# PERIODIC REVIEW REPORT

## DECEMBER 14, 2018 TO APRIL 14, 2020
## QUEEN CITY LANDING SITE
## (BCP SITE NO. C915304)

### BUFFALO, NEW YORK

June 2020 0424-020-001

Prepared for:

**Queen City Landing LLC**

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## December 14, 2018 to April 14, 2020

## Queen City Landing (C915304)

## Table of Contents

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**Table of Contents**

## TABLES



## FIGURES



## APPENDICIES

# 1.0 INTRODUCTION

Benchmark Environmental Engineering and Science, PLLC (Benchmark), in association with TurnKey Environmental Restoration, LLC (TurnKey) has prepared this Periodic Review Report (PRR) to summarize the post-remedial status of the New York State Department of Environmental Conservation (NYSDEC) Brownfield Cleanup Program (BCP) Queen City Landing Site, Site No. C915304, located in the City of Buffalo, Erie County, New York (see Figures 1 and 2).

This PRR has been prepared in accordance with the NYSDEC DER-10 *Technical Guidance for Site Investigation and Remediation* (May 2010; Ref. 1) and the NYSDEC's Institutional and Engineering Controls (IC/EC) Certification Form has been prepared for the Site. This PRR and the associated IC/EC Form (see Appendix A) have been completed for the post-remedial period from December 14, 2018 to April 14, 2020.

## 1.1 Site Background

Queen City Landing, LLC (QCL) entered into a Brownfield Cleanup Agreement (BCA) with NYSDEC on June 29, 2016, to investigate and remediate the approximate ±7.75-acre Site which is identified as the eastern portion (7.24 acres) of 975 Fuhrmann Boulevard (SBL No. 132.06-1-1.1) and 1005 Fuhrmann Boulevard (0.48 acres; SBL No. 132.06-1-1.2), in the City of Buffalo, County of Erie, New York. BCP site activities were performed in accordance with BCA Index#C915304-06-16.

The Site is identified as the eastern portion of Section 132.06 Block 1, Lot 1.1 (975 Fuhrmann Boulevard, 7.24 acres) and Section 132.06 Block 1, Lot 1.2 (1005 Fuhrmann Boulevard, 0.48 acres) on the Erie County Tax Map. The Site is an approximately ±7.72-acres and is bounded by commercial property used for boat storage to the north, Lake Erie/Small boat Harbor to the south, Fuhrmann Boulevard to the east, and vacant land/Lake Erie to the west (see Figure 2).

The Site was the former Freezer Queen facility and operated as a manufacturer and warehouse of frozen foods for approximately 75 years, until food operations ceased in 2004. QCL purchased the property in November 2007. The Site is scheduled for redevelopment as a mixed residential and commercial use. The former structures associated with the

Freezer Queen operations have been demolished and the Site remediated to a Track 4 Restricted Residential cleanup to prepare for redevelopment activities.

## 1.2 Remedial History

Three (3) buildings were formerly present on the Site associated with Freezer Queen operations: a large 6-story masonry manufacturing building, a 1-story administration building, and a small 1-story guard house. ACM abatement activities were completed within the three (3) buildings, as necessary, in accordance with 12 NYCRR Part 56 and approved variance (16-0083) between July and October 2016 followed by building demolition which was completed in January 2017.

The majority of the large 6-story masonry manufacturing building was processed on-site and stockpiled for reuse as backfill under the cover system. However, an approximate 8-foot by 8-foot piece of the western exterior wall contained painted graffiti. It was removed and sent to Waste Management's Chaffee Landfill for non-hazardous disposal. Other waste streams from the demolition of the three (3) buildings consisted of friable ACM, non-friable ACM, and non-hazardous C&D debris. Steel and other metals were taken off-site for recycling. The stockpiled material from the 6-story building was screened on-site for reuse in accordance with the Crushed Concrete Management Plan (Ref. 2, CCMP) and associated CCMP Addendum (Ref. 3). Approximately 4,705 tons of concrete fines generated from screening the processed concrete stockpiles were taken to the Tonawanda Landfill for non-hazardous disposal.

The steel above ground storage tanks associated with the former wastewater treatment system on the northern portion of the Site were also decommissioned. ACM abatement was completed on the insulation associated with the tanks and they were sent off-site for recycling.

A Remedial Investigation (RI) was completed in accordance with a NYSDEC-approved Remedial Investigation/Interim Remedial Measures/Alternative Analysis Work Plan (RI/IRM/AA WP, Ref. 4) by C&S Engineers (C&S) between January 2016 and January 2017. The RI included the performance of a geophysical survey, and the sampling of surface soil/fill, subsurface soil/fill material, native soil, groundwater, and outdoor air. The urban fill at the Site was found to contain concentrations of certain SVOCs and metals above the

restricted-residential soil cleanup objectives (RRSCOs) while the concentrations in the underlying construction fill and native soils were generally below the soil cleanup objectives (SCOs). Impacts to groundwater were minimal (low-level VOCs, SVOC and metals) and the outdoor air samples did not identify a concern.

In September 2017 and December 2017, additional investigation activities were completed at the request of NYSDEC to address data validation issues associated with VOC data generated from the initial RI activities and to delineate areas where elevated SVOCs and metals were present. The additional work was done by Benchmark. The delineation work was done under an NYSDEC-approved Additional Hotspot Sampling & Soil Disposal Work Plan (Ref. 5) and were documented in the RI Report (Ref. 6).

An IRM was completed at the Site from August 2017 through November 2017. Prior to starting the IRM activities, Benchmark requested a deviation in the confirmatory sampling plan identified in the RI/IRM/AA WP. Benchmark requested to analyze the confirmation sidewall and bottom of excavation samples for Target Compound List (TCL) volatile organic compounds (VOCs) and NYSDEC Part 375 List semi-volatile organic compounds (SVOCs) rather than the full list of parameters (VOCs, SVOCs, metals, PCBs and pesticides) identified in the RI/IRM/AA WP. This deviation was approved by NYSDEC in an email dated October 6, 2017. The IRM activities were documented in an IRM Report (Ref. 7) submitted and approved by NYSDEC.

The IRM activities involved the removal of three (3) underground storage tanks (USTs) (approximately 5,000-gallons each in size) and approximately 4,956-tons of petroleum-impacted soil/fill which was taken to the Tonawanda Landfill in Tonawanda, New York for non-hazardous disposal.

Once the analytical results indicated that the petroleum-impacts had been removed, the excavation was backfilled. The excavation backfill consisted of the on-site crushed concrete screened in accordance with CCMP Addendum and clay soil imported from an off-site source (Quaker Crossing in Orchard Park, New York). A NYSDEC Request to Import was submitted for the Quaker Crossing soil along with the required analytical testing which was approved for import to the Site by NYSDEC via email on October 3, 2017.

Based on the findings of the RI and completed IRM, an Alternatives Analysis Report (AAR, Ref. 8) was completed. The AAR outlined the Remedial Action Objectives (RAOs) and required remedial activities to be completed to achieve a Track 4 Restricted-Residential

Use cleanup. The remedial actions described in the AAR, Decision Document (Ref. 9) and Remedial Action Work Plan (RAWP, Ref. 10) were as follows:

- Removal and proper landfill disposal of the polycyclic aromatic hydrocarbon-(PAH) impacted soil/fill present in the vicinity of RI sample Boundary-SS2.
- Removal and proper landfill disposal of the soil/fill stockpile present in the vicinity of RI sample F6.
- Removal and proper landfill disposal of petroleum-impacted soil/fill present in the vicinity of RI sample D7.
- Backfilling the excavations with material that met the requirements of 6NYCRR Part 375-6.7(d) or otherwise NYSDEC-approved material (e.g., crushed concrete greater than ⅛-inch after on-site screening of the former masonry building).
- Preparation and implementation of a Site Management Plan (SMP, Ref. 11).
- Filing an Environmental Easement (EE) with Erie County, which was done on August 30, 2017.

The RAWP also identified the following site-specific cleanup criteria established for the remedial actions:

- Arsenic - 24 mg/kg;
- Lead - 1,000 mg/kg;
- Chromium – 1,500 mg/kg; and
- Manganese – 10,000 mg/kg.

A total of 674 tons of additional petroleum-, PAH-, and metal-impacted soil/fill were removed and disposed of off-site at the Tonawanda Landfill.

To meet the final grades of the redevelopment plan, the Site grades were raised across the majority of the Site using:

- the on-site processed and screened concrete (greater than ⅛-inch in size);
- existing soil/fill from the northern, southern, and eastern areas that were excavated along the perimeter of the Site to allow 2-feet of the compliant soil cover system to be installed;
- existing soil/fill from the installation of the concrete walkway and retaining wall along the southern portion of the Site; or

- imported soil/fill material meeting the requirements of 6NYCRR Part 375-6.7(d) approved by NYSDEC.

The cover system that was installed was DER-10 compliant material which consisted of a minimum of 2-foot soil/stone cover system across most of the Site with a concrete walking path and stabilizing retaining wall (to stabilize fill remaining at depth and protect from erosion and/or sidewall collapse) along the southern portion of the Site. A demarcation layer (e.g., orange plastic netting) was installed beneath the cover system that was designed to meet the existing Site grades along the northern and eastern boundaries of the Site. Figure 3 identities the current cover system for the Site.

The remedial action and cover system installation work were completed between August and October 2018 and documented in the NYSDEC-approved Final Engineering Report (FER, Ref. 12).

## 1.3 Compliance

The Site is vacant and is still awaiting redevelopment. A portion of the cover system has been damaged by above average high-water levels and associated wave action from Lake Erie/Small Boat Harbor during the past PRR period and needs repair in a few locations along the southern portion of the Site (see Appendix C).

## 1.4 Recommendations

We recommend that the Corrective Measures Work Plan (CMWP; Appendix C) be implemented to address the damage to the cover system in the southern portions of the Site due to the above average high-water levels and associated wave action from Lake Erie/Small Boat Harbor. The work required to repair the damaged cover system and any redevelopment activities to be conducted at a future date, will be completed in accordance with the SMP and the SMP be updated to include the redevelopment/cover system changes once they are completed. At this time, it is unknown when the redevelopment activities will occur, but they will be document in the associated PRR reporting period.

## 2.0 SITE OVERVIEW

The Site was remediated under the BCP (as discussed in Section 1.2). The remediated property is subject to a comprehensive, site-wide SMP which identifies requirements for monitoring and maintenance of engineering and institutional controls, post-remedial media (groundwater) monitoring and sampling, and procedures for post-remedial excavation and related activities.

No redevelopment activities have occurred at the Site within the December 14, 2018 to April 14, 2020 reporting period. However, there has been some damage to the cover system due to above average high-water levels and associated wave action of Lake Erie/Small Boat Harbor at Site that need repair. The cover system repairs will be addressed in accordance with a NYSDEC-approved CMWP (see Appendix C). We note that the Site is currently vacant and secured from public access by a chain link fence.

The areas surrounding the Site have not changed.

## 3.0 REMEDY PERFORMANCE

A post-remedial site inspection and groundwater monitoring event were completed at the Site as required by the SMP. The site inspection involving a walk-over of the Site covered by this PRR was performed to visually observe and document the use of the Site for restricted residential, commercial, and/or industrial use, confirm absence of site groundwater use, inspect the cover system integrity, and verify conformance with other requirements under the SMP. The groundwater monitoring event involved sampling four (4) monitoring wells (MW-1, MW-4, MW-6 and MW-7) for VOCs, SVOCs and metals as further discussed in Sections 4.2.4 and 4.3.

The site inspection completed during this reporting period indicates that the cover system for the Site has been partly damaged by above average high-water levels and associated wave action of Lake Erie/Small Boat Harbor and will need repair. A CMWP has been prepared and included in Appendix C.

The Site is current vacant and secured from public access by a chain link fence. Except for the locations of cover system damage in the southern portion of the Site, the reminder of the Site is in compliance and functioning as intended in accordance with the SMP.

The results of the groundwater sampling, as further discussed in Section 4.3, indicate a decrease in the VOC, SVOCs and metals contaminant concentrations detected in the groundwater since completing the IRM and remedial actions completed prior to issuance of the COC.

The completed IC/EC Certification forms and site photographs are included in Appendices A and B, respectively.

# 4.0 SITE MANAGEMENT PLAN

A site-wide SMP was prepared for the Site and approved by the Department in November 2018. Key components of the SMP are described below.

## 4.1 Institutional and Engineering Control (IC/EC) Plan

Since remaining contaminated soil/fill exists beneath the site, Institutional Controls and Engineering Controls (IC/ECs) are required to protect human health and the environment. The Engineering and Institutional Control Plan describes the procedures for the implementation and management of all IC/ECs at the Site. At the time of the site inspection, the Site is compliant with all institutional control requirements. Due to the damage to the cover system from the above average high-water levels and associated wave action of Lake Erie/Small Boat Harbor, the cover system will need some repair. A CMWP has been prepared and included in Appendix C.

### *4.1.1 Institutional Controls (ICs)*

The Site has a series of Institutional Controls in the form of site restrictions. Adherence to these Institutional Controls is required by the Environmental Easement. Site restrictions that apply to the Controlled Property are:

- The property may be used for restricted residential; commercial, industrial uses, subject to local zoning laws;
- All ECs must be operated and maintained as specified in the SMP;
- All ECs must be inspected at a frequency and in a manner defined in the SMP.
- The use of groundwater underlying the property is prohibited without necessary water quality treatment as determined by the New York State Department of Health or the Erie Department of Health to render it safe for use as drinking water or for industrial purposes, and the user must first notify and obtain written approval to do so from the Department;
- Data and information pertinent to site management must be reported at the frequency and in a manner as defined in this SMP;
- All future activities on the property that will disturb remaining contaminated material must be conducted in accordance with the SMP;

- Operation, maintenance, monitoring, inspection, and reporting of the soil cover system shall be performed as defined in the SMP;
- Access to the site must be provided to agents, employees or other representatives of the State of New York with reasonable prior notice to the property owner to assure compliance with the restrictions identified by the Environmental Easement; and
- Vegetable gardens and farming on the property are prohibited.

#### *4.1.2 Engineering Controls (ECs)*

Engineering controls at the Site include:

- Cover System – Exposure to remaining contamination in soil/fill at the Site is prevented by a final cover system placed over the site. This cover system is comprised of a minimum of 24 inches of clean vegetated soil (with demarcation layer), asphalt pavement, concrete-covered sidewalks, concrete retaining wall, or crushed stone. The cover system must be maintained in compliance with the SMP.

### 4.2 Excavation Work Plan

An Excavation Work Plan (EWP) was included in the NYSDEC-approved SMP for the Site. The EWP provides guidelines for the management of soil/fill material during intrusive actives. Future intrusive work that will penetrate the cover or cap, or encounter or disturb the remaining contamination, including any modifications or repairs to the existing cover system, will be performed in compliance with the EWP.

#### *4.2.1 Site Redevelopment Activities*

No redevelopment activities occurred during the past reporting period and the Site is currently vacant and secured by a chain-link fence.

#### *4.2.2 Exported Materials*

No materials were exported from the Site during the past reporting period.

#### *4.2.3 Imported Materials*

No materials were imported to the Site during the past reporting period.

#### *4.2.4 Monitoring Well Replacement*

The SMP required post-remedial groundwater sampling at four (4) monitoring wells locations, MW-1, MW-4, MW-6 and MW-7. This groundwater sampling is discussed in more detail in Section 4.3 below. Two (2) monitoring wells, MW-1 and MW-7, were damaged during cover system installation in 2018 and were replaced with 1-inch diameter monitoring wells on March 31, 2020. The two (2) replacement monitoring wells (MW-1R and MW-7R) were installed in the vicinity of the former wells via direct push methodologies using a disposable blind point and 3-inch diameter casing to drill down to the required depths and install the wells. MW-1R was installed to a depth of approximately 16 feet below ground surface (fbgs), similar to MW-1, and the final grade in this area of the Site did not change. MW-7R was installed to a depth of approximately 20 fbgs, as the grade in this area of the Site was raised approximately 7 feet and the depth of MW-7 was about 13 fbgs.

No soil/fill from the drilling locations were brought to the surface to install the wells. The boreholes were created with the bind point and casing to the designated depths. The Community Air Monitoring Program (CAMP) of the SMP was implemented during the drilling. A graph of the CAMP data (particulate and total volatile organics) collected during the well installation is included in Appendix D.

### 4.3 Post-Remediation Media Monitoring and Sampling

Four (4) monitoring wells were sampled MW-1R, MW-4, MW-6 and MW-7R (see Figure 4) as part of the post-remedial media monitoring and sampling requirements of the SMP. The four (4) wells were sampled for Target Compound List (TCL) VOCs, Part 375 List SVOCs and Part 375 List metals. The results of the groundwater samples are summarized on Table 1 and the laboratory report is included in Appendix D. Table 1 also includes the historic sample results from these four (4) locations from 2016 and 2017, which represent pre-remedial conditions, for comparative purposes. The results of the sampling are discussed below by location.

MW-1/-1R:

VOCs: Benzene was detected at this location above its respective groundwater quality standard (GWQS) and the total VOC concentrations ranged from approximately 5 to 8 micrograms per liter (ug/l). In the 2020 post-remedial sample, benzene was detected below its respective GWQS and the total VOC concentrations were less than 1 ug/l, and 80% decrease from 2016 results.

SVOCs: Six (6) SVOCs were detected in both the 2017 and 2020 groundwater sampling events with concentrations exceeding their respective GWQS. The total SVOC concentrations in 2017 were approximately 11.5 ug/l and 5.4 ug/l in 2020, a decrease of about 53%.

Metals: Manganese was the only metal detected above its respective GWQS in the 2020 event and compared to the 2016 and 2017 events, the concentrations of other metals detected have also decreased.

MW-4:

VOCs: No VOCs were detected above method detection limits in the 2020 sampling event nor the historic sampling events

SVOCs: Six (6) SVOCs were detected in both the 2017 and 2020 groundwater sampling events with concentrations exceeding their respective GWQS. The total SVOC concentrations in 2017 were approximately 4 ug/l and 0.4 ug/l in 2020, a decrease of about 90%.

Metals: No metal analytes were detected above their respective GWQS in the 2020 sampling event.

MW-6:

VOCs: No VOCs were detected above method detection limits in the 2020 sampling event. Historic sample results were also below their respective GWQS at this location.

SVOCs: Five (5) SVOCs were detected above their GWQS, which is a slight increase from the 2017; however, the total SVOC concentrations detected have decreased about 70% from 1.3 ug/l (2017) to 0.4 ug/l (2020).

Metals: No metal analytes were detected above their respective GWQS in the 2020 sampling event.

MW-7/-7R:

VOCs: No VOCs were detected above their respective GWQS in the 2020 sampling event. Historically, methyl tert butyl ether (MTBE) and naphthalene have been detected above their respective GWQS and the total VOCs detected in the 2020 sampling event have decreased approximately 88% from the 2017 sampling event.

SVOCs: Seven (7) SVOCs were detected above their GWQS, which is a slight increase from the 2017; however, the total SVOC concentrations detected have decreased about 43% from 30 ug/l (2017) to 17 ug/l (2020).

Metals: No metal analytes were detected above their respective GWQS in the 2020 sampling event.

The results of the 2020 post-remediation groundwater sampling indicate there has been an improvement in the groundwater quality at the Site since the IRM and remedial action have been completed. No VOCs were detected above their respective GWQS in the four (4) sample locations. Except for manganese at MW-1R, no metals analytes were detected above their respective GWQS. Although SVOCs were detected above their respective GWQS in the four (4) sample locations, total SVOC concentrations (which were 30 ug/l or less prior to the remedial activities) have decreased between 43% (MW-7R) and 90% (MW-4). The presence of SVOCs in groundwater is not uncommon due to the amount of fill material underlying the Site from historic import activities completed to raise grades in outer harbor area and not uncommon at other sites surrounding QCL.

As stated in Table 7 of Section 7 of the SMP, groundwater monitoring will be "subject to evaluation after year 1". Based on the favorable results of the 2020 groundwater sampling, QCL requests that the annual groundwater sampling requirements of the SMP be terminated.

## 4.4 Annual Inspection and Certification Program

The Annual Inspection and Certification Program outlines requirements for certifying and attesting that the institutional controls and engineering controls employed on the Site are unchanged from the original design and/or previous certification. The Annual Certification includes a Site Inspection and completion of the NYSDEC's IC/EC Certification Form. The Site inspection is intended to verify that:

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

Inspection of the Site was conducted by Mr. Christopher Boron, P.G. of TurnKey Environmental Restoration, LLC on March 31, 2020, a Qualified Environmental Professional (QEP) per 6NYCRR Part 375.12. At the time of the inspection, no redevelopment activities had occurred, and the Site is vacant. Existing cover system (see Figure 3) in the southern portion of the Site needs repair in a few areas due to damage from above average high-water levels and associated wave action of Lake Erie/Small Boat Harbor. Repairs to the cover system (as outlined in the CMWP in Appendix C) and any future redevelopment activities that disturb the existing cover system are subject to the NYSDEC-approved SMP.

No observable indication of intrusive activities that disturbed subsurface soil/fill were noted during the Site inspection beyond those described in Section 4.2.

The completed Site Management Periodic Review Report Notice – Institutional and Engineering Controls Certification Form is included in Appendix A. A photographic log of the Site inspection is included in Appendix B. The CMWP is included in Appendix C and information from the monitoring well installation and groundwater sampling are included in Appendix D.

## 4.5 Operation, Monitoring and Maintenance Plan

The remedy for the Site does not rely on any mechanical systems such as sub-slab depressurization or soil vapor extraction, to protect public health and the environment. Therefore, an Operation and Maintenance Plan is not required.

# 5.0 CONCLUSIONS AND RECOMMENDATIONS

Conclusions for this reporting period and recommendations for the next reporting period are as follows:

- No redevelopment activities occurred during the past reporting period and the Site is currently vacant. The existing cover system in the southern portion of the Site has been damaged by above average high-water levels and associated wave action of Lake Erie/Small Boat Harbor and requires repair. The repairs will be competed as outlined in the CMWP. The remaining portions of the cover systems are performing as intended.
- Implementation of the CMWP to repair the cover system and future redevelopment activities involving cover system modification or import/export of soil or stone materials will be subject to the SMP. In areas subject to redevelopment, Site access will be restricted via construction fencing and will be limited to authorized construction personnel.
- Groundwater sampling performed during the reporting period, as required by the SMP, indicates that there has been an improvement in the groundwater quality at the Site since the IRM and remedial action have been completed. No VOCs were detected above their respective GWQS. Except for manganese at MW-1R, no metals analytes were detected above their respective GWQS. SVOCs were detected above their respective GWQS in the four (4) sample locations, al be it at very low concentrations. The total SVOC concentrations (which were 30 ug/l or less prior to the remedial activities) have decreased between 43% (MW-7R) and 90% (MW-4). The presence of SVOCs in groundwater is not uncommon due to the amount of fill material present underlying the Site from historic import activities completed to raise grades in outer harbor area and not uncommon at other sites surrounding QCL.

The following modifications are recommended for the Site:

- The cover system modifications outlined in the CMWP should be implemented.
- Groundwater monitoring is "subject to evaluation after year 1", as stated in Table 7 of Section 7 of the SMP. Based on the favorable results of the 2020 groundwater sampling, QCL requests that the annual groundwater sampling requirements of the SMP be terminated.

# 6.0 DECLARATION/LIMITATION

Personnel under direct supervision of Benchmark conducted the annual site inspection for BCP Site No. C915304, located in Buffalo, New York, according to generally accepted practices. This report complied with the scope of work provided to Queen City Landing, LLC by Benchmark.

This report has been prepared for the exclusive use of the Queen City Landing, LLC. 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 Queen City Landing, LLC. Use of or reliance upon this report or its findings by any other person or entity is prohibited without written permission of Benchmark.

# 7.0 REFERENCES

1. New York State Department of Environmental Conservation. *DER-10; Technical Guidance for Site Investigation and Remediation.* May 2010.
2. C&S Engineers, Inc. *Crushed Concrete Management Plan, Queen City Landing, Eastern Parcel, BCP Site No. C915304.* March 1, 2017.
3. Benchmark Environmental Engineering and Sciences, PLLC. *Queen City Landing (BCP Site: C915304), Crushed Concrete Management Plan Addendum.* August 3, 2017.
4. C&S Engineers, Inc. *Remedial Investigation/Interim Remedial Measures/Alternatives Analysis Work Plan, Queen City Landing, 1005 Fuhrmann Blvd (SBL: 132.06-1-1.2) and a Portion of 975 Fuhrmann Blvd (SBL: 132.06-1-1.1), City of Buffalo, Erie County, New York, Site No. C915304.* December 2016.
5. Benchmark Environmental Engineering and Science, PLLC. *Additional Hotspot Sampling & Soil Disposal Work Plan, Queen City Landing Site, BCP Site No. C915304.* December 7, 2017.
6. Benchmark Environmental Engineering and Science, PLLC. *Queen City Landing, BCP Site No. C915304, Revised Remedial Investigation Submittal.* January 26, 2018.
7. Benchmark Environmental Engineering and Science, PLLC. *Interim Remedial Measure Report, Petroleum Contamination Cleanup, Queen City Landing Site BCP Site No. C915304, 975 and 1005 Fuhrmann Boulevard, Buffalo, New York.* January 25, 2018.
8. Benchmark Environmental Engineering and Science, PLLC. *Alternative Analysis Report, Queen City Landing Site, Buffalo, New York, BCP Site No. C915304.* May 2018.
9. New York State Department of Environmental Conservation. *Decision Document, Queen City Landing, Brownfield Cleanup Program, Buffalo, Erie County, Site No. C915304.* June 2018.
10. Benchmark Environmental Engineering and Science, PLLC. *Queen City Landing (BCP Site: C915304), Remedial Action Work Plan.* July 20, 2018.
11. Benchmark Environmental Engineering and Science. *Site Management Plan, Queen City Landing Site, Erie County, Buffalo, New York, NYSDEC Site No. C9152304.* November 2018.
12. Benchmark Environmental Engineering and Science. *Final Engineering Report, Queen City Landing Site, Buffalo, New York, NYSDEC Site No. C9152304.* December 2018.

