Operable Unit 1 – Perimeter Groundwater Monitoring Wells Installation and Sampling Report

Former Dangman Park Manufactured Gas Plant Site
Brooklyn, New York
NYSDEC Site No. 224047
Index # A2-0552-0606

August 8, 2024

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Certification

I, Steven M. Feldman, certify that I am currently a Qualified Environmental Professional as defined in 6 NYCRR Part 375 and that this Operable Unit 1 – Perimeter Groundwater Monitoring Wells Installation and Sampling Report, Former Dangman Park Manufactured Gas Plant Site, Brooklyn, New York, NYSDEC Site No. 224047, Index # A2-0552-0606 was prepared in accordance with all applicable statutes and regulations and in substantial conformance with the Division of Environmental Remediation (DER) Technical Guidance for Site Investigation and Remediation (DER-10).

Date: 8/8/2024

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Acronyms and Abbreviations

ADT	Aquifer Drilling & Testing, Inc.
Arcadis	Arcadis of New York, Inc.
ASP	Analytical Services Protocol
bls	below land surface
BTEX	benzene, toluene, ethylbenzene, and xylenes
CAMP	Community Air Monitoring Plan
DER	Division of Environmental Remediation
DOT	Department of Transportation
DUSR	data usability summary report
ELAP	Environmental Laboratory Approval Program
EPA	Environmental Protection Agency
Eurofins	Eurofins Environment Testing Northeast, LLC
ft	feet
FSP	Field Sampling Plan
HASP	Health and Safety Plan
IDW	investigation-derived waste
IRM	interim remedial measure
MGP	manufactured gas plant
NAPL	non-aqueous phase liquid
National Grid	The Brooklyn Union Gas Company d/b/a National Grid NY
NYC DOT	New York City Department of Transportation
NYSDEC	New York State Department of Environmental Conservation
NYSDOH	New York State Department of Health
OU	Operable Unit
ORP	oxidation-reduction potential
PAHs	polycyclic aromatic hydrocarbons
PID	photoionization detector
ppm	parts per million
PVC	polyvinyl chloride
QAPP	Quality Assurance Project Plan

QA/QC	quality assurance/quality control
Report	Operable Unit 1 – Perimeter Groundwater Monitoring Wells Installation and Sampling Report
RI	Remedial Investigation
Site	Former Dangman Park Manufactured Gas Plant
SC	Site Characterization
SGVs	Ambient Water Quality Standards and Guidance Values
SRI	Supplemental Remedial Investigation
SOP	Standard Operating Procedure
SVOCs	semi-volatile organic compounds
ug/L	micrograms per liter
VOCs	volatile organic compounds
Work Plan	Operable Unit 1 – Perimeter Groundwater Monitoring Wells Installation and Sampling Work Plan

Executive Summary

This Operable Unit 1 – Perimeter Groundwater Monitoring Wells Installation and Sampling Report (Report) has been prepared by Arcadis of New York, Inc. (Arcadis) on behalf of The Brooklyn Union Gas Company d/b/a National Grid NY (National Grid) to document the perimeter monitoring well installation and groundwater sampling activities that were conducted along Neptune Avenue and West 5th Street in association with Operable Unit 1 (OU 1) of the former Dangman Park Manufactured Gas Plant (MGP) site (the Site; **Figure 1**). The New York State Department of Environmental Conservation (NYSDEC) requested these activities in a letter to National Grid dated April 3, 2023 to "…monitor post-remediation conditions and ensure no off-site migration of contamination has occurred due to the site's redevelopment." As detailed herein, installation and sampling of the perimeter groundwater monitoring wells were conducted in accordance with the revised Operable Unit 1 – Perimeter Groundwater Monitoring Wells Installation and Sampling Work Plan (Work Plan) dated October 3, 2023. The Work Plan was originally submitted to the NYSDEC on July 18, 2023; the revised Work Plan dated October 3, 2023 addressed comments provided in the NYSDEC's letter to National Grid dated August 10, 2023, as discussed between the NYSDEC and National Grid. The Work Plan was approved by the NYSDEC in a letter to National Grid dated October 31, 2023.

The former Dangman Park MGP Site is located at 486 Neptune Avenue, Brooklyn, New York and is contained within Block 7273, Lot 1001 and Lot 25 of Block 7273; neither of these properties is owned by National Grid. The portion of the Site within Lot 1001 was previously developed with a shopping center. The eastern portion of the shopping center was situated above the former MGP structure locations and was demolished in late 2016/early 2017, in advance of redevelopment construction of the commercial structure that was completed in 2019. The portion of the Site within Lot 25 is a parking lot for an existing apartment building. In June 2019, the Site was divided into two operable units. The OU 1 boundary encompasses the portion of the Site on Lot 1001. The OU 2 boundary encompasses the portion of the Site on Lot 25. The approximate OU boundaries are shown on **Figure 2**.

Installation and sampling of the OU 1 perimeter monitoring wells was conducted between March and May 2024. The activities described herein to install and sample the OU 1 perimeter monitoring wells included the following:

- Drilled and installed both a water-table monitoring well (screened 6 to 16 feet below land surface [ft bls]) and deep groundwater monitoring well (screened 80 to 90 ft bls) at two locations along Neptune Avenue and two locations along West 5th Street (**Figure 2**). The final locations of the four perimeter monitoring well pairs (eight wells total) were modified (relative to the Work Plan) based on a reconnaissance of the area in November 2023 prior to mobilizing the drill rig. In an email dated January 16, 2024, National Grid proposed adjusted OU 1 perimeter monitoring well locations to the NYSDEC based on accessibility and observed utility mark outs. The NYSDEC approved the adjustments in an email to National Grid dated January 19, 2024.
- Collected a groundwater sample from each of the eight perimeter monitoring wells using low-flow sampling techniques and a submersible pump. The groundwater samples were submitted to Eurofins Environment Testing Northeast, LLC (Eurofins). Eurofins is a laboratory with current Environmental Laboratory Approval Program (ELAP) certificates from the New York State Department of Health (NYSDOH) for analysis of volatile organic compounds (VOCs) and semi-volatile organic compounds (SVOCs) in accordance with Environmental Protection Agency (EPA) SW-846 Methods 8260D and 8270E, respectively. Field parameters including pH, oxidation-reduction potential (ORP), temperature, conductivity, dissolved oxygen, and turbidity were collected during groundwater sampling and each well was gauged for the absence/presence of non-aqueous phase liquid (NAPL) prior to purging.

Based on the data obtained from installing and sampling the OU 1 perimeter monitoring wells, the following are the findings and conclusions:

- There were no observations of visible staining or NAPL and no obvious odors were noted during the monitoring well soil boring drilling activities.
- NAPL was not detected in any of the monitoring wells prior to or during well development and groundwater sampling activities.
- No MGP-related VOCs were detected above the laboratory reporting limit in the groundwater samples. Two non-MGP-related VOCs (bromodichloromethane and chloroform) were detected in the groundwater samples.
- No SVOCs were detected above the laboratory reporting limit in the groundwater samples.
- The post-remediation VOC and SVOC groundwater data collected from the OU 1 perimeter monitoring wells in May 2024 demonstrate that the OU 1 remedy was effective, and that off-site migration of MGP-related constituents has not occurred due to the redevelopment activities on Lot 1001.

1 Introduction

This Operable Unit 1 – Perimeter Groundwater Monitoring Wells Installation and Sampling Report (Report) documents the monitoring well installation and groundwater sampling activities that were conducted along the perimeter of Operable Unit 1 (OU 1) of the former Dangman Park Manufactured Gas Plant (MGP) site (the Site; **Figure 1**), pursuant to conversations between The Brooklyn Union Gas Company d/b/a National Grid NY (National Grid) and the New York State Department of Environmental Conservation (NYSDEC) and a NYSDEC letter dated April 3, 2023 (**Appendix A**). The installation and sampling of the perimeter groundwater monitoring wells were conducted in accordance with the revised Operable Unit 1 – Perimeter Groundwater Monitoring Wells Installation and Sampling Work Plan (Work Plan) dated October 3, 2023 (Arcadis 2023). The Work Plan was originally submitted to the NYSDEC on July 18, 2023; the revised Work Plan dated October 3, 2023 addressed comments provided in the NYSDEC's letter to National Grid dated August 10, 2023, as discussed between the NYSDEC and National Grid. The Work Plan was approved by the NYSDEC in a letter to National Grid dated October 31, 2023.

The Site is identified as NYSDEC Site No. 224047. This Report has been prepared by Arcadis of New York, Inc. (Arcadis) on behalf of National Grid, in accordance with the Work Plan and requirements of a Multi-Site Order on Consent and Administrative Settlement (Consent Order; Index # A2-0552-0606) that was entered into by National Grid and the NYSDEC in February 2007; the Consent Order was most recently modified on November 24, 2023. This Report has also been prepared in accordance with the NYSDEC's Division of Environmental Remediation (DER) Technical Guidance for Site Investigation and Remediation (DER-10; NYSDEC 2010).

The former Dangman Park MGP Site is located at 486 Neptune Avenue, Brooklyn, New York and is contained within Block 7273, Lot 1001 and Lot 25 of Block 7273; neither of these properties is owned by National Grid. The portion of the Site within Lot 1001 was previously developed with a shopping center. The eastern portion of the shopping center was situated above the former MGP structure locations and was demolished in late 2016/early 2017, in advance of redevelopment construction of the commercial structure that was completed in 2019. The portion of the Site within Lot 25 is a parking lot for an existing apartment building. In June 2019, the Site was divided into two operable units. The OU 1 boundary encompasses the portion of the Site on Lot 1001. The OU 2 boundary encompasses the portion of the Site on Lot 25. The approximate OU boundaries are shown on **Figure 2**.

Prior to redevelopment of Lot 1001, the extent of MGP-related impacts was delineated during the NYSDEC-approved Site Characterization (SC) and Remedial Investigation (RI) activities conducted between 2009 and 2013, as detailed in the NYSDEC-approved RI Report (Arcadis 2014). The extent of impacts was corroborated by the subsequent Supplemental Remedial Investigation (SRI) conducted by National Grid and the property owner's redevelopment geotechnical investigation soil borings (Arcadis 2016). More than 90 soil borings were drilled in association with the Site and 15 monitoring wells were installed specifically in association with OU 1 (**Figure 2**). The MGP-related impacts were observed in areas generally within the footprint of the former MGP operations and areas located downgradient of those operations. The constituents of concern are benzene, toluene, ethylbenzene, and xylenes (BTEX) and polycyclic aromatic hydrocarbons (PAHs).

In light of the redevelopment of Lot 1001, with NYSDEC's approval, the following activities were conducted by National Grid between 2016 and 2022:

- Monitoring wells located on and west of OU 1 were abandoned in 2016 and the In-Situ Treatment and Excavation Interim Remedial Measures (IRMs) were conducted in 2017, as detailed in the NYSDEC-approved Construction Completion Report (Arcadis 2020); and
- Monitoring wells MW-14 and MW-20 located west and northwest of OU 1, respectively, were abandoned in 2022 (Arcadis 2022a and 2022b).

The redevelopment activities on OU 1 are complete with the commercial structure and OU 1 perimeter groundwater data are required by NYSDEC to "…monitor post-remediation conditions and ensure no off-site migration of contamination has occurred due to the site's redevelopment." (NYSDEC 2023). As detailed herein, both a water-table monitoring well (screened 6 to 16 feet below land surface [ft bls]) and deep groundwater monitoring well (screened 80 to 90 ft bls) were installed at two locations along Neptune Avenue and two locations along West 5th Street (**Figure 2**). The groundwater samples collected from each well were submitted for the analysis of volatile organic compounds (VOCs) and semi-volatile organic compounds (SVOCs).

The remainder of this Report is organized as follows to describe the perimeter groundwater monitoring well installation and groundwater sampling activities:

- **Section 2 – New York City Department of Transportation (NYC DOT) Permits** – the perimeter monitoring well locations (**Figure 2**) are situated in areas (sidewalks) that required obtaining NYC DOT permits prior to conducting field activities to install the wells.
- **Section 3 – OU 1 Perimeter Groundwater Wells Installation and Sampling** – summarizes the perimeter monitoring wells drilling and installation activities, groundwater sampling activities, and management of investigation-derived waste (IDW).
- **Section 4 – Groundwater Quality** – summarizes the groundwater quality data collected from the perimeter monitoring wells during groundwater sampling.
- **Section 5 – Findings and Conclusions** – presents the findings and conclusions associated with the perimeter monitoring wells soil boring drilling and groundwater sampling activities.
- **Section 6 – References** – presents a list of documents referenced in this Report.

2 NYC DOT Permits

As previously identified, the OU 1 perimeter groundwater monitoring wells (**Figure 2**) are situated in areas (sidewalks) that required NYC DOT permits prior to conducting field activities to install the wells. The permits were obtained by Arcadis' drilling subcontractor (Aquifer Drilling & Testing, Inc. [ADT]) and kept at the active work area. The field work was conducted in accordance with the permit requirements, including the stipulated work hours (9AM – 4PM, Monday to Friday).

3 OU 1 Perimeter Groundwater Wells Installation and Sampling

3.1 General

This section describes the procedures for conducting community air monitoring, installing the monitoring wells, collecting groundwater samples, and managing IDW. The field work was conducted in accordance with Arcadis' current health and safety plan (HASP) for the Site and ADT's HASP. Air monitoring was conducted in the worker breathing zone during implementation of the work activities. There were no exceedances of the action levels identified in the HASP.

3.2 Reconnaissance and Utility Clearance

A reconnaissance of the proposed perimeter groundwater monitoring well locations was conducted by National Grid, Arcadis, and ADT on November 17, 2023 prior to mobilizing the drill rig to verify existing conditions relative to the locations shown on Figure 2 of the Work Plan. The final locations of the four perimeter monitoring well pairs (eight wells total) were modified (relative to the Work Plan) based on the reconnaissance of the area. In an email dated January 16, 2024, National Grid proposed adjusted OU 1 perimeter monitoring well locations to the NYSDEC based on accessibility and observed utility mark outs. The NYSDEC approved the adjustments in an email to National Grid dated January 19, 2024.

Prior to utility clearance and drill rig mobilization, New York 811 was contacted by ADT to mark underground utilities in the areas where intrusive activities (i.e., drilling and well installation) were to occur. Additionally, a utility locating subcontractor (Ground Penetrating Radar Systems, LLC) was utilized to identify and mark the locations of utilities detected in the field in the vicinity of the monitoring well locations. Given the numerous utilities present, each monitoring well location was cleared of utilities to a depth of 5 ft bls by ADT utilizing soft digging techniques (e.g., hand digging). Consistent with the Work Plan, a separate borehole was cleared for installation of the water-table and deep monitoring wells at each of the four perimeter well pairs. The utility clearance activities were conducted between March 12 and 15, 2024.

Based on the utility locating findings, monitoring wells MW-21S and MW-21D are approximately 20 feet apart and monitoring wells MW-22S and MW-22D are approximately 20 feet apart. Monitoring wells MW-23S and MW-23D are approximately 5 feet apart and monitoring wells MW-24S and MW-24D are approximately 5 feet apart.

3.3 Community Air Monitoring

As identified in the Work Plan, Arcadis conducted community air monitoring during ground intrusive activities (utility clearance and drilling activities) in general accordance with the NYSDEC-approved Former Dangman Park Manufactured Gas Plant Site Community Air Monitoring Plan (CAMP; Arcadis 2017). Specifically, Arcadis conducted real-time monitoring for VOCs and particulate matter less than 10 micrometers in diameter (PM_{10}) during ground intrusive activities using two air monitoring stations. The stations were located adjacent to the work zone; one upwind of the intrusive work activities and the other downwind. Periodic observational monitoring for the presence of MGP-related odors was also conducted by Arcadis during drilling activities based on qualitative

and subjective assessment of odor intensity (e.g., not detectable, slight, moderate, etc.). There were no MGP-related odors identified, nor were any odor complaints received.

There were no exceedances of the community air monitoring action levels due to the ground intrusive activities.

3.4 Construction Noise Mitigation Plan

Prior to conducting intrusive field work, ADT completed the construction noise mitigation plan required by the New York City Department of Environmental Protection, certifying that their construction devices and equipment to be used comply with all applicable rules in Title 15 Rules of the City of New York – RCNY Chapter 28. The completed construction noise mitigation plan was posted at the active work area.

3.5 Drilling Soil Borings for Installation of Wells

After the perimeter monitoring well pair locations were cleared of utilities (Section 3.2), a soil boring was drilled for the water-table well and a separate soil boring was drilled for the deep well using sonic drilling techniques. Prior to drilling at each of the four perimeter well pairs, a work zone was set up that included temporary chain link fencing encompassing each active work zone, with sound barrier panels/blankets attached to the fencing. Each work zone maintained the minimum 5 foot clear pedestrian walk on the sidewalk as stipulated in the NYC DOT permits (Section 2).

The soil boring drilling activities were conducted between March 19 and April 3, 2024. As previously identified, the two separate boreholes at the MW-23S/MW-23D and MW-24S/MW-24D perimeter monitoring well pairs are approximately 5 feet apart, and the two separate boreholes at the MW-21S/MW-21D and MW-22S/MW-22D perimeter monitoring well pairs are approximately 20 feet apart. At each borehole, continuous soil sampling commenced at 5 ft bls and was conducted by advancing a 5-foot-long core barrel. Once the core barrel was advanced, a secondary or “override” casing was advanced down to the same depth as the core barrel to keep the borehole from collapsing while the core barrel was removed. The soil borings associated with the shallow and deep monitoring wells were drilled to depths of 19 and 93 ft bls, respectively.

Soil recovered from each sample interval was visually characterized by Arcadis for color, texture, and moisture content as described in the National Grid Field Descriptions of Samples for Former Manufactured Gas Plant (MGP) Sites (Appendix B [Field Sampling Plan (FSP)] of the RI Work Plan) and the soil was field screened with a photoionization detector (PID). There were no observations of visible staining or non-aqueous phase liquid (NAPL) and no obvious odors were noted. PID readings of 0.0 parts per million (ppm) were recorded in the soil cores collected from the MW-21D, MW-22S, MW-23S, and MW-24S boreholes. PID readings above 0.0 ppm were recorded in some of the soil cores collected from the MW-21S, MW-22D, MW-23D, and MW-24D boreholes as follows:

- MW-21S:
  - PID readings ranging from 0.5 to 2.0 ppm were recorded in the 5 to 10 ft bls soil core.
- MW-22D:
  - PID readings ranging from 0.1 to 1.1 ppm were recorded in the soil cores collected between 50 and 70 ft bls.
- MW-23D:
  - A PID reading of 0.6 ppm was recorded in the 5 to 10 ft bls soil core.

- MW-24D:
  - PID readings ranging from 0.2 to 0.4 ppm were recorded in the 5 to 10 ft bls soil core.
  - A PID reading of 0.1 ppm was recorded in the 55 to 60 ft bls soil core.

The soil boring logs are provided in **Appendix B**. The soil cores were photographed and representative soil core photographs, along with a photograph of the monitoring well MW-24D work zone during drilling activities, are included in a field photograph log which is provided in **Appendix C**.

As identified above, the field work was conducted in accordance with Arcadis' current HASP for the Site including air monitoring in the worker breathing zone during implementation of the work activities. The air was monitored using a PID, a multi-gas meter, and a real-time aerosol monitor. There were no exceedances of the action levels identified in the HASP.

Soil generated during drilling was containerized in Department of Transportation (DOT)-approved 55-gallon steel drums appropriately labeled with the contents, generator, location, and date for off-site transportation and treatment/disposal in accordance with applicable rules and regulations (see Section 3.8 for additional details regarding IDW management).

3.6 Perimeter Groundwater Wells Installation

An OU 1 perimeter monitoring well pair, each consisting of a water-table monitoring well (screened 6 to 16 ft bls) and deep groundwater monitoring well (screened 80 to 90 ft bls), were installed at two locations along Neptune Avenue and two locations along West 5th Street (**Figure 2**). The monitoring wells installation activities were conducted between March 20 and April 3, 2024.

The screen intervals for the water-table and deep wells were identified in the Work Plan, with the following NYSDEC requirement: the actual screen interval for any of the deep groundwater monitoring wells will be modified in the field and the screen length increased from 10 feet to 15 feet, if needed, based on field observation of impacts (if any). As also identified in the Work Plan, observed impacts to be used to identify the actual screen interval and/or modify deep well screen lengths were the presence of visible staining, NAPL, and/or PID readings greater than 10 ppm identified when screening the soil recovered from each of the soil borings drilled to install the deep perimeter monitoring wells as described above in Section 3.5. There were no observations of visible staining or NAPL and the highest PID reading in a deep monitoring well soil boring was 1.1 ppm (MW-22D [60 to 65 ft bls soil core]); therefore, the screen intervals did not need to be modified.

The monitoring wells were installed in separate boreholes using the protocols presented in the Arcadis Monitoring Well Installation Standard Operating Procedure (SOP) (Appendix B [FSP] of the RI Work Plan [Arcadis 2011]). The monitoring wells were constructed using 2-inch diameter Schedule 40 polyvinyl chloride (PVC) casing and screen. The water-table perimeter monitoring wells (MW-21S through MW-24S) were completed to a depth that permits the screened section of the well to generally straddle the water table (screened from 6 to 16 ft bls similar to the water-table monitoring wells that were installed during the RI and SC). Perimeter monitoring wells MW-21D through MW-24D are deep groundwater monitoring wells that were completed with a screen interval from 80 to 90 ft bls. A 3-foot-long PVC sump was installed at the bottom (below the screen) of each perimeter monitoring well. The monitoring wells were completed at the surface with a locking cap and a flush-mount protective casing. The monitoring well construction logs are provided in **Appendix D**.

Immediately prior to development, each monitoring well was gauged for the presence of NAPL using the procedures described in the Arcadis Water-Level and NAPL Thickness Measurement Procedures SOP (Appendix

B [FSP] of the RI Work Plan). NAPL was not detected in any of the wells prior to or during development. Each well was then developed by surging and pumping water from the well using the procedures outlined in the Arcadis Monitoring Well Development SOP (Appendix B [FSP] of the RI Work Plan). Surging and pumping continued until the turbidity was below 50 nephelometric turbidity units and pH and conductivity measurements had stabilized. The monitoring well development activities were conducted between April 4 and 9, 2024.

Restoration of the work areas was performed by ADT in accordance with NYC DOT requirements. The work area restoration activities (sidewalk flag replacement at each monitoring well location) were conducted between April 9 and 16, 2024.

IDW generated during monitoring well installation, development, and equipment decontamination was containerized in appropriately labeled DOT-approved 55-gallon steel drums for off-site transportation and treatment/disposal in accordance with applicable rules and regulations (see Section 3.8 for additional details regarding IDW management).

After the well installation activities, N & P Engineering, Architecture and Land Surveying, PLLC, a New York State licensed surveyor, field surveyed the monitoring well locations. For each monitoring well, the surveyor determined the location relative to the New York State Plane Coordinate System, and the ground surface elevation and measuring point elevation (defined as the top of the inner PVC casing) relative to the National Geodetic Vertical Datum of 1929. The monitoring well field survey activities were conducted on May 9, 2024.

3.7 Perimeter Groundwater Sampling

Arcadis collected a groundwater sample from each OU 1 perimeter monitoring well approximately one month after well development. The groundwater sampling activities were conducted between May 7 and 10, 2024. Prior to purging and sampling, each well was gauged for the presence of NAPL. NAPL was not detected in any of the wells prior to groundwater sampling. The depth to groundwater in the monitoring wells ranged from 5.16 to 7.12 feet below the measuring point (**Table 1**), which is approximately equivalent to 5.66 to 7.57 ft bls. The monitoring wells were purged using low-flow methods as described in the Low-Flow Groundwater Purging and Sampling Procedures for Monitoring Wells SOP (Appendix B [FSP] of the NYSDEC-approved RI Work Plan).

Following purging, a groundwater sample was collected from each monitoring well using low-flow sampling techniques and a submersible pump. Quality assurance/quality control (QA/QC) samples were also collected during the groundwater sampling activities. The groundwater samples and QA/QC samples were submitted to Eurofins Environment Testing Northeast, LLC (Eurofins) for the analysis of VOCs and SVOCs. Eurofins is a laboratory with current Environmental Laboratory Approval Program (ELAP) certificates from the New York State Department of Health (NYSDOH) for the analysis of VOCs and SVOCs in accordance with EPA SW-846 Methods 8260D and 8270E, respectively. Field parameters including pH, oxidation-reduction potential (ORP), temperature, conductivity, dissolved oxygen, and turbidity were collected during groundwater sampling using the procedures outlined in the aforementioned Low-Flow Groundwater Purging and Sampling Procedures for Monitoring Wells SOP and recorded on groundwater sampling forms. The groundwater sampling forms are provided in **Appendix E**.

The groundwater samples were analyzed under a standard turnaround time in accordance with the analytical methods listed in the Quality Assurance Project Plan (QAPP) (Appendix C of the RI Work Plan). The analytical data were transferred from the laboratory and maintained in a database format. Eurofins provided Electronic Data Deliverables, which were uploaded directly into the project database. Eurofins produced NYSDEC Analytical

Services Protocol (ASP) Category B deliverable packages that contained all information needed for formal validation of the data.

3.8 Investigation-Derived Waste Management

IDW (e.g., soil, groundwater, plastic sheeting, personal protective equipment, decontamination water, concrete debris, etc.) was containerized and transported for off-site treatment/disposal as non-hazardous in accordance with applicable rules and regulations. IDW was containerized in DOT-approved 55-gallon steel drums that were properly labeled with the contents, generator, location, and date. IDW was transported for off-site treatment/disposal by National Grid's contractor (Veolia ES Technical Solutions, L.L.C.).

4 Groundwater Quality

This section summarizes the groundwater quality data that were generated from analysis of the groundwater samples that were collected as described in Section 3.7. The VOC and SVOC laboratory analytical data are summarized in **Tables 2** through **5**. The VOC and SVOC data were compared to the NYSDEC Division of Water Technical and Operational Guidance Series 1.1.1 (TOGS) Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations (NYSDEC, reissued June 1998, and revised April 2000, June 2004, and February 2023).

Data validation was performed by Arcadis in accordance with applicable requirements and guidelines, including analytical method performance criteria, laboratory control limits, and NYSDEC ASP requirements. These procedures are specific regarding evaluation of holding time, surrogate and spike recoveries, precision of duplicate measurements, instrument performance, blank contamination, compound identification, and compound quantification. Additional information is provided in the QAPP (Appendix C of the RI Work Plan). Following completion of the data validation, data usability summary reports (DUSRs) were prepared by Arcadis in accordance with DER-10 and are provided in **Appendix F**. As detailed in the DUSRs, the overall system performance was acceptable.

4.1 Volatile Organic Compounds

No MGP-related VOCs were detected above the laboratory reporting limit in the groundwater samples (**Table 2**). Two non-MGP-related VOCs (bromodichloromethane and chloroform) were detected in the groundwater samples. Chloroform was the only VOC detected above its respective Ambient Water Quality Standard or Guidance Value; specifically, chloroform was detected at a concentration of 51 micrograms per liter (ug/L) in the groundwater sample collected from monitoring well MW-23S (**Figure** 3), exceeding the standard of 7 ug/L.

The VOC QA/QC sample data (**Table 4**) were incorporated into the data usability assessment performed by Arcadis. The detections in the VOC QA/QC samples did not adversely affect the acceptability of the groundwater samples results.

4.2 Semi-Volatile Organic Compounds

No SVOCs were detected above the laboratory reporting limit in the groundwater samples (**Table 3**) or the QA/QC samples (**Table 5**).

5 Findings and Conclusions

The section summarizes the findings of the OU 1 perimeter monitoring wells installation and groundwater sampling activities and presents the conclusions. Based on the data obtained from installing and sampling the OU 1 perimeter monitoring wells, the following are the findings and conclusions:

- There were no observations of visible staining or NAPL and no obvious odors were noted during the monitoring well soil boring drilling activities.
- NAPL was not detected in any of the monitoring wells prior to or during well development and groundwater sampling activities.
- No MGP-related VOCs were detected above the laboratory reporting limit in the groundwater samples. Two non-MGP-related VOCs (bromodichloromethane and chloroform) were detected in the groundwater samples.
- No SVOCs were detected above the laboratory reporting limit in the groundwater samples.
- The post-remediation VOC and SVOC groundwater data collected from the OU 1 perimeter monitoring wells in May 2024 demonstrate that the OU 1 remedy was effective, and that off-site migration of MGP-related constituents has not occurred due to the redevelopment activities on Lot 1001.

6 References

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Arcadis. 2023. Operable Unit 1 – Perimeter Groundwater Monitoring Wells Installation and Sampling Work Plan, Former Dangman Park Manufactured Gas Plant Site, Brooklyn, New York, NYSDEC Site No. 224047, Index # A2-0552-0606. Revised October 3.

NYSDEC. 2010. DER-10, Technical Guidance for Site Investigation and Remediation, May.

NYSDEC. 2023. Letter from John Miller, PE, NYSDEC, RE: Groundwater Well Installations. April 3.

Tables

Table 1
Water-Level Measurements Collected from Monitoring Wells between May 7 and 10, 2024
Former Dangman Park MGP Site
Brooklyn, New York

Monitoring Well Designation	Elevation of Measuring Point (feet NGVD 29)	Depth to Water (feet bmp)	Water-Level Elevation (feet NGVD 29)
MW-21S	9.87	7.12	2.75
MW-21D	9.87	6.90	2.97
MW-22S	9.23	6.44	2.79
MW-22D	9.47	6.51	2.96
MW-23S	7.99	5.16	2.83
MW-23D	8.03	5.29	2.74
MW-24S	8.75	6.07	2.68
MW-24D	8.77	5.99	2.78

Acronyms and Abbreviations:
bmp = below measuring point
NGVD 29 = National Geodetic Vertical Datum of 1929

Table 2
Concentrations of VOCs in Groundwater Samples Collected from OU 1 Perimeter Monitoring Wells
Former Dangman Park MGP Site
Brooklyn, New York

Sample ID: Sample Date: Compound (Units in ug/L)	NYSDEC TOGS (1.1.1) Ambient Water Quality Standards and Guidance Values (ug/L)	MW-21D 05/10/24	DUP051024 05/10/24 MW-21D Duplicate	MW-21S 05/09/24	MW-22D 05/09/24	MW-22S 05/09/24	MW-23D 05/08/24	MW-23S 05/08/24	MW-24D 05/07/24	MW-24S 05/07/24
1,1,1-Trichloroethane	5	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
1,1,2,2-Tetrachloroethane	5	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
1,1,2-Trichloro-1,2,2-trifluoroethane	5	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
1,1,2-Trichloroethane	1	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
1,1-Dichloroethane	5	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0 J	<1.0	<1.0
1,1-Dichloroethene	5	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
1,2,4-Trichlorobenzene	5	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
1,2,4-Trimethylbenzene	5	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
1,2-Dibromo-3-Chloropropane	0.04	<1.0 J	<1.0 J	<1.0 J	<1.0 J	<1.0 J	<1.0	<1.0	<1.0	<1.0
1,2-Dibromoethane	0.0006	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
1,2-Dichlorobenzene	3	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
1,2-Dichloroethane	0.6	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
1,2-Dichloropropane	1	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
1,3,5-Trimethylbenzene	5	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
1,3-Dichlorobenzene	3	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
1,4-Dichlorobenzene	3	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
1,4-Dioxane	0.35	<50	<50	<50	<50	<50	<50	<50	<50	<50
2-Butanone (MEK)	50	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
2-Hexanone	50	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
4-Methyl-2-pentanone (MIBK)	--	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
Acetone	50	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0 B	<5.0
Benzene	1	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Bromodichloromethane	50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	**1.4**	<1.0	<1.0
Bromoform	50	<1.0 J	<1.0 J	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Bromomethane	5	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Carbon disulfide	60	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0

See notes on last page.

Table 2
Concentrations of VOCs in Groundwater Samples Collected from OU 1 Perimeter Monitoring Wells
Former Dangman Park MGP Site
Brooklyn, New York

Sample ID: Sample Date: Compound (Units in ug/L)	NYSDEC TOGS (1.1.1) Ambient Water Quality Standards and Guidance Values (ug/L)	MW-21D 05/10/24	DUP051024 05/10/24 MW-21D Duplicate	MW-21S 05/09/24	MW-22D 05/09/24	MW-22S 05/09/24	MW-23D 05/08/24	MW-23S 05/08/24	MW-24D 05/07/24	MW-24S 05/07/24
Carbon tetrachloride	5	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Chlorobenzene	5	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Chloroethane	5	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Chloroform	7	**1.7**	**1.7**	<1.0	**0.85 J**	<1.0	**0.67 J**	**51**	**1.3**	<1.0
Chloromethane	5	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0 J	<1.0 J	<1.0	<1.0
cis-1,2-Dichloroethene	5	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
cis-1,3-Dichloropropene	0.4	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Cyclohexane	--	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Dibromochloromethane	50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Dichlorodifluoromethane	5	<1.0 J	<1.0 J	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Ethylbenzene	5	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Isopropylbenzene	5	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Methyl acetate	--	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
Methyl tert-butyl ether	10	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Methylcyclohexane	--	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Methylene Chloride	5	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0 B	<1.0	<1.0	<1.0
n-Butylbenzene	5	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
N-Propylbenzene	5	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
sec-Butylbenzene	5	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Styrene	5	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
tert-Butylbenzene	5	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Tetrachloroethene	5	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Toluene	5	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
trans-1,2-Dichloroethene	5	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
trans-1,3-Dichloropropene	0.4	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Trichloroethene	5	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0

See notes on last page.

Table 2
Concentrations of VOCs in Groundwater Samples Collected from OU 1 Perimeter Monitoring Wells
Former Dangman Park MGP Site
Brooklyn, New York

Sample ID: Sample Date: Compound (Units in ug/L)	NYSDEC TOGS (1.1.1) Ambient Water Quality Standards and Guidance Values (ug/L)	MW-21D 05/10/24	DUP051024 05/10/24 MW-21D Duplicate	MW-21S 05/09/24	MW-22D 05/09/24	MW-22S 05/09/24	MW-23D 05/08/24	MW-23S 05/08/24	MW-24D 05/07/24	MW-24S 05/07/24
Trichlorofluoromethane	5	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Vinyl chloride	2	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Xylenes, Total	5	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0

Notes:
1. **Bold** indicates detection above laboratory Method Detection Limit.
Compound concentration exceeds Ambient Water Quality Standard or Guidance Value.

Acronyms and Abbreviations:
B = Compound is considered non-detect at the listed value due to associated blank contamination.
J = estimated value
-- = not available
NYSDEC = New York State Department of Environmental Conservation
TOGS = Technical and Operational Guidance Series
ug/L = micrograms per liter
VOCs = volatile organic compounds

Table 3
Concentrations of SVOCs in Groundwater Samples Collected from OU 1 Perimeter Monitoring Wells
Former Dangman Park MGP Site
Brooklyn, New York

Sample ID: Sample Date: Compound (Units in ug/L)	NYSDEC TOGS (1.1.1) Ambient Water Quality Standards and Guidance Values (ug/L)	MW-21D 05/10/24	DUP051024 05/10/24 MW-21D Duplicate	MW-21S 05/09/24	MW-22D 05/09/24	MW-22S 05/09/24	MW-23D 05/08/24	MW-23S 05/08/24	MW-24D 05/07/24	MW-24S 05/07/24
1,1'-Biphenyl	5	<10	<10	<10	<10	<10	<10	<10	<10	<10
2,2'-oxybis(1-chloropropane)	5	<10	<10	<10	<10	<10	<10	<10	<10	<10
2,4,5-Trichlorophenol	1[a]	<10	<10	<10	<10	<10	<10	<10	<10	<10
2,4,6-Trichlorophenol	1[a]	<10	<10	<10	<10	<10	<10	<10	<10	<10
2,4-Dichlorophenol	5	<10	<10	<10	<10	<10	<10	<10	<10	<10
2,4-Dimethylphenol	50	<10	<10	<10	<10	<10	<10	<10	<10	<10
2,4-Dinitrophenol	10	<40 J	<40 J	<40 J	<40	<40	<40 J	<40 J	<40	<40
2,4-Dinitrotoluene	5	<10 J	<10 J	<10 J	<10	<10	<10 J	<10 J	<10	<10
2,6-Dinitrotoluene	5	<2.0 J	<2.0 J	<2.0 J	<2.0	<2.0	<2.0 J	<2.0 J	<2.0	<2.0
2-Chloronaphthalene	10	<10	<10	<10	<10	<10	<10	<10	<10	<10
2-Chlorophenol	1[a]	<10	<10	<10	<10	<10	<10	<10	<10	<10
2-Methylnaphthalene	--	<10	<10	<10	<10	<10	<10	<10	<10	<10
2-Methylphenol	1[a]	<10	<10	<10	<10	<10	<10	<10	<10	<10
2-Nitroaniline	5	<10	<10	<10	<10	<10	<10	<10	<10	<10
2-Nitrophenol	1[a]	<10	<10	<10	<10	<10	<10	<10	<10	<10
3 & 4 Methylphenol	1[a]	<10	<10	<10	<10	<10	<10	<10	<10	<10
3,3'-Dichlorobenzidine	5	<10	<10	<10 J	<10	<10	<10	<10	<10	<10
3-Nitroaniline	5	<10 J	<10 J	<10 J	<10	<10	<10 J	<10 J	<10	<10
4,6-Dinitro-2-methylphenol	1[a]	<20 J	<20 J	<20 J	<20	<20	<20 J	<20 J	<20	<20
4-Bromophenyl phenyl ether	--	<10	<10	<10	<10	<10	<10	<10	<10	<10
4-Chloro-3-methylphenol	1[a]	<10	<10	<10	<10	<10	<10	<10	<10	<10
4-Chloroaniline	5	<10 J	<10 J	<10 J	<10 J	<10 J	<10 J	<10 J	<10	<10
4-Chlorophenyl phenyl ether	--	<10	<10	<10	<10	<10	<10	<10	<10	<10
4-Nitroaniline	5	<10 J	<10 J	<10 J	<10	<10	<10 J	<10 J	<10 J	<10 J
4-Nitrophenol	1[a]	<20	<20	<20	<20	<20	<20	<20	<20	<20
Acenaphthene	20	<10	<10	<10	<10	<10	<10	<10	<10	<10

See notes on last page.

Table 3
Concentrations of SVOCs in Groundwater Samples Collected from OU 1 Perimeter Monitoring Wells
Former Dangman Park MGP Site
Brooklyn, New York

Sample ID: Sample Date: Compound (Units in ug/L)	NYSDEC TOGS (1.1.1) Ambient Water Quality Standards and Guidance Values (ug/L)	MW-21D 05/10/24	DUP051024 05/10/24 MW-21D Duplicate	MW-21S 05/09/24	MW-22D 05/09/24	MW-22S 05/09/24	MW-23D 05/08/24	MW-23S 05/08/24	MW-24D 05/07/24	MW-24S 05/07/24
Acenaphthylene	--	<10	<10	<10	<10	<10	<10	<10	<10	<10
Acetophenone	--	<10	<10	<10	<10	<10	<10	<10	<10	<10
Anthracene	50	<10	<10	<10	<10	<10	<10	<10	<10	<10
Atrazine	7.5	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
Benzaldehyde	--	<10	<10	<10	<10	<10	<10	<10	<10	<10
Benzo(a)anthracene	0.002	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Benzo(a)pyrene	ND	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Benzo(b)fluoranthene	0.002	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
Benzo(g,h,i)perylene	--	<10	<10	<10	<10	<10	<10	<10	<10	<10
Benzo(k)fluoranthene	0.002	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Bis(2-chloroethoxy)methane	5	<10	<10	<10	<10	<10	<10	<10	<10	<10
Bis(2-chloroethyl)ether	1	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Bis(2-ethylhexyl)phthalate	5	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
Butyl benzyl phthalate	50	<10	<10	<10	<10	<10	<10	<10	<10	<10
Caprolactam	--	<10 J	<10 J	<10 J	<10 J	<10 J	<10 J	<10 J	<10 J	<10 J
Carbazole	--	<10	<10	<10	<10	<10	<10	<10	<10	<10
Chrysene	0.002	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
Dibenz(a,h)anthracene	--	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Dibenzofuran	--	<10	<10	<10	<10	<10	<10	<10	<10	<10
Diethyl phthalate	50	<10	<10	<10	<10	<10	<10	<10	<10	<10
Dimethyl phthalate	50	<10	<10	<10	<10	<10	<10	<10	<10	<10
Di-n-butyl phthalate	50	<10	<10	<10	<10	<10	<10	<10	<10	<10
Di-n-octyl phthalate	50	<10	<10	<10	<10	<10	<10	<10	<10	<10
Fluoranthene	50	<10	<10	<10	<10	<10	<10	<10	<10	<10
Fluorene	50	<10	<10	<10	<10	<10	<10	<10	<10	<10
Hexachlorobenzene	0.04	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0

See notes on last page.

Table 3
Concentrations of SVOCs in Groundwater Samples Collected from OU 1 Perimeter Monitoring Wells
Former Dangman Park MGP Site
Brooklyn, New York

Sample ID: Sample Date: Compound (Units in ug/L)	NYSDEC TOGS (1.1.1) Ambient Water Quality Standards and Guidance Values (ug/L)	MW-21D 05/10/24	DUP051024 05/10/24 MW-21D Duplicate	MW-21S 05/09/24	MW-22D 05/09/24	MW-22S 05/09/24	MW-23D 05/08/24	MW-23S 05/08/24	MW-24D 05/07/24	MW-24S 05/07/24
Hexachlorobutadiene	0.5	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Hexachlorocyclopentadiene	5	<10	<10	<10	<10	<10	<10	<10	<10	<10
Hexachloroethane	5	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
Indeno(1,2,3-cd)pyrene	0.002	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
Isophorone	50	<10	<10	<10	<10	<10	<10	<10	<10	<10
Naphthalene	10	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
Nitrobenzene	0.4	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
N-Nitrosodi-n-propylamine	--	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
N-Nitrosodiphenylamine	50	<10	<10	<10	<10	<10	<10	<10	<10	<10
Pentachlorophenol	1[a]	<20 J	<20 J	<20 J	<20	<20	<20 J	<20 J	<20	<20
Phenanthrene	50	<10	<10	<10	<10	<10	<10	<10	<10	<10
Phenol	1[a]	<10	<10	<10	<10	<10	<10	<10	<10	<10
Pyrene	50	<10	<10	<10	<10	<10	<10	<10	<10	<10

Notes:
[a] Applies to the sum of these substances.

Acronyms and Abbreviations:
J = estimated value
-- = not available
ND = non-detectable
NYSDEC = New York State Department of Environmental Conservation
SVOCs = semi-volatile organic compounds
TOGS = Technical and Operational Guidance Series
ug/L = micrograms per liter

Table 4
Concentrations of VOCs in Quality Assurance/Quality Control Samples
Former Dangman Park MGP Site
Brooklyn, New York

Sample ID: / Sample Date: / Compound (Units in ug/L)	EB050724 05/07/24	EB050824 05/08/24	EB050924 05/09/24	EB051024 05/10/24	TB050724 05/07/24	TB050824 05/08/24	TB050924 05/09/24	TB051024 05/10/24
1,1,1-Trichloroethane	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
1,1,2,2-Tetrachloroethane	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
1,1,2-Trichloro-1,2,2-trifluoroethane	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
1,1,2-Trichloroethane	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
1,1-Dichloroethane	<1.0	<1.0 J	<1.0	<1.0	<1.0	<1.0 J	<1.0	<1.0
1,1-Dichloroethene	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
1,2,4-Trichlorobenzene	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
1,2,4-Trimethylbenzene	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
1,2-Dibromo-3-Chloropropane	<1.0	<1.0	<1.0 J	<1.0 J	<1.0	<1.0	<1.0 J	<1.0 J
1,2-Dibromoethane	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
1,2-Dichlorobenzene	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
1,2-Dichloroethane	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
1,2-Dichloropropane	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
1,3,5-Trimethylbenzene	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
1,3-Dichlorobenzene	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
1,4-Dichlorobenzene	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
1,4-Dioxane	<50	<50	<50	<50	<50	<50	<50	<50
2-Butanone (MEK)	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
2-Hexanone	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
4-Methyl-2-pentanone (MIBK)	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
Acetone	**8.7**	<5.0	<5.0	**5.5**	<5.0	<5.0	<5.0	<5.0
Benzene	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Bromodichloromethane	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Bromoform	<1.0	<1.0	<1.0	<1.0 J	<1.0	<1.0	<1.0	<1.0 J
Bromomethane	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Carbon disulfide	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Carbon tetrachloride	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Chlorobenzene	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Chloroethane	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Chloroform	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0

See notes on last page.

Table 4
Concentrations of VOCs in Quality Assurance/Quality Control Samples
Former Dangman Park MGP Site
Brooklyn, New York

Sample ID: / Sample Date: / Compound (Units in ug/L)	EB050724 05/07/24	EB050824 05/08/24	EB050924 05/09/24	EB051024 05/10/24	TB050724 05/07/24	TB050824 05/08/24	TB050924 05/09/24	TB051024 05/10/24
Chloromethane	<1.0	<1.0 J	<1.0	<1.0	<1.0	<1.0 J	<1.0	<1.0
cis-1,2-Dichloroethene	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
cis-1,3-Dichloropropene	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Cyclohexane	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Dibromochloromethane	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Dichlorodifluoromethane	<1.0	<1.0	<1.0	<1.0 J	<1.0	<1.0	<1.0	<1.0 J
Ethylbenzene	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Isopropylbenzene	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Methyl acetate	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
Methyl tert-butyl ether	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Methylcyclohexane	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Methylene Chloride	<1.0	**0.98 J**	**0.92 J**	<1.0	<1.0	<1.0	<1.0	<1.0
n-Butylbenzene	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
N-Propylbenzene	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
sec-Butylbenzene	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Styrene	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
tert-Butylbenzene	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Tetrachloroethene	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Toluene	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
trans-1,2-Dichloroethene	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
trans-1,3-Dichloropropene	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Trichloroethene	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Trichlorofluoromethane	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Vinyl chloride	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Xylenes, Total	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0

Notes:
1. **Bold** indicates detection above laboratory Method Detection Limit.

Acronyms and Abbreviations:
J = estimated value
ug/L = micrograms per liter
VOCs = volatile organic compounds

Table 5
Concentrations of SVOCs in Quality Assurance/Quality Control Samples
Former Dangman Park MGP Site
Brooklyn, New York

Sample ID: / Sample Date: / Compound (Units in ug/L)	EB050724 05/07/24	EB050824 05/08/24	EB050924 05/09/24	EB051024 05/10/24
1,1'-Biphenyl	<10	<10	<10	<10
2,2'-oxybis(1-chloropropane)	<10	<10	<10	<10
2,4,5-Trichlorophenol	<10	<10	<10	<10
2,4,6-Trichlorophenol	<10	<10	<10	<10
2,4-Dichlorophenol	<10	<10	<10	<10
2,4-Dimethylphenol	<10	<10	<10	<10
2,4-Dinitrophenol	<40	<40 J	<40	<40 J
2,4-Dinitrotoluene	<10	<10 J	<10	<10 J
2,6-Dinitrotoluene	<2.0	<2.0 J	<2.0	<2.0 J
2-Chloronaphthalene	<10	<10	<10	<10
2-Chlorophenol	<10	<10	<10	<10
2-Methylnaphthalene	<10	<10	<10	<10
2-Methylphenol	<10	<10	<10	<10
2-Nitroaniline	<10	<10	<10	<10
2-Nitrophenol	<10	<10	<10	<10
3 & 4 Methylphenol	<10	<10	<10	<10
3,3'-Dichlorobenzidine	<10	<10	<10	<10
3-Nitroaniline	<10	<10 J	<10	<10 J
4,6-Dinitro-2-methylphenol	<20	<20 J	<20	<20 J
4-Bromophenyl phenyl ether	<10	<10	<10	<10
4-Chloro-3-methylphenol	<10	<10	<10	<10
4-Chloroaniline	<10	<10 J	<10 J	<10 J
4-Chlorophenyl phenyl ether	<10	<10	<10	<10
4-Nitroaniline	<10 J	<10 J	<10	<10 J
4-Nitrophenol	<20	<20	<20	<20
Acenaphthene	<10	<10	<10	<10
Acenaphthylene	<10	<10	<10	<10
Acetophenone	<10	<10	<10	<10
Anthracene	<10	<10	<10	<10
Atrazine	<2.0	<2.0	<2.0	<2.0
Benzaldehyde	<10	<10	<10	<10
Benzo(a)anthracene	<1.0	<1.0	<1.0	<1.0
Benzo(a)pyrene	<1.0	<1.0	<1.0	<1.0
Benzo(b)fluoranthene	<2.0	<2.0	<2.0	<2.0
Benzo(g,h,i)perylene	<10	<10	<10	<10
Benzo(k)fluoranthene	<1.0	<1.0	<1.0	<1.0
Bis(2-chloroethoxy)methane	<10	<10	<10	<10
Bis(2-chloroethyl)ether	<1.0	<1.0	<1.0	<1.0
Bis(2-ethylhexyl)phthalate	<2.0	<2.0	<2.0	<2.0
Butyl benzyl phthalate	<10	<10	<10	<10
Caprolactam	<10 J	<10 J	<10 J	<10 J
Carbazole	<10	<10	<10	<10
Chrysene	<2.0	<2.0	<2.0	<2.0

See notes on last page.

Table 5
Concentrations of SVOCs in Quality Assurance/Quality Control Samples
Former Dangman Park MGP Site
Brooklyn, New York

Sample ID: / Sample Date: / Compound (Units in ug/L)	EB050724 05/07/24	EB050824 05/08/24	EB050924 05/09/24	EB051024 05/10/24
Dibenz(a,h)anthracene	<1.0	<1.0	<1.0	<1.0
Dibenzofuran	<10	<10	<10	<10
Diethyl phthalate	<10	<10	<10	<10
Dimethyl phthalate	<10	<10	<10	<10
Di-n-butyl phthalate	<10	<10	<10	<10
Di-n-octyl phthalate	<10	<10	<10	<10
Fluoranthene	<10	<10	<10	<10
Fluorene	<10	<10	<10	<10
Hexachlorobenzene	<1.0	<1.0	<1.0	<1.0
Hexachlorobutadiene	<1.0	<1.0	<1.0	<1.0
Hexachlorocyclopentadiene	<10	<10	<10	<10
Hexachloroethane	<2.0	<2.0	<2.0	<2.0
Indeno(1,2,3-cd)pyrene	<2.0	<2.0	<2.0	<2.0
Isophorone	<10	<10	<10	<10
Naphthalene	<2.0	<2.0	<2.0	<2.0
Nitrobenzene	<1.0	<1.0	<1.0	<1.0
N-Nitrosodi-n-propylamine	<1.0	<1.0	<1.0	<1.0
N-Nitrosodiphenylamine	<10	<10	<10	<10
Pentachlorophenol	<20	<20 J	<20	<20 J
Phenanthrene	<10	<10	<10	<10
Phenol	<10	<10	<10	<10
Pyrene	<10	<10	<10	<10

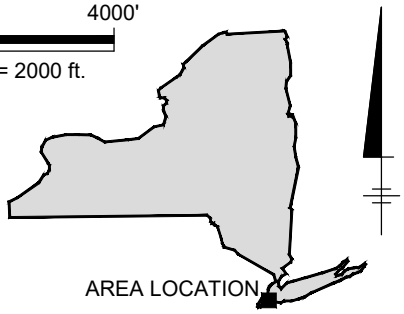
Acronyms and Abbreviations:
J = estimated value
SVOCs = semi-volatile organic compounds
ug/L = micrograms per liter

Figures

REFERENCE: BASE MAP USGS 7.5. MIN. TOPO. QUAD., CONEY ISLAND, NEW YORK - NEW JERSEY, 2013, LONG ISLAND ZONE NAD 83 (US FOOT).

0 2000' 4000'

Approximate Scale: 1 in. = 2000 ft.



