



Periodic Review Report

*(Reporting Period September 1, 2019
through August 31, 2022)*

36 Riverside Drive
Rensselaer, New York

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BASF Corporation

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EXECUTIVE SUMMARY

This Periodic Review Report (PRR) is being submitted by Roux Environmental Engineering and Geology, D.P.C. (Roux) on behalf of BASF Corporation (BASF) for the reporting period September 1, 2019 through August 31, 2022 to document the compliance with the BASF Rensselaer Operable Unit No.1 (OU1) Interim Site Management Plan dated December 5, 2019. OU1 was remediated in accordance with Order on Consent Index No. A4 0490-0703, Site No. 4-42-027, which was executed on October 31, 2003. The Site is located at 36 Riverside Avenue in the City of Rensselaer, New York and is in the New York State (NYS) Inactive Hazardous Waste Disposal Site Remedial Program, administered by the New York State Department of Environmental Conservation (NYSDEC). Site No. 4-42-027 is defined in the September 2003 Record of Decision (ROD) issued by the NYSDEC. OU1 includes the former manufacturing area (a.k.a. the Main Plant) and two former wastewater treatment lagoons (Lagoon Area). Once the ROD was issued, BASF entered into a Consent Order for the implementation of the remedy for OU1 described in the ROD.

The remedial activities summarized below were completed in phases at the Site from 2001 to 2012:

- Excavation of soil/fill that was serving as sources areas to impacted groundwater.
- Construction and maintenance of a composite cover system consisting of vegetative caps, Elastocoat® cap, and existing building foundations to prevent human exposure to remaining contaminated soil/fill remaining at the site.
- Execution and recording of a Deed Restriction to restrict land use and prevent future exposure to any contamination remaining at the site.
- Construction of a groundwater containment and treatment system (GCS).

All of the fill material that was impacted above criteria outside of the excavation areas is contained below the composite cover system. The May 2014 interim SMP was approved by the NYSDEC, in consultation with the New York State Department of Health (NYSDOH). On June 3, 2014, the Construction Completion Report (Final Engineering Report) was approved by the NYSDEC and this date was considered the starting date for the SMP monitoring schedule. In late 2014, a 1,2-dichloroethane (1,2-DCA) source-removal excavation program was completed in the vicinity of former Building 81 and Extraction Well EW-3.

The treatment system portion of the groundwater perimeter containment system was replaced in 2016. Design upgrades included the incorporation of a new air-stripper to achieve compliance levels, and liquid carbon adsorption units. Since 2016, the groundwater treatment system has operated 24 hours a day with periodic temporary shutdowns for routine maintenance. Over the past year, there have been occasional exceedances of groundwater standards for iron and manganese in the effluent. The groundwater treatment system is currently being evaluated for improvements to increase contaminant removal efficiency and to reduce solids loading.

The 2014 interim SMP included the sampling requirements from the SPDES equivalency permit. The interim SMP was revised in 2019 to reduce the effluent sampling frequency from weekly to biweekly. The revised SMP also includes the O&M plan for the upgraded groundwater treatment system. In a letter dated June 23, 2016, the NYSDEC approved a reduction in the monitoring well network and further specified the following wells were required to be sampled every fifth quarter: LG-MW-6R, LG-PZ-6R, LG-PZ-10R, LG-PZ-24R, MP-MW-105R and ST-MW-12. However, due to sediment remediation work in the Hudson River (OU2), Monitoring Well LG-PZ-10R was abandoned. Monitoring Well ST-MW-12 is on the

Sterling Drug Inc. Site #1 (Currently occupied by Curia) and could not be accessed. ST-MW-12 was last sampled on April 4, 2016.