# TABLES

BENCHMARK ENVIRONMENTAL ENGINEERING & SCIENCE, PLLC

# TABLE 6

## SUMMARY OF REMEDIAL INVESTIGATION GROUNDWATER SAMPLE ANALYTICAL RESULTS

## SITE MANAGEMENT PLAN

## QUEEN CITY LANDING SITE
## BUFFALO, NEW YORK

| PARAMETER [1] | GWQS [2] | MW-1 | | MW-1 | | MW-1R [3] | | MW-4 | | MW-4 | | MW-4 | | MW-6 | | MW-6 | | MW-6 | | MW-7 | | MW-7 | | MW-7R [3] | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | 2/7/2017 | | 3/30/2016 | | 4/3/2020 | | 2/7/2017 | | 3/31/2016 | | 4/3/2020 | | 2/7/2017 | | 3/30/2016 | | 4/3/2020 | | 2/7/2017 | | 3/30/2016 | | 4/3/2020 | |
| ***Volatile Organic Compounds (VOCs) - ug/l*** | | | | | | | | | | | | | | | | | | | | | | | | | |
| 2-Butanone (MEK) | **50** | ND | | ND | | ND | | ND | | ND | | ND | | ND | | ND | | ND | | ND | | ND | | | |
| Acetone | **50** | ND | | ND | | ND | | ND | | ND | | ND | | 3 J | J | ND | | ND | | 1.7 | J | ND | | 1.5 | J |
| Benzene | **1** | **4.2** | | **1.95** | | 0.74 | | ND | | ND | | ND | | ND | | ND | | ND | | ND | | ND | | | |
| Cyclohexane | **--** | ND | | ND | | ND | | ND | | ND | | ND | | ND | | ND | | ND | | ND | | ND | | | |
| Dichlorodifluoromethane (Freon-12) | **5** | ND | | ND | | ND | | ND | | ND | | ND | | ND | | ND | | ND | | ND | | ND | | | |
| Methyl acetate | **--** | ND | | ND | | ND | | ND | | ND | | ND | | ND | | ND | | ND | | ND | | ND | | | |
| Methyl tert butyl ether (MTBE) | **10** | 0.95 | J | ND | | ND | | ND | | ND | | ND | | ND | | ND | | ND | | **39** | | **20.7** | | 3.1 | |
| Methylcyclohexane | **--** | ND | | ND | | ND | | ND | | ND | | ND | | ND | | ND | | ND | | ND | | ND | | | |
| Naphthalene | **10** | ND | | 6.04 | | ND | | ND | | ND | | ND | | ND | | 4.56 | J | ND | | ND | | **29.5** | | | |
| Total VOCs | | 5.15 | | 7.99 | | 0.74 | | 0 | | 0 | | 0 | | 3 | | 4.56 | | 0 | | 40.7 | | 50.2 | | 4.6 | |
| ***Semi-Volatile Organic Compounds (SVOCs) - ug/l*** | | | | | | | | | | | | | | | | | | | | | | | | | |
| Acenaphthene | **20** | 0.99 | | ND | | 0.17 | | 0.35 | | ND | | ND | | 0.3 | | ND | | 0.05 | J | 9.3 | | ND | | 5.8 | |
| Acenaphthylene | **--** | 0.07 | J | ND | | 0.02 | J | 0.05 | J | ND | | ND | | ND | | ND | | ND | | 0.22 | | ND | | 0.13 | |
| Anthracene | **50** | 0.17 | J | ND | | 0.17 | | 0.2 | | ND | | 0.01 | J | 0.09 | J | ND | | 0.02 | J | 1.1 | | ND | | 0.45 | |
| Benzo(a)anthracene | **0.002** | **0.1** | J | ND | | **0.38** | | **0.12** | J | ND | | **0.04** | J | **0.03** | J | ND | | **0.02** | J | **0.07** | J | ND | | **0.07** | J |
| Benzo(a)pyrene | **MDL** | **0.08** | J | ND | | **0.32** | | **0.1** | J | ND | | **0.03** | J | ND | | ND | | **0.02** | J | ND | | ND | | **0.05** | J |
| Benzo(b)fluoranthene | **0.002** | **0.12** | J | ND | | **0.44** | | **0.13** | J | ND | | **0.04** | J | ND | | ND | | **0.03** | J | **0.05** | J | ND | | **0.06** | J |
| Benzo(ghi)perylene | **--** | 0.07 | J | ND | | 0.2 | | 0.08 | J | ND | | 0.02 | J | ND | | ND | | ND | | ND | | ND | | 0.04 | J |
| Benzo(k)fluoranthene | **0.002** | **0.04** | J | ND | | **0.16** | | 0.05 | J | ND | | **0.02** | J | ND | | ND | | **0.01** | J | ND | | ND | | **0.03** | J |
| Chrysene | **0.002** | **0.11** | J | ND | | **0.33** | | 0.12 | J | ND | | **0.03** | J | ND | | ND | | **0.02** | J | **0.07** | J | ND | | **0.06** | J |
| Dibenzo(a,h)anthracene | **--** | ND | | ND | | 0.06 | J | ND | | ND | | ND | | ND | | ND | | ND | | ND | | ND | | 0.02 | J |
| Dibenzofuran | **0.0000007** | ND | | ND | | ND | | ND | | ND | | ND | | ND | | ND | | ND | | ND | | ND | | **2.1** | |
| Fluoranthene | **50** | 0.39 | | ND | | 0.82 | | 0.48 | | ND | | 0.06 | J | 0.17 | J | ND | | 0.05 | J | 2.1 | | ND | | 1.1 | |
| Fluorene | **50** | 0.94 | | ND | | 0.19 | | 0.3 | | ND | | ND | | 0.1 | J | ND | | ND | | 6.9 | | ND | | 3.5 | |
| Indeno(1,2,3-cd)pyrene | **0.002** | **0.07** | J | ND | | **0.23** | | 0.08 | J | ND | | **0.02** | J | ND | | ND | | ND | | ND | | ND | | **0.05** | J |
| 2-Methylnapthalene | **--** | 0.81 | | ND | | ND | | 0.13 | J | ND | | ND | | ND | | ND | | ND | | 0.13 | J | ND | | ND | |
| Naphthalene | **10** | 5.8 | | ND | | 0.37 | | 0.39 | | ND | | ND | | 0.19 | J | ND | | ND | | 1.9 | | ND | | 0.96 | |
| Phenanthrene | **50** | 1.4 | | ND | | 0.88 | | 1 | | ND | | 0.05 | J | 0.18 | J | ND | | 0.04 | J | 7 | | ND | | 1.6 | |
| Pyrene | **50** | 0.29 | | ND | | 0.66 | | 0.37 | | ND | | 0.05 | J | 0.2 | | ND | | 0.11 | | 1.3 | | ND | | 0.69 | |
| Total SVOCs | | 11.45 | | 0 | | 5.4 | | 3.95 | | 0 | | 0.37 | | 1.26 | | 0 | | 0.37 | | 30.14 | | 0 | | 16.71 | |
| ***Total Metals - ug/l*** | | | | | | | | | | | | | | | | | | | | | | | | | |
| Aluminum | **--** | 278 | | NT | | NT | | 133 | | NT | | NT | | 51.4 | | NT | | NT | | 782 | | NT | | NT | |
| Antimony | **3** | ND | | NT | | NT | | ND | | NT | | NT | | ND | | NT | | NT | | ND | | NT | | NT | |
| Arsenic | **25** | 4.11 | | ND | | 1.92 | | 2.46 | | ND | | 1.1 | | 1.53 | | ND | | 0.74 | | 1.34 | | 16.8 | J- | 1.23 | |
| Barium | **1000** | 395.8 | | 270 | J- | 172.6 | | 123.3 | | 138 | | 42.23 | | 53.12 | | 55.2 | J- | 71.83 | | 36.1 | | ND | | 33.28 | |
| Cadmium | **5** | 0.09 | J | ND | | 0.07 | J | ND | | ND | | ND | | ND | | ND | | ND | | ND | | ND | | ND | |
| Calcium | **--** | 149000 | | NT | | NT | | 132000 | | NT | | NT | | 64300 | | NT | | NT | | 51200 | | NT | | NT | |
| Hexavalent Chromium | **50** | NT | | NT | | NT | | NT | | NT | | NT | | ND | | NT | | NT | | NT | | NT | | NT | |
| Chromium | **50** | 1.66 | | ND | | 0.83 | J | 0.38 | J | ND | | 0.69 | J | 0.38 | J | ND | | 0.79 | J | 1.48 | | ND | | 0.36 | J |
| Cobalt | **--** | 0.31 | J | NT | | NT | | 0.43 | J | NT | | NT | | ND | | NT | | NT | | 0.71 | | NT | | NT | |
| Copper | **200** | 8.07 | | 16.2 | J- | 4.55 | | 12.95 | | ND | | 5.73 | | 0.51 | | ND | | 2.31 | | 2.77 | | ND | | 0.75 | J |
| Iron | **300** | **8800** | | NT | | NT | | **2340** | | NT | | NT | | 268 | | NT | | NT | | **1370** | | NT | | NT | |
| Cyanide | **200** | 3 | J | NT | | 4 | J | ND | | NT | | ND | | 5 | | NT | | 4 | J | 3 | J | NT | | ND | |
| Lead | **25** | 17.85 | | 18.4 | J- | 15.98 | | 11.6 | | **41.9** | | 4.63 | | 0.58 | J | 7.21 | J- | 4.42 | | 9.47 | | 20.4 | J- | 9.82 | |
| Magnesium | **35000** | **48300** | | NT | | NT | | 25600 | | NT | | NT | | 9150 | | NT | | NT | | 15400 | | NT | | NT | |
| Manganese | **300** | 253 | | **625** | J- | **639.1** | | **385.5** | | **318** | | 40.29 | | 127.2 | | 131 | J- | 188.6 | | 51.39 | | 51 | J- | 44.17 | |
| Mercury | **0.7** | ND | | ND | | 0.11 | J | ND | | ND | | ND | | ND | | ND | | ND | | ND | | ND | | ND | |
| Nickel | **100** | 2.21 | | ND | | 2.61 | | 1.41 | J | ND | | 1.36 | J | 1.1 | J | ND | | 0.89 | J | 2.56 | | ND | | 0.76 | |
| Potassium | **--** | 11600 | | NT | | NT | | 4270 | | NT | | NT | | 6880 | | NT | | NT | | 9720 | | NT | | NT | |
| Selenium | **10** | ND | | ND | | ND | | ND | | ND | | ND | | ND | | ND | | ND | | ND | | ND | | ND | |
| Sodium | **20000** | **49800** | | NT | | NT | | **24600** | | NT | | NT | | **254000** | | NT | | NT | | **74300** | | NT | | ND | |
| Vanadium | **--** | ND | | NT | | NT | | ND | | NT | | NT | | 2.24 | J | NT | | NT | | 2.9 | J | NT | | NT | |
| Zinc | **2000** | 22.63 | | 50.9 | J- | 31.49 | | 8.85 | J | 55.1 | J | 4.31 | J | ND | | ND | | 6.67 | J | 14.23 | | ND | | 9 | |
| ***Polychlorinated biphenyls (PCBs) - ug/l*** | | | | | | | | | | | | | | | | | | | | | | | | | |
| Total PCBs | | ND | | ND | | NS | | ND | | ND | | NS | | ND | | ND | | NS | | ND | | ND | | NS | |
| ***Pesticides and Herbicides - ug/l*** | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | ND | | ND | | NS | | ND | | ND | | NS | | ND | | ND | | NS | | ND | | ND | | NS | |

**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 Division of Water Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations - Class GA (TOGS 1.1.1)
3. Monitoring wells MW-1 and MW-7 could not be located and likely damaged during cover system installation. MW-1R and MW-7R are replacement wells installed within the same general area.

**Definitions:**

ND = Parameter not detected above laboratory detection limit.
NT = Parameter was not analyzed for.
"--" = No value available for the parameter; Parameter not analysed for.
J = Estimated value; result is less than the sample quantitation limit but greater than zero.
J+ = Analyte was positively identified; the associated numerical value is an estimated quantity that may be biased high.
J- = Analyte was positively identifed; the associated numerical value is an estimated quantity that may be biased low.
**Bold** = Result exceeds GWQS.

# FIGURES

# FIGURE 1



N

2,500' 0' 2,500' 5,000'

SCALE: 1 INCH = 2,500 FEET
SCALE IN FEET
(approximate)

LEGEND:

BCP SITE BOUNDARY

*BASEMAP ADAPTED FROM BING MAPS

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

PROJECT NO.: 0424-020-001

DATE: MAY 2020

DRAFTED BY: RFL

## SITE LOCATION AND VICINITY MAP

PERIODIC REVIEW REPORT

BROWNFIELD CLEANUP PROGRAM
QUEEN CITY LANDING SITE (BCP SITE NO. 915304)
BUFFALO, NEW YORK

PREPARED FOR

QUEEN CITY LANDING, LLC

F:\CAD\Benchmark\Queen City Landing\Periodic Review Reports\2020 PRR\Figure 2, Site Layout Map.dwg, 4/21/2020 11:34:46 AM

LEGEND:

BCP SITE BOUNDARY

NOTES:
1. AERIAL IMAGE FROM GOOGLE EARTH PRO 2018.


N

150' 0' 150' 300'

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

DATE: MAY 2020
DRAFTED BY: RFL

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SUITE 300
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(716) 856-0599

JOB NO.: 0424-020-001

# SITE LAYOUT MAP

PERIODIC REVIEW REPORT
BROWNFIELD CLEANUP PROGRAM
QUEEN CITY LANDING SITE (BCP SITE NO. C915304)
BUFFALO, NEW YORK
PREPARED FOR
QUEEN CITY LANDING, LLC

**FIGURE 2**

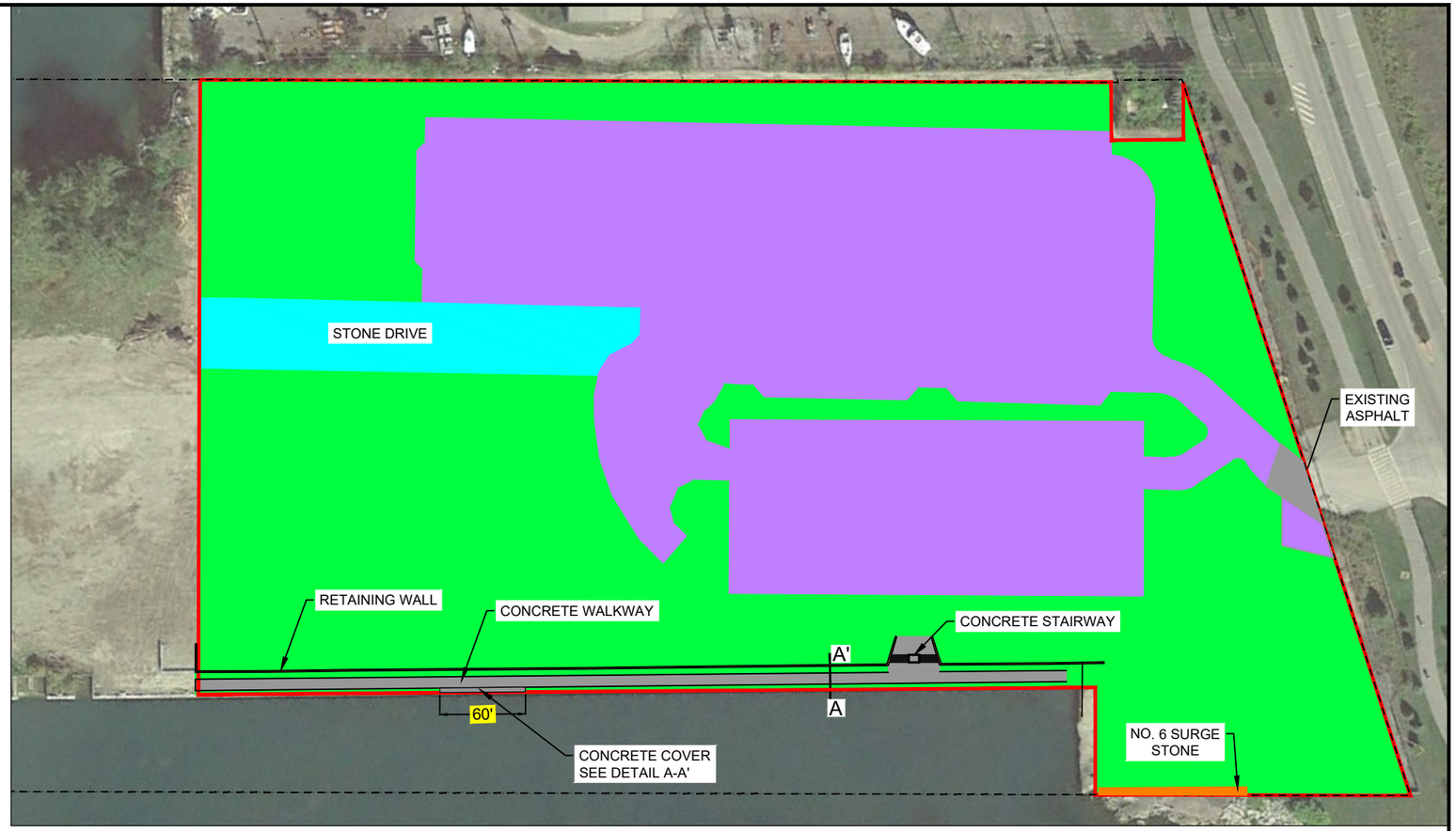
LEGEND:

- BCP SITE BOUNDARY
- PROPERTY LINE BOUNDARY
- SOIL COVER SYSTEM
- EXISTING OR NEW HARDSCAPE
- STONE PARKING COVER SYSTEM
- STONE DRIVE COVER SYSTEM
- SURGE STONE COVER SYSTEM

NOTES:
1. AERIAL IMAGE FROM GOOGLE EARTH PRO 2018.

100' 0' 100' 200'

SCALE: 1 INCH = 100 FEET
SCALE IN FEET
(approximate)

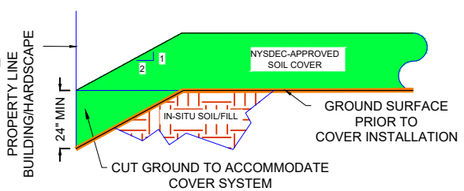



## COVER SYSTEM DETAILS

NTS

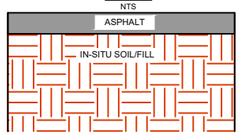
VEGETATED SOIL COVER SYSTEM DETAIL
NTS


TIE-IN DETAIL
NTS

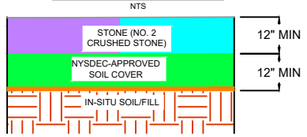



DEMARCATION LAYER

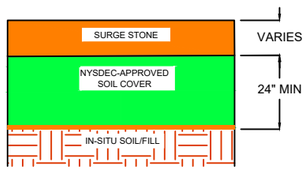
EXISTING ASPHALT DRIVE COVER SYSTEM DETAIL
NTS




STONE COVER AND PARKING SYSTEM DETAIL
NTS

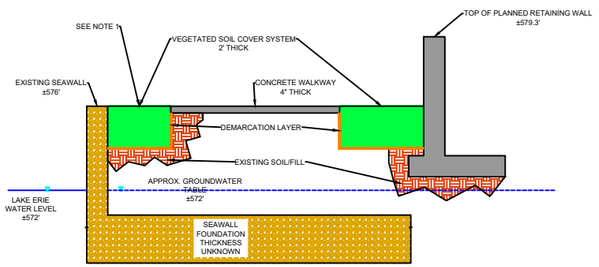



SURGE STONE COVER SYSTEM DETAIL
NTS




## DETAIL A-A'

NTS




NOTE:
1. A 60-FOOT SECTION OF VEGETATED COVER ALONG THE SEAWALL WAS REPLACED BY 6" OF STONE AND 6" OF CONCRETE AT THE LOCATION SHOWN IN THE DRAWING.

DATE: MAY 2020
DRAFTED BY: RFL

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JOB NO.: 0424-020-001

# INSTITUTIONAL AND ENGINEERING CONTROL LOCATIONS - COVER SYSTEM MAP

PERIODIC REVIEW REPORT

BROWNFIELD CLEANUP PROGRAM
QUEEN CITY LANDING SITE (BCP SITE NO. C915304)
BUFFALO, NEW YORK

PREPARED FOR

QUEEN CITY LANDING, LLC

**FIGURE 3**

F:\CAD\Benchmark\Queen City Landing\Periodic Review Reports\2020 PRR\Figure 4; Post Remedial Sampling Locations and Groundwater Quality Exceedances.dwg, 4/22/2020 1:08:39 PM

LEGEND:

BCP SITE BOUNDARY

MW-1R — MONITORING WELL

WELL DESIGNATION AND DATE SAMPLED

| Parameter | MW-1 | | MW-1R |
|---|---|---|---|
| | 3/30/3016 | 2/7/2017 | 4/3/2020 |
| *VOCs (ug/l)* | | | |
| Benzene | **1.95** | **4.2** | 0.740 |
| *SVOCs (ug/l)* | | | |
| Benzo(a)anthracene | ND | **0.1** | **0.38** |

ANALYTE DETECTED

CONCENTRATION DETECTED (ug/l). HIGHLIGHTED VALUES EXCEED GWQS.

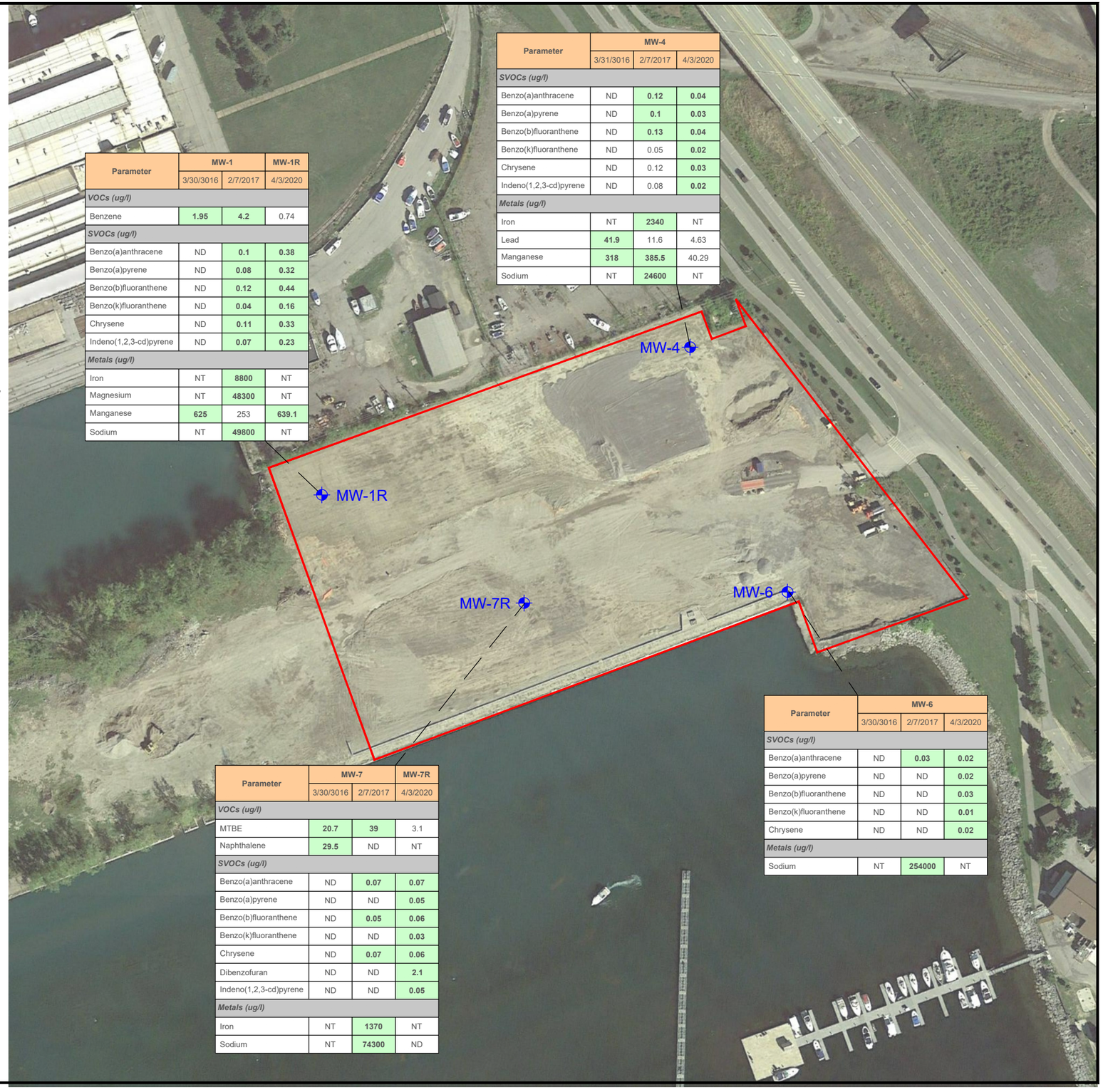
NOTES:
1. UG/L = MICROGRAMS PER LITER.
2. GROUNDWATER QUALITY STANDARDS (GWQS) PER NEW YORK STATE TOGS 1.1.1. AMBIENT WATER QUALITY STANDARDS AND GUIDANCE CRITERIA.
3. MW-1 AND MW-7 COULD NOT BE LOCATED AND WERE LIKELY DAMAGED DURING COVER SYSTEM INSTALLATION. MW-1R AND MW-7R ARE REPLACEMENT WELLS INSTALLED WITHIN THE SAME GENERAL AREA.
4. ND = NOT DETECTED, NT = NOT TESTED.
5. VOCs = VOLATILE ORGANIC COMPOUNDS.
6. SVOCs = SEMI-VOLATILE ORGANIC COMPOUNDS.
7. MTBE = METHYL TERT BUTYL ETHER.
8. AERIAL IMAGE FROM GOOGLE EARTH PHOTOGRAPHY 2018.

N

150' 0' 150' 300'

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

DATE: MAY 2020
DRAFTED BY: CNK




| Parameter | MW-1 | | MW-1R |
|---|---|---|---|
| | 3/30/3016 | 2/7/2017 | 4/3/2020 |
| *VOCs (ug/l)* | | | |
| Benzene | **1.95** | **4.2** | 0.74 |
| *SVOCs (ug/l)* | | | |
| Benzo(a)anthracene | ND | **0.1** | **0.38** |
| Benzo(a)pyrene | ND | **0.08** | **0.32** |
| Benzo(b)fluoranthene | ND | **0.12** | **0.44** |
| Benzo(k)fluoranthene | ND | **0.04** | **0.16** |
| Chrysene | ND | **0.11** | **0.33** |
| Indeno(1,2,3-cd)pyrene | ND | **0.07** | **0.23** |
| *Metals (ug/l)* | | | |
| Iron | NT | **8800** | NT |
| Magnesium | NT | **48300** | NT |
| Manganese | **625** | 253 | **639.1** |
| Sodium | NT | **49800** | NT |

| Parameter | MW-4 | | |
|---|---|---|---|
| | 3/31/3016 | 2/7/2017 | 4/3/2020 |
| *SVOCs (ug/l)* | | | |
| Benzo(a)anthracene | ND | **0.12** | **0.04** |
| Benzo(a)pyrene | ND | **0.1** | **0.03** |
| Benzo(b)fluoranthene | ND | **0.13** | **0.04** |
| Benzo(k)fluoranthene | ND | 0.05 | **0.02** |
| Chrysene | ND | 0.12 | **0.03** |
| Indeno(1,2,3-cd)pyrene | ND | 0.08 | **0.02** |
| *Metals (ug/l)* | | | |
| Iron | NT | **2340** | NT |
| Lead | **41.9** | 11.6 | 4.63 |
| Manganese | **318** | **385.5** | 40.29 |
| Sodium | NT | **24600** | NT |

| Parameter | MW-7 | | MW-7R |
|---|---|---|---|
| | 3/30/3016 | 2/7/2017 | 4/3/2020 |
| *VOCs (ug/l)* | | | |
| MTBE | **20.7** | **39** | 3.1 |
| Naphthalene | **29.5** | ND | NT |
| *SVOCs (ug/l)* | | | |
| Benzo(a)anthracene | ND | **0.07** | **0.07** |
| Benzo(a)pyrene | ND | ND | **0.05** |
| Benzo(b)fluoranthene | ND | **0.05** | **0.06** |
| Benzo(k)fluoranthene | ND | ND | **0.03** |
| Chrysene | ND | **0.07** | **0.06** |
| Dibenzofuran | ND | ND | **2.1** |
| Indeno(1,2,3-cd)pyrene | ND | ND | **0.05** |
| *Metals (ug/l)* | | | |
| Iron | NT | **1370** | NT |
| Sodium | NT | **74300** | ND |

| Parameter | MW-6 | | |
|---|---|---|---|
| | 3/30/3016 | 2/7/2017 | 4/3/2020 |
| *SVOCs (ug/l)* | | | |
| Benzo(a)anthracene | ND | **0.03** | **0.02** |
| Benzo(a)pyrene | ND | ND | **0.02** |
| Benzo(b)fluoranthene | ND | ND | **0.03** |
| Benzo(k)fluoranthene | ND | ND | **0.01** |
| Chrysene | ND | ND | **0.02** |
| *Metals (ug/l)* | | | |
| Sodium | NT | **254000** | NT |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JOB NO.: 0424-020-001

# POST REMEDIAL SAMPLING LOCATIONS AND GROUNDWATER QUALITY EXCEEDANCES

PERIODIC REVIEW REPORT
BROWNFIELD CLEANUP PROGRAM
QUEEN CITY LANDING SITE (BCP SITE NO. C915304)
BUFFALO, NEW YORK
PREPARED FOR
QUEEN CITY LANDING, LLC

**FIGURE 4**

# APPENDIX A

## INSTITUTIONAL & ENGINEERING CONTROLS CERTIFICATION FORMS

Enclosure 2

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

**Site Details** **Box 1**

**Site No.** **C915304**

**Site Name Queen City Landing**

Site Address: 975 and 1005 Fuhrmann Boulevard Zip Code: 14203
City/Town: Buffalo
County: Erie
Site Acreage: 7.750

Reporting Period: December 14, 2018 to April 14, 2020

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

**Box 2**

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

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

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

Signature of Owner, Remedial Party or Designated Representative

3-31-2020
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. C915304** **Box 3**

**Description of Institutional Controls**

| Parcel | Owner | Institutional Control |
|---|---|---|
| **132.06-1-1.1** | Queen City Landing, LLC | Ground Water Use Restriction<br>Landuse Restriction<br>Site Management Plan<br><br>Monitoring Plan<br><br>Soil Management Plan<br>IC/EC Plan |

. Prohibition of use of groundwater.
. Restricted Residential Use.
. Soil Vapor Intrusion Evaluation for any future structures.
. Groundwater monitoring.
. Soil Management or Excavation Work Plan for any future intrusive work.

| | | |
|---|---|---|
| **132.06-1-1.2** | Queen City Landing, LLC | Soil Management Plan<br>Ground Water Use Restriction<br>Landuse Restriction<br>Monitoring Plan<br>Site Management Plan<br>IC/EC Plan |

. Prohibition of use of groundwater.
. Restricted Residential Use.
. Soil Vapor Intrusion Evaluation for any future structures.
. Groundwater monitoring.
. Soil Management or Excavation Work Plan for any future intrusive work.