NATIONAL GRID
BROOKLYN, NEW YORK
FORMER DANGMAN PARK MGP SITE
BOROUGH OF BROOKLYN, KINGS COUNTY, NEW YORK

SITE LOCATION

ARCADIS

FIGURE
1

XREFS:
IMAGES: PROJECTNAME: ---
Arcadis Logo.png

C:\Users\PPHalliw\DC\ACCDocs\Arcadis ACC US\AUS-99999999-NATL GRID_DANGMAN PARK_BROOKLYN_NY\Project Files\10_WIP\10T_ARC_ENV\2024\01-DWG\NG-2024-DANGMAN PARK-PWR-F02-OU1 PERIMETER MWS INSTALLED.dwg LAYOUT: 2 SAVED: 8/2/2024 2:11 PM ACADVER: 24.2S (LMS TECH) PAGESETUP: ---- PLOTSTYLETABLE: ---- PLOTTED: 8/2/2024 2:12 PM BY: HALLIWELL, TRISH

XREFS:
GWIWP-X-DANGMAN PARK-BDR-CP

IMAGES:
GEN-X-AERIAL BACKGROUND.jpg
Arcadis Logo.png

BLOCK 7250, LOT 1R

NEPTUNE AVENUE (WESTBOUND TRAFFIC)

NEPTUNE AVENUE (EASTBOUND TRAFFIC)

WEST 5TH STREET

MW-20
MW-21D
MW-21S
MW-22D
MW-22S
MW-23D
MW-23S
MW-24D
MW-24S
LB-10
CPT-6
SB-16
LB-18
VP-1
MW-13
MW-14
MW-15
MW-16
MW-17
CPT-9
VP-2
LB-20
SB-17
MW-18
LB-21
LB-22
LB-24
LB-25
CPT-5
SB-8
VP-3
LB-13
SB-9
LB-53
CPT-10
SB-10
LB-23
EXTENT OF NAPL
LB-16
MW-19
LB-11
LB-15
LB-17
LB-14
CISTERN (1906)
CPT-8
GAS HOLDER (1906)
LB-26
GENERATING ROOM
SB-11
SB-4/MW-10
SB-3/MW-5
MW-1
LB-51
MW-2
LB-52
CPT-11
SB-12
LB-12
CPT-7
LB-19
SRI-1
SRI-2
SRI-3
LB-27
SRI-4
SRI-5
SRI-6
SRI-7
PURIFYING HOUSE (1895)
LB-49
SRI-8
SRI-9
LB-50
TAR TANK (1895)
SRI-11
OIL TANK
SRI-10
GENERATING HOUSE (1906)
LB-32
SB-13
LB-45
MW-3
SB-5/MW-11
SB-1
LB-46
SB-2
MW-4
LB-47
SB-14
LB-36
STORAGE
RETORT HOUSE (1895)
SB-19
SB-6
SB-7
SB-20
SB-21
VP-4
SB-22

SOURCE: GOOGLE EARTH AERIAL IMAGE. IMAGERY DATE: 9/4/2020

NOTES:

1. ALL LOCATIONS ARE APPROXIMATE.
2. THE EXTENT OF NAPL IS BASED ON THE OBSERVATION OF NAPL IN THE SOIL BORINGS DURING THE SITE CHARACTERIZATION AND REMEDIAL INVESTIGATION. STAINED SOIL OR A SHEEN WERE NOT INCLUDED IN THE MAPPING OF THE EXTENT OF NAPL. THE EXTENT OF NAPL WAS CORROBORATED BY THE SUBSEQUENT SUPPLEMENTAL REMEDIAL INVESTIGATION AND PROPERTY OWNER GEOTECHNICAL INVESTIGATION SOIL BORINGS. MORE THAN 50% OF THE 90 BORINGS DRILLED IN ASSOCIATION WITH THE SITE WERE INSTALLED SUBSEQUENT TO THE REMEDIAL INVESTIGATION.
3. FKA: FORMERLY KNOWN AS
4. MGP: MANUFACTURED GAS PLANT
5. NAPL: NON-AQUEOUS PHASE LIQUID

LEGEND:

- APPROXIMATE BOUNDARY OF BLOCK 7273, LOT 1001 (FKA LOT 1R)
- APPROXIMATE BOUNDARY OF BLOCK 7273, LOT 1002 (FKA LOT 1R)
- APPROXIMATE BOUNDARY OF BLOCK 7273, LOT 25
- APPROXIMATE FORMER MGP SITE BOUNDARY
- FORMER MGP FEATURE (1895 AND/OR 1906 SANBORN FIRE INSURANCE MAPS); SOME LOCATIONS ADJUSTED BASED ON FIELD OBSERVATIONS OF POTENTIAL GAS HOLDER WALL DURING THE SUPPLEMENTAL REMEDIAL INVESTIGATION
- EXTENT OF NAPL (SEE NOTE 2)
- APPROXIMATE BOUNDARY OF OU 1
- APPROXIMATE BOUNDARY OF OU 2
- SB-1: SITE CHARACTERIZATION SOIL BORING LOCATION (ARCADIS, 2009)
- SB-2: SITE CHARACTERIZATION SOIL BORING/GEOPROBE GROUNDWATER SAMPLING LOCATION (ARCADIS, 2009)
- MW-1: DECOMMISSIONED SITE CHARACTERIZATION INVESTIGATION MONITORING WELL LOCATION (ARCADIS, 2016)
- VP-1: REMEDIAL INVESTIGATION VERTICAL AQUIFER PROFILE TEMPORARY MONITORING WELL LOCATION (ARCADIS, 2012)
- SRI-10: REMEDIAL INVESTIGATION/SUPPLEMENTAL REMEDIAL INVESTIGATION SOIL BORING LOCATION (ARCADIS, 2011, 2012, AND 2015)
- LB-10: PROPERTY OWNER DRILLED BORING (LANGAN, 2015)
- MW-18: DECOMISSIONED REMEDIAL INVESTIGATION MONITORING WELL LOCATION (ARCADIS, 2016)
- MW-14: DECOMMISSIONED REMEDIAL INVESTIGATION MONITORING WELL LOCATION (ARCADIS, 2022)
- MW-24S: OU 1 PERIMETER MONITORING WELL LOCATION (ARCADIS, 2024)

0 40' 80'
SCALE IN FEET

NATIONAL GRID
BROOKLYN, NEW YORK
FORMER DANGMAN PARK MGP SITE
BOROUGH OF BROOKLYN, KINGS COUNTY, NEW YORK

OU 1 PERIMETER MONITORING WELL LOCATIONS

ARCADIS

FIGURE
2

C:\Users\PPHalliw\DC\ACCDocs\Arcadis ACC US\AUS-99999999-NATL GRID_DANGMAN PARK_BROOKLYN_NY\Project Files\10_WIP\10T_ARC_ENV\2024\01-DWG\NG-2024-DANGMAN PARK-PWR-F03-VOCS IN GW.dwg LAYOUT: 3 SAVED: 8/6/2024 8:23 AM ACADVER: 24.2S (LMS TECH) PAGESETUP: ---- PLOTSTYLETABLE: ---- PLOTTED: 8/6/2024 8:23 AM BY: HALLIWELL, TRISH

XREFS:
GWIWP-X-DANGMAN PARK-BDR-CP

IMAGES:
GEN-X-AERIAL BACKGROUND.jpg
Arcadis Logo.png

BLOCK 7250, LOT 1R

NEPTUNE AVENUE (WESTBOUND TRAFFIC)

NEPTUNE AVENUE (EASTBOUND TRAFFIC)

WEST 5TH STREET

MW-20
MW-21D
MW-21S
MW-22D
MW-22S
MW-23D
MW-23S
MW-24D
MW-24S
LB-10
CPT-6
SB-16
VP-1
MW-13
MW-14
LB-18
MW-15
MW-16
MW-17
CPT-9
VP-2
MW-18
SB-17
LB-20
LB-21
LB-22
LB-24
LB-25
CPT-5
SB-8
VP-3
LB-13
SB-9
LB-53
CPT-10
SB-10
LB-23
EXTENT OF NAPL
MW-19
LB-11
LB-15
LB-16
LB-17
LB-14
CISTERN (1906)
LB-26
CPT-8
GENERATING ROOM
GAS HOLDER
SB-11
SB-4/MW-10
SB-3/MW-5
MW-1
LB-51
SRI-2
SRI-1
LB-19
LB-12
CPT-7
LB-27
SRI-4
SRI-5
SRI-6
SRI-7
PURIFYING HOUSE (1895)
LB-49
SRI-8
SRI-9
LB-50
TAR TANK (1895)
SRI-11
OIL TANK
SRI-10
GENERATING HOUSE (1906)
LB-32
SB-13
LB-45
MW-3
SB-5/MW-11
SB-1
LB-46
SB-2
MW-4
LB-47
SB-14
LB-36
STORAGE
RETORT HOUSE (1895)
SB-19
SB-6
SB-7
SB-20
SB-21
VP-4
SB-22

MW-23S	
Sample ID	MW-23S
Sample Date	05/08/24
Screen Interval (ft)	6-16
Compound	
Chloroform	**51**

SOURCE: GOOGLE EARTH AERIAL IMAGE. IMAGERY DATE: 9/4/2020

NOTES:

1. ALL LOCATIONS ARE APPROXIMATE.
2. THE EXTENT OF NAPL IS BASED ON THE OBSERVATION OF NAPL IN THE SOIL BORINGS DURING THE SITE CHARACTERIZATION AND REMEDIAL INVESTIGATION. STAINED SOIL OR A SHEEN WERE NOT INCLUDED IN THE MAPPING OF THE EXTENT OF NAPL. THE EXTENT OF NAPL WAS CORROBORATED BY THE SUBSEQUENT SUPPLEMENTAL REMEDIAL INVESTIGATION AND PROPERTY OWNER GEOTECHNICAL INVESTIGATION SOIL BORINGS. MORE THAN 50% OF THE 90 BORINGS DRILLED IN ASSOCIATION WITH THE SITE WERE INSTALLED SUBSEQUENT TO THE REMEDIAL INVESTIGATION.
3. FKA: FORMERLY KNOWN AS
4. MGP: MANUFACTURED GAS PLANT
5. NAPL: NON-AQUEOUS PHASE LIQUID
6. SGVs: AMBIENT WATER QUALITY STANDARDS AND GUIDANCE VALUES
7. CONCENTRATION PROVIDED IN MICROGRAMS PER LITER (µg/L).
8. THERE WERE NO OTHER EXCEEDANCES OF SGVs IN THE GROUNDWATER SAMPLES.

LEGEND:

- APPROXIMATE BOUNDARY OF BLOCK 7273, LOT 1001 (FKA LOT 1R)
- APPROXIMATE BOUNDARY OF BLOCK 7273, LOT 1002 (FKA LOT 1R)
- APPROXIMATE BOUNDARY OF BLOCK 7273, LOT 25
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- SB-2: SITE CHARACTERIZATION SOIL BORING/GEOPROBE GROUNDWATER SAMPLING LOCATION (ARCADIS, 2009)
- MW-1: DECOMMISSIONED SITE CHARACTERIZATION INVESTIGATION MONITORING WELL LOCATION (ARCADIS, 2016)
- VP-1: REMEDIAL INVESTIGATION VERTICAL AQUIFER PROFILE TEMPORARY MONITORING WELL LOCATION (ARCADIS, 2012)
- SRI-10: REMEDIAL INVESTIGATION/SUPPLEMENTAL REMEDIAL INVESTIGATION SOIL BORING LOCATION (ARCADIS, 2011, 2012, AND 2015)
- LB-10: PROPERTY OWNER DRILLED BORING (LANGAN, 2015)
- MW-18: DECOMISSIONED REMEDIAL INVESTIGATION MONITORING WELL LOCATION (ARCADIS, 2016)
- MW-14: DECOMMISSIONED REMEDIAL INVESTIGATION MONITORING WELL LOCATION (ARCADIS, 2022)
- MW-24S: OU 1 PERIMETER MONITORING WELL LOCATION (ARCADIS, 2024)

0 40' 80'
SCALE IN FEET

NATIONAL GRID
BROOKLYN, NEW YORK
FORMER DANGMAN PARK MGP SITE
BOROUGH OF BROOKLYN, KINGS COUNTY, NEW YORK

VOLATILE ORGANIC COMPOUND IN GROUNDWATER EXCEEDING SGVs

ARCADIS

FIGURE
3

Appendix A

NYSDEC's April 3, 2023 Letter Re: Groundwater Well Installations

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

Division of Environmental Remediation, Remedial Bureau C
625 Broadway, 12th Floor, Albany, NY 12233-7014
P: (518) 402-9662 I F: (518) 402-9722
www.dec.ny.gov

Transmitted via email

April 3rd, 2023

Donald P. Campbell, PG
National Grid
2 Hanson Place, 11th Floor
Brooklyn, NY 11217
Donald.Campbell@nationalgrid.com

Re: Groundwater Well Installations
Dangman Park Former Manufactured Gas Plant (MGP) Site
Site ID No. 224047
Brooklyn, New York

Dear Mr. Campbell,

The New York State Department of Environmental Conservation (Department) is writing to follow-up on our **March 30th** conversation regarding groundwater well installations at the Former Dangman Park MGP site. As discussed, the Department is requiring the installation of wells around the perimeter of OU-1 (Neptune Avenue, W. 5th Street) to monitor post-remediation conditions and ensure no off-site migration of contamination has occurred due to the site's redevelopment. This monitoring will be a requirement of the forthcoming Record of Decision for OU-1 of the site.

Please submit a brief workplan outlining a proposal for the groundwater well installations including an implementation schedule. Note that the well proposal must include screened intervals for a shallow and a deeper groundwater zone. I may be contacted at 518 (402)-9589 or john.miller@dec.ny.gov with any questions or comments.

Sincerely,

John B. Miller, P.E.
Project Manager

ec: K. Thompson kiera.thompson@dec.ny.gov
S. Lawrence Stephen.Lawrence@health.ny.gov
O. Wolfe oliver.wolfe@dec.ny.gov
J. Phillips Jessica.Phillips@nationalgrid.com

NEW YORK STATE | Department of Environmental Conservation

Appendix B

Soil Boring Logs

SOIL CORE/SAMPLE LOG

Boring/Well: MW-21D Project/No.: Former Dangman Park MGP Site/30205663 Page 1 of 2

Site Location: Brooklyn, NY

Drilling Started: 4/2/24 Drilling Completed: 4/3/24

Drilling Contractor: Aquifer Drilling & Testing, Inc. Driller: Jimmy McGill Helper: A. Grinaldi

Drilling Method: Sonic Drilling Fluid Used: None

Length and Diameter of Coring Device: 5' x 4" Sampling Interval: Continuous feet

Land Surface Elev.: 10.32 feet [X] Surveyed [ ] Estimated Datum: NGVD 29

Total Depth Drilled: 93 Feet Hole Diameter: 6" Type of Sample/ Coring Device: Core Barrel

Prepared By: Kyle Barber Hammer Weight: N/A pounds Hammer Drop: N/A inches

Sample/Core Depth (feet below land surface) From	To	Core Recovery (feet)	PID Reading (ppm)	Sample/Core Description
5	10	1.5	0.0 0.0 0.0	5' - 5.5' - (GP) Dark gray coarse SAND and gravel, some medium sand, semi-dense, moist, no odor (10YR 4/1)
				5.5' - 6.5' - (SP) Brown coarse SAND and medium subangular gravel, loose, wet, no odor (7.5YR 5/3)
				6.5' - 10' - No Recovery
10	15	2.5	0.0 0.0 0.0	10' - 12.5' - (SP) Brown coarse SAND and medium to small subangular gravel, loose, wet, no odor (7.5YR 5/3)
				12.5' - 15' - No Recovery
15	20	3.5	0.0 0.0 0.0	15' - 18.5' - (SP) Brown coarse SAND and medium to small subangular gravel, loose, wet, no odor (7.5YR 5/3)
				18.5' - 20' - No Recovery
20	25	0	-	20' - 25' - No Recovery
25	30	4	0.0 0.0 0.0 0.0 0.0	25' - 29' - (SP) Brown coarse SAND and medium to small subangular gravel, loose, wet, no odor (7.5YR 5/3)
				29' - 30' - No Recovery
30	35	3.5	0.0 0.0 0.0 0.0	30' - 33.5' - (SP) Brown coarse SAND and medium to small subangular gravel, loose, wet, no odor (7.5YR 5/3)
				33.5' - 35' - No Recovery
35	40	1.5	0.0 0.0	35' - 36.5' - (SP) Brown coarse SAND and medium to small subangular gravel, loose, wet, no odor (7.5YR 5/3)
				36.5' - 40' - No Recovery
40	45	0	-	40' - 45' - No Recovery
45	50	0	-	45' - 50' - No Recovery
50	55	5	0.0 0.0 0.0 0.0 0.0	50' - 55' - (SP) Brown coarse SAND and medium to small subangular gravel, loose, wet, no odor (7.5YR 5/3)
55	60	5	0.0 0.0 0.0 0.0 0.0	55' - 60' - (SP) Brown coarse SAND and medium to small subangular gravel, loose, wet, no odor (7.5YR 5/3)
60	65	1.5	0.0 0.0	60' - 61.5' - (SP) Brown coarse SAND and medium to small subangular gravel, loose, wet, no odor (7.5YR 5/3)
				61.5' - 65' - No Recovery
65	70	3	0.0 0.0 0.0 0.0	65' - 68' - (SP) Brown medium SAND, trace coarse and fine sand, loose, moist, no odor (7.5YR 5/4)
				68' - 70' - No Recovery

SOIL CORE/SAMPLE LOG

Boring/Well: MW-21D Project/No.: Former Dangman Park MGP Site/30205663 Page 2 of 2

Prepared By: Kyle Barber

Sample/Core Depth (feet below land surface) From	To	Core Recovery (feet)	PID Reading (ppm)	Sample/Core Description
70	75	4	0.0 0.0 0.0 0.0 0.0	70' - 74' - (SP) Brown medium SAND, trace coarse and fine sand, loose, moist, no odor (7.5YR 5/4)
				74' - 75' - No Recovery
75	80	4	0.0 0.0 0.0 0.0 0.0	75' - 79' - (SP) Brown medium SAND, trace coarse and fine sand, loose, moist, no odor (7.5YR 5/4)
				79' - 80' - No Recovery
80	85	4.5	0.0 0.0 0.0 0.0 0.0	80' - 84.5' - (SP) Brown medium SAND, trace coarse and fine sand, loose, moist, no odor (7.5YR 5/4)
				84.5' - 85' - No Recovery
85	90	3	0.0 0.0 0.0	85' - 88' - (SP) Brown medium SAND, trace coarse and fine sand, loose, moist, no odor (7.5YR 5/4)
				88' - 90' - No Recovery
90	93	1.5	0.0 0.0	90' - 91.5' - (SP) Brown medium SAND, trace coarse and fine sand, loose, moist, no odor (7.5YR 5/4)
				91.5' - 93' - No Recovery

SOIL CORE/SAMPLE LOG

Boring/Well: MW-21S Project/No.: Former Dangman Park MGP Site/30205663 Page 1 of 1

Site Location: Brooklyn, NY

Drilling Started: 4/1/24 Drilling Completed: 4/1/24

Drilling Contractor: Aquifer Drilling & Testing, Inc. Driller: Artie LaRocca Helper: Jimmy McGill

Drilling Method: Sonic Drilling Fluid Used: None

Length and Diameter of Coring Device: 5' x 4" Sampling Interval: Continuous feet

Land Surface Elev.: 10.32 feet [X] Surveyed [ ] Estimated Datum: NGVD 29

Total Depth Drilled: 19 Feet Hole Diameter: 6" Type of Sample/ Coring Device: Core Barrel

Prepared By: Kyle Barber Hammer Weight: N/A pounds Hammer Drop: N/A inches

Sample/Core Depth (feet below land surface) From	To	Core Recovery (feet)	PID Reading (ppm)	Sample/Core Description
5	10	2.5	2.0 0.5 0.5	5' - 5.75' - (GP) Dark gray coarse SAND and medium to large subangular gravel, trace medium sand, loose, moist, no odor (7.5 YR 4/1)
				5.75' - 7.5' - (SP) Brown coarse SAND, some medium sand, and small subangular gravel, moist, no odor (7.5YR 4/4)
				7.5' - 10' - No Recovery
10	15	4.5	0.0 0.0 0.0 0.0 0.0	10' - 14.5' - (SP) Brown coarse SAND, some medium sand and small subangular gravel, moist, no odor (7.5YR 4/4)
				14.5' - 15' - No Recovery
15	19	3	0.0 0.0 0.0 0.0	15' - 18' - (SP) Brown coarse SAND, some medium sand and small subangular gravel, moist, no odor (7.5YR 4/4)
				18' - 19' - No Recovery

SOIL CORE/SAMPLE LOG

Boring/Well: MW-22D Project/No.: Former Dangman Park MGP Site/30205663 Page 1 of 2

Site Location: Brooklyn, NY

Drilling Started: 3/27/24 Drilling Completed: 3/28/24

Drilling Contractor: Aquifer Drilling & Testing, Inc. Driller: Artie LaRocca Helper: A. Grinaldi

Drilling Method: Sonic Drilling Fluid Used: None

Length and Diameter of Coring Device: 5' x 4" Sampling Interval: Continuous feet

Land Surface Elev.: 9.89 feet [X] Surveyed [ ] Estimated Datum: NGVD 29

Total Depth Drilled: 93 Feet Hole Diameter: 6" Type of Sample/ Coring Device: Core Barrel

Prepared By: Kyle Barber Hammer Weight: N/A pounds Hammer Drop: N/A inches

Sample/Core Depth (feet below land surface) From	To	Core Recovery (feet)	PID Reading (ppm)	Sample/Core Description
5	10	3	0.0 0.0 0.0	5' - 5.5' - (GP) Dark gray coarse SAND and medium to large subangular gravel, trace medium sand, loose, wet, no odor (7.5YR 4/1)
				5.5' - 8' - (SP) Strong brown coarse SAND, some medium to large subangular gravel, trace medium and fine sand, loose, wet, no odor (7.5YR 5/6)
				8' - 10' - No Recovery
10	15	4	0.0 0.0 0.0 0.0 0.0	10' - 14' - (SP) Brown coarse SAND, trace medium sand and small subangular gravel, loose, moist, no odor (7.5YR 5/4)
				14' - 15' - No Recovery
15	20	4.5	0.0 0.0 0.0 0.0 0.0	15' - 19.5' - (SP) Brown coarse SAND, trace medium sand and small subangular gravel, loose, moist, no odor (7.5YR 5/4)
				19.5' - 20' - No Recovery
20	25	4	0.0 0.0 0.0 0.0 0.0	20' - 24' - (SP) Brown coarse SAND, trace medium sand and small subangular gravel, loose, moist, no odor (7.5YR 5/4)
				24' - 25' - No Recovery
25	30	4	0.0 0.0 0.0 0.0 0.0	25' - 29' - (SP) Brown coarse SAND, trace medium sand and small subangular gravel, loose, moist, no odor (7.5YR 5/4)
				29' - 30' - No Recovery
30	35	5	0.0 0.0 0.0 0.0 0.0	30' - 33.5' - (SP) Brown coarse SAND, trace medium sand and small subangular gravel, loose, moist, no odor (7.5YR 5/4)
				33.5' - 35' - (SP) Brown medium SAND, some fine sand and silt, semi-dense, moist, no odor (7.5YR 5/4)
35	40	4	0.0 0.0 0.0 0.0 0.0	35' - 39' - (SP) Brown medium SAND, some fine sand and silt, semi-dense, moist, no odor (7.5YR 5/4)
				39' - 40' - No Recovery
40	45	5	0.0 0.0 0.0 0.0 0.0	40' - 45' - (SP) Brown medium SAND, some fine sand and silt, semi-dense, moist, no odor (7.5YR 5/4)
45	50	0	-	45' - 50' - No Recovery
50	55	4	0.0 0.4 0.6 0.7 0.5	50' - 54' - (SP) Brown medium SAND, some fine sand and silt, semi-dense, moist, no odor (7.5YR 5/4)
				54' - 55' - No Recovery

SOIL CORE/SAMPLE LOG

Boring/Well: MW-22D Project/No.: Former Dangman Park MGP Site/30205663 Page 2 of 2

Prepared By: Kyle Barber

Sample/Core Depth (feet below land surface) From	To	Core Recovery (feet)	PID Reading (ppm)	Sample/Core Description
55	60	3.5	0.3 0.1 0.2 0.0	55' - 58.5' - (SP) Brown medium SAND, some fine sand and silt, semi-dense, moist, no odor (7.5YR 5/4)
				58.5' - 60' - No Recovery
60	65	3	0.4 0.8 1.1 0.7	60' - 63' - (SP) Brown medium SAND, some fine sand and silt, semi-dense, moist, no odor (7.5YR 5/4)
				63' - 65' - No Recovery
65	70	2	0.4 0.3 0.2	65' - 67' - (SP) Brown medium SAND, some fine sand and silt, semi-dense, moist, no odor (7.5YR 5/4)
				67' - 70' - No Recovery
70	75	4.5	0.0 0.0 0.0 0.0 0.0	70' - 74.5' - (SP) Brown medium SAND, some fine sand and silt, semi-dense, moist, no odor (7.5YR 5/4)
				74.5' - 75' - No Recovery
75	80	3	0.0 0.0 0.0 0.0 0.0	75' - 78' - (SP) Brown medium SAND, some fine sand and silt, semi-dense, moist, no odor (7.5YR 5/4)
				78' - 80' - No Recovery
80	85	5	0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	80' - 85' - (SP) Brown medium SAND, some fine sand and silt, semi-dense, moist, no odor (7.5YR 5/4)
85	90	3	0.0 0.0 0.0 0.0	85' - 88' - (SP) Brown medium SAND, some fine sand and silt, semi-dense, moist, no odor (7.5YR 5/4)
				88' - 90' - No Recovery

SOIL CORE/SAMPLE LOG

Boring/Well: MW-22S Project/No.: Former Dangman Park MGP Site/30205663 Page 1 of 1

Site Location: Brooklyn, NY

Drilling Started: 3/27/24 Drilling Completed: 3/27/24

Drilling Contractor: Aquifer Drilling & Testing, Inc. Driller: Artie LaRocca Helper: A. Grinaldi

Drilling Method: Sonic Drilling Fluid Used: None

Length and Diameter of Coring Device: 5' x 4" Sampling Interval: Continuous feet

Land Surface Elev.: 9.72 feet [X] Surveyed [ ] Estimated Datum: NGVD 29

Total Depth Drilled: 19 Feet Hole Diameter: 6" Type of Sample/ Coring Device: Core Barrel

Prepared By: Kyle Barber Hammer Weight: N/A pounds Hammer Drop: N/A inches

Sample/Core Depth (feet below land surface) From	To	Core Recovery (feet)	PID Reading (ppm)	Sample/Core Description
5	10	5	0.0 0.0 0.0 0.0 0.0	5' - 6' - (SP) Brown coarse SAND, some small subangular gravel and subangular medium sand, loose, moist, no odor (10YR 5/4) 6' - 10' - (SP) Brown coarse SAND and small subangular gravel, loose, wet, no odor (10YR 5/4)
10	15	5	0.0 0.0 0.0 0.0 0.0	10' - 15' - (SP) Brown coarse SAND and small subangular gravel, loose, wet, no odor (10YR 5/4)
15	19	4	0.0 0.0 0.0 0.0	15' - 19' - (SP) Brown coarse SAND and small subangular gravel, loose, wet, no odor (10YR 5/4)

SOIL CORE/SAMPLE LOG

Boring/Well: MW-23D Project/No.: Former Dangman Park MGP Site/30205663 Page 1 of 2

Site Location: Brooklyn, NY

Drilling Started: 3/21/24 Drilling Completed: 3/22/24

Drilling Contractor: Aquifer Drilling & Testing, Inc. Driller: Artie LaRocca Helper: A. Grinaldi

Drilling Method: Sonic Drilling Fluid Used: None

Length and Diameter of Coring Device: 5' x 4" Sampling Interval: Continuous feet

Land Surface Elev.: 8.49 feet [X] Surveyed [ ] Estimated Datum: NGVD 29

Total Depth Drilled: 93 Feet Hole Diameter: 6" Type of Sample/ Coring Device: Core Barrel

Prepared By: Kyle Barber Hammer Weight: N/A pounds Hammer Drop: N/A inches

Sample/Core Depth (feet below land surface) From	To	Core Recovery (feet)	PID Reading (ppm)	Sample/Core Description
5	10	2.5	0.6 0.0 0.0	5' - 5.25' - (GP) Dark grayish brown coarse SAND and medium subangular gravel, loose, poorly sorted, moist, no odor (10YR 4/2)
				5.25' - 7.5' - (SP) Brown coarse SAND, trace small subangular gravel and medium sand, loose, poorly sorted, wet, no odor (10YR 4/4)
				7.5' - 10' - No Recovery
10	15	4	0.0 0.0 0.0 0.0	10' - 14' - (SP) Brown coarse SAND, trace small subangular gravel and medium sand, loose, poorly sorted, moist, no odor (10YR 4/4)
				14' - 15' - No Recovery
15	20	4.5	0.0 0.0 0.0 0.0	15' - 19.5' - (SP) Brown coarse SAND, trace small subangular gravel and medium sand, loose, poorly sorted, moist, no odor (10YR 4/4)
				19.5' - 20' - No Recovery
20	25	3.5	0.0 0.0 0.0	20' - 23.5' - (SP) Brown coarse SAND, trace small subangular gravel and medium sand, loose, poorly sorted, moist, no odor (10YR 4/4)
				23.5' - 25' - No Recovery
25	30	1	0.0 0.0	25' - 26' - (SP) Brown coarse SAND, trace small subangular gravel and medium sand, loose, poorly sorted, moist, no odor (10YR 4/4)
				26' - 30' - No Recovery
30	35	4.5	0.0 0.0 0.0 0.0 0.0	30' - 34.5' - (SP) Brown coarse SAND, trace small subangular gravel and medium sand, loose, poorly sorted, moist, no odor (10YR 4/4)
				34.5' - 35' - No Recovery
35	40	2.5	0.0 0.0 0.0	35' - 37.5' - (SP) Brown coarse SAND, trace small subangular gravel and medium sand, loose, poorly sorted, moist, no odor (10YR 4/4)
				37.5' - 40' - No Recovery
40	45	4	0.0 0.0 0.0 0.0	40' - 44' - (SP) Brown coarse SAND, trace small subangular gravel and medium sand, loose, poorly sorted, moist, no odor (10YR 4/4)
				44' - 45' - No Recovery
45	50	3	0.0 0.0 0.0	45' - 48' - (SP) Brown coarse SAND, trace small subangular gravel and medium sand, loose, poorly sorted, moist, no odor (10YR 4/4)
				48' - 50' - No Recovery
50	55	4	0.0 0.0 0.0 0.0	50' - 54' - (SP) Brown coarse SAND, trace small subangular gravel and medium sand, loose, poorly sorted, moist, no odor (10YR 4/4)
				54' - 55' - No Recovery

SOIL CORE/SAMPLE LOG

Boring/Well: MW-23D Project/No.: Former Dangman Park MGP Site/30205663 Page 2 of 2

Prepared By: Kyle Barber

Sample/Core Depth (feet below land surface) From	To	Core Recovery (feet)	PID Reading (ppm)	Sample/Core Description
55	60	3.75	0.0 0.0 0.0 0.0	55' - 58.75' - (SP) Brown coarse SAND, trace small subangular gravel and medium sand, loose, poorly sorted, moist, no odor (10YR 4/4)
				58.75' - 60' - No Recovery
60	65	2.25	0.0 0.0	60' - 62.25' - (SP) Brown coarse SAND, trace small subangular gravel and medium sand, loose, poorly sorted, moist, no odor (10YR 4/4)
				62.25' - 65' - No Recovery
65	70	4.5	0.0 0.0 0.0 0.0	65' - 69.5' - (SP) Brown coarse SAND, trace small subangular gravel and medium sand, loose, poorly sorted, moist, no odor (10YR 4/4)
				69.5' - 70' - No Recovery
70	75	4.25	0.0 0.0 0.0 0.0	70' - 74.25' - (SP) Brown coarse SAND, trace small subangular gravel and medium sand, loose, poorly sorted, moist, no odor (10YR 4/4)
				74.25' - 75' - No Recovery
75	80	5	0.0 0.0 0.0 0.0 0.0	75' - 80' - (SP) Brown coarse SAND, trace small subangular gravel and medium sand, loose, poorly sorted, moist, no odor (10YR 4/4)
80	85	2.5	0.0 0.0 0.0	80' - 82.5' - (SP) Brown coarse SAND, trace small subangular gravel and medium sand, loose, poorly sorted, moist, no odor (10YR 4/4)
				82.5' - 85' - No Recovery
85	90	4.5	0.0 0.0 0.0 0.0 0.0	85' - 89.5' - (SP) Brown coarse SAND, trace small subangular gravel and medium sand, loose, poorly sorted, moist, no odor (10YR 4/4)
				89.5' - 90' - No Recovery
90	93	2	0.0 0.0 0.0	90' - 92' - (SP) Brown coarse SAND, trace small subangular gravel and medium sand, loose, poorly sorted, moist, no odor (10YR 4/4)
				92' - 93' - No Recovery

SOIL CORE/SAMPLE LOG

ARCADIS

Boring/Well: MW-23S Project/No.: Former Dangman Park MGP Site/30205663 Page 1 of 1

Site Location: Brooklyn, NY

Drilling Started: 3/25/24 Drilling Completed: 3/25/24

Drilling Contractor: Aquifer Drilling & Testing, Inc. Driller: Artie LaRocca Helper: A. Grinaldi

Drilling Method: Sonic Drilling Fluid Used: None

Length and Diameter of Coring Device: 5' x 4" Sampling Interval: Continuous feet

Land Surface Elev.: 8.49 feet [X] Surveyed [ ] Estimated Datum: NGVD 29

Total Depth Drilled: 19 Feet Hole Diameter: 6" Type of Sample/ Coring Device: Core Barrel

Prepared By: Kyle Barber Hammer Weight: N/A pounds Hammer Drop: N/A inches

Sample/Core Depth (feet below land surface) From	To	Core Recovery (feet)	PID Reading (ppm)	Sample/Core Description
5	10	4	0.0 0.0 0.0 0.0 0.0	5' - 5.5' - (GP) Grayish brown coarse SAND and medium subangular gravel, loose, poorly sorted, moist, no odor (10YR 4/2) 5.5' - 9' - (SP) Brown coarse SAND, trace small subangular gravel and subangular medium sand, loose, poorly sorted, wet, no odor (10YR 4/4) 9' - 10' - No Recovery
10	15	4	0.0 0.0 0.0 0.0 0.0	10' - 14' - (SP) Brown coarse SAND, trace small subangular gravel and subangular medium sand, loose, poorly sorted, wet, no odor (10YR 4/4) 14' - 15' - No Recovery
15	19	2.5	0.0 0.0 0.0	15' - 17.5' - (SP) Brown coarse SAND, trace small subangular gravel and subangular medium sand, loose, poorly sorted, wet, no odor (10YR 4/4) 17.5' - 19' - No Recovery

SOIL CORE/SAMPLE LOG

Boring/Well: MW-24D Project/No.: Former Dangman Park MGP Site/30205663 Page 1 of 2

Site Location: Brooklyn, NY

Drilling Started: 3/19/24 Drilling Completed: 3/20/24

Drilling Contractor: Aquifer Drilling & Testing, Inc. Driller: Artie LaRocca Helper: A. Grinaldi

Drilling Method: Sonic Drilling Fluid Used: None

Length and Diameter of Coring Device: 5' x 4" Sampling Interval: Continuous feet

Land Surface Elev.: 9.17 feet [X] Surveyed [ ] Estimated Datum: NGVD 29

Total Depth Drilled: 93 Feet Hole Diameter: 6" Type of Sample/ Coring Device: Core Barrel

Prepared By: Kyle Barber Hammer Weight: N/A pounds Hammer Drop: N/A inches

Sample/Core Depth (feet below land surface) From	To	Core Recovery (feet)	PID Reading (ppm)	Sample/Core Description
5	10	3	0.2 0.4 0.2 0.3	5' - 5.25' - (GP) Dark grayish brown coarse SAND and large subangular gravel, trace brick fragments and medium to fine sand, poorly sorted, loose, moist (10YR 4/3)
				5.25' - 8' - (SP) Brown coarse SAND, some medium to fine sand and small subangular gravel, sorted, loose, wet (7.5YR 4/4)
				8' - 10' - No Recovery
10	15	4.75	0.0 0.0 0.0 0.0 0.0	10' - 14.75' - (SP) Brown coarse SAND, some medium to fine sand and small subangular gravel, sorted, loose, wet (7.5YR 4/4)
				14.75' - 15' - No Recovery
15	20	4.5	0.0 0.0 0.0 0.0 0.0	15' - 19.5' - (SP) Brown coarse SAND, some medium to fine sand and small subangular gravel, sorted, loose, wet (7.5YR 4/4)
				19.5' - 20' - No Recovery
20	25	4	0.0 0.0 0.0 0.0 0.0	20' - 24' - (SP) Brown coarse SAND, some medium to fine sand and small subangular gravel, sorted, loose, wet (7.5YR 4/4)
				24' - 25' - No Recovery
25	30	4	0.0 0.0 0.0 0.0 0.0	25' - 29' - (SP) Brown coarse SAND, some medium to fine sand and small subangular gravel, sorted, loose, wet (7.5YR 4/4)
				29' - 30' - No Recovery
30	35	4.75	0.0 0.0 0.0 0.0 0.0	30' - 34.75' - (SP) Brown medium SAND, some coarse and fine sand, sorted, semi-dense, moist, no odor (7.5YR 4/4)
				34.75' - 35' - No Recovery
35	40	3	0.0 0.0 0.0 0.0	35' - 38' - (SP) Brown coarse SAND, some fine sand, sorted, semi-dense, wet, no odor (7.5YR 4/4)
				38' - 40' - No Recovery
40	45	4	0.0 0.0 0.0 0.0 0.0	40' - 44' - (SP) Brown coarse SAND, some fine sand, sorted, loose, moist, no odor (7.5YR 4/4)
				44' - 45' - No Recovery.
45	50	0	-	45' - 50' - No Recovery
50	55	4	0.0 0.0 0.0 0.0	50' - 54' - (SP) Brown coarse SAND, some fine sand, sorted, loose, moist, no odor (7.5YR 4/4)
				54' - 55' - No Recovery

SOIL CORE/SAMPLE LOG

Boring/Well: MW-24D Project/No.: Former Dangman Park MGP Site/30205663 Page 2 of 2

Prepared By: Kyle Barber

Sample/Core Depth (feet below land surface) From	To	Core Recovery (feet)	PID Reading (ppm)	Sample/Core Description
55	60	4.25	0.1 0.0 0.0 0.0 0.0	55' - 59.25' - (SP) Brown coarse SAND, some fine sand, sorted, loose, moist, no odor (7.5YR 4/4) 59.25' - 60' - No Recovery
60	65	5	0.0 0.0 0.0 0.0 0.0	60' - 60.5' - (SP) Brown coarse SAND, some fine sand, sorted, loose, moist, no odor (7.5YR 4/4) 60.5' - 65' - Brown medium SAND and fine SAND, some coarse sand and silt, poorly sorted, semi-dense, moist, no odor (7.5YR 4/4)
65	70	3.5	0.0 0.0 0.0 0.0	65' - 68.5' - Brown medium SAND and fine SAND, some coarse sand and silt, poorly sorted, semi-dense, moist, no odor (7.5YR 4/4) 68.5' - 70' - No Recovery
70	75	2.25	0.0 0.0 0.0	70' - 72.25' - Brown medium SAND and fine SAND, some coarse sand and silt, poorly sorted, semi-dense, moist, no odor (7.5YR 4/4) 72.25' - 75' - No Recovery
75	80	4	0.0 0.0 0.0 0.0 0.0	75' - 79' - Brown medium SAND and fine SAND, some coarse sand and silt, poorly sorted, semi-dense, moist, no odor (7.5YR 4/4) 79' - 80' - No Recovery
80	85	2.5	0.0 0.0 0.0 0.0 0.0	80' - 82.5' - Brown medium SAND and fine SAND, some coarse sand and silt, poorly sorted, semi-dense, moist, no odor (7.5YR 4/4) 82.5' - 85' - No Recovery
85	90	4	0.0 0.0 0.0 0.0 0.0	85' - 89' - Brown medium SAND and fine SAND, some coarse sand and silt, poorly sorted, semi-dense, moist, no odor (7.5YR 4/4) 89' - 90' - No Recovery

SOIL CORE/SAMPLE LOG

ARCADIS

Boring/Well: MW-24S Project/No.: Former Dangman Park MGP Site/30205663 Page 1 of 1

Site Location: Brooklyn, NY

Drilling Started: 3/20/24 Drilling Completed: 3/20/24

Drilling Contractor: Aquifer Drilling & Testing, Inc. Driller: Artie LaRocca Helper: A. Grinaldi

Drilling Method: Sonic Drilling Fluid Used: None

Length and Diameter of Coring Device: 5' x 4" Sampling Interval: Continuous feet

Land Surface Elev.: 9.15 feet [X] Surveyed [ ] Estimated Datum: NGVD 29

Total Depth Drilled: 19 Feet Hole Diameter: 6" Type of Sample/ Coring Device: Core Barrel

Prepared By: Kyle Barber Hammer Weight: N/A pounds Hammer Drop: N/A inches

Sample/Core Depth (feet below land surface) From	To	Core Recovery (feet)	PID Reading (ppm)	Sample/Core Description
5	10	5	0.0 0.0 0.0 0.0 0.0	5' - 6' - (GP) Dark grayish brown coarse SAND and large subangular gravel, loose, poorly sorted, moist, no odor (10YR 4/3) 6' - 10' - (SP) Brown coarse SAND, some medium sand and small subangular gravel, loose, sorted, wet, no odor (7.5YR 4/4)
10	15	4	0.0 0.0 0.0 0.0 0.0	10' - 14' - (SP) Brown coarse SAND, some medium sand and small subangular gravel, loose, sorted, wet, no odor (7.5YR 4/4) 14' - 15' - No Recovery
15	19	3.5	0.0 0.0 0.0 0.0	15' - 18.5' - (SP) Brown coarse SAND, some medium sand and small subangular gravel, loose, sorted, wet, no odor (7.5YR 4/4) 18.5' - 19' - No Recovery

Appendix C

Field Photograph Log

Photograph Log

National Grid
Former Dangman Park Manufactured Gas Plant Site
Brooklyn, New York

Photograph: 1

Description:
5 - 10 ft bls soil core

Location: MW-21D

Date: 4/2/2024

Photograph: 2

Description:
10 - 15 ft bls soil core

Location: MW-21D

Date: 4/2/2024

Photograph Log

National Grid
Former Dangman Park Manufactured Gas Plant Site
Brooklyn, New York

Photograph: 3

Description:
80 - 85 ft bls soil core

Location: MW-21D

Date: 4/3/2024

Photograph: 4

Description:
85 - 90 ft bls soil core

Location: MW-21D

Date: 4/3/2024

Photograph Log

National Grid
Former Dangman Park Manufactured Gas Plant Site
Brooklyn, New York

Photograph: 5

Description:
5 - 10 ft bls soil core

Location: MW-21S

Date: 4/1/2024

Photograph: 6

Description:
10 - 15 ft bls soil core

Location: MW-21S

Date: 4/1/2024

Photograph Log

National Grid
Former Dangman Park Manufactured Gas Plant Site
Brooklyn, New York

Photograph: 7

Description:
5 - 10 ft bls soil core

Location: MW-22D

Date: 3/27/2024

Photograph: 8

Description:
10 - 15 ft bls soil core

Location: MW-22D

Date: 3/27/2024

Photograph Log

National Grid
Former Dangman Park Manufactured Gas Plant Site
Brooklyn, New York

Photograph: 9

Description:
80 - 85 ft bls soil core

Location: MW-22D

Date: 3/28/2024

Photograph: 10

Description:
85 - 90 ft bls soil core

Location: MW-22D

Date: 3/28/2024

Photograph Log

National Grid
Former Dangman Park Manufactured Gas Plant Site
Brooklyn, New York

Photograph: 11

Description:
5 - 10 ft bls soil core

Location: MW-22S

Date: 3/27/2024

Photograph: 12

Description:
10 - 15 ft bls soil core

Location: MW-22S

Date: 3/27/2024

Photograph Log

National Grid
Former Dangman Park Manufactured Gas Plant Site
Brooklyn, New York

Photograph: 13

Description:
5 - 10 ft bls soil core

Location: MW-23D

Date: 3/21/2024

Photograph: 14

Description:
10 - 15 ft bls soil core

Location: MW-23D

Date: 3/21/2024

Photograph Log

National Grid
Former Dangman Park Manufactured Gas Plant Site
Brooklyn, New York

Photograph: 15

Description:
80 - 85 ft bls soil core

Location: MW-23D

Date: 3/22/2024

Photograph: 16

Description:
85 - 90 ft bls soil core

Location: MW-23D

Date: 3/22/2024

Photograph Log

National Grid
Former Dangman Park Manufactured Gas Plant Site
Brooklyn, New York

Photograph: 17

Description:
5 - 10 ft bls soil core

Location: MW-23S

Date: 3/25/2024

Photograph: 18

Description:
10 - 15 ft bls soil core

Location: MW-23S

Date: 3/25/2024

Photograph Log

National Grid
Former Dangman Park Manufactured Gas Plant Site
Brooklyn, New York

Photograph: 19

Description:
5 - 10 ft bls soil core

Location: MW-24D

Date: 3/19/2024

Photograph: 20

Description:
10 - 15 ft bls soil core

Location: MW-24D

Date: 3/19/2024

Photograph Log

National Grid
Former Dangman Park Manufactured Gas Plant Site
Brooklyn, New York

Photograph: 21

Description:
85 - 90 ft bls soil core

Location: MW-24D

Date: 3/20/2024

Photograph: 22

Description:
5 - 10 ft bls soil core

Location: MW-24S

Date: 3/20/2024

Photograph Log

National Grid
Former Dangman Park Manufactured Gas Plant Site
Brooklyn, New York

Photograph: 23

Description:
10 - 15 ft bls soil core

Location: MW-24S

Date: 3/20/2024

Photograph Log

National Grid
Former Dangman Park Manufactured Gas Plant Site
Brooklyn, New York

Photograph: 24

Description:
Work zone during drilling activities

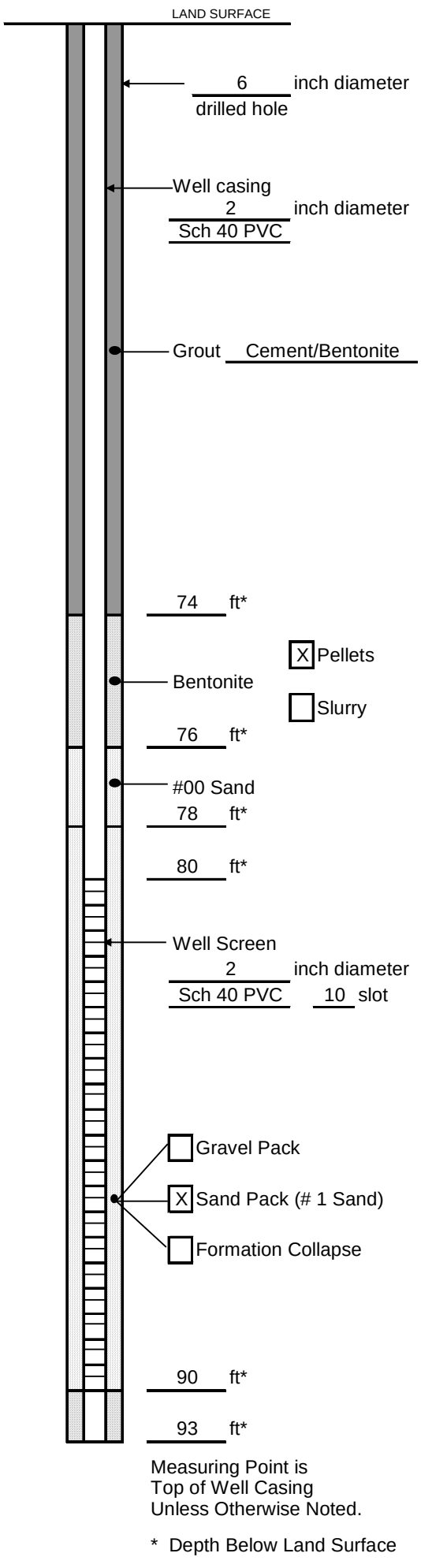
Location: MW-24D

Date: 3/19/2024

Appendix D

Well Construction Logs

WELL CONSTRUCTION LOG



Measuring Point is
Top of Well Casing
Unless Otherwise Noted.

* Depth Below Land Surface

Project: Former Dangman Park MGP Site Well: MW-21D

Town/City: Brooklyn

County: Kings State: NY

Permit No.: Not Applicable

Land Surface and Measuring Point Elevation: Datum: NGVD 29

Land Surface: 10.32 feet [X] Surveyed

Measuring Point: 9.87 feet [ ] Estimated

Installation Date(s): 4/3/24

Drilling Method: Sonic

Drilling Contractor: Aquifer Drilling & Testing, Inc.

Drilling Fluid: None

Development Technique(s) and Date(s)

Pump and Surge

4/5/24 and 4/9/24

Fluid Loss During Driling: 0 gallons

Static Depth to Water: 6.19 feet below M.P.

Water Removed During Development: 140 gallons

Pumping Duration: 1.08 hours

Well Purpose: Monitoring Well

Remarks: 3-foot PVC sump from 90 to 93 ft bls.

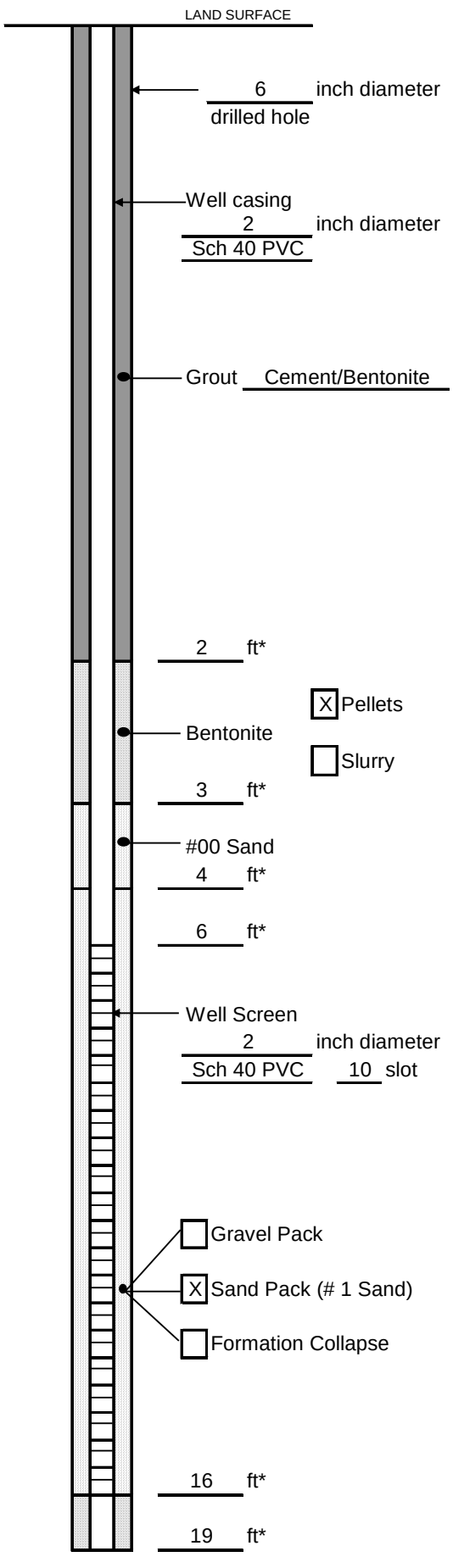
The annulus around the sump is sealed with bentonite from 90 to 93 feet.

Development stopped on 4/5/24 due to earthquake. Resumed development on 4/9/24.

Prepared by: Kyle Barber

ARCADIS

WELL CONSTRUCTION LOG



Measuring Point is
Top of Well Casing
Unless Otherwise Noted.

* Depth Below Land Surface

Project: Former Dangman Park MGP Site Well: MW-21S

Town/City: Brooklyn

County: Kings State: NY

Permit No.: Not Applicable

Land Surface and Measuring Point Elevation: Datum: NGVD 29

Land Surface: 10.32 feet [X] Surveyed

Measuring Point: 9.87 feet [ ] Estimated

Installation Date(s): 4/1/24

Drilling Method: Sonic

Drilling Contractor: Aquifer Drilling & Testing, Inc.

Drilling Fluid: None

Development Technique(s) and Date(s)

Pump and Surge

4/4/24

Fluid Loss During Driling: 0 gallons

Static Depth to Water: 6.42 feet below M.P.

Water Removed During Development: 30 gallons

Pumping Duration: 0.25 hours

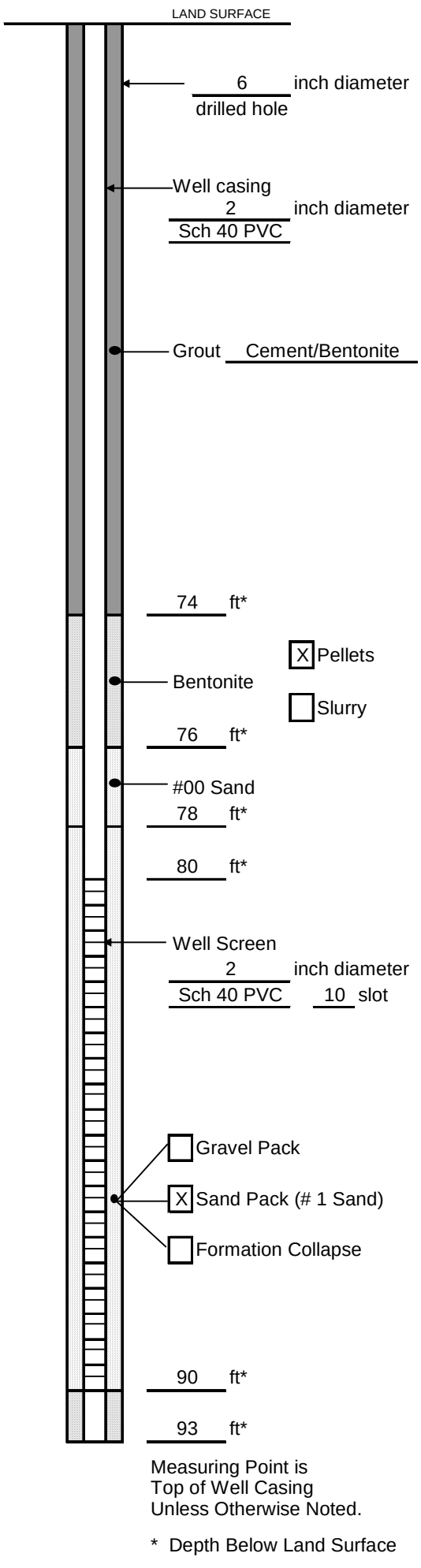
Well Purpose: Monitoring Well

Remarks: 3-foot PVC sump from 16 to 19 ft bls.

The annulus around the sump is sealed with bentonite from 16 to 19 feet.

Prepared by: Kyle Barber

WELL CONSTRUCTION LOG



Measuring Point is
Top of Well Casing
Unless Otherwise Noted.

* Depth Below Land Surface

Project: Former Dangman Park MGP Site Well: MW-22D

Town/City: Brooklyn

County: Kings State: NY

Permit No.: Not Applicable

Land Surface and Measuring Point Elevation: Datum: NGVD 29

Land Surface: 9.89 feet [X] Surveyed

Measuring Point: 9.47 feet [ ] Estimated

Installation Date(s): 3/28/24

Drilling Method: Sonic

Drilling Contractor: Aquifer Drilling & Testing, Inc.

Drilling Fluid: None

Development Technique(s) and Date(s)

Pump and Surge

4/4/24

Fluid Loss During Driling: 0 gallons

Static Depth to Water: 5.71 feet below M.P.

Water Removed During Development: 140 gallons

Pumping Duration: 1.16 hours

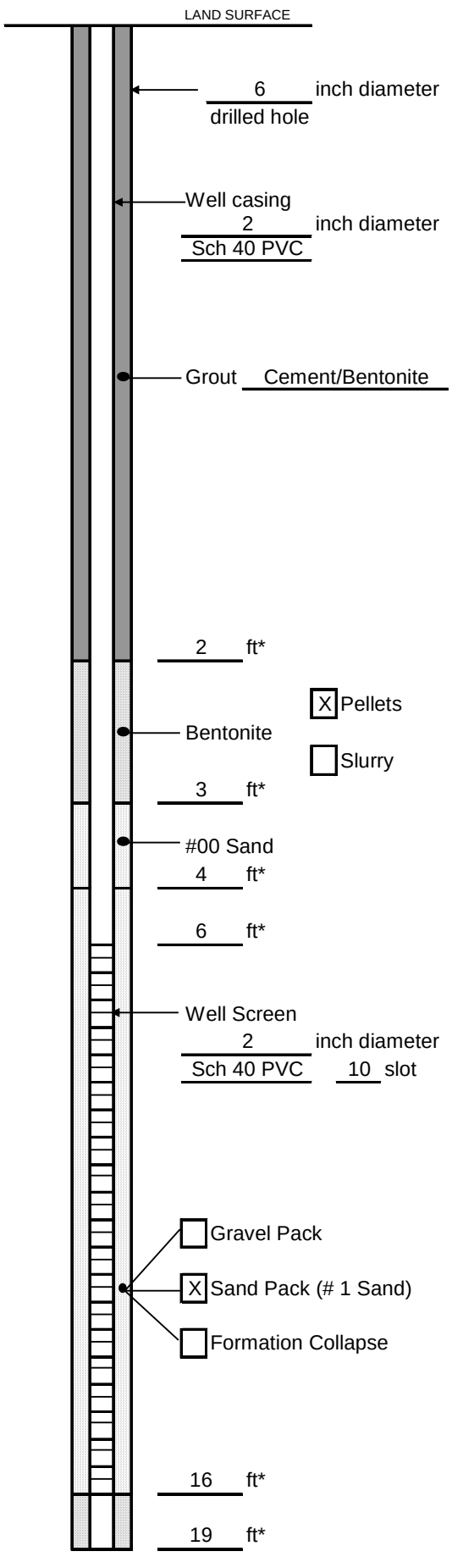
Well Purpose: Monitoring Well

Remarks: 3-foot PVC sump from 90 to 93 ft bls.

The annulus around the sump is sealed with bentonite from 90 to 93 feet.

Prepared by: Kyle Barber

WELL CONSTRUCTION LOG



Measuring Point is
Top of Well Casing
Unless Otherwise Noted.

* Depth Below Land Surface

Project: Former Dangman Park MGP Site Well: MW-22S

Town/City: Brooklyn

County: Kings State: NY

Permit No.: Not Applicable

Land Surface and Measuring Point Elevation: Datum: NGVD 29

Land Surface: 9.72 feet [X] Surveyed

Measuring Point: 9.23 feet [ ] Estimated

Installation Date(s): 3/27/24

Drilling Method: Sonic

Drilling Contractor: Aquifer Drilling & Testing, Inc.

Drilling Fluid: None

Development Technique(s) and Date(s)

Pump and Surge

4/4/24

Fluid Loss During Driling: 0 gallons

Static Depth to Water: 5.73 feet below M.P.

