only available in PDF format and is not available on Data Merger.

Semivolatile Organics by Method 625

The WG1660764-2 LCS recovery, associated with L2236576-01, is above the acceptance criteria for 4,6-dinitro-o-cresol (137%); however, the associated samples are non-detect to the RL for this target analyte. The results of the original analysis are reported.

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

Authorized Signature: Steven Gniadek

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

# ORGANICS

# VOLATILES

**Project Name:** 2424 HAMBURG TURNPIKE
**Lab Number:** L2236576
**Project Number:** B0345-025-001
**Report Date:** 07/22/22

## SAMPLE RESULTS

Lab ID: L2236576-01
Client ID: EFFLUENT
Sample Location: BUFFALO, NY

Date Collected: 07/08/22 11:00
Date Received: 07/08/22
Field Prep: Not Specified

Sample Depth:
Matrix: Water
Analytical Method: 128,624.1
Analytical Date: 07/09/22 13:54
Analyst: GT

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor |
|---|---|---|---|---|---|---|
| **Volatile Organics by GC/MS - Westborough Lab** | | | | | | |
| Methylene chloride | ND | | ug/l | 1.0 | 0.56 | 1 |
| 1,1-Dichloroethane | ND | | ug/l | 1.5 | 0.40 | 1 |
| Chloroform | ND | | ug/l | 1.0 | 0.38 | 1 |
| Carbon tetrachloride | ND | | ug/l | 1.0 | 0.24 | 1 |
| 1,2-Dichloropropane | ND | | ug/l | 3.5 | 0.46 | 1 |
| Dibromochloromethane | ND | | ug/l | 1.0 | 0.27 | 1 |
| 1,1,2-Trichloroethane | ND | | ug/l | 1.5 | 0.34 | 1 |
| 2-Chloroethylvinyl ether | ND | | ug/l | 10 | 0.35 | 1 |
| Tetrachloroethene | ND | | ug/l | 1.0 | 0.26 | 1 |
| Chlorobenzene | ND | | ug/l | 3.5 | 0.30 | 1 |
| 1,2-Dichloroethane | ND | | ug/l | 1.5 | 0.47 | 1 |
| 1,1,1-Trichloroethane | ND | | ug/l | 2.0 | 0.29 | 1 |
| Bromodichloromethane | ND | | ug/l | 1.0 | 0.28 | 1 |
| trans-1,3-Dichloropropene | ND | | ug/l | 1.5 | 0.31 | 1 |
| cis-1,3-Dichloropropene | ND | | ug/l | 1.5 | 0.34 | 1 |
| 1,3-Dichloropropene, Total | ND | | ug/l | 1.5 | 0.31 | 1 |
| Bromoform | ND | | ug/l | 1.0 | 0.22 | 1 |
| 1,1,2,2-Tetrachloroethane | ND | | ug/l | 1.0 | 0.20 | 1 |
| Benzene | ND | | ug/l | 1.0 | 0.38 | 1 |
| Toluene | ND | | ug/l | 1.0 | 0.31 | 1 |
| Ethylbenzene | ND | | ug/l | 1.0 | 0.28 | 1 |
| Chloromethane | ND | | ug/l | 5.0 | 1.0 | 1 |
| Bromomethane | ND | | ug/l | 5.0 | 1.2 | 1 |
| Vinyl chloride | ND | | ug/l | 1.0 | 0.38 | 1 |
| Chloroethane | ND | | ug/l | 2.0 | 0.37 | 1 |
| 1,1-Dichloroethene | ND | | ug/l | 1.0 | 0.31 | 1 |
| trans-1,2-Dichloroethene | ND | | ug/l | 1.5 | 0.33 | 1 |
| Trichloroethene | ND | | ug/l | 1.0 | 0.33 | 1 |

**Project Name:** 2424 HAMBURG TURNPIKE **Lab Number:** L2236576

**Project Number:** B0345-025-001 **Report Date:** 07/22/22

## SAMPLE RESULTS

Lab ID: L2236576-01 Date Collected: 07/08/22 11:00

Client ID: EFFLUENT Date Received: 07/08/22

Sample Location: BUFFALO, NY Field Prep: Not Specified

Sample Depth:

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor |
|---|---|---|---|---|---|---|
| **Volatile Organics by GC/MS - Westborough Lab** | | | | | | |
| 1,2-Dichlorobenzene | ND | | ug/l | 5.0 | 0.28 | 1 |
| 1,3-Dichlorobenzene | ND | | ug/l | 5.0 | 0.27 | 1 |
| 1,4-Dichlorobenzene | ND | | ug/l | 5.0 | 0.29 | 1 |
| Acrolein | ND | | ug/l | 8.0 | 1.8 | 1 |
| Acrylonitrile | ND | | ug/l | 10 | 0.33 | 1 |

| Surrogate | % Recovery | Qualifier | Acceptance Criteria |
|---|---|---|---|
| Pentafluorobenzene | 104 | | 60-140 |
| Fluorobenzene | 94 | | 60-140 |
| 4-Bromofluorobenzene | 93 | | 60-140 |

**Project Name:** 2424 HAMBURG TURNPIKE **Lab Number:** L2236576

**Project Number:** B0345-025-001 **Report Date:** 07/22/22

# Method Blank Analysis
## Batch Quality Control

Analytical Method: 128,624.1
Analytical Date: 07/09/22 10:08
Analyst: GT

| Parameter | Result | Qualifier | Units | RL | MDL |
|---|---|---|---|---|---|
| Volatile Organics by GC/MS - Westborough Lab for sample(s): 01 Batch: WG1661286-4 | | | | | |
| Methylene chloride | ND | | ug/l | 1.0 | 0.56 |
| 1,1-Dichloroethane | ND | | ug/l | 1.5 | 0.40 |
| Chloroform | ND | | ug/l | 1.0 | 0.38 |
| Carbon tetrachloride | ND | | ug/l | 1.0 | 0.24 |
| 1,2-Dichloropropane | ND | | ug/l | 3.5 | 0.46 |
| Dibromochloromethane | ND | | ug/l | 1.0 | 0.27 |
| 1,1,2-Trichloroethane | ND | | ug/l | 1.5 | 0.34 |
| 2-Chloroethylvinyl ether | ND | | ug/l | 10 | 0.35 |
| Tetrachloroethene | ND | | ug/l | 1.0 | 0.26 |
| Chlorobenzene | ND | | ug/l | 3.5 | 0.30 |
| 1,2-Dichloroethane | ND | | ug/l | 1.5 | 0.47 |
| 1,1,1-Trichloroethane | ND | | ug/l | 2.0 | 0.29 |
| Bromodichloromethane | ND | | ug/l | 1.0 | 0.28 |
| trans-1,3-Dichloropropene | ND | | ug/l | 1.5 | 0.31 |
| cis-1,3-Dichloropropene | ND | | ug/l | 1.5 | 0.34 |
| 1,3-Dichloropropene, Total | ND | | ug/l | 1.5 | 0.31 |
| Bromoform | ND | | ug/l | 1.0 | 0.22 |
| 1,1,2,2-Tetrachloroethane | ND | | ug/l | 1.0 | 0.20 |
| Benzene | ND | | ug/l | 1.0 | 0.38 |
| Toluene | ND | | ug/l | 1.0 | 0.31 |
| Ethylbenzene | ND | | ug/l | 1.0 | 0.28 |
| Chloromethane | ND | | ug/l | 5.0 | 1.0 |
| Bromomethane | ND | | ug/l | 5.0 | 1.2 |
| Vinyl chloride | ND | | ug/l | 1.0 | 0.38 |
| Chloroethane | ND | | ug/l | 2.0 | 0.37 |
| 1,1-Dichloroethene | ND | | ug/l | 1.0 | 0.31 |
| trans-1,2-Dichloroethene | ND | | ug/l | 1.5 | 0.33 |
| Trichloroethene | ND | | ug/l | 1.0 | 0.33 |
| 1,2-Dichlorobenzene | ND | | ug/l | 5.0 | 0.28 |

**Project Name:** 2424 HAMBURG TURNPIKE
**Project Number:** B0345-025-001
**Lab Number:** L2236576
**Report Date:** 07/22/22

# Method Blank Analysis
## Batch Quality Control

Analytical Method: 128,624.1
Analytical Date: 07/09/22 10:08
Analyst: GT

| Parameter | Result | Qualifier | Units | RL | MDL |
|---|---|---|---|---|---|
| Volatile Organics by GC/MS - Westborough Lab for sample(s): 01 Batch: WG1661286-4 | | | | | |
| 1,3-Dichlorobenzene | ND | | ug/l | 5.0 | 0.27 |
| 1,4-Dichlorobenzene | ND | | ug/l | 5.0 | 0.29 |
| Acrolein | ND | | ug/l | 8.0 | 1.8 |
| Acrylonitrile | ND | | ug/l | 10 | 0.33 |

| Surrogate | %Recovery | Qualifier | Acceptance Criteria |
|---|---|---|---|
| Pentafluorobenzene | 117 | | 60-140 |
| Fluorobenzene | 99 | | 60-140 |
| 4-Bromofluorobenzene | 88 | | 60-140 |

# Lab Control Sample Analysis

## Batch Quality Control

**Project Name:** 2424 HAMBURG TURNPIKE

**Project Number:** B0345-025-001

**Lab Number:** L2236576

**Report Date:** 07/22/22

| 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: WG1661286-3 | | | | | | | | |
| Methylene chloride | 90 | | - | | 60-140 | - | | 28 |
| 1,1-Dichloroethane | 90 | | - | | 50-150 | - | | 49 |
| Chloroform | 100 | | - | | 70-135 | - | | 54 |
| Carbon tetrachloride | 95 | | - | | 70-130 | - | | 41 |
| 1,2-Dichloropropane | 100 | | - | | 35-165 | - | | 55 |
| Dibromochloromethane | 90 | | - | | 70-135 | - | | 50 |
| 1,1,2-Trichloroethane | 90 | | - | | 70-130 | - | | 45 |
| 2-Chloroethylvinyl ether | 60 | | - | | 1-225 | - | | 71 |
| Tetrachloroethene | 80 | | - | | 70-130 | - | | 39 |
| Chlorobenzene | 75 | | - | | 65-135 | - | | 53 |
| 1,2-Dichloroethane | 105 | | - | | 70-130 | - | | 49 |
| 1,1,1-Trichloroethane | 90 | | - | | 70-130 | - | | 36 |
| Bromodichloromethane | 105 | | - | | 65-135 | - | | 56 |
| trans-1,3-Dichloropropene | 90 | | - | | 50-150 | - | | 86 |
| cis-1,3-Dichloropropene | 95 | | - | | 25-175 | - | | 58 |
| Bromoform | 85 | | - | | 70-130 | - | | 42 |
| 1,1,2,2-Tetrachloroethane | 90 | | - | | 60-140 | - | | 61 |
| Benzene | 100 | | - | | 65-135 | - | | 61 |
| Toluene | 95 | | - | | 70-130 | - | | 41 |
| Ethylbenzene | 80 | | - | | 60-140 | - | | 63 |
| Chloromethane | 115 | | - | | 1-205 | - | | 60 |
| Bromomethane | 29 | | - | | 15-185 | - | | 61 |
| Vinyl chloride | 140 | | - | | 5-195 | - | | 66 |

# Lab Control Sample Analysis
## Batch Quality Control

**Project Name:** 2424 HAMBURG TURNPIKE
**Project Number:** B0345-025-001

**Lab Number:** L2236576
**Report Date:** 07/22/22

| 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: WG1661286-3 | | | | | | | | |
| Chloroethane | 115 | | - | | 40-160 | - | | 78 |
| 1,1-Dichloroethene | 85 | | - | | 50-150 | - | | 32 |
| trans-1,2-Dichloroethene | 85 | | - | | 70-130 | - | | 45 |
| Trichloroethene | 80 | | - | | 65-135 | - | | 48 |
| 1,2-Dichlorobenzene | 80 | | - | | 65-135 | - | | 57 |
| 1,3-Dichlorobenzene | 75 | | - | | 70-130 | - | | 43 |
| 1,4-Dichlorobenzene | 75 | | - | | 65-135 | - | | 57 |
| Acrolein | 110 | | - | | 60-140 | - | | 30 |
| Acrylonitrile | 90 | | - | | 60-140 | - | | 60 |

| Surrogate | LCS %Recovery | Qual | LCSD %Recovery | Qual | Acceptance Criteria |
|---|---|---|---|---|---|
| Pentafluorobenzene | 127 | | | | 60-140 |
| Fluorobenzene | 102 | | | | 60-140 |
| 4-Bromofluorobenzene | 90 | | | | 60-140 |

# SEMIVOLATILES

**Project Name:** 2424 HAMBURG TURNPIKE
**Lab Number:** L2236576
**Project Number:** B0345-025-001
**Report Date:** 07/22/22

## SAMPLE RESULTS

Lab ID: L2236576-01
Client ID: EFFLUENT
Sample Location: BUFFALO, NY

Date Collected: 07/08/22 11:00
Date Received: 07/08/22
Field Prep: Not Specified

Sample Depth:
Matrix: Water
Analytical Method: 129,625.1
Analytical Date: 07/22/22 12:13
Analyst: JG

Extraction Method: EPA 625.1
Extraction Date: 07/09/22 23:44

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor |
|---|---|---|---|---|---|---|
| **Semivolatile Organics by GC/MS - Westborough Lab** | | | | | | |
| Acenaphthene | ND | | ug/l | 2.00 | 0.407 | 1 |
| Benzidine[1] | ND | | ug/l | 20.0 | 12.1 | 1 |
| 1,2,4-Trichlorobenzene | ND | | ug/l | 5.00 | 1.49 | 1 |
| Hexachlorobenzene | ND | | ug/l | 2.00 | 0.952 | 1 |
| Bis(2-chloroethyl)ether | ND | | ug/l | 2.00 | 0.600 | 1 |
| 2-Chloronaphthalene | ND | | ug/l | 2.00 | 0.319 | 1 |
| 3,3'-Dichlorobenzidine | ND | | ug/l | 5.00 | 0.457 | 1 |
| 2,4-Dinitrotoluene | ND | | ug/l | 5.00 | 0.636 | 1 |
| 2,6-Dinitrotoluene | ND | | ug/l | 5.00 | 0.631 | 1 |
| Fluoranthene | ND | | ug/l | 2.00 | 0.736 | 1 |
| 4-Chlorophenyl phenyl ether | ND | | ug/l | 2.00 | 0.371 | 1 |
| 4-Bromophenyl phenyl ether | ND | | ug/l | 2.00 | 0.447 | 1 |
| Bis(2-chloroisopropyl)ether | ND | | ug/l | 2.00 | 0.822 | 1 |
| Bis(2-chloroethoxy)methane | ND | | ug/l | 5.00 | 0.585 | 1 |
| Hexachlorobutadiene | ND | | ug/l | 2.00 | 0.921 | 1 |
| Hexachlorocyclopentadiene[1] | ND | | ug/l | 10.0 | 1.36 | 1 |
| Hexachloroethane | ND | | ug/l | 2.00 | 0.973 | 1 |
| Isophorone | ND | | ug/l | 5.00 | 0.546 | 1 |
| Naphthalene | ND | | ug/l | 2.00 | 0.896 | 1 |
| Nitrobenzene | ND | | ug/l | 2.00 | 0.788 | 1 |
| NDPA/DPA[1] | ND | | ug/l | 2.00 | 0.783 | 1 |
| n-Nitrosodi-n-propylamine | ND | | ug/l | 5.00 | 0.630 | 1 |
| Bis(2-ethylhexyl)phthalate | ND | | ug/l | 2.20 | 1.70 | 1 |
| Butyl benzyl phthalate | ND | | ug/l | 5.00 | 0.670 | 1 |
| Di-n-butylphthalate | ND | | ug/l | 5.00 | 0.631 | 1 |
| Di-n-octylphthalate | ND | | ug/l | 5.00 | 0.633 | 1 |
| Diethyl phthalate | ND | | ug/l | 5.00 | 0.717 | 1 |
| Dimethyl phthalate | ND | | ug/l | 5.00 | 1.40 | 1 |

**Project Name:** 2424 HAMBURG TURNPIKE **Lab Number:** L2236576

**Project Number:** B0345-025-001 **Report Date:** 07/22/22

## SAMPLE RESULTS

Lab ID: L2236576-01 Date Collected: 07/08/22 11:00

Client ID: EFFLUENT Date Received: 07/08/22

Sample Location: BUFFALO, NY Field Prep: Not Specified

Sample Depth:

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor |
|---|---|---|---|---|---|---|
| **Semivolatile Organics by GC/MS - Westborough Lab** | | | | | | |
| Benzo(a)anthracene | ND | | ug/l | 2.00 | 0.665 | 1 |
| Benzo(a)pyrene | ND | | ug/l | 2.00 | 0.610 | 1 |
| Benzo(b)fluoranthene | ND | | ug/l | 2.00 | 0.741 | 1 |
| Benzo(k)fluoranthene | ND | | ug/l | 2.00 | 0.739 | 1 |
| Chrysene | ND | | ug/l | 2.00 | 0.668 | 1 |
| Acenaphthylene | ND | | ug/l | 2.00 | 0.930 | 1 |
| Anthracene | ND | | ug/l | 2.00 | 0.791 | 1 |
| Benzo(ghi)perylene | ND | | ug/l | 2.00 | 0.672 | 1 |
| Fluorene | ND | | ug/l | 2.00 | 0.927 | 1 |
| Phenanthrene | ND | | ug/l | 2.00 | 0.818 | 1 |
| Dibenzo(a,h)anthracene | ND | | ug/l | 2.00 | 0.687 | 1 |
| Indeno(1,2,3-cd)pyrene | ND | | ug/l | 2.00 | 0.633 | 1 |
| Pyrene | ND | | ug/l | 2.00 | 0.728 | 1 |
| n-Nitrosodimethylamine[1] | ND | | ug/l | 2.00 | 0.407 | 1 |
| 2,4,6-Trichlorophenol | ND | | ug/l | 5.00 | 0.607 | 1 |
| p-Chloro-m-cresol[1] | ND | | ug/l | 2.00 | 0.533 | 1 |
| 2-Chlorophenol | ND | | ug/l | 2.00 | 0.513 | 1 |
| 2,4-Dichlorophenol | ND | | ug/l | 5.00 | 0.554 | 1 |
| 2,4-Dimethylphenol | ND | | ug/l | 5.00 | 0.851 | 1 |
| 2-Nitrophenol | ND | | ug/l | 5.00 | 0.604 | 1 |
| 4-Nitrophenol | ND | | ug/l | 10.0 | 0.834 | 1 |
| 2,4-Dinitrophenol | ND | | ug/l | 20.0 | 1.21 | 1 |
| 4,6-Dinitro-o-cresol | ND | | ug/l | 10.0 | 1.20 | 1 |
| Pentachlorophenol | ND | | ug/l | 5.00 | 0.622 | 1 |
| Phenol | ND | | ug/l | 5.00 | 0.262 | 1 |

| Surrogate | % Recovery | Qualifier | Acceptance Criteria |
|---|---|---|---|
| 2-Fluorophenol | 47 | | 25-87 |
| Phenol-d6 | 32 | | 16-65 |
| Nitrobenzene-d5 | 82 | | 42-122 |
| 2-Fluorobiphenyl | 84 | | 46-121 |
| 2,4,6-Tribromophenol | 107 | | 45-128 |
| 4-Terphenyl-d14 | 98 | | 47-138 |

**Project Name:** 2424 HAMBURG TURNPIKE
**Project Number:** B0345-025-001
**Lab Number:** L2236576
**Report Date:** 07/22/22