**Box 4**

**Description of Engineering Controls**

| Parcel | Engineering Control |
|---|---|
| **132.06-1-1.1** | Cover System<br>Monitoring Wells |

. Maintenance of the cover system.

| | |
|---|---|
| **132.06-1-1.2** | Cover System<br>Monitoring Wells |

. Maintenance of the cover system.

**Box 5**

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

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

   a) the Periodic Review report and all attachments were prepared under the direction of, and reviewed by, the party making the 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. If this site has an IC/EC Plan (or equivalent as required in the Decision Document), for each Institutional or Engineering control listed in Boxes 3 and/or 4, I certify by checking "YES" below that all of the following statements are true:

   (a) the Institutional Control and/or 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. C915304**

**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 _____ at _____,
print name print business address

am certifying as _____(Owner or Remedial Party)

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

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

**IC/EC CERTIFICATIONS**

**Box 7**

**Professional Engineer Signature**

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

I _____ at _____,
print name print business address

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

| _____ | _____ | _____ |
|---|---|---|
| Signature of Professional Engineer, for the Owner or Remedial Party, Rendering Certification | Stamp (Required for PE) | Date |

# APPENDIX B

## PHOTOGRAPHIC LOG

# SITE PHOTOGRAPHS

**Photo 1:**

**Photo 2:**

**Photo 3:**

**Photo 4:**

Photo 1: Stone and vegetated cover system along eastern property boundary, looking north.

Photo 2: Vegetated cover system along eastern property boundary, looking south.

Photo 3: Vegetated cover system along the northern property boundary and stone cover system in the central portion of the Site.

Photo 4: Stone cover system in the central portion of the Site looking west.

# SITE PHOTOGRAPHS

**Photo 5:**

**Photo 6:**

**Photo 7:**

**Photo 8:**

Photo 5: Erosional rill in the southeastern portion of the Site that needs to be repairing. Created by water ponding in the central portion of the Site during high water levels, looking northeast.

Photo 6: Erosion of soil cover along the southern portion of the Site on the north side of concrete retaining wall that needs to be repaired. Erosion caused by high water levels and associated wave action, looking east.

Photo 7: No. 6 surge stone displaced from along the southern property boundary in need of repair caused by high water levels and associated wave action, looking south.

Photo 8: Soil cover erosion on the south side of the concrete walkway from high water levels and associated wave action that needs to be repaired, looking east.

# APPENDIX C

## CORRECTIVE MEASURES WORK PLAN

BENCHMARK
ENVIRONMENTAL
ENGINEERING &
SCIENCE, PLLC

June 12, 2020

Ms. Megan Kuczka
Environmental Program Specialist
NYSDEC Division of Environmental Remediation
270 Michigan Avenue
Buffalo, New York 14203

Re: Corrective Measures Work Plan for
Queen City Landing Brownfield Cleanup Program Site (No. 915304)
Periodic Review Report Certifying Period December 14, 2018 to April 14, 2020

Hello Ms. Kuczka:

On behalf of our client, Queen City Landing, Inc. (QCL), Benchmark Environmental Engineering & Science, PLLC (Benchmark) has prepared this Corrective Measures Work Plan (CMWP) for the QCL Brownfield Cleanup Program Site (No. 915304) located at 975 and 1005 Fuhrmann Boulevard, in Buffalo, New York.

On March 31, 2020, Christopher Boron, P.G., a Qualified Environmental Professional (QEP) per 6NYCRR Part 375.12, completed a site inspection of the QCL Site as part of the Periodic Review Report (PRR) certifying period of December 14, 2018 and April 14, 2020. This is the 1st PRR reporting period for the Site since receiving its Certificate of Completion on December 14, 2018.

During the site inspection, it was observed that the cover system (engineering control for the Track 4 restricted-residential use cleanup) has been damaged by high-water levels and associated wave action from Lake Erie/Small Boat Harbor along the southern portion of the Site during the certifying period. In addition, one portion of the cover appears to have eroded due to surface water runoff. Attachment 1 contains photographs from the March 31st site visit which show the damaged areas. The locations of these areas are further identified on the aerial photograph of the Site also included in Attachment 1.

Lake Erie water elevations are monitored at several stations, the closest station to the Site is the Buffalo, NY Station ID: 9063020 (Gauging Station). It is located approximately 10,000 feet north of the Site at the Coast Guard Station located at the mouth of the Buffalo River. Water elevations have been monitored at this station since 1918. The average water elevation is 571.39 feet based on the International Great Lakes Datum of 1985 (IGLD). The maximum water level elevation of the lake in 2019 was 574.61. This data can be found here: https://www.glerl.noaa.gov/data/dashboard/GLD_HTML5.html

The southern portion of the Site is primarily the windward side of the Site (southwesterly prevailing wind) and receives the wave action from Lake Erie. This, coupled with the increase in water elevation, has damaged some areas of the cover system in the southern portion of the Site and need repair. The remaining portions of the Site cover system are compliant and functioning as designed.

QCL would like to repair the cover system in the areas that were damaged. Attachment 2 contains Figure 7 - As-Built Cover System drawing from the Final Engineering Report. It identifies the type of cover systems present at the Site. The areas of the Site cover system that are in need of repair are identified by areas (Area 1 through Area 6). The materials used in these areas will generally be replaced with a few exceptions that will be better suited for the respective area that has been damaged. The following table identifies the six (6) areas with the current cover system material and proposed replacement material(s).

| Area | Current Cover System Material | Proposed Replacement Material (to Restore Minimum 2' Cover over Demarcation) |
|---|---|---|
| 1 | No. 6 surge stone and vegetated soil | No. 6 surge stone, vegetated soil, concrete and large limestone block on the bank areas. |
| 2 | Vegetated soil cover | Poly liner and No. 6 Surge stone to mitigate further erosion attributable to surface water runoff. |
| 3 | Vegetated soil cover | Asphalt cover on the north and south sides of the concrete walkway. |
| 4 | Vegetated soil cover | The concrete retaining wall will be extended approximately 20 feet to the southeast. Asphalt cover will be placed on the south side of the retaining wall and the vegetated soil cover will be replaced on the north side of the retaining wall. |
| 5 | Vegetated soil cover | Vegetated soil cover. |
| 6 | Vegetated soil cover | Vegetated soil cover. |

The corrective measures described in this work plan will be implemented in accordance with the existing Site Management Plan[1] (SMP), specifically the Excavation Work Plan (Appendix D of the SMP). We anticipate that following sections of the EWP may be applicable during the implementation of the corrective measures:

Section D-1 – Notification
Section D-3 – Soil Staging Method
Section D-7 – Material Reuse On-Site
Section D-9 – Cover System Restoration
Section D-10 – Backfill from Off-Site Sources
Section D-11 – Stormwater Pollution Prevention
Section D-13 – Community Air Monitoring Plan
Section D-15 – Dust Control

The cover system repair work will be completed by the end of the July 2020. NYSDEC approval of the CMWP, will serve as the 15-day notice required by Section D-1 of the SMP EWP. NYSDEC will also be provided 7-days' notice prior to the actual start of field work to repair the cover system.

Once the corrective measures are complete, the SMP cover system drawing will be updated to reflect the changes that have been implemented.

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

Sincerely,
Benchmark Environmental Engineering & Science, PLLC

Christopher Boron, P.G.
Sr. Project Manager

Thomas H. Forbes, P.E.
Principal Engineer

ec: J. Walia (NYSDEC – Region 9)
G. Buchheit Jr. (QCL)
C. Slater, Esq. (Slater Law)

File: 0424-020-002

[1] "Site Management Plan, Queen City Landing, NYSDEC Sire No. C915304, Buffalo, New York." Prepared by Benchmark Environmental Engineering and Science, PLLC. November 2018.

# ATTACHMENT 1

## PHOTOGRAPHS OF DAMAGED COVER SYSTEM

**Photo 1**

The area between the walkway and retaining wall was formerly covered with topsoil. Area now contains crushed stone that has washed out from under the walkway, broken concrete, and debris which has been washed up from the lake.

**Photo 2**

The area between the walkway and retaining wall was formerly covered with topsoil. Area now contains crushed stone that has washed out from under the walkway, broken concrete and debris which has been washed up from the lake.  Looking east.

**Photo 3**

Approx. 60-foot length along sea wall where concrete was used rather than soil due to low spots on the sea wall which would not hold back soil. Looking west.

**Photo 4**

This area is located at the southwest end of BCP Site limits. Cover system has been eroded.  Looking east.

**Photo 5**

Area of former soil cover west of the concrete area shown in Photo 3. Area now contains crushed stone that has washed out from under the walkway, broken concrete and debris which has been washed up from the lake.  Looking east.

**Photo 6**

The area between the walkway and retaining wall was formerly covered with topsoil. Area now contains broken concrete and debris which has been washed up from the lake.  Looking east.

**Photo 7**

Cover system erosion has occurred in this area. Area of water ponding is to the north and is draining back to the east end of the retaining wall/sea wall at the lake.  Looking northeast.

**Photo 8**

Erosion north (behind) of the retaining wall. This is the location where a break in the wall was installed for eventual handicap access.  Looking east.

**Photo 9**

No. 6 surge stone was placed along the southern boundary of the Site near the southeast corner. It was placed against the hardscape (cemented aggregate and large limestone blocks) that were present at the fence line and to the south. The wave action has pushed the No. 6 stone away from the placement area. Looking south.

**Photo 10**

Former placement area for No. 6 stone along southern boundary.  Close up of Photo 9, looking south.


Photo 7
Photo 7
Photos 9 & 10
Photo 8
Photo 6
975 Fuhrmann Boulevard
Photos 1 & 2
Photo 4
Photo 3
Photo 5
Google

# ATTACHMENT 2

## AREAS OF DAMAGED COVER SYSTEM TO BE REPAIRED

F:\CAD\Benchmark\Queen City Landing\FER\Figure 7- As-Built Cover System REV w STAMP BOX.dwg

LEGEND:

- BCP SITE BOUNDARY
- PROPERTY LINE BOUNDARY
- SOIL COVER SYSTEM
- EXISTING OR NEW HARDSCAPE
- STONE PARKING COVER SYSTEM
- STONE DRIVE COVER SYSTEM
- SURGE STONE COVER SYSTEM

NOTES:
1. AERIAL IMAGE FROM GOOGLE EARTH PRO 2017.

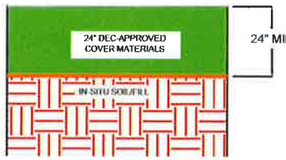
100' 0' 100' 200'

SCALE: 1 INCH = 100 FEET
SCALE IN FEET
(approximate)


## COVER SYSTEM DETAILS

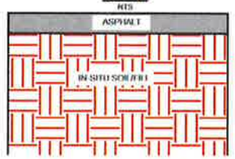
NTS

VEGETATED SOIL COVER SYSTEM DETAIL
NTS

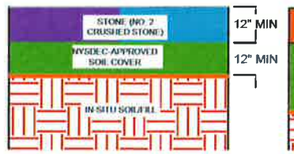



TIE-IN DETAIL
NTS

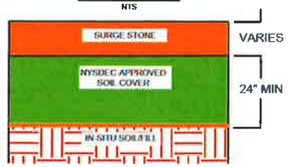

EXISTING ASPHALT DRIVE COVER SYSTEM DETAIL
NTS




STONE COVER AND PARKING SYSTEM DETAIL
NTS



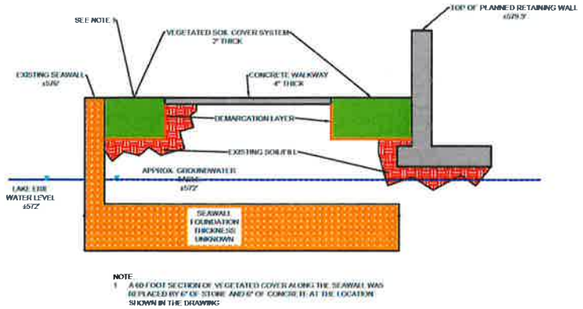

SURGE STONE COVER SYSTEM DETAIL
NTS




DEMARCATION LAYER

## DETAIL A-A'

NTS




NOTE
1. A 60 FOOT SECTION OF VEGETATED COVER ALONG THE SEAWALL WAS REPLACED BY 6" OF STONE AND 6" OF CONCRETE AT THE LOCATION SHOWN IN THE DRAWING



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


JOB NO.: 0424-017-001

# AS-BUILT COVER SYSTEM

FINAL ENGINEERING REPORT
QUEEN CITY LANDING SITE
BCP SITE NO. C915304
BUFFALO, NEW YORK
PREPARED FOR
QUEEN CITY LANDING, LLC

**FIGURE 7**

DATE: OCTOBER 2018
DRAFTED BY: RCL

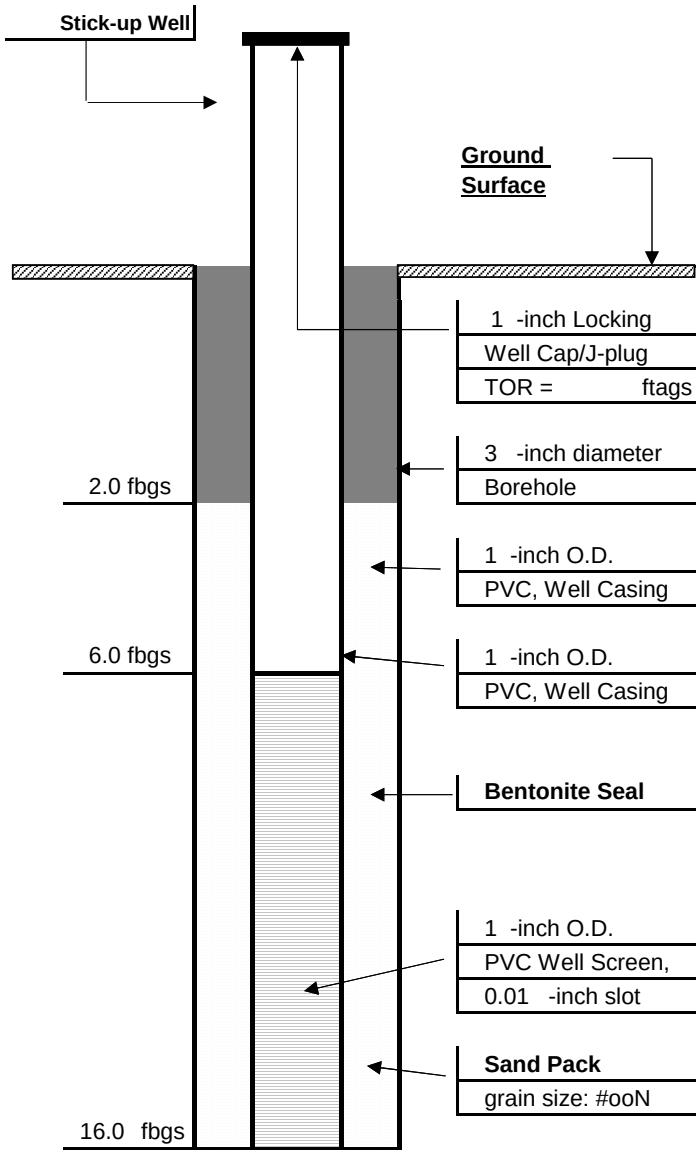
# APPENDIX D

## GROUNDWATER WELL INSTALLATION & SAMPLING INFORMATION

BENCHMARK ENVIRONMENTAL ENGINEERING & SCIENCE, PLLC

# STICK-UP MONITORING WELL COMPLETION DETAIL

| | | | |
|---|---|---|---|
| Project Name: | **Monitoring Well Replacement** | WELL NUMBER: | **MW-1R** |
| Client: | **Queen City Landing** | Date Installed: | **03/21/20** |
| Location: | **Buffalo NY** | Project Number: | **B0424-020-002-002** |




## Driller Information

| | |
|---|---|
| Company: | Trec Environmental |
| Driller: | Jim A. |
| Helper: | NA |
| Drill Rig Type: | Geoprobe 54LT |

## Well Information

| | | |
|---|---|---|
| Land Surface Elevation: | | fmsl (approximate) |
| Drilling Method: | Direct Push | |
| Soil Sample Collection Method: | NA | |
| Drilling Fluid: | NA | |
| Fluid Loss During Drilling: | NA | gallons (approximate) |

## Material of Well Construction

| | |
|---|---|
| Casing: | PVC |
| Screen: | PVC |
| Sump: | none |
| Sand Pack: | #oon |
| Annular Seal: | medium bentonite chips |

Comments: saturated thickness: SWL - stickup = -1.40 fbgs

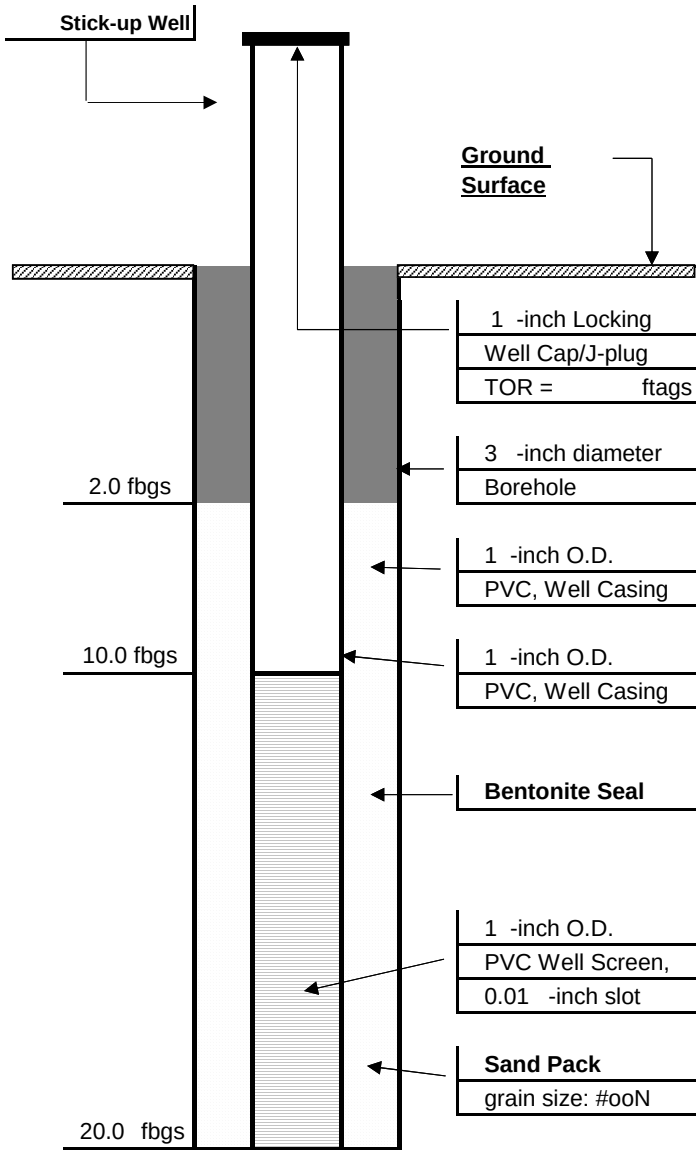
| | | | | | |
|---|---|---|---|---|---|
| Total Depth = | 17.03 | fbTOR | Total Depth - SWL = | 17.03 | feet |
| stick-up = | 1.4 | feet | | | |
| Total Depth = | 15.63 | fbgs | | | |

PREPARED BY: TAB DATE: 04/29/30

BENCHMARK ENVIRONMENTAL ENGINEERING & SCIENCE, PLLC

# STICK-UP MONITORING WELL COMPLETION DETAIL

| | | | |
|---|---|---|---|
| Project Name: | **Monitoring Well Replacement** | WELL NUMBER: | **MW-7R** |
| Client: | **Queen City Landing** | Date Installed: | **03/21/20** |
| Location: | **Buffalo NY** | Project Number: | **B0424-020-002-002** |




## Driller Information

| | |
|---|---|
| Company: | Trec Environmental |
| Driller: | Jim A. |
| Helper: | NA |
| Drill Rig Type: | Geoprobe 54LT |

## Well Information

| | | |
|---|---|---|
| Land Surface Elevation: | | fmsl (approximate) |
| Drilling Method: | Direct Push | |
| Soil Sample Collection Method: | NA | |
| Drilling Fluid: | NA | |
| Fluid Loss During Drilling: | NA | gallons (approximate) |

## Material of Well Construction

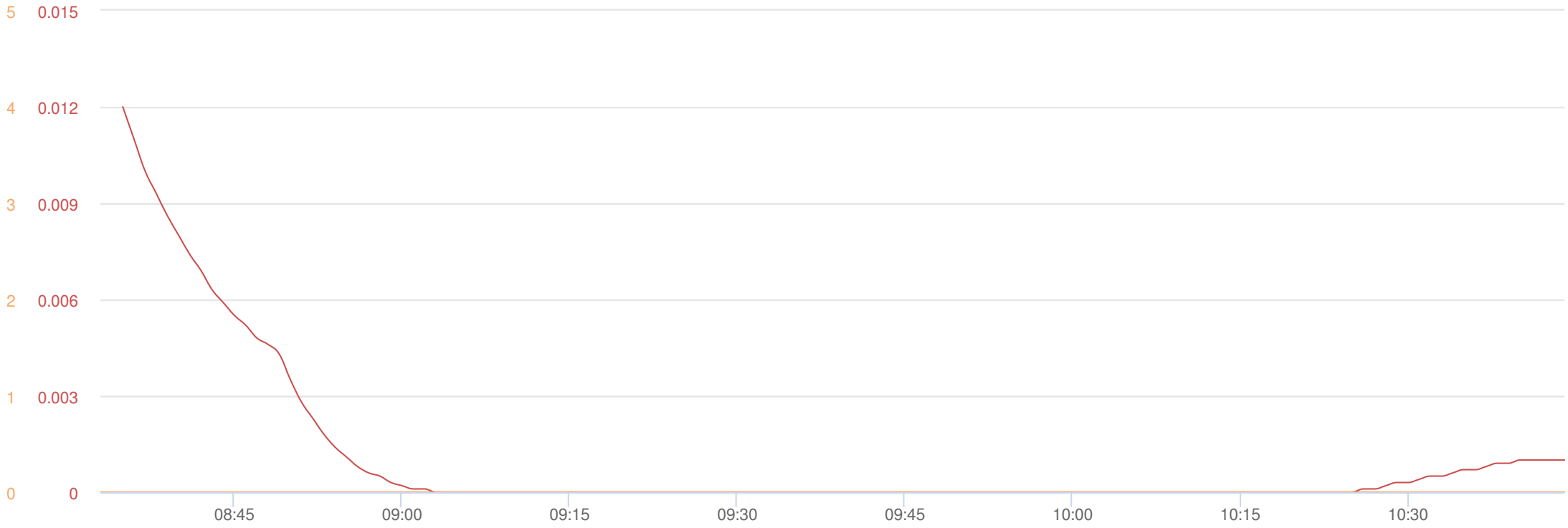
| | |
|---|---|
| Casing: | PVC |
| Screen: | PVC |
| Sump: | none |
| Sand Pack: | #oon |
| Annular Seal: | medium bentonite chips |

Comments: saturated thickness: SWL - stickup = -1.80 fbgs

| | | | | | |
|---|---|---|---|---|---|
| Total Depth = | 21.88 | fbTOR | Total Depth - SWL = | 21.88 | feet |
| stick-up = | 1.8 | feet | | | |
| Total Depth = | 20.08 | fbgs | | | |

PREPARED BY: TAB DATE: 04/29/30

Tue, 31st of Mar 2020, 8:00:00 – 15:00:00
(GMT-05:00) Eastern Time (US & Canada)




**Mass Conc. Total (AVG 15m)** mg/m³
DustTrak-8530
RS232(C)

| MIN | AVG | MAX |
|---|---|---|
| 0 | 0.001 | 0.012 |

**VOC (TWA) (AVG 15m)** ppm
miniRAE 3000
RS232(A)

| MIN | AVG | MAX |
|---|---|---|
| 0 | 0 | 0 |

| | |
|---|---|
| **Name** | CAMP Station #4 |
| **S/N** | 0B052904 |
| **Description** | CAMP Station #4 |
| **Location** | Hamburg Tpk & Dona Street, Lackawanna, NY 14218, USA |

BENCHMARK ENVIRONMENTAL ENGINEERING & SCIENCE, PLLC

# EQUIPMENT CALIBRATION LOG

**PROJECT INFORMATION:**

Project Name: Queen City Landing

Project No.: B0424-020-002

Client: Queencity Landing

Date: 4/1/20

Instrument Source: ☐ BM ☐ Rental

| METER TYPE | UNITS | TIME | MAKE/MODEL | SERIAL NUMBER | CAL. BY | STANDARD | POST CAL. READING | SETTINGS |
|---|---|---|---|---|---|---|---|---|
| ☒ pH meter | units | 815 | Myron L Company Ultra Meter 6P | 6213516 ☐<br>6243084 ☐<br>6212375 ☒<br>6243003 ☐<br>6223973 ☐ | DAB | 4.00 | 3.96 | 4.0 |
| | | | | | | 7.00 | 7.07 | 7.0 |
| | | | | | | 10.01 | 10.07 | 10.0 |
| ☒ Turbidity meter | NTU | 815 | Hach 2100P or 2100Q Turbidimeter | 06120C020523 (P) ☐<br>13120C030432 (Q) ☒<br>17110C062619 (Q) ☐ | DAB | 10 NTU verification | 10.1 | 10.0 |
| | | | | | | < 0.4 | | |
| | | | | | | 20 | | |
| | | | | | | 100 | | |
| | | | | | | 800 | | |
| ☒ Sp. Cond. meter | uS<br>mS | 815 | Myron L Company Ultra Meter 6P | 6213516 ☐<br>6243084 ☐<br>6212375 ☒<br>6243003 ☐<br>6223973 ☐ | DAB | 7.000 mS @ 25 °C | 7.996 | 7.000 |
| ☐ PID | ppm | | MinRAE 2000 | | | open air zero | | MIBK response factor = 1.0 |
| | | | | | | ____ ppm Iso. Gas | | |
| ☐ Dissolved Oxygen | ppm | | HACH Model HQ30d | 080700023281 ☐<br>100500041867 ☐<br>140200100319 ☐ | | 100% Satuartion | | |
| ☐ Particulate meter | mg/m$^3$ | | | | | zero air | | |
| ☐ Radiation Meter | uR/H | | | | | background area | | |