Water Removed During Development: 24 gallons

Pumping Duration: 0.2 hours

Well Purpose: Monitoring Well

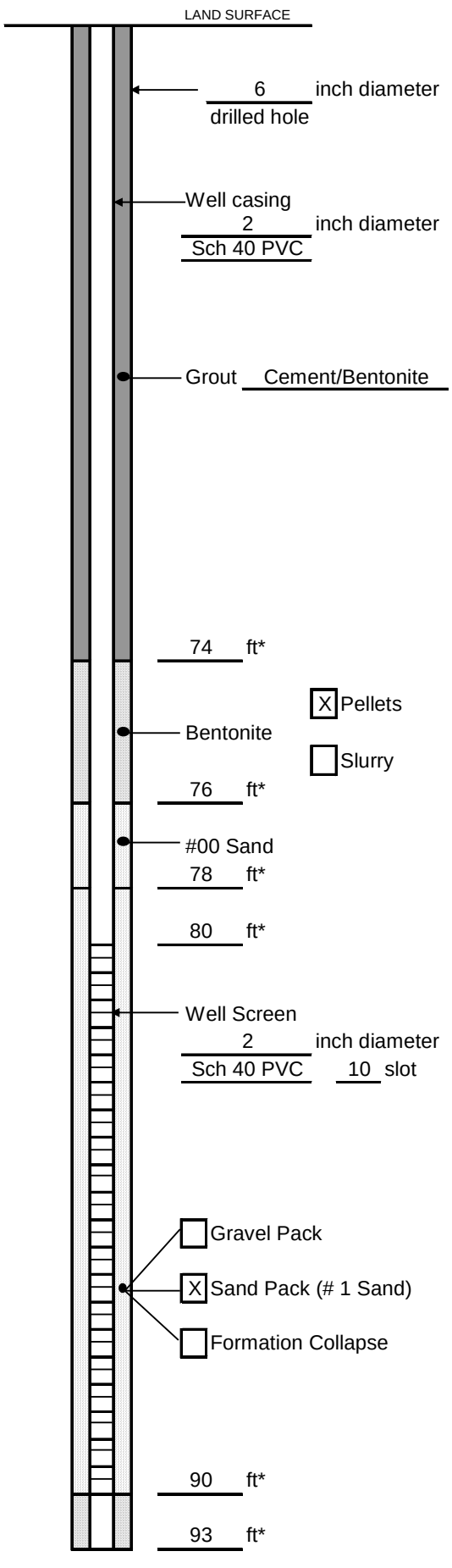
Remarks: 3-foot PVC sump from 16 to 19 ft bls.

The annulus around the sump is sealed with bentonite from 16 to 19 feet.

Prepared by: Kyle Barber

ARCADIS

WELL CONSTRUCTION LOG



Measuring Point is
Top of Well Casing
Unless Otherwise Noted.

* Depth Below Land Surface

Project: Former Dangman Park MGP Site Well: MW-23D

Town/City: Brooklyn

County: Kings State: NY

Permit No.: Not Applicable

Land Surface and Measuring Point Elevation: Datum: NGVD 29

Land Surface: 8.49 feet [X] Surveyed

Measuring Point: 8.03 feet [ ] Estimated

Installation Date(s): 3/25/24

Drilling Method: Sonic

Drilling Contractor: Aquifer Drilling & Testing, Inc.

Drilling Fluid: None

Development Technique(s) and Date(s)

Pump and Surge

4/8/24

Fluid Loss During Driling: 0 gallons

Static Depth to Water: 4.45 feet below M.P.

Water Removed During Development: 140 gallons

Pumping Duration: 1.16 hours

Well Purpose: Monitoring Well

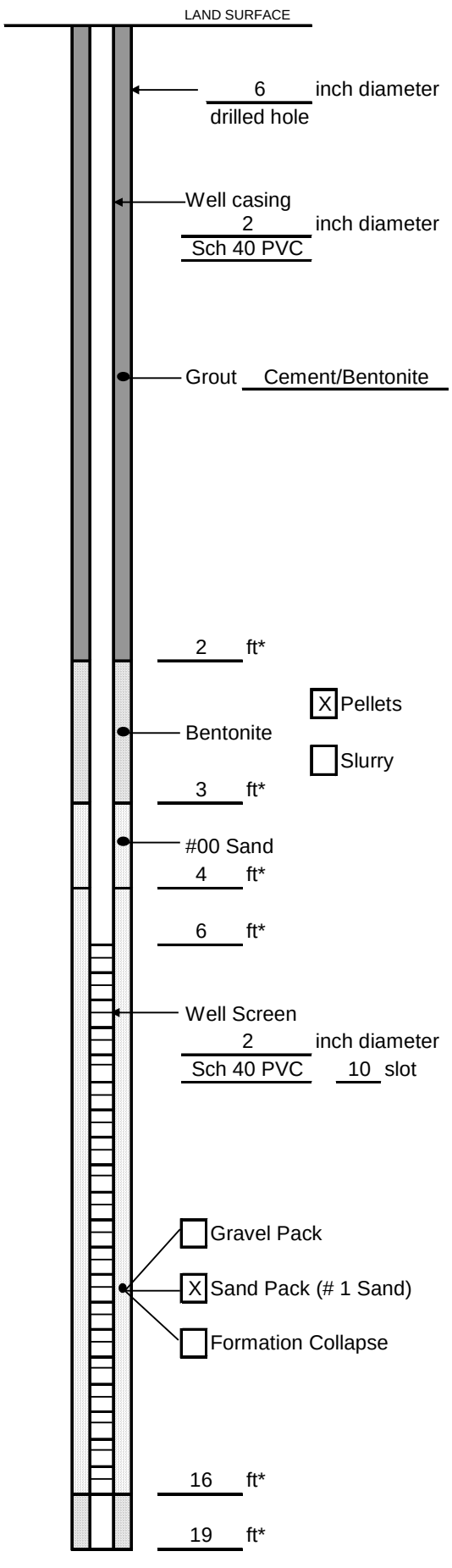
Remarks: 3-foot PVC sump from 90 to 93 ft bls.

The annulus around the sump is sealed with bentonite from 90 to 93 feet.

Prepared by: Kyle Barber

ARCADIS

WELL CONSTRUCTION LOG



Measuring Point is
Top of Well Casing
Unless Otherwise Noted.

* Depth Below Land Surface

Project: Former Dangman Park MGP Site Well: MW-23S

Town/City: Brooklyn

County: Kings State: NY

Permit No.: Not Applicable

Land Surface and Measuring Point Elevation: Datum: NGVD 29

Land Surface: 8.49 feet [X] Surveyed

Measuring Point: 7.99 feet [ ] Estimated

Installation Date(s): 3/25/24

Drilling Method: Sonic

Drilling Contractor: Aquifer Drilling & Testing, Inc.

Drilling Fluid: None

Development Technique(s) and Date(s)

Pump and Surge

4/8/24

Fluid Loss During Driling: 0 gallons

Static Depth to Water: 4.69 feet below M.P.

Water Removed During Development: 27 gallons

Pumping Duration: 0.25 hours

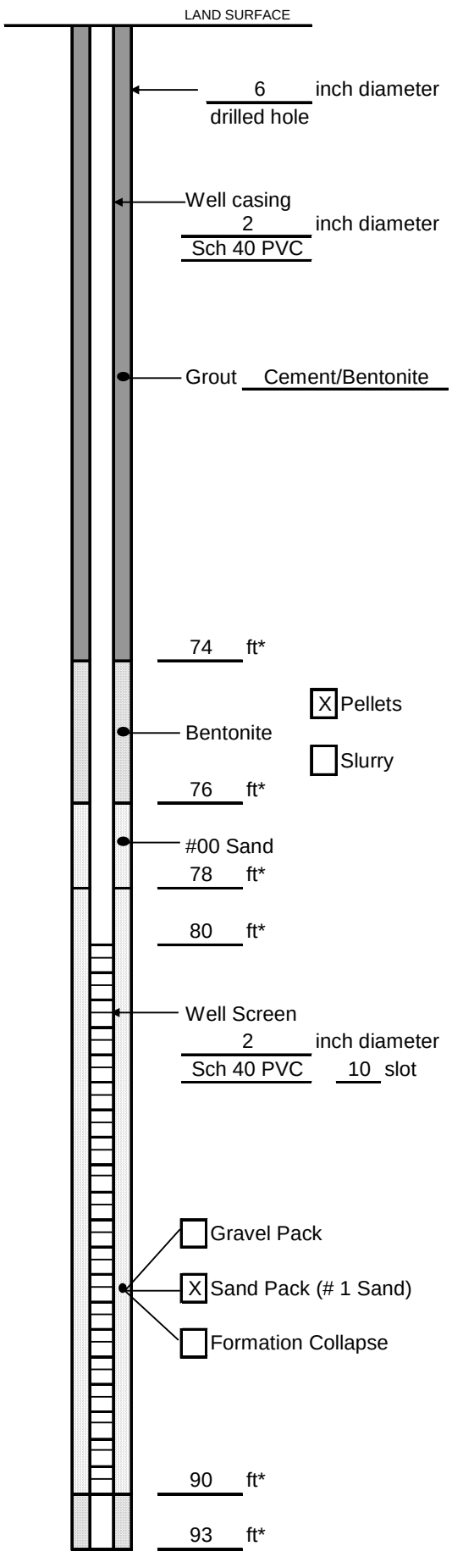
Well Purpose: Monitoring Well

Remarks: 3-foot PVC sump from 16 to 19 ft bls.

The annulus around the sump is sealed with bentonite from 16 to 19 feet.

Prepared by: Kyle Barber

WELL CONSTRUCTION LOG



Measuring Point is
Top of Well Casing
Unless Otherwise Noted.

* Depth Below Land Surface

Project: Former Dangman Park MGP Site Well: MW-24D

Town/City: Brooklyn

County: Kings State: NY

Permit No.: Not Applicable

Land Surface and Measuring Point Elevation: Datum: NGVD 29

Land Surface: 9.17 feet [X] Surveyed

Measuring Point: 8.77 feet [ ] Estimated

Installation Date(s): 3/20/24

Drilling Method: Sonic

Drilling Contractor: Aquifer Drilling & Testing, Inc.

Drilling Fluid: Water

Development Technique(s) and Date(s)

Pump and Surge

4/8/24

Fluid Loss During Driling: 10 gallons

Static Depth to Water: 5.31 feet below M.P.

Water Removed During Development: 140 gallons

Pumping Duration: 1.16 hours

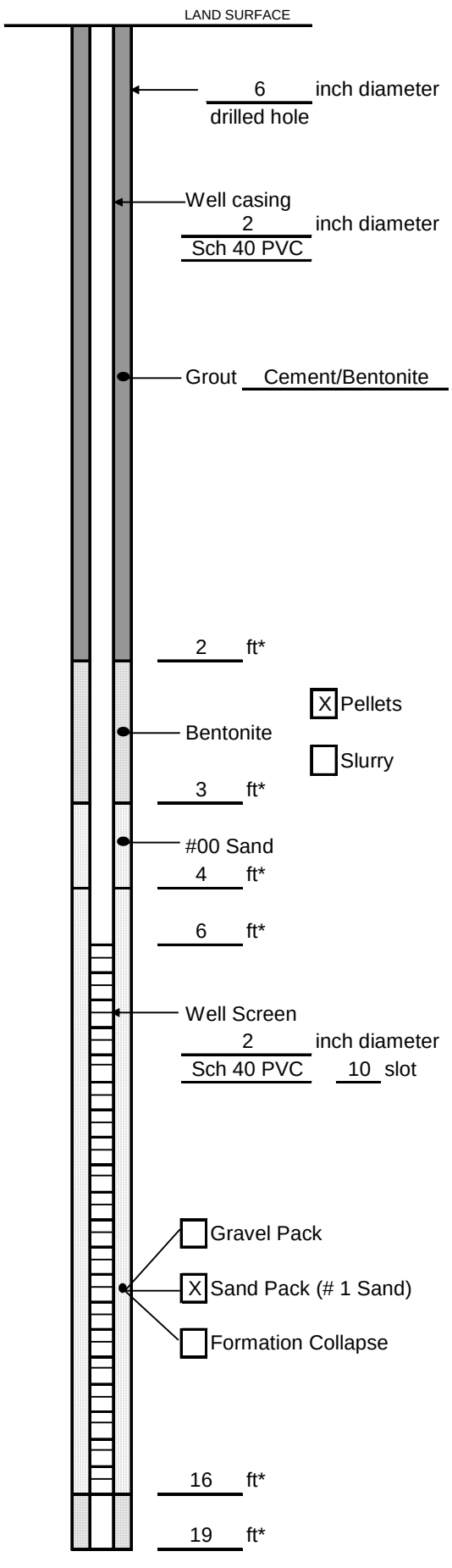
Well Purpose: Monitoring Well

Remarks: 3-foot PVC sump from 90 to 93 ft bls.

The annulus around the sump is sealed with bentonite from 90 to 93 feet.

Prepared by: Kyle Barber

WELL CONSTRUCTION LOG



Measuring Point is
Top of Well Casing
Unless Otherwise Noted.

* Depth Below Land Surface

Project: Former Dangman Park MGP Site Well: MW-24S

Town/City: Brooklyn

County: Kings State: NY

Permit No.: Not Applicable

Land Surface and Measuring Point Elevation: Datum: NGVD 29

Land Surface: 9.15 feet [X] Surveyed

Measuring Point: 8.75 feet [ ] Estimated

Installation Date(s): 3/20/24

Drilling Method: Sonic

Drilling Contractor: Aquifer Drilling & Testing, Inc.

Drilling Fluid: None

Development Technique(s) and Date(s)

Pump and Surge

4/5/24

Fluid Loss During Driling: 0 gallons

Static Depth to Water: 5.44 feet below M.P.

Water Removed During Development: 36 gallons

Pumping Duration: 0.3 hours

Well Purpose: Monitoring Well

Remarks: 3-foot PVC sump from 16 to 19 ft bls.

The annulus around the sump is sealed with bentonite from 16 to 19 feet.

Prepared by: Kyle Barber

Appendix E

Groundwater Sampling Forms

GROUNDWATER SAMPLING FORM

Project No. 30205663 | Well ID MW-21D | Date 5/10/24

Project Name/Location Former Dangman Park MGP Site/Brooklyn, New York | Weather 50s °F, Rain

Measuring Point Description: Top of Casing | Screen Setting (ft bls): 80-90 | Casing Diameter (in.): 2 | Well Material: X PVC, SS

Static Water Level (ft bmp): 6.90 | Total Depth (ft bmp): 92.15 | Water Column (ft): 85.25 | Gallons in Well: 13.64

MP Elevation: 9.87 | Pump Intake (ft bmp): 85 | Purge Method: Pump X, Centrifugal, Submersible, Other | Sample Method: Low-Flow

Pump On/Off: 0817/0936

Sample Time: 0930 | Well Volume Purged: 0.29

Purge Start: 0817 | Gallons Purged: 3.9 | Sample ID: MW-21D | Sampled by: Alyssa Hynes, Kyle Barber, Shirley He

Purge End: 0936 | Replicate/Code No.: DUP051024

Time	Minutes Elapsed	Rate (mL/min)	Depth to Water (ft) -0.3	Gallons Purged	pH ± 0.1	Cond. (mS/cm) ± 3%	Turbidity (NTU) ± 10%	DO (mg/L) ± 10%	Temp. (°C) ± 3%	Redox (mV) ± 10 mV	Appearance	
											Color	Odor
0820	0	--	6.90	0	7.66	2.096	145	1.36	13.7	116.4	Colorless	Odorless
0825	5	450		0.3	6.96	20.967	150	0.50	14.7	44.0	Colorless	Odorless
0830	10	450	6.90	0.6	7.17	24.258	>1000	0.34	14.9	-1.9	Colorless	Odorless
0835	15	450		0.9	7.32	26.091	>1000	0.29	15.0	-67.0	Colorless	Odorless
0840	20	450	6.91	1.2	7.34	26.897	529	0.27	15.1	-100.1	Colorless	Odorless
0845	25	450		1.5	7.33	27.258	285	0.26	15.2	-127.6	Colorless	Odorless
0850	30	450	6.91	1.8	7.32	27.377	160	0.24	15.2	-131.7	Colorless	Odorless
0855	35	450		2.1	7.35	27.557	111	0.23	15.4	-142.7	Colorless	Odorless
0900	40	450	6.91	2.4	7.35	27.602	82.6	0.21	15.5	-146.3	Colorless	Odorless
0905	45	450		2.7	7.37	27.642	93.9	0.21	15.1	-148.9	Colorless	Odorless
0910	50	450	6.91	3	7.36	27.804	60.9	0.18	15.5	-151.5	Colorless	Odorless
0915	55	450		3.3	7.37	27.760	48.7	0.19	15.5	-152.2	Colorless	Odorless
0920	60	450	6.91	3.6	7.37	27.775	46.8	0.19	15.5	-152.7	Colorless	Odorless
0925	65	450	6.91	3.9	7.38	27.824	31.8	0.18	15.5	-152.9	Colorless	Odorless

Constituents Sampled	Container	Number	Preservative
VOCs 8260	VOA Vial 40 mL	3	HCl
SVOCs 8270	Amber Glass 250 mL	2	None

Comments Soft bottom of well - total depth = 92.15 ft bmp

Well Casing Volumes

Gallons/Foot ***1" = 0.04*** ***1.25" = 0.06*** ***1.5" = 0.09*** ***2" = 0.16*** ***2.5" = 0.26*** ***3" = 0.37*** ***3.5" = 0.50*** ***4" = 0.65*** ***6" = 1.47***

Well Information

Well Location: Neptune Avenue | Well Locked at Arrival: Yes / No

Condition of Well: Good | Well Locked at Departure: Yes / No

Well Completion: Flush Mount / Stick Up

GROUNDWATER SAMPLING FORM

Project No. 30205663 | Well ID MW-21S | Date 5/9/24

Project Name/Location Former Dangman Park MGP Site/Brooklyn, New York | Weather 70s °F, Sunny

Measuring Point Description: Top of Casing | Screen Setting (ft bls): 6-16 | Casing Diameter (in.): 2 | Well Material: X PVC, SS

Static Water Level (ft bmp): 7.12 | Total Depth (ft bmp): 18.36 | Water Column (ft): 11.24 | Gallons in Well: 1.80

MP Elevation: 9.87 | Pump Intake (ft bmp): 11 | Purge Method: Pump X, Centrifugal, Submersible, Other | Sample Method: Low-Flow

Pump On/Off: 1301/1420, 1455/1510

Sample Time: 1505 | Volume Purged: 3.28

Purge Start: 1301/1455 | Gallons Purged: 5.9 | Sample ID: MW-21S | Sampled by: Alyssa Hynes, Kyle Barber, Shirley He

Purge End: 1420/1510 | Replicate/Code No.: MW-21S MS/MSD

Time	Minutes Elapsed	Rate (mL/min)	Depth to Water (ft) -0.3	Gallons Purged	pH ± 0.1	Cond. (mS/cm) ± 3%	Turbidity (NTU) ± 10%	DO (mg/L) ± 10%	Temp. (°C) ± 3%	Redox (mV) ± 10 mV	Appearance	
											Color	Odor
1305	0	500	7.12	0	7.42	0.721	>1000	1.15	15.09	-84.0	Light Brown	Odorless
1310	5	1200		0.8	7.18	0.777	>1000	0.31	15.10	-72.6	Light Brown	Odorless
1315	10	200	7.14	0.9	7.13	0.794	641	0.25	16.75	-66.5	Light Brown	Odorless
1320	15	200		1.0	7.14	0.790	467	0.26	17.31	-75.2	Light Brown	Odorless
1325	20	250	7.15	1.5	7.13	0.790	319	0.22	17.33	-74.9	Colorless	Odorless
1330	25	250		1.8	7.12	0.787	236	0.19	16.93	-73.4	Colorless	Odorless
1335	30	250	7.15	2.4	7.10	0.787	193	0.19	16.73	-70.5	Colorless	Odorless
1340	35	250		2.8	7.06	0.789	125	0.18	16.50	-68.2	Colorless	Odorless
1345	40	250	7.15	3.6	7.07	0.791	111	0.17	16.62	-67.6	Colorless	Odorless
1350	45	250		4.0	7.07	0.794	78.4	0.17	16.46	-66.3	Colorless	Odorless
1355	50	250	7.15	4.4	7.04	0.786	67.8	0.10	15.31	-61.6	Colorless	Odorless
1400	55	250		4.7	7.04	0.789	47.4	0.11	15.22	-61.5	Colorless	Odorless
1405	60	250	7.15	5.0	7.03	0.792	38.5	0.11	15.04	-60.0	Colorless	Odorless
1410	65	250	7.15	5.3	7.05	0.980	28.1	0.12	14.91	-59.7	Colorless	Odorless
1415	70	250	7.15	5.6	7.04	0.983	17.4	0.12	14.88	-58.6	Colorless	Odorless

Constituents Sampled	Container	Number	Preservative
VOCs 8260	VOA Vial 40 mL	3	HCl
SVOCs 8270	Amber Glass 250 mL	2	None

Comments 1425: Sample collection interrupted by generator turning off. Switched to a different generator. Purging resumed at 1455. Two water quality measurements taken. Sample collection resumed at 1505.

Well Casing Volumes

Gallons/Foot ***1" = 0.04*** ***1.25" = 0.06*** ***1.5" = 0.09*** ***2" = 0.16*** ***2.5" = 0.26*** ***3" = 0.37*** ***3.5" = 0.50*** ***4" = 0.65*** ***6" = 1.47***

Well Information

Well Location: Neptune Avenue | Well Locked at Arrival: Yes / No

Condition of Well: Good | Well Locked at Departure: Yes / No

Well Completion: Flush Mount / Stick Up

GROUNDWATER SAMPLING FORM

ARCADIS

Project No. 30205663 Well ID MW-21S

Project Name/Location Former Dangman Park MGP Site/Brooklyn, New York

Sampled by Alyssa Hynes, Kyle Barber, Shirley He

Time	Minutes Elapsed	Rate (mL/min)	Depth to Water (ft) -0.3	Gallons Purged	pH ± 0.1	Cond. (mS/cm) ± 3%	Turbidity (NTU) ± 10%	DO (mg/L) ± 10%	Temp. (°C) ± 3%	Redox (mV) ± 10 mV	Appearance	
											Color	Odor
1420	75	250	7.15	5.9	7.04	0.981	12.5	0.12	14.79	-58.3	Colorless	Odorless
1454 pump on												
1455	80	225	7.16		7.18	0.928	69.9	1.43	15.15	-13.5	Colorless	Odorless
1500	85	225	7.16		7.07	0.944	48.1	0.76	16.19	-24.6	Colorless	Odorless

GROUNDWATER SAMPLING FORM

ARCADIS

Project No. 30205663 | Well ID MW-22D | Date 5/9/24

Project Name/Location Former Dangman Park MGP Site/Brooklyn, New York | Weather 60s °F, Sunny

Measuring Point Description: Top of Casing | Screen Setting (ft bls): 80-90 | Casing Diameter (in.): 2 | Well Material: X PVC / SS

Static Water Level (ft bmp): 6.51 | Total Depth (ft bmp): 92.16 | Water Column (ft): 85.65 | Gallons in Well: 13.70

MP Elevation: 9.47 | Pump Intake (ft bmp): 85 | Purge Method: Pump X, Centrifugal, Submersible, Other | Sample Method: Low-Flow

Pump On/Off: 1018/1140

Sample Time: 1135 | Volume Purged: 0.54

Purge Start: 1018 | Gallons Purged: 7.4 | Sample ID: MW-22D | Sampled by: Alyssa Hynes, Kyle Barber, Shirley He

Purge End: 1140 | Replicate/Code No.: --

Time	Minutes Elapsed	Rate (mL/min)	Depth to Water (ft) -0.3	Liters Purged	pH ± 0.1	Cond. (mS/cm) ± 3%	Turbidity (NTU) ± 10%	DO (mg/L) ± 10%	Temp. (°C) ± 3%	Redox (mV) ± 10 mV	Appearance	
											Color	Odor
1020	0	--	6.51	0	7.64	18.97	>1000	0.53	15.92	-241.8	Brown	Odorless
1025	5	350		2	7.64	20.89	>1000	0.38	16.34	-220.9	Brown	Odorless
1030	10	350	6.51	4	7.64	21.41	>1000	0.32	15.96	-224.4	Light brown	Odorless
1035	15	350		6	7.64	23.59	411	0.27	16.18	-216.0	Light brown	Odorless
1040	20	350	6.50	8	7.65	23.77	280	0.25	16.17	-215.4	Light brown	Odorless
1045	25	350		10	7.64	24.02	189	0.21	16.28	-213.4	Colorless	Odorless
1050	30	350	6.50	12	7.63	20.31	117	0.18	16.71	-211.1	Colorless	Odorless
1055	35	350		14	7.64	20.41	94.9	0.16	16.87	-208.9	Colorless	Odorless
1100	40	350	6.50	16	7.64	19.57	90.4	0.14	16.66	-206.2	Colorless	Odorless
1105	45	350		18	7.64	20.30	73.4	0.17	16.62	-201.7	Colorless	Odorless
1110	50	350	6.50	20	7.64	20.23	48.5	0.13	16.48	-199.6	Colorless	Odorless
1115	55	350		22	7.63	20.22	42.2	0.12	16.37	-199.5	Colorless	Odorless
1120	60	350	6.50	24	7.65	20.28	37.5	0.09	16.62	-196.4	Colorless	Odorless
1125	65	350	6.50	26	7.65	20.32	33.1	0.09	16.66	-195.1	Colorless	Odorless
1130	70	350		28	7.64	20.54	18.4	0.08	16.83	-192.9	Colorless	Odorless

Constituents Sampled	Container	Number	Preservative
VOCs 8260	VOA Vial 40 mL	3	HCl
SVOCs 8270	Amber Glass 250 mL	2	None

Comments

Well Casing Volumes

Gallons/Foot ***1" = 0.04*** ***1.25" = 0.06*** ***1.5" = 0.09*** ***2" = 0.16*** ***2.5" = 0.26*** ***3" = 0.37*** ***3.5" = 0.50*** ***4" = 0.65*** ***6" = 1.47***

Well Information

Well Location: Neptune Avenue | Well Locked at Arrival: Yes / No

Condition of Well: Good | Well Locked at Departure: Yes / No

Well Completion: Flush Mount / Stick Up

GROUNDWATER SAMPLING FORM

Project No. 30205663 | Well ID MW-22S | Date 5/9/24

Project Name/Location Former Dangman Park MGP Site/Brooklyn, New York | Weather 60s °F, Sunny

Measuring Point Description: Top of Casing | Screen Setting (ft bls): 6-16 | Casing Diameter (in.): 2 | Well Material: X PVC / SS

Static Water Level (ft bmp): 6.44 | Total Depth (ft bmp): 19 | Water Column (ft): 12.56 | Gallons in Well: 2.0

MP Elevation: 9.23 | Pump Intake (ft bmp): 11 | Purge Method: Pump | Sample Method: Low-Flow

Pump On/Off: 1014/1050, 1134/1235 | Centrifugal | Submersible: X | Other

Sample Time: 1230 | Volume Purged: 3.03

Purge Start: 1014 | Gallons Purged: 6.05 | Sample ID: MW-22S | Sampled by: Alyssa Hynes, Kyle Barber, Shirley He

Purge End: 1235 | Replicate/Code No.: --

Time	Minutes Elapsed	Rate (mL/min)	Depth to Water (ft) -0.3	Liters Purged	pH ± 0.1	Cond. (mS/cm) ± 3%	Turbidity (NTU) ± 10%	DO (mg/L) ± 10%	Temp. (°C) ± 3%	Redox (mV) ± 10 mV	Appearance	
											Color	Odor
1015	0	200	6.44	0	11.26	1.27	>1000	0.57	14.6	143.5	Brown	Odorless
1020	5	200		1	11.04	1.27		0.15	17.0	109.1	Brown	Odorless
1025	10	300		2.25	11.42	1.29		0.19	16.3	79.4	Brown	Odorless
1030	15	300	6.44	3.15	11.44	1.29	669	0.12	16.6	76.2	Brown	Odorless
1035	20	300		5.25	11.51	1.28		0.04	16.5	71.5	Brown	Odorless
1040	25	300		6.75	11.49	1.28		0.02	16.6	66.1	Brown	Odorless
1045	30	300	6.44	8.25	11.38	1.27	240	0.0	16.7	60.0	Cloudy	Odorless
*1050	35	300		8.25	--	--	--	--	--	--	Cloudy	Odorless
**1135	35	250	6.44	9.5	7.33	1.236	336	1.65	14.7	-11.3	Cloudy	Odorless
1140	40	250		10.75	7.21	1.141		0.38	16.67	1.7	Cloudy	Odorless
1145	45	250		12	7.18	1.140		0.29	17.35	5.0	Cloudy	Odorless
1150	50	250	6.44	13.25	7.16	1.140	80.7	0.17	17.93	5.3	Slightly Cloudy	Odorless
1155	55	250		14.5	7.15	1.140		0.18	18.48	9.4	Slightly Cloudy	Odorless
1200	60	250	6.44	15.75	7.15	1.163	44.9	0.18	19.18	12.5	Colorless	Odorless
1205	65	250	6.44	17	7.12	1.147	36.4	0.13	18.54	19.3	Colorless	Odorless

Constituents Sampled	Container	Number	Preservative
VOCs 8260	VOA Vial 40 mL	3	HCl
SVOCs 8270	Amber Glass 250 mL	2	None

Comments * - Paused purging. Recalibrated pH meter. ** - Resumed purging.

pH readings above 11 not consistent with well development pH readings. Paused purging and attempted to recalibrate water quality meter.

Switched to different water quality meter and resumed purging.

Total depth = 17.89 ft bmp

Well Casing Volumes

Gallons/Foot	1" = 0.04	1.5" = 0.09	2.5" = 0.26	3.5" = 0.50	6" = 1.47
	1.25" = 0.06	2" = 0.16	3" = 0.37	4" = 0.65	

Well Information

Well Location: Neptune Avenue | Well Locked at Arrival: [Yes] / No

Condition of Well: Good | Well Locked at Departure: [Yes] / No

Well Completion: [Flush Mount] / Stick Up

GROUNDWATER SAMPLING FORM

ARCADIS

Project No. 30205663 Well ID MW-22S

Project Name/Location Former Dangman Park MGP Site/Brooklyn, New York

Sampled by Alyssa Hynes, Kyle Barber, Shirley He

Time	Minutes Elapsed	Rate (mL/min)	Depth to Water (ft) -0.3	Liters Purged	pH ± 0.1	Cond. (mS/cm) ± 3%	Turbidity (NTU) ± 10%	DO (mg/L) ± 10%	Temp. (°C) ± 3%	Redox (mV) ± 10 mV	Appearance Color	Appearance Odor
1210	70	300	6.44	18.375	7.12	1.122	28.8	0.12	17.47	25.1	Colorless	Odorless
1215	75	300	6.44	19.875	7.08	1.110	21.7	0.08	17.01	33.0	Colorless	Odorless
1220	80	300	6.44	21.375	7.06	1.099	18.7	0.07	16.66	35.9	Colorless	Odorless
1225	85	300	6.44	22.875	7.04	1.097	15.5	0.08	16.70	35.8	Colorless	Odorless

GROUNDWATER SAMPLING FORM

Project No. 30205663 | Well ID MW-23D | Date 5/8/24

Project Name/Location Former Dangman Park MGP Site/Brooklyn, New York | Weather 71 °F, Overcast

Measuring Point Description: Top of Casing | Screen Setting (ft bls): 80-90 | Casing Diameter (in.): 2 | Well Material: X PVC, SS

Static Water Level (ft bmp): 5.29 | Total Depth (ft bmp): 92.81 | Water Column (ft): 87.52 | Gallons in Well: 14

MP Elevation: 8.03 | Pump Intake (ft bmp): 85 | Purge Method: Pump; Centrifugal; Submersible X; Other | Sample Method: Low-Flow

Pump On/Off: 1104/1235

Sample Time: 1230 | Volume Purged: 0.51

Purge Start: 1104 | Gallons Purged: 7.14 | Sample ID: MW-23D | Sampled by: Alyssa Hynes, Kyle Barber, Shirley He

Purge End: 1235 | Replicate/Code No.: --

Time	Minutes Elapsed	Rate (mL/min)	Depth to Water (ft) -0.3	Liters Purged	pH ± 0.1	Cond. (mS/cm) ± 3%	Turbidity (NTU) ± 10%	DO (mg/L) ± 10%	Temp. (°C) ± 3%	Redox (mV) ± 10 mV	Appearance	
											Color	Odor
1105	0	300	5.28	0	8.36	1364	21.9	0.01	15.12	-133.2	Colorless	Odorless
1110	5	300		1.5	7.34	1460		0	15.22	-165.6	Colorless	Odorless
1115	10	300	5.26	3	7.14	1586	678	AM	15.14	-163.6	Brown	Odorless
1120	15	400		4.75	7.28	1623		AM	15.06	-169.4	Brown	Odorless
1125	20	350		6.5	7.08	1668		AM	15.38	-160.1	Brown	Odorless
1130	25	350	5.27	8.25	7.08	1708	125	AM	15.74	-142.2	Cloudy	Odorless
1135	30	--		8.25	--	--	--	--	--	--	Cloudy	Odorless
1140	35	300		9.75	7.11	1729		AM	15.70	-155.3	Cloudy	Odorless
1145	40	300	5.28	11.25	7.19	1735	50.9	AM	15.84	-157.1	Colorless	Odorless
1150	45	300		12.75	7.19	1732		AM	15.73	-165.8	Colorless	Odorless
1155	50	300		14.25	7.19	1734		AM	15.75	-159.0	Colorless	Odorless
1200	55	400	5.27	16	7.20	1741	33.3	AM	15.84	-175.9	Colorless	Odorless
1205	60	400		18	7.20	1742		AM	15.95	-180.8	Colorless	Odorless
1210	65	400	5.27	20	7.19	1742	19.7	AM	16.02	-190.7	Colorless	Odorless
1215	70	400	5.28	22	7.20	1741	19.0	AM	16.02	-193.6	Colorless	Odorless

Constituents Sampled	Container	Number	Preservative
VOCs 8260	VOA Vial 40 mL	3	HCl
SVOCs 8270	Amber Glass 250 mL	2	None

Comments AM = anomalous measurement

Well Casing Volumes

Gallons/Foot *1" = 0.04* *1.25" = 0.06* *1.5" = 0.09* *2" = 0.16* *2.5" = 0.26* *3" = 0.37* *3.5" = 0.50* *4" = 0.65* *6" = 1.47*

Well Information

Well Location: W. 5th Street | Well Locked at Arrival: Yes / No

Condition of Well: Good | Well Locked at Departure: Yes / No

Well Completion: Flush Mount / Stick Up

GROUNDWATER SAMPLING FORM

ARCADIS

Project No. 30205663 Well ID MW-23D

Project Name/Location Former Dangman Park MGP Site/Brooklyn, New York

Sampled by Alyssa Hynes, Kyle Barber, Shirley He

Time	Minutes Elapsed	Rate (mL/min)	Depth to Water (ft) -0.3	Liters Purged	pH ± 0.1	Cond. (mS/cm) ± 3%	Turbidity (NTU) ± 10%	DO (mg/L) ± 10%	Temp. (°C) ± 3%	Redox (mV) ± 10 mV	Appearance	
											Color	Odor
1220	75	400	5.28	24	7.22	1741	13.1	AM	16.04	-200.4	Colorless	Odorless
1225	80	400	5.28	26	7.24	1742	11.4	AM	16.08	-194.5	Colorless	Odorless

GROUNDWATER SAMPLING FORM

Project No. 30205663 | Well ID MW-23S | Date 5/8/24

Project Name/Location Former Dangman Park MGP Site/Brooklyn, New York | Weather 71 °F, Overcast

Measuring Point Description: Top of Casing | Screen Setting (ft bls): 6-16 | Casing Diameter (in.): 2 | Well Material: X PVC / SS

Static Water Level (ft bmp): 5.16 | Total Depth (ft bmp): 18.31 | Water Column (ft): 13.15 | Gallons in Well: 2.10

MP Elevation: 7.99 | Pump Intake (ft bmp): 11 | Purge Method: Pump X, Centrifugal, Submersible, Other | Sample Method: Low-Flow

Pump On/Off: 1143/1325

Sample Time: 1320 | Purge Start: 1143 | Purge End: 1325

Volume Purged: 3.40 | Gallons Purged: 7.14

Sample ID: MW-23S | Replicate/Code No.: -- | Sampled by: Alyssa Hynes, Kyle Barber, Shirley He

Time	Minutes Elapsed	Rate (mL/min)	Depth to Water (ft) -0.3	Liters Purged	pH ± 0.1	Cond. (mS/cm) ± 3%	Turbidity (NTU) ± 10%	DO (mg/L) ± 10%	Temp. (°C) ± 3%	Redox (mV) ± 10 mV	Appearance	
											Color	Odor
1145	0	400	5.16	0	10.21	0.404	581	0.10	14.5	-88.1	Light Brown	Odorless
1150	5	400		1.5	10.13	0.305	345	0.14	14.3	-23.8	Light Brown	Odorless
1155	10	400	5.19	3	9.96	0.303	250	0.32	14.6	15.9	Light Brown	Odorless
1200	15	400		4.5	9.86	0.287	117	0.25	14.5	20.2	Colorless	Odorless
1205	20	400	5.18	6	9.77	0.289	94.8	0.34	14.8	24.5	Colorless	Odorless
1210	25	400		7.5	9.63	0.288	58.1	0.43	14.8	28.5	Colorless	Odorless
1215	30	400	5.18	9	9.57	0.284	38.7	0.50	15.1	34.4	Colorless	Odorless
1220	35	400		10.5	9.57	0.284	33.3	0.53	15.0	35.9	Colorless	Odorless
1225	40	400	5.18	12	9.54	0.277	19.1	0.70	14.9	39.8	Colorless	Odorless
1230	45	400		13.5	9.46	0.274	12.9	0.70	14.9	42.2	Colorless	Odorless
1235	50	400	5.18	15	9.46	0.271	10.6	0.65	14.9	42.6	Colorless	Odorless
1240	55	400		16.5	9.51	0.280	8.77	0.67	14.8	45.0	Colorless	Odorless
1245	60	400	5.18	18	9.53	0.274	6.94	0.64	14.6	45.5	Colorless	Odorless
1250	65	400	5.18	19.5	9.22/7.50	0.272	5.46	0.59	14.5	46.7	Colorless	Odorless
1255	70	400		21.0	8.97/7.76	0.280	4.52	0.57	15.0	48.2	Colorless	Odorless

Constituents Sampled	Container	Number	Preservative
VOCs 8260	VOA Vial 40 mL	3	HCl
SVOCs 8270	Amber Glass 250 mL	2	None

Comments 1152 - Generator issue, purging pauses momentarily
1250-1315 - Used second water quality meter to measure pH

Well Casing Volumes

Gallons/Foot ***1" = 0.04*** ***1.5" = 0.09*** ***2.5" = 0.26*** ***3.5" = 0.50*** ***6" = 1.47***
1.25" = 0.06 ***2" = 0.16*** ***3" = 0.37*** ***4" = 0.65***

Well Information

Well Location: W. 5th Street | Well Locked at Arrival: Yes / No
Condition of Well: Good | Well Locked at Departure: Yes / No
Well Completion: Flush Mount / Stick Up

GROUNDWATER SAMPLING FORM

ARCADIS

Project No. 30205663 Well ID MW-23S

Project Name/Location Former Dangman Park MGP Site/Brooklyn, New York

Sampled by Alyssa Hynes, Kyle Barber, Shirley He

Time	Minutes Elapsed	Rate (mL/min)	Depth to Water (ft) -0.3	Liters Purged	pH ± 0.1	Cond. (mS/cm) ± 3%	Turbidity (NTU) ± 10%	DO (mg/L) ± 10%	Temp. (°C) ± 3%	Redox (mV) ± 10 mV	Appearance	
											Color	Odor
1300	75	400	5.18	22.5	8.90/7.37	0.280	4.41	0.58	14.9	49.0	Colorless	Odorless
1305	80	400		24.0	8.86/7.46	0.280	4.34	0.58	14.9	49.4	Colorless	Odorless
1310	85	400	5.18	25.5	8.70/7.27	0.281	3.80	0.57	15.0	50.1	Colorless	Odorless
1315	90	400		27.0	8.59/7.20	0.280	3.69	0.62	14.9	50.9	Colorless	Odorless

GROUNDWATER SAMPLING FORM

Project No. 30205663 | Well ID MW-24D | Date 5/7/24

Project Name/Location Former Dangman Park MGP Site/Brooklyn, New York | Weather 67 °F, Sunny

Measuring Point Description	Top of Casing	Screen Setting (ft bls)	80-90	Casing Diameter (in.)	2	Well Material	X PVC / SS
Static Water Level (ft bmp)	5.99	Total Depth (ft bmp)	93	Water Column (ft)	86.22	Gallons in Well	13.80
MP Elevation	8.77	Pump Intake (ft bmp)	85	Purge Method	Pump	Sample Method	Low-Flow
Pump On/Off	1033/1237				Centrifugal / Submersible X / Other		
Sample Time	1230	Volume Purged	0.24				
Purge Start	1033	Gallons Purged	3.31	Sample ID	MW-24D	Sampled by	Alyssa Hynes, Kyle Barber, Shirley He
Purge End	1237			Replicate/Code No.	--		

Time	Minutes Elapsed	Rate (mL/min)	Depth to Water (ft) -0.3	Liters Purged	pH ± 0.1	Cond. (mS/cm) ± 3%	Turbidity (NTU) ± 10%	DO (mg/L) ± 10%	Temp. (°C) ± 3%	Redox (mV) ± 10 mV	Appearance	
											Color	Odor
1035	0	500	5.99	0	7.40	6.054	>1000	2.34	15.31	-101.4	Brown	Odorless
1040	5	500		1.25	7.33	6.128	>1000	0.39	15.33	-91.8	Brown	Odorless
1045	10	250	5.99	2.5	7.27	6.298	>1000	0.19	15.81	-106.4	Light Brown	Odorless
1050	15	250		3.0	7.33	6.242	>1000	0.12	15.36	-82.7	Light Brown	Odorless
1055	20	250	5.98	3.5	7.34	6.263	>1000	0.16	15.40	-75.4	Light Brown	Odorless
1100	25	400		4.0	7.31	6.365	822	0.18	15.81	-72.7	Light Brown	Odorless
1105	30	400	5.98	4.5	7.32	6.464	530	0.12	16.47	-71.2	Light Brown	Odorless
1110	35	400		5.0	7.34	6.423	374	0.13	15.92	-70.9	Light Brown	Odorless
1115	40	400	5.98	5.5	7.35	6.405	306	0.11	15.76	-68.5	Light Brown	Odorless
1120	45	400		6.0	7.34	6.404	252	0.12	15.62	-66.8	Light Brown	Odorless
1125	50	400	5.98	6.5	7.33	6.397	205	0.16	15.39	-64.8	Colorless	Odorless
1130	55	400		7.0	7.33	6.405	163	0.16	15.48	-63.8	Colorless	Odorless
1135	60	400	5.98	7.5	7.34	6.411	133	0.16	15.58	-62.9	Colorless	Odorless
1140	65	400	5.98	8.0	7.32	6.433	117	0.17	15.49	-61.6	Colorless	Odorless
1145	70	400		8.5	7.32	6.437	119	0.18	15.29	-59.3	Colorless	Odorless

Constituents Sampled	Container	Number	Preservative
VOCs 8260	VOA Vial 40 mL	3	HCl
SVOCs 8270	Amber Glass 250 mL	2	None

Comments Total depth = 92.21 ft bmp
Difficulty keeping pump at steady flow rate

Well Casing Volumes

Gallons/Foot ***1" = 0.04*** ***1.25" = 0.06*** ***1.5" = 0.09*** ***2" = 0.16*** ***2.5" = 0.26*** ***3" = 0.37*** ***3.5" = 0.50*** ***4" = 0.65*** ***6" = 1.47***

Well Information

Well Location: W. 5th Street | Well Locked at Arrival: Yes / No
Condition of Well: Good | Well Locked at Departure: Yes / No
Well Completion: Flush Mount / Stick Up

GROUNDWATER SAMPLING FORM

ARCADIS

Project No. 30205663 Well ID MW-24D

Project Name/Location Former Dangman Park MGP Site/Brooklyn, New York

Sampled by Alyssa Hynes, Kyle Barber, Shirley He

Time	Minutes Elapsed	Rate (mL/min)	Depth to Water (ft) -0.3	Liters Purged	pH ± 0.1	Cond. (mS/cm) ± 3%	Turbidity (NTU) ± 10%	DO (mg/L) ± 10%	Temp. (°C) ± 3%	Redox (mV) ± 10 mV	Appearance Color	Appearance Odor
1150	75	400	5.98	9.0	7.33	6.445	114	0.17	15.59	-60.9	Colorless	Odorless
1155	80	400		9.5	7.32	6.456	108	0.17	15.88	-60.0	Colorless	Odorless
1200	85	400	5.98	10.0	7.30	6.469	63.5	0.16	16.05	-57.6	Colorless	Odorless
1205	90	400		10.5	7.26	6.475	57.4	0.15	16.11	-55.8	Colorless	Odorless
1210	95	400	5.98	11.0	7.26	6.468	41.7	0.15	15.95	-54.4	Colorless	Odorless
1215	100	400		11.5	7.24	6.453	86.6	0.15	15.86	-51.8	Colorless	Odorless
1220	105	400	5.98	12.0	7.23	6.462	54.6	0.14	15.96	-51.1	Colorless	Odorless
1225	110	400	5.98	12.5	7.22	6.472	41.1	0.14	15.95	-50.4	Colorless	Odorless

GROUNDWATER SAMPLING FORM

ARCADIS

Project No. 30205663 | Well ID MW-24S | Date 5/7/24

Project Name/Location Former Dangman Park MGP Site/Brooklyn, New York | Weather 67 °F, Sunny

Measuring Point Description: Top of Casing | Screen Setting (ft bls): 6-16 | Casing Diameter (in.): 2 | Well Material: X PVC / SS

Static Water Level (ft bmp): 6.07 | Total Depth (ft bmp): 19 | Water Column (ft): 9.56 | Gallons in Well: 1.53

MP Elevation: 8.75 | Pump Intake (ft bmp): 11 | Purge Method: Pump X, Centrifugal, Submersible, Other | Sample Method: Low-Flow

Pump On/Off: 1033/1245

Sample Time: 1240 | Volume Purged: 9.34

Purge Start: 1035 | Gallons Purged: 14.29 | Sample ID: MW-24S | Sampled by: Alyssa Hynes, Kyle Barber, Shirley He

Purge End: 1245 | Replicate/Code No.: --

Time	Minutes Elapsed	Rate (mL/min)	Depth to Water (ft) -0.3	Liters Purged	pH ± 0.1	Cond. (mS/cm) ± 3%	Turbidity (NTU) ± 10%	DO (mg/L) ± 10%	Temp. (°C) ± 3%	Redox (mV) ± 10 mV	Appearance	
											Color	Odor
1035	0	450	6.08	0	8.62	0.437	130	0.11	13.6	-22.2	Gray	Odorless
1040	5	450		2.25	8.77	0.449		0.10	14.6	-53.0	Gray	Odorless
1045	10	450	6.09	4.5	8.55	0.441	30.7	0.10	14.5	-56.3	Gray	Odorless
1050	15	450		6.75	8.62	0.437		0.01	14.5	-61.8	Gray	Odorless
1055	20	450	6.10	9	8.71	0.443	12.3	0.01	14.6	-65.0	Colorless	Odorless
1100	25	450		11.25	8.64	0.450		0.02	14.6	-67.8	Colorless	Odorless
1105	30	450	6.11	13.5	8.56	0.462	7.18	1.21	14.7	-72.0	Colorless	Odorless
1110	35	450		15.75	8.38	0.448		1.24	14.7	-72.5	Colorless	Odorless
1115	40	450	6.11	18	8.37	0.450	7.88	0.95	15.1	-75.5	Colorless	Odorless
1120	45	450		20.25	8.36	0.452		0.70	15.1	-75.9	Colorless	Odorless
1125	50	450	6.11	22.5	8.65	0.451	4.47	0.28	15.2	-76.5	Colorless	Odorless
1130	55	450		24.75	8.85	0.452		0.15	15.2	-77.6	Colorless	Odorless
1135	60	450	6.11	27	8.69	0.451	5.25	0.02	15.1	-77.5	Colorless	Odorless
1140	65	450	6.11	29.25	8.66	0.451	4.41	0.0	15.0	-78.1	Colorless	Odorless
1145	70	450	6.11	31.5	8.71	0.452	7.19	0.0	15.1	-78.9	Colorless	Odorless

Constituents Sampled	Container	Number	Preservative
VOCs 8260	VOA Vial 40 mL	3	HCl
SVOCs 8270	Amber Glass 250 mL	2	None

Comments Total depth = 15.63 ft bmp

Well Casing Volumes

Gallons/Foot ***1" = 0.04*** ***1.25" = 0.06*** ***1.5" = 0.09*** ***2" = 0.16*** ***2.5" = 0.26*** ***3" = 0.37*** ***3.5" = 0.50*** ***4" = 0.65*** ***6" = 1.47***

Well Information

Well Location: W. 5th Street | Well Locked at Arrival: Yes / No

Condition of Well: Good | Well Locked at Departure: Yes / No

Well Completion: Flush Mount / Stick Up

GROUNDWATER SAMPLING FORM

ARCADIS

Project No. 30205663 Well ID MW-24S

Project Name/Location Former Dangman Park MGP Site/Brooklyn, New York

Sampled by Alyssa Hynes, Kyle Barber, Shirley He

Time	Minutes Elapsed	Rate (mL/min)	Depth to Water (ft) -0.3	Liters Purged	pH ± 0.1	Cond. (mS/cm) ± 3%	Turbidity (NTU) ± 10%	DO (mg/L) ± 10%	Temp. (°C) ± 3%	Redox (mV) ± 10 mV	Appearance	
											Color	Odor
1150	75	450	6.11	33.75	8.83	0.453	5.68	0.0	15.1	-80.3	Colorless	Odorless
1155	80	450	6.11	36	8.93	0.452	5.28	0.0	15.1	-80.5	Colorless	Odorless
1200	85	450	6.11	38.25	8.80	0.454	2.64	0.0	15.2	-81.7	Colorless	Odorless
1205	90	450	6.11	40.5	8.60	0.454	2.47	0.0	15.1	-81.3	Colorless	Odorless
1210	95	450	6.11	42.75	7.02	0.455	3.69	0.0	15.1	-80.7	Colorless	Odorless
1215	100	450	6.11	45	7.01	0.454	2.50	0.0	15.0	-79.5	Colorless	Odorless
1220	105	450	6.11	47.25	8.25	0.456	1.64	0.0	15.1	-80.5	Colorless	Odorless
1225	110	450	6.11	49.5	8.13	0.457	3.51	0.0	15.1	-80.4	Colorless	Odorless
1230	115	450	6.12	51.75	8.10	0.452	5.13	0.0	15.1	-80.9	Colorless	Odorless
1235	120	450	6.12	54	8.12	0.459	5.20	0.0	15.1	-81.6	Colorless	Odorless

Appendix F

Data Usability Summary Reports

National Grid-

Former Dangman Park MGP Site

Data Usability Summary Report (DUSR)

Brooklyn, New York

Volatile Organic Compound and Semi-Volatile Organic Compounds Analyses

SDGs # 460-303656-1 and 460-303688-1

Analyses Performed By:
Eurofins Test America
Edison, New Jersey

Report #: 54418R
Review Level: Tier III
Project: 30205663.04

Summary

This data quality assessment summarizes the review of Sample Delivery Groups (SDGs) #460-303656-1 and 460-303688-1 for samples collected in association with the Former Dangman Park MGP site, Brooklyn, New York. The review was conducted as a Tier III evaluation and included review of data package completeness. Only analytical data associated with constituents of concern were reviewed for this validation. Field documentation was not included in this review. Included with this assessment are the validation annotated sample result sheets, and chain of custody. Analyses were performed on the following samples:

SDG Number	Sample ID	Lab ID	Matrix	Sample Collection Date	Parent Sample	Analysis				
						VOC	SVOC	PCB	MET	MISC
460-303656-1	TB050724	460-303565-1	Water	5/07/2024		X				
	EB050724	460-303565-2	Water	5/07/2024		X	X			
	MW-24S	460-303565-3	Groundwater	5/07/2024		X	X			
	MW-24D	460-303565-4	Groundwater	5/07/2024		X	X			
460-303688-1	TB050824	460-303688-1	Water	5/08/2024		X				
	EB050824	460-303688-2	Water	5/08/2024		X	X			
	MW-23S	460-303688-3	Groundwater	5/08/2024		X	X			
	MW-23D	460-303688-4	Groundwater	5/08/2024		X	X			

Analytical Data Package Documentation

The table below evaluates the data package completeness.

Items Reviewed	Reported		Performance Acceptable		Not Required
	No	Yes	No	Yes	
1. Sample receipt condition		X		X	
2. Requested analyses and sample results		X		X	
3. Master tracking list		X		X	
4. Methods of analysis		X		X	
5. Reporting limits		X		X	
6. Sample collection date		X		X	
7. Laboratory sample received date		X		X	
8. Sample preservation verification (as applicable)		X		X	
9. Sample preparation/extraction/analysis dates		X		X	
10. Fully executed chain-of-custody form		X		X	
11. Narrative summary of QA or sample problems provided		X		X	
12. Data package completeness and compliance		X		X	

Note:
QA Quality assurance

Organic Analysis Introduction

Analyses were performed according to United States Environmental Protection Agency USEPA) SW-846 Methods 8260D and 8270E. Data were reviewed in accordance with USEPA National Functional Guidelines for Organic Superfund Methods Data Review, EPA 540-R-20-005, November 2020 (with reference to the historical USEPA Contract Laboratory Program National Functional Guidelines for Organic Data Review, EPA 540/R-99/008, October 1999, as appropriate).

The data review process is an evaluation of data on a technical basis rather than a determination of contract compliance. As such, the standards against which the data are being weighed may differ from those specified in the analytical method. It is assumed that the data package represents the best efforts of the laboratory and had already been subjected to adequate and sufficient quality review prior to submission.

During the review process, laboratory qualified and unqualified data are verified against the supporting documentation. Based on this evaluation, qualifier codes may be added, deleted, or modified by the data reviewer. Results are qualified with the following codes in accordance with USEPA National Functional Guidelines:

- Concentration (C) Qualifiers
  - U The compound was analyzed for but not detected. The associated value is the compound quantitation limit.
  - B The compound has been found in the sample as well as its associated blank, its presence in the sample may be suspect.
- Quantitation (Q) Qualifiers
  - E The compound was quantitated above the calibration range.
  - D Concentration is based on a diluted sample analysis.
- Validation Qualifiers
  - J The compound was positively identified; however, the associated numerical value is an estimated concentration only.
  - UJ The compound was not detected above the reported sample quantitation limit. However, the reported limit is approximate and may or may not represent the actual limit of quantitation.
  - JN The analysis indicates the presence of a compound for which there is presumptive evidence to make a tentative identification. The associated numerical value is an estimated concentration only.
  - UB Compound is considered non-detect at the listed value due to associated blank contamination.
  - N The analysis indicates the presence of a compound for which there is presumptive evidence to make a tentative identification.
  - R The sample results are rejected.

Two facts should be noted by all data users. First, the "R" flag means that the associated value is unusable. In other words, due to significant quality control (QC) problems, the analysis is invalid and provides no information as to whether the compound is present or not. "R" values should not appear on data tables because they cannot be relied upon, even as a last resort. The second fact to keep in mind is that no compound concentration, even if

it has passed all QC tests, is guaranteed to be accurate. Strict QC serves to increase confidence in data but any value potentially contains error.

Volatile Organic Compound (VOC) Analyses

1. Holding Times

The specified holding times for the following methods are presented in the table below.