# Method Blank Analysis
## Batch Quality Control

Analytical Method: 129,625.1
Analytical Date: 07/11/22 11:45
Analyst: SZ

Extraction Method: EPA 625.1
Extraction Date: 07/09/22 11:37

| Parameter | Result | Qualifier | Units | RL | MDL |
|---|---|---|---|---|---|
| Semivolatile Organics by GC/MS - Westborough Lab for sample(s): 01 Batch: WG1660764-1 | | | | | |
| Acenaphthene | ND | | ug/l | 2.00 | 0.407 |
| Benzidine[1] | ND | | ug/l | 20.0 | 12.1 |
| 1,2,4-Trichlorobenzene | ND | | ug/l | 5.00 | 1.49 |
| Hexachlorobenzene | ND | | ug/l | 2.00 | 0.952 |
| Bis(2-chloroethyl)ether | ND | | ug/l | 2.00 | 0.600 |
| 2-Chloronaphthalene | ND | | ug/l | 2.00 | 0.319 |
| 3,3'-Dichlorobenzidine | ND | | ug/l | 5.00 | 0.457 |
| 2,4-Dinitrotoluene | ND | | ug/l | 5.00 | 0.636 |
| 2,6-Dinitrotoluene | ND | | ug/l | 5.00 | 0.631 |
| Fluoranthene | ND | | ug/l | 2.00 | 0.736 |
| 4-Chlorophenyl phenyl ether | ND | | ug/l | 2.00 | 0.371 |
| 4-Bromophenyl phenyl ether | ND | | ug/l | 2.00 | 0.447 |
| Bis(2-chloroisopropyl)ether | ND | | ug/l | 2.00 | 0.822 |
| Bis(2-chloroethoxy)methane | ND | | ug/l | 5.00 | 0.585 |
| Hexachlorobutadiene | ND | | ug/l | 2.00 | 0.921 |
| Hexachlorocyclopentadiene[1] | ND | | ug/l | 10.0 | 1.36 |
| Hexachloroethane | ND | | ug/l | 2.00 | 0.973 |
| Isophorone | ND | | ug/l | 5.00 | 0.546 |
| Naphthalene | ND | | ug/l | 2.00 | 0.896 |
| Nitrobenzene | ND | | ug/l | 2.00 | 0.788 |
| NDPA/DPA[1] | ND | | ug/l | 2.00 | 0.783 |
| n-Nitrosodi-n-propylamine | ND | | ug/l | 5.00 | 0.630 |
| Bis(2-ethylhexyl)phthalate | ND | | ug/l | 2.20 | 1.70 |
| Butyl benzyl phthalate | ND | | ug/l | 5.00 | 0.670 |
| Di-n-butylphthalate | ND | | ug/l | 5.00 | 0.631 |
| Di-n-octylphthalate | ND | | ug/l | 5.00 | 0.633 |
| Diethyl phthalate | ND | | ug/l | 5.00 | 0.717 |
| Dimethyl phthalate | ND | | ug/l | 5.00 | 1.40 |
| Benzo(a)anthracene | ND | | ug/l | 2.00 | 0.665 |

**Project Name:** 2424 HAMBURG TURNPIKE
**Project Number:** B0345-025-001
**Lab Number:** L2236576
**Report Date:** 07/22/22

# Method Blank Analysis
## Batch Quality Control

Analytical Method: 129,625.1
Analytical Date: 07/11/22 11:45
Analyst: SZ

Extraction Method: EPA 625.1
Extraction Date: 07/09/22 11:37

| Parameter | Result | Qualifier | Units | RL | MDL |
|---|---|---|---|---|---|
| Semivolatile Organics by GC/MS - Westborough Lab for sample(s): 01 Batch: WG1660764-1 | | | | | |
| Benzo(a)pyrene | ND | | ug/l | 2.00 | 0.610 |
| Benzo(b)fluoranthene | ND | | ug/l | 2.00 | 0.741 |
| Benzo(k)fluoranthene | ND | | ug/l | 2.00 | 0.739 |
| Chrysene | ND | | ug/l | 2.00 | 0.668 |
| Acenaphthylene | ND | | ug/l | 2.00 | 0.930 |
| Anthracene | ND | | ug/l | 2.00 | 0.791 |
| Benzo(ghi)perylene | ND | | ug/l | 2.00 | 0.672 |
| Fluorene | ND | | ug/l | 2.00 | 0.927 |
| Phenanthrene | ND | | ug/l | 2.00 | 0.818 |
| Dibenzo(a,h)anthracene | ND | | ug/l | 2.00 | 0.687 |
| Indeno(1,2,3-cd)pyrene | ND | | ug/l | 2.00 | 0.633 |
| Pyrene | ND | | ug/l | 2.00 | 0.728 |
| n-Nitrosodimethylamine[1] | ND | | ug/l | 2.00 | 0.407 |
| 2,4,6-Trichlorophenol | ND | | ug/l | 5.00 | 0.607 |
| p-Chloro-m-cresol[1] | ND | | ug/l | 2.00 | 0.533 |
| 2-Chlorophenol | ND | | ug/l | 2.00 | 0.513 |
| 2,4-Dichlorophenol | ND | | ug/l | 5.00 | 0.554 |
| 2,4-Dimethylphenol | ND | | ug/l | 5.00 | 0.851 |
| 2-Nitrophenol | ND | | ug/l | 5.00 | 0.604 |
| 4-Nitrophenol | ND | | ug/l | 10.0 | 0.834 |
| 2,4-Dinitrophenol | ND | | ug/l | 20.0 | 1.21 |
| 4,6-Dinitro-o-cresol | ND | | ug/l | 10.0 | 1.20 |
| Pentachlorophenol | ND | | ug/l | 5.00 | 0.622 |
| Phenol | ND | | ug/l | 5.00 | 0.262 |

**Project Name:** 2424 HAMBURG TURNPIKE
**Project Number:** B0345-025-001
**Lab Number:** L2236576
**Report Date:** 07/22/22

# Method Blank Analysis
## Batch Quality Control

Analytical Method: 129,625.1
Analytical Date: 07/11/22 11:45
Analyst: SZ

Extraction Method: EPA 625.1
Extraction Date: 07/09/22 11:37

| Parameter | Result | Qualifier | Units | RL | MDL |
|---|---|---|---|---|---|
| Semivolatile Organics by GC/MS - Westborough Lab for sample(s): 01 Batch: WG1660764-1 | | | | | |

| Surrogate | %Recovery | Qualifier | Acceptance Criteria |
|---|---|---|---|
| 2-Fluorophenol | 47 | | 25-87 |
| Phenol-d6 | 32 | | 16-65 |
| Nitrobenzene-d5 | 75 | | 42-122 |
| 2-Fluorobiphenyl | 77 | | 46-121 |
| 2,4,6-Tribromophenol | 95 | | 45-128 |
| 4-Terphenyl-d14 | 92 | | 47-138 |

# Lab Control Sample Analysis
## Batch Quality Control

**Project Name:** 2424 HAMBURG TURNPIKE
**Project Number:** B0345-025-001

**Lab Number:** L2236576
**Report Date:** 07/22/22

| Parameter | LCS %Recovery | Qual | LCSD %Recovery | Qual | %Recovery Limits | RPD | Qual | RPD Limits |
|---|---|---|---|---|---|---|---|---|
| Semivolatile Organics by GC/MS - Westborough Lab Associated sample(s): 01 Batch: WG1660764-2 | | | | | | | | |
| Acenaphthene | 94 | | - | | 60-132 | - | | 48 |
| Benzidine[1] | 23 | | - | | 0-70 | - | | 30 |
| 1,2,4-Trichlorobenzene | 85 | | - | | 57-130 | - | | 50 |
| Hexachlorobenzene | 109 | | - | | 8-142 | - | | 55 |
| Bis(2-chloroethyl)ether | 80 | | - | | 43-126 | - | | 108 |
| 2-Chloronaphthalene | 94 | | - | | 65-120 | - | | 24 |
| 3,3'-Dichlorobenzidine | 49 | | - | | 8-213 | - | | 108 |
| 2,4-Dinitrotoluene | 114 | | - | | 48-127 | - | | 42 |
| 2,6-Dinitrotoluene | 116 | | - | | 68-137 | - | | 48 |
| Fluoranthene | 106 | | - | | 43-121 | - | | 66 |
| 4-Chlorophenyl phenyl ether | 101 | | - | | 38-145 | - | | 61 |
| 4-Bromophenyl phenyl ether | 110 | | - | | 65-120 | - | | 43 |
| Bis(2-chloroisopropyl)ether | 73 | | - | | 63-139 | - | | 76 |
| Bis(2-chloroethoxy)methane | 92 | | - | | 49-165 | - | | 54 |
| Hexachlorobutadiene | 85 | | - | | 38-120 | - | | 62 |
| Hexachlorocyclopentadiene[1] | 78 | | - | | 7-118 | - | | 35 |
| Hexachloroethane | 77 | | - | | 55-120 | - | | 52 |
| Isophorone | 90 | | - | | 47-180 | - | | 93 |
| Naphthalene | 87 | | - | | 36-120 | - | | 65 |
| Nitrobenzene | 95 | | - | | 54-158 | - | | 62 |
| NDPA/DPA[1] | 105 | | - | | 45-112 | - | | 36 |
| n-Nitrosodi-n-propylamine | 90 | | - | | 14-198 | - | | 87 |
| Bis(2-ethylhexyl)phthalate | 106 | | - | | 29-137 | - | | 82 |

# Lab Control Sample Analysis
## Batch Quality Control

**Project Name:** 2424 HAMBURG TURNPIKE
**Project Number:** B0345-025-001

**Lab Number:** L2236576
**Report Date:** 07/22/22

| Parameter | LCS %Recovery | Qual | LCSD %Recovery | Qual | %Recovery Limits | RPD | Qual | RPD Limits |
|---|---|---|---|---|---|---|---|---|
| Semivolatile Organics by GC/MS - Westborough Lab Associated sample(s): 01 Batch: WG1660764-2 | | | | | | | | |
| Butyl benzyl phthalate | 124 | | - | | 1-140 | - | | 60 |
| Di-n-butylphthalate | 113 | | - | | 8-120 | - | | 47 |
| Di-n-octylphthalate | 122 | | - | | 19-132 | - | | 69 |
| Diethyl phthalate | 108 | | - | | 1-120 | - | | 100 |
| Dimethyl phthalate | 109 | | - | | 1-120 | - | | 183 |
| Benzo(a)anthracene | 104 | | - | | 42-133 | - | | 53 |
| Benzo(a)pyrene | 114 | | - | | 32-148 | - | | 72 |
| Benzo(b)fluoranthene | 112 | | - | | 42-140 | - | | 71 |
| Benzo(k)fluoranthene | 117 | | - | | 25-146 | - | | 63 |
| Chrysene | 102 | | - | | 44-140 | - | | 87 |
| Acenaphthylene | 102 | | - | | 54-126 | - | | 74 |
| Anthracene | 99 | | - | | 43-120 | - | | 66 |
| Benzo(ghi)perylene | 107 | | - | | 1-195 | - | | 97 |
| Fluorene | 104 | | - | | 70-120 | - | | 38 |
| Phenanthrene | 94 | | - | | 65-120 | - | | 39 |
| Dibenzo(a,h)anthracene | 111 | | - | | 1-200 | - | | 126 |
| Indeno(1,2,3-cd)pyrene | 124 | | - | | 1-151 | - | | 99 |
| Pyrene | 104 | | - | | 70-120 | - | | 49 |
| n-Nitrosodimethylamine[1] | 51 | | - | | 15-68 | - | | 17 |
| 2,4,6-Trichlorophenol | 120 | | - | | 52-129 | - | | 58 |
| p-Chloro-m-cresol[1] | 114 | | - | | 68-130 | - | | 73 |
| 2-Chlorophenol | 94 | | - | | 36-120 | - | | 61 |
| 2,4-Dichlorophenol | 108 | | - | | 53-122 | - | | 50 |

# Lab Control Sample Analysis

## Batch Quality Control

**Project Name:** 2424 HAMBURG TURNPIKE

**Project Number:** B0345-025-001

**Lab Number:** L2236576

**Report Date:** 07/22/22

| Parameter | LCS %Recovery | Qual | LCSD %Recovery | Qual | %Recovery Limits | RPD | Qual | RPD Limits |
|---|---|---|---|---|---|---|---|---|
| Semivolatile Organics by GC/MS - Westborough Lab Associated sample(s): 01 Batch: WG1660764-2 | | | | | | | | |
| 2,4-Dimethylphenol | 96 | | - | | 42-120 | - | | 58 |
| 2-Nitrophenol | 135 | | - | | 45-167 | - | | 55 |
| 4-Nitrophenol | 78 | | - | | 13-129 | - | | 131 |
| 2,4-Dinitrophenol | 94 | | - | | 1-173 | - | | 132 |
| 4,6-Dinitro-o-cresol | **137** | Q | - | | 56-130 | - | | 203 |
| Pentachlorophenol | 91 | | - | | 38-152 | - | | 86 |
| Phenol | 49 | | - | | 17-120 | - | | 64 |

| Surrogate | LCS %Recovery | Qual | LCSD %Recovery | Qual | Acceptance Criteria |
|---|---|---|---|---|---|
| 2-Fluorophenol | 64 | | | | 25-87 |
| Phenol-d6 | 47 | | | | 16-65 |
| Nitrobenzene-d5 | 101 | | | | 42-122 |
| 2-Fluorobiphenyl | 102 | | | | 46-121 |
| 2,4,6-Tribromophenol | 125 | | | | 45-128 |
| 4-Terphenyl-d14 | 110 | | | | 47-138 |

# PCBS

**Project Name:** 2424 HAMBURG TURNPIKE
**Lab Number:** L2236576
**Project Number:** B0345-025-001
**Report Date:** 07/22/22

## SAMPLE RESULTS

Lab ID: L2236576-01
Client ID: EFFLUENT
Sample Location: BUFFALO, NY

Date Collected: 07/08/22 11:00
Date Received: 07/08/22
Field Prep: Not Specified

Sample Depth:
Matrix: Water
Analytical Method: 127,608.3
Analytical Date: 07/12/22 10:13
Analyst: JM

Extraction Method: EPA 608.3
Extraction Date: 07/09/22 20:08
Cleanup Method: EPA 3665A
Cleanup Date: 07/10/22
Cleanup Method: EPA 3660B
Cleanup Date: 07/11/22

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Column |
|---|---|---|---|---|---|---|---|
| **Polychlorinated Biphenyls by GC - Westborough Lab** | | | | | | | |
| Aroclor 1016 | ND | | ug/l | 0.050 | 0.008 | 1 | A |
| Aroclor 1221 | ND | | ug/l | 0.050 | 0.011 | 1 | A |
| Aroclor 1232 | ND | | ug/l | 0.050 | 0.023 | 1 | A |
| Aroclor 1242 | ND | | ug/l | 0.050 | 0.018 | 1 | A |
| Aroclor 1248 | ND | | ug/l | 0.050 | 0.023 | 1 | A |
| Aroclor 1254 | ND | | ug/l | 0.050 | 0.008 | 1 | A |
| Aroclor 1260 | ND | | ug/l | 0.050 | 0.017 | 1 | A |
| PCBs, Total | ND | | ug/l | 0.050 | 0.008 | 1 | A |

| Surrogate | % Recovery | Qualifier | Acceptance Criteria | Column |
|---|---|---|---|---|
| 2,4,5,6-Tetrachloro-m-xylene | 71 | | 37-123 | A |
| Decachlorobiphenyl | 74 | | 38-114 | A |
| 2,4,5,6-Tetrachloro-m-xylene | 68 | | 37-123 | B |
| Decachlorobiphenyl | 77 | | 38-114 | B |

**Project Name:** 2424 HAMBURG TURNPIKE
**Project Number:** B0345-025-001
**Lab Number:** L2236576
**Report Date:** 07/22/22

# Method Blank Analysis
## Batch Quality Control

Analytical Method: 127,608.3
Analytical Date: 07/12/22 11:48
Analyst: JM

Extraction Method: EPA 608.3
Extraction Date: 07/09/22 20:08
Cleanup Method: EPA 3665A
Cleanup Date: 07/10/22
Cleanup Method: EPA 3660B
Cleanup Date: 07/10/22

| Parameter | Result | Qualifier | Units | RL | MDL | Column |
|---|---|---|---|---|---|---|
| Polychlorinated Biphenyls by GC - Westborough Lab for sample(s): 01 Batch: WG1660841-1 | | | | | | |
| Aroclor 1016 | ND | | ug/l | 0.050 | 0.008 | A |
| Aroclor 1221 | ND | | ug/l | 0.050 | 0.011 | A |
| Aroclor 1232 | ND | | ug/l | 0.050 | 0.023 | A |
| Aroclor 1242 | ND | | ug/l | 0.050 | 0.018 | A |
| Aroclor 1248 | ND | | ug/l | 0.050 | 0.023 | A |
| Aroclor 1254 | ND | | ug/l | 0.050 | 0.008 | A |
| Aroclor 1260 | ND | | ug/l | 0.050 | 0.017 | A |
| PCBs, Total | ND | | ug/l | 0.050 | 0.008 | A |

| Surrogate | %Recovery | Qualifier | Acceptance Criteria | Column |
|---|---|---|---|---|
| 2,4,5,6-Tetrachloro-m-xylene | 72 | | 37-123 | A |
| Decachlorobiphenyl | 64 | | 38-114 | A |
| 2,4,5,6-Tetrachloro-m-xylene | 74 | | 37-123 | B |
| Decachlorobiphenyl | 64 | | 38-114 | B |

# Lab Control Sample Analysis

## Batch Quality Control

**Project Name:** 2424 HAMBURG TURNPIKE

**Project Number:** B0345-025-001

**Lab Number:** L2236576

**Report Date:** 07/22/22

| Parameter | LCS %Recovery | Qual | LCSD %Recovery | Qual | %Recovery Limits | RPD | Qual | RPD Limits | Column |
|---|---|---|---|---|---|---|---|---|---|
| Polychlorinated Biphenyls by GC - Westborough Lab Associated sample(s): 01 Batch: WG1660841-2 | | | | | | | | | |
| Aroclor 1016 | 83 | | - | | 50-140 | - | | 36 | A |
| Aroclor 1260 | 81 | | - | | 8-140 | - | | 38 | A |

| Surrogate | LCS %Recovery | Qual | LCSD %Recovery | Qual | Acceptance Criteria | Column |
|---|---|---|---|---|---|---|
| 2,4,5,6-Tetrachloro-m-xylene | 72 | | | | 37-123 | A |
| Decachlorobiphenyl | 58 | | | | 38-114 | A |
| 2,4,5,6-Tetrachloro-m-xylene | 73 | | | | 37-123 | B |
| Decachlorobiphenyl | 60 | | | | 38-114 | B |

# PESTICIDES

**Project Name:** 2424 HAMBURG TURNPIKE
**Lab Number:** L2236576
**Project Number:** B0345-025-001
**Report Date:** 07/22/22

## SAMPLE RESULTS

Lab ID: L2236576-01
Client ID: EFFLUENT
Sample Location: BUFFALO, NY

Date Collected: 07/08/22 11:00
Date Received: 07/08/22
Field Prep: Not Specified

Sample Depth:
Matrix: Water
Analytical Method: 127,608.3
Analytical Date: 07/11/22 10:41
Analyst: AKM

Extraction Method: EPA 608.3
Extraction Date: 07/10/22 00:12
Cleanup Method: EPA 3620B
Cleanup Date: 07/10/22