Due to sediment remediation work in the Hudson River (OU2), Monitoring Wells LG-MW-25, LG-MW-26, and LG-PZ-10R were abandoned. The following wells remain in the sampling monitoring well network: LG-PZ-24R, MP-MW-105R, LG-MW-6R, LG-PZ-6R and ST-MW-12. Monitoring Well ST-MW-12 is located offsite and is sampled by Albany Molecular. The SMP revised in 2019 includes the modified monitoring well network. The revised SMP also includes clarification of the composite cap cover system components in both the text and in the figure used to complete the annual cover system inspections.

The post-remediation (SMP monitoring schedule start date June 3, 2014) groundwater monitoring was initiated on April 28, 2015 and groundwater sampling occurred in accordance with the SMP schedule since that time.

1. Introduction

On behalf of the BASF Corporation (BASF), Roux Environmental Engineering and Geology, D.P.C. (Roux) have prepared this Periodic Review Report (PRR) to document the compliance with the SMP for the BASF Rensselaer Manufacturing Plant Operable Unit 1 (“OU1”) located in Rensselaer, New York (Figure 1). The PRR reporting period is from September 1, 2019 through August 31, 2022. The Site was remediated in accordance with the remedy selected in the September 2003 Record of Decision (ROD). OU1 includes the former manufacturing area (i.e., Main Plant) and the former wastewater treatment lagoon area, as shown on Figure 2.

The purpose of this report is to document the implementation of, and compliance with, this last phase of the OU1 remedial program (Site Management) in accordance with DER-10 Technical Guidance for Site Investigation and Remediation, dated May 3, 2010 (NYSDEC, 2010), and the guidelines provided by the NYSDEC. A completed Institutional and Engineering Controls (IC/EC) Certification Form is included in Appendix A.

Several environmental investigations conducted at the Site from 1979 through 2003 identified soil beneath the Main Plant area that was impacted by metals, semi-volatile organic compounds (SVOCs) and volatile organic compounds (VOCs).

1.1 Summary of Site Remediation

The following is a summary of the IRMs/ Remedial Actions performed in phases at the Site that addressed and modified, where applicable, the remedy described in the ROD:

1. Excavation of soil/fill that was serving as sources to groundwater.
2. Completion and maintenance of a Site-wide cap (the composite cover system) to prevent human exposure to contaminated soil/fill remaining at the site. The actual composite cover system incorporates additional capping elements beyond what was initially identified in the ROD. The elements of the composite cover system include: existing surface pavement cap; Main Plant excavation areas cap; former buildings foundation cap; lagoon area vegetative cap; Main Plant vegetative cap, and an Elastocoat® cap.
3. Execution and recording of a Deed Restriction to restrict land use and prevent future exposure to any contamination remaining at the site.
4. Construction of a groundwater containment and treatment system (GCS).
5. Development and implementation of a Site Management Plan (SMP) for long term management of remaining contamination as required by the Deed Restriction, which includes plans for: (1) Institutional and Engineering Controls, (2) monitoring, (3) operation and maintenance (O&M) and (4) reporting.

Remedial activities commenced in July 2002 and were completed at the site in August 2012. Key remedial elements implemented at the Site are listed below and discussed in greater detail in the following subsections:

- Soil Interim Remedial Measure (IRM) Program;
- Process Buildings IRM;
- Remediation of Lagoon Areas;
- GCS Trench Construction;

- Groundwater Treatment System Construction;
- Decommissioning of the Pre-treatment System;
- Demolition of On-Site Process Buildings;
- Implementation of an Interim Storm-Water Management Plan;
- Completion of a Site-Wide Composite Cover System; and
- Development of an approved SMP.

The OU1 Remediation Program was conducted between July 2002 and August 2012 in accordance with the Remedial Design/ Remedial Action (RD/RA) Work Plan for OU1 that was submitted on September 13, 2004 to the NYSDEC.