Method	Matrix	Holding Time	Preservation
SW-846 8260D	Water	14 days from collection to analysis (preserved) 7 days from collection to analysis (non-preserved)	Cool to <6 °C; preserved to a pH of less than 2 s.u.

Note:
s.u. Standard units

All samples were analyzed within the specified holding time criterion.

2. Blank Contamination

Quality assurance (QA) blanks (i.e., method and rinse blanks) are prepared to identify any contamination which may have been introduced into the samples during sample preparation or field activity. Method blanks measure laboratory contamination. Rinse blanks measure contamination of samples during field operations.

A blank action level (BAL) of five times the concentration of a detected compound in an associated blank (common laboratory contaminant compounds are calculated at ten times) is calculated for QA blanks containing concentrations greater than the method detection limit (MDL). The BAL is compared to the associated sample results to determine the appropriate qualification of the sample results, if needed.

All compounds associated with the QA blanks exhibited a concentration less than the MDL, with the exception of the compounds listed in the following table. Sample results associated with QA blank contamination that were greater than the BAL resulted in the removal of the laboratory qualifier (B) of data. Sample results less than the BAL associated with the following sample locations were qualified as listed in the following table.

Sample Locations	Analytes	Sample Result	Qualification
SDG 460-303656-1:			
MW-24D	Acetone (Equipment Blank)	Detected sample results <RL and <BAL	"UB" at the RL
SDG 460-303688-1:			
MW-23D	Methylene chloride (Equipment Blank)	Detected sample results <RL and <BAL	"UB" at the RL

Note:
RL Reporting limit

3. Mass Spectrometer Tuning

Mass spectrometer performance was acceptable, and all analyses were performed within a 12-hour tune clock.

System performance and column resolution were acceptable.

4. Calibration

Satisfactory instrument calibration is established to ensure that the instrument is capable of producing acceptable quantitative data. An initial calibration demonstrates that the instrument is capable of acceptable performance at the beginning of an experimental sequence. The continuing calibration verifies that the instrument daily performance is satisfactory.

4.1 Initial Calibration

The method specifies percent relative standard deviation (%RSD) and relative response factor (RRF) limits for select compounds only. A technical review of the data applies limits to all compounds with no exceptions.

All target compounds associated with the initial calibration standards must exhibit a %RSD less than the control limit (20%) or a correlation coefficient greater than 0.99 and an RRF value greater than control limit (0.05).

4.2 Continuing Calibration

All target compounds associated with the continuing calibration standard must exhibit a percent difference (%D) less than the control limit (20%) and RRF value greater than control limit (0.05).

SDG 460-303656-1: All compounds associated with the calibrations were within the specified control limits.

SDG 460-303688-1: All compounds associated with the calibrations were within the specified control limits, with the exception of the compounds presented in the following table.

Sample Locations	Initial/ Continuing	Compound	Criteria
TB050824 EB050824 MW-23S	CCV %D	Chloromethane	+27.4%
		1,1-Dichloroethane	+21.6%
MW-23D		Chloromethane	+27.8%

The criteria used to evaluate the initial and continuing calibration are presented in the following table. In the case of a calibration deviation, the sample results are qualified.

Initial/Continuing	Criteria	Sample Result	Qualification
	RRF <0.05	Non-detect	R

Initial/Continuing	Criteria	Sample Result	Qualification
Initial and Continuing Calibration		Detect	J
	RRF <0.01[1]	Non-detect	R
		Detect	J
	RRF >0.05 or RRF >0.01[1]	Non-detect	No Action
		Detect	
Initial Calibration	%RSD > 20% or a correlation coefficient <0.99	Non-detect	UJ
		Detect	J
	%RSD >90%	Non-detect	R
		Detect	J
Continuing Calibration	%D >20% (increase or decrease in sensitivity)	Non-detect	UJ
		Detect	J
	%D >90% (increase/decrease in sensitivity)	Non-detect	R
		Detect	J

Note:

[1] RRF of 0.01 only applies to compounds which are typically poor responding compounds (i.e., ketones, 1,4-dioxane, etc.)

5. Surrogates/System Monitoring Compounds

All samples to be analyzed for organic compounds are spiked with surrogate compounds prior to sample preparation to evaluate overall laboratory performance and efficiency of the analytical technique. VOC analysis requires that all surrogates associated with the analysis exhibit recoveries within the laboratory-established acceptance limits.

All surrogate recoveries were within control limits.

6. Internal Standard Performance

Internal standard performance criteria ensure that the GC/MS sensitivity and response are stable during every sample analysis. The criteria require the internal standard compounds associated with the VOC exhibit area counts that are not greater than two times (+100%) or less than one-half (-50%) of the area counts of the associated continuing calibration standard.

All internal standard responses were within control limits.

7. Matrix Spike/Matrix Spike Duplicate (MS/MSD) Analysis

MS/MSD data are used to assess the precision and accuracy of the analytical method. The compounds used to perform the MS/MSD analysis must exhibit a percent recovery within the laboratory-established acceptance limits. The relative percent difference (RPD) between the MS/MSD recoveries must exhibit an RPD within the laboratory-established acceptance limits.

Note: The MS/MSD recovery control limits do not apply for MS/MSD performed on sample locations where the compound concentration detected in the parent sample exceeds the MS/MSD concentration by a factor of four or greater.

A MS/MSD was not performed on a sample location associated with either SDG.

8. Laboratory Control Sample/Laboratory Control Sample Duplicate (LCS/LCSD) Analysis

The LCS/LCSD analysis is used to assess the precision and accuracy of the analytical method independent of matrix interferences. The compounds associated with the LCS/LCSD analysis must exhibit a percent recovery within the laboratory-established acceptance limits. The relative percent difference (RPD) between the LCS/LCSD recoveries must exhibit an RPD within the laboratory-established acceptance limits.

SDG 460-303688-1: All compounds associated with the LCS/LCSD analysis exhibited recoveries and RPDs within the control limits.

Sample locations associated with LCS/LCSD analysis exhibiting recoveries outside of the control limits are presented in the following table.

Sample Locations	Compound	LCS Recovery	LCSD Recovery
SDG 460-303656-1:			
TB050724 EB050724 MW-24S MW-24D	Bromomethane	>UL	AC

The criteria used to evaluate the LCS/LCSD recoveries are presented in the following table. In the case of an LCS/LCSD deviation, the sample results are qualified as documented in the table below.

Control Limit	Sample Result	Qualification
> the upper control limit (UL)	Non-detect	No Action
	Detect	J
< the lower control limit (LL) but > 10%	Non-detect	UJ

Control Limit	Sample Result	Qualification
	Detect	J
< 10%	Non-detect	R
	Detect	J

9. Field Duplicate Analysis

Field duplicate analysis is used to assess the overall precision of the field sampling procedures and analytical method. A control limit of 30% for water matrices is applied to the RPD between the parent sample and the field duplicate. In the instance when the parent and/or duplicate sample concentrations are less than or equal to 5 times the RL, a control limit of two times the RL is applied for water matrices.

A field duplicate was not collected along with a sample location associated with either SDG.

10. Compound Identification

Compounds are identified on the GC/MS by using the analytes relative retention time and ion spectra.

All identified compounds met the specified criteria.

11. System Performance and Overall Assessment

Overall system performance was acceptable. Other than for those deviations specifically mentioned in this review, the overall data quality is within the guidelines specified in the method.

Data Validation Checklist for Volatiles

VOCs: SW-846 8260D	Reported		Performance Acceptable		Not Required
	No	Yes	No	Yes	
GAS CHROMATOGRAPHY/MASS SPECTROMETRY (GC/MS)					
Tier II Validation					
Holding times		X		X	
Reporting limits (units)		X		X	
Blanks					
A. Method blanks		X		X	
B. Equipment blanks		X	X		
C. Trip blanks		X		X	
Laboratory Control Sample (LCS) %R		X	X		
Laboratory Control Sample Duplicate (LCSD) %R		X		X	
LCS/LCSD Precision (RPD)		X		X	
Matrix Spike (MS) %R					X
Matrix Spike Duplicate (MSD) %R					X
MS/MSD Precision (RPD)					X
Field/Lab Duplicate (RPD)					X
Surrogate Spike %R		X		X	
Dilution Factor		X		X	
Moisture Content					X
Tier III Validation					
System performance and column resolution		X		X	
Initial calibration %RSDs		X		X	
Continuing calibration RRFs		X		X	
Continuing calibration %Ds		X	X		

VOCs: SW-846 8260D	Reported		Performance Acceptable		Not Required
	No	Yes	No	Yes	
GAS CHROMATOGRAPHY/MASS SPECTROMETRY (GC/MS)					
Instrument tune and performance check		X		X	
Ion abundance criteria for each instrument used		X		X	
Internal standard		X		X	
Compound identification and quantitation					
A. Reconstructed ion chromatograms		X		X	
B. Quantitation Reports		X		X	
C. RT of sample compounds within the established RT windows		X		X	
D. Transcription/calculation errors present		X		X	
E. Reporting limits adjusted to reflect sample dilutions		X		X	

Notes:

%RSD Relative standard deviation
%R Percent recovery
RPD Relative percent difference
%D Percent difference

Semivolatile Organic Compound (SVOC) Analyses

1. Holding Times

The specified holding times for the following methods are presented in the table below.

Method	Matrix	Holding Time	Preservation
SW-846 8270E	Water	7 days from collection to extraction and 40 days from extraction to analysis	Cool to <6 °C

All samples were analyzed within the specified holding time criterion.

2. Blank Contamination

Quality assurance (QA) blanks (i.e., method and rinse blanks) are prepared to identify any contamination which may have been introduced into the samples during sample preparation or field activity. Method blanks measure laboratory contamination. Rinse blanks measure contamination of samples during field operations.

A blank action level (BAL) of five times the concentration of a detected compound in an associated blank (common laboratory contaminant compounds are calculated at ten times) is calculated for QA blanks containing concentrations greater than the method detection limit (MDL). The BAL is compared to the associated sample results to determine the appropriate qualification of the sample results, if needed.

Compounds were not detected above the MDL in the associated blanks; therefore, detected sample results were not associated with blank contamination.

3. Mass Spectrometer Tuning

Mass spectrometer performance was acceptable and all analyses were performed within a 12-hour tune clock.

System performance and column resolution were acceptable.

4. Calibration

Satisfactory instrument calibration is established to ensure that the instrument is capable of producing acceptable quantitative data. An initial calibration demonstrates that the instrument is capable of acceptable performance at the beginning of an experimental sequence. The continuing calibration verifies that the instrument daily performance is satisfactory.

4.1 Initial Calibration

The method specifies percent relative standard deviation (%RSD) and relative response factor (RRF) limits for select compounds only. A technical review of the data applies limits to all compounds with no exceptions.

All target compounds associated with the initial calibration standards must exhibit a %RSD less than the control limit (20%) or a correlation coefficient greater than 0.99 and an RRF value greater than control limit (0.05).

4.2 Continuing Calibration

All target compounds associated with the continuing calibration standard must exhibit a percent difference (%D) less than the control limit (20%) and RRF value greater than control limit (0.05).

All compounds associated with the calibrations were within the specified control limits, with the exception of the compounds presented in the following table.

Sample Locations	Initial/ Continuing	Compound	Criteria
SDG 460-303656-1:			
EB050724 MW-24S MW-24D	CCV %D	4-Nitroaniline	-23.7%
SDG 460-303688-1:			
EB050824 MW-23S MW-23D	CCV %D	4-Chloroaniline	+23.5%
		Caprolactam	+28.9%
		2,6-Dinitrotoluene	+22.1%
		3-Nitroaniline	+29.3%
		2,4-Dinitrophenol	+40.8%
		2,4-Dinitrotoluene	+33.0%
		4-Nitroaniline	+28.7%
		4,6-Dinitro-2-methylphenol	+28.0%
		Pentachlorophenol	+26.8%

The criteria used to evaluate the initial and continuing calibration are presented in the following table. In the case of a calibration deviation, the sample results are qualified.

Initial/Continuing	Criteria	Sample Result	Qualification
Initial and Continuing Calibration	RRF <0.05	Non-detect	R
		Detect	J
	RRF <0.01[1]	Non-detect	R
		Detect	J

Initial/Continuing	Criteria	Sample Result	Qualification
	RRF >0.05 or RRF >0.01[1]	Non-detect	No Action
		Detect	
Initial Calibration	%RSD > 20% or a correlation coefficient <0.99	Non-detect	UJ
		Detect	J
	%RSD >90%	Non-detect	R
		Detect	J
Continuing Calibration	%D >20% (increase or decrease in sensitivity)	Non-detect	UJ
		Detect	J
	%D >90% (increase/decrease in sensitivity)	Non-detect	R
		Detect	J

Note:

[1] RRF of 0.01 only applies to compounds which are typically poor responding compounds (i.e., ketones, 1,4-dioxane, etc.)

5. Surrogates/System Monitoring Compounds

All samples to be analyzed for organic compounds are spiked with surrogate compounds prior to sample preparation to evaluate overall laboratory performance and efficiency of the analytical technique. SVOC analysis requires that two of the three SVOC surrogate compounds within each fraction exhibit recoveries within the laboratory-established acceptance limits.

All surrogate recoveries were within control limits.

6. Internal Standard Performance

Internal standard performance criteria ensure that the GC/MS sensitivity and response are stable during every sample analysis. The criteria require the internal standard compounds associated with the VOC exhibit area counts that are not greater than two times (+100%) or less than one-half (-50%) of the area counts of the associated continuing calibration standard.

All internal standard responses were within control limits.

7. Matrix Spike/Matrix Spike Duplicate (MS/MSD) Analysis

MS/MSD data are used to assess the precision and accuracy of the analytical method. The compounds used to perform the MS/MSD analysis must exhibit a percent recovery within the laboratory-established acceptance limits. The relative percent difference (RPD) between the MS/MSD recoveries must exhibit an RPD within the laboratory-established acceptance limits.

Note: The MS/MSD recovery control limits do not apply for MS/MSD performed on sample locations where the compound concentration detected in the parent sample exceeds the MS/MSD concentration by a factor of four or greater.

A MS/MSD was not performed on a sample location associated with either SDG.

8. Laboratory Control Sample/Laboratory Control Sample Duplicate (LCS/LCSD) Analysis

The LCS/LCSD analysis is used to assess the precision and accuracy of the analytical method independent of matrix interferences. The compounds associated with the LCS/LCSD analysis must exhibit a percent recovery within the laboratory-established acceptance limits. The relative percent difference (RPD) between the LCS/LCSD recoveries must exhibit an RPD within the laboratory-established acceptance limits.

SDG 460-303656-1: All compounds associated with the LCS/LCSD analysis exhibited recoveries within the control limits.

SDG 460-303688-1: All compounds associated with the LCS/LCSD analysis exhibited RPDs within the control limits.

Sample locations associated with LCS/LCSD analysis exhibiting recoveries outside of the control limits are presented in the following table.

Sample Locations	Compound	LCS Recovery	LCSD Recovery
SDG 460-303688-1:			
EB050724 MW-23S MW-23D	2,4-Dinitrophenol	>UL	>UL
	Atrazine	>UL	>UL
	Benzaldehyde	>UL	>UL

The criteria used to evaluate the LCS/LCSD recoveries are presented in the following table. In the case of an LCS/LCSD deviation, the sample results are qualified as documented in the table below.

Control Limit	Sample Result	Qualification
> the upper control limit (UL)	Non-detect	No Action
	Detect	J
< the lower control limit (LL) but > 10%	Non-detect	UJ
	Detect	J
< 10%	Non-detect	R
	Detect	J

Sample locations associated with LCS/LCSD recoveries exhibiting an RPD greater than of the control limit presented in the following table.

Sample Locations	Compound
SDG 460-303656-1:	
EB050724 MW-24S MW-24D	Caprolactam

The criteria used to evaluate the RPD between the LCS/LCSD recoveries are presented in the following table. In the case of an RPD deviation, the sample results are qualified as documented in the table below.

Control Limit	Sample Result	Qualification
> UL	Non-detect	UJ
	Detect	J

9. Field Duplicate Analysis

Field duplicate analysis is used to assess the overall precision of the field sampling procedures and analytical method. A control limit of 30% for water matrices is applied to the RPD between the parent sample and the field duplicate. In the instance when the parent and/or duplicate sample concentrations are less than or equal to 5 times the RL, a control limit of two times the RL is applied for water matrices.

A field duplicate was not collected along with a sample location associated with either SDG.

10. Compound Identification

Compounds are identified on the GC/MS by using the analytes relative retention time and ion spectra.

All identified compounds met the specified criteria.

11. System Performance and Overall Assessment

Overall system performance was acceptable. Other than for those deviations specifically mentioned in this review, the overall data quality is within the guidelines specified in the method.

Data Validation Checklist for Semi-Volatiles

SVOCs: SW-846 8270E	Reported		Performance Acceptable		Not Required
	No	Yes	No	Yes	
GAS CHROMATOGRAPHY/MASS SPECTROMETRY (GC/MS)					
Tier II Validation					
Holding times		X		X	
Reporting limits (units)		X		X	
Blanks					
A. Method blanks		X		X	
B. Equipment blanks		X		X	
Laboratory Control Sample (LCS) %R		X	X		
Laboratory Control Sample Duplicate (LCSD) %R		X	X		
LCS/LCSD Precision (RPD)		X	X		
Matrix Spike (MS) %R					X
Matrix Spike Duplicate (MSD) %R					X
MS/MSD Precision (RPD)					X
Field/Lab Duplicate (RPD)					X
Surrogate Spike %R		X		X	
Dilution Factor		X		X	
Moisture Content					X
Tier III Validation					
System performance and column resolution		X		X	
Initial calibration %RSDs		X		X	
Continuing calibration RRFs		X		X	
Continuing calibration %Ds		X	X		
Instrument tune and performance check		X		X	

SVOCs: SW-846 8270E	Reported		Performance Acceptable		Not Required
	No	Yes	No	Yes	
GAS CHROMATOGRAPHY/MASS SPECTROMETRY (GC/MS)					
Ion abundance criteria for each instrument used		X		X	
Internal standard		X		X	
Compound identification and quantitation					
A. Reconstructed ion chromatograms		X		X	
B. Quantitation Reports		X		X	
C. RT of sample compounds within the established RT windows		X		X	
D. Transcription/calculation errors present		X		X	
E. Reporting limits adjusted to reflect sample dilutions		X		X	

Notes:

%RSD Relative standard deviation
%R Percent recovery
RPD Relative percent difference
%D Percent difference

Sample Compliance Report

SAMPLE COMPLIANCE REPORT

Sample Delivery Group (SDG)	Sampling Date	Protocol	Sample ID	Matrix	Compliancy[1]					Noncompliance
					VOC	SVOC	PCB	MTL	MISC	
460-303656-1	5/07/2024	SW-846	TB050724	Water	Yes	--	---	---	---	
			EB050724	Water	Yes	No	---	---	---	SVOC- LCS/LCSD RPD, Continuing calibration %D
			MW-24S	Water	Yes	No	---	---	---	SVOC- LCS/LCSD RPD, Continuing calibration %D
			MW-24D	Water	No	No	---	---	---	VOC- Equipment Blank contamination SVOC- LCS/LCSD RPD, Continuing calibration %D
460-303688-1	5/08/2024	SW-846	TB050824	Water	No	--	---	---	---	VOC- Continuing calibration %D SVOC- LCS/LCSD %R, Continuing calibration %D
			EB050824	Water	No	No	---	---	---	VOC- Continuing calibration %D SVOC- LCS/LCSD %R, Continuing calibration %D
			MW-23S	Water	No	No	---	---	---	VOC- Continuing calibration %D SVOC- LCS/LCSD %R, Continuing calibration %D
			MW-23D	Water	No	No	---	---	---	VOC- Equipment Blank contamination, Continuing calibration %D SVOC- LCS/LCSD %R, Continuing calibration %D

Note:

1 Samples which are compliant with no added validation qualifiers are listed as "yes". Samples which are non-compliant or which have added qualifiers are listed as "no". A "no" designation does not necessarily indicate that the data have been rejected or are otherwise unusable.

VALIDATION PERFORMED BY: Lisa Horton

SIGNATURE: 

DATE: June 9, 2024

PEER REVIEW: Joe Houser

DATE: June 10, 2024

Chain of Custody and Corrected Sample Analysis Data Sheets

Eurofins Environment Testing Northeast, LLC
777 New Durham Road
Edison, NJ 08817
Phone (732) 549-3900 Fax (732) 549-3679

Chain of Custody Record

Client Information	Sampler: Alyssa R Hynes	Lab PM: Gilmore, Julie	Carrier Tracking No(s):	COC No:
Client Contact: Steven Feldman	Phone: 516-297-1466	E-Mail: Julie.Gilmore@et.eurofinsus.com		Page: Page 1 of 1
Company: Arcadis of New York, Inc				Job #: 303656
Address: 105 Maxess Road, Suite N108	Due Date Requested:			
City: Melville	TAT Requested (days): 5 Days			
State, Zip: NY, 11747				
Phone: (631) 249-7600	PO #:			
Email: Steven.Feldman@arcadis.com	WO #: 30205663 04 042624			
Project Name: Former Dangman Park MGP Site	Project #: 30205663 04			
Site: Former Dangman Park MGP Site	SSOW#:			

Analysis Requested

Preservation Codes:

A - HCL	M - Hexane
B - NaOH	N - None
C - Zn Acetate	O - AsNaO2
D - Nitric Acid	P - Na2O4S
E - NaHSO4	Q - Na2SO3
F - MeOH	R - Na2S2O3
G - Amchlor	S - H2SO4
H - Ascorbic Acid	T - TSP Dodecahydrate
I - Ice	U - Acetone
J - DI Water	V - MCAA
K - EDTA	W - pH 4-5
L - EDA	Z - other (specify)

Other:

460-303656 Chain of Custody

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	VOCs (8260)	SVOCs (8270)	Total Number of containers	Special Instructions/Note:
			Preservation Code:				A	I		
TB050724	5/7/24	—	G	W	N	N	X		2	
EB050724	5/7/24	0900	G	W	N	N	X	X	4	
MW-24S	5/7/24	1240	G	W	N	N	X	X	5	
MW-24D	5/7/24	1230	G	W	N	N	X	X	5	

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☒ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☒ Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements

Empty Kit Relinquished by	Date	Time	Method of Shipment:

Relinquished by	Date/Time	Company	Received by	Date/Time	Company
Alyssa R Hynes	5/7/24 1420	Arcadis		5/7/24 1420	ETA
Relinquished by	Date/Time	Company	Received by	Date/Time	Company
	5/7/24 1700			5/7/24 1700	
Relinquished by	Date/Time	Company	Received by	Date/Time	Company
	5/7/24 1700			5/7/24 1900	ETA

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks

16 2:0259

Ver: 01/16/2019

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
*	LCS or LCSD is outside acceptance limits.
J	Indicates an estimated value.
U	Analyzed for but not detected.

GC/MS Semi VOA

Qualifier	Qualifier Description
*	RPD of the LCS and LCSD exceeds the control limits
E	Compound concentration exceeds the upper level of the calibration range of the instrument for that specific analysis.
J	Indicates an estimated value.
U	Analyzed for but not detected.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Client Sample ID: TB050724 Lab Sample ID: 460-303656-1

Date Collected: 05/07/24 00:00 **Matrix: Water**
Date Received: 05/07/24 19:00

Method: SW846 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	1.0	U	1.0	0.24	ug/L			05/13/24 09:02	1
1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.37	ug/L			05/13/24 09:02	1
1,1,2-Trichloro-1,2,2-trifluoroethane	1.0	U	1.0	0.31	ug/L			05/13/24 09:02	1
1,1,2-Trichloroethane	1.0	U	1.0	0.20	ug/L			05/13/24 09:02	1
1,1-Dichloroethane	1.0	U	1.0	0.26	ug/L			05/13/24 09:02	1
1,1-Dichloroethene	1.0	U	1.0	0.26	ug/L			05/13/24 09:02	1
1,2,4-Trichlorobenzene	1.0	U	1.0	0.37	ug/L			05/13/24 09:02	1
1,2-Dibromo-3-Chloropropane	1.0	U	1.0	0.38	ug/L			05/13/24 09:02	1
1,2-Dichlorobenzene	1.0	U	1.0	0.21	ug/L			05/13/24 09:02	1
1,2-Dichloroethane	1.0	U	1.0	0.43	ug/L			05/13/24 09:02	1
1,2-Dichloropropane	1.0	U	1.0	0.35	ug/L			05/13/24 09:02	1
1,3-Dichlorobenzene	1.0	U	1.0	0.34	ug/L			05/13/24 09:02	1
1,4-Dichlorobenzene	1.0	U	1.0	0.33	ug/L			05/13/24 09:02	1
1,4-Dioxane	50	U	50	28	ug/L			05/13/24 09:02	1
2-Butanone (MEK)	5.0	U	5.0	1.9	ug/L			05/13/24 09:02	1
2-Hexanone	5.0	U	5.0	1.1	ug/L			05/13/24 09:02	1
4-Methyl-2-pentanone (MIBK)	5.0	U	5.0	1.3	ug/L			05/13/24 09:02	1
Acetone	5.0	U	5.0	4.4	ug/L			05/13/24 09:02	1
Benzene	1.0	U	1.0	0.20	ug/L			05/13/24 09:02	1
Bromoform	1.0	U	1.0	0.54	ug/L			05/13/24 09:02	1
Bromomethane	1.0	U	1.0	0.55	ug/L			05/13/24 09:02	1
Carbon disulfide	1.0	U	1.0	0.82	ug/L			05/13/24 09:02	1
Carbon tetrachloride	1.0	U	1.0	0.21	ug/L			05/13/24 09:02	1
Chlorobenzene	1.0	U	1.0	0.38	ug/L			05/13/24 09:02	1
Dibromochloromethane	1.0	U	1.0	0.28	ug/L			05/13/24 09:02	1
Chloroethane	1.0	U	1.0	0.32	ug/L			05/13/24 09:02	1
Chloroform	1.0	U	1.0	0.33	ug/L			05/13/24 09:02	1
Chloromethane	1.0	U	1.0	0.40	ug/L			05/13/24 09:02	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.22	ug/L			05/13/24 09:02	1
cis-1,3-Dichloropropene	1.0	U	1.0	0.22	ug/L			05/13/24 09:02	1
Cyclohexane	1.0	U	1.0	0.32	ug/L			05/13/24 09:02	1
Bromodichloromethane	1.0	U	1.0	0.34	ug/L			05/13/24 09:02	1
Dichlorodifluoromethane	1.0	U	1.0	0.31	ug/L			05/13/24 09:02	1
Ethylbenzene	1.0	U	1.0	0.30	ug/L			05/13/24 09:02	1
1,2-Dibromoethane	1.0	U	1.0	0.50	ug/L			05/13/24 09:02	1
Isopropylbenzene	1.0	U	1.0	0.34	ug/L			05/13/24 09:02	1
Methyl acetate	5.0	U	5.0	0.79	ug/L			05/13/24 09:02	1
Methyl tert-butyl ether	1.0	U	1.0	0.22	ug/L			05/13/24 09:02	1
Methylcyclohexane	1.0	U	1.0	0.71	ug/L			05/13/24 09:02	1
Methylene Chloride	1.0	U	1.0	0.32	ug/L			05/13/24 09:02	1
Styrene	1.0	U	1.0	0.42	ug/L			05/13/24 09:02	1
Tetrachloroethene	1.0	U	1.0	0.25	ug/L			05/13/24 09:02	1
Toluene	1.0	U	1.0	0.38	ug/L			05/13/24 09:02	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.24	ug/L			05/13/24 09:02	1
trans-1,3-Dichloropropene	1.0	U	1.0	0.22	ug/L			05/13/24 09:02	1
Trichloroethene	1.0	U	1.0	0.31	ug/L			05/13/24 09:02	1
Trichlorofluoromethane	1.0	U	1.0	0.32	ug/L			05/13/24 09:02	1
Vinyl chloride	1.0	U	1.0	0.17	ug/L			05/13/24 09:02	1
n-Butylbenzene	1.0	U	1.0	0.32	ug/L			05/13/24 09:02	1

Client Sample ID: TB050724 — Lab Sample ID: 460-303656-1

Date Collected: 05/07/24 00:00 — **Matrix: Water**
Date Received: 05/07/24 19:00

Method: SW846 8260D - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trimethylbenzene	1.0	U	1.0	0.37	ug/L			05/13/24 09:02	1
sec-Butylbenzene	1.0	U	1.0	0.37	ug/L			05/13/24 09:02	1
N-Propylbenzene	1.0	U	1.0	0.32	ug/L			05/13/24 09:02	1
Xylenes, Total	2.0	U	2.0	0.65	ug/L			05/13/24 09:02	1
1,3,5-Trimethylbenzene	1.0	U	1.0	0.33	ug/L			05/13/24 09:02	1
tert-Butylbenzene	1.0	U	1.0	0.34	ug/L			05/13/24 09:02	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*97*		*70 - 128*		*05/13/24 09:02*	*1*
4-Bromofluorobenzene	*98*		*76 - 120*		*05/13/24 09:02*	*1*
Dibromofluoromethane (Surr)	*103*		*77 - 132*		*05/13/24 09:02*	*1*
Toluene-d8 (Surr)	*101*		*80 - 120*		*05/13/24 09:02*	*1*

Client Sample ID: EB050724 — Lab Sample ID: 460-303656-2

Date Collected: 05/07/24 09:00 — **Matrix: Water**
Date Received: 05/07/24 19:00

Method: SW846 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	1.0	U	1.0	0.24	ug/L			05/13/24 09:22	1
1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.37	ug/L			05/13/24 09:22	1
1,1,2-Trichloro-1,2,2-trifluoroethane	1.0	U	1.0	0.31	ug/L			05/13/24 09:22	1
1,1,2-Trichloroethane	1.0	U	1.0	0.20	ug/L			05/13/24 09:22	1
1,1-Dichloroethane	1.0	U	1.0	0.26	ug/L			05/13/24 09:22	1
1,1-Dichloroethene	1.0	U	1.0	0.26	ug/L			05/13/24 09:22	1
1,2,4-Trichlorobenzene	1.0	U	1.0	0.37	ug/L			05/13/24 09:22	1
1,2-Dibromo-3-Chloropropane	1.0	U	1.0	0.38	ug/L			05/13/24 09:22	1
1,2-Dichlorobenzene	1.0	U	1.0	0.21	ug/L			05/13/24 09:22	1
1,2-Dichloroethane	1.0	U	1.0	0.43	ug/L			05/13/24 09:22	1
1,2-Dichloropropane	1.0	U	1.0	0.35	ug/L			05/13/24 09:22	1
1,3-Dichlorobenzene	1.0	U	1.0	0.34	ug/L			05/13/24 09:22	1
1,4-Dichlorobenzene	1.0	U	1.0	0.33	ug/L			05/13/24 09:22	1
1,4-Dioxane	50	U	50	28	ug/L			05/13/24 09:22	1
2-Butanone (MEK)	5.0	U	5.0	1.9	ug/L			05/13/24 09:22	1
2-Hexanone	5.0	U	5.0	1.1	ug/L			05/13/24 09:22	1
4-Methyl-2-pentanone (MIBK)	5.0	U	5.0	1.3	ug/L			05/13/24 09:22	1
Acetone	**8.7**		5.0	4.4	ug/L			05/13/24 09:22	1
Benzene	1.0	U	1.0	0.20	ug/L			05/13/24 09:22	1
Bromoform	1.0	U	1.0	0.54	ug/L			05/13/24 09:22	1
Bromomethane	1.0	U	1.0	0.55	ug/L			05/13/24 09:22	1
Carbon disulfide	1.0	U	1.0	0.82	ug/L			05/13/24 09:22	1
Carbon tetrachloride	1.0	U	1.0	0.21	ug/L			05/13/24 09:22	1
Chlorobenzene	1.0	U	1.0	0.38	ug/L			05/13/24 09:22	1
Dibromochloromethane	1.0	U	1.0	0.28	ug/L			05/13/24 09:22	1
Chloroethane	1.0	U	1.0	0.32	ug/L			05/13/24 09:22	1
Chloroform	1.0	U	1.0	0.33	ug/L			05/13/24 09:22	1
Chloromethane	1.0	U	1.0	0.40	ug/L			05/13/24 09:22	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.22	ug/L			05/13/24 09:22	1
cis-1,3-Dichloropropene	1.0	U	1.0	0.22	ug/L			05/13/24 09:22	1
Cyclohexane	1.0	U	1.0	0.32	ug/L			05/13/24 09:22	1

Client Sample ID: EB050724 Lab Sample ID: 460-303656-2

Date Collected: 05/07/24 09:00 **Matrix: Water**
Date Received: 05/07/24 19:00

Method: SW846 8260D - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bromodichloromethane	1.0	U	1.0	0.34	ug/L			05/13/24 09:22	1
Dichlorodifluoromethane	1.0	U	1.0	0.31	ug/L			05/13/24 09:22	1
Ethylbenzene	1.0	U	1.0	0.30	ug/L			05/13/24 09:22	1
1,2-Dibromoethane	1.0	U	1.0	0.50	ug/L			05/13/24 09:22	1
Isopropylbenzene	1.0	U	1.0	0.34	ug/L			05/13/24 09:22	1
Methyl acetate	5.0	U	5.0	0.79	ug/L			05/13/24 09:22	1
Methyl tert-butyl ether	1.0	U	1.0	0.22	ug/L			05/13/24 09:22	1
Methylcyclohexane	1.0	U	1.0	0.71	ug/L			05/13/24 09:22	1
Methylene Chloride	1.0	U	1.0	0.32	ug/L			05/13/24 09:22	1
Styrene	1.0	U	1.0	0.42	ug/L			05/13/24 09:22	1
Tetrachloroethene	1.0	U	1.0	0.25	ug/L			05/13/24 09:22	1
Toluene	1.0	U	1.0	0.38	ug/L			05/13/24 09:22	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.24	ug/L			05/13/24 09:22	1
trans-1,3-Dichloropropene	1.0	U	1.0	0.22	ug/L			05/13/24 09:22	1
Trichloroethene	1.0	U	1.0	0.31	ug/L			05/13/24 09:22	1
Trichlorofluoromethane	1.0	U	1.0	0.32	ug/L			05/13/24 09:22	1
Vinyl chloride	1.0	U	1.0	0.17	ug/L			05/13/24 09:22	1
n-Butylbenzene	1.0	U	1.0	0.32	ug/L			05/13/24 09:22	1
1,2,4-Trimethylbenzene	1.0	U	1.0	0.37	ug/L			05/13/24 09:22	1
sec-Butylbenzene	1.0	U	1.0	0.37	ug/L			05/13/24 09:22	1
N-Propylbenzene	1.0	U	1.0	0.32	ug/L			05/13/24 09:22	1
Xylenes, Total	2.0	U	2.0	0.65	ug/L			05/13/24 09:22	1
1,3,5-Trimethylbenzene	1.0	U	1.0	0.33	ug/L			05/13/24 09:22	1
tert-Butylbenzene	1.0	U	1.0	0.34	ug/L			05/13/24 09:22	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*97*		*70 - 128*		*05/13/24 09:22*	*1*
4-Bromofluorobenzene	*98*		*76 - 120*		*05/13/24 09:22*	*1*
Dibromofluoromethane (Surr)	*102*		*77 - 132*		*05/13/24 09:22*	*1*
Toluene-d8 (Surr)	*102*		*80 - 120*		*05/13/24 09:22*	*1*

Method: SW846 8270E - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1'-Biphenyl	10	U	10	1.2	ug/L		05/11/24 09:02	05/11/24 22:05	1
2,2'-oxybis[1-chloropropane]	10	U	10	0.63	ug/L		05/11/24 09:02	05/11/24 22:05	1
2,4,5-Trichlorophenol	10	U	10	0.88	ug/L		05/11/24 09:02	05/11/24 22:05	1
2,4,6-Trichlorophenol	10	U	10	0.86	ug/L		05/11/24 09:02	05/11/24 22:05	1
2,4-Dichlorophenol	10	U	10	1.1	ug/L		05/11/24 09:02	05/11/24 22:05	1
2,4-Dimethylphenol	10	U	10	0.62	ug/L		05/11/24 09:02	05/11/24 22:05	1
2,4-Dinitrophenol	40	U	40	2.6	ug/L		05/11/24 09:02	05/11/24 22:05	1
2,4-Dinitrotoluene	10	U	10	1.0	ug/L		05/11/24 09:02	05/11/24 22:05	1
2,6-Dinitrotoluene	2.0	U	2.0	0.83	ug/L		05/11/24 09:02	05/11/24 22:05	1
2-Chloronaphthalene	10	U	10	1.2	ug/L		05/11/24 09:02	05/11/24 22:05	1
2-Chlorophenol	10	U	10	0.38	ug/L		05/11/24 09:02	05/11/24 22:05	1
2-Methylnaphthalene	10	U	10	0.53	ug/L		05/11/24 09:02	05/11/24 22:05	1
2-Methylphenol	10	U	10	0.67	ug/L		05/11/24 09:02	05/11/24 22:05	1
2-Nitroaniline	10	U	10	0.47	ug/L		05/11/24 09:02	05/11/24 22:05	1
2-Nitrophenol	10	U	10	0.75	ug/L		05/11/24 09:02	05/11/24 22:05	1
3,3'-Dichlorobenzidine	10	U	10	1.4	ug/L		05/11/24 09:02	05/11/24 22:05	1
3-Nitroaniline	10	U	10	1.9	ug/L		05/11/24 09:02	05/11/24 22:05	1

Client Sample ID: EB050724
Lab Sample ID: 460-303656-2

Date Collected: 05/07/24 09:00
Matrix: Water

Date Received: 05/07/24 19:00

Method: SW846 8270E - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4,6-Dinitro-2-methylphenol	20	U	20	3.0	ug/L		05/11/24 09:02	05/11/24 22:05	1
4-Bromophenyl phenyl ether	10	U	10	0.75	ug/L		05/11/24 09:02	05/11/24 22:05	1
4-Chloro-3-methylphenol	10	U	10	0.58	ug/L		05/11/24 09:02	05/11/24 22:05	1
4-Chloroaniline	10	U	10	1.9	ug/L		05/11/24 09:02	05/11/24 22:05	1
4-Chlorophenyl phenyl ether	10	U	10	1.3	ug/L		05/11/24 09:02	05/11/24 22:05	1
4-Nitroaniline	10	U J	10	1.2	ug/L		05/11/24 09:02	05/11/24 22:05	1
4-Nitrophenol	20	U	20	4.0	ug/L		05/11/24 09:02	05/11/24 22:05	1
Acenaphthene	10	U	10	1.1	ug/L		05/11/24 09:02	05/11/24 22:05	1
Acenaphthylene	10	U	10	0.82	ug/L		05/11/24 09:02	05/11/24 22:05	1
Acetophenone	10	U	10	2.3	ug/L		05/11/24 09:02	05/11/24 22:05	1
Anthracene	10	U	10	1.3	ug/L		05/11/24 09:02	05/11/24 22:05	1
Atrazine	2.0	U	2.0	1.3	ug/L		05/11/24 09:02	05/11/24 22:05	1
Benzaldehyde	10	U	10	2.1	ug/L		05/11/24 09:02	05/11/24 22:05	1
Benzo[a]anthracene	1.0	U	1.0	0.59	ug/L		05/11/24 09:02	05/11/24 22:05	1
Benzo[a]pyrene	1.0	U	1.0	0.41	ug/L		05/11/24 09:02	05/11/24 22:05	1
Benzo[b]fluoranthene	2.0	U	2.0	0.68	ug/L		05/11/24 09:02	05/11/24 22:05	1
Benzo[g,h,i]perylene	10	U	10	0.70	ug/L		05/11/24 09:02	05/11/24 22:05	1
Benzo[k]fluoranthene	1.0	U	1.0	0.67	ug/L		05/11/24 09:02	05/11/24 22:05	1
Bis(2-chloroethoxy)methane	10	U	10	0.59	ug/L		05/11/24 09:02	05/11/24 22:05	1
Bis(2-chloroethyl)ether	1.0	U	1.0	0.63	ug/L		05/11/24 09:02	05/11/24 22:05	1
Bis(2-ethylhexyl) phthalate	2.0	U	2.0	0.80	ug/L		05/11/24 09:02	05/11/24 22:05	1
Butyl benzyl phthalate	10	U	10	0.85	ug/L		05/11/24 09:02	05/11/24 22:05	1
Caprolactam	10	U* J	10	2.2	ug/L		05/11/24 09:02	05/11/24 22:05	1
Carbazole	10	U	10	0.68	ug/L		05/11/24 09:02	05/11/24 22:05	1
Chrysene	2.0	U	2.0	0.91	ug/L		05/11/24 09:02	05/11/24 22:05	1
Dibenz(a,h)anthracene	1.0	U	1.0	0.72	ug/L		05/11/24 09:02	05/11/24 22:05	1
Dibenzofuran	10	U	10	1.1	ug/L		05/11/24 09:02	05/11/24 22:05	1
Diethyl phthalate	10	U	10	0.98	ug/L		05/11/24 09:02	05/11/24 22:05	1
Dimethyl phthalate	10	U	10	0.77	ug/L		05/11/24 09:02	05/11/24 22:05	1
Di-n-butyl phthalate	10	U	10	0.84	ug/L		05/11/24 09:02	05/11/24 22:05	1
Di-n-octyl phthalate	10	U	10	0.75	ug/L		05/11/24 09:02	05/11/24 22:05	1
Fluoranthene	10	U	10	0.84	ug/L		05/11/24 09:02	05/11/24 22:05	1
Fluorene	10	U	10	0.91	ug/L		05/11/24 09:02	05/11/24 22:05	1
Hexachlorobenzene	1.0	U	1.0	0.40	ug/L		05/11/24 09:02	05/11/24 22:05	1
Hexachlorobutadiene	1.0	U	1.0	0.78	ug/L		05/11/24 09:02	05/11/24 22:05	1
Hexachlorocyclopentadiene	10	U	10	3.6	ug/L		05/11/24 09:02	05/11/24 22:05	1
Hexachloroethane	2.0	U	2.0	0.80	ug/L		05/11/24 09:02	05/11/24 22:05	1
Indeno[1,2,3-cd]pyrene	2.0	U	2.0	0.94	ug/L		05/11/24 09:02	05/11/24 22:05	1
Isophorone	10	U	10	0.80	ug/L		05/11/24 09:02	05/11/24 22:05	1
Naphthalene	2.0	U	2.0	0.54	ug/L		05/11/24 09:02	05/11/24 22:05	1
Nitrobenzene	1.0	U	1.0	0.57	ug/L		05/11/24 09:02	05/11/24 22:05	1
N-Nitrosodi-n-propylamine	1.0	U	1.0	0.43	ug/L		05/11/24 09:02	05/11/24 22:05	1
N-Nitrosodiphenylamine	10	U	10	0.89	ug/L		05/11/24 09:02	05/11/24 22:05	1
Pentachlorophenol	20	U	20	1.4	ug/L		05/11/24 09:02	05/11/24 22:05	1
Phenanthrene	10	U	10	1.3	ug/L		05/11/24 09:02	05/11/24 22:05	1
Phenol	10	U	10	0.29	ug/L		05/11/24 09:02	05/11/24 22:05	1
Pyrene	10	U	10	1.6	ug/L		05/11/24 09:02	05/11/24 22:05	1
3 & 4 Methylphenol	10	U	10	0.64	ug/L		05/11/24 09:02	05/11/24 22:05	1

Client Sample ID: EB050724 — Lab Sample ID: 460-303656-2

Date Collected: 05/07/24 09:00 — **Matrix: Water**
Date Received: 05/07/24 19:00

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol (Surr)	103		37 - 150	05/11/24 09:02	05/11/24 22:05	1
2-Fluorobiphenyl	95		46 - 139	05/11/24 09:02	05/11/24 22:05	1
2-Fluorophenol (Surr)	53		16 - 80	05/11/24 09:02	05/11/24 22:05	1
Nitrobenzene-d5 (Surr)	92		51 - 145	05/11/24 09:02	05/11/24 22:05	1
Phenol-d5 (Surr)	37		10 - 56	05/11/24 09:02	05/11/24 22:05	1
Terphenyl-d14 (Surr)	32		13 - 150	05/11/24 09:02	05/11/24 22:05	1

Client Sample ID: MW-24S — Lab Sample ID: 460-303656-3

Date Collected: 05/07/24 12:40 — **Matrix: Water**
Date Received: 05/07/24 19:00

Method: SW846 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	1.0	U	1.0	0.24	ug/L			05/13/24 10:40	1
1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.37	ug/L			05/13/24 10:40	1
1,1,2-Trichloro-1,2,2-trifluoroethane	1.0	U	1.0	0.31	ug/L			05/13/24 10:40	1
1,1,2-Trichloroethane	1.0	U	1.0	0.20	ug/L			05/13/24 10:40	1
1,1-Dichloroethane	1.0	U	1.0	0.26	ug/L			05/13/24 10:40	1
1,1-Dichloroethene	1.0	U	1.0	0.26	ug/L			05/13/24 10:40	1
1,2,4-Trichlorobenzene	1.0	U	1.0	0.37	ug/L			05/13/24 10:40	1
1,2-Dibromo-3-Chloropropane	1.0	U	1.0	0.38	ug/L			05/13/24 10:40	1
1,2-Dichlorobenzene	1.0	U	1.0	0.21	ug/L			05/13/24 10:40	1
1,2-Dichloroethane	1.0	U	1.0	0.43	ug/L			05/13/24 10:40	1
1,2-Dichloropropane	1.0	U	1.0	0.35	ug/L			05/13/24 10:40	1
1,3-Dichlorobenzene	1.0	U	1.0	0.34	ug/L			05/13/24 10:40	1
1,4-Dichlorobenzene	1.0	U	1.0	0.33	ug/L			05/13/24 10:40	1
1,4-Dioxane	50	U	50	28	ug/L			05/13/24 10:40	1
2-Butanone (MEK)	5.0	U	5.0	1.9	ug/L			05/13/24 10:40	1
2-Hexanone	5.0	U	5.0	1.1	ug/L			05/13/24 10:40	1
4-Methyl-2-pentanone (MIBK)	5.0	U	5.0	1.3	ug/L			05/13/24 10:40	1
Acetone	5.0	U	5.0	4.4	ug/L			05/13/24 10:40	1
Benzene	1.0	U	1.0	0.20	ug/L			05/13/24 10:40	1
Bromoform	1.0	U	1.0	0.54	ug/L			05/13/24 10:40	1
Bromomethane	1.0	U *	1.0	0.55	ug/L			05/13/24 10:40	1
Carbon disulfide	1.0	U	1.0	0.82	ug/L			05/13/24 10:40	1
Carbon tetrachloride	1.0	U	1.0	0.21	ug/L			05/13/24 10:40	1
Chlorobenzene	1.0	U	1.0	0.38	ug/L			05/13/24 10:40	1
Dibromochloromethane	1.0	U	1.0	0.28	ug/L			05/13/24 10:40	1
Chloroethane	1.0	U	1.0	0.32	ug/L			05/13/24 10:40	1
Chloroform	1.0	U	1.0	0.33	ug/L			05/13/24 10:40	1
Chloromethane	1.0	U	1.0	0.40	ug/L			05/13/24 10:40	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.22	ug/L			05/13/24 10:40	1
cis-1,3-Dichloropropene	1.0	U	1.0	0.22	ug/L			05/13/24 10:40	1
Cyclohexane	1.0	U	1.0	0.32	ug/L			05/13/24 10:40	1
Bromodichloromethane	1.0	U	1.0	0.34	ug/L			05/13/24 10:40	1
Dichlorodifluoromethane	1.0	U	1.0	0.31	ug/L			05/13/24 10:40	1
Ethylbenzene	1.0	U	1.0	0.30	ug/L			05/13/24 10:40	1
1,2-Dibromoethane	1.0	U	1.0	0.50	ug/L			05/13/24 10:40	1
Isopropylbenzene	1.0	U	1.0	0.34	ug/L			05/13/24 10:40	1
Methyl acetate	5.0	U	5.0	0.79	ug/L			05/13/24 10:40	1

Client Sample ID: MW-24S
Date Collected: 05/07/24 12:40
Date Received: 05/07/24 19:00

Lab Sample ID: 460-303656-3
Matrix: Water

Method: SW846 8260D - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methyl tert-butyl ether	1.0	U	1.0	0.22	ug/L			05/13/24 10:40	1
Methylcyclohexane	1.0	U	1.0	0.71	ug/L			05/13/24 10:40	1
Methylene Chloride	1.0	U	1.0	0.32	ug/L			05/13/24 10:40	1
Styrene	1.0	U	1.0	0.42	ug/L			05/13/24 10:40	1
Tetrachloroethene	1.0	U	1.0	0.25	ug/L			05/13/24 10:40	1
Toluene	1.0	U	1.0	0.38	ug/L			05/13/24 10:40	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.24	ug/L			05/13/24 10:40	1
trans-1,3-Dichloropropene	1.0	U	1.0	0.22	ug/L			05/13/24 10:40	1
Trichloroethene	1.0	U	1.0	0.31	ug/L			05/13/24 10:40	1
Trichlorofluoromethane	1.0	U	1.0	0.32	ug/L			05/13/24 10:40	1
Vinyl chloride	1.0	U	1.0	0.17	ug/L			05/13/24 10:40	1
n-Butylbenzene	1.0	U	1.0	0.32	ug/L			05/13/24 10:40	1
1,2,4-Trimethylbenzene	1.0	U	1.0	0.37	ug/L			05/13/24 10:40	1
sec-Butylbenzene	1.0	U	1.0	0.37	ug/L			05/13/24 10:40	1
N-Propylbenzene	1.0	U	1.0	0.32	ug/L			05/13/24 10:40	1
Xylenes, Total	2.0	U	2.0	0.65	ug/L			05/13/24 10:40	1
1,3,5-Trimethylbenzene	1.0	U	1.0	0.33	ug/L			05/13/24 10:40	1
tert-Butylbenzene	1.0	U	1.0	0.34	ug/L			05/13/24 10:40	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*99*		*70 - 128*		*05/13/24 10:40*	*1*
4-Bromofluorobenzene	*98*		*76 - 120*		*05/13/24 10:40*	*1*
Dibromofluoromethane (Surr)	*103*		*77 - 132*		*05/13/24 10:40*	*1*
Toluene-d8 (Surr)	*101*		*80 - 120*		*05/13/24 10:40*	*1*

Method: SW846 8270E - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1'-Biphenyl	10	U	10	1.2	ug/L		05/11/24 09:02	05/11/24 22:26	1
2,2'-oxybis[1-chloropropane]	10	U	10	0.63	ug/L		05/11/24 09:02	05/11/24 22:26	1
2,4,5-Trichlorophenol	10	U	10	0.88	ug/L		05/11/24 09:02	05/11/24 22:26	1
2,4,6-Trichlorophenol	10	U	10	0.86	ug/L		05/11/24 09:02	05/11/24 22:26	1
2,4-Dichlorophenol	10	U	10	1.1	ug/L		05/11/24 09:02	05/11/24 22:26	1
2,4-Dimethylphenol	10	U	10	0.62	ug/L		05/11/24 09:02	05/11/24 22:26	1
2,4-Dinitrophenol	40	U	40	2.6	ug/L		05/11/24 09:02	05/11/24 22:26	1
2,4-Dinitrotoluene	10	U	10	1.0	ug/L		05/11/24 09:02	05/11/24 22:26	1
2,6-Dinitrotoluene	2.0	U	2.0	0.83	ug/L		05/11/24 09:02	05/11/24 22:26	1
2-Chloronaphthalene	10	U	10	1.2	ug/L		05/11/24 09:02	05/11/24 22:26	1
2-Chlorophenol	10	U	10	0.38	ug/L		05/11/24 09:02	05/11/24 22:26	1
2-Methylnaphthalene	10	U	10	0.53	ug/L		05/11/24 09:02	05/11/24 22:26	1
2-Methylphenol	10	U	10	0.67	ug/L		05/11/24 09:02	05/11/24 22:26	1
2-Nitroaniline	10	U	10	0.47	ug/L		05/11/24 09:02	05/11/24 22:26	1
2-Nitrophenol	10	U	10	0.75	ug/L		05/11/24 09:02	05/11/24 22:26	1
3,3'-Dichlorobenzidine	10	U	10	1.4	ug/L		05/11/24 09:02	05/11/24 22:26	1
3-Nitroaniline	10	U	10	1.9	ug/L		05/11/24 09:02	05/11/24 22:26	1
4,6-Dinitro-2-methylphenol	20	U	20	3.0	ug/L		05/11/24 09:02	05/11/24 22:26	1
4-Bromophenyl phenyl ether	10	U	10	0.75	ug/L		05/11/24 09:02	05/11/24 22:26	1
4-Chloro-3-methylphenol	10	U	10	0.58	ug/L		05/11/24 09:02	05/11/24 22:26	1
4-Chloroaniline	10	U	10	1.9	ug/L		05/11/24 09:02	05/11/24 22:26	1
4-Chlorophenyl phenyl ether	10	U	10	1.3	ug/L		05/11/24 09:02	05/11/24 22:26	1
4-Nitroaniline	10	U J	10	1.2	ug/L		05/11/24 09:02	05/11/24 22:26	1

Client Sample ID: MW-24S
Date Collected: 05/07/24 12:40
Date Received: 05/07/24 19:00