**ADDITIONAL REMARKS:**

**PREPARED BY:** DAB **DATE:** 4/1/20

BENCHMARK ENVIRONMENTAL ENGINEERING & SCIENCE, PLLC

# GROUNDWATER FIELD FORM

Project Name: Queencity Inn  Date: 4/1/20

Location: Buffalo  Project No.: B0424-020-00  Field Team:

| Well No. MW-1R | | | Diameter (inches): 1" | | | Sample Date / Time: — | | | |
|---|---|---|---|---|---|---|---|---|---|
| Product Depth (fbTOR): — | | | Water Column (ft): 9.62 | | | DTW when sampled: — | | | |
| DTW (static) (fbTOR): 7.34 | | | One Well Volume (gal): 0.39 | | | Purpose: ☒ Development ☐ Sample ☐ Purge & Sample | | | |
| Total Depth (fbTOR): 16.96 | | | Total Volume Purged (gal): 3.5 | | | 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 |
| 912 | 0 Initial | 20.25 | 7.04 | 9.7 | 1316 | <1000 | — | -10 | Sl. No odor |
| 918 | 1 7.40 | 0.5 | 7.44 | 7.5 | 1303 | " | — | 17 | " |
| 924 | 2 7.38 | 1.0 | 7.31 | 7.7 | 1467 | " | — | 84 | " |
| 930 | 3 7.33 | 1.5 | 7.22 | 7.9 | 1396 | " | — | 31 | " |
| 937 | 4 7.38 | 2.0 | 7.25 | 7.1 | 1435 | " | — | 46 | " |
| 944 | 5 7.38 | 2.5 | 7.28 | 7.3 | 1427 | " | — | 51 | " |
| 954 | 6 7.38 | 3.0 | 7.24 | 8.1 | 1440 | " | — | 58 | " |
| 1000 | 7 7.38 | 3.5 | 7.23 | 7.9 | 1386 | " | — | 55 | " |
| | 8 | | | | | | | | |
| | 9 | | | | | | | | |
| | 10 | | | | | | | | |
| **Sample Information:** | | | | | | | | | |
| | S1 | | | | | | | | |
| | S2 | | | | | | | | |

| Well No. MW-7R | | | Diameter (inches): 1" | | | Sample Date / Time: | | | |
|---|---|---|---|---|---|---|---|---|---|
| Product Depth (fbTOR): — | | | Water Column (ft): 13.01 | | | DTW when sampled: | | | |
| DTW (static) (fbTOR): 8.87 | | | One Well Volume (gal): .53 | | | Purpose: ☐ Development ☐ Sample ☐ Purge & Sample | | | |
| Total Depth (fbTOR): 21.88 | | | Total Volume Purged (gal): 5.0 | | | Purge Method: | | | |
| Time | Water Level (fbTOR) | Acc. Volume (gallons) | pH (units) | Temp. (deg. C) | SC (uS) | Turbidity (NTU) | DO (mg/L) | ORP (mV) | Appearance & Odor |
| 1013 | 0 Initial | 20.25 | 8.52 | 8.9 | 728.3 | <1000 | — | 5 | Sl. No odor |
| 1020 | 1 8.88 | 0.5 | 8.80 | 9.6 | 714.0 | " | — | -48 | " |
| 1026 | 2 8.88 | 1.0 | 8.82 | 9.7 | 727.1 | " | — | -74 | " |
| 1032 | 3 8.88 | 1.5 | 8.77 | 9.4 | 723.0 | " | — | -80 | " |
| 1037 | 4 8.88 | 2.0 | 8.74 | 9.8 | 741.7 | " | — | -96 | " |
| 1044 | 5 8.88 | 2.5 | 8.74 | 10.0 | 724.2 | " | — | -90 | " |
| 1051 | 6 8.88 | 3.0 | 8.74 | 10.1 | 720.6 | " | — | -105 | " |
| 1057 | 7 8.88 | 3.5 | 8.77 | 9.6 | 727.0 | " | — | -78 | " |
| 1102 | 8 8.88 | 4.0 | 8.79 | 9.5 | 726.0 | " | — | -100 | " |
| 1106 | 9 8.88 | 4.5 | 8.79 | 9.0 | 734.7 | " | — | -83 | " |
| 1111 | 10 8.88 | 5.0 | 8.79 | 9.5 | 732.2 | " | — | -108 | " |
| **Sample Information:** | | | | | | | | | |
| | S1 | | | | | | | | |
| | S2 | | | | | | | | |

**REMARKS:**

*Note: All water level 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:** TAB

BENCHMARK ENVIRONMENTAL ENGINEERING & SCIENCE, PLLC

# EQUIPMENT CALIBRATION LOG

**PROJECT INFORMATION:**

Project Name: Queen city landing

Project No.: B0424-020-002

Client: Queen city landing

Date: 4/3/20

Instrument Source: ☐ BM ☐ Rental

| METER TYPE | UNITS | TIME | MAKE/MODEL | SERIAL NUMBER | CAL. BY | STANDARD | POST CAL. READING | SETTINGS |
|---|---|---|---|---|---|---|---|---|
| ☑ pH meter | units | 815 | Myron L Company Ultra Meter 6P | 6213516 ☐<br>6243084 ☐<br>6212375 ☑<br>6243003 ☐<br>6223973 ☐ | TAB | 4.00 | 3.97 | 4.0 |
| | | | | | | 7.00 | 7.01 | 7.0 |
| | | | | | | 10.01 | 9.97 | 10.0 |
| ☑ Turbidity meter | NTU | 815 | Hach 2100P or 2100Q Turbidimeter | 06120C020523 (P) ☐<br>13120C030432 (Q) ☑<br>17110C062619 (Q) ☐ | TAB | 10 NTU verification | 10.4 | 10.0 |
| | | | | | | < 0.4 | | |
| | | | | | | 20 | | |
| | | | | | | 100 | | |
| | | | | | | 800 | | |
| ☑ Sp. Cond. meter | uS<br>mS | | Myron L Company Ultra Meter 6P | 6213516 ☐<br>6243084 ☐<br>6212375 ☑<br>6243003 ☐<br>6223973 ☐ | TAB | 7.00 mS @ 25 °C | 7.00 | 7.00 |
| ☐ PID | ppm | | MinRAE 2000 | | | open air zero | | MIBK response factor = 1.0 |
| | | | | | | ____ ppm Iso. Gas | | |
| ☑ Dissolved Oxygen | ppm | 815 | HACH Model HQ30d | 080700023281 ☐<br>100500041867 ☐<br>140200100319 ☑ | TAB | 100% Satuartion | 112.6 | 100% sat |
| ☐ Particulate meter | mg/m$^3$ | | | | | zero air | | |
| ☐ Radiation Meter | uR/H | | | | | background area | | |

**ADDITIONAL REMARKS:**

**PREPARED BY:** TAB **DATE:** 4/3/20

BENCHMARK ENVIRONMENTAL ENGINEERING & SCIENCE, PLLC

# GROUNDWATER FIELD FORM

Project Name: Queensbury Turbine  Date: 4/3/20

Location: Buffalo  Project No.: 30424-020-002  Field Team: TAB

| Well No. MW-7R | Diameter (inches): 1" | Sample Date / Time: 4/3/20 |
|---|---|---|
| Product Depth (fbTOR): | Water Column (ft): 12.79 | DTW when sampled: |
| DTW (static) (fbTOR): 8.96 | One Well Volume (gal): 0.52 | Purpose: ☐ Development ☐ Sample ☒ Purge & Sample |
| Total Depth (fbTOR): 21.68 | Total Volume Purged (gal): | Purge Method: Low Flow / peristaltic |

| Time | | Water Level (fbTOR) | Acc. Volume (gallons) | pH (units) | Temp. (deg. C) | SC (uS) | Turbidity (NTU) | DO (mg/L) | ORP (mV) | Appearance & Odor |
|---|---|---|---|---|---|---|---|---|---|---|
| 1114 | 0 | Initial | 0.25 | 8.93 | 9.4 | 659.9 | >1000 | 2.44 | -76 | Turb. No odor |
| 1117 | 1 | – | 0.50 | 9.02 | 9.5 | 655.7 | 186 | 2.15 | -84 | " |
| 1120 | 2 | – | 0.75 | 8.90 | 9.7 | 682.6 | 228 | 3.22 | -97 | " |
| 1125 | 3 | – | 1.0 | 8.83 | 9.8 | 686.9 | 151 | 2.29 | -114 | " |
| 1129 | 4 | – | 1.25 | 8.80 | 9.7 | 689.9 | 80.0 | 2.10 | -117 | " |
| 1133 | 5 | – | 1.50 | 8.79 | 9.8 | 691.3 | 64.3 | 2.33 | -132 | SL " |
| | 6 | | | | | | | | | |
| | 7 | | | | | | | | | |
| | 8 | | | | | | | | | |
| | 9 | | | | | | | | | |
| | 10 | | | | | | | | | |
| **Sample Information:** | | | | | | | | | | |
| 1136 | S1 | – | 1.75 | 8.78 | 9.5 | 695.2 | 35.1 | 2.24 | -132 | clear " |
| 1147 | S2 | – | 2.0 | 8.71 | 9.5 | 700.1 | 22.3 | | -115 | " |

| Well No. MW-6 | Diameter (inches): 2" | Sample Date / Time: 4/3/20 |
|---|---|---|
| Product Depth (fbTOR): – | Water Column (ft): 12.88 | DTW when sampled: |
| DTW (static) (fbTOR): 7.40 | One Well Volume (gal): 2.09 | Purpose: ☐ Development ☐ Sample ☒ Purge & Sample |
| Total Depth (fbTOR): 20.28 | Total Volume Purged (gal): | Purge Method: Low Flow Peristaltic |

| Time | | Water Level (fbTOR) | Acc. Volume (gallons) | pH (units) | Temp. (deg. C) | SC (uS) | Turbidity (NTU) | DO (mg/L) | ORP (mV) | Appearance & Odor |
|---|---|---|---|---|---|---|---|---|---|---|
| 1228 | 0 | Initial | 0.25 | 8.19 | 10.0 | 1283 | 140 | 2.79 | 3 | Turb: 1 No odor |
| 1231 | 1 | 6.41 | 0.50 | 8.14 | 9.7 | 1191 | 145 | 2.40 | -47 | " |
| 1234 | 2 | 6.41 | 1.0 | 8.10 | 9.4 | 1182 | 129 | 2.43 | -62 | " |
| 1237 | 3 | 6.41 | 1.5 | 8.11 | 9.8 | 1178 | 46.7 | 3.19 | -57 | SL Turb " |
| | 4 | | | | | | | | | |
| | 5 | | | | | | | | | |
| | 6 | | | | | | | | | |
| | 7 | | | | | | | | | |
| | 8 | | | | | | | | | |
| | 9 | | | | | | | | | |
| | 10 | | | | | | | | | |
| **Sample Information:** | | | | | | | | | | |
| 1241 | S1 | 6.41 | 2.0 | 8.12 | 9.1 | 1134 | 31.7 | 2.30 | -55 | " |
| 1251 | S2 | 6.41 | 2.25 | 8.13 | 9.0 | 1133 | 27.1 | 2.69 | -45 | " |

**REMARKS:**

*Note: All water level 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:** TAB

BENCHMARK ENVIRONMENTAL ENGINEERING & SCIENCE, PLLC

# GROUNDWATER FIELD FORM

Project Name: Queenan Landfill  Date: 4/3/20

Location: Buffalo NY  Project No.: B0424-020-002  Field Team: TAB

| | | | |
|---|---|---|---|
| **Well No.** MW-4 | Diameter (inches): 2" | Sample Date / Time: 4/3/20 | 920 |
| Product Depth (fbTOR): – | Water Column (ft): 9.88 | DTW when sampled: | 1047 |
| DTW (static) (fbTOR): 10.40 | One Well Volume (gal): 1.61 | Purpose: ☐ Development ☐ Sample ☑ Purge & Sample | |
| Total Depth (fbTOR): 20.28 | Total Volume Purged (gal): 2.0 | Purge Method: Low Flow Peristaltic | |

| Time | | Water Level (fbTOR) | Acc. Volume (gallons) | pH (units) | Temp. (deg. C) | SC (uS) | Turbidity (NTU) | DO (mg/L) | ORP (mV) | Appearance & Odor |
|---|---|---|---|---|---|---|---|---|---|---|
| 903 | 0 | Initial | <0.25 | 8.40 | 7.6 | 555.0 | 255 | 3.91 | 96 | Turbid No odor |
| 905 | 1 | 10.47 | 0.25 | 7.89 | 7.9 | 539.9 | 134 | 3.14 | 98 | " |
| 909 | 2 | 10.47 | 0.50 | 7.74 | 7.7 | 543.3 | 63.0 | 2.05 | 99 | " |
| 913 | 3 | 10.42 | 1.0 | 7.74 | 7.4 | 542.9 | 48.2 | 3.01 | 102 | " |
| 916 | 4 | 1047 | 1.5 | 7.73 | 7.7 | 565.2 | 38.9 | 3.05 | 106 | " |
| | 5 | | | | | | | | | |
| | 6 | | | | | | | | | |
| | 7 | | | | | | | | | |
| | 8 | | | | | | | | | |
| | 9 | | | | | | | | | |
| | 10 | | | | | | | | | |
| **Sample Information:** | | | | | | | | | | |
| 920 | S1 | 1047 | 2.0 | 7.65 | 7.4 | 576.1 | 27.7 | 2.83 | 106 | " |
| 954 | S2 | 1047 | 3.0 | 7.76 | 8.2 | 607.9 | 10.6 | 2.75 | 117 | " |

| | | | |
|---|---|---|---|
| **Well No.** MW-1R | Diameter (inches): 2" | Sample Date / Time: 4/3/20 | 920 |
| Product Depth (fbTOR): – | Water Column (ft): 8.79 | DTW when sampled: | – |
| DTW (static) (fbTOR): 7.41 | One Well Volume (gal): 6.36 | Purpose: ☐ Development ☐ Sample ☑ Purge & Sample | |
| Total Depth (fbTOR): 16.20 | Total Volume Purged (gal): 1.25 | Purge Method: Low Flow Peristaltic | |

| Time | | Water Level (fbTOR) | Acc. Volume (gallons) | pH (units) | Temp. (deg. C) | SC (uS) | Turbidity (NTU) | DO (mg/L) | ORP (mV) | Appearance & Odor |
|---|---|---|---|---|---|---|---|---|---|---|
| 1019 | 0 | Initial | <0.25 | 7.64 | 8.5 | 1321 | >1000 | 0.64 | -119 | Brown Sl Turbid No Odor |
| 1021 | 1 | – | 0.50 | 7.46 | 8.4 | 1404 | 391 | 2.06 | -65 | " |
| 1024 | 2 | – | 0.75 | 7.31 | 8.2 | 1398 | 114 | 3.07 | -53 | Sl Turbid No odor |
| 1027 | 3 | – | 1.0 | 7.30 | 8.0 | 1407 | 47.4 | 2.49 | -51 | Clear No odor |
| | 4 | | | | | | | | | |
| | 5 | | | | | | | | | |
| | 6 | | | | | | | | | |
| | 7 | | | | | | | | | |
| | 8 | | | | | | | | | |
| | 9 | | | | | | | | | |
| | 10 | | | | | | | | | |
| **Sample Information:** | | | | | | | | | | |
| 1031 | S1 | – | 1.25 | 7.29 | 8.1 | 1412 | 30.2 | 2.63 | -49 | " |
| 1042 | S2 | – | 1.50 | 7.29 | 8.1 | 1415 | 14.3 | 2.54 | -47 | " |

**REMARKS:** MS/MSD + BD @ MW-4

*Note: All water level 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:** TAB

# ANALYTICAL REPORT

| | |
|---|---|
| Lab Number: | L2014566 |
| Client: | Benchmark & Turnkey Companies<br>2558 Hamburg Turnpike<br>Suite 300<br>Buffalo, NY 14218 |
| ATTN: | Chris Boron |
| Phone: | (716) 856-0599 |
| Project Name: | QUEEN CITY LANDING |
| Project Number: | B0424-020-002-002 |
| Report Date: | 04/10/20 |



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:** QUEEN CITY LANDING
**Project Number:** B0424-020-002-002

**Lab Number:** L2014566
**Report Date:** 04/10/20

| Alpha Sample ID | Client ID | Matrix | Sample Location | Collection Date/Time | Receive Date |
|---|---|---|---|---|---|
| L2014566-01 | MW-1R | WATER | BUFFALO, NY | 04/03/20 10:31 | 04/03/20 |
| L2014566-02 | MW-4 | WATER | BUFFALO, NY | 04/03/20 09:20 | 04/03/20 |
| L2014566-03 | BLIND DUP | WATER | BUFFALO, NY | 04/03/20 07:00 | 04/03/20 |
| L2014566-04 | MW-6 | WATER | BUFFALO, NY | 04/03/20 12:41 | 04/03/20 |
| L2014566-05 | MW-7R | WATER | BUFFALO, NY | 04/03/20 11:36 | 04/03/20 |
| L2014566-06 | TRIP BLANK | WATER | BUFFALO, NY | 04/03/20 00:00 | 04/03/20 |

| | | | |
|---|---|---|---|
| **Project Name:** | QUEEN CITY LANDING | **Lab Number:** | L2014566 |
| **Project Number:** | B0424-020-002-002 | **Report Date:** | 04/10/20 |

## Case Narrative

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

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

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

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

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

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

| | | | |
|---|---|---|---|
| **Project Name:** | QUEEN CITY LANDING | **Lab Number:** | L2014566 |
| **Project Number:** | B0424-020-002-002 | **Report Date:** | 04/10/20 |

**Case Narrative (continued)**

Report Submission

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

Sample Receipt

L2014566-06: The analyses performed were specified by the client.

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

Authorized Signature: Melissa Sturgis Melissa Sturgis

Title: Technical Director/Representative Date: 04/10/20

# ORGANICS

# VOLATILES

**Project Name:** QUEEN CITY LANDING
**Project Number:** B0424-020-002-002
**Lab Number:** L2014566
**Report Date:** 04/10/20

## SAMPLE RESULTS

Lab ID: L2014566-01
Client ID: MW-1R
Sample Location: BUFFALO, NY

Date Collected: 04/03/20 10:31
Date Received: 04/03/20
Field Prep: Not Specified

Sample Depth:
Matrix: Water
Analytical Method: 1,8260C
Analytical Date: 04/08/20 17:15
Analyst: AJK

| 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 | 0.74 | | ug/l | 0.50 | 0.16 | 1 |
| Toluene | ND | | ug/l | 2.5 | 0.70 | 1 |
| Ethylbenzene | ND | | ug/l | 2.5 | 0.70 | 1 |
| Chloromethane | ND | | ug/l | 2.5 | 0.70 | 1 |
| Bromomethane | ND | | ug/l | 2.5 | 0.70 | 1 |
| Vinyl chloride | ND | | ug/l | 1.0 | 0.07 | 1 |
| Chloroethane | ND | | ug/l | 2.5 | 0.70 | 1 |
| 1,1-Dichloroethene | ND | | ug/l | 0.50 | 0.17 | 1 |
| trans-1,2-Dichloroethene | ND | | ug/l | 2.5 | 0.70 | 1 |
| Trichloroethene | ND | | ug/l | 0.50 | 0.18 | 1 |
| 1,2-Dichlorobenzene | ND | | ug/l | 2.5 | 0.70 | 1 |

**Project Name:** QUEEN CITY LANDING
**Project Number:** B0424-020-002-002
**Lab Number:** L2014566
**Report Date:** 04/10/20

## SAMPLE RESULTS

Lab ID: L2014566-01
Client ID: MW-1R
Sample Location: BUFFALO, NY
Date Collected: 04/03/20 10:31
Date Received: 04/03/20
Field Prep: Not Specified

Sample Depth:

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor |
|---|---|---|---|---|---|---|
| **Volatile Organics by GC/MS - Westborough Lab** | | | | | | |
| 1,3-Dichlorobenzene | ND | | ug/l | 2.5 | 0.70 | 1 |
| 1,4-Dichlorobenzene | ND | | ug/l | 2.5 | 0.70 | 1 |
| Methyl tert butyl ether | ND | | ug/l | 2.5 | 0.70 | 1 |
| p/m-Xylene | ND | | ug/l | 2.5 | 0.70 | 1 |
| o-Xylene | ND | | ug/l | 2.5 | 0.70 | 1 |
| cis-1,2-Dichloroethene | ND | | ug/l | 2.5 | 0.70 | 1 |
| Styrene | ND | | ug/l | 2.5 | 0.70 | 1 |
| Dichlorodifluoromethane | ND | | ug/l | 5.0 | 1.0 | 1 |
| Acetone | 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 |
| n-Butylbenzene | ND | | ug/l | 2.5 | 0.70 | 1 |
| sec-Butylbenzene | ND | | ug/l | 2.5 | 0.70 | 1 |
| 1,2-Dibromo-3-chloropropane | ND | | ug/l | 2.5 | 0.70 | 1 |
| Isopropylbenzene | ND | | ug/l | 2.5 | 0.70 | 1 |
| p-Isopropyltoluene | ND | | ug/l | 2.5 | 0.70 | 1 |
| n-Propylbenzene | ND | | ug/l | 2.5 | 0.70 | 1 |
| 1,2,3-Trichlorobenzene | ND | | ug/l | 2.5 | 0.70 | 1 |
| 1,2,4-Trichlorobenzene | ND | | ug/l | 2.5 | 0.70 | 1 |
| 1,3,5-Trimethylbenzene | ND | | ug/l | 2.5 | 0.70 | 1 |
| 1,2,4-Trimethylbenzene | ND | | ug/l | 2.5 | 0.70 | 1 |
| Methyl Acetate | ND | | ug/l | 2.0 | 0.23 | 1 |
| Cyclohexane | ND | | ug/l | 10 | 0.27 | 1 |
| 1,4-Dioxane | ND | | ug/l | 250 | 61. | 1 |
| Freon-113 | ND | | ug/l | 2.5 | 0.70 | 1 |
| Methyl cyclohexane | ND | | ug/l | 10 | 0.40 | 1 |

| Surrogate | % Recovery | Qualifier | Acceptance Criteria |
|---|---|---|---|
| 1,2-Dichloroethane-d4 | 103 | | 70-130 |
| Toluene-d8 | 101 | | 70-130 |
| 4-Bromofluorobenzene | 104 | | 70-130 |
| Dibromofluoromethane | 102 | | 70-130 |

**Project Name:** QUEEN CITY LANDING
**Project Number:** B0424-020-002-002
**Lab Number:** L2014566
**Report Date:** 04/10/20

**SAMPLE RESULTS**

Lab ID: L2014566-02
Client ID: MW-4
Sample Location: BUFFALO, NY

Date Collected: 04/03/20 09:20
Date Received: 04/03/20
Field Prep: Not Specified

Sample Depth:
Matrix: Water
Analytical Method: 1,8260C
Analytical Date: 04/08/20 17:41
Analyst: AJK

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

**Project Name:** QUEEN CITY LANDING **Lab Number:** L2014566

**Project Number:** B0424-020-002-002 **Report Date:** 04/10/20

## SAMPLE RESULTS

Lab ID: L2014566-02 Date Collected: 04/03/20 09:20

Client ID: MW-4 Date Received: 04/03/20

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 | ND | | ug/l | 2.5 | 0.70 | 1 |
| o-Xylene | ND | | ug/l | 2.5 | 0.70 | 1 |
| cis-1,2-Dichloroethene | ND | | ug/l | 2.5 | 0.70 | 1 |
| Styrene | ND | | ug/l | 2.5 | 0.70 | 1 |
| Dichlorodifluoromethane | ND | | ug/l | 5.0 | 1.0 | 1 |
| Acetone | 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 |
| n-Butylbenzene | ND | | ug/l | 2.5 | 0.70 | 1 |
| sec-Butylbenzene | ND | | ug/l | 2.5 | 0.70 | 1 |
| 1,2-Dibromo-3-chloropropane | ND | | ug/l | 2.5 | 0.70 | 1 |
| Isopropylbenzene | ND | | ug/l | 2.5 | 0.70 | 1 |
| p-Isopropyltoluene | ND | | ug/l | 2.5 | 0.70 | 1 |
| n-Propylbenzene | ND | | ug/l | 2.5 | 0.70 | 1 |
| 1,2,3-Trichlorobenzene | ND | | ug/l | 2.5 | 0.70 | 1 |
| 1,2,4-Trichlorobenzene | ND | | ug/l | 2.5 | 0.70 | 1 |
| 1,3,5-Trimethylbenzene | ND | | ug/l | 2.5 | 0.70 | 1 |
| 1,2,4-Trimethylbenzene | ND | | ug/l | 2.5 | 0.70 | 1 |
| Methyl Acetate | ND | | ug/l | 2.0 | 0.23 | 1 |
| Cyclohexane | ND | | ug/l | 10 | 0.27 | 1 |
| 1,4-Dioxane | ND | | ug/l | 250 | 61. | 1 |
| Freon-113 | ND | | ug/l | 2.5 | 0.70 | 1 |
| Methyl cyclohexane | ND | | ug/l | 10 | 0.40 | 1 |

| Surrogate | % Recovery | Qualifier | Acceptance Criteria |
|---|---|---|---|
| 1,2-Dichloroethane-d4 | 101 | | 70-130 |
| Toluene-d8 | 99 | | 70-130 |
| 4-Bromofluorobenzene | 102 | | 70-130 |
| Dibromofluoromethane | 99 | | 70-130 |

**Project Name:** QUEEN CITY LANDING
**Lab Number:** L2014566
**Project Number:** B0424-020-002-002
**Report Date:** 04/10/20

**SAMPLE RESULTS**

Lab ID: L2014566-03
Client ID: BLIND DUP
Sample Location: BUFFALO, NY

Date Collected: 04/03/20 07:00
Date Received: 04/03/20
Field Prep: Not Specified

Sample Depth:
Matrix: Water
Analytical Method: 1,8260C
Analytical Date: 04/08/20 18:06
Analyst: AJK

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

**Project Name:** QUEEN CITY LANDING **Lab Number:** L2014566

**Project Number:** B0424-020-002-002 **Report Date:** 04/10/20

## SAMPLE RESULTS

Lab ID: L2014566-03 Date Collected: 04/03/20 07:00

Client ID: BLIND DUP Date Received: 04/03/20

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 | ND | | ug/l | 2.5 | 0.70 | 1 |
| o-Xylene | ND | | ug/l | 2.5 | 0.70 | 1 |
| cis-1,2-Dichloroethene | ND | | ug/l | 2.5 | 0.70 | 1 |
| Styrene | ND | | ug/l | 2.5 | 0.70 | 1 |
| Dichlorodifluoromethane | ND | | ug/l | 5.0 | 1.0 | 1 |
| Acetone | 1.6 | J | 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 |
| n-Butylbenzene | ND | | ug/l | 2.5 | 0.70 | 1 |
| sec-Butylbenzene | ND | | ug/l | 2.5 | 0.70 | 1 |
| 1,2-Dibromo-3-chloropropane | ND | | ug/l | 2.5 | 0.70 | 1 |
| Isopropylbenzene | ND | | ug/l | 2.5 | 0.70 | 1 |
| p-Isopropyltoluene | ND | | ug/l | 2.5 | 0.70 | 1 |
| n-Propylbenzene | ND | | ug/l | 2.5 | 0.70 | 1 |
| 1,2,3-Trichlorobenzene | ND | | ug/l | 2.5 | 0.70 | 1 |
| 1,2,4-Trichlorobenzene | ND | | ug/l | 2.5 | 0.70 | 1 |
| 1,3,5-Trimethylbenzene | ND | | ug/l | 2.5 | 0.70 | 1 |
| 1,2,4-Trimethylbenzene | ND | | ug/l | 2.5 | 0.70 | 1 |
| Methyl Acetate | ND | | ug/l | 2.0 | 0.23 | 1 |
| Cyclohexane | ND | | ug/l | 10 | 0.27 | 1 |
| 1,4-Dioxane | ND | | ug/l | 250 | 61. | 1 |
| Freon-113 | ND | | ug/l | 2.5 | 0.70 | 1 |
| Methyl cyclohexane | ND | | ug/l | 10 | 0.40 | 1 |

| Surrogate | % Recovery | Qualifier | Acceptance Criteria |
|---|---|---|---|
| 1,2-Dichloroethane-d4 | 101 | | 70-130 |
| Toluene-d8 | 99 | | 70-130 |
| 4-Bromofluorobenzene | 100 | | 70-130 |
| Dibromofluoromethane | 99 | | 70-130 |

**Project Name:** QUEEN CITY LANDING
**Project Number:** B0424-020-002-002
**Lab Number:** L2014566
**Report Date:** 04/10/20