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Column |
|---|---|---|---|---|---|---|---|
| **Organochlorine Pesticides by GC - Westborough Lab** | | | | | | | |
| Delta-BHC | ND | | ug/l | 0.020 | 0.005 | 1 | A |
| Lindane | ND | | ug/l | 0.020 | 0.003 | 1 | A |
| Alpha-BHC | ND | | ug/l | 0.020 | 0.004 | 1 | A |
| Beta-BHC | ND | | ug/l | 0.020 | 0.009 | 1 | A |
| Heptachlor | ND | | ug/l | 0.020 | 0.005 | 1 | A |
| Aldrin | ND | | ug/l | 0.020 | 0.005 | 1 | A |
| Heptachlor epoxide | ND | | ug/l | 0.020 | 0.007 | 1 | A |
| Endrin | ND | | ug/l | 0.040 | 0.004 | 1 | A |
| Endrin aldehyde | ND | | ug/l | 0.040 | 0.017 | 1 | A |
| Endrin ketone[1] | ND | | ug/l | 0.040 | 0.005 | 1 | A |
| Dieldrin | ND | | ug/l | 0.040 | 0.003 | 1 | A |
| 4,4'-DDE | ND | | ug/l | 0.040 | 0.003 | 1 | A |
| 4,4'-DDD | ND | | ug/l | 0.040 | 0.008 | 1 | A |
| 4,4'-DDT | ND | | ug/l | 0.040 | 0.008 | 1 | A |
| Endosulfan I | ND | | ug/l | 0.020 | 0.008 | 1 | A |
| Endosulfan II | ND | | ug/l | 0.040 | 0.003 | 1 | A |
| Endosulfan sulfate | ND | | ug/l | 0.040 | 0.017 | 1 | A |
| Methoxychlor[1] | ND | | ug/l | 0.100 | 0.008 | 1 | A |
| Toxaphene | ND | | ug/l | 0.400 | 0.126 | 1 | A |
| Chlordane | ND | | ug/l | 0.200 | 0.042 | 1 | A |
| cis-Chlordane[1] | ND | | ug/l | 0.020 | 0.005 | 1 | A |
| trans-Chlordane[1] | ND | | ug/l | 0.020 | 0.008 | 1 | A |

**Project Name:** 2424 HAMBURG TURNPIKE **Lab Number:** L2236576

**Project Number:** B0345-025-001 **Report Date:** 07/22/22

## SAMPLE RESULTS

Lab ID: L2236576-01 Date Collected: 07/08/22 11:00

Client ID: EFFLUENT Date Received: 07/08/22

Sample Location: BUFFALO, NY Field Prep: Not Specified

Sample Depth:

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Column |
|---|---|---|---|---|---|---|---|
| Organochlorine Pesticides by GC - Westborough Lab | | | | | | | |

| Surrogate | % Recovery | Qualifier | Acceptance Criteria | Column |
|---|---|---|---|---|
| 2,4,5,6-Tetrachloro-m-xylene | 76 | | 47-124 | A |
| Decachlorobiphenyl | 54 | | 32-167 | A |
| 2,4,5,6-Tetrachloro-m-xylene | 72 | | 47-124 | B |
| Decachlorobiphenyl | 57 | | 32-167 | B |

**Project Name:** 2424 HAMBURG TURNPIKE
**Project Number:** B0345-025-001
**Lab Number:** L2236576
**Report Date:** 07/22/22

# Method Blank Analysis
## Batch Quality Control

Analytical Method: 127,608.3
Analytical Date: 07/11/22 09:00
Analyst: EJL

Extraction Method: EPA 608.3
Extraction Date: 07/09/22 09:29
Cleanup Method: EPA 3620B
Cleanup Date: 07/10/22

| Parameter | Result | Qualifier | Units | RL | MDL | Column |
|---|---|---|---|---|---|---|
| Organochlorine Pesticides by GC - Westborough Lab for sample(s): 01 Batch: WG1660727-1 | | | | | | |
| Delta-BHC | ND | | ug/l | 0.020 | 0.005 | A |
| Lindane | ND | | ug/l | 0.020 | 0.003 | A |
| Alpha-BHC | ND | | ug/l | 0.020 | 0.004 | A |
| Beta-BHC | ND | | ug/l | 0.020 | 0.009 | A |
| Heptachlor | ND | | ug/l | 0.020 | 0.005 | A |
| Aldrin | ND | | ug/l | 0.020 | 0.005 | A |
| Heptachlor epoxide | ND | | ug/l | 0.020 | 0.007 | A |
| Endrin | ND | | ug/l | 0.040 | 0.004 | A |
| Endrin aldehyde | ND | | ug/l | 0.040 | 0.017 | A |
| Endrin ketone[1] | ND | | ug/l | 0.040 | 0.005 | A |
| Dieldrin | ND | | ug/l | 0.040 | 0.003 | A |
| 4,4'-DDE | ND | | ug/l | 0.040 | 0.003 | A |
| 4,4'-DDD | ND | | ug/l | 0.040 | 0.008 | A |
| 4,4'-DDT | ND | | ug/l | 0.040 | 0.008 | A |
| Endosulfan I | ND | | ug/l | 0.020 | 0.008 | A |
| Endosulfan II | ND | | ug/l | 0.040 | 0.003 | A |
| Endosulfan sulfate | ND | | ug/l | 0.040 | 0.017 | A |
| Methoxychlor[1] | ND | | ug/l | 0.100 | 0.008 | A |
| Toxaphene | ND | | ug/l | 0.400 | 0.126 | A |
| Chlordane | ND | | ug/l | 0.200 | 0.042 | A |
| cis-Chlordane[1] | ND | | ug/l | 0.020 | 0.005 | A |
| trans-Chlordane[1] | ND | | ug/l | 0.020 | 0.008 | A |

**Project Name:** 2424 HAMBURG TURNPIKE
**Project Number:** B0345-025-001
**Lab Number:** L2236576
**Report Date:** 07/22/22

# Method Blank Analysis
## Batch Quality Control

Analytical Method: 127,608.3
Analytical Date: 07/11/22 09:00
Analyst: EJL

Extraction Method: EPA 608.3
Extraction Date: 07/09/22 09:29
Cleanup Method: EPA 3620B
Cleanup Date: 07/10/22

| Parameter | Result | Qualifier | Units | RL | MDL | Column |
|---|---|---|---|---|---|---|
| Organochlorine Pesticides by GC - Westborough Lab for sample(s): 01 Batch: WG1660727-1 | | | | | | |

| Surrogate | %Recovery | Qualifier | Acceptance Criteria | Column |
|---|---|---|---|---|
| 2,4,5,6-Tetrachloro-m-xylene | 55 | | 47-124 | A |
| Decachlorobiphenyl | 62 | | 32-167 | A |
| 2,4,5,6-Tetrachloro-m-xylene | 55 | | 47-124 | B |
| Decachlorobiphenyl | 66 | | 32-167 | B |

# Lab Control Sample Analysis
## Batch Quality Control

**Project Name:** 2424 HAMBURG TURNPIKE
**Project Number:** B0345-025-001

**Lab Number:** L2236576
**Report Date:** 07/22/22

| Parameter | LCS %Recovery | Qual | LCSD %Recovery | Qual | %Recovery Limits | RPD | Qual | RPD Limits | Column |
|---|---|---|---|---|---|---|---|---|---|
| Organochlorine Pesticides by GC - Westborough Lab Associated sample(s): 01 Batch: WG1660727-2 | | | | | | | | | |
| Delta-BHC | 88 | | - | | 19-140 | - | | 52 | A |
| Lindane | 88 | | - | | 32-140 | - | | 39 | A |
| Alpha-BHC | 94 | | - | | 37-140 | - | | 36 | A |
| Beta-BHC | 88 | | - | | 17-147 | - | | 44 | A |
| Heptachlor | 74 | | - | | 34-140 | - | | 43 | A |
| Aldrin | 64 | | - | | 42-140 | - | | 35 | A |
| Heptachlor epoxide | 77 | | - | | 37-142 | - | | 26 | A |
| Endrin | 87 | | - | | 30-147 | - | | 48 | A |
| Endrin aldehyde | 72 | | - | | 30-150 | - | | 30 | A |
| Endrin ketone[1] | 87 | | - | | 30-150 | - | | 30 | A |
| Dieldrin | 93 | | - | | 36-146 | - | | 49 | A |
| 4,4'-DDE | 83 | | - | | 30-145 | - | | 35 | A |
| 4,4'-DDD | 95 | | - | | 31-141 | - | | 39 | A |
| 4,4'-DDT | 84 | | - | | 25-160 | - | | 42 | A |
| Endosulfan I | 81 | | - | | 45-153 | - | | 28 | A |
| Endosulfan II | 85 | | - | | 1-202 | - | | 53 | A |
| Endosulfan sulfate | 77 | | - | | 26-144 | - | | 38 | A |
| Methoxychlor[1] | 86 | | - | | 30-150 | - | | 30 | A |
| cis-Chlordane[1] | 63 | | - | | 45-140 | - | | 35 | A |
| trans-Chlordane[1] | 90 | | - | | 45-140 | - | | 35 | A |

# Lab Control Sample Analysis

## Batch Quality Control

**Project Name:** 2424 HAMBURG TURNPIKE

**Project Number:** B0345-025-001

**Lab Number:** L2236576

**Report Date:** 07/22/22

| Parameter | LCS %Recovery | Qual | LCSD %Recovery | Qual | %Recovery Limits | RPD | Qual | RPD Limits |
|---|---|---|---|---|---|---|---|---|
| Organochlorine Pesticides by GC - Westborough Lab Associated sample(s): 01 Batch: WG1660727-2 | | | | | | | | |

| Surrogate | LCS %Recovery | Qual | LCSD %Recovery | Qual | Acceptance Criteria | Column |
|---|---|---|---|---|---|---|
| 2,4,5,6-Tetrachloro-m-xylene | 63 | | | | 47-124 | A |
| Decachlorobiphenyl | 61 | | | | 32-167 | A |
| 2,4,5,6-Tetrachloro-m-xylene | 63 | | | | 47-124 | B |
| Decachlorobiphenyl | 71 | | | | 32-167 | B |

# METALS

**Project Name:** 2424 HAMBURG TURNPIKE **Lab Number:** L2236576

**Project Number:** B0345-025-001 **Report Date:** 07/22/22

## SAMPLE RESULTS

Lab ID: L2236576-01 Date Collected: 07/08/22 11:00

Client ID: EFFLUENT Date Received: 07/08/22

Sample Location: BUFFALO, NY Field Prep: Not Specified

Sample Depth:

Matrix: Water

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Prep Method | Analytical Method | Analyst |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **Total Metals - Mansfield Lab** | | | | | | | | | | | |
| Arsenic, Total | ND | | mg/l | 0.005 | 0.002 | 1 | 07/11/22 20:04 | 07/21/22 19:44 | EPA 3005A | 19,200.7 | MC |
| Barium, Total | 0.044 | | mg/l | 0.010 | 0.002 | 1 | 07/11/22 20:04 | 07/21/22 19:44 | EPA 3005A | 19,200.7 | MC |
| Cadmium, Total | ND | | mg/l | 0.005 | 0.001 | 1 | 07/11/22 20:04 | 07/21/22 19:44 | EPA 3005A | 19,200.7 | MC |
| Chromium, Total | 0.002 | J | mg/l | 0.010 | 0.002 | 1 | 07/11/22 20:04 | 07/21/22 19:44 | EPA 3005A | 19,200.7 | MC |
| Copper, Total | ND | | mg/l | 0.010 | 0.002 | 1 | 07/11/22 20:04 | 07/21/22 19:44 | EPA 3005A | 19,200.7 | MC |
| Iron, Total | 0.198 | | mg/l | 0.050 | 0.009 | 1 | 07/11/22 20:04 | 07/21/22 19:44 | EPA 3005A | 19,200.7 | MC |
| Lead, Total | ND | | mg/l | 0.010 | 0.003 | 1 | 07/11/22 20:04 | 07/21/22 19:44 | EPA 3005A | 19,200.7 | MC |
| Mercury, Total | ND | | mg/l | 0.00020 | 0.00009 | 1 | 07/13/22 14:38 | 07/14/22 09:26 | EPA 245.1 | 3,245.1 | DMB |
| Nickel, Total | ND | | mg/l | 0.025 | 0.002 | 1 | 07/11/22 20:04 | 07/21/22 19:44 | EPA 3005A | 19,200.7 | MC |
| Selenium, Total | ND | | mg/l | 0.010 | 0.004 | 1 | 07/11/22 20:04 | 07/21/22 19:44 | EPA 3005A | 19,200.7 | MC |
| Silver, Total | ND | | mg/l | 0.007 | 0.003 | 1 | 07/11/22 20:04 | 07/21/22 19:44 | EPA 3005A | 19,200.7 | MC |
| Zinc, Total | ND | | mg/l | 0.050 | 0.002 | 1 | 07/11/22 20:04 | 07/21/22 19:44 | EPA 3005A | 19,200.7 | MC |

**Project Name:** 2424 HAMBURG TURNPIKE
**Project Number:** B0345-025-001
**Lab Number:** L2236576
**Report Date:** 07/22/22

# Method Blank Analysis
# Batch Quality Control

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Analytical Method | Analyst |
|---|---|---|---|---|---|---|---|---|---|---|
| Total Metals - Mansfield Lab for sample(s): 01 Batch: WG1661434-1 | | | | | | | | | | |
| Arsenic, Total | ND | | mg/l | 0.005 | 0.002 | 1 | 07/11/22 20:04 | 07/21/22 16:25 | 19,200.7 | SB |
| Barium, Total | ND | | mg/l | 0.010 | 0.002 | 1 | 07/11/22 20:04 | 07/21/22 16:25 | 19,200.7 | SB |
| Cadmium, Total | ND | | mg/l | 0.005 | 0.001 | 1 | 07/11/22 20:04 | 07/21/22 16:25 | 19,200.7 | SB |
| Chromium, Total | ND | | mg/l | 0.010 | 0.002 | 1 | 07/11/22 20:04 | 07/21/22 16:25 | 19,200.7 | SB |
| Copper, Total | ND | | mg/l | 0.010 | 0.002 | 1 | 07/11/22 20:04 | 07/21/22 16:25 | 19,200.7 | SB |
| Iron, Total | ND | | mg/l | 0.050 | 0.009 | 1 | 07/11/22 20:04 | 07/21/22 16:25 | 19,200.7 | SB |
| Lead, Total | ND | | mg/l | 0.010 | 0.003 | 1 | 07/11/22 20:04 | 07/21/22 16:25 | 19,200.7 | SB |
| Nickel, Total | ND | | mg/l | 0.025 | 0.002 | 1 | 07/11/22 20:04 | 07/21/22 16:25 | 19,200.7 | SB |
| Selenium, Total | ND | | mg/l | 0.010 | 0.004 | 1 | 07/11/22 20:04 | 07/21/22 16:25 | 19,200.7 | SB |
| Silver, Total | ND | | mg/l | 0.007 | 0.003 | 1 | 07/11/22 20:04 | 07/21/22 16:25 | 19,200.7 | SB |
| Zinc, Total | ND | | mg/l | 0.050 | 0.002 | 1 | 07/11/22 20:04 | 07/21/22 16:25 | 19,200.7 | SB |

**Prep Information**

Digestion Method: EPA 3005A

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Analytical Method | Analyst |
|---|---|---|---|---|---|---|---|---|---|---|
| Total Metals - Mansfield Lab for sample(s): 01 Batch: WG1662357-1 | | | | | | | | | | |
| Mercury, Total | ND | | mg/l | 0.00020 | 0.00009 | 1 | 07/13/22 14:38 | 07/14/22 08:28 | 3,245.1 | DMB |

**Prep Information**

Digestion Method: EPA 245.1

# Lab Control Sample Analysis

## Batch Quality Control

**Project Name:** 2424 HAMBURG TURNPIKE

**Project Number:** B0345-025-001

**Lab Number:** L2236576

**Report Date:** 07/22/22

| Parameter | LCS %Recovery | Qual | LCSD %Recovery | Qual | %Recovery Limits | RPD | Qual | RPD Limits |
|---|---|---|---|---|---|---|---|---|
| Total Metals - Mansfield Lab Associated sample(s): 01 Batch: WG1661434-2 | | | | | | | | |
| Arsenic, Total | 111 | | - | | 85-115 | - | | |
| Barium, Total | 104 | | - | | 85-115 | - | | |
| Cadmium, Total | 110 | | - | | 85-115 | - | | |
| Chromium, Total | 102 | | - | | 85-115 | - | | |
| Copper, Total | 102 | | - | | 85-115 | - | | |
| Iron, Total | 106 | | - | | 85-115 | - | | |
| Lead, Total | 102 | | - | | 85-115 | - | | |
| Nickel, Total | 105 | | - | | 85-115 | - | | |
| Selenium, Total | 115 | | - | | 85-115 | - | | |
| Silver, Total | 103 | | - | | 85-115 | - | | |
| Zinc, Total | 109 | | - | | 85-115 | - | | |
| Total Metals - Mansfield Lab Associated sample(s): 01 Batch: WG1662357-2 | | | | | | | | |
| Mercury, Total | 104 | | - | | 85-115 | - | | |

# Matrix Spike Analysis
## Batch Quality Control

**Project Name:** 2424 HAMBURG TURNPIKE
**Project Number:** B0345-025-001

**Lab Number:** L2236576
**Report Date:** 07/22/22

| Parameter | Native Sample | MS Added | MS Found | MS %Recovery | Qual | MSD Found | MSD %Recovery | Qual | Recovery Limits | RPD | Qual | RPD Limits |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Total Metals - Mansfield Lab Associated sample(s): 01 QC Batch ID: WG1661434-3 QC Sample: L2236139-01 Client ID: MS Sample | | | | | | | | | | | | |
| Arsenic, Total | 0.014 | 0.12 | 0.153 | 116 | | - | - | | 75-125 | - | | 20 |
| Barium, Total | 0.012 | 2 | 2.09 | 104 | | - | - | | 75-125 | - | | 20 |
| Cadmium, Total | ND | 0.053 | 0.056 | 105 | | - | - | | 75-125 | - | | 20 |
| Chromium, Total | 0.016 | 0.2 | 0.214 | 99 | | - | - | | 75-125 | - | | 20 |
| Copper, Total | 0.006J | 0.25 | 0.262 | 105 | | - | - | | 75-125 | - | | 20 |
| Iron, Total | 0.338 | 1 | 1.38 | 104 | | - | - | | 75-125 | - | | 20 |
| Lead, Total | ND | 0.53 | 0.516 | 97 | | - | - | | 75-125 | - | | 20 |
| Nickel, Total | 0.006J | 0.5 | 0.500 | 100 | | - | - | | 75-125 | - | | 20 |
| Selenium, Total | ND | 0.12 | 0.138 | 115 | | - | - | | 75-125 | - | | 20 |
| Silver, Total | ND | 0.05 | 0.051 | 102 | | - | - | | 75-125 | - | | 20 |
| Zinc, Total | 0.021J | 0.5 | 0.552 | 110 | | - | - | | 75-125 | - | | 20 |

# Matrix Spike Analysis
## Batch Quality Control

**Project Name:** 2424 HAMBURG TURNPIKE
**Project Number:** B0345-025-001

**Lab Number:** L2236576
**Report Date:** 07/22/22

| Parameter | Native Sample | MS Added | MS Found | MS %Recovery | | MSD Found | MSD %Recovery | Recovery Limits | RPD | RPD Limits |
|---|---|---|---|---|---|---|---|---|---|---|
| Total Metals - Mansfield Lab Associated sample(s): 01 QC Batch ID: WG1661434-7 QC Sample: L2236149-01 Client ID: MS Sample | | | | | | | | | | |
| Arsenic, Total | ND | 0.12 | 0.138 | 115 | | - | - | 75-125 | - | 20 |
| Barium, Total | 0.019 | 2 | 0.213 | **11** | Q | - | - | 75-125 | - | 20 |
| Cadmium, Total | ND | 0.053 | 0.055 | 103 | | - | - | 75-125 | - | 20 |
| Chromium, Total | ND | 0.2 | 0.201 | 100 | | - | - | 75-125 | - | 20 |
| Copper, Total | ND | 0.25 | 0.258 | 103 | | - | - | 75-125 | - | 20 |
| Iron, Total | 0.509 | 1 | 1.54 | **154** | Q | - | - | 75-125 | - | 20 |
| Lead, Total | ND | 0.53 | 0.132 | **25** | Q | - | - | 75-125 | - | 20 |
| Nickel, Total | 0.016J | 0.5 | 0.481 | 96 | | - | - | 75-125 | - | 20 |
| Selenium, Total | ND | 0.12 | 0.143 | 119 | | - | - | 75-125 | - | 20 |
| Silver, Total | ND | 0.05 | 0.053 | 106 | | - | - | 75-125 | - | 20 |
| Zinc, Total | 0.011J | 0.5 | 0.538 | 108 | | - | - | 75-125 | - | 20 |
| Total Metals - Mansfield Lab Associated sample(s): 01 QC Batch ID: WG1662357-3 QC Sample: L2236609-01 Client ID: MS Sample | | | | | | | | | | |
| Mercury, Total | 0.00025 | 0.005 | 0.00514 | 98 | | - | - | 70-130 | - | 20 |
| Total Metals - Mansfield Lab Associated sample(s): 01 QC Batch ID: WG1662357-5 QC Sample: L2236609-02 Client ID: MS Sample | | | | | | | | | | |
| Mercury, Total | ND | 0.005 | 0.00494 | 99 | | - | - | 70-130 | - | 20 |