Following site remediation, a Construction Completion Report (Final Engineering Report [FER]) for OU1 (May 7, 2014) was prepared and submitted to the NYSDEC to document the remedial activities completed. The FER (May 7, 2014) was approved by the NYSDEC on June 3, 2014. The July 29, 2013 Interim SMP was approved by the NYSDEC on February 2, 2014 in consultation with the New York State Department of Health (NYSDOH). The SMP documents the engineering and institutional controls for the capped portion and groundwater containment system portions for OU1 and this PRR will summarize the documentation, monitoring and inspections completed during the reporting period (September 1, 2019 through August 31, 2022) to demonstrate compliance with the SMP. Details of previous environmental investigations, remedial actions and results, and compliance with site management items are provided in Section 2.0.

2. Site overview+

This section includes a description of the Site, its operational history, previous environmental investigations, and a summary of remedial actions.

2.1 Site Description

The BASF Manufacturing Plant (#442027), which includes the Lagoon Area as part of the Site, is located in the City of Rensselaer, Rensselaer County, New York and is 35 acres in size. The Manufacturing Plant and Lagoon Area are zoned heavy industrial. The Manufacturing Plant and Lagoon Area are bordered by Curia (formerly Albany Molecular) to the north, by an Empire Generating Co, LLC power plant to the southwest, by the two other BASF sites the nine acre landfill (Site #442004), and the 40 acre South 40 Site (Site #442022) to the southeast, by railroad tracks to the east, and the Hudson River to the west (see Figures 1 and 2). The site was separated into two operable units. An operable unit represents a portion of the site remedy that for technical or administrative reasons can be addressed separately to eliminate or mitigate a release, threat of release, or exposure pathway resulting from the site contamination. OU1 includes the Manufacturing Plant and Lagoon Area (as described above). The second operable unit (OU2) includes offsite contamination in those areas outside OU1 with potential impacts resulting from: 1) the migration of contaminated groundwater offsite to the west via the storm sewer bedding and/or through the shallow water bearing unit; 2) discharges directly from the site or through the groundwater, which may have impacted sediments in the Hudson River; 3) the migration of site-related contaminants to soils adjacent to the Lagoon Area along Riverside Avenue, and 4) airborne contamination from air emissions or particulate migration. Note that all of these potential routes of contaminant migration have been investigated. Only the impacts to the Hudson River adjacent to the Lagoon area have been confirmed. Impacts to the Hudson River Sediment have been addressed under a separate remedial program.

2.2 Site Operational History

In 1881 the Hudson River Aniline and Color Works began use of the facility that is currently the BASF manufacturing plant in Rensselaer. In 1905 the Hudson River Aniline and Color Works facility began to supplement its dyestuffs with pharmaceuticals and aspirin. In 1913 the official name was changed to the Bayer Company. The facility was seized by the United States government during both world wars and functioned as part of the war economy. In 1968 the official name was changed to the GAF Corporation, and in 1978 BASF purchased the manufacturing plant from the GAF Corporation. The facility ceased all operations and closed in December 2000.

In 1992, the NYSDEC listed the site as a Class 2 site in the Registry of Inactive Hazardous Waste Disposal Sites in New York. In June 1994, a baseline environmental assessment of the wastewater lagoons was performed. This assessment included the installation of monitoring wells to determine if groundwater had been impacted by site operations and historical disposal practices. It concluded that VOCs and soluble arsenic were detected in groundwater exceeding New York State Class GA Standards. This groundwater contamination was primarily located on the Manufacturing Plant, up gradient of the lagoons. BASF entered into a Consent Order on February 24, 1998. In April 1998, a Remedial Investigation (RI) Work Plan for the Site was developed. The scope of the RI Work Plan was agreed upon by the NYSDEC and BASF in a Scope of Work (SOW) and modified by subsequent letters of understanding. Two additional phases of investigation for the Site were performed to further define the extent of the contamination. These two additional phases of investigation were documented in the RI and Supplemental RI (SRI) (November 13, 2000) and Additional RI Activities (August 3, 2001) Reports.