## SAMPLE RESULTS

Lab ID: L2014566-04
Client ID: MW-6
Sample Location: BUFFALO, NY

Date Collected: 04/03/20 12:41
Date Received: 04/03/20
Field Prep: Not Specified

Sample Depth:
Matrix: Water
Analytical Method: 1,8260C
Analytical Date: 04/08/20 18:31
Analyst: AJK

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

**Project Name:** QUEEN CITY LANDING **Lab Number:** L2014566

**Project Number:** B0424-020-002-002 **Report Date:** 04/10/20

## SAMPLE RESULTS

Lab ID: L2014566-04 Date Collected: 04/03/20 12:41

Client ID: MW-6 Date Received: 04/03/20

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 | ND | | ug/l | 2.5 | 0.70 | 1 |
| o-Xylene | ND | | ug/l | 2.5 | 0.70 | 1 |
| cis-1,2-Dichloroethene | ND | | ug/l | 2.5 | 0.70 | 1 |
| Styrene | ND | | ug/l | 2.5 | 0.70 | 1 |
| Dichlorodifluoromethane | ND | | ug/l | 5.0 | 1.0 | 1 |
| Acetone | 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 |
| n-Butylbenzene | ND | | ug/l | 2.5 | 0.70 | 1 |
| sec-Butylbenzene | ND | | ug/l | 2.5 | 0.70 | 1 |
| 1,2-Dibromo-3-chloropropane | ND | | ug/l | 2.5 | 0.70 | 1 |
| Isopropylbenzene | ND | | ug/l | 2.5 | 0.70 | 1 |
| p-Isopropyltoluene | ND | | ug/l | 2.5 | 0.70 | 1 |
| n-Propylbenzene | ND | | ug/l | 2.5 | 0.70 | 1 |
| 1,2,3-Trichlorobenzene | ND | | ug/l | 2.5 | 0.70 | 1 |
| 1,2,4-Trichlorobenzene | ND | | ug/l | 2.5 | 0.70 | 1 |
| 1,3,5-Trimethylbenzene | ND | | ug/l | 2.5 | 0.70 | 1 |
| 1,2,4-Trimethylbenzene | ND | | ug/l | 2.5 | 0.70 | 1 |
| Methyl Acetate | ND | | ug/l | 2.0 | 0.23 | 1 |
| Cyclohexane | ND | | ug/l | 10 | 0.27 | 1 |
| 1,4-Dioxane | ND | | ug/l | 250 | 61. | 1 |
| Freon-113 | ND | | ug/l | 2.5 | 0.70 | 1 |
| Methyl cyclohexane | ND | | ug/l | 10 | 0.40 | 1 |

| Surrogate | % Recovery | Qualifier | Acceptance Criteria |
|---|---|---|---|
| 1,2-Dichloroethane-d4 | 103 | | 70-130 |
| Toluene-d8 | 101 | | 70-130 |
| 4-Bromofluorobenzene | 101 | | 70-130 |
| Dibromofluoromethane | 102 | | 70-130 |

**Project Name:** QUEEN CITY LANDING
**Project Number:** B0424-020-002-002
**Lab Number:** L2014566
**Report Date:** 04/10/20

## SAMPLE RESULTS

Lab ID: L2014566-05
Client ID: MW-7R
Sample Location: BUFFALO, NY

Date Collected: 04/03/20 11:36
Date Received: 04/03/20
Field Prep: Not Specified

Sample Depth:
Matrix: Water
Analytical Method: 1,8260C
Analytical Date: 04/08/20 19:23
Analyst: AJK

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

**Project Name:** QUEEN CITY LANDING **Lab Number:** L2014566

**Project Number:** B0424-020-002-002 **Report Date:** 04/10/20

## SAMPLE RESULTS

Lab ID: L2014566-05 Date Collected: 04/03/20 11:36

Client ID: MW-7R Date Received: 04/03/20

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 | 3.1 | | ug/l | 2.5 | 0.70 | 1 |
| p/m-Xylene | ND | | ug/l | 2.5 | 0.70 | 1 |
| o-Xylene | ND | | ug/l | 2.5 | 0.70 | 1 |
| cis-1,2-Dichloroethene | ND | | ug/l | 2.5 | 0.70 | 1 |
| Styrene | ND | | ug/l | 2.5 | 0.70 | 1 |
| Dichlorodifluoromethane | ND | | ug/l | 5.0 | 1.0 | 1 |
| Acetone | 1.5 | J | 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 |
| n-Butylbenzene | ND | | ug/l | 2.5 | 0.70 | 1 |
| sec-Butylbenzene | ND | | ug/l | 2.5 | 0.70 | 1 |
| 1,2-Dibromo-3-chloropropane | ND | | ug/l | 2.5 | 0.70 | 1 |
| Isopropylbenzene | ND | | ug/l | 2.5 | 0.70 | 1 |
| p-Isopropyltoluene | ND | | ug/l | 2.5 | 0.70 | 1 |
| n-Propylbenzene | ND | | ug/l | 2.5 | 0.70 | 1 |
| 1,2,3-Trichlorobenzene | ND | | ug/l | 2.5 | 0.70 | 1 |
| 1,2,4-Trichlorobenzene | ND | | ug/l | 2.5 | 0.70 | 1 |
| 1,3,5-Trimethylbenzene | ND | | ug/l | 2.5 | 0.70 | 1 |
| 1,2,4-Trimethylbenzene | ND | | ug/l | 2.5 | 0.70 | 1 |
| Methyl Acetate | ND | | ug/l | 2.0 | 0.23 | 1 |
| Cyclohexane | ND | | ug/l | 10 | 0.27 | 1 |
| 1,4-Dioxane | ND | | ug/l | 250 | 61. | 1 |
| Freon-113 | ND | | ug/l | 2.5 | 0.70 | 1 |
| Methyl cyclohexane | ND | | ug/l | 10 | 0.40 | 1 |

| Surrogate | % Recovery | Qualifier | Acceptance Criteria |
|---|---|---|---|
| 1,2-Dichloroethane-d4 | 106 | | 70-130 |
| Toluene-d8 | 98 | | 70-130 |
| 4-Bromofluorobenzene | 105 | | 70-130 |
| Dibromofluoromethane | 102 | | 70-130 |

**Project Name:** QUEEN CITY LANDING
**Lab Number:** L2014566
**Project Number:** B0424-020-002-002
**Report Date:** 04/10/20

**SAMPLE RESULTS**

Lab ID: L2014566-06
Client ID: TRIP BLANK
Sample Location: BUFFALO, NY

Date Collected: 04/03/20 00:00
Date Received: 04/03/20
Field Prep: Not Specified

Sample Depth:
Matrix: Water
Analytical Method: 1,8260C
Analytical Date: 04/08/20 18:57
Analyst: AJK

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

**Project Name:** QUEEN CITY LANDING **Lab Number:** L2014566

**Project Number:** B0424-020-002-002 **Report Date:** 04/10/20

## SAMPLE RESULTS

Lab ID: L2014566-06 Date Collected: 04/03/20 00:00

Client ID: TRIP BLANK Date Received: 04/03/20

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 | ND | | ug/l | 2.5 | 0.70 | 1 |
| o-Xylene | ND | | ug/l | 2.5 | 0.70 | 1 |
| cis-1,2-Dichloroethene | ND | | ug/l | 2.5 | 0.70 | 1 |
| Styrene | ND | | ug/l | 2.5 | 0.70 | 1 |
| Dichlorodifluoromethane | ND | | ug/l | 5.0 | 1.0 | 1 |
| Acetone | 1.6 | J | 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 |
| n-Butylbenzene | ND | | ug/l | 2.5 | 0.70 | 1 |
| sec-Butylbenzene | ND | | ug/l | 2.5 | 0.70 | 1 |
| 1,2-Dibromo-3-chloropropane | ND | | ug/l | 2.5 | 0.70 | 1 |
| Isopropylbenzene | ND | | ug/l | 2.5 | 0.70 | 1 |
| p-Isopropyltoluene | ND | | ug/l | 2.5 | 0.70 | 1 |
| n-Propylbenzene | ND | | ug/l | 2.5 | 0.70 | 1 |
| 1,2,3-Trichlorobenzene | ND | | ug/l | 2.5 | 0.70 | 1 |
| 1,2,4-Trichlorobenzene | ND | | ug/l | 2.5 | 0.70 | 1 |
| 1,3,5-Trimethylbenzene | ND | | ug/l | 2.5 | 0.70 | 1 |
| 1,2,4-Trimethylbenzene | ND | | ug/l | 2.5 | 0.70 | 1 |
| Methyl Acetate | ND | | ug/l | 2.0 | 0.23 | 1 |
| Cyclohexane | ND | | ug/l | 10 | 0.27 | 1 |
| 1,4-Dioxane | ND | | ug/l | 250 | 61. | 1 |
| Freon-113 | ND | | ug/l | 2.5 | 0.70 | 1 |
| Methyl cyclohexane | ND | | ug/l | 10 | 0.40 | 1 |

| Surrogate | % Recovery | Qualifier | Acceptance Criteria |
|---|---|---|---|
| 1,2-Dichloroethane-d4 | 102 | | 70-130 |
| Toluene-d8 | 99 | | 70-130 |
| 4-Bromofluorobenzene | 101 | | 70-130 |
| Dibromofluoromethane | 99 | | 70-130 |

**Project Name:** QUEEN CITY LANDING
**Project Number:** B0424-020-002-002
**Lab Number:** L2014566
**Report Date:** 04/10/20

# Method Blank Analysis
## Batch Quality Control

Analytical Method: 1,8260C
Analytical Date: 04/08/20 10:49
Analyst: PD

| Parameter | Result | Qualifier | Units | RL | MDL |
|---|---|---|---|---|---|
| Volatile Organics by GC/MS - Westborough Lab for sample(s): 01-06 Batch: WG1359463-5 | | | | | |
| 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 | 0.72 | J | 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:** QUEEN CITY LANDING **Lab Number:** L2014566

**Project Number:** B0424-020-002-002 **Report Date:** 04/10/20

# Method Blank Analysis
## Batch Quality Control

Analytical Method: 1,8260C
Analytical Date: 04/08/20 10:49
Analyst: PD

| Parameter | Result | Qualifier | Units | RL | MDL |
|---|---|---|---|---|---|
| Volatile Organics by GC/MS - Westborough Lab for sample(s): 01-06 Batch: WG1359463-5 | | | | | |
| 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 |
| n-Butylbenzene | ND | | ug/l | 2.5 | 0.70 |
| sec-Butylbenzene | ND | | ug/l | 2.5 | 0.70 |
| 1,2-Dibromo-3-chloropropane | ND | | ug/l | 2.5 | 0.70 |
| Isopropylbenzene | ND | | ug/l | 2.5 | 0.70 |
| p-Isopropyltoluene | ND | | ug/l | 2.5 | 0.70 |
| n-Propylbenzene | ND | | ug/l | 2.5 | 0.70 |
| 1,2,3-Trichlorobenzene | ND | | ug/l | 2.5 | 0.70 |
| 1,2,4-Trichlorobenzene | ND | | ug/l | 2.5 | 0.70 |
| 1,3,5-Trimethylbenzene | ND | | ug/l | 2.5 | 0.70 |
| 1,2,4-Trimethylbenzene | ND | | ug/l | 2.5 | 0.70 |
| 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:** QUEEN CITY LANDING
**Project Number:** B0424-020-002-002
**Lab Number:** L2014566
**Report Date:** 04/10/20

# Method Blank Analysis
## Batch Quality Control

Analytical Method: 1,8260C
Analytical Date: 04/08/20 10:49
Analyst: PD

| Parameter | Result | Qualifier | Units | RL | MDL |
|---|---|---|---|---|---|
| Volatile Organics by GC/MS - Westborough Lab for sample(s): 01-06 Batch: WG1359463-5 | | | | | |

| Surrogate | %Recovery | Qualifier | Acceptance Criteria |
|---|---|---|---|
| 1,2-Dichloroethane-d4 | 101 | | 70-130 |
| Toluene-d8 | 102 | | 70-130 |
| 4-Bromofluorobenzene | 104 | | 70-130 |
| Dibromofluoromethane | 103 | | 70-130 |

# Lab Control Sample Analysis

## Batch Quality Control

**Project Name:** QUEEN CITY LANDING

**Project Number:** B0424-020-002-002

**Lab Number:** L2014566

**Report Date:** 04/10/20

| Parameter | LCS %Recovery | Qual | LCSD %Recovery | Qual | %Recovery Limits | RPD | Qual | RPD Limits |
|---|---|---|---|---|---|---|---|---|
| Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-06 Batch: WG1359463-3 WG1359463-4 | | | | | | | | |
| Methylene chloride | 93 | | 91 | | 70-130 | 2 | | 20 |
| 1,1-Dichloroethane | 95 | | 96 | | 70-130 | 1 | | 20 |
| Chloroform | 92 | | 93 | | 70-130 | 1 | | 20 |
| Carbon tetrachloride | 87 | | 90 | | 63-132 | 3 | | 20 |
| 1,2-Dichloropropane | 97 | | 95 | | 70-130 | 2 | | 20 |
| Dibromochloromethane | 92 | | 93 | | 63-130 | 1 | | 20 |
| 1,1,2-Trichloroethane | 94 | | 92 | | 70-130 | 2 | | 20 |
| Tetrachloroethene | 88 | | 87 | | 70-130 | 1 | | 20 |
| Chlorobenzene | 95 | | 94 | | 75-130 | 1 | | 20 |
| Trichlorofluoromethane | 83 | | 85 | | 62-150 | 2 | | 20 |
| 1,2-Dichloroethane | 95 | | 94 | | 70-130 | 1 | | 20 |
| 1,1,1-Trichloroethane | 88 | | 88 | | 67-130 | 0 | | 20 |
| Bromodichloromethane | 96 | | 96 | | 67-130 | 0 | | 20 |
| trans-1,3-Dichloropropene | 97 | | 95 | | 70-130 | 2 | | 20 |
| cis-1,3-Dichloropropene | 99 | | 99 | | 70-130 | 0 | | 20 |
| Bromoform | 100 | | 96 | | 54-136 | 4 | | 20 |
| 1,1,2,2-Tetrachloroethane | 95 | | 94 | | 67-130 | 1 | | 20 |
| Benzene | 99 | | 100 | | 70-130 | 1 | | 20 |
| Toluene | 95 | | 91 | | 70-130 | 4 | | 20 |
| Ethylbenzene | 92 | | 91 | | 70-130 | 1 | | 20 |
| Chloromethane | 110 | | 110 | | 64-130 | 0 | | 20 |
| Bromomethane | **170** | Q | **160** | Q | 39-139 | 6 | | 20 |
| Vinyl chloride | 100 | | 96 | | 55-140 | 4 | | 20 |

# Lab Control Sample Analysis

## Batch Quality Control

**Project Name:** QUEEN CITY LANDING

**Project Number:** B0424-020-002-002

**Lab Number:** L2014566

**Report Date:** 04/10/20

| Parameter | LCS %Recovery | Qual | LCSD %Recovery | Qual | %Recovery Limits | RPD | Qual | RPD Limits |
|---|---|---|---|---|---|---|---|---|
| Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-06 Batch: WG1359463-3 WG1359463-4 | | | | | | | | |
| Chloroethane | 94 | | 93 | | 55-138 | 1 | | 20 |
| 1,1-Dichloroethene | 85 | | 84 | | 61-145 | 1 | | 20 |
| trans-1,2-Dichloroethene | 94 | | 89 | | 70-130 | 5 | | 20 |
| Trichloroethene | 99 | | 95 | | 70-130 | 4 | | 20 |
| 1,2-Dichlorobenzene | 96 | | 96 | | 70-130 | 0 | | 20 |
| 1,3-Dichlorobenzene | 97 | | 95 | | 70-130 | 2 | | 20 |
| 1,4-Dichlorobenzene | 96 | | 95 | | 70-130 | 1 | | 20 |
| Methyl tert butyl ether | 94 | | 95 | | 63-130 | 1 | | 20 |
| p/m-Xylene | 90 | | 90 | | 70-130 | 0 | | 20 |
| o-Xylene | 95 | | 95 | | 70-130 | 0 | | 20 |
| cis-1,2-Dichloroethene | 99 | | 93 | | 70-130 | 6 | | 20 |
| Styrene | 95 | | 95 | | 70-130 | 0 | | 20 |
| Dichlorodifluoromethane | 90 | | 91 | | 36-147 | 1 | | 20 |
| Acetone | 100 | | 90 | | 58-148 | 11 | | 20 |
| Carbon disulfide | 88 | | 87 | | 51-130 | 1 | | 20 |
| 2-Butanone | 97 | | 95 | | 63-138 | 2 | | 20 |
| 4-Methyl-2-pentanone | 94 | | 88 | | 59-130 | 7 | | 20 |
| 2-Hexanone | 92 | | 88 | | 57-130 | 4 | | 20 |
| Bromochloromethane | 97 | | 96 | | 70-130 | 1 | | 20 |
| 1,2-Dibromoethane | 91 | | 91 | | 70-130 | 0 | | 20 |
| n-Butylbenzene | 89 | | 91 | | 53-136 | 2 | | 20 |
| sec-Butylbenzene | 91 | | 91 | | 70-130 | 0 | | 20 |
| 1,2-Dibromo-3-chloropropane | 82 | | 89 | | 41-144 | 8 | | 20 |

# Lab Control Sample Analysis

## Batch Quality Control

**Project Name:** QUEEN CITY LANDING

**Project Number:** B0424-020-002-002

**Lab Number:** L2014566

**Report Date:** 04/10/20

| Parameter | LCS %Recovery | Qual | LCSD %Recovery | Qual | %Recovery Limits | RPD | Qual | RPD Limits |
|---|---|---|---|---|---|---|---|---|
| Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-06 Batch: WG1359463-3 WG1359463-4 | | | | | | | | |
| Isopropylbenzene | 93 | | 95 | | 70-130 | 2 | | 20 |
| p-Isopropyltoluene | 92 | | 94 | | 70-130 | 2 | | 20 |
| n-Propylbenzene | 93 | | 92 | | 69-130 | 1 | | 20 |
| 1,2,3-Trichlorobenzene | 83 | | 91 | | 70-130 | 9 | | 20 |
| 1,2,4-Trichlorobenzene | 89 | | 92 | | 70-130 | 3 | | 20 |
| 1,3,5-Trimethylbenzene | 96 | | 94 | | 64-130 | 2 | | 20 |
| 1,2,4-Trimethylbenzene | 94 | | 96 | | 70-130 | 2 | | 20 |
| Methyl Acetate | 96 | | 89 | | 70-130 | 8 | | 20 |
| Cyclohexane | 80 | | 78 | | 70-130 | 3 | | 20 |
| 1,4-Dioxane | 102 | | 100 | | 56-162 | 2 | | 20 |
| Freon-113 | 78 | | 81 | | 70-130 | 4 | | 20 |
| Methyl cyclohexane | 80 | | 82 | | 70-130 | 2 | | 20 |

| Surrogate | LCS %Recovery | Qual | LCSD %Recovery | Qual | Acceptance Criteria |
|---|---|---|---|---|---|
| 1,2-Dichloroethane-d4 | 97 | | 107 | | 70-130 |
| Toluene-d8 | 99 | | 101 | | 70-130 |
| 4-Bromofluorobenzene | 102 | | 104 | | 70-130 |
| Dibromofluoromethane | 101 | | 101 | | 70-130 |

# Matrix Spike Analysis

## *Batch Quality Control*

**Project Name:** QUEEN CITY LANDING

**Project Number:** B0424-020-002-002

**Lab Number:** L2014566

**Report Date:** 04/10/20

| Parameter | Native Sample | MS Added | MS Found | MS %Recovery | Qual | MSD Found | MSD %Recovery | Qual | Recovery Limits | RPD | Qual | RPD Limits |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-06 QC Batch ID: WG1359463-6 WG1359463-7 QC Sample: L2014566-02 Client ID: MW-4 | | | | | | | | | | | | |
| Methylene chloride | ND | 10 | 10 | 100 | | 10 | 100 | | 70-130 | 0 | | 20 |
| 1,1-Dichloroethane | ND | 10 | 11 | 110 | | 11 | 110 | | 70-130 | 0 | | 20 |
| Chloroform | ND | 10 | 10 | 100 | | 10 | 100 | | 70-130 | 0 | | 20 |
| Carbon tetrachloride | ND | 10 | 12 | 120 | | 11 | 110 | | 63-132 | 9 | | 20 |
| 1,2-Dichloropropane | ND | 10 | 10 | 100 | | 10 | 100 | | 70-130 | 0 | | 20 |
| Dibromochloromethane | ND | 10 | 9.8 | 98 | | 10 | 100 | | 63-130 | 2 | | 20 |
| 1,1,2-Trichloroethane | ND | 10 | 9.8 | 98 | | 10 | 100 | | 70-130 | 2 | | 20 |
| Tetrachloroethene | ND | 10 | 10 | 100 | | 9.8 | 98 | | 70-130 | 2 | | 20 |
| Chlorobenzene | ND | 10 | 10 | 100 | | 10 | 100 | | 75-130 | 0 | | 20 |
| Trichlorofluoromethane | ND | 10 | 11 | 110 | | 11 | 110 | | 62-150 | 0 | | 20 |
| 1,2-Dichloroethane | ND | 10 | 10 | 100 | | 11 | 110 | | 70-130 | 10 | | 20 |
| 1,1,1-Trichloroethane | ND | 10 | 11 | 110 | | 11 | 110 | | 67-130 | 0 | | 20 |
| Bromodichloromethane | ND | 10 | 10 | 100 | | 11 | 110 | | 67-130 | 10 | | 20 |
| trans-1,3-Dichloropropene | ND | 10 | 9.6 | 96 | | 10 | 100 | | 70-130 | 4 | | 20 |
| cis-1,3-Dichloropropene | ND | 10 | 9.9 | 99 | | 10 | 100 | | 70-130 | 1 | | 20 |
| Bromoform | ND | 10 | 9.4 | 94 | | 9.9 | 99 | | 54-136 | 5 | | 20 |
| 1,1,2,2-Tetrachloroethane | ND | 10 | 9.3 | 93 | | 9.9 | 99 | | 67-130 | 6 | | 20 |
| Benzene | ND | 10 | 11 | 110 | | 11 | 110 | | 70-130 | 0 | | 20 |
| Toluene | ND | 10 | 11 | 110 | | 10 | 100 | | 70-130 | 10 | | 20 |
| Ethylbenzene | ND | 10 | 10 | 100 | | 10 | 100 | | 70-130 | 0 | | 20 |
| Chloromethane | ND | 10 | 12 | 120 | | 12 | 120 | | 64-130 | 0 | | 20 |
| Bromomethane | ND | 10 | 3.4 | **34** | Q | 4.1 | 41 | | 39-139 | 19 | | 20 |
| Vinyl chloride | ND | 10 | 11 | 110 | | 11 | 110 | | 55-140 | 0 | | 20 |

# Matrix Spike Analysis

## *Batch Quality Control*

**Project Name:** QUEEN CITY LANDING

**Project Number:** B0424-020-002-002

**Lab Number:** L2014566

**Report Date:** 04/10/20

| Parameter | Native Sample | MS Added | MS Found | MS %Recovery | Qual | MSD Found | MSD %Recovery | Qual | Recovery Limits | RPD | Qual | RPD Limits |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-06 QC Batch ID: WG1359463-6 WG1359463-7 QC Sample: L2014566-02 Client ID: MW-4 | | | | | | | | | | | | |
| Chloroethane | ND | 10 | 11 | 110 | | 12 | 120 | | 55-138 | 9 | | 20 |
| 1,1-Dichloroethene | ND | 10 | 11 | 110 | | 11 | 110 | | 61-145 | 0 | | 20 |
| trans-1,2-Dichloroethene | ND | 10 | 10 | 100 | | 11 | 110 | | 70-130 | 10 | | 20 |
| Trichloroethene | ND | 10 | 11 | 110 | | 11 | 110 | | 70-130 | 0 | | 20 |
| 1,2-Dichlorobenzene | ND | 10 | 9.9 | 99 | | 9.7 | 97 | | 70-130 | 2 | | 20 |
| 1,3-Dichlorobenzene | ND | 10 | 10 | 100 | | 10 | 100 | | 70-130 | 0 | | 20 |
| 1,4-Dichlorobenzene | ND | 10 | 10 | 100 | | 9.8 | 98 | | 70-130 | 2 | | 20 |
| Methyl tert butyl ether | ND | 10 | 10 | 100 | | 10 | 100 | | 63-130 | 0 | | 20 |
| p/m-Xylene | ND | 20 | 21 | 105 | | 20 | 100 | | 70-130 | 5 | | 20 |
| o-Xylene | ND | 20 | 22 | 110 | | 20 | 100 | | 70-130 | 10 | | 20 |
| cis-1,2-Dichloroethene | ND | 10 | 10 | 100 | | 11 | 110 | | 70-130 | 10 | | 20 |
| Styrene | ND | 20 | 20 | 100 | | 20 | 100 | | 70-130 | 0 | | 20 |
| Dichlorodifluoromethane | ND | 10 | 12 | 120 | | 11 | 110 | | 36-147 | 9 | | 20 |
| Acetone | ND | 10 | 11 | 110 | | 11 | 110 | | 58-148 | 0 | | 20 |
| Carbon disulfide | ND | 10 | 9.9 | 99 | | 10 | 100 | | 51-130 | 1 | | 20 |
| 2-Butanone | ND | 10 | 9.4 | 94 | | 9.8 | 98 | | 63-138 | 4 | | 20 |
| 4-Methyl-2-pentanone | ND | 10 | 9.1 | 91 | | 9.6 | 96 | | 59-130 | 5 | | 20 |
| 2-Hexanone | ND | 10 | 9.5 | 95 | | 10 | 100 | | 57-130 | 5 | | 20 |
| Bromochloromethane | ND | 10 | 10 | 100 | | 11 | 110 | | 70-130 | 10 | | 20 |
| 1,2-Dibromoethane | ND | 10 | 9.6 | 96 | | 9.8 | 98 | | 70-130 | 2 | | 20 |
| n-Butylbenzene | ND | 10 | 10 | 100 | | 9.9 | 99 | | 53-136 | 1 | | 20 |
| sec-Butylbenzene | ND | 10 | 10 | 100 | | 9.7 | 97 | | 70-130 | 3 | | 20 |
| 1,2-Dibromo-3-chloropropane | ND | 10 | 9.1 | 91 | | 8.6 | 86 | | 41-144 | 6 | | 20 |

# Matrix Spike Analysis

## Batch Quality Control

**Project Name:** QUEEN CITY LANDING
**Project Number:** B0424-020-002-002

**Lab Number:** L2014566
**Report Date:** 04/10/20

| Parameter | Native Sample | MS Added | MS Found | MS %Recovery | Qual | MSD Found | MSD %Recovery | Qual | Recovery Limits | RPD | Qual | RPD Limits |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-06 QC Batch ID: WG1359463-6 WG1359463-7 QC Sample: L2014566-02 Client ID: MW-4 | | | | | | | | | | | | |
| Isopropylbenzene | ND | 10 | 10 | 100 | | 10 | 100 | | 70-130 | 0 | | 20 |
| p-Isopropyltoluene | ND | 10 | 10 | 100 | | 10 | 100 | | 70-130 | 0 | | 20 |
| n-Propylbenzene | ND | 10 | 10 | 100 | | 9.8 | 98 | | 69-130 | 2 | | 20 |
| 1,2,3-Trichlorobenzene | ND | 10 | 8.6 | 86 | | 9.5 | 95 | | 70-130 | 10 | | 20 |
| 1,2,4-Trichlorobenzene | ND | 10 | 9.0 | 90 | | 9.7 | 97 | | 70-130 | 7 | | 20 |
| 1,3,5-Trimethylbenzene | ND | 10 | 10 | 100 | | 10 | 100 | | 64-130 | 0 | | 20 |
| 1,2,4-Trimethylbenzene | ND | 10 | 10 | 100 | | 9.9 | 99 | | 70-130 | 1 | | 20 |
| Methyl Acetate | ND | 10 | 8.5 | 85 | | 8.9 | 89 | | 70-130 | 5 | | 20 |
| Cyclohexane | ND | 10 | 10 | 100 | | 9.7J | 97 | | 70-130 | 3 | | 20 |
| 1,4-Dioxane | ND | 500 | 480 | 96 | | 550 | 110 | | 56-162 | 14 | | 20 |
| Freon-113 | ND | 10 | 9.9 | 99 | | 9.6 | 96 | | 70-130 | 3 | | 20 |
| Methyl cyclohexane | ND | 10 | 9.9J | 99 | | 9.6J | 96 | | 70-130 | 3 | | 20 |

| Surrogate | MS % Recovery | MS Qualifier | MSD % Recovery | MSD Qualifier | Acceptance Criteria |
|---|---|---|---|---|---|
| 1,2-Dichloroethane-d4 | 102 | | 114 | | 70-130 |
| 4-Bromofluorobenzene | 101 | | 100 | | 70-130 |
| Dibromofluoromethane | 101 | | 102 | | 70-130 |
| Toluene-d8 | 101 | | 98 | | 70-130 |