# Lab Duplicate Analysis

***Batch Quality Control***

**Project Name:** 2424 HAMBURG TURNPIKE

**Project Number:** B0345-025-001

***Lab Number:*** L2236576

***Report Date:*** 07/22/22

| Parameter | Native Sample | Duplicate Sample | Units | RPD | Qual | RPD Limits |
|---|---|---|---|---|---|---|
| Total Metals - Mansfield Lab Associated sample(s): 01 QC Batch ID: WG1662357-4 QC Sample: L2236609-01 Client ID: DUP Sample | | | | | | |
| Mercury, Total | 0.00025 | 0.00025 | mg/l | 0 | | 20 |
| Total Metals - Mansfield Lab Associated sample(s): 01 QC Batch ID: WG1662357-6 QC Sample: L2236609-02 Client ID: DUP Sample | | | | | | |
| Mercury, Total | ND | ND | mg/l | NC | | 20 |

# INORGANICS
# &
# MISCELLANEOUS

**Project Name:** 2424 HAMBURG TURNPIKE
**Project Number:** B0345-025-001
**Lab Number:** L2236576
**Report Date:** 07/22/22

## SAMPLE RESULTS

Lab ID: L2236576-01
Client ID: EFFLUENT
Sample Location: BUFFALO, NY
Sample Depth:
Matrix: Water

Date Collected: 07/08/22 11:00
Date Received: 07/08/22
Field Prep: Not Specified

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Analytical Method | Analyst |
|---|---|---|---|---|---|---|---|---|---|---|
| **General Chemistry - Westborough Lab** | | | | | | | | | | |
| Cyanide, Total | 0.003 | J | mg/l | 0.005 | 0.001 | 1 | 07/14/22 11:50 | 07/14/22 14:31 | 121,4500CN-CE | CS |
| pH (H) | 7.9 | | SU | - | NA | 1 | - | 07/11/22 09:05 | 121,4500H+-B | KS |
| Oil & Grease, Hem-Grav | 0.75 | J | mg/l | 1.8 | 0.41 | .9 | 07/21/22 09:15 | 07/21/22 13:00 | 140,1664B | MA |

**Project Name:** 2424 HAMBURG TURNPIKE
**Project Number:** B0345-025-001
**Lab Number:** L2236576
**Report Date:** 07/22/22

# Method Blank Analysis
## Batch Quality Control

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Analytical Method | Analyst |
|---|---|---|---|---|---|---|---|---|---|---|
| General Chemistry - Westborough Lab for sample(s): 01 Batch: WG1662798-1 | | | | | | | | | | |
| Cyanide, Total | ND | | mg/l | 0.005 | 0.001 | 1 | 07/14/22 11:50 | 07/14/22 14:25 | 121,4500CN-CE | CS |
| General Chemistry - Westborough Lab for sample(s): 01 Batch: WG1665651-1 | | | | | | | | | | |
| Oil & Grease, Hem-Grav | 0.46 | J | mg/l | 2.0 | 0.46 | 1 | 07/21/22 09:15 | 07/21/22 13:00 | 140,1664B | MA |

# Lab Control Sample Analysis

## Batch Quality Control

**Project Name:** 2424 HAMBURG TURNPIKE

**Project Number:** B0345-025-001

**Lab Number:** L2236576

**Report Date:** 07/22/22

| Parameter | LCS %Recovery | Qual | LCSD %Recovery | Qual | %Recovery Limits | RPD | Qual | RPD Limits |
|---|---|---|---|---|---|---|---|---|
| General Chemistry - Westborough Lab Associated sample(s): 01 Batch: WG1661116-1 | | | | | | | | |
| pH | 100 | | - | | 99-101 | - | | 5 |
| General Chemistry - Westborough Lab Associated sample(s): 01 Batch: WG1662798-2 | | | | | | | | |
| Cyanide, Total | 108 | | - | | 90-110 | - | | |
| General Chemistry - Westborough Lab Associated sample(s): 01 Batch: WG1665651-2 | | | | | | | | |
| Oil & Grease, Hem-Grav | 87 | | - | | 78-114 | - | | 18 |

# Matrix Spike Analysis
## Batch Quality Control

**Project Name:** 2424 HAMBURG TURNPIKE
**Project Number:** B0345-025-001

**Lab Number:** L2236576
**Report Date:** 07/22/22

| Parameter | Native Sample | MS Added | MS Found | MS %Recovery | Qual | MSD Found | MSD %Recovery | Qual | Recovery Limits | RPD | Qual | RPD Limits |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| General Chemistry - Westborough Lab Associated sample(s): 01 QC Batch ID: WG1662798-3 QC Sample: L2237081-01 Client ID: MS Sample | | | | | | | | | | | | |
| Cyanide, Total | 0.002J | 0.2 | 0.190 | 95 | | - | - | | 90-110 | - | | 30 |
| General Chemistry - Westborough Lab Associated sample(s): 01 QC Batch ID: WG1665651-4 QC Sample: L2200039-70 Client ID: MS Sample | | | | | | | | | | | | |
| Oil & Grease, Hem-Grav | 1.3J | 38.5 | 34 | 89 | | - | - | | 78-114 | - | | 18 |

# Lab Duplicate Analysis

***Batch Quality Control***

**Project Name:** 2424 HAMBURG TURNPIKE
**Project Number:** B0345-025-001

***Lab Number:*** L2236576
***Report Date:*** 07/22/22

| Parameter | Native Sample | Duplicate Sample | Units | RPD | Qual | RPD Limits |
|---|---|---|---|---|---|---|
| General Chemistry - Westborough Lab Associated sample(s): 01 QC Batch ID: WG1661116-2 QC Sample: L2236194-01 Client ID: DUP Sample | | | | | | |
| pH | 7.5 | 7.4 | SU | 1 | | 5 |
| General Chemistry - Westborough Lab Associated sample(s): 01 QC Batch ID: WG1662798-4 QC Sample: L2237081-02 Client ID: DUP Sample | | | | | | |
| Cyanide, Total | ND | ND | mg/l | NC | | 30 |
| General Chemistry - Westborough Lab Associated sample(s): 01 QC Batch ID: WG1665651-3 QC Sample: L2200039-69 Client ID: DUP Sample | | | | | | |
| Oil & Grease, Hem-Grav | 0.77J | ND | mg/l | NC | | 18 |

**Project Name:** 2424 HAMBURG TURNPIKE
**Project Number:** B0345-025-001

**Lab Number:** L2236576
**Report Date:** 07/22/22

## 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(*) |
|---|---|---|---|---|---|---|---|---|---|
| L2236576-01A | Vial Na2S2O3 preserved | A | NA | | 2.3 | Y | Absent | | 624.1(3) |
| L2236576-01B | Vial Na2S2O3 preserved | A | NA | | 2.3 | Y | Absent | | 624.1(3) |
| L2236576-01C | Vial Na2S2O3 preserved | A | NA | | 2.3 | Y | Absent | | 624.1(3) |
| L2236576-01D | Plastic 120ml unpreserved | A | 7 | 7 | 2.3 | Y | Absent | | PH-4500(.01) |
| L2236576-01E | Plastic 250ml HNO3 preserved | A | <2 | <2 | 2.3 | Y | Absent | | BA-UI(180),NI-UI(180),ZN-UI(180),AG-UI(180),FE-UI(180),SE-UI(180),HG-U(28),CD-UI(180),CR-UI(180),AS-UI(180),CU-UI(180),PB-UI(180) |
| L2236576-01F | Plastic 250ml NaOH preserved | A | >12 | >12 | 2.3 | Y | Absent | | TCN-4500(14) |
| L2236576-01G | Amber 1000ml H2SO4 preserved | A | <4 | <4 | 2.3 | Y | Absent | | SUB-PHENOL() |
| L2236576-01H | Amber 1000ml Na2S2O3 | A | 7 | 7 | 2.3 | Y | Absent | | 625.1(7) |
| L2236576-01I | Amber 1000ml Na2S2O3 | A | 7 | 7 | 2.3 | Y | Absent | | 625.1(7) |
| L2236576-01J | Amber 1000ml Na2S2O3 | A | 7 | 7 | 2.3 | Y | Absent | | PESTICIDE-608.3(7) |
| L2236576-01K | Amber 1000ml Na2S2O3 | A | 7 | 7 | 2.3 | Y | Absent | | PESTICIDE-608.3(7) |
| L2236576-01L | Amber 1000ml Na2S2O3 | A | 7 | 7 | 2.3 | Y | Absent | | NYPCB-608-2L(365) |
| L2236576-01M | Amber 1000ml Na2S2O3 | A | 7 | 7 | 2.3 | Y | Absent | | NYPCB-608-2L(365) |
| L2236576-01N | Amber 1000ml Na2S2O3 | A | 7 | 7 | 2.3 | Y | Absent | | NYPCB-608-2L(365) |
| L2236576-01O | Amber 1000ml Na2S2O3 | A | 7 | 7 | 2.3 | Y | Absent | | NYPCB-608-2L(365) |
| L2236576-01P | Amber 1000ml HCl preserved | A | NA | | 2.3 | Y | Absent | | NY-OG-1664-LOW(28) |
| L2236576-01Q | Amber 1000ml HCl preserved | A | NA | | 2.3 | Y | Absent | | NY-OG-1664-LOW(28) |
| L2236576-02A | Vial Na2S2O3 preserved | A | NA | | 2.3 | Y | Absent | | HOLD-624(7) |
| L2236576-02B | Vial Na2S2O3 preserved | A | NA | | 2.3 | Y | Absent | | HOLD-624(7) |



*Values in parentheses indicate holding time in days

| | | | |
|---|---|---|---|
| **Project Name:** | 2424 HAMBURG TURNPIKE | **Lab Number:** | L2236576 |
| **Project Number:** | B0345-025-001 | **Report Date:** | 07/22/22 |

## 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:** | 2424 HAMBURG TURNPIKE | **Lab Number:** | L2236576 |
| **Project Number:** | B0345-025-001 | **Report Date:** | 07/22/22 |

***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.

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

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

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

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

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

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

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

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

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

***Data Qualifiers***

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

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

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

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

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

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

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

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

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

**J** - Estimated value. The Target analyte concentration is below the quantitation limit (RL), but above the Method Detection Limit (MDL) or Estimated Detection Limit (EDL) for SPME-related analyses. This represents an estimated concentration for Tentatively

*Report Format: DU Report with 'J' Qualifiers*

| | | | |
|---|---|---|---|
| **Project Name:** | 2424 HAMBURG TURNPIKE | **Lab Number:** | L2236576 |
| **Project Number:** | B0345-025-001 | **Report Date:** | 07/22/22 |

***Data Qualifiers***

Identified Compounds (TICs).

**M** - Reporting Limit (RL) exceeds the MCP CAM Reporting Limit for this analyte.

**ND** - Not detected at the method detection limit (MDL) for the sample, or estimated detection limit (EDL) for SPME-related analyses.

**NJ** - Presumptive evidence of compound. This represents an estimated concentration for Tentatively Identified Compounds (TICs), where 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:** | 2424 HAMBURG TURNPIKE | **Lab Number:** | L2236576 |
| **Project Number:** | B0345-025-001 | **Report Date:** | 07/22/22 |

## REFERENCES


3 Methods for the Determination of Metals in Environmental Samples, Supplement I. EPA/600/R-94/111. May 1994.

19 Inductively Coupled Plasma Atomic Emission Spectrometric Method for Trace Element Analysis of Water and Wastes. Appendix C, Part 136, 40 CFR (Code of Federal Regulations). July 1, 1999 edition.

121 Standard Methods for the Examination of Water and Wastewater. APHA-AWWA-WEF. Standard Methods Online.

127 Method 608.3: Organochlorine Pesticides and PCBs by GC/HSD, EPA 821-R-16-009, December 2016.

128 Method 624.1: Purgeables by GC/MS, EPA 821-R-16-008, December 2016.

129 Method 625.1: Base/Neutrals and Acids by GC/MS, EPA 821-R-16-007, December 2016.

140 Method 1664,Revision B: N-Hexane Extractable Material (HEM; Oil & Grease) and Silica Gel Treated N-Hexane Extractable Material (SGT-HEM; Non-polar Material) by Extraction and Gravimetry, EPA-821-R-10-001, February 2010.


## LIMITATION OF LIABILITIES

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

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

# Certification Information

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

**Westborough Facility**
**EPA 624/624.1:** m/p-xylene, o-xylene, Naphthalene
**EPA 625/625.1:** alpha-Terpineol
**EPA 8260C/8260D:** NPW: 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene, Azobenzene; SCM: Iodomethane (methyl iodide), 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene.
**EPA 8270D/8270E:** NPW: Dimethylnaphthalene,1,4-Diphenylhydrazine, alpha-Terpineol; SCM: Dimethylnaphthalene,1,4-Diphenylhydrazine.
**SM4500**: NPW: Amenable Cyanide; SCM: Total Phosphorus, TKN, NO2, NO3.

**Mansfield Facility**
**SM 2540D:** TSS
**EPA 8082A:** NPW: PCB: 1, 5, 31, 87,101, 110, 141, 151, 153, 180, 183, 187.
**EPA TO-15:** Halothane, 2,4,4-Trimethyl-2-pentene, 2,4,4-Trimethyl-1-pentene, Thiophene, 2-Methylthiophene, 3-Methylthiophene, 2-Ethylthiophene, 1,2,3-Trimethylbenzene, Indan, Indene, 1,2,4,5-Tetramethylbenzene, Benzothiophene, 1-Methylnaphthalene.
**Biological Tissue Matrix:** EPA 3050B

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

**Westborough Facility:**

***Drinking Water***
**EPA 300.0**: Chloride, Nitrate-N, Fluoride, Sulfate; **EPA 353.2**: Nitrate-N, Nitrite-N; **SM4500NO3-F**: Nitrate-N, Nitrite-N; **SM4500F-C, SM4500CN-CE, EPA 180.1, SM2130B, SM4500Cl-D, SM2320B, SM2540C, SM4500H-B, SM4500NO2-B**
**EPA 332**: Perchlorate; **EPA 524.2:** THMs and VOCs; **EPA 504.1:** EDB, DBCP.
**Microbiology**: **SM9215B; SM9223-P/A, SM9223B-Colilert-QT,SM9222D**.

***Non-Potable Water***
**SM4500H,B, EPA 120.1, SM2510B, SM2540C, SM2320B, SM4500CL-E, SM4500F-BC, SM4500NH3-BH:** Ammonia-N and Kjeldahl-N, **EPA 350.1**: Ammonia-N, **LACHAT 10-107-06-1-B**: Ammonia-N, **EPA 351.1, SM4500NO3-F, EPA 353.2**: Nitrate-N, **SM4500P-E, SM4500P-B, E, SM4500SO4-E, SM5220D, EPA 410.4, SM5210B, SM5310C, SM4500CL-D, EPA 1664, EPA 420.1, SM4500-CN-CE, SM2540D, EPA 300: Chloride, Sulfate, Nitrate.**
**EPA 624.1**: Volatile Halocarbons & Aromatics,
**EPA 608.3**: Chlordane, Toxaphene, Aldrin, alpha-BHC, beta-BHC, gamma-BHC, delta-BHC, Dieldrin, DDD, DDE, DDT, Endosulfan I, Endosulfan II, Endosulfan sulfate, Endrin, Endrin Aldehyde, Heptachlor, Heptachlor Epoxide, PCBs
**EPA 625.1**: SVOC (Acid/Base/Neutral Extractables), **EPA 600/4-81-045**: PCB-Oil.
**Microbiology**: **SM9223B-Colilert-QT; Enterolert-QT, SM9221E, EPA 1600, EPA 1603, SM9222D.**

**Mansfield Facility:**

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

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

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

# NEW YORK CHAIN OF CUSTODY

ALPHA ANALYTICAL

Westborough, MA 01581
8 Walkup Dr.
TEL: 508-898-9220
FAX: 508-898-9193

Mansfield, MA 02048
320 Forbes Blvd
TEL: 508-822-9300
FAX: 508-822-3288

**Service Centers**
Mahwah, NJ 07430: 35 Whitney Rd, Suite 5
Albany, NY 12205: 14 Walker Way
Tonawanda, NY 14150: 275 Cooper Ave, Suite 105

Page 1 of 1

Date Rec'd in Lab: 7/9/22

ALPHA Job #: L2236576

## Client Information

Client: Benchmark Environmental
Address: 2558 Hamburg Turnpike,Ste300
Buffalo, NY 14218
Phone: 716-856-0599
Fax:
Email: bgreene@bm-tk.com

## Project Information

Project Name: 2424 Hamburg Turnpike
Project Location: Buffalo, NY
Project #: B0345-025-001
(Use Project name as Project #) ☐
Project Manager: Brock Greene
ALPHAQuote #:

## Turn-Around Time

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

These samples have been previously analyzed by Alpha ☑

**Other project specific requirements/comments:**

Email results to: *Metals: As, Ba, Cd, Cr, Cu, Fe, Pb, Hg, Ni, Se, Ag, Zn

**Please specify Metals or TAL.**

## Deliverables

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

## Regulatory Requirement

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

## Billing Information

☑ Same as Client Info
PO #

## Disposal Site Information

Please identify below location of applicable disposal facilities.

Disposal Facility:
☐ NJ ☐ NY
☐ Other: NA

## ANALYSIS

| ALPHA Lab ID (Lab Use Only) | Sample ID | Collection Date | Collection Time | Sample Matrix | Sampler's Initials | Total Phenol | T. CN | 624.1 | T. Metals* | pH | O&G | 608 Pest/608 PCB | 625.1 | Sample Specific Comments | Total # Bottles |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 36576-01 | Effluent | 7-8-22 | 1100 | Water | BMK | X | X | X | X | X | X | X | X | | 17 |
| 02 | Trip Blank | 7-8-22 | 1100 | water | BMK | | | X | | | | | | Hold | 2 |

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

| | A | P | V | P | P | A | A | A |
|---|---|---|---|---|---|---|---|---|
| Container Type | | | | | | | | |
| Preservative | D | E | H | C | A | B | H | H |

Preservative Code:
A = None
B = HCl
C = $HNO_3$
D = $H_2SO_4$
E = NaOH
F = MeOH
G = $NaHSO_4$
H = $Na_2S_2O_3$
K/E = Zn Ac/NaOH
O = Other

Container Code
P = Plastic
A = Amber Glass
V = Vial
G = Glass
B = Bacteria Cup
C = Cube
O = Other
E = Encore
D = BOD Bottle

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

| Relinquished By: | Date/Time | Received By: | Date/Time |
|---|---|---|---|
| ~~7-8-22~~ Brock Greene | 7-8-22/1130 | Reyt ADL | 7/8/22 1350 |
| Reyt ADL | 7/8/22 1500 | Wendy Morrison | 7/9/22 00:00 |

Please print clearly, legibly and completely. Samples can not be logged in and turnaround time clock will not start until any ambiguities are resolved. BY EXECUTING THIS COC, THE CLIENT HAS READ AND AGREES TO BE BOUND BY ALPHA'S TERMS & CONDITIONS.

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

PHOENIX
Environmental Laboratories, Inc.