2.3 Summary of Previous Investigations

A Remedial Investigation (RI) was performed to characterize the nature and extent of contamination at the site. The results of the RI are described in detail in the following reports:

- Remedial Investigation/ Supplemental Remedial Investigation Report, submitted on November 13, 2000 to the NYSDEC (Roux Associates, 2000b).
- Additional RI Activities Report, which was submitted on August 3, 2001 to the NYSDEC (Roux Associates, 2001b).

A Remedial Design/ Remedial Action ("RD/RA") Work Plan for OU1, was submitted on September 13, 2004 to the NYSDEC (Roux Associates, 2004) and contains the findings from a Supplemental Pre-Design Investigation (PDI). As described in the RI and PDI reports, soil, groundwater, waste process residue, and lagoon sludge samples were collected to characterize the nature and extent of contamination. The main categories of contaminants that exceeded their respective soil cleanup objectives (SCGs) were VOCs, SVOCs, and metals.

The VOC contaminants of concern (COCs) in soil, groundwater, and/or waste sludge were identified:

- | | |
|----------------|--------------------------|
| • Acetone | • Chlorobenzene |
| • Benzene | • 1,2-Dichloroethane |
| • Ethylbenzene | • 1,2-Dichlorobenzene |
| • Toluene | • 1,2,4-Trichlorobenzene |
| • Xylenes | |

The SVOC COCs in soil, groundwater, and/or waste sludge were identified:

- | | |
|----------------------|------------------------------|
| • Benzo(a)anthracene | • Dibenzo(a,h)anthracene |
| • Benzo(a)pyrene | • Ideno(1,2,3-c,d)anthracene |
| • Benzo(b)anthracene | • 2-Methylnaphthalene |
| • Benzo(k)anthracene | • 4-Nitroaniline |
| • Chrysene | • 4-Nitrophenol |
| • 4-Chloroaniline | • Phenol |

The metal COCs in soil, groundwater, and/or waste sludge were identified:

- Arsenic
- Chromium
- Lead
- Mercury
- Zinc

2.4 Summary of Remediation

Remedial construction activities commenced in July 2002 and were completed at in August 2012. Key remedial elements implemented at the Site are summarized below and discussed in greater detail in the following reports:

- “Interim Remedial Measure Remedial Action Completion Report” submitted to the NYSDEC on December 16, 2005 (Roux Associate, 2005a);
- “North and South Lagoon Remedial Action Completion Report” submitted to the NYSDEC on October 27, 2005 (Roux Associates, 2005b);
- “Remedial Design/ Remedial Action Work Plan for OU1 (Roux Associates, 2004); and
- “Remedial Action Report and Remedial Action Work Plan for Lagoon Area Groundwater” submitted to the NYSDEC on August 22, 2007 (Roux Associates, 2007). A summary of the remedial activities is presented as follows:
 - Soil IRM Program;
 - 13,688 tons of non-hazardous waste and 12,322 tons of hazardous waste were excavated and disposed of off-site from Areas 1, 2 and 4 that may be serving as sources of dissolved VOCs and arsenic to groundwater beneath the Manufacturing Plant and Lagoon areas.
 - In October 2014, in the vicinity of former Building 81, approximately 1,200 cubic yards of 1,2-dichloroethane (1,2-DCA) impacted soil was removed from below the water table (6 to 12 feet bls) staged and property characterized for off-site disposal. The fill material from above the impacted soils was excavated, staged and reused as backfill in the excavation areas.
 - Process Buildings IRM;
 - 4,425 tons of hazardous waste were excavated and disposed of off-site from Former Process Buildings 84, 87 and 93 that may have been serving as sources of dissolved VOCs to groundwater beneath the Manufacturing Plant.
 - Remediation of Lagoon Areas;
 - 13,924.29 tons of hazardous waste was removed and disposed of off-site. 6,347,000 gallons of wastewater was generated through the processing of the lagoon wastewater/ sludge matrix that was classified as non-hazardous and discharged to the RCSD. Approximately, 1,020 cubic yards of screened riprap was utilized for the partial backfilling of the North Lagoon. In addition, in situ treatments of the impacted groundwater were performed with Metals Remediation Compound (“MRCTM”).
 - GCS Trench Construction: Groundwater collection system (“GCS”) trenches were installed during implementation of the Soil IRM from July 2002 through August 2003 along the northern and western boundaries of the Main Plant and around the northern, western and southern boundaries of the Closed Landfill.
 - Groundwater Treatment System Construction;
 - Details regarding the construction, operation, maintenance and monitoring of the groundwater treatment system is provided in the SMP. Construction of the groundwater treatment system consisting of the following key components:
 - influent equalizations;
 - metals removal system (aeration, vapor phase GAC off-gas treatment; filtration; and metals adsorption);
 - VOC/SVOC removal system (air stripping; vapor phase GAC off-gas treatment; and liquid phase GAC); and