# SEMIVOLATILES

**Project Name:** QUEEN CITY LANDING
**Project Number:** B0424-020-002-002
**Lab Number:** L2014566
**Report Date:** 04/10/20

## SAMPLE RESULTS

Lab ID: L2014566-01
Client ID: MW-1R
Sample Location: BUFFALO, NY

Date Collected: 04/03/20 10:31
Date Received: 04/03/20
Field Prep: Not Specified

Sample Depth:
Matrix: Water
Analytical Method: 1,8270D
Analytical Date: 04/09/20 06:39
Analyst: WR

Extraction Method: EPA 3510C
Extraction Date: 04/08/20 08:23

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor |
|---|---|---|---|---|---|---|
| **Semivolatile Organics by GC/MS - Westborough Lab** | | | | | | |
| Dibenzofuran | ND | | ug/l | 2.0 | 0.50 | 1 |
| Phenol | ND | | ug/l | 5.0 | 0.57 | 1 |
| 2-Methylphenol | ND | | ug/l | 5.0 | 0.49 | 1 |
| 3-Methylphenol/4-Methylphenol | ND | | ug/l | 5.0 | 0.48 | 1 |

| Surrogate | % Recovery | Qualifier | Acceptance Criteria |
|---|---|---|---|
| 2-Fluorophenol | 58 | | 21-120 |
| Phenol-d6 | 54 | | 10-120 |
| Nitrobenzene-d5 | 67 | | 23-120 |
| 2-Fluorobiphenyl | 58 | | 15-120 |
| 2,4,6-Tribromophenol | 65 | | 10-120 |
| 4-Terphenyl-d14 | 72 | | 41-149 |

**Project Name:** QUEEN CITY LANDING
**Project Number:** B0424-020-002-002
**Lab Number:** L2014566
**Report Date:** 04/10/20

## SAMPLE RESULTS

Lab ID: L2014566-01
Client ID: MW-1R
Sample Location: BUFFALO, NY

Date Collected: 04/03/20 10:31
Date Received: 04/03/20
Field Prep: Not Specified

Sample Depth:
Matrix: Water
Analytical Method: 1,8270D-SIM
Analytical Date: 04/09/20 16:58
Analyst: DV

Extraction Method: EPA 3510C
Extraction Date: 04/08/20 08:22

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor |
|---|---|---|---|---|---|---|
| **Semivolatile Organics by GC/MS-SIM - Westborough Lab** | | | | | | |
| Acenaphthene | 0.17 | | ug/l | 0.10 | 0.01 | 1 |
| Fluoranthene | 0.82 | | ug/l | 0.10 | 0.02 | 1 |
| Naphthalene | 0.37 | | ug/l | 0.10 | 0.05 | 1 |
| Benzo(a)anthracene | 0.38 | | ug/l | 0.10 | 0.02 | 1 |
| Benzo(a)pyrene | 0.32 | | ug/l | 0.10 | 0.02 | 1 |
| Benzo(b)fluoranthene | 0.44 | | ug/l | 0.10 | 0.01 | 1 |
| Benzo(k)fluoranthene | 0.16 | | ug/l | 0.10 | 0.01 | 1 |
| Chrysene | 0.33 | | ug/l | 0.10 | 0.01 | 1 |
| Acenaphthylene | 0.02 | J | ug/l | 0.10 | 0.01 | 1 |
| Anthracene | 0.17 | | ug/l | 0.10 | 0.01 | 1 |
| Benzo(ghi)perylene | 0.20 | | ug/l | 0.10 | 0.01 | 1 |
| Fluorene | 0.19 | | ug/l | 0.10 | 0.01 | 1 |
| Phenanthrene | 0.88 | | ug/l | 0.10 | 0.02 | 1 |
| Dibenzo(a,h)anthracene | 0.06 | J | ug/l | 0.10 | 0.01 | 1 |
| Indeno(1,2,3-cd)pyrene | 0.23 | | ug/l | 0.10 | 0.01 | 1 |
| Pyrene | 0.66 | | ug/l | 0.10 | 0.02 | 1 |
| Pentachlorophenol | ND | | ug/l | 0.80 | 0.01 | 1 |
| Hexachlorobenzene | ND | | ug/l | 0.80 | 0.01 | 1 |

| Surrogate | % Recovery | Qualifier | Acceptance Criteria |
|---|---|---|---|
| 2-Fluorophenol | 62 | | 21-120 |
| Phenol-d6 | 56 | | 10-120 |
| Nitrobenzene-d5 | 82 | | 23-120 |
| 2-Fluorobiphenyl | 78 | | 15-120 |
| 2,4,6-Tribromophenol | 89 | | 10-120 |
| 4-Terphenyl-d14 | 108 | | 41-149 |

**Project Name:** QUEEN CITY LANDING
**Project Number:** B0424-020-002-002
**Lab Number:** L2014566
**Report Date:** 04/10/20

## SAMPLE RESULTS

Lab ID: L2014566-02
Client ID: MW-4
Sample Location: BUFFALO, NY

Date Collected: 04/03/20 09:20
Date Received: 04/03/20
Field Prep: Not Specified

Sample Depth:
Matrix: Water
Analytical Method: 1,8270D
Analytical Date: 04/09/20 07:03
Analyst: WR

Extraction Method: EPA 3510C
Extraction Date: 04/08/20 08:23

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor |
|---|---|---|---|---|---|---|
| **Semivolatile Organics by GC/MS - Westborough Lab** | | | | | | |
| Dibenzofuran | ND | | ug/l | 2.0 | 0.50 | 1 |
| Phenol | ND | | ug/l | 5.0 | 0.57 | 1 |
| 2-Methylphenol | ND | | ug/l | 5.0 | 0.49 | 1 |
| 3-Methylphenol/4-Methylphenol | ND | | ug/l | 5.0 | 0.48 | 1 |

| Surrogate | % Recovery | Qualifier | Acceptance Criteria |
|---|---|---|---|
| 2-Fluorophenol | 38 | | 21-120 |
| Phenol-d6 | 37 | | 10-120 |
| Nitrobenzene-d5 | 47 | | 23-120 |
| 2-Fluorobiphenyl | 43 | | 15-120 |
| 2,4,6-Tribromophenol | 60 | | 10-120 |
| 4-Terphenyl-d14 | 63 | | 41-149 |

**Project Name:** QUEEN CITY LANDING
**Project Number:** B0424-020-002-002
**Lab Number:** L2014566
**Report Date:** 04/10/20

## SAMPLE RESULTS

Lab ID: L2014566-02
Client ID: MW-4
Sample Location: BUFFALO, NY

Date Collected: 04/03/20 09:20
Date Received: 04/03/20
Field Prep: Not Specified

Sample Depth:
Matrix: Water
Analytical Method: 1,8270D-SIM
Analytical Date: 04/09/20 17:15
Analyst: DV

Extraction Method: EPA 3510C
Extraction Date: 04/08/20 08:22

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor |
|---|---|---|---|---|---|---|
| **Semivolatile Organics by GC/MS-SIM - Westborough Lab** | | | | | | |
| Acenaphthene | ND | | ug/l | 0.10 | 0.01 | 1 |
| Fluoranthene | 0.06 | J | ug/l | 0.10 | 0.02 | 1 |
| Naphthalene | ND | | ug/l | 0.10 | 0.05 | 1 |
| Benzo(a)anthracene | 0.04 | J | ug/l | 0.10 | 0.02 | 1 |
| Benzo(a)pyrene | 0.03 | J | ug/l | 0.10 | 0.02 | 1 |
| Benzo(b)fluoranthene | 0.04 | J | ug/l | 0.10 | 0.01 | 1 |
| Benzo(k)fluoranthene | 0.02 | J | ug/l | 0.10 | 0.01 | 1 |
| Chrysene | 0.03 | J | ug/l | 0.10 | 0.01 | 1 |
| Acenaphthylene | ND | | ug/l | 0.10 | 0.01 | 1 |
| Anthracene | 0.01 | J | ug/l | 0.10 | 0.01 | 1 |
| Benzo(ghi)perylene | 0.02 | J | ug/l | 0.10 | 0.01 | 1 |
| Fluorene | ND | | ug/l | 0.10 | 0.01 | 1 |
| Phenanthrene | 0.05 | J | ug/l | 0.10 | 0.02 | 1 |
| Dibenzo(a,h)anthracene | ND | | ug/l | 0.10 | 0.01 | 1 |
| Indeno(1,2,3-cd)pyrene | 0.02 | J | ug/l | 0.10 | 0.01 | 1 |
| Pyrene | 0.05 | J | ug/l | 0.10 | 0.02 | 1 |
| Pentachlorophenol | ND | | ug/l | 0.80 | 0.01 | 1 |
| Hexachlorobenzene | ND | | ug/l | 0.80 | 0.01 | 1 |

| Surrogate | % Recovery | Qualifier | Acceptance Criteria |
|---|---|---|---|
| 2-Fluorophenol | 42 | | 21-120 |
| Phenol-d6 | 40 | | 10-120 |
| Nitrobenzene-d5 | 54 | | 23-120 |
| 2-Fluorobiphenyl | 55 | | 15-120 |
| 2,4,6-Tribromophenol | 75 | | 10-120 |
| 4-Terphenyl-d14 | 94 | | 41-149 |

**Project Name:** QUEEN CITY LANDING
**Project Number:** B0424-020-002-002
**Lab Number:** L2014566
**Report Date:** 04/10/20

## SAMPLE RESULTS

Lab ID: L2014566-03
Client ID: BLIND DUP
Sample Location: BUFFALO, NY

Date Collected: 04/03/20 07:00
Date Received: 04/03/20
Field Prep: Not Specified

Sample Depth:
Matrix: Water
Analytical Method: 1,8270D
Analytical Date: 04/09/20 07:28
Analyst: WR

Extraction Method: EPA 3510C
Extraction Date: 04/08/20 08:23

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor |
|---|---|---|---|---|---|---|
| **Semivolatile Organics by GC/MS - Westborough Lab** | | | | | | |
| Dibenzofuran | ND | | ug/l | 2.0 | 0.50 | 1 |
| Phenol | ND | | ug/l | 5.0 | 0.57 | 1 |
| 2-Methylphenol | ND | | ug/l | 5.0 | 0.49 | 1 |
| 3-Methylphenol/4-Methylphenol | ND | | ug/l | 5.0 | 0.48 | 1 |

| Surrogate | % Recovery | Qualifier | Acceptance Criteria |
|---|---|---|---|
| 2-Fluorophenol | 54 | | 21-120 |
| Phenol-d6 | 48 | | 10-120 |
| Nitrobenzene-d5 | 59 | | 23-120 |
| 2-Fluorobiphenyl | 54 | | 15-120 |
| 2,4,6-Tribromophenol | 53 | | 10-120 |
| 4-Terphenyl-d14 | 62 | | 41-149 |

**Project Name:** QUEEN CITY LANDING
**Project Number:** B0424-020-002-002
**Lab Number:** L2014566
**Report Date:** 04/10/20

## SAMPLE RESULTS

Lab ID: L2014566-03
Client ID: BLIND DUP
Sample Location: BUFFALO, NY

Date Collected: 04/03/20 07:00
Date Received: 04/03/20
Field Prep: Not Specified

Sample Depth:
Matrix: Water
Analytical Method: 1,8270D-SIM
Analytical Date: 04/09/20 17:32
Analyst: DV

Extraction Method: EPA 3510C
Extraction Date: 04/08/20 08:22

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor |
|---|---|---|---|---|---|---|
| **Semivolatile Organics by GC/MS-SIM - Westborough Lab** | | | | | | |
| Acenaphthene | ND | | ug/l | 0.10 | 0.01 | 1 |
| Fluoranthene | 0.06 | J | ug/l | 0.10 | 0.02 | 1 |
| Naphthalene | ND | | ug/l | 0.10 | 0.05 | 1 |
| Benzo(a)anthracene | 0.04 | J | ug/l | 0.10 | 0.02 | 1 |
| Benzo(a)pyrene | 0.03 | J | ug/l | 0.10 | 0.02 | 1 |
| Benzo(b)fluoranthene | 0.04 | J | ug/l | 0.10 | 0.01 | 1 |
| Benzo(k)fluoranthene | 0.02 | J | ug/l | 0.10 | 0.01 | 1 |
| Chrysene | 0.03 | J | ug/l | 0.10 | 0.01 | 1 |
| Acenaphthylene | ND | | ug/l | 0.10 | 0.01 | 1 |
| Anthracene | 0.01 | J | ug/l | 0.10 | 0.01 | 1 |
| Benzo(ghi)perylene | 0.02 | J | ug/l | 0.10 | 0.01 | 1 |
| Fluorene | ND | | ug/l | 0.10 | 0.01 | 1 |
| Phenanthrene | 0.05 | J | ug/l | 0.10 | 0.02 | 1 |
| Dibenzo(a,h)anthracene | ND | | ug/l | 0.10 | 0.01 | 1 |
| Indeno(1,2,3-cd)pyrene | 0.02 | J | ug/l | 0.10 | 0.01 | 1 |
| Pyrene | 0.05 | J | ug/l | 0.10 | 0.02 | 1 |
| Pentachlorophenol | ND | | ug/l | 0.80 | 0.01 | 1 |
| Hexachlorobenzene | ND | | ug/l | 0.80 | 0.01 | 1 |

| Surrogate | % Recovery | Qualifier | Acceptance Criteria |
|---|---|---|---|
| 2-Fluorophenol | 57 | | 21-120 |
| Phenol-d6 | 52 | | 10-120 |
| Nitrobenzene-d5 | 71 | | 23-120 |
| 2-Fluorobiphenyl | 69 | | 15-120 |
| 2,4,6-Tribromophenol | 73 | | 10-120 |
| 4-Terphenyl-d14 | 99 | | 41-149 |

**Project Name:** QUEEN CITY LANDING
**Project Number:** B0424-020-002-002
**Lab Number:** L2014566
**Report Date:** 04/10/20

## SAMPLE RESULTS

Lab ID: L2014566-04
Client ID: MW-6
Sample Location: BUFFALO, NY

Date Collected: 04/03/20 12:41
Date Received: 04/03/20
Field Prep: Not Specified

Sample Depth:
Matrix: Water
Analytical Method: 1,8270D
Analytical Date: 04/09/20 19:39
Analyst: ALS

Extraction Method: EPA 3510C
Extraction Date: 04/08/20 08:23

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor |
|---|---|---|---|---|---|---|
| **Semivolatile Organics by GC/MS - Westborough Lab** | | | | | | |
| Dibenzofuran | ND | | ug/l | 2.0 | 0.50 | 1 |
| Phenol | ND | | ug/l | 5.0 | 0.57 | 1 |
| 2-Methylphenol | ND | | ug/l | 5.0 | 0.49 | 1 |
| 3-Methylphenol/4-Methylphenol | ND | | ug/l | 5.0 | 0.48 | 1 |

| Surrogate | % Recovery | Qualifier | Acceptance Criteria |
|---|---|---|---|
| 2-Fluorophenol | 58 | | 21-120 |
| Phenol-d6 | 49 | | 10-120 |
| Nitrobenzene-d5 | 70 | | 23-120 |
| 2-Fluorobiphenyl | 65 | | 15-120 |
| 2,4,6-Tribromophenol | 60 | | 10-120 |
| 4-Terphenyl-d14 | 85 | | 41-149 |

**Project Name:** QUEEN CITY LANDING
**Project Number:** B0424-020-002-002
**Lab Number:** L2014566
**Report Date:** 04/10/20

## SAMPLE RESULTS

Lab ID: L2014566-04
Client ID: MW-6
Sample Location: BUFFALO, NY

Date Collected: 04/03/20 12:41
Date Received: 04/03/20
Field Prep: Not Specified

Sample Depth:
Matrix: Water
Analytical Method: 1,8270D-SIM
Analytical Date: 04/09/20 17:49
Analyst: DV

Extraction Method: EPA 3510C
Extraction Date: 04/08/20 08:22

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor |
|---|---|---|---|---|---|---|
| **Semivolatile Organics by GC/MS-SIM - Westborough Lab** | | | | | | |
| Acenaphthene | 0.05 | J | ug/l | 0.10 | 0.01 | 1 |
| Fluoranthene | 0.05 | J | ug/l | 0.10 | 0.02 | 1 |
| Naphthalene | ND | | ug/l | 0.10 | 0.05 | 1 |
| Benzo(a)anthracene | 0.02 | J | ug/l | 0.10 | 0.02 | 1 |
| Benzo(a)pyrene | 0.02 | J | ug/l | 0.10 | 0.02 | 1 |
| Benzo(b)fluoranthene | 0.03 | J | ug/l | 0.10 | 0.01 | 1 |
| Benzo(k)fluoranthene | 0.01 | J | ug/l | 0.10 | 0.01 | 1 |
| Chrysene | 0.02 | J | ug/l | 0.10 | 0.01 | 1 |
| Acenaphthylene | ND | | ug/l | 0.10 | 0.01 | 1 |
| Anthracene | 0.02 | J | ug/l | 0.10 | 0.01 | 1 |
| Benzo(ghi)perylene | ND | | ug/l | 0.10 | 0.01 | 1 |
| Fluorene | ND | | ug/l | 0.10 | 0.01 | 1 |
| Phenanthrene | 0.04 | J | ug/l | 0.10 | 0.02 | 1 |
| Dibenzo(a,h)anthracene | ND | | ug/l | 0.10 | 0.01 | 1 |
| Indeno(1,2,3-cd)pyrene | ND | | ug/l | 0.10 | 0.01 | 1 |
| Pyrene | 0.11 | | ug/l | 0.10 | 0.02 | 1 |
| Pentachlorophenol | ND | | ug/l | 0.80 | 0.01 | 1 |
| Hexachlorobenzene | ND | | ug/l | 0.80 | 0.01 | 1 |

| Surrogate | % Recovery | Qualifier | Acceptance Criteria |
|---|---|---|---|
| 2-Fluorophenol | 61 | | 21-120 |
| Phenol-d6 | 54 | | 10-120 |
| Nitrobenzene-d5 | 74 | | 23-120 |
| 2-Fluorobiphenyl | 72 | | 15-120 |
| 2,4,6-Tribromophenol | 92 | | 10-120 |
| 4-Terphenyl-d14 | 103 | | 41-149 |

**Project Name:** QUEEN CITY LANDING
**Project Number:** B0424-020-002-002
**Lab Number:** L2014566
**Report Date:** 04/10/20

## SAMPLE RESULTS

Lab ID: L2014566-05
Client ID: MW-7R
Sample Location: BUFFALO, NY

Date Collected: 04/03/20 11:36
Date Received: 04/03/20
Field Prep: Not Specified

Sample Depth:
Matrix: Water
Analytical Method: 1,8270D
Analytical Date: 04/09/20 08:16
Analyst: WR

Extraction Method: EPA 3510C
Extraction Date: 04/08/20 08:23

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor |
|---|---|---|---|---|---|---|
| **Semivolatile Organics by GC/MS - Westborough Lab** | | | | | | |
| Dibenzofuran | 2.1 | | ug/l | 2.0 | 0.50 | 1 |
| Phenol | ND | | ug/l | 5.0 | 0.57 | 1 |
| 2-Methylphenol | ND | | ug/l | 5.0 | 0.49 | 1 |
| 3-Methylphenol/4-Methylphenol | ND | | ug/l | 5.0 | 0.48 | 1 |

| Surrogate | % Recovery | Qualifier | Acceptance Criteria |
|---|---|---|---|
| 2-Fluorophenol | 58 | | 21-120 |
| Phenol-d6 | 52 | | 10-120 |
| Nitrobenzene-d5 | 63 | | 23-120 |
| 2-Fluorobiphenyl | 51 | | 15-120 |
| 2,4,6-Tribromophenol | 66 | | 10-120 |
| 4-Terphenyl-d14 | 58 | | 41-149 |

**Project Name:** QUEEN CITY LANDING
**Project Number:** B0424-020-002-002
**Lab Number:** L2014566
**Report Date:** 04/10/20

## SAMPLE RESULTS

Lab ID: L2014566-05
Client ID: MW-7R
Sample Location: BUFFALO, NY

Date Collected: 04/03/20 11:36
Date Received: 04/03/20
Field Prep: Not Specified

Sample Depth:
Matrix: Water
Analytical Method: 1,8270D-SIM
Analytical Date: 04/09/20 18:06
Analyst: DV

Extraction Method: EPA 3510C
Extraction Date: 04/08/20 08:22

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor |
|---|---|---|---|---|---|---|
| **Semivolatile Organics by GC/MS-SIM - Westborough Lab** | | | | | | |
| Acenaphthene | 5.8 | | ug/l | 0.10 | 0.01 | 1 |
| Fluoranthene | 1.1 | | ug/l | 0.10 | 0.02 | 1 |
| Naphthalene | 0.96 | | ug/l | 0.10 | 0.05 | 1 |
| Benzo(a)anthracene | 0.07 | J | ug/l | 0.10 | 0.02 | 1 |
| Benzo(a)pyrene | 0.05 | J | ug/l | 0.10 | 0.02 | 1 |
| Benzo(b)fluoranthene | 0.06 | J | ug/l | 0.10 | 0.01 | 1 |
| Benzo(k)fluoranthene | 0.03 | J | ug/l | 0.10 | 0.01 | 1 |
| Chrysene | 0.06 | J | ug/l | 0.10 | 0.01 | 1 |
| Acenaphthylene | 0.13 | | ug/l | 0.10 | 0.01 | 1 |
| Anthracene | 0.45 | | ug/l | 0.10 | 0.01 | 1 |
| Benzo(ghi)perylene | 0.04 | J | ug/l | 0.10 | 0.01 | 1 |
| Fluorene | 3.5 | | ug/l | 0.10 | 0.01 | 1 |
| Phenanthrene | 1.6 | | ug/l | 0.10 | 0.02 | 1 |
| Dibenzo(a,h)anthracene | 0.02 | J | ug/l | 0.10 | 0.01 | 1 |
| Indeno(1,2,3-cd)pyrene | 0.05 | J | ug/l | 0.10 | 0.01 | 1 |
| Pyrene | 0.69 | | ug/l | 0.10 | 0.02 | 1 |
| Pentachlorophenol | ND | | ug/l | 0.80 | 0.01 | 1 |
| Hexachlorobenzene | ND | | ug/l | 0.80 | 0.01 | 1 |

| Surrogate | % Recovery | Qualifier | Acceptance Criteria |
|---|---|---|---|
| 2-Fluorophenol | 58 | | 21-120 |
| Phenol-d6 | 52 | | 10-120 |
| Nitrobenzene-d5 | 68 | | 23-120 |
| 2-Fluorobiphenyl | 63 | | 15-120 |
| 2,4,6-Tribromophenol | 78 | | 10-120 |
| 4-Terphenyl-d14 | 86 | | 41-149 |

**Project Name:** QUEEN CITY LANDING
**Project Number:** B0424-020-002-002
**Lab Number:** L2014566
**Report Date:** 04/10/20

# Method Blank Analysis
## Batch Quality Control

Analytical Method: 1,8270D
Analytical Date: 04/08/20 06:05
Analyst: ALS

Extraction Method: EPA 3510C
Extraction Date: 04/07/20 15:48

| Parameter | Result | Qualifier | Units | RL | MDL |
|---|---|---|---|---|---|
| Semivolatile Organics by GC/MS - Westborough Lab for sample(s): 01-05 Batch: WG1359056-1 | | | | | |
| Dibenzofuran | ND | | ug/l | 2.0 | 0.50 |
| Phenol | ND | | ug/l | 5.0 | 0.57 |
| 2-Methylphenol | ND | | ug/l | 5.0 | 0.49 |
| 3-Methylphenol/4-Methylphenol | ND | | ug/l | 5.0 | 0.48 |

| Surrogate | %Recovery | Qualifier | Acceptance Criteria |
|---|---|---|---|
| 2-Fluorophenol | 60 | | 21-120 |
| Phenol-d6 | 49 | | 10-120 |
| Nitrobenzene-d5 | 48 | | 23-120 |
| 2-Fluorobiphenyl | 47 | | 15-120 |
| 2,4,6-Tribromophenol | 77 | | 10-120 |
| 4-Terphenyl-d14 | 59 | | 41-149 |

**Project Name:** QUEEN CITY LANDING
**Project Number:** B0424-020-002-002
**Lab Number:** L2014566
**Report Date:** 04/10/20

# Method Blank Analysis
## Batch Quality Control

Analytical Method: 1,8270D-SIM
Analytical Date: 04/08/20 10:31
Analyst: DV

Extraction Method: EPA 3510C
Extraction Date: 04/07/20 15:50

| Parameter | Result | Qualifier | Units | RL | MDL |
|---|---|---|---|---|---|
| Semivolatile Organics by GC/MS-SIM - Westborough Lab for sample(s): 01-05 Batch: WG1359057-1 | | | | | |
| Acenaphthene | ND | | ug/l | 0.10 | 0.01 |
| Fluoranthene | ND | | ug/l | 0.10 | 0.02 |
| Naphthalene | ND | | ug/l | 0.10 | 0.05 |
| Benzo(a)anthracene | ND | | ug/l | 0.10 | 0.02 |
| Benzo(a)pyrene | ND | | ug/l | 0.10 | 0.02 |
| Benzo(b)fluoranthene | ND | | ug/l | 0.10 | 0.01 |
| Benzo(k)fluoranthene | ND | | ug/l | 0.10 | 0.01 |
| Chrysene | ND | | ug/l | 0.10 | 0.01 |
| Acenaphthylene | ND | | ug/l | 0.10 | 0.01 |
| Anthracene | ND | | ug/l | 0.10 | 0.01 |
| Benzo(ghi)perylene | ND | | ug/l | 0.10 | 0.01 |
| Fluorene | ND | | ug/l | 0.10 | 0.01 |
| Phenanthrene | ND | | ug/l | 0.10 | 0.02 |
| Dibenzo(a,h)anthracene | ND | | ug/l | 0.10 | 0.01 |
| Indeno(1,2,3-cd)pyrene | ND | | ug/l | 0.10 | 0.01 |
| Pyrene | ND | | ug/l | 0.10 | 0.02 |
| Pentachlorophenol | ND | | ug/l | 0.80 | 0.01 |
| Hexachlorobenzene | ND | | ug/l | 0.80 | 0.01 |

| Surrogate | %Recovery | Qualifier | Acceptance Criteria |
|---|---|---|---|
| 2-Fluorophenol | 57 | | 21-120 |
| Phenol-d6 | 46 | | 10-120 |
| Nitrobenzene-d5 | 68 | | 23-120 |
| 2-Fluorobiphenyl | 65 | | 15-120 |
| 2,4,6-Tribromophenol | 66 | | 10-120 |
| 4-Terphenyl-d14 | 88 | | 41-149 |