Lab Sample ID: 460-303656-3
Matrix: Water

Method: SW846 8270E - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4-Nitrophenol	20	U	20	4.0	ug/L		05/11/24 09:02	05/11/24 22:26	1
Acenaphthene	10	U	10	1.1	ug/L		05/11/24 09:02	05/11/24 22:26	1
Acenaphthylene	10	U	10	0.82	ug/L		05/11/24 09:02	05/11/24 22:26	1
Acetophenone	10	U	10	2.3	ug/L		05/11/24 09:02	05/11/24 22:26	1
Anthracene	10	U	10	1.3	ug/L		05/11/24 09:02	05/11/24 22:26	1
Atrazine	2.0	U	2.0	1.3	ug/L		05/11/24 09:02	05/11/24 22:26	1
Benzaldehyde	10	U	10	2.1	ug/L		05/11/24 09:02	05/11/24 22:26	1
Benzo[a]anthracene	1.0	U	1.0	0.59	ug/L		05/11/24 09:02	05/11/24 22:26	1
Benzo[a]pyrene	1.0	U	1.0	0.41	ug/L		05/11/24 09:02	05/11/24 22:26	1
Benzo[b]fluoranthene	2.0	U	2.0	0.68	ug/L		05/11/24 09:02	05/11/24 22:26	1
Benzo[g,h,i]perylene	10	U	10	0.70	ug/L		05/11/24 09:02	05/11/24 22:26	1
Benzo[k]fluoranthene	1.0	U	1.0	0.67	ug/L		05/11/24 09:02	05/11/24 22:26	1
Bis(2-chloroethoxy)methane	10	U	10	0.59	ug/L		05/11/24 09:02	05/11/24 22:26	1
Bis(2-chloroethyl)ether	1.0	U	1.0	0.63	ug/L		05/11/24 09:02	05/11/24 22:26	1
Bis(2-ethylhexyl) phthalate	2.0	U	2.0	0.80	ug/L		05/11/24 09:02	05/11/24 22:26	1
Butyl benzyl phthalate	10	U	10	0.85	ug/L		05/11/24 09:02	05/11/24 22:26	1
Caprolactam	10	U J	10	2.2	ug/L		05/11/24 09:02	05/11/24 22:26	1
Carbazole	10	U	10	0.68	ug/L		05/11/24 09:02	05/11/24 22:26	1
Chrysene	2.0	U	2.0	0.91	ug/L		05/11/24 09:02	05/11/24 22:26	1
Dibenz(a,h)anthracene	1.0	U	1.0	0.72	ug/L		05/11/24 09:02	05/11/24 22:26	1
Dibenzofuran	10	U	10	1.1	ug/L		05/11/24 09:02	05/11/24 22:26	1
Diethyl phthalate	10	U	10	0.98	ug/L		05/11/24 09:02	05/11/24 22:26	1
Dimethyl phthalate	10	U	10	0.77	ug/L		05/11/24 09:02	05/11/24 22:26	1
Di-n-butyl phthalate	10	U	10	0.84	ug/L		05/11/24 09:02	05/11/24 22:26	1
Di-n-octyl phthalate	10	U	10	0.75	ug/L		05/11/24 09:02	05/11/24 22:26	1
Fluoranthene	10	U	10	0.84	ug/L		05/11/24 09:02	05/11/24 22:26	1
Fluorene	10	U	10	0.91	ug/L		05/11/24 09:02	05/11/24 22:26	1
Hexachlorobenzene	1.0	U	1.0	0.40	ug/L		05/11/24 09:02	05/11/24 22:26	1
Hexachlorobutadiene	1.0	U	1.0	0.78	ug/L		05/11/24 09:02	05/11/24 22:26	1
Hexachlorocyclopentadiene	10	U	10	3.6	ug/L		05/11/24 09:02	05/11/24 22:26	1
Hexachloroethane	2.0	U	2.0	0.80	ug/L		05/11/24 09:02	05/11/24 22:26	1
Indeno[1,2,3-cd]pyrene	2.0	U	2.0	0.94	ug/L		05/11/24 09:02	05/11/24 22:26	1
Isophorone	10	U	10	0.80	ug/L		05/11/24 09:02	05/11/24 22:26	1
Naphthalene	2.0	U	2.0	0.54	ug/L		05/11/24 09:02	05/11/24 22:26	1
Nitrobenzene	1.0	U	1.0	0.57	ug/L		05/11/24 09:02	05/11/24 22:26	1
N-Nitrosodi-n-propylamine	1.0	U	1.0	0.43	ug/L		05/11/24 09:02	05/11/24 22:26	1
N-Nitrosodiphenylamine	10	U	10	0.89	ug/L		05/11/24 09:02	05/11/24 22:26	1
Pentachlorophenol	20	U	20	1.4	ug/L		05/11/24 09:02	05/11/24 22:26	1
Phenanthrene	10	U	10	1.3	ug/L		05/11/24 09:02	05/11/24 22:26	1
Phenol	10	U	10	0.29	ug/L		05/11/24 09:02	05/11/24 22:26	1
Pyrene	10	U	10	1.6	ug/L		05/11/24 09:02	05/11/24 22:26	1
3 & 4 Methylphenol	10	U	10	0.64	ug/L		05/11/24 09:02	05/11/24 22:26	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol (Surr)	*99*		*37 - 150*	*05/11/24 09:02*	*05/11/24 22:26*	*1*
2-Fluorobiphenyl	*89*		*46 - 139*	*05/11/24 09:02*	*05/11/24 22:26*	*1*
2-Fluorophenol (Surr)	*49*		*16 - 80*	*05/11/24 09:02*	*05/11/24 22:26*	*1*
Nitrobenzene-d5 (Surr)	*89*		*51 - 145*	*05/11/24 09:02*	*05/11/24 22:26*	*1*
Phenol-d5 (Surr)	*34*		*10 - 56*	*05/11/24 09:02*	*05/11/24 22:26*	*1*
Terphenyl-d14 (Surr)	*26*		*13 - 150*	*05/11/24 09:02*	*05/11/24 22:26*	*1*

Client Sample ID: MW-24D
Date Collected: 05/07/24 12:30
Date Received: 05/07/24 19:00

Lab Sample ID: 460-303656-4
Matrix: Water

Method: SW846 8260D - Volatile Organic Compounds by GC/MS

Analyte		Result	Qualifier		RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane		1.0	U		1.0	0.24	ug/L			05/13/24 11:00	1
1,1,2,2-Tetrachloroethane		1.0	U		1.0	0.37	ug/L			05/13/24 11:00	1
1,1,2-Trichloro-1,2,2-trifluoroethane		1.0	U		1.0	0.31	ug/L			05/13/24 11:00	1
1,1,2-Trichloroethane		1.0	U		1.0	0.20	ug/L			05/13/24 11:00	1
1,1-Dichloroethane		1.0	U		1.0	0.26	ug/L			05/13/24 11:00	1
1,1-Dichloroethene		1.0	U		1.0	0.26	ug/L			05/13/24 11:00	1
1,2,4-Trichlorobenzene		1.0	U		1.0	0.37	ug/L			05/13/24 11:00	1
1,2-Dibromo-3-Chloropropane		1.0	U		1.0	0.38	ug/L			05/13/24 11:00	1
1,2-Dichlorobenzene		1.0	U		1.0	0.21	ug/L			05/13/24 11:00	1
1,2-Dichloroethane		1.0	U		1.0	0.43	ug/L			05/13/24 11:00	1
1,2-Dichloropropane		1.0	U		1.0	0.35	ug/L			05/13/24 11:00	1
1,3-Dichlorobenzene		1.0	U		1.0	0.34	ug/L			05/13/24 11:00	1
1,4-Dichlorobenzene		1.0	U		1.0	0.33	ug/L			05/13/24 11:00	1
1,4-Dioxane		50	U		50	28	ug/L			05/13/24 11:00	1
2-Butanone (MEK)		5.0	U		5.0	1.9	ug/L			05/13/24 11:00	1
2-Hexanone		5.0	U		5.0	1.1	ug/L			05/13/24 11:00	1
4-Methyl-2-pentanone (MIBK)		5.0	U		5.0	1.3	ug/L			05/13/24 11:00	1
Acetone	5.0	4.4	J	UB	5.0	4.4	ug/L			05/13/24 11:00	1
Benzene		1.0	U		1.0	0.20	ug/L			05/13/24 11:00	1
Bromoform		1.0	U		1.0	0.54	ug/L			05/13/24 11:00	1
Bromomethane		1.0	U		1.0	0.55	ug/L			05/13/24 11:00	1
Carbon disulfide		1.0	U		1.0	0.82	ug/L			05/13/24 11:00	1
Carbon tetrachloride		1.0	U		1.0	0.21	ug/L			05/13/24 11:00	1
Chlorobenzene		1.0	U		1.0	0.38	ug/L			05/13/24 11:00	1
Dibromochloromethane		1.0	U		1.0	0.28	ug/L			05/13/24 11:00	1
Chloroethane		1.0	U		1.0	0.32	ug/L			05/13/24 11:00	1
Chloroform		1.3			1.0	0.33	ug/L			05/13/24 11:00	1
Chloromethane		1.0	U		1.0	0.40	ug/L			05/13/24 11:00	1
cis-1,2-Dichloroethene		1.0	U		1.0	0.22	ug/L			05/13/24 11:00	1
cis-1,3-Dichloropropene		1.0	U		1.0	0.22	ug/L			05/13/24 11:00	1
Cyclohexane		1.0	U		1.0	0.32	ug/L			05/13/24 11:00	1
Bromodichloromethane		1.0	U		1.0	0.34	ug/L			05/13/24 11:00	1
Dichlorodifluoromethane		1.0	U		1.0	0.31	ug/L			05/13/24 11:00	1
Ethylbenzene		1.0	U		1.0	0.30	ug/L			05/13/24 11:00	1
1,2-Dibromoethane		1.0	U		1.0	0.50	ug/L			05/13/24 11:00	1
Isopropylbenzene		1.0	U		1.0	0.34	ug/L			05/13/24 11:00	1
Methyl acetate		5.0	U		5.0	0.79	ug/L			05/13/24 11:00	1
Methyl tert-butyl ether		1.0	U		1.0	0.22	ug/L			05/13/24 11:00	1
Methylcyclohexane		1.0	U		1.0	0.71	ug/L			05/13/24 11:00	1
Methylene Chloride		1.0	U		1.0	0.32	ug/L			05/13/24 11:00	1
Styrene		1.0	U		1.0	0.42	ug/L			05/13/24 11:00	1
Tetrachloroethene		1.0	U		1.0	0.25	ug/L			05/13/24 11:00	1
Toluene		1.0	U		1.0	0.38	ug/L			05/13/24 11:00	1
trans-1,2-Dichloroethene		1.0	U		1.0	0.24	ug/L			05/13/24 11:00	1
trans-1,3-Dichloropropene		1.0	U		1.0	0.22	ug/L			05/13/24 11:00	1
Trichloroethene		1.0	U		1.0	0.31	ug/L			05/13/24 11:00	1
Trichlorofluoromethane		1.0	U		1.0	0.32	ug/L			05/13/24 11:00	1
Vinyl chloride		1.0	U		1.0	0.17	ug/L			05/13/24 11:00	1
n-Butylbenzene		1.0	U		1.0	0.32	ug/L			05/13/24 11:00	1

Client Sample ID: MW-24D
Date Collected: 05/07/24 12:30
Date Received: 05/07/24 19:00

Lab Sample ID: 460-303656-4
Matrix: Water

Method: SW846 8260D - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trimethylbenzene	1.0	U	1.0	0.37	ug/L			05/13/24 11:00	1
sec-Butylbenzene	1.0	U	1.0	0.37	ug/L			05/13/24 11:00	1
N-Propylbenzene	1.0	U	1.0	0.32	ug/L			05/13/24 11:00	1
Xylenes, Total	2.0	U	2.0	0.65	ug/L			05/13/24 11:00	1
1,3,5-Trimethylbenzene	1.0	U	1.0	0.33	ug/L			05/13/24 11:00	1
tert-Butylbenzene	1.0	U	1.0	0.34	ug/L			05/13/24 11:00	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*101*		*70 - 128*		*05/13/24 11:00*	*1*
4-Bromofluorobenzene	*98*		*76 - 120*		*05/13/24 11:00*	*1*
Dibromofluoromethane (Surr)	*101*		*77 - 132*		*05/13/24 11:00*	*1*
Toluene-d8 (Surr)	*99*		*80 - 120*		*05/13/24 11:00*	*1*

Method: SW846 8270E - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1'-Biphenyl	10	U	10	1.2	ug/L		05/11/24 09:02	05/11/24 22:48	1
2,2'-oxybis[1-chloropropane]	10	U	10	0.63	ug/L		05/11/24 09:02	05/11/24 22:48	1
2,4,5-Trichlorophenol	10	U	10	0.88	ug/L		05/11/24 09:02	05/11/24 22:48	1
2,4,6-Trichlorophenol	10	U	10	0.86	ug/L		05/11/24 09:02	05/11/24 22:48	1
2,4-Dichlorophenol	10	U	10	1.1	ug/L		05/11/24 09:02	05/11/24 22:48	1
2,4-Dimethylphenol	10	U	10	0.62	ug/L		05/11/24 09:02	05/11/24 22:48	1
2,4-Dinitrophenol	40	U	40	2.6	ug/L		05/11/24 09:02	05/11/24 22:48	1
2,4-Dinitrotoluene	10	U	10	1.0	ug/L		05/11/24 09:02	05/11/24 22:48	1
2,6-Dinitrotoluene	2.0	U	2.0	0.83	ug/L		05/11/24 09:02	05/11/24 22:48	1
2-Chloronaphthalene	10	U	10	1.2	ug/L		05/11/24 09:02	05/11/24 22:48	1
2-Chlorophenol	10	U	10	0.38	ug/L		05/11/24 09:02	05/11/24 22:48	1
2-Methylnaphthalene	10	U	10	0.53	ug/L		05/11/24 09:02	05/11/24 22:48	1
2-Methylphenol	10	U	10	0.67	ug/L		05/11/24 09:02	05/11/24 22:48	1
2-Nitroaniline	10	U	10	0.47	ug/L		05/11/24 09:02	05/11/24 22:48	1
2-Nitrophenol	10	U	10	0.75	ug/L		05/11/24 09:02	05/11/24 22:48	1
3,3'-Dichlorobenzidine	10	U	10	1.4	ug/L		05/11/24 09:02	05/11/24 22:48	1
3-Nitroaniline	10	U	10	1.9	ug/L		05/11/24 09:02	05/11/24 22:48	1
4,6-Dinitro-2-methylphenol	20	U	20	3.0	ug/L		05/11/24 09:02	05/11/24 22:48	1
4-Bromophenyl phenyl ether	10	U	10	0.75	ug/L		05/11/24 09:02	05/11/24 22:48	1
4-Chloro-3-methylphenol	10	U	10	0.58	ug/L		05/11/24 09:02	05/11/24 22:48	1
4-Chloroaniline	10	U	10	1.9	ug/L		05/11/24 09:02	05/11/24 22:48	1
4-Chlorophenyl phenyl ether	10	U	10	1.3	ug/L		05/11/24 09:02	05/11/24 22:48	1
4-Nitroaniline	10	U J	10	1.2	ug/L		05/11/24 09:02	05/11/24 22:48	1
4-Nitrophenol	20	U	20	4.0	ug/L		05/11/24 09:02	05/11/24 22:48	1
Acenaphthene	10	U	10	1.1	ug/L		05/11/24 09:02	05/11/24 22:48	1
Acenaphthylene	10	U	10	0.82	ug/L		05/11/24 09:02	05/11/24 22:48	1
Acetophenone	10	U	10	2.3	ug/L		05/11/24 09:02	05/11/24 22:48	1
Anthracene	10	U	10	1.3	ug/L		05/11/24 09:02	05/11/24 22:48	1
Atrazine	2.0	U	2.0	1.3	ug/L		05/11/24 09:02	05/11/24 22:48	1
Benzaldehyde	10	U	10	2.1	ug/L		05/11/24 09:02	05/11/24 22:48	1
Benzo[a]anthracene	1.0	U	1.0	0.59	ug/L		05/11/24 09:02	05/11/24 22:48	1
Benzo[a]pyrene	1.0	U	1.0	0.41	ug/L		05/11/24 09:02	05/11/24 22:48	1
Benzo[b]fluoranthene	2.0	U	2.0	0.68	ug/L		05/11/24 09:02	05/11/24 22:48	1
Benzo[g,h,i]perylene	10	U	10	0.70	ug/L		05/11/24 09:02	05/11/24 22:48	1
Benzo[k]fluoranthene	1.0	U	1.0	0.67	ug/L		05/11/24 09:02	05/11/24 22:48	1

Client Sample ID: MW-24D
Date Collected: 05/07/24 12:30
Date Received: 05/07/24 19:00

Lab Sample ID: 460-303656-4
Matrix: Water

Method: SW846 8270E - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bis(2-chloroethoxy)methane	10	U	10	0.59	ug/L		05/11/24 09:02	05/11/24 22:48	1
Bis(2-chloroethyl)ether	1.0	U	1.0	0.63	ug/L		05/11/24 09:02	05/11/24 22:48	1
Bis(2-ethylhexyl) phthalate	2.0	U	2.0	0.80	ug/L		05/11/24 09:02	05/11/24 22:48	1
Butyl benzyl phthalate	10	U	10	0.85	ug/L		05/11/24 09:02	05/11/24 22:48	1
Caprolactam	10	U F J	10	2.2	ug/L		05/11/24 09:02	05/11/24 22:48	1
Carbazole	10	U	10	0.68	ug/L		05/11/24 09:02	05/11/24 22:48	1
Chrysene	2.0	U	2.0	0.91	ug/L		05/11/24 09:02	05/11/24 22:48	1
Dibenz(a,h)anthracene	1.0	U	1.0	0.72	ug/L		05/11/24 09:02	05/11/24 22:48	1
Dibenzofuran	10	U	10	1.1	ug/L		05/11/24 09:02	05/11/24 22:48	1
Diethyl phthalate	10	U	10	0.98	ug/L		05/11/24 09:02	05/11/24 22:48	1
Dimethyl phthalate	10	U	10	0.77	ug/L		05/11/24 09:02	05/11/24 22:48	1
Di-n-butyl phthalate	10	U	10	0.84	ug/L		05/11/24 09:02	05/11/24 22:48	1
Di-n-octyl phthalate	10	U	10	0.75	ug/L		05/11/24 09:02	05/11/24 22:48	1
Fluoranthene	10	U	10	0.84	ug/L		05/11/24 09:02	05/11/24 22:48	1
Fluorene	10	U	10	0.91	ug/L		05/11/24 09:02	05/11/24 22:48	1
Hexachlorobenzene	1.0	U	1.0	0.40	ug/L		05/11/24 09:02	05/11/24 22:48	1
Hexachlorobutadiene	1.0	U	1.0	0.78	ug/L		05/11/24 09:02	05/11/24 22:48	1
Hexachlorocyclopentadiene	10	U	10	3.6	ug/L		05/11/24 09:02	05/11/24 22:48	1
Hexachloroethane	2.0	U	2.0	0.80	ug/L		05/11/24 09:02	05/11/24 22:48	1
Indeno[1,2,3-cd]pyrene	2.0	U	2.0	0.94	ug/L		05/11/24 09:02	05/11/24 22:48	1
Isophorone	10	U	10	0.80	ug/L		05/11/24 09:02	05/11/24 22:48	1
Naphthalene	2.0	U	2.0	0.54	ug/L		05/11/24 09:02	05/11/24 22:48	1
Nitrobenzene	1.0	U	1.0	0.57	ug/L		05/11/24 09:02	05/11/24 22:48	1
N-Nitrosodi-n-propylamine	1.0	U	1.0	0.43	ug/L		05/11/24 09:02	05/11/24 22:48	1
N-Nitrosodiphenylamine	10	U	10	0.89	ug/L		05/11/24 09:02	05/11/24 22:48	1
Pentachlorophenol	20	U	20	1.4	ug/L		05/11/24 09:02	05/11/24 22:48	1
Phenanthrene	10	U	10	1.3	ug/L		05/11/24 09:02	05/11/24 22:48	1
Phenol	10	U	10	0.29	ug/L		05/11/24 09:02	05/11/24 22:48	1
Pyrene	10	U	10	1.6	ug/L		05/11/24 09:02	05/11/24 22:48	1
3 & 4 Methylphenol	10	U	10	0.64	ug/L		05/11/24 09:02	05/11/24 22:48	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol (Surr)	*109*		*37 - 150*	*05/11/24 09:02*	*05/11/24 22:48*	*1*
2-Fluorobiphenyl	*91*		*46 - 139*	*05/11/24 09:02*	*05/11/24 22:48*	*1*
2-Fluorophenol (Surr)	*60*		*16 - 80*	*05/11/24 09:02*	*05/11/24 22:48*	*1*
Nitrobenzene-d5 (Surr)	*93*		*51 - 145*	*05/11/24 09:02*	*05/11/24 22:48*	*1*
Phenol-d5 (Surr)	*44*		*10 - 56*	*05/11/24 09:02*	*05/11/24 22:48*	*1*
Terphenyl-d14 (Surr)	*29*		*13 - 150*	*05/11/24 09:02*	*05/11/24 22:48*	*1*

Eurofins Environment Testing Northeast, LLC
777 New Durham Road
Edison NJ 08817
Phone (732) 549-3900 Fax (732) 549-3679

NYC

Chain of Custody Record

Client Information	Sampler: Alyssa R Hynes	Lab PM: Gilmore, Julie	Carrier Tracking No(s):	COC No:
Client Contact: Steven Feldman	Phone: 516-297-1406	E-Mail: Julie.Gilmore@et.eurofinsus.com		Page: Page 1 of 1
Company: Arcadis of New York, Inc.				Job #: 303688

Address: 105 Maxess Road Suite N108	Due Date Requested:	
City: Melville	TAT Requested (days): 5 Days	
State, Zip: NY 11747		
Phone: (631) 249-7600	PO #:	
Email: Steven.Feldman@arcadis.com	WO #: 30205663.04.042624	
Project Name: Former Dangman Park MGP Site	Project #: 30205663.04	
Site: Former Dangman Park MGP Site	SSOW#:	

Analysis Requested

Preservation Codes:
A HCL, B NaOH, C Zn Acetate, D Nitric Acid, E NaHSO4, F MeOH, G Amchlor, H Ascorbic Acid, I Ice, J DI Water, K EDTA, L EDA, M Hexane, N None, O AsNaO2, P Na2O4S, Q Na2SO3, R Na2S2O3, S H2SO4, T TSP Dodecahydrate, U Acetone, V MCAA, W pH 4-5, Z other (specify)
Other:

Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water S=solid, O=waste/oil BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	VOCs (8260)	SVOCs (8270)	Total Number of containers	Special Instructions/Note:
			Preservation Code:				A	I		
TB050824	5/8/24	—	G	W	N	N	X		2	1
EB050824	5/8/24	1110	G	W	N	N	X	X	4	2
MW-23S	5/8/24	1320	G	W	N	N	X	X	5	3
MW-23D	5/8/24	1230	G	W	N	N	X	X	5	4

460-303688 Chain of Custody

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☒ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☒ Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested: I II, III IV Other (specify)

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

	Relinquished by	Date/Time	Company	Received by	Date/Time	Company
1	Alyssa R Hynes	5/8/24	Arcadis			
2						ET
3						

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.	Cooler Temperature(s) °C and Other Remarks:

Ver: 01/16/2019

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
J	Indicates an estimated value.
U	Analyzed for but not detected.

GC/MS Semi VOA

Qualifier	Qualifier Description
*	LCS or LCSD is outside acceptance limits.
E	Compound concentration exceeds the upper level of the calibration range of the instrument for that specific analysis.
U	Analyzed for but not detected.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Client Sample ID: TB050824 Lab Sample ID: 460-303688-1

Date Collected: 05/08/24 00:00 **Matrix: Water**
Date Received: 05/08/24 20:00

Method: SW846 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier		RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	1.0	U		1.0	0.24	ug/L			05/13/24 19:48	1
1,1,2,2-Tetrachloroethane	1.0	U		1.0	0.37	ug/L			05/13/24 19:48	1
1,1,2-Trichloro-1,2,2-trifluoroethane	1.0	U		1.0	0.31	ug/L			05/13/24 19:48	1
1,1,2-Trichloroethane	1.0	U		1.0	0.20	ug/L			05/13/24 19:48	1
1,1-Dichloroethane	1.0	U	J	1.0	0.26	ug/L			05/13/24 19:48	1
1,1-Dichloroethene	1.0	U		1.0	0.26	ug/L			05/13/24 19:48	1
1,2,4-Trichlorobenzene	1.0	U		1.0	0.37	ug/L			05/13/24 19:48	1
1,2-Dibromo-3-Chloropropane	1.0	U		1.0	0.38	ug/L			05/13/24 19:48	1
1,2-Dichlorobenzene	1.0	U		1.0	0.21	ug/L			05/13/24 19:48	1
1,2-Dichloroethane	1.0	U		1.0	0.43	ug/L			05/13/24 19:48	1
1,2-Dichloropropane	1.0	U		1.0	0.35	ug/L			05/13/24 19:48	1
1,3-Dichlorobenzene	1.0	U		1.0	0.34	ug/L			05/13/24 19:48	1
1,4-Dichlorobenzene	1.0	U		1.0	0.33	ug/L			05/13/24 19:48	1
1,4-Dioxane	50	U		50	28	ug/L			05/13/24 19:48	1
2-Butanone (MEK)	5.0	U		5.0	1.9	ug/L			05/13/24 19:48	1
2-Hexanone	5.0	U		5.0	1.1	ug/L			05/13/24 19:48	1
4-Methyl-2-pentanone (MIBK)	5.0	U		5.0	1.3	ug/L			05/13/24 19:48	1
Acetone	5.0	U		5.0	4.4	ug/L			05/13/24 19:48	1
Benzene	1.0	U		1.0	0.20	ug/L			05/13/24 19:48	1
Bromoform	1.0	U		1.0	0.54	ug/L			05/13/24 19:48	1
Bromomethane	1.0	U		1.0	0.55	ug/L			05/13/24 19:48	1
Carbon disulfide	1.0	U		1.0	0.82	ug/L			05/13/24 19:48	1
Carbon tetrachloride	1.0	U		1.0	0.21	ug/L			05/13/24 19:48	1
Chlorobenzene	1.0	U		1.0	0.38	ug/L			05/13/24 19:48	1
Dibromochloromethane	1.0	U		1.0	0.28	ug/L			05/13/24 19:48	1
Chloroethane	1.0	U		1.0	0.32	ug/L			05/13/24 19:48	1
Chloroform	1.0	U		1.0	0.33	ug/L			05/13/24 19:48	1
Chloromethane	1.0	U	J	1.0	0.40	ug/L			05/13/24 19:48	1
cis-1,2-Dichloroethene	1.0	U		1.0	0.22	ug/L			05/13/24 19:48	1
cis-1,3-Dichloropropene	1.0	U		1.0	0.22	ug/L			05/13/24 19:48	1
Cyclohexane	1.0	U		1.0	0.32	ug/L			05/13/24 19:48	1
Bromodichloromethane	1.0	U		1.0	0.34	ug/L			05/13/24 19:48	1
Dichlorodifluoromethane	1.0	U		1.0	0.31	ug/L			05/13/24 19:48	1
Ethylbenzene	1.0	U		1.0	0.30	ug/L			05/13/24 19:48	1
1,2-Dibromoethane	1.0	U		1.0	0.50	ug/L			05/13/24 19:48	1
Isopropylbenzene	1.0	U		1.0	0.34	ug/L			05/13/24 19:48	1
Methyl acetate	5.0	U		5.0	0.79	ug/L			05/13/24 19:48	1
Methyl tert-butyl ether	1.0	U		1.0	0.22	ug/L			05/13/24 19:48	1
Methylcyclohexane	1.0	U		1.0	0.71	ug/L			05/13/24 19:48	1
Methylene Chloride	1.0	U		1.0	0.32	ug/L			05/13/24 19:48	1
Styrene	1.0	U		1.0	0.42	ug/L			05/13/24 19:48	1
Tetrachloroethene	1.0	U		1.0	0.25	ug/L			05/13/24 19:48	1
Toluene	1.0	U		1.0	0.38	ug/L			05/13/24 19:48	1
trans-1,2-Dichloroethene	1.0	U		1.0	0.24	ug/L			05/13/24 19:48	1
trans-1,3-Dichloropropene	1.0	U		1.0	0.22	ug/L			05/13/24 19:48	1
Trichloroethene	1.0	U		1.0	0.31	ug/L			05/13/24 19:48	1
Trichlorofluoromethane	1.0	U		1.0	0.32	ug/L			05/13/24 19:48	1
Vinyl chloride	1.0	U		1.0	0.17	ug/L			05/13/24 19:48	1
n-Butylbenzene	1.0	U		1.0	0.32	ug/L			05/13/24 19:48	1

Client Sample ID: TB050824 — Lab Sample ID: 460-303688-1

Date Collected: 05/08/24 00:00 — **Matrix: Water**
Date Received: 05/08/24 20:00

Method: SW846 8260D - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trimethylbenzene	1.0	U	1.0	0.37	ug/L			05/13/24 19:48	1
sec-Butylbenzene	1.0	U	1.0	0.37	ug/L			05/13/24 19:48	1
N-Propylbenzene	1.0	U	1.0	0.32	ug/L			05/13/24 19:48	1
Xylenes, Total	2.0	U	2.0	0.65	ug/L			05/13/24 19:48	1
1,3,5-Trimethylbenzene	1.0	U	1.0	0.33	ug/L			05/13/24 19:48	1
tert-Butylbenzene	1.0	U	1.0	0.34	ug/L			05/13/24 19:48	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*116*		*70 - 128*		*05/13/24 19:48*	*1*
4-Bromofluorobenzene	*94*		*76 - 120*		*05/13/24 19:48*	*1*
Dibromofluoromethane (Surr)	*101*		*77 - 132*		*05/13/24 19:48*	*1*
Toluene-d8 (Surr)	*103*		*80 - 120*		*05/13/24 19:48*	*1*

Client Sample ID: EB050824 — Lab Sample ID: 460-303688-2

Date Collected: 05/08/24 11:10 — **Matrix: Water**
Date Received: 05/08/24 20:00

Method: SW846 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	1.0	U	1.0	0.24	ug/L			05/13/24 20:08	1
1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.37	ug/L			05/13/24 20:08	1
1,1,2-Trichloro-1,2,2-trifluoroethane	1.0	U	1.0	0.31	ug/L			05/13/24 20:08	1
1,1,2-Trichloroethane	1.0	U	1.0	0.20	ug/L			05/13/24 20:08	1
1,1-Dichloroethane	1.0	U J	1.0	0.26	ug/L			05/13/24 20:08	1
1,1-Dichloroethene	1.0	U	1.0	0.26	ug/L			05/13/24 20:08	1
1,2,4-Trichlorobenzene	1.0	U	1.0	0.37	ug/L			05/13/24 20:08	1
1,2-Dibromo-3-Chloropropane	1.0	U	1.0	0.38	ug/L			05/13/24 20:08	1
1,2-Dichlorobenzene	1.0	U	1.0	0.21	ug/L			05/13/24 20:08	1
1,2-Dichloroethane	1.0	U	1.0	0.43	ug/L			05/13/24 20:08	1
1,2-Dichloropropane	1.0	U	1.0	0.35	ug/L			05/13/24 20:08	1
1,3-Dichlorobenzene	1.0	U	1.0	0.34	ug/L			05/13/24 20:08	1
1,4-Dichlorobenzene	1.0	U	1.0	0.33	ug/L			05/13/24 20:08	1
1,4-Dioxane	50	U	50	28	ug/L			05/13/24 20:08	1
2-Butanone (MEK)	5.0	U	5.0	1.9	ug/L			05/13/24 20:08	1
2-Hexanone	5.0	U	5.0	1.1	ug/L			05/13/24 20:08	1
4-Methyl-2-pentanone (MIBK)	5.0	U	5.0	1.3	ug/L			05/13/24 20:08	1
Acetone	5.0	U	5.0	4.4	ug/L			05/13/24 20:08	1
Benzene	1.0	U	1.0	0.20	ug/L			05/13/24 20:08	1
Bromoform	1.0	U	1.0	0.54	ug/L			05/13/24 20:08	1
Bromomethane	1.0	U	1.0	0.55	ug/L			05/13/24 20:08	1
Carbon disulfide	1.0	U	1.0	0.82	ug/L			05/13/24 20:08	1
Carbon tetrachloride	1.0	U	1.0	0.21	ug/L			05/13/24 20:08	1
Chlorobenzene	1.0	U	1.0	0.38	ug/L			05/13/24 20:08	1
Dibromochloromethane	1.0	U	1.0	0.28	ug/L			05/13/24 20:08	1
Chloroethane	1.0	U	1.0	0.32	ug/L			05/13/24 20:08	1
Chloroform	1.0	U	1.0	0.33	ug/L			05/13/24 20:08	1
Chloromethane	1.0	U J	1.0	0.40	ug/L			05/13/24 20:08	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.22	ug/L			05/13/24 20:08	1
cis-1,3-Dichloropropene	1.0	U	1.0	0.22	ug/L			05/13/24 20:08	1
Cyclohexane	1.0	U	1.0	0.32	ug/L			05/13/24 20:08	1

Client Sample ID: EB050824 — Lab Sample ID: 460-303688-2

Date Collected: 05/08/24 11:10 — **Matrix: Water**
Date Received: 05/08/24 20:00

Method: SW846 8260D - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bromodichloromethane	1.0	U	1.0	0.34	ug/L			05/13/24 20:08	1
Dichlorodifluoromethane	1.0	U	1.0	0.31	ug/L			05/13/24 20:08	1
Ethylbenzene	1.0	U	1.0	0.30	ug/L			05/13/24 20:08	1
1,2-Dibromoethane	1.0	U	1.0	0.50	ug/L			05/13/24 20:08	1
Isopropylbenzene	1.0	U	1.0	0.34	ug/L			05/13/24 20:08	1
Methyl acetate	5.0	U	5.0	0.79	ug/L			05/13/24 20:08	1
Methyl tert-butyl ether	1.0	U	1.0	0.22	ug/L			05/13/24 20:08	1
Methylcyclohexane	1.0	U	1.0	0.71	ug/L			05/13/24 20:08	1
Methylene Chloride	**0.98**	**J**	1.0	0.32	ug/L			05/13/24 20:08	1
Styrene	1.0	U	1.0	0.42	ug/L			05/13/24 20:08	1
Tetrachloroethene	1.0	U	1.0	0.25	ug/L			05/13/24 20:08	1
Toluene	1.0	U	1.0	0.38	ug/L			05/13/24 20:08	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.24	ug/L			05/13/24 20:08	1
trans-1,3-Dichloropropene	1.0	U	1.0	0.22	ug/L			05/13/24 20:08	1
Trichloroethene	1.0	U	1.0	0.31	ug/L			05/13/24 20:08	1
Trichlorofluoromethane	1.0	U	1.0	0.32	ug/L			05/13/24 20:08	1
Vinyl chloride	1.0	U	1.0	0.17	ug/L			05/13/24 20:08	1
n-Butylbenzene	1.0	U	1.0	0.32	ug/L			05/13/24 20:08	1
1,2,4-Trimethylbenzene	1.0	U	1.0	0.37	ug/L			05/13/24 20:08	1
sec-Butylbenzene	1.0	U	1.0	0.37	ug/L			05/13/24 20:08	1
N-Propylbenzene	1.0	U	1.0	0.32	ug/L			05/13/24 20:08	1
Xylenes, Total	2.0	U	2.0	0.65	ug/L			05/13/24 20:08	1
1,3,5-Trimethylbenzene	1.0	U	1.0	0.33	ug/L			05/13/24 20:08	1
tert-Butylbenzene	1.0	U	1.0	0.34	ug/L			05/13/24 20:08	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*117*		*70 - 128*		*05/13/24 20:08*	*1*
4-Bromofluorobenzene	*94*		*76 - 120*		*05/13/24 20:08*	*1*
Dibromofluoromethane (Surr)	*102*		*77 - 132*		*05/13/24 20:08*	*1*
Toluene-d8 (Surr)	*102*		*80 - 120*		*05/13/24 20:08*	*1*

Method: SW846 8270E - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1'-Biphenyl	10	U	10	1.2	ug/L		05/12/24 09:25	05/12/24 16:08	1
2,2'-oxybis[1-chloropropane]	10	U	10	0.63	ug/L		05/12/24 09:25	05/12/24 16:08	1
2,4,5-Trichlorophenol	10	U	10	0.88	ug/L		05/12/24 09:25	05/12/24 16:08	1
2,4,6-Trichlorophenol	10	U	10	0.86	ug/L		05/12/24 09:25	05/12/24 16:08	1
2,4-Dichlorophenol	10	U	10	1.1	ug/L		05/12/24 09:25	05/12/24 16:08	1
2,4-Dimethylphenol	10	U	10	0.62	ug/L		05/12/24 09:25	05/12/24 16:08	1
2,4-Dinitrophenol	40	U * J	40	2.6	ug/L		05/12/24 09:25	05/12/24 16:08	1
2,4-Dinitrotoluene	10	U J	10	1.0	ug/L		05/12/24 09:25	05/12/24 16:08	1
2,6-Dinitrotoluene	2.0	U J	2.0	0.83	ug/L		05/12/24 09:25	05/12/24 16:08	1
2-Chloronaphthalene	10	U	10	1.2	ug/L		05/12/24 09:25	05/12/24 16:08	1
2-Chlorophenol	10	U	10	0.38	ug/L		05/12/24 09:25	05/12/24 16:08	1
2-Methylnaphthalene	10	U	10	0.53	ug/L		05/12/24 09:25	05/12/24 16:08	1
2-Methylphenol	10	U	10	0.67	ug/L		05/12/24 09:25	05/12/24 16:08	1
2-Nitroaniline	10	U	10	0.47	ug/L		05/12/24 09:25	05/12/24 16:08	1
2-Nitrophenol	10	U	10	0.75	ug/L		05/12/24 09:25	05/12/24 16:08	1
3,3'-Dichlorobenzidine	10	U	10	1.4	ug/L		05/12/24 09:25	05/12/24 16:08	1
3-Nitroaniline	10	U J	10	1.9	ug/L		05/12/24 09:25	05/12/24 16:08	1

Client Sample ID: EB050824 Lab Sample ID: 460-303688-2

Date Collected: 05/08/24 11:10 **Matrix: Water**
Date Received: 05/08/24 20:00

Method: SW846 8270E - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4,6-Dinitro-2-methylphenol	20	U J	20	3.0	ug/L		05/12/24 09:25	05/12/24 16:08	1
4-Bromophenyl phenyl ether	10	U	10	0.75	ug/L		05/12/24 09:25	05/12/24 16:08	1
4-Chloro-3-methylphenol	10	U	10	0.58	ug/L		05/12/24 09:25	05/12/24 16:08	1
4-Chloroaniline	10	U J	10	1.9	ug/L		05/12/24 09:25	05/12/24 16:08	1
4-Chlorophenyl phenyl ether	10	U	10	1.3	ug/L		05/12/24 09:25	05/12/24 16:08	1
4-Nitroaniline	10	U J	10	1.2	ug/L		05/12/24 09:25	05/12/24 16:08	1
4-Nitrophenol	20	U	20	4.0	ug/L		05/12/24 09:25	05/12/24 16:08	1
Acenaphthene	10	U	10	1.1	ug/L		05/12/24 09:25	05/12/24 16:08	1
Acenaphthylene	10	U	10	0.82	ug/L		05/12/24 09:25	05/12/24 16:08	1
Acetophenone	10	U	10	2.3	ug/L		05/12/24 09:25	05/12/24 16:08	1
Anthracene	10	U	10	1.3	ug/L		05/12/24 09:25	05/12/24 16:08	1
Atrazine	2.0	U	2.0	1.3	ug/L		05/12/24 09:25	05/12/24 16:08	1
Benzaldehyde	10	U	10	2.1	ug/L		05/12/24 09:25	05/12/24 16:08	1
Benzo[a]anthracene	1.0	U	1.0	0.59	ug/L		05/12/24 09:25	05/12/24 16:08	1
Benzo[a]pyrene	1.0	U	1.0	0.41	ug/L		05/12/24 09:25	05/12/24 16:08	1
Benzo[b]fluoranthene	2.0	U	2.0	0.68	ug/L		05/12/24 09:25	05/12/24 16:08	1
Benzo[g,h,i]perylene	10	U	10	0.70	ug/L		05/12/24 09:25	05/12/24 16:08	1
Benzo[k]fluoranthene	1.0	U	1.0	0.67	ug/L		05/12/24 09:25	05/12/24 16:08	1
Bis(2-chloroethoxy)methane	10	U	10	0.59	ug/L		05/12/24 09:25	05/12/24 16:08	1
Bis(2-chloroethyl)ether	1.0	U	1.0	0.63	ug/L		05/12/24 09:25	05/12/24 16:08	1
Bis(2-ethylhexyl) phthalate	2.0	U	2.0	0.80	ug/L		05/12/24 09:25	05/12/24 16:08	1
Butyl benzyl phthalate	10	U	10	0.85	ug/L		05/12/24 09:25	05/12/24 16:08	1
Caprolactam	10	U J	10	2.2	ug/L		05/12/24 09:25	05/12/24 16:08	1
Carbazole	10	U	10	0.68	ug/L		05/12/24 09:25	05/12/24 16:08	1
Chrysene	2.0	U	2.0	0.91	ug/L		05/12/24 09:25	05/12/24 16:08	1
Dibenz(a,h)anthracene	1.0	U	1.0	0.72	ug/L		05/12/24 09:25	05/12/24 16:08	1
Dibenzofuran	10	U	10	1.1	ug/L		05/12/24 09:25	05/12/24 16:08	1
Diethyl phthalate	10	U	10	0.98	ug/L		05/12/24 09:25	05/12/24 16:08	1
Dimethyl phthalate	10	U	10	0.77	ug/L		05/12/24 09:25	05/12/24 16:08	1
Di-n-butyl phthalate	10	U	10	0.84	ug/L		05/12/24 09:25	05/12/24 16:08	1
Di-n-octyl phthalate	10	U	10	0.75	ug/L		05/12/24 09:25	05/12/24 16:08	1
Fluoranthene	10	U	10	0.84	ug/L		05/12/24 09:25	05/12/24 16:08	1
Fluorene	10	U	10	0.91	ug/L		05/12/24 09:25	05/12/24 16:08	1
Hexachlorobenzene	1.0	U	1.0	0.40	ug/L		05/12/24 09:25	05/12/24 16:08	1
Hexachlorobutadiene	1.0	U	1.0	0.78	ug/L		05/12/24 09:25	05/12/24 16:08	1
Hexachlorocyclopentadiene	10	U	10	3.6	ug/L		05/12/24 09:25	05/12/24 16:08	1
Hexachloroethane	2.0	U	2.0	0.80	ug/L		05/12/24 09:25	05/12/24 16:08	1
Indeno[1,2,3-cd]pyrene	2.0	U	2.0	0.94	ug/L		05/12/24 09:25	05/12/24 16:08	1
Isophorone	10	U	10	0.80	ug/L		05/12/24 09:25	05/12/24 16:08	1
Naphthalene	2.0	U	2.0	0.54	ug/L		05/12/24 09:25	05/12/24 16:08	1
Nitrobenzene	1.0	U	1.0	0.57	ug/L		05/12/24 09:25	05/12/24 16:08	1
N-Nitrosodi-n-propylamine	1.0	U	1.0	0.43	ug/L		05/12/24 09:25	05/12/24 16:08	1
N-Nitrosodiphenylamine	10	U	10	0.89	ug/L		05/12/24 09:25	05/12/24 16:08	1
Pentachlorophenol	20	U J	20	1.4	ug/L		05/12/24 09:25	05/12/24 16:08	1
Phenanthrene	10	U	10	1.3	ug/L		05/12/24 09:25	05/12/24 16:08	1
Phenol	10	U	10	0.29	ug/L		05/12/24 09:25	05/12/24 16:08	1
Pyrene	10	U	10	1.6	ug/L		05/12/24 09:25	05/12/24 16:08	1
3 & 4 Methylphenol	10	U	10	0.64	ug/L		05/12/24 09:25	05/12/24 16:08	1

Client Sample ID: EB050824 — Lab Sample ID: 460-303688-2

Date Collected: 05/08/24 11:10 — **Matrix: Water**
Date Received: 05/08/24 20:00

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol (Surr)	*116*		*37 - 150*	*05/12/24 09:25*	*05/12/24 16:08*	*1*
2-Fluorobiphenyl	*75*		*46 - 139*	*05/12/24 09:25*	*05/12/24 16:08*	*1*
2-Fluorophenol (Surr)	*63*		*16 - 80*	*05/12/24 09:25*	*05/12/24 16:08*	*1*
Nitrobenzene-d5 (Surr)	*87*		*51 - 145*	*05/12/24 09:25*	*05/12/24 16:08*	*1*
Phenol-d5 (Surr)	*44*		*10 - 56*	*05/12/24 09:25*	*05/12/24 16:08*	*1*
Terphenyl-d14 (Surr)	*70*		*13 - 150*	*05/12/24 09:25*	*05/12/24 16:08*	*1*

Client Sample ID: MW-23S — Lab Sample ID: 460-303688-3

Date Collected: 05/08/24 13:20 — **Matrix: Water**
Date Received: 05/08/24 20:00

Method: SW846 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	1.0	U	1.0	0.24	ug/L			05/13/24 21:26	1
1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.37	ug/L			05/13/24 21:26	1
1,1,2-Trichloro-1,2,2-trifluoroethane	1.0	U	1.0	0.31	ug/L			05/13/24 21:26	1
1,1,2-Trichloroethane	1.0	U	1.0	0.20	ug/L			05/13/24 21:26	1
1,1-Dichloroethane	1.0	U J	1.0	0.26	ug/L			05/13/24 21:26	1
1,1-Dichloroethene	1.0	U	1.0	0.26	ug/L			05/13/24 21:26	1
1,2,4-Trichlorobenzene	1.0	U	1.0	0.37	ug/L			05/13/24 21:26	1
1,2-Dibromo-3-Chloropropane	1.0	U	1.0	0.38	ug/L			05/13/24 21:26	1
1,2-Dichlorobenzene	1.0	U	1.0	0.21	ug/L			05/13/24 21:26	1
1,2-Dichloroethane	1.0	U	1.0	0.43	ug/L			05/13/24 21:26	1
1,2-Dichloropropane	1.0	U	1.0	0.35	ug/L			05/13/24 21:26	1
1,3-Dichlorobenzene	1.0	U	1.0	0.34	ug/L			05/13/24 21:26	1
1,4-Dichlorobenzene	1.0	U	1.0	0.33	ug/L			05/13/24 21:26	1
1,4-Dioxane	50	U	50	28	ug/L			05/13/24 21:26	1
2-Butanone (MEK)	5.0	U	5.0	1.9	ug/L			05/13/24 21:26	1
2-Hexanone	5.0	U	5.0	1.1	ug/L			05/13/24 21:26	1
4-Methyl-2-pentanone (MIBK)	5.0	U	5.0	1.3	ug/L			05/13/24 21:26	1
Acetone	5.0	U	5.0	4.4	ug/L			05/13/24 21:26	1
Benzene	1.0	U	1.0	0.20	ug/L			05/13/24 21:26	1
Bromoform	1.0	U	1.0	0.54	ug/L			05/13/24 21:26	1
Bromomethane	1.0	U	1.0	0.55	ug/L			05/13/24 21:26	1
Carbon disulfide	1.0	U	1.0	0.82	ug/L			05/13/24 21:26	1
Carbon tetrachloride	1.0	U	1.0	0.21	ug/L			05/13/24 21:26	1
Chlorobenzene	1.0	U	1.0	0.38	ug/L			05/13/24 21:26	1
Dibromochloromethane	1.0	U	1.0	0.28	ug/L			05/13/24 21:26	1
Chloroethane	1.0	U	1.0	0.32	ug/L			05/13/24 21:26	1
Chloroform	**51**		1.0	0.33	ug/L			05/13/24 21:26	1
Chloromethane	1.0	U J	1.0	0.40	ug/L			05/13/24 21:26	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.22	ug/L			05/13/24 21:26	1
cis-1,3-Dichloropropene	1.0	U	1.0	0.22	ug/L			05/13/24 21:26	1
Cyclohexane	1.0	U	1.0	0.32	ug/L			05/13/24 21:26	1
Bromodichloromethane	**1.4**		1.0	0.34	ug/L			05/13/24 21:26	1
Dichlorodifluoromethane	1.0	U	1.0	0.31	ug/L			05/13/24 21:26	1
Ethylbenzene	1.0	U	1.0	0.30	ug/L			05/13/24 21:26	1
1,2-Dibromoethane	1.0	U	1.0	0.50	ug/L			05/13/24 21:26	1
Isopropylbenzene	1.0	U	1.0	0.34	ug/L			05/13/24 21:26	1
Methyl acetate	5.0	U	5.0	0.79	ug/L			05/13/24 21:26	1

Client Sample ID: MW-23S
Date Collected: 05/08/24 13:20
Date Received: 05/08/24 20:00

Lab Sample ID: 460-303688-3
Matrix: Water

Method: SW846 8260D - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methyl tert-butyl ether	1.0	U	1.0	0.22	ug/L			05/13/24 21:26	1
Methylcyclohexane	1.0	U	1.0	0.71	ug/L			05/13/24 21:26	1
Methylene Chloride	1.0	U	1.0	0.32	ug/L			05/13/24 21:26	1
Styrene	1.0	U	1.0	0.42	ug/L			05/13/24 21:26	1
Tetrachloroethene	1.0	U	1.0	0.25	ug/L			05/13/24 21:26	1
Toluene	1.0	U	1.0	0.38	ug/L			05/13/24 21:26	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.24	ug/L			05/13/24 21:26	1
trans-1,3-Dichloropropene	1.0	U	1.0	0.22	ug/L			05/13/24 21:26	1
Trichloroethene	1.0	U	1.0	0.31	ug/L			05/13/24 21:26	1
Trichlorofluoromethane	1.0	U	1.0	0.32	ug/L			05/13/24 21:26	1
Vinyl chloride	1.0	U	1.0	0.17	ug/L			05/13/24 21:26	1
n-Butylbenzene	1.0	U	1.0	0.32	ug/L			05/13/24 21:26	1
1,2,4-Trimethylbenzene	1.0	U	1.0	0.37	ug/L			05/13/24 21:26	1
sec-Butylbenzene	1.0	U	1.0	0.37	ug/L			05/13/24 21:26	1
N-Propylbenzene	1.0	U	1.0	0.32	ug/L			05/13/24 21:26	1
Xylenes, Total	2.0	U	2.0	0.65	ug/L			05/13/24 21:26	1
1,3,5-Trimethylbenzene	1.0	U	1.0	0.33	ug/L			05/13/24 21:26	1
tert-Butylbenzene	1.0	U	1.0	0.34	ug/L			05/13/24 21:26	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*115*		*70 - 128*		*05/13/24 21:26*	*1*
4-Bromofluorobenzene	*91*		*76 - 120*		*05/13/24 21:26*	*1*
Dibromofluoromethane (Surr)	*101*		*77 - 132*		*05/13/24 21:26*	*1*
Toluene-d8 (Surr)	*103*		*80 - 120*		*05/13/24 21:26*	*1*

Method: SW846 8270E - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1'-Biphenyl	10	U	10	1.2	ug/L		05/12/24 09:25	05/12/24 16:30	1
2,2'-oxybis[1-chloropropane]	10	U	10	0.63	ug/L		05/12/24 09:25	05/12/24 16:30	1
2,4,5-Trichlorophenol	10	U	10	0.88	ug/L		05/12/24 09:25	05/12/24 16:30	1
2,4,6-Trichlorophenol	10	U	10	0.86	ug/L		05/12/24 09:25	05/12/24 16:30	1
2,4-Dichlorophenol	10	U	10	1.1	ug/L		05/12/24 09:25	05/12/24 16:30	1
2,4-Dimethylphenol	10	U	10	0.62	ug/L		05/12/24 09:25	05/12/24 16:30	1
2,4-Dinitrophenol	40	U J	40	2.6	ug/L		05/12/24 09:25	05/12/24 16:30	1
2,4-Dinitrotoluene	10	U J	10	1.0	ug/L		05/12/24 09:25	05/12/24 16:30	1
2,6-Dinitrotoluene	2.0	U J	2.0	0.83	ug/L		05/12/24 09:25	05/12/24 16:30	1
2-Chloronaphthalene	10	U	10	1.2	ug/L		05/12/24 09:25	05/12/24 16:30	1
2-Chlorophenol	10	U	10	0.38	ug/L		05/12/24 09:25	05/12/24 16:30	1
2-Methylnaphthalene	10	U	10	0.53	ug/L		05/12/24 09:25	05/12/24 16:30	1
2-Methylphenol	10	U	10	0.67	ug/L		05/12/24 09:25	05/12/24 16:30	1
2-Nitroaniline	10	U	10	0.47	ug/L		05/12/24 09:25	05/12/24 16:30	1
2-Nitrophenol	10	U	10	0.75	ug/L		05/12/24 09:25	05/12/24 16:30	1
3,3'-Dichlorobenzidine	10	U	10	1.4	ug/L		05/12/24 09:25	05/12/24 16:30	1
3-Nitroaniline	10	U J	10	1.9	ug/L		05/12/24 09:25	05/12/24 16:30	1
4,6-Dinitro-2-methylphenol	20	U J	20	3.0	ug/L		05/12/24 09:25	05/12/24 16:30	1
4-Bromophenyl phenyl ether	10	U	10	0.75	ug/L		05/12/24 09:25	05/12/24 16:30	1
4-Chloro-3-methylphenol	10	U	10	0.58	ug/L		05/12/24 09:25	05/12/24 16:30	1
4-Chloroaniline	10	U J	10	1.9	ug/L		05/12/24 09:25	05/12/24 16:30	1
4-Chlorophenyl phenyl ether	10	U	10	1.3	ug/L		05/12/24 09:25	05/12/24 16:30	1
4-Nitroaniline	10	U J	10	1.2	ug/L		05/12/24 09:25	05/12/24 16:30	1

Client Sample ID: MW-23S
Date Collected: 05/08/24 13:20
Date Received: 05/08/24 20:00

Lab Sample ID: 460-303688-3
Matrix: Water

Method: SW846 8270E - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4-Nitrophenol	20	U	20	4.0	ug/L		05/12/24 09:25	05/12/24 16:30	1
Acenaphthene	10	U	10	1.1	ug/L		05/12/24 09:25	05/12/24 16:30	1
Acenaphthylene	10	U	10	0.82	ug/L		05/12/24 09:25	05/12/24 16:30	1
Acetophenone	10	U	10	2.3	ug/L		05/12/24 09:25	05/12/24 16:30	1
Anthracene	10	U	10	1.3	ug/L		05/12/24 09:25	05/12/24 16:30	1
Atrazine	2.0	U	2.0	1.3	ug/L		05/12/24 09:25	05/12/24 16:30	1
Benzaldehyde	10	U	10	2.1	ug/L		05/12/24 09:25	05/12/24 16:30	1
Benzo[a]anthracene	1.0	U	1.0	0.59	ug/L		05/12/24 09:25	05/12/24 16:30	1
Benzo[a]pyrene	1.0	U	1.0	0.41	ug/L		05/12/24 09:25	05/12/24 16:30	1
Benzo[b]fluoranthene	2.0	U	2.0	0.68	ug/L		05/12/24 09:25	05/12/24 16:30	1
Benzo[g,h,i]perylene	10	U	10	0.70	ug/L		05/12/24 09:25	05/12/24 16:30	1
Benzo[k]fluoranthene	1.0	U	1.0	0.67	ug/L		05/12/24 09:25	05/12/24 16:30	1
Bis(2-chloroethoxy)methane	10	U	10	0.59	ug/L		05/12/24 09:25	05/12/24 16:30	1
Bis(2-chloroethyl)ether	1.0	U	1.0	0.63	ug/L		05/12/24 09:25	05/12/24 16:30	1
Bis(2-ethylhexyl) phthalate	2.0	U	2.0	0.80	ug/L		05/12/24 09:25	05/12/24 16:30	1
Butyl benzyl phthalate	10	U	10	0.85	ug/L		05/12/24 09:25	05/12/24 16:30	1
Caprolactam	10	U J	10	2.2	ug/L		05/12/24 09:25	05/12/24 16:30	1
Carbazole	10	U	10	0.68	ug/L		05/12/24 09:25	05/12/24 16:30	1
Chrysene	2.0	U	2.0	0.91	ug/L		05/12/24 09:25	05/12/24 16:30	1
Dibenz(a,h)anthracene	1.0	U	1.0	0.72	ug/L		05/12/24 09:25	05/12/24 16:30	1
Dibenzofuran	10	U	10	1.1	ug/L		05/12/24 09:25	05/12/24 16:30	1
Diethyl phthalate	10	U	10	0.98	ug/L		05/12/24 09:25	05/12/24 16:30	1
Dimethyl phthalate	10	U	10	0.77	ug/L		05/12/24 09:25	05/12/24 16:30	1
Di-n-butyl phthalate	10	U	10	0.84	ug/L		05/12/24 09:25	05/12/24 16:30	1
Di-n-octyl phthalate	10	U	10	0.75	ug/L		05/12/24 09:25	05/12/24 16:30	1
Fluoranthene	10	U	10	0.84	ug/L		05/12/24 09:25	05/12/24 16:30	1
Fluorene	10	U	10	0.91	ug/L		05/12/24 09:25	05/12/24 16:30	1
Hexachlorobenzene	1.0	U	1.0	0.40	ug/L		05/12/24 09:25	05/12/24 16:30	1
Hexachlorobutadiene	1.0	U	1.0	0.78	ug/L		05/12/24 09:25	05/12/24 16:30	1
Hexachlorocyclopentadiene	10	U	10	3.6	ug/L		05/12/24 09:25	05/12/24 16:30	1
Hexachloroethane	2.0	U	2.0	0.80	ug/L		05/12/24 09:25	05/12/24 16:30	1
Indeno[1,2,3-cd]pyrene	2.0	U	2.0	0.94	ug/L		05/12/24 09:25	05/12/24 16:30	1
Isophorone	10	U	10	0.80	ug/L		05/12/24 09:25	05/12/24 16:30	1
Naphthalene	2.0	U	2.0	0.54	ug/L		05/12/24 09:25	05/12/24 16:30	1
Nitrobenzene	1.0	U	1.0	0.57	ug/L		05/12/24 09:25	05/12/24 16:30	1
N-Nitrosodi-n-propylamine	1.0	U	1.0	0.43	ug/L		05/12/24 09:25	05/12/24 16:30	1
N-Nitrosodiphenylamine	10	U	10	0.89	ug/L		05/12/24 09:25	05/12/24 16:30	1
Pentachlorophenol	20	U J	20	1.4	ug/L		05/12/24 09:25	05/12/24 16:30	1
Phenanthrene	10	U	10	1.3	ug/L		05/12/24 09:25	05/12/24 16:30	1
Phenol	10	U	10	0.29	ug/L		05/12/24 09:25	05/12/24 16:30	1
Pyrene	10	U	10	1.6	ug/L		05/12/24 09:25	05/12/24 16:30	1
3 & 4 Methylphenol	10	U	10	0.64	ug/L		05/12/24 09:25	05/12/24 16:30	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol (Surr)	*112*		*37 - 150*	*05/12/24 09:25*	*05/12/24 16:30*	*1*
2-Fluorobiphenyl	*77*		*46 - 139*	*05/12/24 09:25*	*05/12/24 16:30*	*1*
2-Fluorophenol (Surr)	*61*		*16 - 80*	*05/12/24 09:25*	*05/12/24 16:30*	*1*
Nitrobenzene-d5 (Surr)	*83*		*51 - 145*	*05/12/24 09:25*	*05/12/24 16:30*	*1*
Phenol-d5 (Surr)	*43*		*10 - 56*	*05/12/24 09:25*	*05/12/24 16:30*	*1*
Terphenyl-d14 (Surr)	*67*		*13 - 150*	*05/12/24 09:25*	*05/12/24 16:30*	*1*