- Dissolved oxygen injection system.
- Decommissioning of the Pretreatment System;
 - Decommissioning of the Pretreatment System is documented in the Roux Associates report titled "Closure Certification Report - BASF Pretreatment Facility" submitted to the NYSDEC on June 22, 2009 (Roux Associates, 2009a).
- Demolition of On-Site Process Buildings;
 - The on-site process buildings were demolished between May and November 2011.
- Implementation of Interim Storm-Water Management Plan;
 - construction of vegetated swales that direct runoff overland towards newly created detention areas and the existing overflow catch basin in the parking lot.
 - construction of vegetated filter strips along the southern boundary that are sloped easterly to convey overflow to the existing catch basin located near the southeast corner of the Closed Landfill; and
 - construction of multiple vegetative shallow stormwater detention areas.
- Completion of Site-Wide Composite Cover System; and
 - Existing Surface Cap
 - Existing Natural & Landscaped Area Cap
 - Existing Asphalt, Concrete, Gravel & Railroad Track Areas
 - Main Plant Excavation Areas 2 and 4B - Gravel Cap
 - Former Buildings Foundation Cap
 - Former Buildings without Basements - Concrete Cap
 - Former Buildings with Basements - Low Permeability Soil Cap
 - Former Building 67 Elastocoat® Cap
 - Constructed Lagoon Area Vegetative Cap
 - Lagoon Stormwater Detention Area Cap
 - Lagoon Vegetative Soil Cap
 - Constructed Main Plant Vegetative Cap
 - Gravel Vegetated Swales
 - Grassed Stormwater Detention Areas
- The GWTS was replaced in 2016 (further information provided below in Section 4.1.1 and in the SMP)
- The SMP was approved by NYSDEC on June 3, 2014 and the SMP compliance reporting is summarized in Section 4.0. Monitoring elements in the revised 2019 SMP are presented below.
 - GWTS influent will be sampled monthly and effluent will be sampled biweekly to confirm compliance with discharge limitations and to evaluate the effectiveness of the system. Additional monitoring details are provided in the SMP in Section 4.3.1 and Appendix C.
 - Off-site monitoring wells will be sampled along the southern boundaries to assure that the contamination levels in the groundwater continue to decrease by eliminating the sources.
 - This program will allow the effectiveness of the Site-Wide Composite Cover System and groundwater collection system to be monitored and will be a component of the operation and maintenance for the Site.

- A soil gas monitoring program will be implemented to evaluate the potential for vapors (from under the cap) to impact indoor air quality by migrating into buildings after Site redevelopment.

2.5 Remaining Contamination

All of the fill material that was impacted above criteria outside of the excavation areas is contained below the composite cover system described in Section 2.6. The demarcation layer for each component of the composite cover system is summarized below:

Element of Composite Cover System	Demarcation Layer	Depth of Demarcation Layer
Existing Surface Cap	Top of existing soil	Varies
Main Plant Excavation Areas	Top of existing soil	8 inches
Former Buildings Foundation Cap With basements (impermeable clay)	Orange demarcation layer	16 inches
Former Buildings Foundation Cap Without basements (concrete)	Former Buildings concrete foundation	Varies
Former Building 67 Elastocoat® Cap	Orange demarcation layer	Immediately below the Elastocoat® and geotextile
Lagoon Area Vegetative Soil Cap	Biota Barrier	Varies (minimum of 30 inches)
Main Plant Vegetative Soil Cap	Bottom of Topsoil Layer	Varies (minimum of 6 inches)

2.6 Site-Wide Composite Cover System

The Site-wide composite cover system cap is described in the following sections.