**Tuesday, July 19, 2022**

**Attn: Candace Fox**
**Alpha Analytical Lab**
**8 Walkup Drive**
**Westborough, MA 01581**

**Project ID:** **L2236576**
**SDG ID:** **GCL73811**
**Sample ID#s:** **CL73811**

**This laboratory is in compliance with the NELAC requirements of procedures used except where indicated.**

**This report contains results for the parameters tested, under the sampling conditions described on the Chain Of Custody, as received by the laboratory. This report is incomplete unless all pages indicated in the pagination at the bottom of the page are included.**

**A scanned version of the COC form accompanies the analytical report and is an exact duplicate of the original.**

**If you are the client above and have any questions concerning this testing, please do not hesitate to contact Phoenix Client Services at ext.200. The contents of this report cannot be discussed with anyone other than the client listed above without their written consent.**

**Sincerely yours,**

**Phyllis Shiller**
**Laboratory Director**

**NELAC - #NY11301**
**CT Lab Registration #PH-0618**
**MA Lab Registration #M-CT007**
**ME Lab Registration #CT-007**
**NH Lab Registration #213693-A,B**
**NJ Lab Registration #CT-003**
**NY Lab Registration #11301**
**PA Lab Registration #68-03530**
**RI Lab Registration #63**
**UT Lab Registration #CT00007**
**VT Lab Registration #VT11301**

Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

NY # 11301

# SDG Comments

July 19, 2022

SDG I.D.: GCL73811

Any compound that is not detected above the MDL/LOD is reported as ND on the report and is reported in the electronic deliverables (EDD) as <RL or U at the RL per state and EPA guidance.
Compounds that are detected above MDL but below RL are qualified with a J flag.

Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

ACCREDITED IN ACCORDANCE WITH nelac NY # 11301

# Sample Id Cross Reference

July 19, 2022

SDG I.D.: GCL73811

Project ID: L2236576

| Client Id | Lab Id | Matrix |
|---|---|---|
| EFFLUENT | CL73811 | WATER |

PHOENIX

Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

ACCREDITED IN ACCORDANCE WITH nelac NY # 11301

# Analysis Report

July 19, 2022

FOR: Attn: Candace Fox
Alpha Analytical Lab
8 Walkup Drive
Westborough, MA 01581

| Sample Information | | Custody Information | | Date | Time |
|---|---|---|---|---|---|
| Matrix: | WATER | Collected by: | | 07/08/22 | 11:00 |
| Location Code: | ALPHA | Received by: | LB | 07/11/22 | 11:11 |
| Rush Request: | Standard | Analyzed by: | see "By" below | | |
| P.O.#: | | | | | |

## Laboratory Data

SDG ID: GCL73811
Phoenix ID: CL73811

Project ID: L2236576
Client ID: EFFLUENT

| Parameter | Result | RL/ PQL | LOD/ MDL | Units | Dilution | Date/Time | By | Reference |
|---|---|---|---|---|---|---|---|---|
| Phenolics | ND | 0.015 | 0.005 | mg/L | 1 | 07/18/22 | EG | E420.4 |

RL/PQL=Reporting/Practical Quantitation Level (Equivalent to NELAC LOQ, Limit of Quantitation) ND=Not Detected BRL=Below Reporting Level L=Biased Low LOD=Limit of Detection MDL=Method Detection Limit1

**Comments:**

If you are the client above and have any questions concerning this testing, please do not hesitate to contact Phoenix Client Services at ext.200.
The contents of this report cannot be discussed with anyone other than the client listed above without their written consent.

**Phyllis Shiller, Laboratory Director**
**July 19, 2022**
**Reviewed and Released by: Anil Makol, Project Manager**

**Ver 1**

PHOENIX

Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

ACCREDITED IN ACCORDANCE WITH nelac NY # 11301

# QA/QC Report

July 19, 2022

## QA/QC Data

SDG I.D.: GCL73811

| Parameter | Blank | Blk RL | Sample Result | Dup Result | Dup RPD | LCS % | LCSD % | LCS RPD | MS % | MSD % | MS RPD | % Rec Limits | % RPD Limits |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| QA/QC Batch 633378 (mg/L), QC Sample No: CL73807 (CL73811) | | | | | | | | | | | | | |
| Phenolics | BRL | 0.015 | 0.008 J | 0.007 J | NC | 99.6 | | | 101 | | | 90 - 110 | 20 |

If there are any questions regarding this data, please call Phoenix Client Services at extension 200.

RPD - Relative Percent Difference
LCS - Laboratory Control Sample
LCSD - Laboratory Control Sample Duplicate
MS - Matrix Spike
MS Dup - Matrix Spike Duplicate
NC - No Criteria
Intf - Interference

Phyllis Shiller, Laboratory Director
July 19, 2022

Tuesday, July 19, 2022

Criteria: None

State: NY

# Sample Criteria Exceedances Report

## GCL73811 - ALPHA

| SampNo | Acode | Phoenix Analyte | Criteria | Result | RL | Criteria | RL Criteria | Analysis Units |
|---|---|---|---|---|---|---|---|---|

*** No Data to Display ***

Phoenix Laboratories does not assume responsibility for the data contained in this exceedance report. It is provided as an additional tool to identify requested criteria exceedences. All efforts are made to ensure the accuracy of the data (obtained from appropriate agencies). A lack of exceedence information does not necessarily suggest conformance to the criteria. It is ultimately the site professional's responsibility to determine appropriate compliance.

**Environmental Laboratories, Inc.**
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

ACCREDITED IN ACCORDANCE WITH nelac NY # 11301

# NY Temperature Narration

**July 19, 2022**

**SDG I.D.: GCL73811**

The samples in this delivery group were received at 1.9°C.
(Note acceptance criteria for relevant matrices is above freezing up to 6°C)

1.9° Wcrer

# Subcontract Chain of Custody

Phoenix Environmental Laboratories
587 East Middle Turnpike
Manchester, CT 06040

**Alpha Job Number**
L2236576

## Client Information

Client: Alpha Analytical Labs
Address: Eight Walkup Drive
Westborough, MA 01581-1019

Phone: 716-427-5223
Email: cfox@alphalab.com

## Project Information

Project Location: NY
Project Manager: Candace Fox

### Turnaround & Deliverables Information

Due Date:
Deliverables:

## Regulatory Requirements/Report Limits

State/Federal Program:
Regulatory Criteria:

## Project Specific Requirements and/or Report Requirements

Reference following Alpha Job Number on final report/deliverables: L2236576

Report to include Method Blank, LCS/LCSD:

Additional Comments: Send all results/reports to subreports@alphalab.com Method 420. Report to the MDL

| Lab ID | Client ID | Collection Date/Time | Sample Matrix | Analysis | Batch QC |
|---|---|---|---|---|---|
| 73811 | EFFLUENT | 07-08-22 11:00 | WATER | Phenol | |

| | Relinquished By: | Date/Time: | Received By: | Date/Time: |
|---|---|---|---|---|
| | Holly Smith | 7/11/22 | Holly Smith | 7/11/22 913 |
| | | 7/11/22 1658 | | 7/11/22 11:11 |
| Form No: AL_subcoc | | | | |

# ATTACHMENT 2

**Flow Meter Calibration Certificate**

# Cold Spring Environmental

3248 Buffalo Rd., Varysburg, N.Y. 14167
Ph: 716-863-7052

May 11, 2022

Benchmark & Turnkey
Att. Brock Greene
2558 Hamburg Turnpike, Suite 300
Buffalo, NY  14218

Ref: Flow Meter Calibration

Dear Mr. Greene,

Calibration Date: May 5, 2022
Site location: 2424 Hamburg Turnpike
Equipment Model:GPI A109GMN100NA1
Equipment type: Closed Pipe impellor
Equipment S/N: EDM 1615558
Measuring device: 1 inch pipe
Output type: none
Totalizer multiplier:  X1 gallon

Initial Readings:
 Meter Flow Rate 4.3 GPM
Totalizer  8.8 gallons  Water meter 10 gallons
Difference 12%

After Adjustment:
Readings:
 Meter Flow Rate 4.3 GPM
Totalizer  10 gallons  Water meter 10  gallons
Difference 0%

Readings:
 Meter Flow Rate 1.9 GPM
Totalizer  10 gallons  Water meter 10  gallons
Difference 0%

Please contact me with any questions.

Sincerely, Jon Wolak

716-863-7052
jonwolak@yahoo.com

Strong Advocates, Effective Solutions, Integrated Implementation

February 1, 2023

Ms. Laura Surdej
Erie County Sewer/Southtowns Sewage Treatment Plant
2060 Lehigh St
Lackawanna, NY 14218

Re: ECSD No.6 Discharge Permit LA-04 – Discharge Report (August 2022 - January 2023)
For 2424 Hamburg Turnpike, Lackawanna, New York

Dear Ms. Surdej:

TurnKey Environmental Restoration, LLC (TurnKey) has prepared this correspondence on behalf of our client, 2424 Hamburg Turnpike LLC, for the treated groundwater at the above-referenced property location in accordance with Erie County Sewer District No. 6 (ECSD No. 6) Permit No. LA-04, effective May 10, 2021. As required by the permit, this report summarizes flow and compliance sample results for the report period from August 2022 through January 2023.

TurnKey personnel recorded totalizer (total gallons) weekly during the reporting period. Table 1 summarizes the total volume (gallons) and calculated daily flow (gallons per day) measured from August 2022 through January 2023.

On December 1, 2022, TurnKey personnel collected an effluent water sample and submitted the sample under chain-of-custody command to Alpha Analytical for laboratory analysis in accordance with the discharge permit. Table 2 summarizes the analytical results; Attachment 1 contains the Laboratory Analytical Report. All parameters meet corresponding permitted discharge limits.

As of January 31, 2023, a total of 168,555 gallons of water has been pre-treated and discharged during this monitoring period to the ECSD No.6 collection and conveyance system. The calculated daily flow for the reporting period has ranged between zero and 4,891 GPD, well below permitted flows of up to 25,000 GPD. The flow meter was subjected to third party annual calibration on May 5, 2022. The calibration certificate is presented as Attachment 2. We plan on calibrating the flow meter in May of 2023.

Please contact me if you have any questions or require additional information.

Sincerely,
TurnKey Environmental Restoration, LLC

Brock Greene
Sr. Project Environmental Scientist

# TABLES

TURNKEY ENVIRONMENTAL RESTORATION, LLC

# TABLE 1

## SUMMARY OF EFFLUENT FLOW

## 2424 HAMBURG TURNPIKE GROUNDWATER PRE-TREATMENT SYSTEM
## Lackawanna, New York

| Date | Totalizer (gallons) | Gallons per Period (gallons) | Calculated GPD (gallons/day) |
|---|---|---|---|
| | | | Permit Limit 25,000 GPD |
| 8/5/22 | 3843 | 3,843 | 549 |
| 8/10/22 | 6301 | 2,458 | 492 |
| 8/26/22 | 14684 | 8,383 | 524 |
| 9/6/22 | 16766 | 2,082 | 189 |
| 9/15/22 | 22437 | 5,671 | 630 |
| 9/29/22 | 31798 | 9,361 | 669 |
| 10/7/22 | 36460 | 4,662 | 583 |
| 10/13/22 | 43685 | 7,225 | 1,204 |
| 10/21/22 | 57981 | 14,296 | 1,787 |
| 10/28/22 | 69750 | 11,769 | 1,681 |
| 11/4/22 | 74547 | 4,797 | 685 |
| 11/9/22 | 87627 | 13,080 | 2,616 |
| 11/16/22 | 106496 | 18,869 | 2,696 |
| 11/23/22 | 124251 | 17,755 | 2,536 |
| 12/1/22 | 163380 | 39,129 | 4,891 |
| 12/9/22 | 168555 | 5,175 | 647 |
| 1/31/23 | 168555 | 0 | 0 |

Gallons discharged this monitoring period = 168,555

Notes:

# TABLE 2

## SUMMARY OF EFFLUENT WATER ANALYTICAL DATA

## 2424 HAMBURG TURNPIKE GROUNDWATER PRE-TREATMENT SYSTEM
## Lackawanna, New York

| Parameter [1] | Effluent 12/01/22 | Discharge Permit Limitations [2] |
|---|---|---|
| ***Volatile Organic Compounds (VOCs - Method 624) - mg/L*** | | |
| *All Compounds Non-Detect* | | -- |
| ***Semi-Volatile Organic Compounds (SVOCs - Method 625) - mg/L*** | | |
| *NS* | | -- |
| ***Polychlorinated Biphenyls (PCBs ) (Method 608)- mg/L*** | | |
| *NS* | | -- |
| ***Organochlorine Pesticide Compounds (Method 608) - mg/L*** | | |
| *NS* | | -- |
| ***Metal Compounds (Method 200.7 Rev 4.4) - mg/L*** [3] | | |
| Arsenic | 0.0026 J | **0.18** |
| Barium | 0.0417 | **Monitor** |
| Chromium | 0.01 | **4.85** |
| Iron | 0.0582 | **Monitor** |
| **TOTAL Metals (mg/L)** | **0.1125 J** | **Monitor** |
| ***General Chemistry - mg/L*** | | |
| Cyanide, Total | 0.003 J | **0.48** |
| Phenolics, Total Recoverable | ND | **Monitor** |
| Oil & Grease | NS | **100** |
| Ph | 7.7 | **5-12** |
| ***Total Toxic Organic Pollutants (TTO)*** [4] | ND | **2.13** |

**Notes:**

1. Only those parameters detected are presented in this table; all others were reported as non-detect.
2. Per the May 2021 Erie County Sewer District No. 6 Discharge Permit LA-04
3. Metals include Ag, As, Ba, Cd, Cr, Cu, Fe, Hg, Ni, Pb, Se, and Zn
4. TTO is determined by totaling the reported compound concentrations detected via EPA Methods 608, 624, & 625.

**Definitions:**

J = Estimated value; result is less than the sample quantitation limit but greater than zero.
ND = Parameter is non-detect.
NS = Parameter not sampled for at this time.

# ATTACHMENT 1

**Laboratory Data**
**(in electronic copy only)**

# ANALYTICAL REPORT

| | |
|---|---|
| Lab Number: | L2267357 |
| Client: | Benchmark & Turnkey Companies<br>2558 Hamburg Turnpike<br>Suite 300<br>Buffalo, NY 14218 |
| ATTN: | Brock Greene |
| Phone: | (716) 856-0599 |
| Project Name: | 2424 HAMBURG TURNPIKE |
| Project Number: | B0345-021-001 |
| Report Date: | 12/15/22 |



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:** 2424 HAMBURG TURNPIKE
**Project Number:** B0345-021-001

**Lab Number:** L2267357
**Report Date:** 12/15/22

| Alpha Sample ID | Client ID | Matrix | Sample Location | Collection Date/Time | Receive Date |
|---|---|---|---|---|---|
| L2267357-01 | EFFLUENT | WATER | BUFFALO, NY | 12/01/22 11:00 | 12/01/22 |

| | | | |
|---|---|---|---|
| **Project Name:** | 2424 HAMBURG TURNPIKE | **Lab Number:** | L2267357 |
| **Project Number:** | B0345-021-001 | **Report Date:** | 12/15/22 |

## 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:** | 2424 HAMBURG TURNPIKE | **Lab Number:** | L2267357 |
| **Project Number:** | B0345-021-001 | **Report Date:** | 12/15/22 |

**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.

The analysis of Phenolics was subcontracted. A copy of the laboratory report is included as an addendum. Please note: This data is only available in PDF format and is not available on Data Merger.

Volatile Organics by 624.1

L2267357-01D: The sample has an elevated detection limit due to the dilution performed.

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

Authorized Signature: Kelly O'Neill

Title: Technical Director/Representative Date: 12/15/22

# ORGANICS

# VOLATILES

**Project Name:** 2424 HAMBURG TURNPIKE
**Lab Number:** L2267357
**Project Number:** B0345-021-001
**Report Date:** 12/15/22

## SAMPLE RESULTS

Lab ID: L2267357-01
Client ID: EFFLUENT
Sample Location: BUFFALO, NY

Date Collected: 12/01/22 11:00
Date Received: 12/01/22
Field Prep: Not Specified

Sample Depth:
Matrix: Water
Analytical Method: 128,624.1
Analytical Date: 12/05/22 12:30
Analyst: GMT

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor |
|---|---|---|---|---|---|---|
| **Volatile Organics by GC/MS - Westborough Lab** | | | | | | |
| Methylene chloride | ND | | ug/l | 1.0 | 0.56 | 1 |
| 1,1-Dichloroethane | ND | | ug/l | 1.5 | 0.40 | 1 |
| Chloroform | ND | | ug/l | 1.0 | 0.38 | 1 |
| Carbon tetrachloride | ND | | ug/l | 1.0 | 0.24 | 1 |
| 1,2-Dichloropropane | ND | | ug/l | 3.5 | 0.46 | 1 |
| Dibromochloromethane | ND | | ug/l | 1.0 | 0.27 | 1 |
| 1,1,2-Trichloroethane | ND | | ug/l | 1.5 | 0.34 | 1 |
| 2-Chloroethylvinyl ether | ND | | ug/l | 10 | 0.35 | 1 |
| Tetrachloroethene | ND | | ug/l | 1.0 | 0.26 | 1 |
| Chlorobenzene | ND | | ug/l | 3.5 | 0.30 | 1 |
| 1,2-Dichloroethane | ND | | ug/l | 1.5 | 0.47 | 1 |
| 1,1,1-Trichloroethane | ND | | ug/l | 2.0 | 0.29 | 1 |
| Bromodichloromethane | ND | | ug/l | 1.0 | 0.28 | 1 |
| trans-1,3-Dichloropropene | ND | | ug/l | 1.5 | 0.31 | 1 |
| cis-1,3-Dichloropropene | ND | | ug/l | 1.5 | 0.34 | 1 |
| 1,3-Dichloropropene, Total | ND | | ug/l | 1.5 | 0.31 | 1 |
| Bromoform | ND | | ug/l | 1.0 | 0.22 | 1 |
| 1,1,2,2-Tetrachloroethane | ND | | ug/l | 1.0 | 0.20 | 1 |
| Benzene | ND | | ug/l | 1.0 | 0.38 | 1 |
| Toluene | ND | | ug/l | 1.0 | 0.31 | 1 |
| Ethylbenzene | ND | | ug/l | 1.0 | 0.28 | 1 |
| Chloromethane | ND | | ug/l | 5.0 | 1.0 | 1 |
| Bromomethane | ND | | ug/l | 5.0 | 1.2 | 1 |
| Vinyl chloride | ND | | ug/l | 1.0 | 0.38 | 1 |
| Chloroethane | ND | | ug/l | 2.0 | 0.37 | 1 |
| 1,1-Dichloroethene | ND | | ug/l | 1.0 | 0.31 | 1 |
| trans-1,2-Dichloroethene | ND | | ug/l | 1.5 | 0.33 | 1 |
| Trichloroethene | ND | | ug/l | 1.0 | 0.33 | 1 |

**Project Name:** 2424 HAMBURG TURNPIKE **Lab Number:** L2267357

**Project Number:** B0345-021-001 **Report Date:** 12/15/22

## SAMPLE RESULTS

Lab ID: L2267357-01 Date Collected: 12/01/22 11:00

Client ID: EFFLUENT Date Received: 12/01/22

Sample Location: BUFFALO, NY Field Prep: Not Specified

Sample Depth:

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor |
|---|---|---|---|---|---|---|
| **Volatile Organics by GC/MS - Westborough Lab** | | | | | | |
| 1,2-Dichlorobenzene | ND | | ug/l | 5.0 | 0.28 | 1 |
| 1,3-Dichlorobenzene | ND | | ug/l | 5.0 | 0.27 | 1 |
| 1,4-Dichlorobenzene | ND | | ug/l | 5.0 | 0.29 | 1 |
| Acrylonitrile | ND | | ug/l | 10 | 0.33 | 1 |

| Surrogate | % Recovery | Qualifier | Acceptance Criteria |
|---|---|---|---|
| Pentafluorobenzene | 72 | | 60-140 |
| Fluorobenzene | 84 | | 60-140 |
| 4-Bromofluorobenzene | 97 | | 60-140 |

**Project Name:** 2424 HAMBURG TURNPIKE
**Lab Number:** L2267357
**Project Number:** B0345-021-001
**Report Date:** 12/15/22

## SAMPLE RESULTS

Lab ID: L2267357-01 D
Client ID: EFFLUENT
Sample Location: BUFFALO, NY

Date Collected: 12/01/22 11:00
Date Received: 12/01/22
Field Prep: Not Specified

Sample Depth:
Matrix: Water
Analytical Method: 128,624.1
Analytical Date: 12/03/22 17:54
Analyst: LAC