Client Sample ID: MW-23D
Date Collected: 05/08/24 12:30
Date Received: 05/08/24 20:00

Lab Sample ID: 460-303688-4
Matrix: Water

Method: SW846 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier		RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	1.0	U		1.0	0.24	ug/L			05/14/24 09:38	1
1,1,2,2-Tetrachloroethane	1.0	U		1.0	0.37	ug/L			05/14/24 09:38	1
1,1,2-Trichloro-1,2,2-trifluoroethane	1.0	U		1.0	0.31	ug/L			05/14/24 09:38	1
1,1,2-Trichloroethane	1.0	U		1.0	0.20	ug/L			05/14/24 09:38	1
1,1-Dichloroethane	1.0	U		1.0	0.26	ug/L			05/14/24 09:38	1
1,1-Dichloroethene	1.0	U		1.0	0.26	ug/L			05/14/24 09:38	1
1,2,4-Trichlorobenzene	1.0	U		1.0	0.37	ug/L			05/14/24 09:38	1
1,2-Dibromo-3-Chloropropane	1.0	U		1.0	0.38	ug/L			05/14/24 09:38	1
1,2-Dichlorobenzene	1.0	U		1.0	0.21	ug/L			05/14/24 09:38	1
1,2-Dichloroethane	1.0	U		1.0	0.43	ug/L			05/14/24 09:38	1
1,2-Dichloropropane	1.0	U		1.0	0.35	ug/L			05/14/24 09:38	1
1,3-Dichlorobenzene	1.0	U		1.0	0.34	ug/L			05/14/24 09:38	1
1,4-Dichlorobenzene	1.0	U		1.0	0.33	ug/L			05/14/24 09:38	1
1,4-Dioxane	50	U		50	28	ug/L			05/14/24 09:38	1
2-Butanone (MEK)	5.0	U		5.0	1.9	ug/L			05/14/24 09:38	1
2-Hexanone	5.0	U		5.0	1.1	ug/L			05/14/24 09:38	1
4-Methyl-2-pentanone (MIBK)	5.0	U		5.0	1.3	ug/L			05/14/24 09:38	1
Acetone	5.0	U		5.0	4.4	ug/L			05/14/24 09:38	1
Benzene	1.0	U		1.0	0.20	ug/L			05/14/24 09:38	1
Bromoform	1.0	U		1.0	0.54	ug/L			05/14/24 09:38	1
Bromomethane	1.0	U		1.0	0.55	ug/L			05/14/24 09:38	1
Carbon disulfide	1.0	U		1.0	0.82	ug/L			05/14/24 09:38	1
Carbon tetrachloride	1.0	U		1.0	0.21	ug/L			05/14/24 09:38	1
Chlorobenzene	1.0	U		1.0	0.38	ug/L			05/14/24 09:38	1
Dibromochloromethane	1.0	U		1.0	0.28	ug/L			05/14/24 09:38	1
Chloroethane	1.0	U		1.0	0.32	ug/L			05/14/24 09:38	1
Chloroform	**0.67**	**J**		1.0	0.33	ug/L			05/14/24 09:38	1
Chloromethane	1.0	U	J	1.0	0.40	ug/L			05/14/24 09:38	1
cis-1,2-Dichloroethene	1.0	U		1.0	0.22	ug/L			05/14/24 09:38	1
cis-1,3-Dichloropropene	1.0	U		1.0	0.22	ug/L			05/14/24 09:38	1
Cyclohexane	1.0	U		1.0	0.32	ug/L			05/14/24 09:38	1
Bromodichloromethane	1.0	U		1.0	0.34	ug/L			05/14/24 09:38	1
Dichlorodifluoromethane	1.0	U		1.0	0.31	ug/L			05/14/24 09:38	1
Ethylbenzene	1.0	U		1.0	0.30	ug/L			05/14/24 09:38	1
1,2-Dibromoethane	1.0	U		1.0	0.50	ug/L			05/14/24 09:38	1
Isopropylbenzene	1.0	U		1.0	0.34	ug/L			05/14/24 09:38	1
Methyl acetate	5.0	U		5.0	0.79	ug/L			05/14/24 09:38	1
Methyl tert-butyl ether	1.0	U		1.0	0.22	ug/L			05/14/24 09:38	1
Methylcyclohexane	1.0	U		1.0	0.71	ug/L			05/14/24 09:38	1
Methylene Chloride	1.0	~~0.34~~	~~J~~ UB	1.0	0.32	ug/L			05/14/24 09:38	1
Styrene	1.0	U		1.0	0.42	ug/L			05/14/24 09:38	1
Tetrachloroethene	1.0	U		1.0	0.25	ug/L			05/14/24 09:38	1
Toluene	1.0	U		1.0	0.38	ug/L			05/14/24 09:38	1
trans-1,2-Dichloroethene	1.0	U		1.0	0.24	ug/L			05/14/24 09:38	1
trans-1,3-Dichloropropene	1.0	U		1.0	0.22	ug/L			05/14/24 09:38	1
Trichloroethene	1.0	U		1.0	0.31	ug/L			05/14/24 09:38	1
Trichlorofluoromethane	1.0	U		1.0	0.32	ug/L			05/14/24 09:38	1
Vinyl chloride	1.0	U		1.0	0.17	ug/L			05/14/24 09:38	1
n-Butylbenzene	1.0	U		1.0	0.32	ug/L			05/14/24 09:38	1

Client Sample ID: MW-23D
Date Collected: 05/08/24 12:30
Date Received: 05/08/24 20:00

Lab Sample ID: 460-303688-4
Matrix: Water

Method: SW846 8260D - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trimethylbenzene	1.0	U	1.0	0.37	ug/L			05/14/24 09:38	1
sec-Butylbenzene	1.0	U	1.0	0.37	ug/L			05/14/24 09:38	1
N-Propylbenzene	1.0	U	1.0	0.32	ug/L			05/14/24 09:38	1
Xylenes, Total	2.0	U	2.0	0.65	ug/L			05/14/24 09:38	1
1,3,5-Trimethylbenzene	1.0	U	1.0	0.33	ug/L			05/14/24 09:38	1
tert-Butylbenzene	1.0	U	1.0	0.34	ug/L			05/14/24 09:38	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*119*		*70 - 128*		*05/14/24 09:38*	*1*
4-Bromofluorobenzene	*94*		*76 - 120*		*05/14/24 09:38*	*1*
Dibromofluoromethane (Surr)	*100*		*77 - 132*		*05/14/24 09:38*	*1*
Toluene-d8 (Surr)	*102*		*80 - 120*		*05/14/24 09:38*	*1*

Method: SW846 8270E - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1'-Biphenyl	10	U	10	1.2	ug/L		05/12/24 09:25	05/12/24 16:51	1
2,2'-oxybis[1-chloropropane]	10	U	10	0.63	ug/L		05/12/24 09:25	05/12/24 16:51	1
2,4,5-Trichlorophenol	10	U	10	0.88	ug/L		05/12/24 09:25	05/12/24 16:51	1
2,4,6-Trichlorophenol	10	U	10	0.86	ug/L		05/12/24 09:25	05/12/24 16:51	1
2,4-Dichlorophenol	10	U	10	1.1	ug/L		05/12/24 09:25	05/12/24 16:51	1
2,4-Dimethylphenol	10	U	10	0.62	ug/L		05/12/24 09:25	05/12/24 16:51	1
2,4-Dinitrophenol	40	U J	40	2.6	ug/L		05/12/24 09:25	05/12/24 16:51	1
2,4-Dinitrotoluene	10	U J	10	1.0	ug/L		05/12/24 09:25	05/12/24 16:51	1
2,6-Dinitrotoluene	2.0	U J	2.0	0.83	ug/L		05/12/24 09:25	05/12/24 16:51	1
2-Chloronaphthalene	10	U	10	1.2	ug/L		05/12/24 09:25	05/12/24 16:51	1
2-Chlorophenol	10	U	10	0.38	ug/L		05/12/24 09:25	05/12/24 16:51	1
2-Methylnaphthalene	10	U	10	0.53	ug/L		05/12/24 09:25	05/12/24 16:51	1
2-Methylphenol	10	U	10	0.67	ug/L		05/12/24 09:25	05/12/24 16:51	1
2-Nitroaniline	10	U	10	0.47	ug/L		05/12/24 09:25	05/12/24 16:51	1
2-Nitrophenol	10	U	10	0.75	ug/L		05/12/24 09:25	05/12/24 16:51	1
3,3'-Dichlorobenzidine	10	U	10	1.4	ug/L		05/12/24 09:25	05/12/24 16:51	1
3-Nitroaniline	10	U J	10	1.9	ug/L		05/12/24 09:25	05/12/24 16:51	1
4,6-Dinitro-2-methylphenol	20	U J	20	3.0	ug/L		05/12/24 09:25	05/12/24 16:51	1
4-Bromophenyl phenyl ether	10	U	10	0.75	ug/L		05/12/24 09:25	05/12/24 16:51	1
4-Chloro-3-methylphenol	10	U	10	0.58	ug/L		05/12/24 09:25	05/12/24 16:51	1
4-Chloroaniline	10	U J	10	1.9	ug/L		05/12/24 09:25	05/12/24 16:51	1
4-Chlorophenyl phenyl ether	10	U	10	1.3	ug/L		05/12/24 09:25	05/12/24 16:51	1
4-Nitroaniline	10	U J	10	1.2	ug/L		05/12/24 09:25	05/12/24 16:51	1
4-Nitrophenol	20	U	20	4.0	ug/L		05/12/24 09:25	05/12/24 16:51	1
Acenaphthene	10	U	10	1.1	ug/L		05/12/24 09:25	05/12/24 16:51	1
Acenaphthylene	10	U	10	0.82	ug/L		05/12/24 09:25	05/12/24 16:51	1
Acetophenone	10	U	10	2.3	ug/L		05/12/24 09:25	05/12/24 16:51	1
Anthracene	10	U	10	1.3	ug/L		05/12/24 09:25	05/12/24 16:51	1
Atrazine	2.0	U	2.0	1.3	ug/L		05/12/24 09:25	05/12/24 16:51	1
Benzaldehyde	10	U	10	2.1	ug/L		05/12/24 09:25	05/12/24 16:51	1
Benzo[a]anthracene	1.0	U	1.0	0.59	ug/L		05/12/24 09:25	05/12/24 16:51	1
Benzo[a]pyrene	1.0	U	1.0	0.41	ug/L		05/12/24 09:25	05/12/24 16:51	1
Benzo[b]fluoranthene	2.0	U	2.0	0.68	ug/L		05/12/24 09:25	05/12/24 16:51	1
Benzo[g,h,i]perylene	10	U	10	0.70	ug/L		05/12/24 09:25	05/12/24 16:51	1
Benzo[k]fluoranthene	1.0	U	1.0	0.67	ug/L		05/12/24 09:25	05/12/24 16:51	1

Client Sample ID: MW-23D
Date Collected: 05/08/24 12:30
Date Received: 05/08/24 20:00

Lab Sample ID: 460-303688-4
Matrix: Water

Method: SW846 8270E - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bis(2-chloroethoxy)methane	10	U	10	0.59	ug/L		05/12/24 09:25	05/12/24 16:51	1
Bis(2-chloroethyl)ether	1.0	U	1.0	0.63	ug/L		05/12/24 09:25	05/12/24 16:51	1
Bis(2-ethylhexyl) phthalate	2.0	U	2.0	0.80	ug/L		05/12/24 09:25	05/12/24 16:51	1
Butyl benzyl phthalate	10	U	10	0.85	ug/L		05/12/24 09:25	05/12/24 16:51	1
Caprolactam	10	U J	10	2.2	ug/L		05/12/24 09:25	05/12/24 16:51	1
Carbazole	10	U	10	0.68	ug/L		05/12/24 09:25	05/12/24 16:51	1
Chrysene	2.0	U	2.0	0.91	ug/L		05/12/24 09:25	05/12/24 16:51	1
Dibenz(a,h)anthracene	1.0	U	1.0	0.72	ug/L		05/12/24 09:25	05/12/24 16:51	1
Dibenzofuran	10	U	10	1.1	ug/L		05/12/24 09:25	05/12/24 16:51	1
Diethyl phthalate	10	U	10	0.98	ug/L		05/12/24 09:25	05/12/24 16:51	1
Dimethyl phthalate	10	U	10	0.77	ug/L		05/12/24 09:25	05/12/24 16:51	1
Di-n-butyl phthalate	10	U	10	0.84	ug/L		05/12/24 09:25	05/12/24 16:51	1
Di-n-octyl phthalate	10	U	10	0.75	ug/L		05/12/24 09:25	05/12/24 16:51	1
Fluoranthene	10	U	10	0.84	ug/L		05/12/24 09:25	05/12/24 16:51	1
Fluorene	10	U	10	0.91	ug/L		05/12/24 09:25	05/12/24 16:51	1
Hexachlorobenzene	1.0	U	1.0	0.40	ug/L		05/12/24 09:25	05/12/24 16:51	1
Hexachlorobutadiene	1.0	U	1.0	0.78	ug/L		05/12/24 09:25	05/12/24 16:51	1
Hexachlorocyclopentadiene	10	U	10	3.6	ug/L		05/12/24 09:25	05/12/24 16:51	1
Hexachloroethane	2.0	U	2.0	0.80	ug/L		05/12/24 09:25	05/12/24 16:51	1
Indeno[1,2,3-cd]pyrene	2.0	U	2.0	0.94	ug/L		05/12/24 09:25	05/12/24 16:51	1
Isophorone	10	U	10	0.80	ug/L		05/12/24 09:25	05/12/24 16:51	1
Naphthalene	2.0	U	2.0	0.54	ug/L		05/12/24 09:25	05/12/24 16:51	1
Nitrobenzene	1.0	U	1.0	0.57	ug/L		05/12/24 09:25	05/12/24 16:51	1
N-Nitrosodi-n-propylamine	1.0	U	1.0	0.43	ug/L		05/12/24 09:25	05/12/24 16:51	1
N-Nitrosodiphenylamine	10	U	10	0.89	ug/L		05/12/24 09:25	05/12/24 16:51	1
Pentachlorophenol	20	U J	20	1.4	ug/L		05/12/24 09:25	05/12/24 16:51	1
Phenanthrene	10	U	10	1.3	ug/L		05/12/24 09:25	05/12/24 16:51	1
Phenol	10	U	10	0.29	ug/L		05/12/24 09:25	05/12/24 16:51	1
Pyrene	10	U	10	1.6	ug/L		05/12/24 09:25	05/12/24 16:51	1
3 & 4 Methylphenol	10	U	10	0.64	ug/L		05/12/24 09:25	05/12/24 16:51	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol (Surr)	*118*		*37 - 150*	*05/12/24 09:25*	*05/12/24 16:51*	*1*
2-Fluorobiphenyl	*71*		*46 - 139*	*05/12/24 09:25*	*05/12/24 16:51*	*1*
2-Fluorophenol (Surr)	*48*		*16 - 80*	*05/12/24 09:25*	*05/12/24 16:51*	*1*
Nitrobenzene-d5 (Surr)	*86*		*51 - 145*	*05/12/24 09:25*	*05/12/24 16:51*	*1*
Phenol-d5 (Surr)	*31*		*10 - 56*	*05/12/24 09:25*	*05/12/24 16:51*	*1*
Terphenyl-d14 (Surr)	*64*		*13 - 150*	*05/12/24 09:25*	*05/12/24 16:51*	*1*

National Grid-

Former Dangman Park MGP Site

Data Usability Summary Report (DUSR)

Brooklyn, New York

Volatile Organic Compound and Semi-Volatile Organic Compounds Analyses

SDGs # 460-303613-1 and 460-303677-1

Analyses Performed By:
Eurofins Test America
Edison, New Jersey

Report #: 54419R
Review Level: Tier III
Project: 30205663.04

Summary

This data quality assessment summarizes the review of Sample Delivery Groups (SDGs) #460-303613-1 and 460-303677-1 for samples collected in association with the Former Dangman Park MGP site, Brooklyn, New York. The review was conducted as a Tier III evaluation and included review of data package completeness. Only analytical data associated with constituents of concern were reviewed for this validation. Field documentation was not included in this review. Included with this assessment are the validation annotated sample result sheets, and chain of custody. Analyses were performed on the following samples:

SDG Number	Sample ID	Lab ID	Matrix	Sample Collection Date	Parent Sample	Analysis				
						VOC	SVOC	PCB	MET	MISC
460-303613-1	TB050924	460-303613-1	Water	5/09/2024		X				
	EB050924	460-303613-2	Water	5/09/2024		X	X			
	MW-22S	460-303613-3	Groundwater	5/09/2024		X	X			
	MW-22D	460-303613-4	Groundwater	5/09/2024		X	X			
	MW-21S	460-303613-5	Groundwater	5/09/2024		X	X			
460-303677-1	TB051024	460-303677-1	Water	5/10/2024		X				
	EB051024	460-303677-2	Water	5/10/2024		X	X			
	MW-21D	460-303677-3	Groundwater	5/10/2024		X	X			
	DUP051024	460-303677-4	Groundwater	5/10/2024	MW-21D	X	X			

Note:

1. SDG 460-303613-1: The matrix spike/matrix spike duplicate (MS/MSD) analyses were performed on sample location MW-21S for VOC and SVOC analyses.

Analytical Data Package Documentation

The table below evaluates the data package completeness.

Items Reviewed	Reported		Performance Acceptable		Not Required
	No	Yes	No	Yes	
1. Sample receipt condition		X		X	
2. Requested analyses and sample results		X		X	
3. Master tracking list		X		X	
4. Methods of analysis		X		X	
5. Reporting limits		X		X	
6. Sample collection date		X		X	
7. Laboratory sample received date		X		X	
8. Sample preservation verification (as applicable)		X		X	
9. Sample preparation/extraction/analysis dates		X		X	
10. Fully executed chain-of-custody form		X		X	
11. Narrative summary of QA or sample problems provided		X		X	
12. Data package completeness and compliance		X		X	

Note:
QA Quality assurance

Organic Analysis Introduction

Analyses were performed according to United States Environmental Protection Agency USEPA) SW-846 Methods 8260D and 8270E. Data were reviewed in accordance with USEPA National Functional Guidelines for Organic Superfund Methods Data Review, EPA 540-R-20-005, November 2020 (with reference to the historical USEPA Contract Laboratory Program National Functional Guidelines for Organic Data Review, EPA 540/R-99/008, October 1999, as appropriate).

The data review process is an evaluation of data on a technical basis rather than a determination of contract compliance. As such, the standards against which the data are being weighed may differ from those specified in the analytical method. It is assumed that the data package represents the best efforts of the laboratory and had already been subjected to adequate and sufficient quality review prior to submission.

During the review process, laboratory qualified and unqualified data are verified against the supporting documentation. Based on this evaluation, qualifier codes may be added, deleted, or modified by the data reviewer. Results are qualified with the following codes in accordance with USEPA National Functional Guidelines:

- Concentration (C) Qualifiers
  - U The compound was analyzed for but not detected. The associated value is the compound quantitation limit.
  - B The compound has been found in the sample as well as its associated blank, its presence in the sample may be suspect.
- Quantitation (Q) Qualifiers
  - E The compound was quantitated above the calibration range.
  - D Concentration is based on a diluted sample analysis.
- Validation Qualifiers
  - J The compound was positively identified; however, the associated numerical value is an estimated concentration only.
  - UJ The compound was not detected above the reported sample quantitation limit. However, the reported limit is approximate and may or may not represent the actual limit of quantitation.
  - JN The analysis indicates the presence of a compound for which there is presumptive evidence to make a tentative identification. The associated numerical value is an estimated concentration only.
  - UB Compound is considered non-detect at the listed value due to associated blank contamination.
  - N The analysis indicates the presence of a compound for which there is presumptive evidence to make a tentative identification.
  - R The sample results are rejected.

Two facts should be noted by all data users. First, the "R" flag means that the associated value is unusable. In other words, due to significant quality control (QC) problems, the analysis is invalid and provides no information as to whether the compound is present or not. "R" values should not appear on data tables because they cannot be relied upon, even as a last resort. The second fact to keep in mind is that no compound concentration, even if

it has passed all QC tests, is guaranteed to be accurate. Strict QC serves to increase confidence in data but any value potentially contains error.

Volatile Organic Compound (VOC) Analyses

1. Holding Times

The specified holding times for the following methods are presented in the table below.

Method	Matrix	Holding Time	Preservation
SW-846 8260D	Water	14 days from collection to analysis (preserved) 7 days from collection to analysis (non-preserved)	Cool to <6 °C; preserved to a pH of less than 2 s.u.

Note:
s.u. Standard units

All samples were analyzed within the specified holding time criterion.

2. Blank Contamination

Quality assurance (QA) blanks (i.e., method and rinse blanks) are prepared to identify any contamination which may have been introduced into the samples during sample preparation or field activity. Method blanks measure laboratory contamination. Rinse blanks measure contamination of samples during field operations.

A blank action level (BAL) of five times the concentration of a detected compound in an associated blank (common laboratory contaminant compounds are calculated at ten times) is calculated for QA blanks containing concentrations greater than the method detection limit (MDL). The BAL is compared to the associated sample results to determine the appropriate qualification of the sample results, if needed.

In both SDGs, compounds were detected in the associated QA blanks; however, the associated sample results were greater than the BAL and/or were non-detect. No qualification of the sample results was required.

3. Mass Spectrometer Tuning

Mass spectrometer performance was acceptable, and all analyses were performed within a 12-hour tune clock.

System performance and column resolution were acceptable.

4. Calibration

Satisfactory instrument calibration is established to ensure that the instrument is capable of producing acceptable quantitative data. An initial calibration demonstrates that the instrument is capable of acceptable performance at the beginning of an experimental sequence. The continuing calibration verifies that the instrument daily performance is satisfactory.

4.1 Initial Calibration

The method specifies percent relative standard deviation (%RSD) and relative response factor (RRF) limits for select compounds only. A technical review of the data applies limits to all compounds with no exceptions.

All target compounds associated with the initial calibration standards must exhibit a %RSD less than the control limit (20%) or a correlation coefficient greater than 0.99 and an RRF value greater than control limit (0.05).

4.2 Continuing Calibration

All target compounds associated with the continuing calibration standard must exhibit a percent difference (%D) less than the control limit (20%) and RRF value greater than control limit (0.05).

All compounds associated with the calibrations were within the specified control limits, with the exception of the compounds presented in the following table.

Sample Locations	Initial/ Continuing	Compound	Criteria
SDG 460-303613-1: TB050924 EB050924 MW-22S MW-22D MW-21S	CCV %D	1,2-Dibromo-3-chloropropane	-23.7%
SDG 460-303677-1: TB051024 EB051024 MW-21D DUP051024	CCV %D	Dichlorodifluoromethane	-27.0%
		Bromoform	-23.8%
		1,2-Dibromo-3-Chloropropane	-33.6%

The criteria used to evaluate the initial and continuing calibration are presented in the following table. In the case of a calibration deviation, the sample results are qualified.

Initial/Continuing	Criteria	Sample Result	Qualification
Initial and Continuing Calibration	RRF <0.05	Non-detect	R
		Detect	J
	RRF <0.01[1]	Non-detect	R

Initial/Continuing	Criteria	Sample Result	Qualification
		Detect	J
	RRF >0.05 or RRF >0.01[1]	Non-detect	No Action
		Detect	
Initial Calibration	%RSD > 20% or a correlation coefficient <0.99	Non-detect	UJ
		Detect	J
	%RSD >90%	Non-detect	R
		Detect	J
Continuing Calibration	%D >20% (increase or decrease in sensitivity)	Non-detect	UJ
		Detect	J
	%D >90% (increase/decrease in sensitivity)	Non-detect	R
		Detect	J

Note:

[1] RRF of 0.01 only applies to compounds which are typically poor responding compounds (i.e., ketones, 1,4-dioxane, etc.)

5. Surrogates/System Monitoring Compounds

All samples to be analyzed for organic compounds are spiked with surrogate compounds prior to sample preparation to evaluate overall laboratory performance and efficiency of the analytical technique. VOC analysis requires that all surrogates associated with the analysis exhibit recoveries within the laboratory-established acceptance limits.

All surrogate recoveries were within control limits.

6. Internal Standard Performance

Internal standard performance criteria ensure that the GC/MS sensitivity and response are stable during every sample analysis. The criteria require the internal standard compounds associated with the VOC exhibit area counts that are not greater than two times (+100%) or less than one-half (-50%) of the area counts of the associated continuing calibration standard.

All internal standard responses were within control limits.

7. Matrix Spike/Matrix Spike Duplicate (MS/MSD) Analysis

MS/MSD data are used to assess the precision and accuracy of the analytical method. The compounds used to perform the MS/MSD analysis must exhibit a percent recovery within the laboratory-established acceptance limits.

The relative percent difference (RPD) between the MS/MSD recoveries must exhibit an RPD within the laboratory-established acceptance limits.

Note: The MS/MSD recovery control limits do not apply for MS/MSD performed on sample locations where the compound concentration detected in the parent sample exceeds the MS/MSD concentration by a factor of four or greater.

SDG 460-303613-1: The MS/MSD exhibited acceptable recoveries and RPD between the MS/MSD recoveries.

SDG 460-303677-1: A MS/MSD was not performed on a sample location associated with this SDG.

8. Laboratory Control Sample/Laboratory Control Sample Duplicate (LCS/LCSD) Analysis

The LCS/LCSD analysis is used to assess the precision and accuracy of the analytical method independent of matrix interferences. The compounds associated with the LCS/LCSD analysis must exhibit a percent recovery within the laboratory-established acceptance limits. The relative percent difference (RPD) between the LCS/LCSD recoveries must exhibit an RPD within the laboratory-established acceptance limits.

SDG 460-303613-1: All compounds associated with the LCS/LCSD analysis exhibited recoveries and RPDs within the control limits.

Sample locations associated with LCS/LCSD analysis exhibiting recoveries outside of the control limits are presented in the following table.

Sample Locations	Compound	LCS Recovery	LCSD Recovery
SDG 460-303677-1:			
TB051024 EB051024 MW-21D DUP051024	Bromomethane	AC	>UL

The criteria used to evaluate the LCS/LCSD recoveries are presented in the following table. In the case of an LCS/LCSD deviation, the sample results are qualified as documented in the table below.

Control Limit	Sample Result	Qualification
> the upper control limit (UL)	Non-detect	No Action
	Detect	J
< the lower control limit (LL) but > 10%	Non-detect	UJ
	Detect	J
< 10%	Non-detect	R

Control Limit	Sample Result	Qualification
	Detect	J

9. Field Duplicate Analysis

Field duplicate analysis is used to assess the overall precision of the field sampling procedures and analytical method. A control limit of 30% for water matrices is applied to the RPD between the parent sample and the field duplicate. In the instance when the parent and/or duplicate sample concentrations are less than or equal to 5 times the RL, a control limit of two times the RL is applied for water matrices.

SDG 460-303613-1: A field duplicate was not collected along with a sample location associated this SDG.

Results for duplicate samples are summarized in the following table.

Sample ID/ Duplicate ID	Compound	Sample Result	Duplicate Result	RPD
SDG 460-303677-1: MW-21D/ DUP051024	Chloroform	1.7	1.7	AC

Note:
AC Acceptable

The calculated RPDs between the parent sample and field duplicate were acceptable.

10. Compound Identification

Compounds are identified on the GC/MS by using the analytes relative retention time and ion spectra.

All identified compounds met the specified criteria.

11. System Performance and Overall Assessment

Overall system performance was acceptable. Other than for those deviations specifically mentioned in this review, the overall data quality is within the guidelines specified in the method.

Data Validation Checklist for Volatiles

VOCs: SW-846 8260D	Reported		Performance Acceptable		Not Required
	No	Yes	No	Yes	
GAS CHROMATOGRAPHY/MASS SPECTROMETRY (GC/MS)					
Tier II Validation					
Holding times		X		X	
Reporting limits (units)		X		X	
Blanks					
A. Method blanks		X		X	
B. Equipment blanks		X	X		
C. Trip blanks		X		X	
Laboratory Control Sample (LCS) %R		X		X	
Laboratory Control Sample Duplicate (LCSD) %R		X	X		
LCS/LCSD Precision (RPD)		X		X	
Matrix Spike (MS) %R		X		X	
Matrix Spike Duplicate (MSD) %R		X		X	
MS/MSD Precision (RPD)		X		X	
Field/Lab Duplicate (RPD)		X		X	
Surrogate Spike %R		X		X	
Dilution Factor		X		X	
Moisture Content					X
Tier III Validation					
System performance and column resolution		X		X	
Initial calibration %RSDs		X		X	
Continuing calibration RRFs		X		X	
Continuing calibration %Ds		X	X		

VOCs: SW-846 8260D	Reported		Performance Acceptable		Not Required
	No	Yes	No	Yes	
GAS CHROMATOGRAPHY/MASS SPECTROMETRY (GC/MS)					
Instrument tune and performance check		X		X	
Ion abundance criteria for each instrument used		X		X	
Internal standard		X		X	
Compound identification and quantitation					
A. Reconstructed ion chromatograms		X		X	
B. Quantitation Reports		X		X	
C. RT of sample compounds within the established RT windows		X		X	
D. Transcription/calculation errors present		X		X	
E. Reporting limits adjusted to reflect sample dilutions		X		X	

Notes:

%RSD Relative standard deviation
%R Percent recovery
RPD Relative percent difference
%D Percent difference

Semivolatile Organic Compound (SVOC) Analyses

1. Holding Times

The specified holding times for the following methods are presented in the table below.

Method	Matrix	Holding Time	Preservation
SW-846 8270E	Water	7 days from collection to extraction and 40 days from extraction to analysis	Cool to <6 °C

All samples were analyzed within the specified holding time criterion.

2. Blank Contamination

Quality assurance (QA) blanks (i.e., method and rinse blanks) are prepared to identify any contamination which may have been introduced into the samples during sample preparation or field activity. Method blanks measure laboratory contamination. Rinse blanks measure contamination of samples during field operations.

A blank action level (BAL) of five times the concentration of a detected compound in an associated blank (common laboratory contaminant compounds are calculated at ten times) is calculated for QA blanks containing concentrations greater than the method detection limit (MDL). The BAL is compared to the associated sample results to determine the appropriate qualification of the sample results, if needed.

Compounds were not detected above the MDL in the associated blanks; therefore, detected sample results were not associated with blank contamination.

3. Mass Spectrometer Tuning

Mass spectrometer performance was acceptable and all analyses were performed within a 12-hour tune clock.

System performance and column resolution were acceptable.

4. Calibration

Satisfactory instrument calibration is established to ensure that the instrument is capable of producing acceptable quantitative data. An initial calibration demonstrates that the instrument is capable of acceptable performance at the beginning of an experimental sequence. The continuing calibration verifies that the instrument daily performance is satisfactory.

4.1 Initial Calibration

The method specifies percent relative standard deviation (%RSD) and relative response factor (RRF) limits for select compounds only. A technical review of the data applies limits to all compounds with no exceptions.

All target compounds associated with the initial calibration standards must exhibit a %RSD less than the control limit (20%) or a correlation coefficient greater than 0.99 and an RRF value greater than control limit (0.05).

4.2 Continuing Calibration

All target compounds associated with the continuing calibration standard must exhibit a percent difference (%D) less than the control limit (20%) and RRF value greater than control limit (0.05).

All compounds associated with the calibrations were within the specified control limits, with the exception of the compounds presented in the following table.

Sample Locations	Initial/ Continuing	Compound	Criteria
SDG 460-303613-1:			
MW-21S	CCV %D	4-Chloroaniline	+23.5%
		Caprolactam	+28.9%
		2,6-Dinitrotoluene	+22.1%
		3-Nitroaniline	+29.3%
		2,4-Dinitrophenol	+40.8%
		2,4-Dinitrotoluene	+33.0%
		4-Nitroaniline	+28.7%
		4,6-Dinitro-2-methylphenol	+28.0%
		Pentachlorophenol	+26.8%
EB050924 MW-22S MW-22D		4-Chloroaniline	-23.7%
SDG 460-303677-1:			
EB051024 MW-21D DUP051024	CCV %D	4-Chloroaniline	+23.5%
		Caprolactam	+28.9%
		2,6-Dinitrotoluene	+22.1%
		3-Nitroaniline	+29.3%
		2,4-Dinitrophenol	+40.8%
		2,4-Dinitrotoluene	+33.0%
		4-Nitroaniline	+28.7%
		4,6-Dinitro-2-methylphenol	+28.0%

Sample Locations	Initial/ Continuing	Compound	Criteria
		Pentachlorophenol	+26.8%

The criteria used to evaluate the initial and continuing calibration are presented in the following table. In the case of a calibration deviation, the sample results are qualified.

Initial/Continuing	Criteria	Sample Result	Qualification
Initial and Continuing Calibration	RRF <0.05	Non-detect	R
		Detect	J
	RRF <0.01[1]	Non-detect	R
		Detect	J
	RRF >0.05 or RRF >0.01[1]	Non-detect	No Action
		Detect	
Initial Calibration	%RSD > 20% or a correlation coefficient <0.99	Non-detect	UJ
		Detect	J
	%RSD >90%	Non-detect	R
		Detect	J
Continuing Calibration	%D >20% (increase or decrease in sensitivity)	Non-detect	UJ
		Detect	J
	%D >90% (increase/decrease in sensitivity)	Non-detect	R
		Detect	J

Note:

[1] RRF of 0.01 only applies to compounds which are typically poor responding compounds (i.e., ketones, 1,4-dioxane, etc.)

5. Surrogates/System Monitoring Compounds

All samples to be analyzed for organic compounds are spiked with surrogate compounds prior to sample preparation to evaluate overall laboratory performance and efficiency of the analytical technique. SVOC analysis requires that two of the three SVOC surrogate compounds within each fraction exhibit recoveries within the laboratory-established acceptance limits.

All surrogate recoveries were within control limits.

6. Internal Standard Performance

Internal standard performance criteria ensure that the GC/MS sensitivity and response are stable during every sample analysis. The criteria require the internal standard compounds associated with the VOC exhibit area counts that are not greater than two times (+100%) or less than one-half (-50%) of the area counts of the associated continuing calibration standard.

All internal standard responses were within control limits.

7. Matrix Spike/Matrix Spike Duplicate (MS/MSD) Analysis

MS/MSD data are used to assess the precision and accuracy of the analytical method. The compounds used to perform the MS/MSD analysis must exhibit a percent recovery within the laboratory-established acceptance limits. The relative percent difference (RPD) between the MS/MSD recoveries must exhibit an RPD within the laboratory-established acceptance limits.

Note: The MS/MSD recovery control limits do not apply for MS/MSD performed on sample locations where the compound concentration detected in the parent sample exceeds the MS/MSD concentration by a factor of four or greater.

SDG 460-303677-1: A MS/MSD was not performed on a sample location associated with this SDG.

Sample locations associated with the MS/MSD exhibiting recoveries outside of the control limits are presented in the following table.

Sample Locations	Compound	MS Recovery	MSD Recovery
SDG 460-303613-1: MW-21S	3.3'-Dichlorobenzidine	<LL but >10%	<LL but >10%

The criteria used to evaluate the MS/MSD recoveries are presented in the following table. In the case of an MS/MSD deviation, the sample results are qualified as documented in the table below.

Control Limit	Sample Result	Qualification
> the upper control limit (UL)	Non-detect	No Action
	Detect	J
< the lower control limit (LL) but > 10%	Non-detect	UJ
	Detect	J
< 10%	Non-detect	R
	Detect	J
Parent sample concentration > four times the MS/MSD spiking solution concentration.	Detect	No Action
	Non-detect	

8. Laboratory Control Sample/Laboratory Control Sample Duplicate (LCS/LCSD) Analysis

The LCS/LCSD analysis is used to assess the precision and accuracy of the analytical method independent of matrix interferences. The compounds associated with the LCS/LCSD analysis must exhibit a percent recovery within the laboratory-established acceptance limits. The relative percent difference (RPD) between the LCS/LCSD recoveries must exhibit an RPD within the laboratory-established acceptance limits.

Sample locations associated with LCS/LCSD analysis exhibiting recoveries outside of the control limits are presented in the following table.

Sample Locations	Compound	LCS Recovery	LCSD Recovery
SDG 460-303613-1:			
MW-21S	2,4-Dinitrophenol	>UL	>UL
	Atrazine	>UL	>UL
	Benzaldehyde	>UL	>UL
SDG 460-303677-1:			
EB051024 MW-21D DUP051024	2,4-Dinitrophenol	>UL	>UL
	Atrazine	>UL	>UL
	Benzaldehyde	>UL	>UL

The criteria used to evaluate the LCS/LCSD recoveries are presented in the following table. In the case of an LCS/LCSD deviation, the sample results are qualified as documented in the table below.

Control Limit	Sample Result	Qualification
> the upper control limit (UL)	Non-detect	No Action
	Detect	J
< the lower control limit (LL) but > 10%	Non-detect	UJ
	Detect	J
< 10%	Non-detect	R
	Detect	J

Sample locations associated with LCS/LCSD recoveries exhibiting an RPD greater than of the control limit presented in the following table.

Sample Locations	Compound
SDG 460-303613-1:	
EB050924 MW-22S MW-22D	Caprolactam

The criteria used to evaluate the RPD between the LCS/LCSD recoveries are presented in the following table. In the case of an RPD deviation, the sample results are qualified as documented in the table below.

Control Limit	Sample Result	Qualification
> UL	Non-detect	UJ
	Detect	J

9. Field Duplicate Analysis

Field duplicate analysis is used to assess the overall precision of the field sampling procedures and analytical method. A control limit of 30% for water matrices is applied to the RPD between the parent sample and the field duplicate. In the instance when the parent and/or duplicate sample concentrations are less than or equal to 5 times the RL, a control limit of two times the RL is applied for water matrices.

SDG 460-303613-1: A field duplicate was not collected along with a sample location associated this SDG.

Results for duplicate samples are summarized in the following table.

Sample ID/ Duplicate ID	Compound	Sample Result	Duplicate Result	RPD
SDG 460-303677-1: MW-21D/ DUP051024	All target compounds	U	U	AC

Notes:
U Non-detect
AC Acceptable

The calculated RPDs between the parent sample and field duplicate were acceptable.

10. Compound Identification

Compounds are identified on the GC/MS by using the analytes relative retention time and ion spectra.

All identified compounds met the specified criteria.

11. System Performance and Overall Assessment

Overall system performance was acceptable. Other than for those deviations specifically mentioned in this review, the overall data quality is within the guidelines specified in the method.

Data Validation Checklist for Semi-Volatiles

SVOCs: SW-846 8270E	Reported		Performance Acceptable		Not Required
	No	Yes	No	Yes	
GAS CHROMATOGRAPHY/MASS SPECTROMETRY (GC/MS)					
Tier II Validation					
Holding times		X		X	
Reporting limits (units)		X		X	
Blanks					
A. Method blanks		X		X	
B. Equipment blanks		X		X	
Laboratory Control Sample (LCS) %R		X	X		
Laboratory Control Sample Duplicate (LCSD) %R		X	X		
LCS/LCSD Precision (RPD)		X	X		
Matrix Spike (MS) %R		X	X		
Matrix Spike Duplicate (MSD) %R		X	X		
MS/MSD Precision (RPD)		X		X	
Field/Lab Duplicate (RPD)		X		X	
Surrogate Spike %R		X		X	
Dilution Factor		X		X	
Moisture Content					X
Tier III Validation					
System performance and column resolution		X		X	
Initial calibration %RSDs		X		X	
Continuing calibration RRFs		X		X	
Continuing calibration %Ds		X	X		
Instrument tune and performance check		X		X	

SVOCs: SW-846 8270E	Reported		Performance Acceptable		Not Required
	No	Yes	No	Yes	
GAS CHROMATOGRAPHY/MASS SPECTROMETRY (GC/MS)					
Ion abundance criteria for each instrument used		X		X	
Internal standard		X		X	
Compound identification and quantitation					
A. Reconstructed ion chromatograms		X		X	
B. Quantitation Reports		X		X	
C. RT of sample compounds within the established RT windows		X		X	
D. Transcription/calculation errors present		X		X	
E. Reporting limits adjusted to reflect sample dilutions		X		X	

Notes:

%RSD Relative standard deviation
%R Percent recovery
RPD Relative percent difference
%D Percent difference

Sample Compliance Report

SAMPLE COMPLIANCE REPORT

Sample Delivery Group (SDG)	Sampling Date	Protocol	Sample ID	Matrix	Compliancy[1]					Noncompliance
					VOC	SVOC	PCB	MTL	MISC	
460-303613-1	5/09/2024	SW-846	TB050924	Water	No	--	---	---	---	VOC- Continuing calibration %D
			EB050924	Water	No	No	---	---	---	VOC- Continuing calibration %D SVOC- LCS/LCSD RPD, Continuing calibration %D
			MW-22S	Water	No	No	---	---	---	VOC- Continuing calibration %D SVOC- LCS/LCSD RPD, Continuing calibration %D
			MW-22D	Water	No	No	---	---	---	VOC- Continuing calibration %D SVOC- LCS/LCSD RPD, Continuing calibration %D
			MW-21S	Water	No	No	---	---	---	VOC- Continuing calibration %D SVOC- LCS/LCSD %R, Continuing calibration %D
460-303677-1	5/10/2024	SW-846	TB051024	Water	No	--	---	---	---	VOC- LCS/LCSD %R, Continuing calibration %D
			EB051024	Water	No	No	---	---	---	VOC- LCS/LCSD %R, Continuing calibration %D SVOC- LCS/LCSD %R, Continuing calibration %D
			MW-21S	Water	No	No	---	---	---	VOC- LCS/LCSD %R, Continuing calibration %D SVOC- LCS/LCSD %R, Continuing calibration %D
			DUP051024	Water	No	No	---	---	---	VOC- LCS/LCSD %R, Continuing calibration %D SVOC- LCS/LCSD %R, Continuing calibration %D

Note:

1 Samples which are compliant with no added validation qualifiers are listed as "yes". Samples which are non-compliant or which have added qualifiers are listed as "no". A "no" designation does not necessarily indicate that the data have been rejected or are otherwise unusable.

VALIDATION PERFORMED BY: Lisa Horton

SIGNATURE: 

DATE: June 9, 2024

PEER REVIEW: Joseph C. Houser

DATE: June 10, 2024

Chain of Custody and Corrected Sample Analysis Data Sheets

Eurofins Environment Testing Northeast, LLC
777 New Durham Road
Edison, NJ 08817
Phone (732) 549-3900 Fax (732) 549-3679

NYC 22f

Chain of Custody Record

Client Information	Sampler: Alyssa R Hynes	Lab PM: Gilmore, Julie	Carrier Tracking No(s):	COC No
Client Contact: Steven Feldman	Phone: 516-297-14660	E-Mail: Julie.Gilmore@et.eurofinsus.com		Page: Page 1 of 1
Company: Arcadis of New York, Inc				Job #: 303613

Address: 105 Maxess Road, Suite N108	Due Date Requested:	
City: Melville	TAT Requested (days): 5 Days	
State, Zip: NY, 11747		
Phone: (631) 249-7600	PO #:	
Email: Steven.Feldman@arcadis.com	WO #: 30205663 04 042624	
Project Name: Former Dangman Park MGP Site	Project #: 30205663 04	
Site: Former Dangman Park MGP Site	SSOW#:	

Analysis Requested

Preservation Codes:

A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - pH 4-5, Z - other (specify)

Other:

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	VOCs (8260)	SVOCs (8270)	Total Number of containers	Special Instructions/Note:
			Preservation Code:				A	I		
TB050924	5/9/24	—	G	W	N	N	X		2	
EB050924	5/9/24	0800	G	W	N	N	X	X	4	
MW-22S	5/9/24	1230	G	W	N	N	X	X	5	
MW-22D	5/9/24	1135	G	W	N	N	X	X	5	
MW-21S	5/9/24	1505	G	W	N	Y	X	X	15	MS/MSD

460-303613 Chain of Custody

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☒ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☒ Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements

Empty Kit Relinquished by	Date	Time	Method of Shipment

Relinquished by	Date/Time	Company	Received by	Date/Time	Company
Alyssa R Hynes	5/9/24 1600	Arcadis	[illegible]	4/9/24 1605	NA
[illegible]	5/9/24 2000	[illegible]	[illegible]	5/9/24 20:00	ETA

Custody Seals Intact: Δ Yes Δ No	Custody Seal No	Cooler Temperature(s) °C and Other Remarks.

Ver: 01/16/2019

1.1 1.5 [illegible]

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
J	Indicates an estimated value.
U	Analyzed for but not detected.

GC/MS Semi VOA

Qualifier	Qualifier Description
*	RPD of the LCS and LCSD exceeds the control limits
*	LCS or LCSD is outside acceptance limits.
*	MS or MSD is outside acceptance limits.
E	Compound concentration exceeds the upper level of the calibration range of the instrument for that specific analysis.
J	Indicates an estimated value.
U	Analyzed for but not detected.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Client Sample ID: TB050924 Lab Sample ID: 460-303613-1

Date Collected: 05/09/24 00:00 **Matrix: Water**
Date Received: 05/09/24 20:00

Method: SW846 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	1.0	U	1.0	0.24	ug/L			05/14/24 19:06	1
1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.37	ug/L			05/14/24 19:06	1
1,1,2-Trichloro-1,2,2-trifluoroethane	1.0	U	1.0	0.31	ug/L			05/14/24 19:06	1
1,1,2-Trichloroethane	1.0	U	1.0	0.20	ug/L			05/14/24 19:06	1
1,1-Dichloroethane	1.0	U	1.0	0.26	ug/L			05/14/24 19:06	1
1,1-Dichloroethene	1.0	U	1.0	0.26	ug/L			05/14/24 19:06	1
1,2,4-Trichlorobenzene	1.0	U	1.0	0.37	ug/L			05/14/24 19:06	1
1,2-Dibromo-3-Chloropropane	1.0	U J	1.0	0.38	ug/L			05/14/24 19:06	1
1,2-Dichlorobenzene	1.0	U	1.0	0.21	ug/L			05/14/24 19:06	1
1,2-Dichloroethane	1.0	U	1.0	0.43	ug/L			05/14/24 19:06	1
1,2-Dichloropropane	1.0	U	1.0	0.35	ug/L			05/14/24 19:06	1
1,3-Dichlorobenzene	1.0	U	1.0	0.34	ug/L			05/14/24 19:06	1
1,4-Dichlorobenzene	1.0	U	1.0	0.33	ug/L			05/14/24 19:06	1
1,4-Dioxane	50	U	50	28	ug/L			05/14/24 19:06	1
2-Butanone (MEK)	5.0	U	5.0	1.9	ug/L			05/14/24 19:06	1
2-Hexanone	5.0	U	5.0	1.1	ug/L			05/14/24 19:06	1
4-Methyl-2-pentanone (MIBK)	5.0	U	5.0	1.3	ug/L			05/14/24 19:06	1
Acetone	5.0	U	5.0	4.4	ug/L			05/14/24 19:06	1
Benzene	1.0	U	1.0	0.20	ug/L			05/14/24 19:06	1
Bromoform	1.0	U	1.0	0.54	ug/L			05/14/24 19:06	1
Bromomethane	1.0	U	1.0	0.55	ug/L			05/14/24 19:06	1
Carbon disulfide	1.0	U	1.0	0.82	ug/L			05/14/24 19:06	1
Carbon tetrachloride	1.0	U	1.0	0.21	ug/L			05/14/24 19:06	1
Chlorobenzene	1.0	U	1.0	0.38	ug/L			05/14/24 19:06	1
Dibromochloromethane	1.0	U	1.0	0.28	ug/L			05/14/24 19:06	1
Chloroethane	1.0	U	1.0	0.32	ug/L			05/14/24 19:06	1
Chloroform	1.0	U	1.0	0.33	ug/L			05/14/24 19:06	1
Chloromethane	1.0	U	1.0	0.40	ug/L			05/14/24 19:06	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.22	ug/L			05/14/24 19:06	1
cis-1,3-Dichloropropene	1.0	U	1.0	0.22	ug/L			05/14/24 19:06	1
Cyclohexane	1.0	U	1.0	0.32	ug/L			05/14/24 19:06	1
Bromodichloromethane	1.0	U	1.0	0.34	ug/L			05/14/24 19:06	1
Dichlorodifluoromethane	1.0	U	1.0	0.31	ug/L			05/14/24 19:06	1
Ethylbenzene	1.0	U	1.0	0.30	ug/L			05/14/24 19:06	1
1,2-Dibromoethane	1.0	U	1.0	0.50	ug/L			05/14/24 19:06	1
Isopropylbenzene	1.0	U	1.0	0.34	ug/L			05/14/24 19:06	1
Methyl acetate	5.0	U	5.0	0.79	ug/L			05/14/24 19:06	1
Methyl tert-butyl ether	1.0	U	1.0	0.22	ug/L			05/14/24 19:06	1
Methylcyclohexane	1.0	U	1.0	0.71	ug/L			05/14/24 19:06	1
Methylene Chloride	1.0	U	1.0	0.32	ug/L			05/14/24 19:06	1
Styrene	1.0	U	1.0	0.42	ug/L			05/14/24 19:06	1
Tetrachloroethene	1.0	U	1.0	0.25	ug/L			05/14/24 19:06	1
Toluene	1.0	U	1.0	0.38	ug/L			05/14/24 19:06	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.24	ug/L			05/14/24 19:06	1
trans-1,3-Dichloropropene	1.0	U	1.0	0.22	ug/L			05/14/24 19:06	1
Trichloroethene	1.0	U	1.0	0.31	ug/L			05/14/24 19:06	1
Trichlorofluoromethane	1.0	U	1.0	0.32	ug/L			05/14/24 19:06	1
Vinyl chloride	1.0	U	1.0	0.17	ug/L			05/14/24 19:06	1
Xylenes, Total	2.0	U	2.0	0.65	ug/L			05/14/24 19:06	1

Client Sample ID: TB050924 — Lab Sample ID: 460-303613-1

Date Collected: 05/09/24 00:00 **Matrix: Water**
Date Received: 05/09/24 20:00

Method: SW846 8260D - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
n-Butylbenzene	1.0	U	1.0	0.32	ug/L			05/14/24 19:06	1
1,2,4-Trimethylbenzene	1.0	U	1.0	0.37	ug/L			05/14/24 19:06	1
sec-Butylbenzene	1.0	U	1.0	0.37	ug/L			05/14/24 19:06	1
N-Propylbenzene	1.0	U	1.0	0.32	ug/L			05/14/24 19:06	1
1,3,5-Trimethylbenzene	1.0	U	1.0	0.33	ug/L			05/14/24 19:06	1
tert-Butylbenzene	1.0	U	1.0	0.34	ug/L			05/14/24 19:06	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*102*		*70 - 128*		*05/14/24 19:06*	*1*
4-Bromofluorobenzene	*96*		*76 - 120*		*05/14/24 19:06*	*1*
Dibromofluoromethane (Surr)	*103*		*77 - 132*		*05/14/24 19:06*	*1*
Toluene-d8 (Surr)	*103*		*80 - 120*		*05/14/24 19:06*	*1*

Client Sample ID: EB050924 — Lab Sample ID: 460-303613-2

Date Collected: 05/09/24 08:00 **Matrix: Water**
Date Received: 05/09/24 20:00

Method: SW846 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	1.0	U	1.0	0.24	ug/L			05/14/24 19:25	1
1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.37	ug/L			05/14/24 19:25	1
1,1,2-Trichloro-1,2,2-trifluoroethane	1.0	U	1.0	0.31	ug/L			05/14/24 19:25	1
1,1,2-Trichloroethane	1.0	U	1.0	0.20	ug/L			05/14/24 19:25	1
1,1-Dichloroethane	1.0	U	1.0	0.26	ug/L			05/14/24 19:25	1
1,1-Dichloroethene	1.0	U	1.0	0.26	ug/L			05/14/24 19:25	1
1,2,4-Trichlorobenzene	1.0	U	1.0	0.37	ug/L			05/14/24 19:25	1
1,2-Dibromo-3-Chloropropane	1.0	U J	1.0	0.38	ug/L			05/14/24 19:25	1
1,2-Dichlorobenzene	1.0	U	1.0	0.21	ug/L			05/14/24 19:25	1
1,2-Dichloroethane	1.0	U	1.0	0.43	ug/L			05/14/24 19:25	1
1,2-Dichloropropane	1.0	U	1.0	0.35	ug/L			05/14/24 19:25	1
1,3-Dichlorobenzene	1.0	U	1.0	0.34	ug/L			05/14/24 19:25	1
1,4-Dichlorobenzene	1.0	U	1.0	0.33	ug/L			05/14/24 19:25	1
1,4-Dioxane	50	U	50	28	ug/L			05/14/24 19:25	1
2-Butanone (MEK)	5.0	U	5.0	1.9	ug/L			05/14/24 19:25	1
2-Hexanone	5.0	U	5.0	1.1	ug/L			05/14/24 19:25	1
4-Methyl-2-pentanone (MIBK)	5.0	U	5.0	1.3	ug/L			05/14/24 19:25	1
Acetone	5.0	U	5.0	4.4	ug/L			05/14/24 19:25	1
Benzene	1.0	U	1.0	0.20	ug/L			05/14/24 19:25	1
Bromoform	1.0	U	1.0	0.54	ug/L			05/14/24 19:25	1
Bromomethane	1.0	U	1.0	0.55	ug/L			05/14/24 19:25	1
Carbon disulfide	1.0	U	1.0	0.82	ug/L			05/14/24 19:25	1
Carbon tetrachloride	1.0	U	1.0	0.21	ug/L			05/14/24 19:25	1
Chlorobenzene	1.0	U	1.0	0.38	ug/L			05/14/24 19:25	1
Dibromochloromethane	1.0	U	1.0	0.28	ug/L			05/14/24 19:25	1
Chloroethane	1.0	U	1.0	0.32	ug/L			05/14/24 19:25	1
Chloroform	1.0	U	1.0	0.33	ug/L			05/14/24 19:25	1
Chloromethane	1.0	U	1.0	0.40	ug/L			05/14/24 19:25	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.22	ug/L			05/14/24 19:25	1
cis-1,3-Dichloropropene	1.0	U	1.0	0.22	ug/L			05/14/24 19:25	1
Cyclohexane	1.0	U	1.0	0.32	ug/L			05/14/24 19:25	1