# Lab Control Sample Analysis

## Batch Quality Control

**Project Name:** QUEEN CITY LANDING

**Project Number:** B0424-020-002-002

**Lab Number:** L2014566

**Report Date:** 04/10/20

| Parameter | LCS %Recovery | Qual | LCSD %Recovery | Qual | %Recovery Limits | RPD | Qual | RPD Limits |
|---|---|---|---|---|---|---|---|---|
| Semivolatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-05 Batch: WG1359056-2 WG1359056-3 | | | | | | | | |
| Dibenzofuran | 77 | | 69 | | 40-140 | 11 | | 30 |
| Phenol | 66 | | 58 | | 12-110 | 13 | | 30 |
| 2-Methylphenol | 71 | | 64 | | 30-130 | 10 | | 30 |
| 3-Methylphenol/4-Methylphenol | 74 | | 64 | | 30-130 | 14 | | 30 |

| Surrogate | LCS %Recovery | Qual | LCSD %Recovery | Qual | Acceptance Criteria |
|---|---|---|---|---|---|
| 2-Fluorophenol | 68 | | 61 | | 21-120 |
| Phenol-d6 | 65 | | 56 | | 10-120 |
| Nitrobenzene-d5 | 54 | | 47 | | 23-120 |
| 2-Fluorobiphenyl | 52 | | 48 | | 15-120 |
| 2,4,6-Tribromophenol | 92 | | 81 | | 10-120 |
| 4-Terphenyl-d14 | 59 | | 54 | | 41-149 |

# Lab Control Sample Analysis

## Batch Quality Control

**Project Name:** QUEEN CITY LANDING

**Project Number:** B0424-020-002-002

**Lab Number:** L2014566

**Report Date:** 04/10/20

| Parameter | LCS %Recovery | Qual | LCSD %Recovery | Qual | %Recovery Limits | RPD | Qual | RPD Limits |
|---|---|---|---|---|---|---|---|---|
| Semivolatile Organics by GC/MS-SIM - Westborough Lab Associated sample(s): 01-05 Batch: WG1359057-2 WG1359057-3 | | | | | | | | |
| Acenaphthene | 78 | | 64 | | 40-140 | 20 | | 40 |
| Fluoranthene | 82 | | 63 | | 40-140 | 26 | | 40 |
| Naphthalene | 72 | | 61 | | 40-140 | 17 | | 40 |
| Benzo(a)anthracene | 80 | | 65 | | 40-140 | 21 | | 40 |
| Benzo(a)pyrene | 83 | | 68 | | 40-140 | 20 | | 40 |
| Benzo(b)fluoranthene | 84 | | 67 | | 40-140 | 23 | | 40 |
| Benzo(k)fluoranthene | 79 | | 66 | | 40-140 | 18 | | 40 |
| Chrysene | 78 | | 63 | | 40-140 | 21 | | 40 |
| Acenaphthylene | 72 | | 56 | | 40-140 | 25 | | 40 |
| Anthracene | 80 | | 63 | | 40-140 | 24 | | 40 |
| Benzo(ghi)perylene | 85 | | 67 | | 40-140 | 24 | | 40 |
| Fluorene | 79 | | 61 | | 40-140 | 26 | | 40 |
| Phenanthrene | 82 | | 66 | | 40-140 | 22 | | 40 |
| Dibenzo(a,h)anthracene | 87 | | 70 | | 40-140 | 22 | | 40 |
| Indeno(1,2,3-cd)pyrene | 91 | | 73 | | 40-140 | 22 | | 40 |
| Pyrene | 81 | | 63 | | 40-140 | 25 | | 40 |
| Pentachlorophenol | 67 | | 47 | | 40-140 | 35 | | 40 |
| Hexachlorobenzene | 78 | | 64 | | 40-140 | 20 | | 40 |

# Lab Control Sample Analysis

## Batch Quality Control

**Project Name:** QUEEN CITY LANDING

**Project Number:** B0424-020-002-002

**Lab Number:** L2014566

**Report Date:** 04/10/20

| Parameter | LCS %Recovery | Qual | LCSD %Recovery | Qual | %Recovery Limits | RPD | Qual | RPD Limits |
|---|---|---|---|---|---|---|---|---|

Semivolatile Organics by GC/MS-SIM - Westborough Lab Associated sample(s): 01-05 Batch: WG1359057-2 WG1359057-3

| Surrogate | LCS %Recovery | Qual | LCSD %Recovery | Qual | Acceptance Criteria |
|---|---|---|---|---|---|
| 2-Fluorophenol | 63 | | 54 | | 21-120 |
| Phenol-d6 | 55 | | 50 | | 10-120 |
| Nitrobenzene-d5 | 78 | | 66 | | 23-120 |
| 2-Fluorobiphenyl | 73 | | 57 | | 15-120 |
| 2,4,6-Tribromophenol | 78 | | 51 | | 10-120 |
| 4-Terphenyl-d14 | 97 | | 73 | | 41-149 |

# Matrix Spike Analysis

***Batch Quality Control***

***Project Name:*** QUEEN CITY LANDING

***Project Number:*** B0424-020-002-002

***Lab Number:*** L2014566

***Report Date:*** 04/10/20

| Parameter | Native Sample | MS Added | MS Found | MS %Recovery | Qual | MSD Found | MSD %Recovery | Qual | Recovery Limits | RPD | Qual | RPD Limits |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Semivolatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-05 QC Batch ID: WG1359056-4 WG1359056-5 QC Sample: L2014566-02 Client ID: MW-4 | | | | | | | | | | | | |
| Dibenzofuran | ND | 18.2 | 11 | 61 | | 13 | 72 | | 40-140 | 17 | | 30 |
| Phenol | ND | 18.2 | 11 | 61 | | 11 | 61 | | 12-110 | 0 | | 30 |
| 2-Methylphenol | ND | 18.2 | 13 | 72 | | 12 | 66 | | 30-130 | 8 | | 30 |
| 3-Methylphenol/4-Methylphenol | ND | 18.2 | 13 | 72 | | 13 | 72 | | 30-130 | 0 | | 30 |

| Surrogate | MS % Recovery | MS Qualifier | MSD % Recovery | MSD Qualifier | Acceptance Criteria |
|---|---|---|---|---|---|
| 2,4,6-Tribromophenol | 66 | | 74 | | 10-120 |
| 2-Fluorobiphenyl | 49 | | 55 | | 15-120 |
| 2-Fluorophenol | 60 | | 61 | | 21-120 |
| 4-Terphenyl-d14 | 50 | | 56 | | 41-149 |
| Nitrobenzene-d5 | 63 | | 62 | | 23-120 |
| Phenol-d6 | 58 | | 60 | | 10-120 |

# Matrix Spike Analysis

## Batch Quality Control

**Project Name:** QUEEN CITY LANDING
**Project Number:** B0424-020-002-002
**Lab Number:** L2014566
**Report Date:** 04/10/20

| Parameter | Native Sample | MS Added | MS Found | MS %Recovery | Qual | MSD Found | MSD %Recovery | Qual | Recovery Limits | RPD | Qual | RPD Limits |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Semivolatile Organics by GC/MS-SIM - Westborough Lab Associated sample(s): 01-05 QC Batch ID: WG1359057-4 WG1359057-5 QC Sample: L2014566-02 Client ID: MW-4 | | | | | | | | | | | | |
| Acenaphthene | ND | 18.2 | 15 | 83 | | 14 | 77 | | 40-140 | 7 | | 40 |
| Fluoranthene | 0.06J | 18.2 | 15 | 83 | | 14 | 77 | | 40-140 | 7 | | 40 |
| Naphthalene | ND | 18.2 | 13 | 72 | | 13 | 72 | | 40-140 | 0 | | 40 |
| Benzo(a)anthracene | 0.04J | 18.2 | 16 | 88 | | 15 | 83 | | 40-140 | 6 | | 40 |
| Benzo(a)pyrene | 0.03J | 18.2 | 17 | 94 | | 16 | 88 | | 40-140 | 6 | | 40 |
| Benzo(b)fluoranthene | 0.04J | 18.2 | 16 | 88 | | 15 | 83 | | 40-140 | 6 | | 40 |
| Benzo(k)fluoranthene | 0.02J | 18.2 | 15 | 83 | | 14 | 77 | | 40-140 | 7 | | 40 |
| Chrysene | 0.03J | 18.2 | 14 | 77 | | 14 | 77 | | 40-140 | 0 | | 40 |
| Acenaphthylene | ND | 18.2 | 14 | 77 | | 14 | 77 | | 40-140 | 0 | | 40 |
| Anthracene | 0.01J | 18.2 | 15 | 83 | | 14 | 77 | | 40-140 | 7 | | 40 |
| Benzo(ghi)perylene | 0.02J | 18.2 | 17 | 94 | | 16 | 88 | | 40-140 | 6 | | 40 |
| Fluorene | ND | 18.2 | 15 | 83 | | 14 | 77 | | 40-140 | 7 | | 40 |
| Phenanthrene | 0.05J | 18.2 | 15 | 83 | | 14 | 77 | | 40-140 | 7 | | 40 |
| Dibenzo(a,h)anthracene | ND | 18.2 | 18 | 99 | | 16 | 88 | | 40-140 | 12 | | 40 |
| Indeno(1,2,3-cd)pyrene | 0.02J | 18.2 | 19 | 100 | | 18 | 99 | | 40-140 | 5 | | 40 |
| Pyrene | 0.05J | 18.2 | 15 | 83 | | 14 | 77 | | 40-140 | 7 | | 40 |
| Pentachlorophenol | ND | 18.2 | 14 | 77 | | 14 | 77 | | 40-140 | 0 | | 40 |
| Hexachlorobenzene | ND | 18.2 | 15 | 83 | | 14 | 77 | | 40-140 | 7 | | 40 |

| Surrogate | MS % Recovery | MS Qualifier | MSD % Recovery | MSD Qualifier | Acceptance Criteria |
|---|---|---|---|---|---|
| 2,4,6-Tribromophenol | 89 | | 85 | | 10-120 |
| 2-Fluorobiphenyl | 70 | | 70 | | 15-120 |

# Matrix Spike Analysis

***Batch Quality Control***

***Project Name:*** QUEEN CITY LANDING

***Project Number:*** B0424-020-002-002

***Lab Number:*** L2014566

***Report Date:*** 04/10/20

| *Parameter* | *Native Sample* | *MS Added* | *MS Found* | *MS %Recovery* | *Qual* | *MSD Found* | *MSD %Recovery* | *Qual* | *Recovery Limits* | *RPD* | *Qual* | *RPD Limits* |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Semivolatile Organics by GC/MS-SIM - Westborough Lab Associated sample(s): 01-05 QC Batch ID: WG1359057-4 WG1359057-5 QC Sample: L2014566-02 Client ID: MW-4 | | | | | | | | | | | | |

| *Surrogate* | *MS % Recovery* | *MS Qualifier* | *MSD % Recovery* | *MSD Qualifier* | *Acceptance Criteria* |
|---|---|---|---|---|---|
| 2-Fluorophenol | 68 | | 70 | | 21-120 |
| 4-Terphenyl-d14 | 88 | | 82 | | 41-149 |
| Nitrobenzene-d5 | 80 | | 83 | | 23-120 |
| Phenol-d6 | 64 | | 65 | | 10-120 |

# METALS

**Project Name:** QUEEN CITY LANDING
**Lab Number:** L2014566
**Project Number:** B0424-020-002-002
**Report Date:** 04/10/20

## SAMPLE RESULTS

Lab ID: L2014566-01
Client ID: MW-1R
Sample Location: BUFFALO, NY
Date Collected: 04/03/20 10:31
Date Received: 04/03/20
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 | 0.00192 | | mg/l | 0.00050 | 0.00016 | 1 | 04/06/20 19:25 | 04/07/20 14:27 | EPA 3005A | 1,6020B | AM |
| Barium, Total | 0.1726 | | mg/l | 0.00050 | 0.00017 | 1 | 04/06/20 19:25 | 04/07/20 14:27 | EPA 3005A | 1,6020B | AM |
| Beryllium, Total | ND | | mg/l | 0.00050 | 0.00010 | 1 | 04/06/20 19:25 | 04/07/20 14:27 | EPA 3005A | 1,6020B | AM |
| Cadmium, Total | 0.00007 | J | mg/l | 0.00020 | 0.00005 | 1 | 04/06/20 19:25 | 04/07/20 14:27 | EPA 3005A | 1,6020B | AM |
| Chromium, Total | 0.00083 | J | mg/l | 0.00100 | 0.00017 | 1 | 04/06/20 19:25 | 04/07/20 14:27 | EPA 3005A | 1,6020B | AM |
| Copper, Total | 0.00455 | | mg/l | 0.00100 | 0.00038 | 1 | 04/06/20 19:25 | 04/07/20 14:27 | EPA 3005A | 1,6020B | AM |
| Lead, Total | 0.01598 | | mg/l | 0.00100 | 0.00034 | 1 | 04/06/20 19:25 | 04/07/20 14:27 | EPA 3005A | 1,6020B | AM |
| Manganese, Total | 0.6391 | | mg/l | 0.00100 | 0.00044 | 1 | 04/06/20 19:25 | 04/07/20 14:27 | EPA 3005A | 1,6020B | AM |
| Mercury, Total | 0.00011 | J | mg/l | 0.00020 | 0.00009 | 1 | 04/08/20 22:15 | 04/09/20 10:59 | EPA 7470A | 1,7470A | GD |
| Nickel, Total | 0.00261 | | mg/l | 0.00200 | 0.00055 | 1 | 04/06/20 19:25 | 04/07/20 14:27 | EPA 3005A | 1,6020B | AM |
| Selenium, Total | ND | | mg/l | 0.00500 | 0.00173 | 1 | 04/06/20 19:25 | 04/07/20 14:27 | EPA 3005A | 1,6020B | AM |
| Silver, Total | ND | | mg/l | 0.00040 | 0.00016 | 1 | 04/06/20 19:25 | 04/07/20 14:27 | EPA 3005A | 1,6020B | AM |
| Zinc, Total | 0.03149 | | mg/l | 0.01000 | 0.00341 | 1 | 04/06/20 19:25 | 04/07/20 14:27 | EPA 3005A | 1,6020B | AM |

**Project Name:** QUEEN CITY LANDING
**Lab Number:** L2014566
**Project Number:** B0424-020-002-002
**Report Date:** 04/10/20

## SAMPLE RESULTS

Lab ID: L2014566-02
Client ID: MW-4
Sample Location: BUFFALO, NY
Date Collected: 04/03/20 09:20
Date Received: 04/03/20
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 | 0.00110 | | mg/l | 0.00050 | 0.00016 | 1 | 04/06/20 19:25 | 04/07/20 12:33 | EPA 3005A | 1,6020B | AM |
| Barium, Total | 0.04223 | | mg/l | 0.00050 | 0.00017 | 1 | 04/06/20 19:25 | 04/07/20 12:33 | EPA 3005A | 1,6020B | AM |
| Beryllium, Total | ND | | mg/l | 0.00050 | 0.00010 | 1 | 04/06/20 19:25 | 04/07/20 12:33 | EPA 3005A | 1,6020B | AM |
| Cadmium, Total | ND | | mg/l | 0.00020 | 0.00005 | 1 | 04/06/20 19:25 | 04/07/20 12:33 | EPA 3005A | 1,6020B | AM |
| Chromium, Total | 0.00069 | J | mg/l | 0.00100 | 0.00017 | 1 | 04/06/20 19:25 | 04/07/20 12:33 | EPA 3005A | 1,6020B | AM |
| Copper, Total | 0.00573 | | mg/l | 0.00100 | 0.00038 | 1 | 04/06/20 19:25 | 04/07/20 12:33 | EPA 3005A | 1,6020B | AM |
| Lead, Total | 0.00463 | | mg/l | 0.00100 | 0.00034 | 1 | 04/06/20 19:25 | 04/07/20 12:33 | EPA 3005A | 1,6020B | AM |
| Manganese, Total | 0.04029 | | mg/l | 0.00100 | 0.00044 | 1 | 04/06/20 19:25 | 04/07/20 12:33 | EPA 3005A | 1,6020B | AM |
| Mercury, Total | ND | | mg/l | 0.00020 | 0.00009 | 1 | 04/08/20 22:15 | 04/09/20 10:23 | EPA 7470A | 1,7470A | GD |
| Nickel, Total | 0.00136 | J | mg/l | 0.00200 | 0.00055 | 1 | 04/06/20 19:25 | 04/07/20 12:33 | EPA 3005A | 1,6020B | AM |
| Selenium, Total | ND | | mg/l | 0.00500 | 0.00173 | 1 | 04/06/20 19:25 | 04/07/20 12:33 | EPA 3005A | 1,6020B | AM |
| Silver, Total | ND | | mg/l | 0.00040 | 0.00016 | 1 | 04/06/20 19:25 | 04/07/20 12:33 | EPA 3005A | 1,6020B | AM |
| Zinc, Total | 0.00431 | J | mg/l | 0.01000 | 0.00341 | 1 | 04/06/20 19:25 | 04/07/20 12:33 | EPA 3005A | 1,6020B | AM |

**Project Name:** QUEEN CITY LANDING
**Lab Number:** L2014566
**Project Number:** B0424-020-002-002
**Report Date:** 04/10/20

## SAMPLE RESULTS

Lab ID: L2014566-03
Client ID: BLIND DUP
Sample Location: BUFFALO, NY
Date Collected: 04/03/20 07:00
Date Received: 04/03/20
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 | 0.00115 | | mg/l | 0.00050 | 0.00016 | 1 | 04/06/20 19:25 | 04/07/20 14:31 | EPA 3005A | 1,6020B | AM |
| Barium, Total | 0.04133 | | mg/l | 0.00050 | 0.00017 | 1 | 04/06/20 19:25 | 04/07/20 14:31 | EPA 3005A | 1,6020B | AM |
| Beryllium, Total | ND | | mg/l | 0.00050 | 0.00010 | 1 | 04/06/20 19:25 | 04/07/20 14:31 | EPA 3005A | 1,6020B | AM |
| Cadmium, Total | ND | | mg/l | 0.00020 | 0.00005 | 1 | 04/06/20 19:25 | 04/07/20 14:31 | EPA 3005A | 1,6020B | AM |
| Chromium, Total | 0.00083 | J | mg/l | 0.00100 | 0.00017 | 1 | 04/06/20 19:25 | 04/07/20 14:31 | EPA 3005A | 1,6020B | AM |
| Copper, Total | 0.00719 | | mg/l | 0.00100 | 0.00038 | 1 | 04/06/20 19:25 | 04/07/20 14:31 | EPA 3005A | 1,6020B | AM |
| Lead, Total | 0.00642 | | mg/l | 0.00100 | 0.00034 | 1 | 04/06/20 19:25 | 04/07/20 14:31 | EPA 3005A | 1,6020B | AM |
| Manganese, Total | 0.04023 | | mg/l | 0.00100 | 0.00044 | 1 | 04/06/20 19:25 | 04/07/20 14:31 | EPA 3005A | 1,6020B | AM |
| Mercury, Total | ND | | mg/l | 0.00020 | 0.00009 | 1 | 04/08/20 22:15 | 04/09/20 11:01 | EPA 7470A | 1,7470A | GD |
| Nickel, Total | 0.00141 | J | mg/l | 0.00200 | 0.00055 | 1 | 04/06/20 19:25 | 04/07/20 14:31 | EPA 3005A | 1,6020B | AM |
| Selenium, Total | ND | | mg/l | 0.00500 | 0.00173 | 1 | 04/06/20 19:25 | 04/07/20 14:31 | EPA 3005A | 1,6020B | AM |
| Silver, Total | ND | | mg/l | 0.00040 | 0.00016 | 1 | 04/06/20 19:25 | 04/07/20 14:31 | EPA 3005A | 1,6020B | AM |
| Zinc, Total | 0.00502 | J | mg/l | 0.01000 | 0.00341 | 1 | 04/06/20 19:25 | 04/07/20 14:31 | EPA 3005A | 1,6020B | AM |

**Project Name:** QUEEN CITY LANDING
**Lab Number:** L2014566
**Project Number:** B0424-020-002-002
**Report Date:** 04/10/20

## SAMPLE RESULTS

Lab ID: L2014566-04
Client ID: MW-6
Sample Location: BUFFALO, NY
Date Collected: 04/03/20 12:41
Date Received: 04/03/20
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 | 0.00074 | | mg/l | 0.00050 | 0.00016 | 1 | 04/06/20 19:25 | 04/07/20 14:36 | EPA 3005A | 1,6020B | AM |
| Barium, Total | 0.07183 | | mg/l | 0.00050 | 0.00017 | 1 | 04/06/20 19:25 | 04/07/20 14:36 | EPA 3005A | 1,6020B | AM |
| Beryllium, Total | ND | | mg/l | 0.00050 | 0.00010 | 1 | 04/06/20 19:25 | 04/07/20 14:36 | EPA 3005A | 1,6020B | AM |
| Cadmium, Total | ND | | mg/l | 0.00020 | 0.00005 | 1 | 04/06/20 19:25 | 04/07/20 14:36 | EPA 3005A | 1,6020B | AM |
| Chromium, Total | 0.00079 | J | mg/l | 0.00100 | 0.00017 | 1 | 04/06/20 19:25 | 04/07/20 14:36 | EPA 3005A | 1,6020B | AM |
| Copper, Total | 0.00231 | | mg/l | 0.00100 | 0.00038 | 1 | 04/06/20 19:25 | 04/07/20 14:36 | EPA 3005A | 1,6020B | AM |
| Lead, Total | 0.00442 | | mg/l | 0.00100 | 0.00034 | 1 | 04/06/20 19:25 | 04/07/20 14:36 | EPA 3005A | 1,6020B | AM |
| Manganese, Total | 0.1886 | | mg/l | 0.00100 | 0.00044 | 1 | 04/06/20 19:25 | 04/07/20 14:36 | EPA 3005A | 1,6020B | AM |
| Mercury, Total | ND | | mg/l | 0.00020 | 0.00009 | 1 | 04/08/20 22:15 | 04/09/20 11:08 | EPA 7470A | 1,7470A | GD |
| Nickel, Total | 0.00089 | J | mg/l | 0.00200 | 0.00055 | 1 | 04/06/20 19:25 | 04/07/20 14:36 | EPA 3005A | 1,6020B | AM |
| Selenium, Total | ND | | mg/l | 0.00500 | 0.00173 | 1 | 04/06/20 19:25 | 04/07/20 14:36 | EPA 3005A | 1,6020B | AM |
| Silver, Total | ND | | mg/l | 0.00040 | 0.00016 | 1 | 04/06/20 19:25 | 04/07/20 14:36 | EPA 3005A | 1,6020B | AM |
| Zinc, Total | 0.00667 | J | mg/l | 0.01000 | 0.00341 | 1 | 04/06/20 19:25 | 04/07/20 14:36 | EPA 3005A | 1,6020B | AM |

**Project Name:** QUEEN CITY LANDING
**Lab Number:** L2014566
**Project Number:** B0424-020-002-002
**Report Date:** 04/10/20

## SAMPLE RESULTS

Lab ID: L2014566-05
Client ID: MW-7R
Sample Location: BUFFALO, NY
Date Collected: 04/03/20 11:36
Date Received: 04/03/20
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 | 0.00123 | | mg/l | 0.00050 | 0.00016 | 1 | 04/06/20 19:25 | 04/07/20 14:40 | EPA 3005A | 1,6020B | AM |
| Barium, Total | 0.03328 | | mg/l | 0.00050 | 0.00017 | 1 | 04/06/20 19:25 | 04/07/20 14:40 | EPA 3005A | 1,6020B | AM |
| Beryllium, Total | ND | | mg/l | 0.00050 | 0.00010 | 1 | 04/06/20 19:25 | 04/07/20 14:40 | EPA 3005A | 1,6020B | AM |
| Cadmium, Total | ND | | mg/l | 0.00020 | 0.00005 | 1 | 04/06/20 19:25 | 04/07/20 14:40 | EPA 3005A | 1,6020B | AM |
| Chromium, Total | 0.00036 | J | mg/l | 0.00100 | 0.00017 | 1 | 04/06/20 19:25 | 04/07/20 14:40 | EPA 3005A | 1,6020B | AM |
| Copper, Total | 0.00075 | J | mg/l | 0.00100 | 0.00038 | 1 | 04/06/20 19:25 | 04/07/20 14:40 | EPA 3005A | 1,6020B | AM |
| Lead, Total | 0.00982 | | mg/l | 0.00100 | 0.00034 | 1 | 04/06/20 19:25 | 04/07/20 14:40 | EPA 3005A | 1,6020B | AM |
| Manganese, Total | 0.04417 | | mg/l | 0.00100 | 0.00044 | 1 | 04/06/20 19:25 | 04/07/20 14:40 | EPA 3005A | 1,6020B | AM |
| Mercury, Total | ND | | mg/l | 0.00020 | 0.00009 | 1 | 04/08/20 22:15 | 04/09/20 11:27 | EPA 7470A | 1,7470A | GD |
| Nickel, Total | 0.00076 | J | mg/l | 0.00200 | 0.00055 | 1 | 04/06/20 19:25 | 04/07/20 14:40 | EPA 3005A | 1,6020B | AM |
| Selenium, Total | ND | | mg/l | 0.00500 | 0.00173 | 1 | 04/06/20 19:25 | 04/07/20 14:40 | EPA 3005A | 1,6020B | AM |
| Silver, Total | ND | | mg/l | 0.00040 | 0.00016 | 1 | 04/06/20 19:25 | 04/07/20 14:40 | EPA 3005A | 1,6020B | AM |
| Zinc, Total | 0.00900 | J | mg/l | 0.01000 | 0.00341 | 1 | 04/06/20 19:25 | 04/07/20 14:40 | EPA 3005A | 1,6020B | AM |

**Project Name:** QUEEN CITY LANDING
**Project Number:** B0424-020-002-002
**Lab Number:** L2014566
**Report Date:** 04/10/20

# 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): 01-05 Batch: WG1358700-1 | | | | | | | | | | |
| Arsenic, Total | ND | | mg/l | 0.00050 | 0.00016 | 1 | 04/06/20 19:25 | 04/07/20 12:24 | 1,6020B | AM |
| Barium, Total | ND | | mg/l | 0.00050 | 0.00017 | 1 | 04/06/20 19:25 | 04/07/20 12:24 | 1,6020B | AM |
| Beryllium, Total | ND | | mg/l | 0.00050 | 0.00010 | 1 | 04/06/20 19:25 | 04/07/20 12:24 | 1,6020B | AM |
| Cadmium, Total | ND | | mg/l | 0.00020 | 0.00005 | 1 | 04/06/20 19:25 | 04/07/20 12:24 | 1,6020B | AM |
| Chromium, Total | ND | | mg/l | 0.00100 | 0.00017 | 1 | 04/06/20 19:25 | 04/07/20 12:24 | 1,6020B | AM |
| Copper, Total | ND | | mg/l | 0.00100 | 0.00038 | 1 | 04/06/20 19:25 | 04/07/20 12:24 | 1,6020B | AM |
| Lead, Total | ND | | mg/l | 0.00100 | 0.00034 | 1 | 04/06/20 19:25 | 04/07/20 12:24 | 1,6020B | AM |
| Manganese, Total | 0.00064 | J | mg/l | 0.00100 | 0.00044 | 1 | 04/06/20 19:25 | 04/07/20 12:24 | 1,6020B | AM |
| Nickel, Total | ND | | mg/l | 0.00200 | 0.00055 | 1 | 04/06/20 19:25 | 04/07/20 12:24 | 1,6020B | AM |
| Selenium, Total | ND | | mg/l | 0.00500 | 0.00173 | 1 | 04/06/20 19:25 | 04/07/20 12:24 | 1,6020B | AM |
| Silver, Total | ND | | mg/l | 0.00040 | 0.00016 | 1 | 04/06/20 19:25 | 04/07/20 12:24 | 1,6020B | AM |
| Zinc, Total | ND | | mg/l | 0.01000 | 0.00341 | 1 | 04/06/20 19:25 | 04/07/20 12:24 | 1,6020B | AM |

**Prep Information**

Digestion Method: EPA 3005A

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Analytical Method | Analyst |
|---|---|---|---|---|---|---|---|---|---|---|
| Total Metals - Mansfield Lab for sample(s): 01-05 Batch: WG1358701-1 | | | | | | | | | | |
| Mercury, Total | ND | | mg/l | 0.00020 | 0.00009 | 1 | 04/08/20 22:15 | 04/09/20 10:18 | 1,7470A | GD |