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor |
|---|---|---|---|---|---|---|
| **Volatile Organics by GC/MS - Westborough Lab** | | | | | | |
| Acrolein | ND | | ug/l | 32 | 7.3 | 4 |

| Surrogate | % Recovery | Qualifier | Acceptance Criteria |
|---|---|---|---|
| Pentafluorobenzene | 74 | | 60-140 |
| Fluorobenzene | 83 | | 60-140 |
| 4-Bromofluorobenzene | 98 | | 60-140 |

**Project Name:** 2424 HAMBURG TURNPIKE **Lab Number:** L2267357

**Project Number:** B0345-021-001 **Report Date:** 12/15/22

# Method Blank Analysis
## Batch Quality Control

Analytical Method: 128,624.1
Analytical Date: 12/03/22 11:37
Analyst: LAC

| Parameter | Result | Qualifier | Units | RL | MDL |
|---|---|---|---|---|---|
| Volatile Organics by GC/MS - Westborough Lab for sample(s): 01 Batch: WG1719369-4 | | | | | |
| Methylene chloride | ND | | ug/l | 1.0 | 0.56 |
| 1,1-Dichloroethane | ND | | ug/l | 1.5 | 0.40 |
| Chloroform | ND | | ug/l | 1.0 | 0.38 |
| Carbon tetrachloride | ND | | ug/l | 1.0 | 0.24 |
| 1,2-Dichloropropane | ND | | ug/l | 3.5 | 0.46 |
| Dibromochloromethane | ND | | ug/l | 1.0 | 0.27 |
| 1,1,2-Trichloroethane | ND | | ug/l | 1.5 | 0.34 |
| 2-Chloroethylvinyl ether | ND | | ug/l | 10 | 0.35 |
| Tetrachloroethene | ND | | ug/l | 1.0 | 0.26 |
| Chlorobenzene | ND | | ug/l | 3.5 | 0.30 |
| 1,2-Dichloroethane | ND | | ug/l | 1.5 | 0.47 |
| 1,1,1-Trichloroethane | ND | | ug/l | 2.0 | 0.29 |
| Bromodichloromethane | ND | | ug/l | 1.0 | 0.28 |
| trans-1,3-Dichloropropene | ND | | ug/l | 1.5 | 0.31 |
| cis-1,3-Dichloropropene | ND | | ug/l | 1.5 | 0.34 |
| 1,3-Dichloropropene, Total | ND | | ug/l | 1.5 | 0.31 |
| Bromoform | ND | | ug/l | 1.0 | 0.22 |
| 1,1,2,2-Tetrachloroethane | ND | | ug/l | 1.0 | 0.20 |
| Benzene | ND | | ug/l | 1.0 | 0.38 |
| Toluene | ND | | ug/l | 1.0 | 0.31 |
| Ethylbenzene | ND | | ug/l | 1.0 | 0.28 |
| Chloromethane | ND | | ug/l | 5.0 | 1.0 |
| Bromomethane | ND | | ug/l | 5.0 | 1.2 |
| Vinyl chloride | ND | | ug/l | 1.0 | 0.38 |
| Chloroethane | ND | | ug/l | 2.0 | 0.37 |
| 1,1-Dichloroethene | ND | | ug/l | 1.0 | 0.31 |
| trans-1,2-Dichloroethene | ND | | ug/l | 1.5 | 0.33 |
| Trichloroethene | ND | | ug/l | 1.0 | 0.33 |
| 1,2-Dichlorobenzene | ND | | ug/l | 5.0 | 0.28 |

**Project Name:** 2424 HAMBURG TURNPIKE
**Project Number:** B0345-021-001
**Lab Number:** L2267357
**Report Date:** 12/15/22

# Method Blank Analysis
## Batch Quality Control

Analytical Method: 128,624.1
Analytical Date: 12/03/22 11:37
Analyst: LAC

| Parameter | Result | Qualifier | Units | RL | MDL |
|---|---|---|---|---|---|
| Volatile Organics by GC/MS - Westborough Lab for sample(s): 01 Batch: WG1719369-4 | | | | | |
| 1,3-Dichlorobenzene | ND | | ug/l | 5.0 | 0.27 |
| 1,4-Dichlorobenzene | ND | | ug/l | 5.0 | 0.29 |
| Acrolein | ND | | ug/l | 8.0 | 1.8 |
| Acrylonitrile | ND | | ug/l | 10 | 0.33 |

| Surrogate | %Recovery | Qualifier | Acceptance Criteria |
|---|---|---|---|
| Pentafluorobenzene | 74 | | 60-140 |
| Fluorobenzene | 84 | | 60-140 |
| 4-Bromofluorobenzene | 91 | | 60-140 |

**Project Name:** 2424 HAMBURG TURNPIKE **Lab Number:** L2267357

**Project Number:** B0345-021-001 **Report Date:** 12/15/22

# Method Blank Analysis
## Batch Quality Control

Analytical Method: 128,624.1
Analytical Date: 12/05/22 11:23
Analyst: GMT

| Parameter | Result | Qualifier | Units | RL | MDL |
|---|---|---|---|---|---|
| Volatile Organics by GC/MS - Westborough Lab for sample(s): 01 Batch: WG1719973-4 | | | | | |
| Methylene chloride | ND | | ug/l | 1.0 | 0.56 |
| 1,1-Dichloroethane | ND | | ug/l | 1.5 | 0.40 |
| Chloroform | ND | | ug/l | 1.0 | 0.38 |
| Carbon tetrachloride | ND | | ug/l | 1.0 | 0.24 |
| 1,2-Dichloropropane | ND | | ug/l | 3.5 | 0.46 |
| Dibromochloromethane | ND | | ug/l | 1.0 | 0.27 |
| 1,1,2-Trichloroethane | ND | | ug/l | 1.5 | 0.34 |
| 2-Chloroethylvinyl ether | ND | | ug/l | 10 | 0.35 |
| Tetrachloroethene | ND | | ug/l | 1.0 | 0.26 |
| Chlorobenzene | ND | | ug/l | 3.5 | 0.30 |
| 1,2-Dichloroethane | ND | | ug/l | 1.5 | 0.47 |
| 1,1,1-Trichloroethane | ND | | ug/l | 2.0 | 0.29 |
| Bromodichloromethane | ND | | ug/l | 1.0 | 0.28 |
| trans-1,3-Dichloropropene | ND | | ug/l | 1.5 | 0.31 |
| cis-1,3-Dichloropropene | ND | | ug/l | 1.5 | 0.34 |
| 1,3-Dichloropropene, Total | ND | | ug/l | 1.5 | 0.31 |
| Bromoform | ND | | ug/l | 1.0 | 0.22 |
| 1,1,2,2-Tetrachloroethane | ND | | ug/l | 1.0 | 0.20 |
| Benzene | ND | | ug/l | 1.0 | 0.38 |
| Toluene | ND | | ug/l | 1.0 | 0.31 |
| Ethylbenzene | ND | | ug/l | 1.0 | 0.28 |
| Chloromethane | ND | | ug/l | 5.0 | 1.0 |
| Bromomethane | ND | | ug/l | 5.0 | 1.2 |
| Vinyl chloride | ND | | ug/l | 1.0 | 0.38 |
| Chloroethane | ND | | ug/l | 2.0 | 0.37 |
| 1,1-Dichloroethene | ND | | ug/l | 1.0 | 0.31 |
| trans-1,2-Dichloroethene | ND | | ug/l | 1.5 | 0.33 |
| Trichloroethene | ND | | ug/l | 1.0 | 0.33 |
| 1,2-Dichlorobenzene | ND | | ug/l | 5.0 | 0.28 |

**Project Name:** 2424 HAMBURG TURNPIKE
**Project Number:** B0345-021-001
**Lab Number:** L2267357
**Report Date:** 12/15/22

# Method Blank Analysis
## Batch Quality Control

Analytical Method: 128,624.1
Analytical Date: 12/05/22 11:23
Analyst: GMT

| Parameter | Result | Qualifier | Units | RL | MDL |
|---|---|---|---|---|---|
| Volatile Organics by GC/MS - Westborough Lab for sample(s): 01 Batch: WG1719973-4 | | | | | |
| 1,3-Dichlorobenzene | ND | | ug/l | 5.0 | 0.27 |
| 1,4-Dichlorobenzene | ND | | ug/l | 5.0 | 0.29 |
| Acrolein | ND | | ug/l | 8.0 | 1.8 |
| Acrylonitrile | ND | | ug/l | 10 | 0.33 |

| Surrogate | %Recovery | Qualifier | Acceptance Criteria |
|---|---|---|---|
| Pentafluorobenzene | 80 | | 60-140 |
| Fluorobenzene | 89 | | 60-140 |
| 4-Bromofluorobenzene | 89 | | 60-140 |

# Lab Control Sample Analysis

## Batch Quality Control

**Project Name:** 2424 HAMBURG TURNPIKE

**Project Number:** B0345-021-001

**Lab Number:** L2267357

**Report Date:** 12/15/22

| 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: WG1719369-3 | | | | | | | | |
| Methylene chloride | 80 | | - | | 60-140 | - | | 28 |
| 1,1-Dichloroethane | 85 | | - | | 50-150 | - | | 49 |
| Chloroform | 90 | | - | | 70-135 | - | | 54 |
| Carbon tetrachloride | 95 | | - | | 70-130 | - | | 41 |
| 1,2-Dichloropropane | 95 | | - | | 35-165 | - | | 55 |
| Dibromochloromethane | 85 | | - | | 70-135 | - | | 50 |
| 1,1,2-Trichloroethane | 95 | | - | | 70-130 | - | | 45 |
| 2-Chloroethylvinyl ether | 85 | | - | | 1-225 | - | | 71 |
| Tetrachloroethene | 85 | | - | | 70-130 | - | | 39 |
| Chlorobenzene | 80 | | - | | 65-135 | - | | 53 |
| 1,2-Dichloroethane | 100 | | - | | 70-130 | - | | 49 |
| 1,1,1-Trichloroethane | 95 | | - | | 70-130 | - | | 36 |
| Bromodichloromethane | 95 | | - | | 65-135 | - | | 56 |
| trans-1,3-Dichloropropene | 90 | | - | | 50-150 | - | | 86 |
| cis-1,3-Dichloropropene | 95 | | - | | 25-175 | - | | 58 |
| Bromoform | 75 | | - | | 70-130 | - | | 42 |
| 1,1,2,2-Tetrachloroethane | 90 | | - | | 60-140 | - | | 61 |
| Benzene | 100 | | - | | 65-135 | - | | 61 |
| Toluene | 100 | | - | | 70-130 | - | | 41 |
| Ethylbenzene | 90 | | - | | 60-140 | - | | 63 |
| Chloromethane | 95 | | - | | 1-205 | - | | 60 |
| Bromomethane | 75 | | - | | 15-185 | - | | 61 |
| Vinyl chloride | 80 | | - | | 5-195 | - | | 66 |

# Lab Control Sample Analysis

## Batch Quality Control

**Project Name:** 2424 HAMBURG TURNPIKE

**Project Number:** B0345-021-001

**Lab Number:** L2267357

**Report Date:** 12/15/22

| 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: WG1719369-3 | | | | | | | | |
| Chloroethane | 95 | | - | | 40-160 | - | | 78 |
| 1,1-Dichloroethene | 80 | | - | | 50-150 | - | | 32 |
| trans-1,2-Dichloroethene | 80 | | - | | 70-130 | - | | 45 |
| Trichloroethene | 80 | | - | | 65-135 | - | | 48 |
| 1,2-Dichlorobenzene | 90 | | - | | 65-135 | - | | 57 |
| 1,3-Dichlorobenzene | 80 | | - | | 70-130 | - | | 43 |
| 1,4-Dichlorobenzene | 80 | | - | | 65-135 | - | | 57 |
| Acrolein | 72 | | - | | 60-140 | - | | 30 |
| Acrylonitrile | 82 | | - | | 60-140 | - | | 60 |

| Surrogate | LCS %Recovery | Qual | LCSD %Recovery | Qual | Acceptance Criteria |
|---|---|---|---|---|---|
| Pentafluorobenzene | 89 | | | | 60-140 |
| Fluorobenzene | 99 | | | | 60-140 |
| 4-Bromofluorobenzene | 90 | | | | 60-140 |

# Lab Control Sample Analysis

## Batch Quality Control

**Project Name:** 2424 HAMBURG TURNPIKE

**Project Number:** B0345-021-001

**Lab Number:** L2267357

**Report Date:** 12/15/22

| 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: WG1719973-3 | | | | | | | | |
| Methylene chloride | 90 | | - | | 60-140 | - | | 28 |
| 1,1-Dichloroethane | 95 | | - | | 50-150 | - | | 49 |
| Chloroform | 105 | | - | | 70-135 | - | | 54 |
| Carbon tetrachloride | 120 | | - | | 70-130 | - | | 41 |
| 1,2-Dichloropropane | 105 | | - | | 35-165 | - | | 55 |
| Dibromochloromethane | 90 | | - | | 70-135 | - | | 50 |
| 1,1,2-Trichloroethane | 100 | | - | | 70-130 | - | | 45 |
| 2-Chloroethylvinyl ether | 100 | | - | | 1-225 | - | | 71 |
| Tetrachloroethene | 100 | | - | | 70-130 | - | | 39 |
| Chlorobenzene | 90 | | - | | 65-135 | - | | 53 |
| 1,2-Dichloroethane | 115 | | - | | 70-130 | - | | 49 |
| 1,1,1-Trichloroethane | 115 | | - | | 70-130 | - | | 36 |
| Bromodichloromethane | 105 | | - | | 65-135 | - | | 56 |
| trans-1,3-Dichloropropene | 95 | | - | | 50-150 | - | | 86 |
| cis-1,3-Dichloropropene | 100 | | - | | 25-175 | - | | 58 |
| Bromoform | 75 | | - | | 70-130 | - | | 42 |
| 1,1,2,2-Tetrachloroethane | 90 | | - | | 60-140 | - | | 61 |
| Benzene | 115 | | - | | 65-135 | - | | 61 |
| Toluene | 110 | | - | | 70-130 | - | | 41 |
| Ethylbenzene | 105 | | - | | 60-140 | - | | 63 |
| Chloromethane | 110 | | - | | 1-205 | - | | 60 |
| Bromomethane | 80 | | - | | 15-185 | - | | 61 |
| Vinyl chloride | 90 | | - | | 5-195 | - | | 66 |

# Lab Control Sample Analysis

## Batch Quality Control

**Project Name:** 2424 HAMBURG TURNPIKE

**Project Number:** B0345-021-001

**Lab Number:** L2267357

**Report Date:** 12/15/22

| 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: WG1719973-3 | | | | | | | | |
| Chloroethane | 110 | | - | | 40-160 | - | | 78 |
| 1,1-Dichloroethene | 90 | | - | | 50-150 | - | | 32 |
| trans-1,2-Dichloroethene | 90 | | - | | 70-130 | - | | 45 |
| Trichloroethene | 95 | | - | | 65-135 | - | | 48 |
| 1,2-Dichlorobenzene | 90 | | - | | 65-135 | - | | 57 |
| 1,3-Dichlorobenzene | 85 | | - | | 70-130 | - | | 43 |
| 1,4-Dichlorobenzene | 85 | | - | | 65-135 | - | | 57 |
| Acrolein | 80 | | - | | 60-140 | - | | 30 |
| Acrylonitrile | 90 | | - | | 60-140 | - | | 60 |

| Surrogate | LCS %Recovery | Qual | LCSD %Recovery | Qual | Acceptance Criteria |
|---|---|---|---|---|---|
| Pentafluorobenzene | 87 | | | | 60-140 |
| Fluorobenzene | 99 | | | | 60-140 |
| 4-Bromofluorobenzene | 90 | | | | 60-140 |

# METALS

**Project Name:** 2424 HAMBURG TURNPIKE
**Lab Number:** L2267357
**Project Number:** B0345-021-001
**Report Date:** 12/15/22

## SAMPLE RESULTS

Lab ID: L2267357-01
Client ID: EFFLUENT
Sample Location: BUFFALO, NY
Date Collected: 12/01/22 11:00
Date Received: 12/01/22
Field Prep: Not Specified

Sample Depth:
Matrix: Water

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Prep Method | Analytical Method | Analyst |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **Total Metals - Mansfield Lab** | | | | | | | | | | | |
| Arsenic, Total | 0.0026 | J | mg/l | 0.0050 | 0.0019 | 1 | 12/05/22 14:21 | 12/05/22 23:42 | EPA 3005A | 19,200.7 | GCL |
| Barium, Total | 0.0417 | | mg/l | 0.0100 | 0.0021 | 1 | 12/05/22 14:21 | 12/05/22 23:42 | EPA 3005A | 19,200.7 | GCL |
| Cadmium, Total | ND | | mg/l | 0.0050 | 0.0010 | 1 | 12/05/22 14:21 | 12/05/22 23:42 | EPA 3005A | 19,200.7 | GCL |
| Chromium, Total | 0.0100 | | mg/l | 0.0100 | 0.0021 | 1 | 12/05/22 14:21 | 12/05/22 23:42 | EPA 3005A | 19,200.7 | GCL |
| Copper, Total | ND | | mg/l | 0.0100 | 0.0022 | 1 | 12/05/22 14:21 | 12/05/22 23:42 | EPA 3005A | 19,200.7 | GCL |
| Iron, Total | 0.0582 | | mg/l | 0.0500 | 0.0090 | 1 | 12/05/22 14:21 | 12/05/22 23:42 | EPA 3005A | 19,200.7 | GCL |
| Lead, Total | ND | | mg/l | 0.0100 | 0.0027 | 1 | 12/05/22 14:21 | 12/05/22 23:42 | EPA 3005A | 19,200.7 | GCL |
| Mercury, Total | ND | | mg/l | 0.00020 | 0.00009 | 1 | 12/05/22 16:52 | 12/06/22 08:02 | EPA 245.1 | 3,245.1 | DMB |
| Nickel, Total | ND | | mg/l | 0.0250 | 0.0024 | 1 | 12/05/22 14:21 | 12/05/22 23:42 | EPA 3005A | 19,200.7 | GCL |
| Selenium, Total | ND | | mg/l | 0.0100 | 0.0035 | 1 | 12/05/22 14:21 | 12/05/22 23:42 | EPA 3005A | 19,200.7 | GCL |
| Silver, Total | ND | | mg/l | 0.0070 | 0.0028 | 1 | 12/05/22 14:21 | 12/05/22 23:42 | EPA 3005A | 19,200.7 | GCL |
| Zinc, Total | ND | | mg/l | 0.0500 | 0.0021 | 1 | 12/05/22 14:21 | 12/05/22 23:42 | EPA 3005A | 19,200.7 | GCL |

**Project Name:** 2424 HAMBURG TURNPIKE
**Project Number:** B0345-021-001
**Lab Number:** L2267357
**Report Date:** 12/15/22

# Method Blank Analysis
# Batch Quality Control

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Analytical Method | Analyst |
|---|---|---|---|---|---|---|---|---|---|---|
| Total Metals - Mansfield Lab for sample(s): 01 Batch: WG1719150-1 | | | | | | | | | | |
| Arsenic, Total | ND | | mg/l | 0.0050 | 0.0019 | 1 | 12/05/22 14:21 | 12/05/22 22:41 | 19,200.7 | GCL |
| Barium, Total | ND | | mg/l | 0.0100 | 0.0021 | 1 | 12/05/22 14:21 | 12/05/22 22:41 | 19,200.7 | GCL |
| Cadmium, Total | ND | | mg/l | 0.0050 | 0.0010 | 1 | 12/05/22 14:21 | 12/05/22 22:41 | 19,200.7 | GCL |
| Chromium, Total | ND | | mg/l | 0.0100 | 0.0021 | 1 | 12/05/22 14:21 | 12/05/22 22:41 | 19,200.7 | GCL |
| Copper, Total | ND | | mg/l | 0.0100 | 0.0022 | 1 | 12/05/22 14:21 | 12/05/22 22:41 | 19,200.7 | GCL |
| Iron, Total | ND | | mg/l | 0.0500 | 0.0090 | 1 | 12/05/22 14:21 | 12/05/22 22:41 | 19,200.7 | GCL |
| Lead, Total | ND | | mg/l | 0.0100 | 0.0027 | 1 | 12/05/22 14:21 | 12/05/22 22:41 | 19,200.7 | GCL |
| Nickel, Total | ND | | mg/l | 0.0250 | 0.0024 | 1 | 12/05/22 14:21 | 12/05/22 22:41 | 19,200.7 | GCL |
| Selenium, Total | ND | | mg/l | 0.0100 | 0.0035 | 1 | 12/05/22 14:21 | 12/05/22 22:41 | 19,200.7 | GCL |
| Silver, Total | ND | | mg/l | 0.0070 | 0.0028 | 1 | 12/05/22 14:21 | 12/05/22 22:41 | 19,200.7 | GCL |
| Zinc, Total | ND | | mg/l | 0.0500 | 0.0021 | 1 | 12/05/22 14:21 | 12/05/22 22:41 | 19,200.7 | GCL |