Client Sample ID: EB050924 — Lab Sample ID: 460-303613-2

Date Collected: 05/09/24 08:00 — **Matrix: Water**
Date Received: 05/09/24 20:00

Method: SW846 8260D - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bromodichloromethane	1.0	U	1.0	0.34	ug/L			05/14/24 19:25	1
Dichlorodifluoromethane	1.0	U	1.0	0.31	ug/L			05/14/24 19:25	1
Ethylbenzene	1.0	U	1.0	0.30	ug/L			05/14/24 19:25	1
1,2-Dibromoethane	1.0	U	1.0	0.50	ug/L			05/14/24 19:25	1
Isopropylbenzene	1.0	U	1.0	0.34	ug/L			05/14/24 19:25	1
Methyl acetate	5.0	U	5.0	0.79	ug/L			05/14/24 19:25	1
Methyl tert-butyl ether	1.0	U	1.0	0.22	ug/L			05/14/24 19:25	1
Methylcyclohexane	1.0	U	1.0	0.71	ug/L			05/14/24 19:25	1
Methylene Chloride	**0.92**	**J**	1.0	0.32	ug/L			05/14/24 19:25	1
Styrene	1.0	U	1.0	0.42	ug/L			05/14/24 19:25	1
Tetrachloroethene	1.0	U	1.0	0.25	ug/L			05/14/24 19:25	1
Toluene	1.0	U	1.0	0.38	ug/L			05/14/24 19:25	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.24	ug/L			05/14/24 19:25	1
trans-1,3-Dichloropropene	1.0	U	1.0	0.22	ug/L			05/14/24 19:25	1
Trichloroethene	1.0	U	1.0	0.31	ug/L			05/14/24 19:25	1
Trichlorofluoromethane	1.0	U	1.0	0.32	ug/L			05/14/24 19:25	1
Vinyl chloride	1.0	U	1.0	0.17	ug/L			05/14/24 19:25	1
Xylenes, Total	2.0	U	2.0	0.65	ug/L			05/14/24 19:25	1
n-Butylbenzene	1.0	U	1.0	0.32	ug/L			05/14/24 19:25	1
1,2,4-Trimethylbenzene	1.0	U	1.0	0.37	ug/L			05/14/24 19:25	1
sec-Butylbenzene	1.0	U	1.0	0.37	ug/L			05/14/24 19:25	1
N-Propylbenzene	1.0	U	1.0	0.32	ug/L			05/14/24 19:25	1
1,3,5-Trimethylbenzene	1.0	U	1.0	0.33	ug/L			05/14/24 19:25	1
tert-Butylbenzene	1.0	U	1.0	0.34	ug/L			05/14/24 19:25	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*103*		*70 - 128*		*05/14/24 19:25*	*1*
4-Bromofluorobenzene	*95*		*76 - 120*		*05/14/24 19:25*	*1*
Dibromofluoromethane (Surr)	*103*		*77 - 132*		*05/14/24 19:25*	*1*
Toluene-d8 (Surr)	*101*		*80 - 120*		*05/14/24 19:25*	*1*

Method: SW846 8270E - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1'-Biphenyl	10	U	10	1.2	ug/L		05/11/24 09:02	05/11/24 19:37	1
2,2'-oxybis[1-chloropropane]	10	U	10	0.63	ug/L		05/11/24 09:02	05/11/24 19:37	1
2,4,5-Trichlorophenol	10	U	10	0.88	ug/L		05/11/24 09:02	05/11/24 19:37	1
2,4,6-Trichlorophenol	10	U	10	0.86	ug/L		05/11/24 09:02	05/11/24 19:37	1
2,4-Dichlorophenol	10	U	10	1.1	ug/L		05/11/24 09:02	05/11/24 19:37	1
2,4-Dimethylphenol	10	U	10	0.62	ug/L		05/11/24 09:02	05/11/24 19:37	1
2,4-Dinitrophenol	40	U	40	2.6	ug/L		05/11/24 09:02	05/11/24 19:37	1
2,4-Dinitrotoluene	10	U	10	1.0	ug/L		05/11/24 09:02	05/11/24 19:37	1
2,6-Dinitrotoluene	2.0	U	2.0	0.83	ug/L		05/11/24 09:02	05/11/24 19:37	1
2-Chloronaphthalene	10	U	10	1.2	ug/L		05/11/24 09:02	05/11/24 19:37	1
2-Chlorophenol	10	U	10	0.38	ug/L		05/11/24 09:02	05/11/24 19:37	1
2-Methylnaphthalene	10	U	10	0.53	ug/L		05/11/24 09:02	05/11/24 19:37	1
2-Methylphenol	10	U	10	0.67	ug/L		05/11/24 09:02	05/11/24 19:37	1
2-Nitroaniline	10	U	10	0.47	ug/L		05/11/24 09:02	05/11/24 19:37	1
2-Nitrophenol	10	U	10	0.75	ug/L		05/11/24 09:02	05/11/24 19:37	1
3,3'-Dichlorobenzidine	10	U	10	1.4	ug/L		05/11/24 09:02	05/11/24 19:37	1
3-Nitroaniline	10	U	10	1.9	ug/L		05/11/24 09:02	05/11/24 19:37	1

Client Sample ID: EB050924 Lab Sample ID: 460-303613-2

Date Collected: 05/09/24 08:00 **Matrix: Water**
Date Received: 05/09/24 20:00

Method: SW846 8270E - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4,6-Dinitro-2-methylphenol	20	U	20	3.0	ug/L		05/11/24 09:02	05/11/24 19:37	1
4-Bromophenyl phenyl ether	10	U	10	0.75	ug/L		05/11/24 09:02	05/11/24 19:37	1
4-Chloro-3-methylphenol	10	U	10	0.58	ug/L		05/11/24 09:02	05/11/24 19:37	1
4-Chloroaniline	10	U J	10	1.9	ug/L		05/11/24 09:02	05/11/24 19:37	1
4-Chlorophenyl phenyl ether	10	U	10	1.3	ug/L		05/11/24 09:02	05/11/24 19:37	1
4-Nitroaniline	10	U	10	1.2	ug/L		05/11/24 09:02	05/11/24 19:37	1
4-Nitrophenol	20	U	20	4.0	ug/L		05/11/24 09:02	05/11/24 19:37	1
Acenaphthene	10	U	10	1.1	ug/L		05/11/24 09:02	05/11/24 19:37	1
Acenaphthylene	10	U	10	0.82	ug/L		05/11/24 09:02	05/11/24 19:37	1
Acetophenone	10	U	10	2.3	ug/L		05/11/24 09:02	05/11/24 19:37	1
Anthracene	10	U	10	1.3	ug/L		05/11/24 09:02	05/11/24 19:37	1
Atrazine	2.0	U	2.0	1.3	ug/L		05/11/24 09:02	05/11/24 19:37	1
Benzaldehyde	10	U	10	2.1	ug/L		05/11/24 09:02	05/11/24 19:37	1
Benzo[a]anthracene	1.0	U	1.0	0.59	ug/L		05/11/24 09:02	05/11/24 19:37	1
Benzo[a]pyrene	1.0	U	1.0	0.41	ug/L		05/11/24 09:02	05/11/24 19:37	1
Benzo[b]fluoranthene	2.0	U	2.0	0.68	ug/L		05/11/24 09:02	05/11/24 19:37	1
Benzo[g,h,i]perylene	10	U	10	0.70	ug/L		05/11/24 09:02	05/11/24 19:37	1
Benzo[k]fluoranthene	1.0	U	1.0	0.67	ug/L		05/11/24 09:02	05/11/24 19:37	1
Bis(2-chloroethoxy)methane	10	U	10	0.59	ug/L		05/11/24 09:02	05/11/24 19:37	1
Bis(2-chloroethyl)ether	1.0	U	1.0	0.63	ug/L		05/11/24 09:02	05/11/24 19:37	1
Bis(2-ethylhexyl) phthalate	2.0	U	2.0	0.80	ug/L		05/11/24 09:02	05/11/24 19:37	1
Butyl benzyl phthalate	10	U	10	0.85	ug/L		05/11/24 09:02	05/11/24 19:37	1
Caprolactam	10	U J	10	2.2	ug/L		05/11/24 09:02	05/11/24 19:37	1
Carbazole	10	U	10	0.68	ug/L		05/11/24 09:02	05/11/24 19:37	1
Chrysene	2.0	U	2.0	0.91	ug/L		05/11/24 09:02	05/11/24 19:37	1
Dibenz(a,h)anthracene	1.0	U	1.0	0.72	ug/L		05/11/24 09:02	05/11/24 19:37	1
Dibenzofuran	10	U	10	1.1	ug/L		05/11/24 09:02	05/11/24 19:37	1
Diethyl phthalate	10	U	10	0.98	ug/L		05/11/24 09:02	05/11/24 19:37	1
Dimethyl phthalate	10	U	10	0.77	ug/L		05/11/24 09:02	05/11/24 19:37	1
Di-n-butyl phthalate	10	U	10	0.84	ug/L		05/11/24 09:02	05/11/24 19:37	1
Di-n-octyl phthalate	10	U	10	0.75	ug/L		05/11/24 09:02	05/11/24 19:37	1
Fluoranthene	10	U	10	0.84	ug/L		05/11/24 09:02	05/11/24 19:37	1
Fluorene	10	U	10	0.91	ug/L		05/11/24 09:02	05/11/24 19:37	1
Hexachlorobenzene	1.0	U	1.0	0.40	ug/L		05/11/24 09:02	05/11/24 19:37	1
Hexachlorobutadiene	1.0	U	1.0	0.78	ug/L		05/11/24 09:02	05/11/24 19:37	1
Hexachlorocyclopentadiene	10	U	10	3.6	ug/L		05/11/24 09:02	05/11/24 19:37	1
Hexachloroethane	2.0	U	2.0	0.80	ug/L		05/11/24 09:02	05/11/24 19:37	1
Indeno[1,2,3-cd]pyrene	2.0	U	2.0	0.94	ug/L		05/11/24 09:02	05/11/24 19:37	1
Isophorone	10	U	10	0.80	ug/L		05/11/24 09:02	05/11/24 19:37	1
Naphthalene	2.0	U	2.0	0.54	ug/L		05/11/24 09:02	05/11/24 19:37	1
Nitrobenzene	1.0	U	1.0	0.57	ug/L		05/11/24 09:02	05/11/24 19:37	1
N-Nitrosodi-n-propylamine	1.0	U	1.0	0.43	ug/L		05/11/24 09:02	05/11/24 19:37	1
N-Nitrosodiphenylamine	10	U	10	0.89	ug/L		05/11/24 09:02	05/11/24 19:37	1
Pentachlorophenol	20	U	20	1.4	ug/L		05/11/24 09:02	05/11/24 19:37	1
Phenanthrene	10	U	10	1.3	ug/L		05/11/24 09:02	05/11/24 19:37	1
Phenol	10	U	10	0.29	ug/L		05/11/24 09:02	05/11/24 19:37	1
Pyrene	10	U	10	1.6	ug/L		05/11/24 09:02	05/11/24 19:37	1
3 & 4 Methylphenol	10	U	10	0.64	ug/L		05/11/24 09:02	05/11/24 19:37	1

Client Sample ID: EB050924 — Lab Sample ID: 460-303613-2

Date Collected: 05/09/24 08:00 — **Matrix: Water**
Date Received: 05/09/24 20:00

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol (Surr)	*86*		*37 - 150*	*05/11/24 09:02*	*05/11/24 19:37*	*1*
2-Fluorobiphenyl	*79*		*46 - 139*	*05/11/24 09:02*	*05/11/24 19:37*	*1*
2-Fluorophenol (Surr)	*47*		*16 - 80*	*05/11/24 09:02*	*05/11/24 19:37*	*1*
Nitrobenzene-d5 (Surr)	*80*		*51 - 145*	*05/11/24 09:02*	*05/11/24 19:37*	*1*
Phenol-d5 (Surr)	*33*		*10 - 56*	*05/11/24 09:02*	*05/11/24 19:37*	*1*
Terphenyl-d14 (Surr)	*18*		*13 - 150*	*05/11/24 09:02*	*05/11/24 19:37*	*1*

Client Sample ID: MW-22S — Lab Sample ID: 460-303613-3

Date Collected: 05/09/24 12:30 — **Matrix: Water**
Date Received: 05/09/24 20:00

Method: SW846 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	1.0	U	1.0	0.24	ug/L			05/14/24 19:45	1
1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.37	ug/L			05/14/24 19:45	1
1,1,2-Trichloro-1,2,2-trifluoroethane	1.0	U	1.0	0.31	ug/L			05/14/24 19:45	1
1,1,2-Trichloroethane	1.0	U	1.0	0.20	ug/L			05/14/24 19:45	1
1,1-Dichloroethane	1.0	U	1.0	0.26	ug/L			05/14/24 19:45	1
1,1-Dichloroethene	1.0	U	1.0	0.26	ug/L			05/14/24 19:45	1
1,2,4-Trichlorobenzene	1.0	U	1.0	0.37	ug/L			05/14/24 19:45	1
1,2-Dibromo-3-Chloropropane	1.0	U J	1.0	0.38	ug/L			05/14/24 19:45	1
1,2-Dichlorobenzene	1.0	U	1.0	0.21	ug/L			05/14/24 19:45	1
1,2-Dichloroethane	1.0	U	1.0	0.43	ug/L			05/14/24 19:45	1
1,2-Dichloropropane	1.0	U	1.0	0.35	ug/L			05/14/24 19:45	1
1,3-Dichlorobenzene	1.0	U	1.0	0.34	ug/L			05/14/24 19:45	1
1,4-Dichlorobenzene	1.0	U	1.0	0.33	ug/L			05/14/24 19:45	1
1,4-Dioxane	50	U	50	28	ug/L			05/14/24 19:45	1
2-Butanone (MEK)	5.0	U	5.0	1.9	ug/L			05/14/24 19:45	1
2-Hexanone	5.0	U	5.0	1.1	ug/L			05/14/24 19:45	1
4-Methyl-2-pentanone (MIBK)	5.0	U	5.0	1.3	ug/L			05/14/24 19:45	1
Acetone	5.0	U	5.0	4.4	ug/L			05/14/24 19:45	1
Benzene	1.0	U	1.0	0.20	ug/L			05/14/24 19:45	1
Bromoform	1.0	U	1.0	0.54	ug/L			05/14/24 19:45	1
Bromomethane	1.0	U	1.0	0.55	ug/L			05/14/24 19:45	1
Carbon disulfide	1.0	U	1.0	0.82	ug/L			05/14/24 19:45	1
Carbon tetrachloride	1.0	U	1.0	0.21	ug/L			05/14/24 19:45	1
Chlorobenzene	1.0	U	1.0	0.38	ug/L			05/14/24 19:45	1
Dibromochloromethane	1.0	U	1.0	0.28	ug/L			05/14/24 19:45	1
Chloroethane	1.0	U	1.0	0.32	ug/L			05/14/24 19:45	1
Chloroform	1.0	U	1.0	0.33	ug/L			05/14/24 19:45	1
Chloromethane	1.0	U	1.0	0.40	ug/L			05/14/24 19:45	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.22	ug/L			05/14/24 19:45	1
cis-1,3-Dichloropropene	1.0	U	1.0	0.22	ug/L			05/14/24 19:45	1
Cyclohexane	1.0	U	1.0	0.32	ug/L			05/14/24 19:45	1
Bromodichloromethane	1.0	U	1.0	0.34	ug/L			05/14/24 19:45	1
Dichlorodifluoromethane	1.0	U	1.0	0.31	ug/L			05/14/24 19:45	1
Ethylbenzene	1.0	U	1.0	0.30	ug/L			05/14/24 19:45	1
1,2-Dibromoethane	1.0	U	1.0	0.50	ug/L			05/14/24 19:45	1
Isopropylbenzene	1.0	U	1.0	0.34	ug/L			05/14/24 19:45	1
Methyl acetate	5.0	U	5.0	0.79	ug/L			05/14/24 19:45	1

Client Sample ID: MW-22S
Date Collected: 05/09/24 12:30
Date Received: 05/09/24 20:00

Lab Sample ID: 460-303613-3
Matrix: Water

Method: SW846 8260D - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methyl tert-butyl ether	1.0	U	1.0	0.22	ug/L			05/14/24 19:45	1
Methylcyclohexane	1.0	U	1.0	0.71	ug/L			05/14/24 19:45	1
Methylene Chloride	1.0	U	1.0	0.32	ug/L			05/14/24 19:45	1
Styrene	1.0	U	1.0	0.42	ug/L			05/14/24 19:45	1
Tetrachloroethene	1.0	U	1.0	0.25	ug/L			05/14/24 19:45	1
Toluene	1.0	U	1.0	0.38	ug/L			05/14/24 19:45	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.24	ug/L			05/14/24 19:45	1
trans-1,3-Dichloropropene	1.0	U	1.0	0.22	ug/L			05/14/24 19:45	1
Trichloroethene	1.0	U	1.0	0.31	ug/L			05/14/24 19:45	1
Trichlorofluoromethane	1.0	U	1.0	0.32	ug/L			05/14/24 19:45	1
Vinyl chloride	1.0	U	1.0	0.17	ug/L			05/14/24 19:45	1
Xylenes, Total	2.0	U	2.0	0.65	ug/L			05/14/24 19:45	1
n-Butylbenzene	1.0	U	1.0	0.32	ug/L			05/14/24 19:45	1
1,2,4-Trimethylbenzene	1.0	U	1.0	0.37	ug/L			05/14/24 19:45	1
sec-Butylbenzene	1.0	U	1.0	0.37	ug/L			05/14/24 19:45	1
N-Propylbenzene	1.0	U	1.0	0.32	ug/L			05/14/24 19:45	1
1,3,5-Trimethylbenzene	1.0	U	1.0	0.33	ug/L			05/14/24 19:45	1
tert-Butylbenzene	1.0	U	1.0	0.34	ug/L			05/14/24 19:45	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*104*		*70 - 128*		*05/14/24 19:45*	*1*
4-Bromofluorobenzene	*94*		*76 - 120*		*05/14/24 19:45*	*1*
Dibromofluoromethane (Surr)	*103*		*77 - 132*		*05/14/24 19:45*	*1*
Toluene-d8 (Surr)	*100*		*80 - 120*		*05/14/24 19:45*	*1*

Method: SW846 8270E - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1'-Biphenyl	10	U	10	1.2	ug/L		05/11/24 09:02	05/11/24 19:59	1
2,2'-oxybis[1-chloropropane]	10	U	10	0.63	ug/L		05/11/24 09:02	05/11/24 19:59	1
2,4,5-Trichlorophenol	10	U	10	0.88	ug/L		05/11/24 09:02	05/11/24 19:59	1
2,4,6-Trichlorophenol	10	U	10	0.86	ug/L		05/11/24 09:02	05/11/24 19:59	1
2,4-Dichlorophenol	10	U	10	1.1	ug/L		05/11/24 09:02	05/11/24 19:59	1
2,4-Dimethylphenol	10	U	10	0.62	ug/L		05/11/24 09:02	05/11/24 19:59	1
2,4-Dinitrophenol	40	U	40	2.6	ug/L		05/11/24 09:02	05/11/24 19:59	1
2,4-Dinitrotoluene	10	U	10	1.0	ug/L		05/11/24 09:02	05/11/24 19:59	1
2,6-Dinitrotoluene	2.0	U	2.0	0.83	ug/L		05/11/24 09:02	05/11/24 19:59	1
2-Chloronaphthalene	10	U	10	1.2	ug/L		05/11/24 09:02	05/11/24 19:59	1
2-Chlorophenol	10	U	10	0.38	ug/L		05/11/24 09:02	05/11/24 19:59	1
2-Methylnaphthalene	10	U	10	0.53	ug/L		05/11/24 09:02	05/11/24 19:59	1
2-Methylphenol	10	U	10	0.67	ug/L		05/11/24 09:02	05/11/24 19:59	1
2-Nitroaniline	10	U	10	0.47	ug/L		05/11/24 09:02	05/11/24 19:59	1
2-Nitrophenol	10	U	10	0.75	ug/L		05/11/24 09:02	05/11/24 19:59	1
3,3'-Dichlorobenzidine	10	U	10	1.4	ug/L		05/11/24 09:02	05/11/24 19:59	1
3-Nitroaniline	10	U	10	1.9	ug/L		05/11/24 09:02	05/11/24 19:59	1
4,6-Dinitro-2-methylphenol	20	U	20	3.0	ug/L		05/11/24 09:02	05/11/24 19:59	1
4-Bromophenyl phenyl ether	10	U	10	0.75	ug/L		05/11/24 09:02	05/11/24 19:59	1
4-Chloro-3-methylphenol	10	U	10	0.58	ug/L		05/11/24 09:02	05/11/24 19:59	1
4-Chloroaniline	10	U J	10	1.9	ug/L		05/11/24 09:02	05/11/24 19:59	1
4-Chlorophenyl phenyl ether	10	U	10	1.3	ug/L		05/11/24 09:02	05/11/24 19:59	1
4-Nitroaniline	10	U	10	1.2	ug/L		05/11/24 09:02	05/11/24 19:59	1

Client Sample ID: MW-22S
Date Collected: 05/09/24 12:30
Date Received: 05/09/24 20:00

Lab Sample ID: 460-303613-3
Matrix: Water

Method: SW846 8270E - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4-Nitrophenol	20	U	20	4.0	ug/L		05/11/24 09:02	05/11/24 19:59	1
Acenaphthene	10	U	10	1.1	ug/L		05/11/24 09:02	05/11/24 19:59	1
Acenaphthylene	10	U	10	0.82	ug/L		05/11/24 09:02	05/11/24 19:59	1
Acetophenone	10	U	10	2.3	ug/L		05/11/24 09:02	05/11/24 19:59	1
Anthracene	10	U	10	1.3	ug/L		05/11/24 09:02	05/11/24 19:59	1
Atrazine	2.0	U	2.0	1.3	ug/L		05/11/24 09:02	05/11/24 19:59	1
Benzaldehyde	10	U	10	2.1	ug/L		05/11/24 09:02	05/11/24 19:59	1
Benzo[a]anthracene	1.0	U	1.0	0.59	ug/L		05/11/24 09:02	05/11/24 19:59	1
Benzo[a]pyrene	1.0	U	1.0	0.41	ug/L		05/11/24 09:02	05/11/24 19:59	1
Benzo[b]fluoranthene	2.0	U	2.0	0.68	ug/L		05/11/24 09:02	05/11/24 19:59	1
Benzo[g,h,i]perylene	10	U	10	0.70	ug/L		05/11/24 09:02	05/11/24 19:59	1
Benzo[k]fluoranthene	1.0	U	1.0	0.67	ug/L		05/11/24 09:02	05/11/24 19:59	1
Bis(2-chloroethoxy)methane	10	U	10	0.59	ug/L		05/11/24 09:02	05/11/24 19:59	1
Bis(2-chloroethyl)ether	1.0	U	1.0	0.63	ug/L		05/11/24 09:02	05/11/24 19:59	1
Bis(2-ethylhexyl) phthalate	2.0	U	2.0	0.80	ug/L		05/11/24 09:02	05/11/24 19:59	1
Butyl benzyl phthalate	10	U	10	0.85	ug/L		05/11/24 09:02	05/11/24 19:59	1
Caprolactam	10	U * J	10	2.2	ug/L		05/11/24 09:02	05/11/24 19:59	1
Carbazole	10	U	10	0.68	ug/L		05/11/24 09:02	05/11/24 19:59	1
Chrysene	2.0	U	2.0	0.91	ug/L		05/11/24 09:02	05/11/24 19:59	1
Dibenz(a,h)anthracene	1.0	U	1.0	0.72	ug/L		05/11/24 09:02	05/11/24 19:59	1
Dibenzofuran	10	U	10	1.1	ug/L		05/11/24 09:02	05/11/24 19:59	1
Diethyl phthalate	10	U	10	0.98	ug/L		05/11/24 09:02	05/11/24 19:59	1
Dimethyl phthalate	10	U	10	0.77	ug/L		05/11/24 09:02	05/11/24 19:59	1
Di-n-butyl phthalate	10	U	10	0.84	ug/L		05/11/24 09:02	05/11/24 19:59	1
Di-n-octyl phthalate	10	U	10	0.75	ug/L		05/11/24 09:02	05/11/24 19:59	1
Fluoranthene	10	U	10	0.84	ug/L		05/11/24 09:02	05/11/24 19:59	1
Fluorene	10	U	10	0.91	ug/L		05/11/24 09:02	05/11/24 19:59	1
Hexachlorobenzene	1.0	U	1.0	0.40	ug/L		05/11/24 09:02	05/11/24 19:59	1
Hexachlorobutadiene	1.0	U	1.0	0.78	ug/L		05/11/24 09:02	05/11/24 19:59	1
Hexachlorocyclopentadiene	10	U	10	3.6	ug/L		05/11/24 09:02	05/11/24 19:59	1
Hexachloroethane	2.0	U	2.0	0.80	ug/L		05/11/24 09:02	05/11/24 19:59	1
Indeno[1,2,3-cd]pyrene	2.0	U	2.0	0.94	ug/L		05/11/24 09:02	05/11/24 19:59	1
Isophorone	10	U	10	0.80	ug/L		05/11/24 09:02	05/11/24 19:59	1
Naphthalene	2.0	U	2.0	0.54	ug/L		05/11/24 09:02	05/11/24 19:59	1
Nitrobenzene	1.0	U	1.0	0.57	ug/L		05/11/24 09:02	05/11/24 19:59	1
N-Nitrosodi-n-propylamine	1.0	U	1.0	0.43	ug/L		05/11/24 09:02	05/11/24 19:59	1
N-Nitrosodiphenylamine	10	U	10	0.89	ug/L		05/11/24 09:02	05/11/24 19:59	1
Pentachlorophenol	20	U	20	1.4	ug/L		05/11/24 09:02	05/11/24 19:59	1
Phenanthrene	10	U	10	1.3	ug/L		05/11/24 09:02	05/11/24 19:59	1
Phenol	10	U	10	0.29	ug/L		05/11/24 09:02	05/11/24 19:59	1
Pyrene	10	U	10	1.6	ug/L		05/11/24 09:02	05/11/24 19:59	1
3 & 4 Methylphenol	10	U	10	0.64	ug/L		05/11/24 09:02	05/11/24 19:59	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol (Surr)	*89*		*37 - 150*	*05/11/24 09:02*	*05/11/24 19:59*	*1*
2-Fluorobiphenyl	*80*		*46 - 139*	*05/11/24 09:02*	*05/11/24 19:59*	*1*
2-Fluorophenol (Surr)	*49*		*16 - 80*	*05/11/24 09:02*	*05/11/24 19:59*	*1*
Nitrobenzene-d5 (Surr)	*81*		*51 - 145*	*05/11/24 09:02*	*05/11/24 19:59*	*1*
Phenol-d5 (Surr)	*35*		*10 - 56*	*05/11/24 09:02*	*05/11/24 19:59*	*1*
Terphenyl-d14 (Surr)	*19*		*13 - 150*	*05/11/24 09:02*	*05/11/24 19:59*	*1*

Client Sample ID: MW-22D
Date Collected: 05/09/24 11:35
Date Received: 05/09/24 20:00

Lab Sample ID: 460-303613-4
Matrix: Water

Method: SW846 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	1.0	U	1.0	0.24	ug/L			05/14/24 20:04	1
1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.37	ug/L			05/14/24 20:04	1
1,1,2-Trichloro-1,2,2-trifluoroethane	1.0	U	1.0	0.31	ug/L			05/14/24 20:04	1
1,1,2-Trichloroethane	1.0	U	1.0	0.20	ug/L			05/14/24 20:04	1
1,1-Dichloroethane	1.0	U	1.0	0.26	ug/L			05/14/24 20:04	1
1,1-Dichloroethene	1.0	U	1.0	0.26	ug/L			05/14/24 20:04	1
1,2,4-Trichlorobenzene	1.0	U	1.0	0.37	ug/L			05/14/24 20:04	1
1,2-Dibromo-3-Chloropropane	1.0	U J	1.0	0.38	ug/L			05/14/24 20:04	1
1,2-Dichlorobenzene	1.0	U	1.0	0.21	ug/L			05/14/24 20:04	1
1,2-Dichloroethane	1.0	U	1.0	0.43	ug/L			05/14/24 20:04	1
1,2-Dichloropropane	1.0	U	1.0	0.35	ug/L			05/14/24 20:04	1
1,3-Dichlorobenzene	1.0	U	1.0	0.34	ug/L			05/14/24 20:04	1
1,4-Dichlorobenzene	1.0	U	1.0	0.33	ug/L			05/14/24 20:04	1
1,4-Dioxane	50	U	50	28	ug/L			05/14/24 20:04	1
2-Butanone (MEK)	5.0	U	5.0	1.9	ug/L			05/14/24 20:04	1
2-Hexanone	5.0	U	5.0	1.1	ug/L			05/14/24 20:04	1
4-Methyl-2-pentanone (MIBK)	5.0	U	5.0	1.3	ug/L			05/14/24 20:04	1
Acetone	5.0	U	5.0	4.4	ug/L			05/14/24 20:04	1
Benzene	1.0	U	1.0	0.20	ug/L			05/14/24 20:04	1
Bromoform	1.0	U	1.0	0.54	ug/L			05/14/24 20:04	1
Bromomethane	1.0	U	1.0	0.55	ug/L			05/14/24 20:04	1
Carbon disulfide	1.0	U	1.0	0.82	ug/L			05/14/24 20:04	1
Carbon tetrachloride	1.0	U	1.0	0.21	ug/L			05/14/24 20:04	1
Chlorobenzene	1.0	U	1.0	0.38	ug/L			05/14/24 20:04	1
Dibromochloromethane	1.0	U	1.0	0.28	ug/L			05/14/24 20:04	1
Chloroethane	1.0	U	1.0	0.32	ug/L			05/14/24 20:04	1
Chloroform	**0.85**	**J**	1.0	0.33	ug/L			05/14/24 20:04	1
Chloromethane	1.0	U	1.0	0.40	ug/L			05/14/24 20:04	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.22	ug/L			05/14/24 20:04	1
cis-1,3-Dichloropropene	1.0	U	1.0	0.22	ug/L			05/14/24 20:04	1
Cyclohexane	1.0	U	1.0	0.32	ug/L			05/14/24 20:04	1
Bromodichloromethane	1.0	U	1.0	0.34	ug/L			05/14/24 20:04	1
Dichlorodifluoromethane	1.0	U	1.0	0.31	ug/L			05/14/24 20:04	1
Ethylbenzene	1.0	U	1.0	0.30	ug/L			05/14/24 20:04	1
1,2-Dibromoethane	1.0	U	1.0	0.50	ug/L			05/14/24 20:04	1
Isopropylbenzene	1.0	U	1.0	0.34	ug/L			05/14/24 20:04	1
Methyl acetate	5.0	U	5.0	0.79	ug/L			05/14/24 20:04	1
Methyl tert-butyl ether	1.0	U	1.0	0.22	ug/L			05/14/24 20:04	1
Methylcyclohexane	1.0	U	1.0	0.71	ug/L			05/14/24 20:04	1
Methylene Chloride	1.0	U	1.0	0.32	ug/L			05/14/24 20:04	1
Styrene	1.0	U	1.0	0.42	ug/L			05/14/24 20:04	1
Tetrachloroethene	1.0	U	1.0	0.25	ug/L			05/14/24 20:04	1
Toluene	1.0	U	1.0	0.38	ug/L			05/14/24 20:04	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.24	ug/L			05/14/24 20:04	1
trans-1,3-Dichloropropene	1.0	U	1.0	0.22	ug/L			05/14/24 20:04	1
Trichloroethene	1.0	U	1.0	0.31	ug/L			05/14/24 20:04	1
Trichlorofluoromethane	1.0	U	1.0	0.32	ug/L			05/14/24 20:04	1
Vinyl chloride	1.0	U	1.0	0.17	ug/L			05/14/24 20:04	1
Xylenes, Total	2.0	U	2.0	0.65	ug/L			05/14/24 20:04	1

Client Sample ID: MW-22D
Date Collected: 05/09/24 11:35
Date Received: 05/09/24 20:00

Lab Sample ID: 460-303613-4
Matrix: Water

Method: SW846 8260D - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
n-Butylbenzene	1.0	U	1.0	0.32	ug/L			05/14/24 20:04	1
1,2,4-Trimethylbenzene	1.0	U	1.0	0.37	ug/L			05/14/24 20:04	1
sec-Butylbenzene	1.0	U	1.0	0.37	ug/L			05/14/24 20:04	1
N-Propylbenzene	1.0	U	1.0	0.32	ug/L			05/14/24 20:04	1
1,3,5-Trimethylbenzene	1.0	U	1.0	0.33	ug/L			05/14/24 20:04	1
tert-Butylbenzene	1.0	U	1.0	0.34	ug/L			05/14/24 20:04	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*108*		*70 - 128*		*05/14/24 20:04*	*1*
4-Bromofluorobenzene	*96*		*76 - 120*		*05/14/24 20:04*	*1*
Dibromofluoromethane (Surr)	*104*		*77 - 132*		*05/14/24 20:04*	*1*
Toluene-d8 (Surr)	*98*		*80 - 120*		*05/14/24 20:04*	*1*

Method: SW846 8270E - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1'-Biphenyl	10	U	10	1.2	ug/L		05/11/24 09:02	05/11/24 20:20	1
2,2'-oxybis[1-chloropropane]	10	U	10	0.63	ug/L		05/11/24 09:02	05/11/24 20:20	1
2,4,5-Trichlorophenol	10	U	10	0.88	ug/L		05/11/24 09:02	05/11/24 20:20	1
2,4,6-Trichlorophenol	10	U	10	0.86	ug/L		05/11/24 09:02	05/11/24 20:20	1
2,4-Dichlorophenol	10	U	10	1.1	ug/L		05/11/24 09:02	05/11/24 20:20	1
2,4-Dimethylphenol	10	U	10	0.62	ug/L		05/11/24 09:02	05/11/24 20:20	1
2,4-Dinitrophenol	40	U	40	2.6	ug/L		05/11/24 09:02	05/11/24 20:20	1
2,4-Dinitrotoluene	10	U	10	1.0	ug/L		05/11/24 09:02	05/11/24 20:20	1
2,6-Dinitrotoluene	2.0	U	2.0	0.83	ug/L		05/11/24 09:02	05/11/24 20:20	1
2-Chloronaphthalene	10	U	10	1.2	ug/L		05/11/24 09:02	05/11/24 20:20	1
2-Chlorophenol	10	U	10	0.38	ug/L		05/11/24 09:02	05/11/24 20:20	1
2-Methylnaphthalene	10	U	10	0.53	ug/L		05/11/24 09:02	05/11/24 20:20	1
2-Methylphenol	10	U	10	0.67	ug/L		05/11/24 09:02	05/11/24 20:20	1
2-Nitroaniline	10	U	10	0.47	ug/L		05/11/24 09:02	05/11/24 20:20	1
2-Nitrophenol	10	U	10	0.75	ug/L		05/11/24 09:02	05/11/24 20:20	1
3,3'-Dichlorobenzidine	10	U	10	1.4	ug/L		05/11/24 09:02	05/11/24 20:20	1
3-Nitroaniline	10	U	10	1.9	ug/L		05/11/24 09:02	05/11/24 20:20	1
4,6-Dinitro-2-methylphenol	20	U	20	3.0	ug/L		05/11/24 09:02	05/11/24 20:20	1
4-Bromophenyl phenyl ether	10	U	10	0.75	ug/L		05/11/24 09:02	05/11/24 20:20	1
4-Chloro-3-methylphenol	10	U	10	0.58	ug/L		05/11/24 09:02	05/11/24 20:20	1
4-Chloroaniline	10	U J	10	1.9	ug/L		05/11/24 09:02	05/11/24 20:20	1
4-Chlorophenyl phenyl ether	10	U	10	1.3	ug/L		05/11/24 09:02	05/11/24 20:20	1
4-Nitroaniline	10	U	10	1.2	ug/L		05/11/24 09:02	05/11/24 20:20	1
4-Nitrophenol	20	U	20	4.0	ug/L		05/11/24 09:02	05/11/24 20:20	1
Acenaphthene	10	U	10	1.1	ug/L		05/11/24 09:02	05/11/24 20:20	1
Acenaphthylene	10	U	10	0.82	ug/L		05/11/24 09:02	05/11/24 20:20	1
Acetophenone	10	U	10	2.3	ug/L		05/11/24 09:02	05/11/24 20:20	1
Anthracene	10	U	10	1.3	ug/L		05/11/24 09:02	05/11/24 20:20	1
Atrazine	2.0	U	2.0	1.3	ug/L		05/11/24 09:02	05/11/24 20:20	1
Benzaldehyde	10	U	10	2.1	ug/L		05/11/24 09:02	05/11/24 20:20	1
Benzo[a]anthracene	1.0	U	1.0	0.59	ug/L		05/11/24 09:02	05/11/24 20:20	1
Benzo[a]pyrene	1.0	U	1.0	0.41	ug/L		05/11/24 09:02	05/11/24 20:20	1
Benzo[b]fluoranthene	2.0	U	2.0	0.68	ug/L		05/11/24 09:02	05/11/24 20:20	1
Benzo[g,h,i]perylene	10	U	10	0.70	ug/L		05/11/24 09:02	05/11/24 20:20	1
Benzo[k]fluoranthene	1.0	U	1.0	0.67	ug/L		05/11/24 09:02	05/11/24 20:20	1

Client Sample ID: MW-22D
Date Collected: 05/09/24 11:35
Date Received: 05/09/24 20:00

Lab Sample ID: 460-303613-4
Matrix: Water

Method: SW846 8270E - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bis(2-chloroethoxy)methane	10	U	10	0.59	ug/L		05/11/24 09:02	05/11/24 20:20	1
Bis(2-chloroethyl)ether	1.0	U	1.0	0.63	ug/L		05/11/24 09:02	05/11/24 20:20	1
Bis(2-ethylhexyl) phthalate	2.0	U	2.0	0.80	ug/L		05/11/24 09:02	05/11/24 20:20	1
Butyl benzyl phthalate	10	U	10	0.85	ug/L		05/11/24 09:02	05/11/24 20:20	1
Caprolactam	10	U J	10	2.2	ug/L		05/11/24 09:02	05/11/24 20:20	1
Carbazole	10	U	10	0.68	ug/L		05/11/24 09:02	05/11/24 20:20	1
Chrysene	2.0	U	2.0	0.91	ug/L		05/11/24 09:02	05/11/24 20:20	1
Dibenz(a,h)anthracene	1.0	U	1.0	0.72	ug/L		05/11/24 09:02	05/11/24 20:20	1
Dibenzofuran	10	U	10	1.1	ug/L		05/11/24 09:02	05/11/24 20:20	1
Diethyl phthalate	10	U	10	0.98	ug/L		05/11/24 09:02	05/11/24 20:20	1
Dimethyl phthalate	10	U	10	0.77	ug/L		05/11/24 09:02	05/11/24 20:20	1
Di-n-butyl phthalate	10	U	10	0.84	ug/L		05/11/24 09:02	05/11/24 20:20	1
Di-n-octyl phthalate	10	U	10	0.75	ug/L		05/11/24 09:02	05/11/24 20:20	1
Fluoranthene	10	U	10	0.84	ug/L		05/11/24 09:02	05/11/24 20:20	1
Fluorene	10	U	10	0.91	ug/L		05/11/24 09:02	05/11/24 20:20	1
Hexachlorobenzene	1.0	U	1.0	0.40	ug/L		05/11/24 09:02	05/11/24 20:20	1
Hexachlorobutadiene	1.0	U	1.0	0.78	ug/L		05/11/24 09:02	05/11/24 20:20	1
Hexachlorocyclopentadiene	10	U	10	3.6	ug/L		05/11/24 09:02	05/11/24 20:20	1
Hexachloroethane	2.0	U	2.0	0.80	ug/L		05/11/24 09:02	05/11/24 20:20	1
Indeno[1,2,3-cd]pyrene	2.0	U	2.0	0.94	ug/L		05/11/24 09:02	05/11/24 20:20	1
Isophorone	10	U	10	0.80	ug/L		05/11/24 09:02	05/11/24 20:20	1
Naphthalene	2.0	U	2.0	0.54	ug/L		05/11/24 09:02	05/11/24 20:20	1
Nitrobenzene	1.0	U	1.0	0.57	ug/L		05/11/24 09:02	05/11/24 20:20	1
N-Nitrosodi-n-propylamine	1.0	U	1.0	0.43	ug/L		05/11/24 09:02	05/11/24 20:20	1
N-Nitrosodiphenylamine	10	U	10	0.89	ug/L		05/11/24 09:02	05/11/24 20:20	1
Pentachlorophenol	20	U	20	1.4	ug/L		05/11/24 09:02	05/11/24 20:20	1
Phenanthrene	10	U	10	1.3	ug/L		05/11/24 09:02	05/11/24 20:20	1
Phenol	10	U	10	0.29	ug/L		05/11/24 09:02	05/11/24 20:20	1
Pyrene	10	U	10	1.6	ug/L		05/11/24 09:02	05/11/24 20:20	1
3 & 4 Methylphenol	10	U	10	0.64	ug/L		05/11/24 09:02	05/11/24 20:20	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol (Surr)	*109*		*37 - 150*	*05/11/24 09:02*	*05/11/24 20:20*	*1*
2-Fluorobiphenyl	*90*		*46 - 139*	*05/11/24 09:02*	*05/11/24 20:20*	*1*
2-Fluorophenol (Surr)	*56*		*16 - 80*	*05/11/24 09:02*	*05/11/24 20:20*	*1*
Nitrobenzene-d5 (Surr)	*93*		*51 - 145*	*05/11/24 09:02*	*05/11/24 20:20*	*1*
Phenol-d5 (Surr)	*40*		*10 - 56*	*05/11/24 09:02*	*05/11/24 20:20*	*1*
Terphenyl-d14 (Surr)	*26*		*13 - 150*	*05/11/24 09:02*	*05/11/24 20:20*	*1*

Client Sample ID: MW-21S
Date Collected: 05/09/24 15:05
Date Received: 05/09/24 20:00

Lab Sample ID: 460-303613-5
Matrix: Water

Method: SW846 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	1.0	U	1.0	0.24	ug/L			05/14/24 20:24	1
1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.37	ug/L			05/14/24 20:24	1
1,1,2-Trichloro-1,2,2-trifluoroethane	1.0	U	1.0	0.31	ug/L			05/14/24 20:24	1
1,1,2-Trichloroethane	1.0	U	1.0	0.20	ug/L			05/14/24 20:24	1
1,1-Dichloroethane	1.0	U	1.0	0.26	ug/L			05/14/24 20:24	1

Client Sample ID: MW-21S
Date Collected: 05/09/24 15:05
Date Received: 05/09/24 20:00

Lab Sample ID: 460-303613-5
Matrix: Water

Method: SW846 8260D - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier		RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1-Dichloroethene	1.0	U		1.0	0.26	ug/L			05/14/24 20:24	1
1,2,4-Trichlorobenzene	1.0	U		1.0	0.37	ug/L			05/14/24 20:24	1
1,2-Dibromo-3-Chloropropane	1.0	U	J	1.0	0.38	ug/L			05/14/24 20:24	1
1,2-Dichlorobenzene	1.0	U		1.0	0.21	ug/L			05/14/24 20:24	1
1,2-Dichloroethane	1.0	U		1.0	0.43	ug/L			05/14/24 20:24	1
1,2-Dichloropropane	1.0	U		1.0	0.35	ug/L			05/14/24 20:24	1
1,3-Dichlorobenzene	1.0	U		1.0	0.34	ug/L			05/14/24 20:24	1
1,4-Dichlorobenzene	1.0	U		1.0	0.33	ug/L			05/14/24 20:24	1
1,4-Dioxane	50	U		50	28	ug/L			05/14/24 20:24	1
2-Butanone (MEK)	5.0	U		5.0	1.9	ug/L			05/14/24 20:24	1
2-Hexanone	5.0	U		5.0	1.1	ug/L			05/14/24 20:24	1
4-Methyl-2-pentanone (MIBK)	5.0	U		5.0	1.3	ug/L			05/14/24 20:24	1
Acetone	5.0	U		5.0	4.4	ug/L			05/14/24 20:24	1
Benzene	1.0	U		1.0	0.20	ug/L			05/14/24 20:24	1
Bromoform	1.0	U		1.0	0.54	ug/L			05/14/24 20:24	1
Bromomethane	1.0	U		1.0	0.55	ug/L			05/14/24 20:24	1
Carbon disulfide	1.0	U		1.0	0.82	ug/L			05/14/24 20:24	1
Carbon tetrachloride	1.0	U		1.0	0.21	ug/L			05/14/24 20:24	1
Chlorobenzene	1.0	U		1.0	0.38	ug/L			05/14/24 20:24	1
Dibromochloromethane	1.0	U		1.0	0.28	ug/L			05/14/24 20:24	1
Chloroethane	1.0	U		1.0	0.32	ug/L			05/14/24 20:24	1
Chloroform	1.0	U		1.0	0.33	ug/L			05/14/24 20:24	1
Chloromethane	1.0	U		1.0	0.40	ug/L			05/14/24 20:24	1
cis-1,2-Dichloroethene	1.0	U		1.0	0.22	ug/L			05/14/24 20:24	1
cis-1,3-Dichloropropene	1.0	U		1.0	0.22	ug/L			05/14/24 20:24	1
Cyclohexane	1.0	U		1.0	0.32	ug/L			05/14/24 20:24	1
Bromodichloromethane	1.0	U		1.0	0.34	ug/L			05/14/24 20:24	1
Dichlorodifluoromethane	1.0	U		1.0	0.31	ug/L			05/14/24 20:24	1
Ethylbenzene	1.0	U		1.0	0.30	ug/L			05/14/24 20:24	1
1,2-Dibromoethane	1.0	U		1.0	0.50	ug/L			05/14/24 20:24	1
Isopropylbenzene	1.0	U		1.0	0.34	ug/L			05/14/24 20:24	1
Methyl acetate	5.0	U		5.0	0.79	ug/L			05/14/24 20:24	1
Methyl tert-butyl ether	1.0	U		1.0	0.22	ug/L			05/14/24 20:24	1
Methylcyclohexane	1.0	U		1.0	0.71	ug/L			05/14/24 20:24	1
Methylene Chloride	1.0	U		1.0	0.32	ug/L			05/14/24 20:24	1
Styrene	1.0	U		1.0	0.42	ug/L			05/14/24 20:24	1
Tetrachloroethene	1.0	U		1.0	0.25	ug/L			05/14/24 20:24	1
Toluene	1.0	U		1.0	0.38	ug/L			05/14/24 20:24	1
trans-1,2-Dichloroethene	1.0	U		1.0	0.24	ug/L			05/14/24 20:24	1
trans-1,3-Dichloropropene	1.0	U		1.0	0.22	ug/L			05/14/24 20:24	1
Trichloroethene	1.0	U		1.0	0.31	ug/L			05/14/24 20:24	1
Trichlorofluoromethane	1.0	U		1.0	0.32	ug/L			05/14/24 20:24	1
Vinyl chloride	1.0	U		1.0	0.17	ug/L			05/14/24 20:24	1
Xylenes, Total	2.0	U		2.0	0.65	ug/L			05/14/24 20:24	1
n-Butylbenzene	1.0	U		1.0	0.32	ug/L			05/14/24 20:24	1
1,2,4-Trimethylbenzene	1.0	U		1.0	0.37	ug/L			05/14/24 20:24	1
sec-Butylbenzene	1.0	U		1.0	0.37	ug/L			05/14/24 20:24	1
N-Propylbenzene	1.0	U		1.0	0.32	ug/L			05/14/24 20:24	1
1,3,5-Trimethylbenzene	1.0	U		1.0	0.33	ug/L			05/14/24 20:24	1

Client Sample ID: MW-21S
Date Collected: 05/09/24 15:05
Date Received: 05/09/24 20:00

Lab Sample ID: 460-303613-5
Matrix: Water

Method: SW846 8260D - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
tert-Butylbenzene	1.0	U	1.0	0.34	ug/L			05/14/24 20:24	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*102*		*70 - 128*		*05/14/24 20:24*	*1*
4-Bromofluorobenzene	*95*		*76 - 120*		*05/14/24 20:24*	*1*
Dibromofluoromethane (Surr)	*101*		*77 - 132*		*05/14/24 20:24*	*1*
Toluene-d8 (Surr)	*100*		*80 - 120*		*05/14/24 20:24*	*1*

Method: SW846 8270E - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1'-Biphenyl	10	U	10	1.2	ug/L		05/12/24 09:25	05/12/24 14:43	1
2,2'-oxybis[1-chloropropane]	10	U	10	0.63	ug/L		05/12/24 09:25	05/12/24 14:43	1
2,4,5-Trichlorophenol	10	U	10	0.88	ug/L		05/12/24 09:25	05/12/24 14:43	1
2,4,6-Trichlorophenol	10	U	10	0.86	ug/L		05/12/24 09:25	05/12/24 14:43	1
2,4-Dichlorophenol	10	U	10	1.1	ug/L		05/12/24 09:25	05/12/24 14:43	1
2,4-Dimethylphenol	10	U	10	0.62	ug/L		05/12/24 09:25	05/12/24 14:43	1
2,4-Dinitrophenol	40	U * J	40	2.6	ug/L		05/12/24 09:25	05/12/24 14:43	1
2,4-Dinitrotoluene	10	U J	10	1.0	ug/L		05/12/24 09:25	05/12/24 14:43	1
2,6-Dinitrotoluene	2.0	U J	2.0	0.83	ug/L		05/12/24 09:25	05/12/24 14:43	1
2-Chloronaphthalene	10	U	10	1.2	ug/L		05/12/24 09:25	05/12/24 14:43	1
2-Chlorophenol	10	U	10	0.38	ug/L		05/12/24 09:25	05/12/24 14:43	1
2-Methylnaphthalene	10	U	10	0.53	ug/L		05/12/24 09:25	05/12/24 14:43	1
2-Methylphenol	10	U	10	0.67	ug/L		05/12/24 09:25	05/12/24 14:43	1
2-Nitroaniline	10	U	10	0.47	ug/L		05/12/24 09:25	05/12/24 14:43	1
2-Nitrophenol	10	U	10	0.75	ug/L		05/12/24 09:25	05/12/24 14:43	1
3,3'-Dichlorobenzidine	10	U J	10	1.4	ug/L		05/12/24 09:25	05/12/24 14:43	1
3-Nitroaniline	10	U J	10	1.9	ug/L		05/12/24 09:25	05/12/24 14:43	1
4,6-Dinitro-2-methylphenol	20	U J	20	3.0	ug/L		05/12/24 09:25	05/12/24 14:43	1
4-Bromophenyl phenyl ether	10	U	10	0.75	ug/L		05/12/24 09:25	05/12/24 14:43	1
4-Chloro-3-methylphenol	10	U	10	0.58	ug/L		05/12/24 09:25	05/12/24 14:43	1
4-Chloroaniline	10	U J	10	1.9	ug/L		05/12/24 09:25	05/12/24 14:43	1
4-Chlorophenyl phenyl ether	10	U	10	1.3	ug/L		05/12/24 09:25	05/12/24 14:43	1
4-Nitroaniline	10	U J	10	1.2	ug/L		05/12/24 09:25	05/12/24 14:43	1
4-Nitrophenol	20	U	20	4.0	ug/L		05/12/24 09:25	05/12/24 14:43	1
Acenaphthene	10	U	10	1.1	ug/L		05/12/24 09:25	05/12/24 14:43	1
Acenaphthylene	10	U	10	0.82	ug/L		05/12/24 09:25	05/12/24 14:43	1
Acetophenone	10	U	10	2.3	ug/L		05/12/24 09:25	05/12/24 14:43	1
Anthracene	10	U	10	1.3	ug/L		05/12/24 09:25	05/12/24 14:43	1
Atrazine	2.0	U *	2.0	1.3	ug/L		05/12/24 09:25	05/12/24 14:43	1
Benzaldehyde	10	U *	10	2.1	ug/L		05/12/24 09:25	05/12/24 14:43	1
Benzo[a]anthracene	1.0	U	1.0	0.59	ug/L		05/12/24 09:25	05/12/24 14:43	1
Benzo[a]pyrene	1.0	U	1.0	0.41	ug/L		05/12/24 09:25	05/12/24 14:43	1
Benzo[b]fluoranthene	2.0	U	2.0	0.68	ug/L		05/12/24 09:25	05/12/24 14:43	1
Benzo[g,h,i]perylene	10	U	10	0.70	ug/L		05/12/24 09:25	05/12/24 14:43	1
Benzo[k]fluoranthene	1.0	U	1.0	0.67	ug/L		05/12/24 09:25	05/12/24 14:43	1
Bis(2-chloroethoxy)methane	10	U	10	0.59	ug/L		05/12/24 09:25	05/12/24 14:43	1
Bis(2-chloroethyl)ether	1.0	U	1.0	0.63	ug/L		05/12/24 09:25	05/12/24 14:43	1
Bis(2-ethylhexyl) phthalate	2.0	U	2.0	0.80	ug/L		05/12/24 09:25	05/12/24 14:43	1
Butyl benzyl phthalate	10	U	10	0.85	ug/L		05/12/24 09:25	05/12/24 14:43	1
Caprolactam	10	U J	10	2.2	ug/L		05/12/24 09:25	05/12/24 14:43	1

Client Sample ID: MW-21S
Date Collected: 05/09/24 15:05
Date Received: 05/09/24 20:00

Lab Sample ID: 460-303613-5
Matrix: Water

Method: SW846 8270E - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Carbazole	10	U	10	0.68	ug/L		05/12/24 09:25	05/12/24 14:43	1
Chrysene	2.0	U	2.0	0.91	ug/L		05/12/24 09:25	05/12/24 14:43	1
Dibenz(a,h)anthracene	1.0	U	1.0	0.72	ug/L		05/12/24 09:25	05/12/24 14:43	1
Dibenzofuran	10	U	10	1.1	ug/L		05/12/24 09:25	05/12/24 14:43	1
Diethyl phthalate	10	U	10	0.98	ug/L		05/12/24 09:25	05/12/24 14:43	1
Dimethyl phthalate	10	U	10	0.77	ug/L		05/12/24 09:25	05/12/24 14:43	1
Di-n-butyl phthalate	10	U	10	0.84	ug/L		05/12/24 09:25	05/12/24 14:43	1
Di-n-octyl phthalate	10	U	10	0.75	ug/L		05/12/24 09:25	05/12/24 14:43	1
Fluoranthene	10	U	10	0.84	ug/L		05/12/24 09:25	05/12/24 14:43	1
Fluorene	10	U	10	0.91	ug/L		05/12/24 09:25	05/12/24 14:43	1
Hexachlorobenzene	1.0	U	1.0	0.40	ug/L		05/12/24 09:25	05/12/24 14:43	1
Hexachlorobutadiene	1.0	U	1.0	0.78	ug/L		05/12/24 09:25	05/12/24 14:43	1
Hexachlorocyclopentadiene	10	U	10	3.6	ug/L		05/12/24 09:25	05/12/24 14:43	1
Hexachloroethane	2.0	U	2.0	0.80	ug/L		05/12/24 09:25	05/12/24 14:43	1
Indeno[1,2,3-cd]pyrene	2.0	U	2.0	0.94	ug/L		05/12/24 09:25	05/12/24 14:43	1
Isophorone	10	U	10	0.80	ug/L		05/12/24 09:25	05/12/24 14:43	1
Naphthalene	2.0	U	2.0	0.54	ug/L		05/12/24 09:25	05/12/24 14:43	1
Nitrobenzene	1.0	U	1.0	0.57	ug/L		05/12/24 09:25	05/12/24 14:43	1
N-Nitrosodi-n-propylamine	1.0	U	1.0	0.43	ug/L		05/12/24 09:25	05/12/24 14:43	1
N-Nitrosodiphenylamine	10	U	10	0.89	ug/L		05/12/24 09:25	05/12/24 14:43	1
Pentachlorophenol	20	U J	20	1.4	ug/L		05/12/24 09:25	05/12/24 14:43	1
Phenanthrene	10	U	10	1.3	ug/L		05/12/24 09:25	05/12/24 14:43	1
Phenol	10	U	10	0.29	ug/L		05/12/24 09:25	05/12/24 14:43	1
Pyrene	10	U	10	1.6	ug/L		05/12/24 09:25	05/12/24 14:43	1
3 & 4 Methylphenol	10	U	10	0.64	ug/L		05/12/24 09:25	05/12/24 14:43	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol (Surr)	*117*		*37 - 150*	*05/12/24 09:25*	*05/12/24 14:43*	*1*
2-Fluorobiphenyl	*81*		*46 - 139*	*05/12/24 09:25*	*05/12/24 14:43*	*1*
2-Fluorophenol (Surr)	*60*		*16 - 80*	*05/12/24 09:25*	*05/12/24 14:43*	*1*
Nitrobenzene-d5 (Surr)	*90*		*51 - 145*	*05/12/24 09:25*	*05/12/24 14:43*	*1*
Phenol-d5 (Surr)	*41*		*10 - 56*	*05/12/24 09:25*	*05/12/24 14:43*	*1*
Terphenyl-d14 (Surr)	*62*		*13 - 150*	*05/12/24 09:25*	*05/12/24 14:43*	*1*

Eurofins Environment Testing Northeast, LLC
777 New Durham Road
Edison, NJ 08817
Phone (732) 549-3900 Fax (732) 549-3679

Chain of Custody Record

Client Information	Sampler: Alyssa R Hynes	Lab PM: Gilmore, Julie	Carrier Tracking No(s):	COC No:
Client Contact: Steven Feldman	Phone: 516-297-14606	E-Mail: Julie.Gilmore@et.eurofinsus.com		Page: Page 1 of 1
Company: Arcadis of New York, Inc.				Job #: 303677
Address: 105 Maxess Road Suite N108	Due Date Requested:			
City: Melville	TAT Requested (days): 5 Days			
State, Zip: NY 11747				
Phone: (631) 249-7600	PO #:			
Email: Steven.Feldman@arcadis.com	WO #: 30205663.04.042624			
Project Name: Former Dangman Park MGP Site	Project #: 30205663.04			
Site: Former Dangman Park MGP Site	SSOW#:			

Analysis Requested

Preservation Codes:
A HCL, B NaOH, C Zn Acetate, D Nitric Acid, E NaHSO4, F MeOH, G Amchlor, H Ascorbic Acid, I Ice, J DI Water, K EDTA, L EDA, M Hexane, N None, O AsNaO2, P Na2O4S, Q Na2SO3, R Na2S2O3, S H2SO4, T TSP Dodecahydrate, U Acetone, V MCAA, W pH 4-5, Z other (specify)
Other:

460-303677 Chain of Custody

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	VOCs (8260)	SVOCs (8270)	Total Number of containers	Special Instructions/Note:
			Preservation Code:				A	I		
TBD51024	5/10/24	—	G	W	N	N	X			
EBD51024	5/10/24	0830	G	W	N	N	X	X		
MW-21D	5/10/24	0930	G	W	N	N	X	X		
DUP051024	5/10/24	—	G	W	N	N	X	X		

5-Day RUSH

NYC 212

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Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☒ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☒ Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Alyssa R Hynes	5/10/24 1230	Arcadis		5/10/24 15	
Relinquished by:	Date/Time:	Company	Received by:	Date/Time: 5/10/24 1700	Company
Relinquished by:	Date/Time: 5/10/24 2000	Company	Received by:	Date/Time: 5/10/24 2000	Company EUTA

Custody Seals Intact: Δ Yes Δ No | Custody Seal No.:

Cooler Temperature(s) °C and Other Remarks:

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Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
*	LCS or LCSD is outside acceptance limits.
U	Analyzed for but not detected.