**Prep Information**

Digestion Method: EPA 7470A

# Lab Control Sample Analysis

## Batch Quality Control

**Project Name:** QUEEN CITY LANDING

**Project Number:** B0424-020-002-002

**Lab Number:** L2014566

**Report Date:** 04/10/20

| Parameter | LCS %Recovery | Qual | LCSD %Recovery | Qual | %Recovery Limits | RPD | Qual | RPD Limits |
|---|---|---|---|---|---|---|---|---|
| Total Metals - Mansfield Lab Associated sample(s): 01-05 Batch: WG1358700-2 | | | | | | | | |
| Arsenic, Total | 82 | | - | | 80-120 | - | | |
| Barium, Total | 104 | | - | | 80-120 | - | | |
| Beryllium, Total | 112 | | - | | 80-120 | - | | |
| Cadmium, Total | 109 | | - | | 80-120 | - | | |
| Chromium, Total | 99 | | - | | 80-120 | - | | |
| Copper, Total | 97 | | - | | 80-120 | - | | |
| Lead, Total | 83 | | - | | 80-120 | - | | |
| Manganese, Total | 100 | | - | | 80-120 | - | | |
| Nickel, Total | 104 | | - | | 80-120 | - | | |
| Selenium, Total | 91 | | - | | 80-120 | - | | |
| Silver, Total | 99 | | - | | 80-120 | - | | |
| Zinc, Total | 110 | | - | | 80-120 | - | | |
| Total Metals - Mansfield Lab Associated sample(s): 01-05 Batch: WG1358701-2 | | | | | | | | |
| Mercury, Total | 110 | | - | | 80-120 | - | | |

# Matrix Spike Analysis
## Batch Quality Control

**Project Name:** QUEEN CITY LANDING
**Project Number:** B0424-020-002-002

**Lab Number:** L2014566
**Report Date:** 04/10/20

| 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): 01-05 QC Batch ID: WG1358700-3 WG1358700-4 QC Sample: L2014566-02 Client ID: MW-4 | | | | | | | | | | | | |
| Arsenic, Total | 0.00110 | 0.12 | 0.09596 | 79 | | 0.09534 | 78 | | 75-125 | 1 | | 20 |
| Barium, Total | 0.04223 | 2 | 2.115 | 104 | | 2.194 | 108 | | 75-125 | 4 | | 20 |
| Beryllium, Total | ND | 0.05 | 0.05366 | 107 | | 0.05194 | 104 | | 75-125 | 3 | | 20 |
| Cadmium, Total | ND | 0.051 | 0.05444 | 107 | | 0.05919 | 116 | | 75-125 | 8 | | 20 |
| Chromium, Total | 0.00069J | 0.2 | 0.1975 | 99 | | 0.2017 | 101 | | 75-125 | 2 | | 20 |
| Copper, Total | 0.00573 | 0.25 | 0.2474 | 97 | | 0.2515 | 98 | | 75-125 | 2 | | 20 |
| Lead, Total | 0.00463 | 0.51 | 0.4249 | 82 | | 0.4667 | 91 | | 75-125 | 9 | | 20 |
| Manganese, Total | 0.04029 | 0.5 | 0.5510 | 102 | | 0.5608 | 104 | | 75-125 | 2 | | 20 |
| Nickel, Total | 0.00136J | 0.5 | 0.5253 | 105 | | 0.5248 | 105 | | 75-125 | 0 | | 20 |
| Selenium, Total | ND | 0.12 | 0.107 | 89 | | 0.127 | 106 | | 75-125 | 17 | | 20 |
| Silver, Total | ND | 0.05 | 0.04913 | 98 | | 0.05092 | 102 | | 75-125 | 4 | | 20 |
| Zinc, Total | 0.00431J | 0.5 | 0.5482 | 110 | | 0.5782 | 116 | | 75-125 | 5 | | 20 |
| Total Metals - Mansfield Lab Associated sample(s): 01-05 QC Batch ID: WG1358701-3 WG1358701-4 QC Sample: L2014566-02 Client ID: MW-4 | | | | | | | | | | | | |
| Mercury, Total | ND | 0.005 | 0.00501 | 100 | | 0.00510 | 102 | | 75-125 | 2 | | 20 |

# INORGANICS
# &
# MISCELLANEOUS

**Project Name:** QUEEN CITY LANDING
**Project Number:** B0424-020-002-002

**Lab Number:** L2014566
**Report Date:** 04/10/20

## SAMPLE RESULTS

Lab ID: L2014566-01
Client ID: MW-1R
Sample Location: BUFFALO, NY

Date Collected: 04/03/20 10:31
Date Received: 04/03/20
Field Prep: Not Specified

Sample Depth:
Matrix: Water

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Analytical Method | Analyst |
|---|---|---|---|---|---|---|---|---|---|---|
| **General Chemistry - Westborough Lab** | | | | | | | | | | |
| Cyanide, Total | 0.004 | J | mg/l | 0.005 | 0.001 | 1 | 04/06/20 10:00 | 04/06/20 13:39 | 1,9010C/9012B | LH |

**Project Name:** QUEEN CITY LANDING
**Project Number:** B0424-020-002-002

**Lab Number:** L2014566
**Report Date:** 04/10/20

## SAMPLE RESULTS

Lab ID: L2014566-02
Client ID: MW-4
Sample Location: BUFFALO, NY

Date Collected: 04/03/20 09:20
Date Received: 04/03/20
Field Prep: Not Specified

Sample Depth:
Matrix: Water

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Analytical Method | Analyst |
|---|---|---|---|---|---|---|---|---|---|---|
| **General Chemistry - Westborough Lab** | | | | | | | | | | |
| Cyanide, Total | ND | | mg/l | 0.005 | 0.001 | 1 | 04/06/20 10:00 | 04/06/20 13:42 | 1,9010C/9012B | LH |

**Project Name:** QUEEN CITY LANDING
**Project Number:** B0424-020-002-002

**Lab Number:** L2014566
**Report Date:** 04/10/20

## SAMPLE RESULTS

Lab ID: L2014566-03
Client ID: BLIND DUP
Sample Location: BUFFALO, NY

Date Collected: 04/03/20 07:00
Date Received: 04/03/20
Field Prep: Not Specified

Sample Depth:
Matrix: Water

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Analytical Method | Analyst |
|---|---|---|---|---|---|---|---|---|---|---|
| **General Chemistry - Westborough Lab** | | | | | | | | | | |
| Cyanide, Total | ND | | mg/l | 0.005 | 0.001 | 1 | 04/07/20 16:45 | 04/08/20 13:12 | 1,9010C/9012B | LH |

**Project Name:** QUEEN CITY LANDING
**Project Number:** B0424-020-002-002

**Lab Number:** L2014566
**Report Date:** 04/10/20

## SAMPLE RESULTS

Lab ID: L2014566-04
Client ID: MW-6
Sample Location: BUFFALO, NY

Date Collected: 04/03/20 12:41
Date Received: 04/03/20
Field Prep: Not Specified

Sample Depth:
Matrix: Water

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Analytical Method | Analyst |
|---|---|---|---|---|---|---|---|---|---|---|
| **General Chemistry - Westborough Lab** | | | | | | | | | | |
| Cyanide, Total | 0.004 | J | mg/l | 0.005 | 0.001 | 1 | 04/06/20 10:00 | 04/06/20 13:46 | 1,9010C/9012B | LH |

**Project Name:** QUEEN CITY LANDING
**Project Number:** B0424-020-002-002

**Lab Number:** L2014566
**Report Date:** 04/10/20

## SAMPLE RESULTS

Lab ID: L2014566-05
Client ID: MW-7R
Sample Location: BUFFALO, NY

Date Collected: 04/03/20 11:36
Date Received: 04/03/20
Field Prep: Not Specified

Sample Depth:
Matrix: Water

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Analytical Method | Analyst |
|---|---|---|---|---|---|---|---|---|---|---|
| **General Chemistry - Westborough Lab** | | | | | | | | | | |
| Cyanide, Total | ND | | mg/l | 0.005 | 0.001 | 1 | 04/06/20 10:00 | 04/06/20 13:47 | 1,9010C/9012B | LH |

**Project Name:** QUEEN CITY LANDING
**Project Number:** B0424-020-002-002
**Lab Number:** L2014566
**Report Date:** 04/10/20

# Method Blank Analysis
## Batch Quality Control

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Analytical Method | Analyst |
|---|---|---|---|---|---|---|---|---|---|---|
| General Chemistry - Westborough Lab for sample(s): 01-02,04-05 Batch: WG1358543-1 | | | | | | | | | | |
| Cyanide, Total | ND | | mg/l | 0.005 | 0.001 | 1 | 04/06/20 10:00 | 04/06/20 13:24 | 1,9010C/9012B | LH |
| General Chemistry - Westborough Lab for sample(s): 03 Batch: WG1359062-1 | | | | | | | | | | |
| Cyanide, Total | ND | | mg/l | 0.005 | 0.001 | 1 | 04/07/20 16:45 | 04/08/20 13:05 | 1,9010C/9012B | LH |

# Lab Control Sample Analysis

## Batch Quality Control

**Project Name:** QUEEN CITY LANDING

**Project Number:** B0424-020-002-002

**Lab Number:** L2014566

**Report Date:** 04/10/20

| Parameter | LCS %Recovery | Qual | LCSD %Recovery | Qual | %Recovery Limits | RPD | Qual | RPD Limits |
|---|---|---|---|---|---|---|---|---|
| General Chemistry - Westborough Lab Associated sample(s): 01-02,04-05 Batch: WG1358543-2 WG1358543-3 | | | | | | | | |
| Cyanide, Total | 100 | | 104 | | 85-115 | 4 | | 20 |
| General Chemistry - Westborough Lab Associated sample(s): 03 Batch: WG1359062-2 WG1359062-3 | | | | | | | | |
| Cyanide, Total | 85 | | 96 | | 85-115 | 12 | | 20 |

# Matrix Spike Analysis
## Batch Quality Control

**Project Name:** QUEEN CITY LANDING
**Project Number:** B0424-020-002-002

**Lab Number:** L2014566
**Report Date:** 04/10/20

| 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): 01-02,04-05 QC Batch ID: WG1358543-4 WG1358543-5 QC Sample: L2014566-02 Client ID: MW-4 | | | | | | | | | | | | |
| Cyanide, Total | ND | 0.2 | 0.203 | 102 | | 0.199 | 100 | | 80-120 | 2 | | 20 |
| General Chemistry - Westborough Lab Associated sample(s): 03 QC Batch ID: WG1359062-4 WG1359062-5 QC Sample: L2014624-01 Client ID: MS Sample | | | | | | | | | | | | |
| Cyanide, Total | ND | 0.2 | 0.192 | 96 | | 0.185 | 92 | | 80-120 | 4 | | 20 |

**Project Name:** QUEEN CITY LANDING
**Project Number:** B0424-020-002-002

**Lab Number:** L2014566
**Report Date:** 04/10/20

## Sample Receipt and Container Information

Were project specific reporting limits specified? YES

### Cooler Information

| Cooler | Custody Seal |
|---|---|
| B | Absent |
| C | Absent |

### Container Information

| Container ID | Container Type | Cooler | Initial pH | Final pH | Temp deg C | Pres | Seal | Frozen Date/Time | Analysis(*) |
|---|---|---|---|---|---|---|---|---|---|
| L2014566-01A | Vial HCl preserved | C | NA | | 3.4 | Y | Absent | | NYTCL-8260-R2(14) |
| L2014566-01B | Vial HCl preserved | C | NA | | 3.4 | Y | Absent | | NYTCL-8260-R2(14) |
| L2014566-01C | Vial HCl preserved | C | NA | | 3.4 | Y | Absent | | NYTCL-8260-R2(14) |
| L2014566-01D | Plastic 250ml HNO3 preserved | C | <2 | <2 | 3.4 | Y | Absent | | BA-6020T(180),SE-6020T(180),NI-6020T(180),CR-6020T(180),CU-6020T(180),ZN-6020T(180),PB-6020T(180),BE-6020T(180),MN-6020T(180),AS-6020T(180),AG-6020T(180),HG-T(28),CD-6020T(180) |
| L2014566-01E | Plastic 250ml NaOH preserved | C | >12 | >12 | 3.4 | Y | Absent | | TCN-9010(14) |
| L2014566-01F | Amber 250ml unpreserved | C | 7 | 7 | 3.4 | Y | Absent | | NYTCL-8270-SIM-LVI(7),NYTCL-8270-LVI(7) |
| L2014566-01G | Amber 250ml unpreserved | C | 7 | 7 | 3.4 | Y | Absent | | NYTCL-8270-SIM-LVI(7),NYTCL-8270-LVI(7) |
| L2014566-02A | Vial HCl preserved | B | NA | | 5.6 | Y | Absent | | NYTCL-8260-R2(14) |
| L2014566-02A1 | Vial HCl preserved | B | NA | | 5.6 | Y | Absent | | NYTCL-8260-R2(14) |
| L2014566-02A2 | Vial HCl preserved | B | NA | | 5.6 | Y | Absent | | NYTCL-8260-R2(14) |
| L2014566-02B | Vial HCl preserved | B | NA | | 5.6 | Y | Absent | | NYTCL-8260-R2(14) |
| L2014566-02B1 | Vial HCl preserved | B | NA | | 5.6 | Y | Absent | | NYTCL-8260-R2(14) |
| L2014566-02B2 | Vial HCl preserved | B | NA | | 5.6 | Y | Absent | | NYTCL-8260-R2(14) |
| L2014566-02C | Vial HCl preserved | B | NA | | 5.6 | Y | Absent | | NYTCL-8260-R2(14) |
| L2014566-02C1 | Vial HCl preserved | B | NA | | 5.6 | Y | Absent | | NYTCL-8260-R2(14) |
| L2014566-02C2 | Vial HCl preserved | B | NA | | 5.6 | Y | Absent | | NYTCL-8260-R2(14) |
| L2014566-02D | Plastic 250ml HNO3 preserved | B | <2 | <2 | 5.6 | Y | Absent | | BA-6020T(180),SE-6020T(180),NI-6020T(180),CR-6020T(180),CU-6020T(180),ZN-6020T(180),PB-6020T(180),MN-6020T(180),BE-6020T(180),AS-6020T(180),AG-6020T(180),CD-6020T(180),HG-T(28) |



*Values in parentheses indicate holding time in days

**Project Name:** QUEEN CITY LANDING
**Project Number:** B0424-020-002-002

**Lab Number:** L2014566
**Report Date:** 04/10/20

## Container Information

| Container ID | Container Type | Cooler | Initial pH | Final pH | Temp deg C | Pres | Seal | Frozen Date/Time | Analysis(*) |
|---|---|---|---|---|---|---|---|---|---|
| L2014566-02D1 | Plastic 250ml HNO3 preserved | B | <2 | <2 | 5.6 | Y | Absent | | BA-6020T(180),SE-6020T(180),NI-6020T(180),CR-6020T(180),CU-6020T(180),ZN-6020T(180),PB-6020T(180),MN-6020T(180),BE-6020T(180),AS-6020T(180),AG-6020T(180),CD-6020T(180),HG-T(28) |
| L2014566-02D2 | Plastic 250ml HNO3 preserved | B | <2 | <2 | 5.6 | Y | Absent | | BA-6020T(180),SE-6020T(180),NI-6020T(180),CR-6020T(180),CU-6020T(180),ZN-6020T(180),PB-6020T(180),MN-6020T(180),BE-6020T(180),AS-6020T(180),AG-6020T(180),CD-6020T(180),HG-T(28) |
| L2014566-02E | Plastic 250ml NaOH preserved | B | >12 | >12 | 5.6 | Y | Absent | | TCN-9010(14) |
| L2014566-02E1 | Plastic 250ml NaOH preserved | B | >12 | >12 | 5.6 | Y | Absent | | TCN-9010(14) |
| L2014566-02E2 | Plastic 250ml NaOH preserved | B | >12 | >12 | 5.6 | Y | Absent | | TCN-9010(14) |
| L2014566-02F | Amber 250ml unpreserved | B | 7 | 7 | 5.6 | Y | Absent | | NYTCL-8270-SIM-LVI(7),NYTCL-8270-LVI(7) |
| L2014566-02F1 | Amber 250ml unpreserved | B | 7 | 7 | 5.6 | Y | Absent | | NYTCL-8270-SIM-LVI(7),NYTCL-8270-LVI(7) |
| L2014566-02F2 | Amber 250ml unpreserved | B | 7 | 7 | 5.6 | Y | Absent | | NYTCL-8270-SIM-LVI(7),NYTCL-8270-LVI(7) |
| L2014566-02G | Amber 250ml unpreserved | B | 7 | 7 | 5.6 | Y | Absent | | NYTCL-8270-SIM-LVI(7),NYTCL-8270-LVI(7) |
| L2014566-02G1 | Amber 250ml unpreserved | B | 7 | 7 | 5.6 | Y | Absent | | NYTCL-8270-SIM-LVI(7),NYTCL-8270-LVI(7) |
| L2014566-02G2 | Amber 250ml unpreserved | B | 7 | 7 | 5.6 | Y | Absent | | NYTCL-8270-SIM-LVI(7),NYTCL-8270-LVI(7) |
| L2014566-03A | Vial HCl preserved | B | NA | | 5.6 | Y | Absent | | NYTCL-8260-R2(14) |
| L2014566-03B | Vial HCl preserved | B | NA | | 5.6 | Y | Absent | | NYTCL-8260-R2(14) |
| L2014566-03C | Vial HCl preserved | B | NA | | 5.6 | Y | Absent | | NYTCL-8260-R2(14) |
| L2014566-03D | Plastic 250ml HNO3 preserved | B | <2 | <2 | 5.6 | Y | Absent | | BA-6020T(180),SE-6020T(180),NI-6020T(180),CR-6020T(180),CU-6020T(180),ZN-6020T(180),PB-6020T(180),MN-6020T(180),BE-6020T(180),AS-6020T(180),HG-T(28),AG-6020T(180),CD-6020T(180) |
| L2014566-03E | Plastic 250ml NaOH preserved | B | >12 | >12 | 5.6 | Y | Absent | | TCN-9010(14) |
| L2014566-03F | Amber 250ml unpreserved | B | 7 | 7 | 5.6 | Y | Absent | | NYTCL-8270-SIM-LVI(7),NYTCL-8270-LVI(7) |
| L2014566-03G | Amber 250ml unpreserved | B | 7 | 7 | 5.6 | Y | Absent | | NYTCL-8270-SIM-LVI(7),NYTCL-8270-LVI(7) |
| L2014566-04A | Vial HCl preserved | C | NA | | 3.4 | Y | Absent | | NYTCL-8260-R2(14) |
| L2014566-04B | Vial HCl preserved | C | NA | | 3.4 | Y | Absent | | NYTCL-8260-R2(14) |
| L2014566-04C | Vial HCl preserved | C | NA | | 3.4 | Y | Absent | | NYTCL-8260-R2(14) |



*Values in parentheses indicate holding time in days

**Project Name:** QUEEN CITY LANDING
**Project Number:** B0424-020-002-002

**Lab Number:** L2014566
**Report Date:** 04/10/20

## Container Information

| Container ID | Container Type | Cooler | Initial pH | Final pH | Temp deg C | Pres | Seal | Frozen Date/Time | Analysis(*) |
|---|---|---|---|---|---|---|---|---|---|
| L2014566-04D | Plastic 250ml HNO3 preserved | C | <2 | <2 | 3.4 | Y | Absent | | SE-6020T(180),BA-6020T(180),NI-6020T(180),CR-6020T(180),ZN-6020T(180),CU-6020T(180),PB-6020T(180),MN-6020T(180),BE-6020T(180),AS-6020T(180),AG-6020T(180),HG-T(28),CD-6020T(180) |
| L2014566-04E | Plastic 250ml NaOH preserved | C | >12 | >12 | 3.4 | Y | Absent | | TCN-9010(14) |
| L2014566-04F | Amber 250ml unpreserved | C | 7 | 7 | 3.4 | Y | Absent | | NYTCL-8270-SIM-LVI(7),NYTCL-8270-LVI(7) |
| L2014566-04G | Amber 250ml unpreserved | C | 7 | 7 | 3.4 | Y | Absent | | NYTCL-8270-SIM-LVI(7),NYTCL-8270-LVI(7) |
| L2014566-05A | Vial HCl preserved | C | NA | | 3.4 | Y | Absent | | NYTCL-8260-R2(14) |
| L2014566-05B | Vial HCl preserved | C | NA | | 3.4 | Y | Absent | | NYTCL-8260-R2(14) |
| L2014566-05C | Vial HCl preserved | C | NA | | 3.4 | Y | Absent | | NYTCL-8260-R2(14) |
| L2014566-05D | Plastic 250ml HNO3 preserved | C | <2 | <2 | 3.4 | Y | Absent | | SE-6020T(180),BA-6020T(180),NI-6020T(180),CR-6020T(180),CU-6020T(180),ZN-6020T(180),PB-6020T(180),BE-6020T(180),MN-6020T(180),AS-6020T(180),HG-T(28),CD-6020T(180),AG-6020T(180) |
| L2014566-05E | Plastic 250ml NaOH preserved | C | >12 | >12 | 3.4 | Y | Absent | | TCN-9010(14) |
| L2014566-05F | Amber 250ml unpreserved | C | 7 | 7 | 3.4 | Y | Absent | | NYTCL-8270-SIM-LVI(7),NYTCL-8270-LVI(7) |
| L2014566-05G | Amber 250ml unpreserved | C | 7 | 7 | 3.4 | Y | Absent | | NYTCL-8270-SIM-LVI(7),NYTCL-8270-LVI(7) |
| L2014566-06A | Vial HCl preserved | C | NA | | 3.4 | Y | Absent | | NYTCL-8260-R2(14) |
| L2014566-06B | Vial HCl preserved | C | NA | | 3.4 | Y | Absent | | NYTCL-8260-R2(14) |



*Values in parentheses indicate holding time in days

| | | | |
|---|---|---|---|
| **Project Name:** | QUEEN CITY LANDING | **Lab Number:** | L2014566 |
| **Project Number:** | B0424-020-002-002 | **Report Date:** | 04/10/20 |

## GLOSSARY

***Acronyms***

DL - Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the limit of quantitation (LOQ). The DL includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)

EDL - Estimated Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The EDL includes any adjustments from dilutions, concentrations or moisture content, where applicable. The use of EDLs is specific to the analysis of PAHs using Solid-Phase Microextraction (SPME).

EMPC - Estimated Maximum Possible Concentration: The concentration that results from the signal present at the retention time of an analyte when the ions meet all of the identification criteria except the ion abundance ratio criteria. An EMPC is a worst-case estimate of the concentration.

EPA - Environmental Protection Agency.

LCS - Laboratory Control Sample: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.

LCSD - Laboratory Control Sample Duplicate: Refer to LCS.

LFB - Laboratory Fortified Blank: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.

LOD - Limit of Detection: This value represents the level to which a target analyte can reliably be detected for a specific analyte in a specific matrix by a specific method. The LOD includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)

LOQ - Limit of Quantitation: The value at which an instrument can accurately measure an analyte at a specific concentration. The LOQ includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)

Limit of Quantitation: The value at which an instrument can accurately measure an analyte at a specific concentration. The LOQ includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)

MDL - Method Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The MDL includes any adjustments from dilutions, concentrations or moisture content, where applicable.

MS - Matrix Spike Sample: A sample prepared by adding a known mass of target analyte to a specified amount of matrix sample for which an independent estimate of target analyte concentration is available. For Method 332.0, the spike recovery is calculated using the native concentration, including estimated values.

MSD - Matrix Spike Sample Duplicate: Refer to MS.

NA - Not Applicable.

NC - Not Calculated: Term is utilized when one or more of the results utilized in the calculation are non-detect at the parameter's reporting unit.

NDPA/DPA - N-Nitrosodiphenylamine/Diphenylamine.

NI - Not Ignitable.

NP - Non-Plastic: Term is utilized for the analysis of Atterberg Limits in soil.

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.

***Footnotes***

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

| | | | |
|---|---|---|---|
| **Project Name:** | QUEEN CITY LANDING | **Lab Number:** | L2014566 |
| **Project Number:** | B0424-020-002-002 | **Report Date:** | 04/10/20 |

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

***Terms***

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

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

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

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

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

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

PFAS Total: With respect to PFAS analyses, the 'PFAS, Total (5)' result is defined as the summation of results for: PFHpA, PFHxS, PFOA, PFNA and PFOS. If a 'Total' result is requested, the results of its individual components will also be reported.

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

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

***Data Qualifiers***

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

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

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

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

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

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

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

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

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

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

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

**NJ** - Presumptive evidence of compound. This represents an estimated concentration for Tentatively Identified Compounds (TICs), where 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

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

| | | | |
|---|---|---|---|
| **Project Name:** | QUEEN CITY LANDING | **Lab Number:** | L2014566 |
| **Project Number:** | B0424-020-002-002 | **Report Date:** | 04/10/20 |

***Data Qualifiers***

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.

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

| | | | |
|---|---|---|---|
| **Project Name:** | QUEEN CITY LANDING | **Lab Number:** | L2014566 |
| **Project Number:** | B0424-020-002-002 | **Report Date:** | 04/10/20 |

## REFERENCES

1 Test Methods for Evaluating Solid Waste: Physical/Chemical Methods. EPA SW-846. Third Edition. Updates I - IV, 2007.

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

**Mansfield Facility**
**SM 2540D:** TSS
**EPA 8082A:** NPW: PCB: 1, 5, 31, 87,101, 110, 141, 151, 153, 180, 183, 187.
**EPA TO-15:** Halothane, 2,4,4-Trimethyl-2-pentene, 2,4,4-Trimethyl-1-pentene, Thiophene, 2-Methylthiophene, 3-Methylthiophene, 2-Ethylthiophene, 1,2,3-Trimethylbenzene, Indan, Indene, 1,2,4,5-Tetramethylbenzene, Benzothiophene, 1-Methylnaphthalene.
**EPA TO-12** Non-methane organics
**EPA 3C** Fixed gases
**Biological Tissue Matrix:** EPA 3050B

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

**Westborough Facility:**

***Drinking Water***
**EPA 300.0**: Chloride, Nitrate-N, Fluoride, Sulfate; **EPA 353.2**: Nitrate-N, Nitrite-N; **SM4500NO3-F**: Nitrate-N, Nitrite-N; **SM4500F-C, SM4500CN-CE, EPA 180.1, SM2130B, 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.**

**Mansfield Facility:**

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

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

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

ALPHA ANALYTICAL

# NEW YORK CHAIN OF CUSTODY

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

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

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

Page 1 of 1

Date Rec'd in Lab: 4/4/20

ALPHA Job #: L2014516

**Client Information**
Client: Benchmark Env
Address: 2558 Hempstead Tpke
Levittown NY 11756
Phone: (716) 818-8350
Fax:
Email: TBehnsen@benchmarkenv.com

**Project Information**
Project Name: Queen City Landfill
Project Location: Buffalo NY
Project #: B0424-020-002-002
(Use Project name as Project #)
Project Manager: Chris Bolin
ALPHAQuote #:

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

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

**Billing Information**
☐ Same as Client Info
PO #

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

**Disposal Site Information**
Please identify below location of applicable disposal facilities.
Disposal Facility:
☐ NJ ☐ NY
☐ Other:

These samples have been previously analyzed by Alpha ☐

**Other project specific requirements/comments:**

CAT B

**Please specify Metals or TAL.**

**ANALYSIS**

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

| ALPHA Lab ID (Lab Use Only) | Sample ID | Collection Date | Collection Time | Sample Matrix | Sampler's Initials | TCL VOC 8260 | Part 375 SVOC | Part 375 metals | TCL CN | Sample Specific Comments | Total Bottle |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 14516-01 | MW-1R | 4/3/20 | 1031 | Water | TAB | X | X | X | X | | 7 |
| -02 | MW-4 (MS/MSD) | | 920 | | | X | X | X | X | | 21 |
| -03 | Blind Dup | | 700 | | | X | X | X | X | | 7 |
| -04 | MW-6 | | 1241 | | | X | X | X | X | | 7 |
| -05 | MW-7R | | 1136 | | | X | X | X | X | | 7 |
| -06 | Trip Blank | | | | | X | X | X | X | | 2 |

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

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

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

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

| Relinquished By: | Date/Time | Received By: | Date/Time |
|---|---|---|---|
| | 4/3/20 1733 | | 4/3/20 1733 |
| | 4/3/20 1733 | | 4/4/20 0050 |

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

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