**Prep Information**

Digestion Method: EPA 3005A

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Analytical Method | Analyst |
|---|---|---|---|---|---|---|---|---|---|---|
| Total Metals - Mansfield Lab for sample(s): 01 Batch: WG1719151-1 | | | | | | | | | | |
| Mercury, Total | ND | | mg/l | 0.00020 | 0.00009 | 1 | 12/05/22 16:52 | 12/06/22 07:42 | 3,245.1 | DMB |

**Prep Information**

Digestion Method: EPA 245.1

# Lab Control Sample Analysis

## Batch Quality Control

**Project Name:** 2424 HAMBURG TURNPIKE

**Project Number:** B0345-021-001

**Lab Number:** L2267357

**Report Date:** 12/15/22

| Parameter | LCS %Recovery | Qual | LCSD %Recovery | Qual | %Recovery Limits | RPD | Qual | RPD Limits |
|---|---|---|---|---|---|---|---|---|
| Total Metals - Mansfield Lab Associated sample(s): 01 Batch: WG1719150-2 | | | | | | | | |
| Arsenic, Total | 108 | | - | | 85-115 | - | | |
| Barium, Total | 104 | | - | | 85-115 | - | | |
| Cadmium, Total | 100 | | - | | 85-115 | - | | |
| Chromium, Total | 92 | | - | | 85-115 | - | | |
| Copper, Total | 99 | | - | | 85-115 | - | | |
| Iron, Total | 108 | | - | | 85-115 | - | | |
| Lead, Total | 99 | | - | | 85-115 | - | | |
| Nickel, Total | 96 | | - | | 85-115 | - | | |
| Selenium, Total | 104 | | - | | 85-115 | - | | |
| Silver, Total | 89 | | - | | 85-115 | - | | |
| Zinc, Total | 96 | | - | | 85-115 | - | | |
| Total Metals - Mansfield Lab Associated sample(s): 01 Batch: WG1719151-2 | | | | | | | | |
| Mercury, Total | 105 | | - | | 85-115 | - | | |

# Matrix Spike Analysis
## Batch Quality Control

**Project Name:** 2424 HAMBURG TURNPIKE
**Project Number:** B0345-021-001

**Lab Number:** L2267357
**Report Date:** 12/15/22

| Parameter | Native Sample | MS Added | MS Found | MS %Recovery | Qual | MSD Found | MSD %Recovery | Qual | Recovery Limits | RPD | Qual | RPD Limits |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Total Metals - Mansfield Lab Associated sample(s): 01 QC Batch ID: WG1719150-3 QC Sample: L2267092-01 Client ID: MS Sample | | | | | | | | | | | | |
| Arsenic, Total | ND | 0.12 | 0.141 | 118 | | - | - | | 75-125 | - | | 20 |
| Barium, Total | 0.027 | 2 | 1.96 | 97 | | - | - | | 75-125 | - | | 20 |
| Cadmium, Total | ND | 0.053 | 0.0584 | 110 | | - | - | | 75-125 | - | | 20 |
| Chromium, Total | ND | 0.2 | 0.212 | 106 | | - | - | | 75-125 | - | | 20 |
| Copper, Total | 0.017 | 0.25 | 0.279 | 105 | | - | - | | 75-125 | - | | 20 |
| Iron, Total | 0.172 | 1 | 1.30 | 113 | | - | - | | 75-125 | - | | 20 |
| Lead, Total | ND | 0.53 | 0.557 | 105 | | - | - | | 75-125 | - | | 20 |
| Nickel, Total | 0.135 | 0.5 | 0.652 | 103 | | - | - | | 75-125 | - | | 20 |
| Selenium, Total | ND | 0.12 | 0.136 | 113 | | - | - | | 75-125 | - | | 20 |
| Silver, Total | ND | 0.05 | 0.0578 | 116 | | - | - | | 75-125 | - | | 20 |
| Zinc, Total | 0.232 | 0.5 | 0.780 | 110 | | - | - | | 75-125 | - | | 20 |

# Matrix Spike Analysis
## Batch Quality Control

**Project Name:** 2424 HAMBURG TURNPIKE
**Project Number:** B0345-021-001

**Lab Number:** L2267357
**Report Date:** 12/15/22

| Parameter | Native Sample | MS Added | MS Found | MS %Recovery | MSD Found | MSD %Recovery | Recovery Limits | RPD | RPD Limits |
|---|---|---|---|---|---|---|---|---|---|
| Total Metals - Mansfield Lab Associated sample(s): 01 QC Batch ID: WG1719150-7 QC Sample: L2267092-02 Client ID: MS Sample | | | | | | | | | |
| Arsenic, Total | ND | 0.12 | 0.140 | 117 | - | - | 75-125 | - | 20 |
| Barium, Total | 0.028 | 2 | 2.02 | 100 | - | - | 75-125 | - | 20 |
| Cadmium, Total | ND | 0.053 | 0.0569 | 107 | - | - | 75-125 | - | 20 |
| Chromium, Total | ND | 0.2 | 0.207 | 104 | - | - | 75-125 | - | 20 |
| Copper, Total | 0.017 | 0.25 | 0.274 | 103 | - | - | 75-125 | - | 20 |
| Iron, Total | 0.183 | 1 | 1.28 | 110 | - | - | 75-125 | - | 20 |
| Lead, Total | ND | 0.53 | 0.551 | 104 | - | - | 75-125 | - | 20 |
| Nickel, Total | 0.134 | 0.5 | 0.638 | 101 | - | - | 75-125 | - | 20 |
| Selenium, Total | ND | 0.12 | 0.135 | 112 | - | - | 75-125 | - | 20 |
| Silver, Total | ND | 0.05 | 0.0567 | 113 | - | - | 75-125 | - | 20 |
| Zinc, Total | 0.230 | 0.5 | 0.763 | 107 | - | - | 75-125 | - | 20 |
| Total Metals - Mansfield Lab Associated sample(s): 01 QC Batch ID: WG1719151-3 QC Sample: L2267836-01 Client ID: MS Sample | | | | | | | | | |
| Mercury, Total | 0.00056 | 0.005 | 0.00566 | 102 | - | - | 70-130 | - | 20 |

# Lab Duplicate Analysis

***Batch Quality Control***

**Project Name:** 2424 HAMBURG TURNPIKE
**Project Number:** B0345-021-001

***Lab Number:*** L2267357
***Report Date:*** 12/15/22

| Parameter | Native Sample | Duplicate Sample | Units | RPD | Qual | RPD Limits |
|---|---|---|---|---|---|---|
| Total Metals - Mansfield Lab Associated sample(s): 01 QC Batch ID: WG1719150-4 QC Sample: L2267092-01 Client ID: DUP Sample | | | | | | |
| Iron, Total | 0.172 | 0.175 | mg/l | 2 | | 20 |
| Total Metals - Mansfield Lab Associated sample(s): 01 QC Batch ID: WG1719150-8 QC Sample: L2267092-02 Client ID: DUP Sample | | | | | | |
| Iron, Total | 0.183 | 0.170 | mg/l | 7 | | 20 |
| Total Metals - Mansfield Lab Associated sample(s): 01 QC Batch ID: WG1719151-4 QC Sample: L2267836-01 Client ID: DUP Sample | | | | | | |
| Mercury, Total | 0.00056 | 0.00055 | mg/l | 1 | | 20 |

# INORGANICS
# &
# MISCELLANEOUS

**Project Name:** 2424 HAMBURG TURNPIKE
**Project Number:** B0345-021-001
**Lab Number:** L2267357
**Report Date:** 12/15/22

## SAMPLE RESULTS

Lab ID: L2267357-01
Client ID: EFFLUENT
Sample Location: BUFFALO, NY
Sample Depth:
Matrix: Water

Date Collected: 12/01/22 11:00
Date Received: 12/01/22
Field Prep: Not Specified

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Analytical Method | Analyst |
|---|---|---|---|---|---|---|---|---|---|---|
| **General Chemistry - Westborough Lab** | | | | | | | | | | |
| Cyanide, Total | 0.003 | J | mg/l | 0.005 | 0.001 | 1 | 12/13/22 12:10 | 12/13/22 15:35 | 121,4500CN-CE | JER |
| pH (H) | 7.7 | | SU | - | NA | 1 | - | 12/08/22 14:07 | 121,4500H+-B | KES |

**Project Name:** 2424 HAMBURG TURNPIKE
**Project Number:** B0345-021-001
**Lab Number:** L2267357
**Report Date:** 12/15/22

# Method Blank Analysis
## Batch Quality Control

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Analytical Method | Analyst |
|---|---|---|---|---|---|---|---|---|---|---|
| General Chemistry - Westborough Lab for sample(s): 01 Batch: WG1722465-1 | | | | | | | | | | |
| Cyanide, Total | ND | | mg/l | 0.005 | 0.001 | 1 | 12/13/22 12:10 | 12/13/22 15:32 | 121,4500CN-CE | JER |

# Lab Control Sample Analysis

## Batch Quality Control

**Project Name:** 2424 HAMBURG TURNPIKE

**Project Number:** B0345-021-001

**Lab Number:** L2267357

**Report Date:** 12/15/22

| Parameter | LCS %Recovery | Qual | LCSD %Recovery | Qual | %Recovery Limits | RPD | Qual | RPD Limits |
|---|---|---|---|---|---|---|---|---|
| General Chemistry - Westborough Lab Associated sample(s): 01 Batch: WG1720797-1 | | | | | | | | |
| pH | 100 | | - | | 99-101 | - | | 5 |
| General Chemistry - Westborough Lab Associated sample(s): 01 Batch: WG1722465-2 | | | | | | | | |
| Cyanide, Total | 99 | | - | | 90-110 | - | | |

# Matrix Spike Analysis
## Batch Quality Control

**Project Name:** 2424 HAMBURG TURNPIKE
**Project Number:** B0345-021-001

**Lab Number:** L2267357
**Report Date:** 12/15/22

| Parameter | Native Sample | MS Added | MS Found | MS %Recovery | Qual | MSD Found | MSD %Recovery | Qual | Recovery Limits | RPD | Qual | RPD Limits |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| General Chemistry - Westborough Lab Associated sample(s): 01 QC Batch ID: WG1722465-3 QC Sample: L2267357-01 Client ID: EFFLUENT | | | | | | | | | | | | |
| Cyanide, Total | 0.003J | 0.2 | 0.182 | 91 | | - | - | | 90-110 | - | | 30 |

# Lab Duplicate Analysis

***Batch Quality Control***

**Project Name:** 2424 HAMBURG TURNPIKE
**Project Number:** B0345-021-001

***Lab Number:*** L2267357
***Report Date:*** 12/15/22

| Parameter | Native Sample | Duplicate Sample | Units | RPD | Qual | RPD Limits |
|---|---|---|---|---|---|---|
| General Chemistry - Westborough Lab Associated sample(s): 01 QC Batch ID: WG1720797-2 QC Sample: L2267751-06 Client ID: DUP Sample | | | | | | |
| pH | 6.4 | 6.4 | SU | 0 | | 5 |
| General Chemistry - Westborough Lab Associated sample(s): 01 QC Batch ID: WG1722465-4 QC Sample: L2267419-02 Client ID: DUP Sample | | | | | | |
| Cyanide, Total | ND | ND | mg/l | NC | | 30 |

**Project Name:** 2424 HAMBURG TURNPIKE
**Project Number:** B0345-021-001

**Lab Number:** L2267357
**Report Date:** 12/15/22

## 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(*) |
|---|---|---|---|---|---|---|---|---|---|
| L2267357-01A | Vial Na2S2O3 preserved | A | NA | | 4.0 | Y | Absent | | 624.1(3) |
| L2267357-01B | Vial Na2S2O3 preserved | A | NA | | 4.0 | Y | Absent | | 624.1(3) |
| L2267357-01C | Vial Na2S2O3 preserved | A | NA | | 4.0 | Y | Absent | | 624.1(3) |
| L2267357-01D | Plastic 120ml unpreserved | A | 7 | 7 | 4.0 | Y | Absent | | PH-4500(.01) |
| L2267357-01E | Plastic 250ml HNO3 preserved | A | <2 | <2 | 4.0 | Y | Absent | | NI-UI(180),BA-UI(180),ZN-UI(180),AG-UI(180),FE-UI(180),SE-UI(180),HG-U(28),CD-UI(180),CR-UI(180),CU-UI(180),PB-UI(180),AS-UI(180) |
| L2267357-01F | Plastic 250ml NaOH preserved | A | >12 | >12 | 4.0 | Y | Absent | | TCN-4500(14) |
| L2267357-01G | Amber 1000ml H2SO4 preserved | A | <2 | <2 | 4.0 | Y | Absent | | SUB-PHENOL() |



*Values in parentheses indicate holding time in days

| | | | |
|---|---|---|---|
| **Project Name:** | 2424 HAMBURG TURNPIKE | **Lab Number:** | L2267357 |
| **Project Number:** | B0345-021-001 | **Report Date:** | 12/15/22 |

## 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:** | 2424 HAMBURG TURNPIKE | **Lab Number:** | L2267357 |
| **Project Number:** | B0345-021-001 | **Report Date:** | 12/15/22 |

***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.

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

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

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

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

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

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

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

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

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

***Data Qualifiers***

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

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

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

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

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

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

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

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

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

**J** - Estimated value. The Target analyte concentration is below the quantitation limit (RL), but above the Method Detection Limit (MDL) or Estimated Detection Limit (EDL) for SPME-related analyses. This represents an estimated concentration for Tentatively

*Report Format: DU Report with 'J' Qualifiers*

| | | | |
|---|---|---|---|
| **Project Name:** | 2424 HAMBURG TURNPIKE | **Lab Number:** | L2267357 |
| **Project Number:** | B0345-021-001 | **Report Date:** | 12/15/22 |

***Data Qualifiers***

Identified Compounds (TICs).

**M** - Reporting Limit (RL) exceeds the MCP CAM Reporting Limit for this analyte.

**ND** - Not detected at the method detection limit (MDL) for the sample, or estimated detection limit (EDL) for SPME-related analyses.

**NJ** - Presumptive evidence of compound. This represents an estimated concentration for Tentatively Identified Compounds (TICs), where 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:** | 2424 HAMBURG TURNPIKE | **Lab Number:** | L2267357 |
| **Project Number:** | B0345-021-001 | **Report Date:** | 12/15/22 |

## REFERENCES


3 Methods for the Determination of Metals in Environmental Samples, Supplement I. EPA/600/R-94/111. May 1994.

19 Inductively Coupled Plasma Atomic Emission Spectrometric Method for Trace Element Analysis of Water and Wastes. Appendix C, Part 136, 40 CFR (Code of Federal Regulations). July 1, 1999 edition.

121 Standard Methods for the Examination of Water and Wastewater. APHA-AWWA-WEF. Standard Methods Online.

128 Method 624.1: Purgeables by GC/MS, EPA 821-R-16-008, December 2016.


## LIMITATION OF LIABILITIES

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

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

# Certification Information

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

**Westborough Facility**
**EPA 624/624.1:** m/p-xylene, o-xylene, Naphthalene
**EPA 625/625.1:** alpha-Terpineol
**EPA 8260C/8260D:** NPW: 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene, Azobenzene; SCM: Iodomethane (methyl iodide), 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene.
**EPA 8270D/8270E:** NPW: Dimethylnaphthalene,1,4-Diphenylhydrazine, alpha-Terpineol; SCM: Dimethylnaphthalene,1,4-Diphenylhydrazine.
**SM4500**: NPW: Amenable Cyanide; SCM: Total Phosphorus, TKN, NO2, NO3.

**Mansfield Facility**
**SM 2540D:** TSS
**EPA 8082A:** NPW: PCB: 1, 5, 31, 87,101, 110, 141, 151, 153, 180, 183, 187.
**EPA TO-15:** Halothane, 2,4,4-Trimethyl-2-pentene, 2,4,4-Trimethyl-1-pentene, Thiophene, 2-Methylthiophene, 3-Methylthiophene, 2-Ethylthiophene, 1,2,3-Trimethylbenzene, Indan, Indene, 1,2,4,5-Tetramethylbenzene, Benzothiophene, 1-Methylnaphthalene.
**Biological Tissue Matrix:** EPA 3050B

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

**Westborough Facility:**

***Drinking Water***
**EPA 300.0**: Chloride, Nitrate-N, Fluoride, Sulfate; **EPA 353.2**: Nitrate-N, Nitrite-N; **SM4500NO3-F**: Nitrate-N, Nitrite-N; **SM4500F-C, SM4500CN-CE, EPA 180.1, SM2130B, SM4500Cl-D, SM2320B, SM2540C, SM4500H-B, SM4500NO2-B**
**EPA 332**: Perchlorate; **EPA 524.2:** THMs and VOCs; **EPA 504.1:** EDB, DBCP.
**Microbiology**: **SM9215B; SM9223-P/A, SM9223B-Colilert-QT,SM9222D**.

***Non-Potable Water***
**SM4500H,B, EPA 120.1, SM2510B, SM2540C, SM2320B, SM4500CL-E, SM4500F-BC, SM4500NH3-BH:** Ammonia-N and Kjeldahl-N, **EPA 350.1**: Ammonia-N, **LACHAT 10-107-06-1-B**: Ammonia-N, **EPA 351.1, SM4500NO3-F, EPA 353.2**: Nitrate-N, **SM4500P-E, SM4500P-B, E, SM4500SO4-E, SM5220D, EPA 410.4, SM5210B, SM5310C, SM4500CL-D, EPA 1664, EPA 420.1, SM4500-CN-CE, SM2540D, EPA 300: Chloride, Sulfate, Nitrate.**
**EPA 624.1**: Volatile Halocarbons & Aromatics,
**EPA 608.3**: Chlordane, Toxaphene, Aldrin, alpha-BHC, beta-BHC, gamma-BHC, delta-BHC, Dieldrin, DDD, DDE, DDT, Endosulfan I, Endosulfan II, Endosulfan sulfate, Endrin, Endrin Aldehyde, Heptachlor, Heptachlor Epoxide, PCBs
**EPA 625.1**: SVOC (Acid/Base/Neutral Extractables), **EPA 600/4-81-045**: PCB-Oil.
**Microbiology**: **SM9223B-Colilert-QT; Enterolert-QT, SM9221E, EPA 1600, EPA 1603, SM9222D.**

**Mansfield Facility:**

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

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

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

# NEW YORK CHAIN OF CUSTODY

ALPHA ANALYTICAL

Westborough, MA 01581
8 Walkup Dr.
TEL: 508-898-9220
FAX: 508-898-9193

Mansfield, MA 02048
320 Forbes Blvd
TEL: 508-822-9300
FAX: 508-822-3288

**Service Centers**
Mahwah, NJ 07430: 35 Whitney Rd, Suite 5
Albany, NY 12205: 14 Walker Way
Tonawanda, NY 14150: 275 Cooper Ave, Suite 105

Page 1 of 1

Date Rec'd in Lab: 12/2/22

ALPHA Job #: L2267357

## Client Information

Client: Benchmark Environmental
Address: 2558 Hamburg Turnpike,Ste300
Buffalo, NY 14218
Phone: 716-856-0599
Fax:
Email: bgreene@bm-tk.com

## Project Information

Project Name: 2424 Hamburg Turnpike
Project Location: Buffalo, NY
Project #: B0345-021-001
(Use Project name as Project #) ☐
Project Manager:
ALPHAQuote #:

## Turn-Around Time

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

These samples have been previously analyzed by Alpha ☑

**Other project specific requirements/comments:**

Email results to: *Metals: As, Ba, Cd, Cr, Cu, Fe, Pb, Hg, Ni, Se, Ag, Zn

**Please specify Metals or TAL.**

## Deliverables

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

## Regulatory Requirement

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

## Billing Information

☑ Same as Client Info
PO #

## Disposal Site Information

Please identify below location of applicable disposal facilities.