GC/MS Semi VOA

Qualifier	Qualifier Description
*	LCS or LCSD is outside acceptance limits.
E	Compound concentration exceeds the upper level of the calibration range of the instrument for that specific analysis.
U	Analyzed for but not detected.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Client Sample ID: TB051024 Lab Sample ID: 460-303677-1

Date Collected: 05/10/24 00:00 **Matrix: Water**
Date Received: 05/10/24 20:00

Method: SW846 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	1.0	U	1.0	0.24	ug/L			05/15/24 09:03	1
1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.37	ug/L			05/15/24 09:03	1
1,1,2-Trichloro-1,2,2-trifluoroethane	1.0	U	1.0	0.31	ug/L			05/15/24 09:03	1
1,1,2-Trichloroethane	1.0	U	1.0	0.20	ug/L			05/15/24 09:03	1
1,1-Dichloroethane	1.0	U	1.0	0.26	ug/L			05/15/24 09:03	1
1,1-Dichloroethene	1.0	U	1.0	0.26	ug/L			05/15/24 09:03	1
1,2,4-Trichlorobenzene	1.0	U	1.0	0.37	ug/L			05/15/24 09:03	1
1,2-Dibromo-3-Chloropropane	1.0	U J	1.0	0.38	ug/L			05/15/24 09:03	1
1,2-Dichlorobenzene	1.0	U	1.0	0.21	ug/L			05/15/24 09:03	1
1,2-Dichloroethane	1.0	U	1.0	0.43	ug/L			05/15/24 09:03	1
1,2-Dichloropropane	1.0	U	1.0	0.35	ug/L			05/15/24 09:03	1
1,3-Dichlorobenzene	1.0	U	1.0	0.34	ug/L			05/15/24 09:03	1
1,4-Dichlorobenzene	1.0	U	1.0	0.33	ug/L			05/15/24 09:03	1
1,4-Dioxane	50	U	50	28	ug/L			05/15/24 09:03	1
2-Butanone (MEK)	5.0	U	5.0	1.9	ug/L			05/15/24 09:03	1
2-Hexanone	5.0	U	5.0	1.1	ug/L			05/15/24 09:03	1
4-Methyl-2-pentanone (MIBK)	5.0	U	5.0	1.3	ug/L			05/15/24 09:03	1
Acetone	5.0	U	5.0	4.4	ug/L			05/15/24 09:03	1
Benzene	1.0	U	1.0	0.20	ug/L			05/15/24 09:03	1
Bromoform	1.0	U J	1.0	0.54	ug/L			05/15/24 09:03	1
Bromomethane	1.0	U	1.0	0.55	ug/L			05/15/24 09:03	1
Carbon disulfide	1.0	U	1.0	0.82	ug/L			05/15/24 09:03	1
Carbon tetrachloride	1.0	U	1.0	0.21	ug/L			05/15/24 09:03	1
Chlorobenzene	1.0	U	1.0	0.38	ug/L			05/15/24 09:03	1
Dibromochloromethane	1.0	U	1.0	0.28	ug/L			05/15/24 09:03	1
Chloroethane	1.0	U	1.0	0.32	ug/L			05/15/24 09:03	1
Chloroform	1.0	U	1.0	0.33	ug/L			05/15/24 09:03	1
Chloromethane	1.0	U	1.0	0.40	ug/L			05/15/24 09:03	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.22	ug/L			05/15/24 09:03	1
cis-1,3-Dichloropropene	1.0	U	1.0	0.22	ug/L			05/15/24 09:03	1
Cyclohexane	1.0	U	1.0	0.32	ug/L			05/15/24 09:03	1
Bromodichloromethane	1.0	U	1.0	0.34	ug/L			05/15/24 09:03	1
Dichlorodifluoromethane	1.0	U J	1.0	0.31	ug/L			05/15/24 09:03	1
Ethylbenzene	1.0	U	1.0	0.30	ug/L			05/15/24 09:03	1
1,2-Dibromoethane	1.0	U	1.0	0.50	ug/L			05/15/24 09:03	1
Isopropylbenzene	1.0	U	1.0	0.34	ug/L			05/15/24 09:03	1
Methyl acetate	5.0	U	5.0	0.79	ug/L			05/15/24 09:03	1
Methyl tert-butyl ether	1.0	U	1.0	0.22	ug/L			05/15/24 09:03	1
Methylcyclohexane	1.0	U	1.0	0.71	ug/L			05/15/24 09:03	1
Methylene Chloride	1.0	U	1.0	0.32	ug/L			05/15/24 09:03	1
Styrene	1.0	U	1.0	0.42	ug/L			05/15/24 09:03	1
Tetrachloroethene	1.0	U	1.0	0.25	ug/L			05/15/24 09:03	1
Toluene	1.0	U	1.0	0.38	ug/L			05/15/24 09:03	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.24	ug/L			05/15/24 09:03	1
trans-1,3-Dichloropropene	1.0	U	1.0	0.22	ug/L			05/15/24 09:03	1
Trichloroethene	1.0	U	1.0	0.31	ug/L			05/15/24 09:03	1
Trichlorofluoromethane	1.0	U	1.0	0.32	ug/L			05/15/24 09:03	1
Vinyl chloride	1.0	U	1.0	0.17	ug/L			05/15/24 09:03	1
n-Butylbenzene	1.0	U	1.0	0.32	ug/L			05/15/24 09:03	1

Client Sample ID: TB051024 — Lab Sample ID: 460-303677-1

Date Collected: 05/10/24 00:00 — **Matrix: Water**
Date Received: 05/10/24 20:00

Method: SW846 8260D - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trimethylbenzene	1.0	U	1.0	0.37	ug/L			05/15/24 09:03	1
sec-Butylbenzene	1.0	U	1.0	0.37	ug/L			05/15/24 09:03	1
N-Propylbenzene	1.0	U	1.0	0.32	ug/L			05/15/24 09:03	1
Xylenes, Total	2.0	U	2.0	0.65	ug/L			05/15/24 09:03	1
1,3,5-Trimethylbenzene	1.0	U	1.0	0.33	ug/L			05/15/24 09:03	1
tert-Butylbenzene	1.0	U	1.0	0.34	ug/L			05/15/24 09:03	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*100*		*70 - 128*		*05/15/24 09:03*	*1*
4-Bromofluorobenzene	*94*		*76 - 120*		*05/15/24 09:03*	*1*
Dibromofluoromethane (Surr)	*100*		*77 - 132*		*05/15/24 09:03*	*1*
Toluene-d8 (Surr)	*101*		*80 - 120*		*05/15/24 09:03*	*1*

Client Sample ID: EB051024 — Lab Sample ID: 460-303677-2

Date Collected: 05/10/24 08:30 — **Matrix: Water**
Date Received: 05/10/24 20:00

Method: SW846 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	1.0	U	1.0	0.24	ug/L			05/15/24 09:22	1
1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.37	ug/L			05/15/24 09:22	1
1,1,2-Trichloro-1,2,2-trifluoroethane	1.0	U	1.0	0.31	ug/L			05/15/24 09:22	1
1,1,2-Trichloroethane	1.0	U	1.0	0.20	ug/L			05/15/24 09:22	1
1,1-Dichloroethane	1.0	U	1.0	0.26	ug/L			05/15/24 09:22	1
1,1-Dichloroethene	1.0	U	1.0	0.26	ug/L			05/15/24 09:22	1
1,2,4-Trichlorobenzene	1.0	U	1.0	0.37	ug/L			05/15/24 09:22	1
1,2-Dibromo-3-Chloropropane	1.0	U J	1.0	0.38	ug/L			05/15/24 09:22	1
1,2-Dichlorobenzene	1.0	U	1.0	0.21	ug/L			05/15/24 09:22	1
1,2-Dichloroethane	1.0	U	1.0	0.43	ug/L			05/15/24 09:22	1
1,2-Dichloropropane	1.0	U	1.0	0.35	ug/L			05/15/24 09:22	1
1,3-Dichlorobenzene	1.0	U	1.0	0.34	ug/L			05/15/24 09:22	1
1,4-Dichlorobenzene	1.0	U	1.0	0.33	ug/L			05/15/24 09:22	1
1,4-Dioxane	50	U	50	28	ug/L			05/15/24 09:22	1
2-Butanone (MEK)	5.0	U	5.0	1.9	ug/L			05/15/24 09:22	1
2-Hexanone	5.0	U	5.0	1.1	ug/L			05/15/24 09:22	1
4-Methyl-2-pentanone (MIBK)	5.0	U	5.0	1.3	ug/L			05/15/24 09:22	1
Acetone	**5.5**		5.0	4.4	ug/L			05/15/24 09:22	1
Benzene	1.0	U	1.0	0.20	ug/L			05/15/24 09:22	1
Bromoform	1.0	U J	1.0	0.54	ug/L			05/15/24 09:22	1
Bromomethane	1.0	U	1.0	0.55	ug/L			05/15/24 09:22	1
Carbon disulfide	1.0	U	1.0	0.82	ug/L			05/15/24 09:22	1
Carbon tetrachloride	1.0	U	1.0	0.21	ug/L			05/15/24 09:22	1
Chlorobenzene	1.0	U	1.0	0.38	ug/L			05/15/24 09:22	1
Dibromochloromethane	1.0	U	1.0	0.28	ug/L			05/15/24 09:22	1
Chloroethane	1.0	U	1.0	0.32	ug/L			05/15/24 09:22	1
Chloroform	1.0	U	1.0	0.33	ug/L			05/15/24 09:22	1
Chloromethane	1.0	U	1.0	0.40	ug/L			05/15/24 09:22	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.22	ug/L			05/15/24 09:22	1
cis-1,3-Dichloropropene	1.0	U	1.0	0.22	ug/L			05/15/24 09:22	1
Cyclohexane	1.0	U	1.0	0.32	ug/L			05/15/24 09:22	1

Client Sample ID: EB051024
Date Collected: 05/10/24 08:30
Date Received: 05/10/24 20:00

Lab Sample ID: 460-303677-2
Matrix: Water

Method: SW846 8260D - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bromodichloromethane	1.0	U	1.0	0.34	ug/L			05/15/24 09:22	1
Dichlorodifluoromethane	1.0	U J	1.0	0.31	ug/L			05/15/24 09:22	1
Ethylbenzene	1.0	U	1.0	0.30	ug/L			05/15/24 09:22	1
1,2-Dibromoethane	1.0	U	1.0	0.50	ug/L			05/15/24 09:22	1
Isopropylbenzene	1.0	U	1.0	0.34	ug/L			05/15/24 09:22	1
Methyl acetate	5.0	U	5.0	0.79	ug/L			05/15/24 09:22	1
Methyl tert-butyl ether	1.0	U	1.0	0.22	ug/L			05/15/24 09:22	1
Methylcyclohexane	1.0	U	1.0	0.71	ug/L			05/15/24 09:22	1
Methylene Chloride	1.0	U	1.0	0.32	ug/L			05/15/24 09:22	1
Styrene	1.0	U	1.0	0.42	ug/L			05/15/24 09:22	1
Tetrachloroethene	1.0	U	1.0	0.25	ug/L			05/15/24 09:22	1
Toluene	1.0	U	1.0	0.38	ug/L			05/15/24 09:22	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.24	ug/L			05/15/24 09:22	1
trans-1,3-Dichloropropene	1.0	U	1.0	0.22	ug/L			05/15/24 09:22	1
Trichloroethene	1.0	U	1.0	0.31	ug/L			05/15/24 09:22	1
Trichlorofluoromethane	1.0	U	1.0	0.32	ug/L			05/15/24 09:22	1
Vinyl chloride	1.0	U	1.0	0.17	ug/L			05/15/24 09:22	1
n-Butylbenzene	1.0	U	1.0	0.32	ug/L			05/15/24 09:22	1
1,2,4-Trimethylbenzene	1.0	U	1.0	0.37	ug/L			05/15/24 09:22	1
sec-Butylbenzene	1.0	U	1.0	0.37	ug/L			05/15/24 09:22	1
N-Propylbenzene	1.0	U	1.0	0.32	ug/L			05/15/24 09:22	1
Xylenes, Total	2.0	U	2.0	0.65	ug/L			05/15/24 09:22	1
1,3,5-Trimethylbenzene	1.0	U	1.0	0.33	ug/L			05/15/24 09:22	1
tert-Butylbenzene	1.0	U	1.0	0.34	ug/L			05/15/24 09:22	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*104*		*70 - 128*		*05/15/24 09:22*	*1*
4-Bromofluorobenzene	*96*		*76 - 120*		*05/15/24 09:22*	*1*
Dibromofluoromethane (Surr)	*101*		*77 - 132*		*05/15/24 09:22*	*1*
Toluene-d8 (Surr)	*102*		*80 - 120*		*05/15/24 09:22*	*1*

Method: SW846 8270E - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1'-Biphenyl	10	U	10	1.2	ug/L		05/12/24 09:25	05/12/24 15:05	1
2,2'-oxybis[1-chloropropane]	10	U	10	0.63	ug/L		05/12/24 09:25	05/12/24 15:05	1
2,4,5-Trichlorophenol	10	U	10	0.88	ug/L		05/12/24 09:25	05/12/24 15:05	1
2,4,6-Trichlorophenol	10	U	10	0.86	ug/L		05/12/24 09:25	05/12/24 15:05	1
2,4-Dichlorophenol	10	U	10	1.1	ug/L		05/12/24 09:25	05/12/24 15:05	1
2,4-Dimethylphenol	10	U	10	0.62	ug/L		05/12/24 09:25	05/12/24 15:05	1
2,4-Dinitrophenol	40	U* J	40	2.6	ug/L		05/12/24 09:25	05/12/24 15:05	1
2,4-Dinitrotoluene	10	U J	10	1.0	ug/L		05/12/24 09:25	05/12/24 15:05	1
2,6-Dinitrotoluene	2.0	U J	2.0	0.83	ug/L		05/12/24 09:25	05/12/24 15:05	1
2-Chloronaphthalene	10	U	10	1.2	ug/L		05/12/24 09:25	05/12/24 15:05	1
2-Chlorophenol	10	U	10	0.38	ug/L		05/12/24 09:25	05/12/24 15:05	1
2-Methylnaphthalene	10	U	10	0.53	ug/L		05/12/24 09:25	05/12/24 15:05	1
2-Methylphenol	10	U	10	0.67	ug/L		05/12/24 09:25	05/12/24 15:05	1
2-Nitroaniline	10	U	10	0.47	ug/L		05/12/24 09:25	05/12/24 15:05	1
2-Nitrophenol	10	U	10	0.75	ug/L		05/12/24 09:25	05/12/24 15:05	1
3,3'-Dichlorobenzidine	10	U	10	1.4	ug/L		05/12/24 09:25	05/12/24 15:05	1
3-Nitroaniline	10	U J	10	1.9	ug/L		05/12/24 09:25	05/12/24 15:05	1

Client Sample ID: EB051024
Date Collected: 05/10/24 08:30
Date Received: 05/10/24 20:00

Lab Sample ID: 460-303677-2
Matrix: Water

Method: SW846 8270E - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4,6-Dinitro-2-methylphenol	20	U J	20	3.0	ug/L		05/12/24 09:25	05/12/24 15:05	1
4-Bromophenyl phenyl ether	10	U	10	0.75	ug/L		05/12/24 09:25	05/12/24 15:05	1
4-Chloro-3-methylphenol	10	U	10	0.58	ug/L		05/12/24 09:25	05/12/24 15:05	1
4-Chloroaniline	10	U J	10	1.9	ug/L		05/12/24 09:25	05/12/24 15:05	1
4-Chlorophenyl phenyl ether	10	U	10	1.3	ug/L		05/12/24 09:25	05/12/24 15:05	1
4-Nitroaniline	10	U J	10	1.2	ug/L		05/12/24 09:25	05/12/24 15:05	1
4-Nitrophenol	20	U	20	4.0	ug/L		05/12/24 09:25	05/12/24 15:05	1
Acenaphthene	10	U	10	1.1	ug/L		05/12/24 09:25	05/12/24 15:05	1
Acenaphthylene	10	U	10	0.82	ug/L		05/12/24 09:25	05/12/24 15:05	1
Acetophenone	10	U	10	2.3	ug/L		05/12/24 09:25	05/12/24 15:05	1
Anthracene	10	U	10	1.3	ug/L		05/12/24 09:25	05/12/24 15:05	1
Atrazine	2.0	U *	2.0	1.3	ug/L		05/12/24 09:25	05/12/24 15:05	1
Benzaldehyde	10	U *	10	2.1	ug/L		05/12/24 09:25	05/12/24 15:05	1
Benzo[a]anthracene	1.0	U	1.0	0.59	ug/L		05/12/24 09:25	05/12/24 15:05	1
Benzo[a]pyrene	1.0	U	1.0	0.41	ug/L		05/12/24 09:25	05/12/24 15:05	1
Benzo[b]fluoranthene	2.0	U	2.0	0.68	ug/L		05/12/24 09:25	05/12/24 15:05	1
Benzo[g,h,i]perylene	10	U	10	0.70	ug/L		05/12/24 09:25	05/12/24 15:05	1
Benzo[k]fluoranthene	1.0	U	1.0	0.67	ug/L		05/12/24 09:25	05/12/24 15:05	1
Bis(2-chloroethoxy)methane	10	U	10	0.59	ug/L		05/12/24 09:25	05/12/24 15:05	1
Bis(2-chloroethyl)ether	1.0	U	1.0	0.63	ug/L		05/12/24 09:25	05/12/24 15:05	1
Bis(2-ethylhexyl) phthalate	2.0	U	2.0	0.80	ug/L		05/12/24 09:25	05/12/24 15:05	1
Butyl benzyl phthalate	10	U	10	0.85	ug/L		05/12/24 09:25	05/12/24 15:05	1
Caprolactam	10	U J	10	2.2	ug/L		05/12/24 09:25	05/12/24 15:05	1
Carbazole	10	U	10	0.68	ug/L		05/12/24 09:25	05/12/24 15:05	1
Chrysene	2.0	U	2.0	0.91	ug/L		05/12/24 09:25	05/12/24 15:05	1
Dibenz(a,h)anthracene	1.0	U	1.0	0.72	ug/L		05/12/24 09:25	05/12/24 15:05	1
Dibenzofuran	10	U	10	1.1	ug/L		05/12/24 09:25	05/12/24 15:05	1
Diethyl phthalate	10	U	10	0.98	ug/L		05/12/24 09:25	05/12/24 15:05	1
Dimethyl phthalate	10	U	10	0.77	ug/L		05/12/24 09:25	05/12/24 15:05	1
Di-n-butyl phthalate	10	U	10	0.84	ug/L		05/12/24 09:25	05/12/24 15:05	1
Di-n-octyl phthalate	10	U	10	0.75	ug/L		05/12/24 09:25	05/12/24 15:05	1
Fluoranthene	10	U	10	0.84	ug/L		05/12/24 09:25	05/12/24 15:05	1
Fluorene	10	U	10	0.91	ug/L		05/12/24 09:25	05/12/24 15:05	1
Hexachlorobenzene	1.0	U	1.0	0.40	ug/L		05/12/24 09:25	05/12/24 15:05	1
Hexachlorobutadiene	1.0	U	1.0	0.78	ug/L		05/12/24 09:25	05/12/24 15:05	1
Hexachlorocyclopentadiene	10	U	10	3.6	ug/L		05/12/24 09:25	05/12/24 15:05	1
Hexachloroethane	2.0	U	2.0	0.80	ug/L		05/12/24 09:25	05/12/24 15:05	1
Indeno[1,2,3-cd]pyrene	2.0	U	2.0	0.94	ug/L		05/12/24 09:25	05/12/24 15:05	1
Isophorone	10	U	10	0.80	ug/L		05/12/24 09:25	05/12/24 15:05	1
Naphthalene	2.0	U	2.0	0.54	ug/L		05/12/24 09:25	05/12/24 15:05	1
Nitrobenzene	1.0	U	1.0	0.57	ug/L		05/12/24 09:25	05/12/24 15:05	1
N-Nitrosodi-n-propylamine	1.0	U	1.0	0.43	ug/L		05/12/24 09:25	05/12/24 15:05	1
N-Nitrosodiphenylamine	10	U	10	0.89	ug/L		05/12/24 09:25	05/12/24 15:05	1
Pentachlorophenol	20	U J	20	1.4	ug/L		05/12/24 09:25	05/12/24 15:05	1
Phenanthrene	10	U	10	1.3	ug/L		05/12/24 09:25	05/12/24 15:05	1
Phenol	10	U	10	0.29	ug/L		05/12/24 09:25	05/12/24 15:05	1
Pyrene	10	U	10	1.6	ug/L		05/12/24 09:25	05/12/24 15:05	1
3 & 4 Methylphenol	10	U	10	0.64	ug/L		05/12/24 09:25	05/12/24 15:05	1

Client Sample ID: EB051024 — Lab Sample ID: 460-303677-2

Date Collected: 05/10/24 08:30 — **Matrix: Water**
Date Received: 05/10/24 20:00

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol (Surr)	*113*		*37 - 150*	*05/12/24 09:25*	*05/12/24 15:05*	*1*
2-Fluorobiphenyl	*82*		*46 - 139*	*05/12/24 09:25*	*05/12/24 15:05*	*1*
2-Fluorophenol (Surr)	*65*		*16 - 80*	*05/12/24 09:25*	*05/12/24 15:05*	*1*
Nitrobenzene-d5 (Surr)	*89*		*51 - 145*	*05/12/24 09:25*	*05/12/24 15:05*	*1*
Phenol-d5 (Surr)	*46*		*10 - 56*	*05/12/24 09:25*	*05/12/24 15:05*	*1*
Terphenyl-d14 (Surr)	*53*		*13 - 150*	*05/12/24 09:25*	*05/12/24 15:05*	*1*

Client Sample ID: MW-21D — Lab Sample ID: 460-303677-3

Date Collected: 05/10/24 09:30 — **Matrix: Water**
Date Received: 05/10/24 20:00

Method: SW846 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	1.0	U	1.0	0.24	ug/L			05/15/24 10:41	1
1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.37	ug/L			05/15/24 10:41	1
1,1,2-Trichloro-1,2,2-trifluoroethane	1.0	U	1.0	0.31	ug/L			05/15/24 10:41	1
1,1,2-Trichloroethane	1.0	U	1.0	0.20	ug/L			05/15/24 10:41	1
1,1-Dichloroethane	1.0	U	1.0	0.26	ug/L			05/15/24 10:41	1
1,1-Dichloroethene	1.0	U	1.0	0.26	ug/L			05/15/24 10:41	1
1,2,4-Trichlorobenzene	1.0	U	1.0	0.37	ug/L			05/15/24 10:41	1
1,2-Dibromo-3-Chloropropane	1.0	U J	1.0	0.38	ug/L			05/15/24 10:41	1
1,2-Dichlorobenzene	1.0	U	1.0	0.21	ug/L			05/15/24 10:41	1
1,2-Dichloroethane	1.0	U	1.0	0.43	ug/L			05/15/24 10:41	1
1,2-Dichloropropane	1.0	U	1.0	0.35	ug/L			05/15/24 10:41	1
1,3-Dichlorobenzene	1.0	U	1.0	0.34	ug/L			05/15/24 10:41	1
1,4-Dichlorobenzene	1.0	U	1.0	0.33	ug/L			05/15/24 10:41	1
1,4-Dioxane	50	U	50	28	ug/L			05/15/24 10:41	1
2-Butanone (MEK)	5.0	U	5.0	1.9	ug/L			05/15/24 10:41	1
2-Hexanone	5.0	U	5.0	1.1	ug/L			05/15/24 10:41	1
4-Methyl-2-pentanone (MIBK)	5.0	U	5.0	1.3	ug/L			05/15/24 10:41	1
Acetone	5.0	U	5.0	4.4	ug/L			05/15/24 10:41	1
Benzene	1.0	U	1.0	0.20	ug/L			05/15/24 10:41	1
Bromoform	1.0	U J	1.0	0.54	ug/L			05/15/24 10:41	1
Bromomethane	1.0	U	1.0	0.55	ug/L			05/15/24 10:41	1
Carbon disulfide	1.0	U	1.0	0.82	ug/L			05/15/24 10:41	1
Carbon tetrachloride	1.0	U	1.0	0.21	ug/L			05/15/24 10:41	1
Chlorobenzene	1.0	U	1.0	0.38	ug/L			05/15/24 10:41	1
Dibromochloromethane	1.0	U	1.0	0.28	ug/L			05/15/24 10:41	1
Chloroethane	1.0	U	1.0	0.32	ug/L			05/15/24 10:41	1
Chloroform	**1.7**		1.0	0.33	ug/L			05/15/24 10:41	1
Chloromethane	1.0	U	1.0	0.40	ug/L			05/15/24 10:41	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.22	ug/L			05/15/24 10:41	1
cis-1,3-Dichloropropene	1.0	U	1.0	0.22	ug/L			05/15/24 10:41	1
Cyclohexane	1.0	U	1.0	0.32	ug/L			05/15/24 10:41	1
Bromodichloromethane	1.0	U	1.0	0.34	ug/L			05/15/24 10:41	1
Dichlorodifluoromethane	1.0	U J	1.0	0.31	ug/L			05/15/24 10:41	1
Ethylbenzene	1.0	U	1.0	0.30	ug/L			05/15/24 10:41	1
1,2-Dibromoethane	1.0	U	1.0	0.50	ug/L			05/15/24 10:41	1
Isopropylbenzene	1.0	U	1.0	0.34	ug/L			05/15/24 10:41	1
Methyl acetate	5.0	U	5.0	0.79	ug/L			05/15/24 10:41	1

Client Sample ID: MW-21D
Date Collected: 05/10/24 09:30
Date Received: 05/10/24 20:00

Lab Sample ID: 460-303677-3
Matrix: Water

Method: SW846 8260D - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methyl tert-butyl ether	1.0	U	1.0	0.22	ug/L			05/15/24 10:41	1
Methylcyclohexane	1.0	U	1.0	0.71	ug/L			05/15/24 10:41	1
Methylene Chloride	1.0	U	1.0	0.32	ug/L			05/15/24 10:41	1
Styrene	1.0	U	1.0	0.42	ug/L			05/15/24 10:41	1
Tetrachloroethene	1.0	U	1.0	0.25	ug/L			05/15/24 10:41	1
Toluene	1.0	U	1.0	0.38	ug/L			05/15/24 10:41	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.24	ug/L			05/15/24 10:41	1
trans-1,3-Dichloropropene	1.0	U	1.0	0.22	ug/L			05/15/24 10:41	1
Trichloroethene	1.0	U	1.0	0.31	ug/L			05/15/24 10:41	1
Trichlorofluoromethane	1.0	U	1.0	0.32	ug/L			05/15/24 10:41	1
Vinyl chloride	1.0	U	1.0	0.17	ug/L			05/15/24 10:41	1
n-Butylbenzene	1.0	U	1.0	0.32	ug/L			05/15/24 10:41	1
1,2,4-Trimethylbenzene	1.0	U	1.0	0.37	ug/L			05/15/24 10:41	1
sec-Butylbenzene	1.0	U	1.0	0.37	ug/L			05/15/24 10:41	1
N-Propylbenzene	1.0	U	1.0	0.32	ug/L			05/15/24 10:41	1
Xylenes, Total	2.0	U	2.0	0.65	ug/L			05/15/24 10:41	1
1,3,5-Trimethylbenzene	1.0	U	1.0	0.33	ug/L			05/15/24 10:41	1
tert-Butylbenzene	1.0	U	1.0	0.34	ug/L			05/15/24 10:41	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*108*		*70 - 128*		*05/15/24 10:41*	*1*
4-Bromofluorobenzene	*96*		*76 - 120*		*05/15/24 10:41*	*1*
Dibromofluoromethane (Surr)	*101*		*77 - 132*		*05/15/24 10:41*	*1*
Toluene-d8 (Surr)	*102*		*80 - 120*		*05/15/24 10:41*	*1*

Method: SW846 8270E - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1'-Biphenyl	10	U	10	1.2	ug/L		05/12/24 09:25	05/12/24 15:26	1
2,2'-oxybis[1-chloropropane]	10	U	10	0.63	ug/L		05/12/24 09:25	05/12/24 15:26	1
2,4,5-Trichlorophenol	10	U	10	0.88	ug/L		05/12/24 09:25	05/12/24 15:26	1
2,4,6-Trichlorophenol	10	U	10	0.86	ug/L		05/12/24 09:25	05/12/24 15:26	1
2,4-Dichlorophenol	10	U	10	1.1	ug/L		05/12/24 09:25	05/12/24 15:26	1
2,4-Dimethylphenol	10	U	10	0.62	ug/L		05/12/24 09:25	05/12/24 15:26	1
2,4-Dinitrophenol	40	U J	40	2.6	ug/L		05/12/24 09:25	05/12/24 15:26	1
2,4-Dinitrotoluene	10	U J	10	1.0	ug/L		05/12/24 09:25	05/12/24 15:26	1
2,6-Dinitrotoluene	2.0	U J	2.0	0.83	ug/L		05/12/24 09:25	05/12/24 15:26	1
2-Chloronaphthalene	10	U	10	1.2	ug/L		05/12/24 09:25	05/12/24 15:26	1
2-Chlorophenol	10	U	10	0.38	ug/L		05/12/24 09:25	05/12/24 15:26	1
2-Methylnaphthalene	10	U	10	0.53	ug/L		05/12/24 09:25	05/12/24 15:26	1
2-Methylphenol	10	U	10	0.67	ug/L		05/12/24 09:25	05/12/24 15:26	1
2-Nitroaniline	10	U	10	0.47	ug/L		05/12/24 09:25	05/12/24 15:26	1
2-Nitrophenol	10	U	10	0.75	ug/L		05/12/24 09:25	05/12/24 15:26	1
3,3'-Dichlorobenzidine	10	U	10	1.4	ug/L		05/12/24 09:25	05/12/24 15:26	1
3-Nitroaniline	10	U J	10	1.9	ug/L		05/12/24 09:25	05/12/24 15:26	1
4,6-Dinitro-2-methylphenol	20	U J	20	3.0	ug/L		05/12/24 09:25	05/12/24 15:26	1
4-Bromophenyl phenyl ether	10	U	10	0.75	ug/L		05/12/24 09:25	05/12/24 15:26	1
4-Chloro-3-methylphenol	10	U	10	0.58	ug/L		05/12/24 09:25	05/12/24 15:26	1
4-Chloroaniline	10	U J	10	1.9	ug/L		05/12/24 09:25	05/12/24 15:26	1
4-Chlorophenyl phenyl ether	10	U	10	1.3	ug/L		05/12/24 09:25	05/12/24 15:26	1
4-Nitroaniline	10	U J	10	1.2	ug/L		05/12/24 09:25	05/12/24 15:26	1

Client Sample ID: MW-21D
Date Collected: 05/10/24 09:30
Date Received: 05/10/24 20:00

Lab Sample ID: 460-303677-3
Matrix: Water

Method: SW846 8270E - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4-Nitrophenol	20	U	20	4.0	ug/L		05/12/24 09:25	05/12/24 15:26	1
Acenaphthene	10	U	10	1.1	ug/L		05/12/24 09:25	05/12/24 15:26	1
Acenaphthylene	10	U	10	0.82	ug/L		05/12/24 09:25	05/12/24 15:26	1
Acetophenone	10	U	10	2.3	ug/L		05/12/24 09:25	05/12/24 15:26	1
Anthracene	10	U	10	1.3	ug/L		05/12/24 09:25	05/12/24 15:26	1
Atrazine	2.0	U *	2.0	1.3	ug/L		05/12/24 09:25	05/12/24 15:26	1
Benzaldehyde	10	U *	10	2.1	ug/L		05/12/24 09:25	05/12/24 15:26	1
Benzo[a]anthracene	1.0	U	1.0	0.59	ug/L		05/12/24 09:25	05/12/24 15:26	1
Benzo[a]pyrene	1.0	U	1.0	0.41	ug/L		05/12/24 09:25	05/12/24 15:26	1
Benzo[b]fluoranthene	2.0	U	2.0	0.68	ug/L		05/12/24 09:25	05/12/24 15:26	1
Benzo[g,h,i]perylene	10	U	10	0.70	ug/L		05/12/24 09:25	05/12/24 15:26	1
Benzo[k]fluoranthene	1.0	U	1.0	0.67	ug/L		05/12/24 09:25	05/12/24 15:26	1
Bis(2-chloroethoxy)methane	10	U	10	0.59	ug/L		05/12/24 09:25	05/12/24 15:26	1
Bis(2-chloroethyl)ether	1.0	U	1.0	0.63	ug/L		05/12/24 09:25	05/12/24 15:26	1
Bis(2-ethylhexyl) phthalate	2.0	U	2.0	0.80	ug/L		05/12/24 09:25	05/12/24 15:26	1
Butyl benzyl phthalate	10	U	10	0.85	ug/L		05/12/24 09:25	05/12/24 15:26	1
Caprolactam	10	U J	10	2.2	ug/L		05/12/24 09:25	05/12/24 15:26	1
Carbazole	10	U	10	0.68	ug/L		05/12/24 09:25	05/12/24 15:26	1
Chrysene	2.0	U	2.0	0.91	ug/L		05/12/24 09:25	05/12/24 15:26	1
Dibenz(a,h)anthracene	1.0	U	1.0	0.72	ug/L		05/12/24 09:25	05/12/24 15:26	1
Dibenzofuran	10	U	10	1.1	ug/L		05/12/24 09:25	05/12/24 15:26	1
Diethyl phthalate	10	U	10	0.98	ug/L		05/12/24 09:25	05/12/24 15:26	1
Dimethyl phthalate	10	U	10	0.77	ug/L		05/12/24 09:25	05/12/24 15:26	1
Di-n-butyl phthalate	10	U	10	0.84	ug/L		05/12/24 09:25	05/12/24 15:26	1
Di-n-octyl phthalate	10	U	10	0.75	ug/L		05/12/24 09:25	05/12/24 15:26	1
Fluoranthene	10	U	10	0.84	ug/L		05/12/24 09:25	05/12/24 15:26	1
Fluorene	10	U	10	0.91	ug/L		05/12/24 09:25	05/12/24 15:26	1
Hexachlorobenzene	1.0	U	1.0	0.40	ug/L		05/12/24 09:25	05/12/24 15:26	1
Hexachlorobutadiene	1.0	U	1.0	0.78	ug/L		05/12/24 09:25	05/12/24 15:26	1
Hexachlorocyclopentadiene	10	U	10	3.6	ug/L		05/12/24 09:25	05/12/24 15:26	1
Hexachloroethane	2.0	U	2.0	0.80	ug/L		05/12/24 09:25	05/12/24 15:26	1
Indeno[1,2,3-cd]pyrene	2.0	U	2.0	0.94	ug/L		05/12/24 09:25	05/12/24 15:26	1
Isophorone	10	U	10	0.80	ug/L		05/12/24 09:25	05/12/24 15:26	1
Naphthalene	2.0	U	2.0	0.54	ug/L		05/12/24 09:25	05/12/24 15:26	1
Nitrobenzene	1.0	U	1.0	0.57	ug/L		05/12/24 09:25	05/12/24 15:26	1
N-Nitrosodi-n-propylamine	1.0	U	1.0	0.43	ug/L		05/12/24 09:25	05/12/24 15:26	1
N-Nitrosodiphenylamine	10	U	10	0.89	ug/L		05/12/24 09:25	05/12/24 15:26	1
Pentachlorophenol	20	U J	20	1.4	ug/L		05/12/24 09:25	05/12/24 15:26	1
Phenanthrene	10	U	10	1.3	ug/L		05/12/24 09:25	05/12/24 15:26	1
Phenol	10	U	10	0.29	ug/L		05/12/24 09:25	05/12/24 15:26	1
Pyrene	10	U	10	1.6	ug/L		05/12/24 09:25	05/12/24 15:26	1
3 & 4 Methylphenol	10	U	10	0.64	ug/L		05/12/24 09:25	05/12/24 15:26	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol (Surr)	*115*		*37 - 150*	*05/12/24 09:25*	*05/12/24 15:26*	*1*
2-Fluorobiphenyl	*75*		*46 - 139*	*05/12/24 09:25*	*05/12/24 15:26*	*1*
2-Fluorophenol (Surr)	*49*		*16 - 80*	*05/12/24 09:25*	*05/12/24 15:26*	*1*
Nitrobenzene-d5 (Surr)	*86*		*51 - 145*	*05/12/24 09:25*	*05/12/24 15:26*	*1*
Phenol-d5 (Surr)	*32*		*10 - 56*	*05/12/24 09:25*	*05/12/24 15:26*	*1*
Terphenyl-d14 (Surr)	*55*		*13 - 150*	*05/12/24 09:25*	*05/12/24 15:26*	*1*

Client Sample ID: DUP051024
Date Collected: 05/10/24 00:00
Date Received: 05/10/24 20:00

Lab Sample ID: 460-303677-4
Matrix: Water

Method: SW846 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	1.0	U	1.0	0.24	ug/L			05/15/24 11:01	1
1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.37	ug/L			05/15/24 11:01	1
1,1,2-Trichloro-1,2,2-trifluoroethane	1.0	U	1.0	0.31	ug/L			05/15/24 11:01	1
1,1,2-Trichloroethane	1.0	U	1.0	0.20	ug/L			05/15/24 11:01	1
1,1-Dichloroethane	1.0	U	1.0	0.26	ug/L			05/15/24 11:01	1
1,1-Dichloroethene	1.0	U	1.0	0.26	ug/L			05/15/24 11:01	1
1,2,4-Trichlorobenzene	1.0	U	1.0	0.37	ug/L			05/15/24 11:01	1
1,2-Dibromo-3-Chloropropane	1.0	U J	1.0	0.38	ug/L			05/15/24 11:01	1
1,2-Dichlorobenzene	1.0	U	1.0	0.21	ug/L			05/15/24 11:01	1
1,2-Dichloroethane	1.0	U	1.0	0.43	ug/L			05/15/24 11:01	1
1,2-Dichloropropane	1.0	U	1.0	0.35	ug/L			05/15/24 11:01	1
1,3-Dichlorobenzene	1.0	U	1.0	0.34	ug/L			05/15/24 11:01	1
1,4-Dichlorobenzene	1.0	U	1.0	0.33	ug/L			05/15/24 11:01	1
1,4-Dioxane	50	U	50	28	ug/L			05/15/24 11:01	1
2-Butanone (MEK)	5.0	U	5.0	1.9	ug/L			05/15/24 11:01	1
2-Hexanone	5.0	U	5.0	1.1	ug/L			05/15/24 11:01	1
4-Methyl-2-pentanone (MIBK)	5.0	U	5.0	1.3	ug/L			05/15/24 11:01	1
Acetone	5.0	U	5.0	4.4	ug/L			05/15/24 11:01	1
Benzene	1.0	U	1.0	0.20	ug/L			05/15/24 11:01	1
Bromoform	1.0	U J	1.0	0.54	ug/L			05/15/24 11:01	1
Bromomethane	1.0	U*	1.0	0.55	ug/L			05/15/24 11:01	1
Carbon disulfide	1.0	U	1.0	0.82	ug/L			05/15/24 11:01	1
Carbon tetrachloride	1.0	U	1.0	0.21	ug/L			05/15/24 11:01	1
Chlorobenzene	1.0	U	1.0	0.38	ug/L			05/15/24 11:01	1
Dibromochloromethane	1.0	U	1.0	0.28	ug/L			05/15/24 11:01	1
Chloroethane	1.0	U	1.0	0.32	ug/L			05/15/24 11:01	1
Chloroform	**1.7**		1.0	0.33	ug/L			05/15/24 11:01	1
Chloromethane	1.0	U	1.0	0.40	ug/L			05/15/24 11:01	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.22	ug/L			05/15/24 11:01	1
cis-1,3-Dichloropropene	1.0	U	1.0	0.22	ug/L			05/15/24 11:01	1
Cyclohexane	1.0	U	1.0	0.32	ug/L			05/15/24 11:01	1
Bromodichloromethane	1.0	U	1.0	0.34	ug/L			05/15/24 11:01	1
Dichlorodifluoromethane	1.0	U J	1.0	0.31	ug/L			05/15/24 11:01	1
Ethylbenzene	1.0	U	1.0	0.30	ug/L			05/15/24 11:01	1
1,2-Dibromoethane	1.0	U	1.0	0.50	ug/L			05/15/24 11:01	1
Isopropylbenzene	1.0	U	1.0	0.34	ug/L			05/15/24 11:01	1
Methyl acetate	5.0	U	5.0	0.79	ug/L			05/15/24 11:01	1
Methyl tert-butyl ether	1.0	U	1.0	0.22	ug/L			05/15/24 11:01	1
Methylcyclohexane	1.0	U	1.0	0.71	ug/L			05/15/24 11:01	1
Methylene Chloride	1.0	U	1.0	0.32	ug/L			05/15/24 11:01	1
Styrene	1.0	U	1.0	0.42	ug/L			05/15/24 11:01	1
Tetrachloroethene	1.0	U	1.0	0.25	ug/L			05/15/24 11:01	1
Toluene	1.0	U	1.0	0.38	ug/L			05/15/24 11:01	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.24	ug/L			05/15/24 11:01	1
trans-1,3-Dichloropropene	1.0	U	1.0	0.22	ug/L			05/15/24 11:01	1
Trichloroethene	1.0	U	1.0	0.31	ug/L			05/15/24 11:01	1
Trichlorofluoromethane	1.0	U	1.0	0.32	ug/L			05/15/24 11:01	1
Vinyl chloride	1.0	U	1.0	0.17	ug/L			05/15/24 11:01	1
n-Butylbenzene	1.0	U	1.0	0.32	ug/L			05/15/24 11:01	1

Client Sample ID: DUP051024
Lab Sample ID: 460-303677-4

Date Collected: 05/10/24 00:00
Matrix: Water

Date Received: 05/10/24 20:00

Method: SW846 8260D - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trimethylbenzene	1.0	U	1.0	0.37	ug/L			05/15/24 11:01	1
sec-Butylbenzene	1.0	U	1.0	0.37	ug/L			05/15/24 11:01	1
N-Propylbenzene	1.0	U	1.0	0.32	ug/L			05/15/24 11:01	1
Xylenes, Total	2.0	U	2.0	0.65	ug/L			05/15/24 11:01	1
1,3,5-Trimethylbenzene	1.0	U	1.0	0.33	ug/L			05/15/24 11:01	1
tert-Butylbenzene	1.0	U	1.0	0.34	ug/L			05/15/24 11:01	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*106*		*70 - 128*		*05/15/24 11:01*	*1*
4-Bromofluorobenzene	*97*		*76 - 120*		*05/15/24 11:01*	*1*
Dibromofluoromethane (Surr)	*102*		*77 - 132*		*05/15/24 11:01*	*1*
Toluene-d8 (Surr)	*101*		*80 - 120*		*05/15/24 11:01*	*1*

Method: SW846 8270E - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1'-Biphenyl	10	U	10	1.2	ug/L		05/12/24 09:25	05/12/24 15:47	1
2,2'-oxybis[1-chloropropane]	10	U	10	0.63	ug/L		05/12/24 09:25	05/12/24 15:47	1
2,4,5-Trichlorophenol	10	U	10	0.88	ug/L		05/12/24 09:25	05/12/24 15:47	1
2,4,6-Trichlorophenol	10	U	10	0.86	ug/L		05/12/24 09:25	05/12/24 15:47	1
2,4-Dichlorophenol	10	U	10	1.1	ug/L		05/12/24 09:25	05/12/24 15:47	1
2,4-Dimethylphenol	10	U	10	0.62	ug/L		05/12/24 09:25	05/12/24 15:47	1
2,4-Dinitrophenol	40	U* J	40	2.6	ug/L		05/12/24 09:25	05/12/24 15:47	1
2,4-Dinitrotoluene	10	U J	10	1.0	ug/L		05/12/24 09:25	05/12/24 15:47	1
2,6-Dinitrotoluene	2.0	U J	2.0	0.83	ug/L		05/12/24 09:25	05/12/24 15:47	1
2-Chloronaphthalene	10	U	10	1.2	ug/L		05/12/24 09:25	05/12/24 15:47	1
2-Chlorophenol	10	U	10	0.38	ug/L		05/12/24 09:25	05/12/24 15:47	1
2-Methylnaphthalene	10	U	10	0.53	ug/L		05/12/24 09:25	05/12/24 15:47	1
2-Methylphenol	10	U	10	0.67	ug/L		05/12/24 09:25	05/12/24 15:47	1
2-Nitroaniline	10	U	10	0.47	ug/L		05/12/24 09:25	05/12/24 15:47	1
2-Nitrophenol	10	U	10	0.75	ug/L		05/12/24 09:25	05/12/24 15:47	1
3,3'-Dichlorobenzidine	10	U	10	1.4	ug/L		05/12/24 09:25	05/12/24 15:47	1
3-Nitroaniline	10	U J	10	1.9	ug/L		05/12/24 09:25	05/12/24 15:47	1
4,6-Dinitro-2-methylphenol	20	U J	20	3.0	ug/L		05/12/24 09:25	05/12/24 15:47	1
4-Bromophenyl phenyl ether	10	U	10	0.75	ug/L		05/12/24 09:25	05/12/24 15:47	1
4-Chloro-3-methylphenol	10	U	10	0.58	ug/L		05/12/24 09:25	05/12/24 15:47	1
4-Chloroaniline	10	U J	10	1.9	ug/L		05/12/24 09:25	05/12/24 15:47	1
4-Chlorophenyl phenyl ether	10	U	10	1.3	ug/L		05/12/24 09:25	05/12/24 15:47	1
4-Nitroaniline	10	U J	10	1.2	ug/L		05/12/24 09:25	05/12/24 15:47	1
4-Nitrophenol	20	U	20	4.0	ug/L		05/12/24 09:25	05/12/24 15:47	1
Acenaphthene	10	U	10	1.1	ug/L		05/12/24 09:25	05/12/24 15:47	1
Acenaphthylene	10	U	10	0.82	ug/L		05/12/24 09:25	05/12/24 15:47	1
Acetophenone	10	U	10	2.3	ug/L		05/12/24 09:25	05/12/24 15:47	1
Anthracene	10	U	10	1.3	ug/L		05/12/24 09:25	05/12/24 15:47	1
Atrazine	2.0	U*	2.0	1.3	ug/L		05/12/24 09:25	05/12/24 15:47	1
Benzaldehyde	10	U*	10	2.1	ug/L		05/12/24 09:25	05/12/24 15:47	1
Benzo[a]anthracene	1.0	U	1.0	0.59	ug/L		05/12/24 09:25	05/12/24 15:47	1
Benzo[a]pyrene	1.0	U	1.0	0.41	ug/L		05/12/24 09:25	05/12/24 15:47	1
Benzo[b]fluoranthene	2.0	U	2.0	0.68	ug/L		05/12/24 09:25	05/12/24 15:47	1
Benzo[g,h,i]perylene	10	U	10	0.70	ug/L		05/12/24 09:25	05/12/24 15:47	1
Benzo[k]fluoranthene	1.0	U	1.0	0.67	ug/L		05/12/24 09:25	05/12/24 15:47	1

Client Sample ID: DUP051024 Lab Sample ID: 460-303677-4

Date Collected: 05/10/24 00:00 **Matrix: Water**
Date Received: 05/10/24 20:00

Method: SW846 8270E - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier		RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bis(2-chloroethoxy)methane	10	U		10	0.59	ug/L		05/12/24 09:25	05/12/24 15:47	1
Bis(2-chloroethyl)ether	1.0	U		1.0	0.63	ug/L		05/12/24 09:25	05/12/24 15:47	1
Bis(2-ethylhexyl) phthalate	2.0	U		2.0	0.80	ug/L		05/12/24 09:25	05/12/24 15:47	1
Butyl benzyl phthalate	10	U		10	0.85	ug/L		05/12/24 09:25	05/12/24 15:47	1
Caprolactam	10	U	J	10	2.2	ug/L		05/12/24 09:25	05/12/24 15:47	1
Carbazole	10	U		10	0.68	ug/L		05/12/24 09:25	05/12/24 15:47	1
Chrysene	2.0	U		2.0	0.91	ug/L		05/12/24 09:25	05/12/24 15:47	1
Dibenz(a,h)anthracene	1.0	U		1.0	0.72	ug/L		05/12/24 09:25	05/12/24 15:47	1
Dibenzofuran	10	U		10	1.1	ug/L		05/12/24 09:25	05/12/24 15:47	1
Diethyl phthalate	10	U		10	0.98	ug/L		05/12/24 09:25	05/12/24 15:47	1
Dimethyl phthalate	10	U		10	0.77	ug/L		05/12/24 09:25	05/12/24 15:47	1
Di-n-butyl phthalate	10	U		10	0.84	ug/L		05/12/24 09:25	05/12/24 15:47	1
Di-n-octyl phthalate	10	U		10	0.75	ug/L		05/12/24 09:25	05/12/24 15:47	1
Fluoranthene	10	U		10	0.84	ug/L		05/12/24 09:25	05/12/24 15:47	1
Fluorene	10	U		10	0.91	ug/L		05/12/24 09:25	05/12/24 15:47	1
Hexachlorobenzene	1.0	U		1.0	0.40	ug/L		05/12/24 09:25	05/12/24 15:47	1
Hexachlorobutadiene	1.0	U		1.0	0.78	ug/L		05/12/24 09:25	05/12/24 15:47	1
Hexachlorocyclopentadiene	10	U		10	3.6	ug/L		05/12/24 09:25	05/12/24 15:47	1
Hexachloroethane	2.0	U		2.0	0.80	ug/L		05/12/24 09:25	05/12/24 15:47	1
Indeno[1,2,3-cd]pyrene	2.0	U		2.0	0.94	ug/L		05/12/24 09:25	05/12/24 15:47	1
Isophorone	10	U		10	0.80	ug/L		05/12/24 09:25	05/12/24 15:47	1
Naphthalene	2.0	U		2.0	0.54	ug/L		05/12/24 09:25	05/12/24 15:47	1
Nitrobenzene	1.0	U		1.0	0.57	ug/L		05/12/24 09:25	05/12/24 15:47	1
N-Nitrosodi-n-propylamine	1.0	U		1.0	0.43	ug/L		05/12/24 09:25	05/12/24 15:47	1
N-Nitrosodiphenylamine	10	U		10	0.89	ug/L		05/12/24 09:25	05/12/24 15:47	1
Pentachlorophenol	20	U	J	20	1.4	ug/L		05/12/24 09:25	05/12/24 15:47	1
Phenanthrene	10	U		10	1.3	ug/L		05/12/24 09:25	05/12/24 15:47	1
Phenol	10	U		10	0.29	ug/L		05/12/24 09:25	05/12/24 15:47	1
Pyrene	10	U		10	1.6	ug/L		05/12/24 09:25	05/12/24 15:47	1
3 & 4 Methylphenol	10	U		10	0.64	ug/L		05/12/24 09:25	05/12/24 15:47	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol (Surr)	*114*		*37 - 150*	*05/12/24 09:25*	*05/12/24 15:47*	*1*
2-Fluorobiphenyl	*81*		*46 - 139*	*05/12/24 09:25*	*05/12/24 15:47*	*1*
2-Fluorophenol (Surr)	*50*		*16 - 80*	*05/12/24 09:25*	*05/12/24 15:47*	*1*
Nitrobenzene-d5 (Surr)	*85*		*51 - 145*	*05/12/24 09:25*	*05/12/24 15:47*	*1*
Phenol-d5 (Surr)	*33*		*10 - 56*	*05/12/24 09:25*	*05/12/24 15:47*	*1*
Terphenyl-d14 (Surr)	*50*		*13 - 150*	*05/12/24 09:25*	*05/12/24 15:47*	*1*

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