Disposal Facility:
☐ NJ ☐ NY
☐ Other: NA

## Sample Filtration

☐ Done
☐ Lab to do
*Preservation*
☐ Lab to do
*(Please Specify below)*

| ALPHA Lab ID (Lab Use Only) | Sample ID | Collection Date | Collection Time | Sample Matrix | Sampler's Initials | Total Phenol | T. CN | 624.1 | T. Metals* | pH | | | | Sample Specific Comments | Total Bottles |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 67357 01 | Effluent | 12-1-22 | 1100 | Water | BMG | X | X | X | X | X | | | | | 7 |
| | | | | | | | | | | | | | | | |
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| | | | | | | | | | | | | | | | |

Container Type: A P V P P
Preservative: D E H C A

Preservative Code:
A = None
B = HCl
C = $HNO_3$
D = $H_2SO_4$
E = NaOH
F = MeOH
G = $NaHSO_4$
H = $Na_2S_2O_3$
K/E = Zn Ac/NaOH
O = Other

Container Code
P = Plastic
A = Amber Glass
V = Vial
G = Glass
B = Bacteria Cup
C = Cube
O = Other
E = Encore
D = BOD Bottle

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

| Relinquished By: | Date/Time | Received By: | Date/Time |
|---|---|---|---|
| Brad Greene | 12-1-22/ | [signature] AHL | 12/1/22 1345 |
| | | [signature] | 12/2/22 0030 |

Please print clearly, legibly and completely. Samples can not be logged in and turnaround time clock will not start until any ambiguities are resolved. BY EXECUTING THIS COC, THE CLIENT HAS READ AND AGREES TO BE BOUND BY ALPHA'S TERMS & CONDITIONS.

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

PHOENIX
Environmental Laboratories, Inc.

**Tuesday, December 13, 2022**

**Attn: Candace Fox**
**Alpha Analytical Lab**
**8 Walkup Drive**
**Westborough, MA 01581**

**Project ID:** **L2267357**
**SDG ID:** **GCM96536**
**Sample ID#s:** **CM96536**

**This laboratory is in compliance with the NELAC requirements of procedures used except where indicated.**

**This report contains results for the parameters tested, under the sampling conditions described on the Chain Of Custody, as received by the laboratory. This report is incomplete unless all pages indicated in the pagination at the bottom of the page are included.**

**A scanned version of the COC form accompanies the analytical report and is an exact duplicate of the original.**

**If you are the client above and have any questions concerning this testing, please do not hesitate to contact Phoenix Client Services at ext.200. The contents of this report cannot be discussed with anyone other than the client listed above without their written consent.**

**Sincerely yours,**

**Phyllis Shiller**
**Laboratory Director**

**NELAC - #NY11301**
**CT Lab Registration #PH-0618**
**MA Lab Registration #M-CT007**
**ME Lab Registration #CT-007**
**NH Lab Registration #213693-A,B**
**NJ Lab Registration #CT-003**
**NY Lab Registration #11301**
**PA Lab Registration #68-03530**
**RI Lab Registration #63**
**VT Lab Registration #VT11301**

**587 East Middle Turnpike, P.O. Box 370, Manchester, CT 06040**
**Telephone (860) 645-1102 Fax (860) 645-0823**

Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

ACCREDITED IN ACCORDANCE WITH nelac NY # 11301

# SDG Comments

December 13, 2022

SDG I.D.: GCM96536

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Any compound that is not detected above the MDL/LOD is reported as ND on the report and is reported in the electronic deliverables (EDD) as <RL or U at the RL per state and EPA guidance.
Compounds that are detected above MDL but below RL are qualified with a J flag.

Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

ACCREDITED IN ACCORDANCE WITH nelac NY # 11301

# Sample Id Cross Reference

December 13, 2022

SDG I.D.: GCM96536

Project ID: L2267357

| Client Id | Lab Id | Matrix |
|---|---|---|
| EFFLUENT | CM96536 | WATER |

PHOENIX

Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

ACCREDITED IN ACCORDANCE WITH nelac NY # 11301

# Analysis Report

December 13, 2022

FOR: Attn: Candace Fox
Alpha Analytical Lab
8 Walkup Drive
Westborough, MA 01581

| Sample Information | | Custody Information | | Date | Time |
|---|---|---|---|---|---|
| Matrix: | WATER | Collected by: | | 12/01/22 | 11:00 |
| Location Code: | ALPHA | Received by: | SW | 12/05/22 | 12:05 |
| Rush Request: | Standard | Analyzed by: | see "By" below | | |
| P.O.#: | | | | | |

## Laboratory Data

SDG ID: GCM96536
Phoenix ID: CM96536

Project ID: L2267357
Client ID: EFFLUENT

| Parameter | Result | RL/ PQL | LOD/ MDL | Units | Dilution | Date/Time | By | Reference |
|---|---|---|---|---|---|---|---|---|
| Phenolics | ND | 0.015 | 0.005 | mg/L | 1 | 12/12/22 | EG | E420.4 |

RL/PQL=Reporting/Practical Quantitation Level (Equivalent to NELAC LOQ, Limit of Quantitation) ND=Not Detected BRL=Below Reporting Level L=Biased Low LOD=Limit of Detection MDL=Method Detection Limit1

**Comments:**

If you are the client above and have any questions concerning this testing, please do not hesitate to contact Phoenix Client Services at ext.200.
The contents of this report cannot be discussed with anyone other than the client listed above without their written consent.

**Phyllis Shiller, Laboratory Director**
**December 13, 2022**
**Reviewed and Released by: Anil Makol, Project Manager**

Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

ACCREDITED IN ACCORDANCE WITH nelac NY # 11301

# QA/QC Report

December 13, 2022

## QA/QC Data

SDG I.D.: GCM96536

| Parameter | Blank | Blk RL | Sample Result | Dup Result | Dup RPD | LCS % | LCSD % | LCS RPD | MS % | MSD % | MS RPD | % Rec Limits | % RPD Limits |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| QA/QC Batch 654919 (mg/L), QC Sample No: CM96536 (CM96536) | | | | | | | | | | | | | |
| Phenolics | BRL | 0.015 | <0.015 | 0.008 J | NC | 98.9 | | | 98.5 | | | 90 - 110 | 20 |

If there are any questions regarding this data, please call Phoenix Client Services at extension 200.

RPD - Relative Percent Difference
LCS - Laboratory Control Sample
LCSD - Laboratory Control Sample Duplicate
MS - Matrix Spike
MS Dup - Matrix Spike Duplicate
NC - No Criteria
Intf - Interference

Phyllis Shiller, Laboratory Director
December 13, 2022

Tuesday, December 13, 2022

Criteria: None

State: NY

# Sample Criteria Exceedances Report

## GCM96536 - ALPHA

| SampNo | Acode | Phoenix Analyte | Criteria | Result | RL | Criteria | RL Criteria | Analysis Units |
|---|---|---|---|---|---|---|---|---|

*** No Data to Display ***

Phoenix Laboratories does not assume responsibility for the data contained in this exceedance report. It is provided as an additional tool to identify requested criteria exceedences. All efforts are made to ensure the accuracy of the data (obtained from appropriate agencies). A lack of exceedence information does not necessarily suggest conformance to the criteria. It is ultimately the site professional's responsibility to determine appropriate compliance.

**Environmental Laboratories, Inc.**
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

ACCREDITED IN ACCORDANCE WITH nelac NY # 11301

# NY Temperature Narration

**December 13, 2022**

**SDG I.D.: GCM96536**

The samples in this delivery group were received at 2.5°C.
(Note acceptance criteria for relevant matrices is above freezing up to 6°C)

WGFD 2.5

# Subcontract Chain of Custody

Phoenix Environmental Laboratories
587 East Middle Turnpike
Manchester, CT 06040

**Alpha Job Number**
L2267357

| Client Information | Project Information | Regulatory Requirements/Report Limits |
|---|---|---|
| Client: Alpha Analytical Labs<br>Address: Eight Walkup Drive<br>Westborough, MA 01581-1019<br><br>Phone: 716-427-5223<br>Email: cfox@alphalab.com | Project Location: NY<br>Project Manager: Candace Fox<br>**Turnaround & Deliverables Information**<br>Due Date:<br>Deliverables: | State/Federal Program:<br>Regulatory Criteria: |

**Project Specific Requirements and/or Report Requirements**

Reference following Alpha Job Number on final report/deliverables: L2267357

Report to include Method Blank, LCS/LCSD:

Additional Comments: Send all results/reports to subreports@alphalab.com Method 420. Report to the MDL

| Lab ID | Client ID | Collection Date/Time | Sample Matrix | Analysis | Batch QC |
|---|---|---|---|---|---|
| 96536 | EFFLUENT | 12-01-22 11:00 | WATER | Phenol<br>#2 7000 mL WHH H2SO4 | |

| | Relinquished By: | Date/Time: | Received By: | Date/Time: |
|---|---|---|---|---|
| | | 12/5/22 | | 12/5/22 930 |
| | | 12/5/22 1134 | | 12/5/22 12:05 |
| Form No: AL_subcoc | | | | |

# ATTACHMENT 2

**Flow Meter Calibration Certificate**

# Cold Spring Environmental

3248 Buffalo Rd., Varysburg, N.Y. 14167
Ph: 716-863-7052

May 11, 2022

Benchmark & Turnkey
Att. Brock Greene
2558 Hamburg Turnpike, Suite 300
Buffalo, NY  14218

Ref: Flow Meter Calibration

Dear Mr. Greene,

Calibration Date: May 5, 2022
Site location: 2424 Hamburg Turnpike
Equipment Model:GPI A109GMN100NA1
Equipment type: Closed Pipe impellor
Equipment S/N: EDM 1615558
Measuring device: 1 inch pipe
Output type: none
Totalizer multiplier:  X1 gallon

Initial Readings:
 Meter Flow Rate 4.3 GPM
Totalizer  8.8 gallons  Water meter 10 gallons
Difference 12%

After Adjustment:
Readings:
 Meter Flow Rate 4.3 GPM
Totalizer  10 gallons  Water meter 10  gallons
Difference 0%

Readings:
 Meter Flow Rate 1.9 GPM
Totalizer  10 gallons  Water meter 10  gallons
Difference 0%

Please contact me with any questions.

Sincerely, Jon Wolak

716-863-7052
jonwolak@yahoo.com

# APPENDIX E

## GROUNDWATER MONITORING LOGS

# GROUNDWATER FIELD FORM

Project Name: 2424 Hamburg Turnpike
Location: Project No.:
Date: 12-7-22
Field Team: CEH

| Well No. MW-2 | | | Diameter (inches): 2 | | | Sample Date / Time: | | | |
|---|---|---|---|---|---|---|---|---|---|
| Product Depth (fbTOR): | | | Water Column (ft): 12.016 | | | DTW when sampled: | | | |
| DTW (static) (fbTOR): 4.11 | | | One Well Volume (gal): 1.97 | | | Purpose: ☐ Development ☐ Sample ☒ Purge & Sample | | | |
| Total Depth (fbTOR): 16.17 | | | Total Volume Purged (gal): | | | Purge Method: Bailer | | | |
| Time | Water Level (fbTOR) | Acc. Volume (gallons) | pH (units) | Temp. (deg. C) | SC (uS) | Turbidity (NTU) | DO (mg/L) | ORP (mV) | Appearance & Odor |
| 1130 | 0 Initial | 0.00 | 7.44 | 12.8 | 3106 | 44.3 | 1.12 | -108 | clear, SL petrol odor |
| 1135 | 1 7.25 | 2.00 | 7.43 | 12.7 | 3245 | 40.4 | 1.51 | -93 | clear, SL petrol odor |
| 1138 | 2 6.22 | 4.00 | 7.48 | 14.1 | 3241 | 819 | 1.33 | -120 | Turbid, " " " |
| 1148 | 3 14.20 | 6.00 | 7.58 | 13.9 | 3200 | 1000 | 2.27 | -122 | " " " " |
| 1150 | 4 Dry | 6.50 | | | | | | | |
| | 5 | | | | | | | | |
| | 6 | | | | | | | | |
| | 7 | | | | | | | | |
| | 8 | | | | | | | | |
| | 9 | | | | | | | | |
| | 10 | | | | | | | | |
| **Sample Information:** | | | | | | | | | |
| 1200 | S1 4.12 | 6.50 | 7.44 | 12.2 | 3147 | 138 | 1.13 | -81 | " " |
| 1351 | S2 5.47 | 6.50 | 7.49 | 12.9 | 3163 | 91.3 | 1.18 | -93 | " " |

| Well No. MW-3 | | | Diameter (inches): 2 | | | Sample Date / Time: | | | |
|---|---|---|---|---|---|---|---|---|---|
| Product Depth (fbTOR): | | | Water Column (ft): 11.99 | | | DTW when sampled: | | | |
| DTW (static) (fbTOR): 2.15 | | | One Well Volume (gal): 1.95 | | | Purpose: ☐ Development ☐ Sample ☒ Purge & Sample | | | |
| Total Depth (fbTOR): 14.14 | | | Total Volume Purged (gal): 10.00 | | | Purge Method: Bailer | | | |
| Time | Water Level (fbTOR) | Acc. Volume (gallons) | pH (units) | Temp. (deg. C) | SC (uS) | Turbidity (NTU) | DO (mg/L) | ORP (mV) | Appearance & Odor |
| 1055 | 0 Initial | 0.00 | 6.80 | 12.8 | 598.8 | 111 | 1.81 | -115 | SL Turbid, SL Petrol odor |
| 1105 | 1 2.75 | 2.00 | 7.25 | 12.6 | 513.5 | 65.7 | 1.63 | -130 | SL Turbid, SL Petrol odor |
| 1107 | 2 3.39 | 4.00 | 7.28 | 12.7 | 511.5 | 61.8 | 1.71 | -129 | SL Turbid, SL Petrol odor |
| 1111 | 3 3.53 | 6.00 | 7.34 | 12.7 | 508.3 | 48.1 | 1.64 | -118 | Clear, SL Petrol odor |
| 1114 | 4 3.70 | 8.00 | 7.34 | 12.9 | 517.2 | 55.4 | ~~1.89~~ | -127 | Clear, SL Petrol odor |
| 1116 | 5 3.79 | 10.00 | 7.42 | 12.5 | 558.3 | 59.1 | 1.83 | -133 | Clear, SL Petrol odor |
| | 6 | | ~~7.3~~ mv | | 5 | | ~~1.75~~ | | |
| | 7 | | | | | | | | |
| | 8 | | | | | | | | |
| | 9 | | | | | | | | |
| | 10 | | | | | | | | |
| **Sample Information:** | | | | | | | | | |
| 1120 | S1 2.48 | 10.00 | 7.39 | 12.6 | 522.1 | 32.4 | 1.75 | -125 | clear, SL Petrol odor |
| 1125 | S2 2.40 | 10.00 | 7.40 | 12.7 | 557.4 | 33.6 | 2.03 | -116 | " " " " |

**REMARKS:**

*Note: All measurements are in feet, distance from top of riser.*

Volume Calculation

| Diam. | Vol. (g/ft) |
|---|---|
| 1" | 0.041 |
| 2" | 0.163 |
| 4" | 0.653 |
| 6" | 1.469 |

Stabilization Criteria

| Parameter | Criteria |
|---|---|
| pH | ± 0.1 unit |
| SC | ± 3% |
| Turbidity | ± 10% |
| DO | ± 0.3 mg/L |
| ORP | ± 10 mV |

**PREPARED BY:** CEH

**Depth to Water (DTW) Measurements**

**2424 Hamburg Turnpike**
**2424 Hamburg Turnpike LLC**

| Date: | | 12-7-22 |
|---|---|---|
| **Well ID** | DTW | Notes |
| DPE-1 | 2.59 | |
| DPE-2 | 5.80 | Well under vacuum. |
| DPE-3 | 2.21 | |
| DPE-4 | ~~7.68~~ NA | Well under vacuum. MH under water |
| DPE-5 | 1.98 | Well under vacuum. |
| DPE-6 | 2.10 | Well under vacuum. |
| DPE-7 | 2.25 | Well under vacuum. |
| DPE-8 | 2.15 | |
| DPE-9 | 2.72 | Well under vacuum. |
| DPE-10 | 2.68 | |
| DPE-11 | ~~3.85~~ | Under Shipping Container |
| DPE-12 | 3.85 | Well under vacuum. |
| DPE-13 | 3.95 | |
| DPE-14 | 4.82 | Well under vacuum. |
| DPE-1W | 2.65 | |
| DPE-2W | 2.05 | |
| | | **Temp, pH, conductivity, ORP, DO, and notes** |
| MW-1 | 5.98 | 11.4, 7.37, 1409, -123, 1.22 Turb-753; turbid, no odor |
| MW-2 2 | 4.11 | |
| MW-3 , | 2.15 | |
| MW-4 | 2.00 | 10.9, 7.25, 890.7, -93 1.07, Turb-451; turbid; no odor |
| MW-5 | 2.26' | ~~under Sheen bail~~ 11.3, 6.61, 1111, -47, >1000; DO = 1.70 |

TurnKey Environmental Restoration LLC

# EQUIPMENT CALIBRATION LOG

**PROJECT INFORMATION:**

Project Name: 2424 Hamburg Turnpike  Date: 12-7-22

Project No.:

Client:

Instrument Source: [X] BM [ ] Rental

| METER TYPE | UNITS | TIME | MAKE/MODEL | SERIAL NUMBER | CAL. BY | STANDARD | POST CAL. READING | SETTINGS |
|---|---|---|---|---|---|---|---|---|
| [X] pH meter | units | 1030 | Myron L Company Ultra Meter 6P | 6213516 [ ]<br>6243084 [ ]<br>6212375 [X]<br>6223973 [ ] | CEH | 4.00<br>7.00<br>10.01 | 4.00<br>7.02<br>10.01 | |
| [X] Turbidity meter | NTU | 1030 | Hach 2100P or 2100Q Turbidimeter | 06120C020523 (P) [ ]<br>13120C030432 (Q) [X] | CEH | < 0.4 or 10 for 2100 Q<br>20<br>100<br>800 | 10.7 | |
| [ ] Turbidity meter | NTU | | LaMotte 2020 | 6523-1816 (La) [ ] | | 0.0 NTU<br>1.0 NTU<br>10.0 NTU | | |
| [X] Sp. Cond. meter | uS<br>mS | 1030 | Myron L Company Ultra Meter 6P | 6213516 [ ]<br>6243084 [ ]<br>6212375 [X]<br>6223973 [ ] | CEH | 7000 mS @ 25 °C | 7000 | |
| [ ] PID | ppm | | MinRAE 2000 | | | open air zero<br>____ ppm Iso. Gas | | MIBK response factor = 1.0 |
| [X] Dissolved Oxygen | ppm | 1030 | HACH Model HQ30d | 080700023281 [ ]<br>100500041867 [ ]<br>1402000100319 [X] | CEH | 100% Satuartion | 100 % | |
| [ ] Particulate meter | mg/m$^3$ | | | | | zero air | | |
| [ ] Oxygen | % | | | | | open air | | |
| [ ] Hydrogen sulfide | ppm | | | | | open air | | |
| [ ] Carbon monoxide | ppm | | | | | open air | | |
| [ ] LEL | % | | | | | open air | | |
| [ ] Radiation Meter | uR/H | | | | | background area | | |

**ADDITIONAL REMARKS:**

**PREPARED BY:** CEH  **DATE:** 12-7-22