2.6.1 Existing Surface Cap

The existing surface cap consists of either natural or landscaped vegetation areas, asphalt, gravel or railroad tracks and it covers all areas of OU1 that were not disturbed during any remediation, capping, building demolition work or the lagoon closure work.

2.6.2 Main Plant Excavation Areas Cap

The main plant excavation areas cap consists of two areas onsite that were disturbed during remediation of the main plant. These two areas (designated as Areas 2 and 4B) were excavated to the water table and backfilled with clean fill and eight inches of gravel.

2.6.3 Former Building Foundation Caps

There are three types of former building foundation caps used across the Site: 1) Concrete, 2) Impermeable Clay, and 3) Elastocoat®. Following completion of the building demolition, the building basements were filled with building demolition debris and capped with a layer of finely crushed demolition debris, which includes primarily crushed brick and concrete, to fill void spaces, an orange demarcation layer, a 12-inch

layer of compacted, impermeable clay and a 4-inch layer of topsoil vegetated with grass. The layers were sloped to ensure positive drainage from the capped area. For those buildings that did not have basements, the existing concrete slab was left in place.

The footprint of Former Building 67 was capped similar to the other buildings in that the basement was filled with crushed demolition debris and capped with a layer of finely crushed demolition debris to fill the void spaces and an orange demarcation layer. The final cap layer consists of Elastocoat®, which is a non-woven geotextile coated with an 80-mil spray elastomer treatment (XS-350 provided by Line-X). The geotextile was anchored using an anchor trench 2-feet wide by 1-foot deep of clean backfill.

2.6.4 Lagoon Area Vegetative Cap

The Lagoon Area Vegetative Cap consists of the following fill layers (minimum 30-inch total thickness):

- 6-inch biota barrier;
- 18-inch common fill layer; and
- 6-inch topsoil layer.

The cap was then vegetated with a diversity of native species with high ecological value. Cross sections of the cap components are provided in Plate 14 of the SMP.

A portion of the south lagoon is being used as a detention basin. In this area, a 40-mil HDPE liner has been installed above a 2-foot clay liner to allow for future use as a stormwater detention basin. Below the liners are the same fill layers as above to provide stabilized pond slopes. Additional details regarding the Capping of the former Lagoon Area can be found in the “Focused Feasibility Study Lagoon Area Groundwater” report submitted to the NYSDEC on July 19, 2010.

2.6.5 Main Plant Vegetative Cap

The Main Plant Vegetative Cap consists of a 6-inch common fill layer and 12-inch topsoil layer that will be vegetated with a diversity of native species with high ecological value. These vegetated areas include: three grassed shallow stormwater detention areas, two gravel swale areas (6-inch common fill layer and 6-inch topsoil layer) and three grass capped areas.

3. Remedial Action Objectives

The following remedial action objectives were outlined in the ROD for OU-1 to eliminate or reduce to the extent practical:

- Infiltration of surface water into the soils and/or the release of contaminants from the soils into on-site groundwater that may create exceedances of groundwater AWQS;
- Exposure of persons and wildlife at or around OU1 to contaminated surface soils on-site;
- Exposure of persons at or around OU1 to contaminated sub-surface soils during any future intrusive activity;
- Migration of the contaminated groundwater off-site, causing exceedances of AWQS off-site;
- Exposure of flora or fauna to off-site contaminated groundwater migration that does not meet NYSDEC Class GA Ambient Water Quality Criteria; and
- Impact upon indoor air quality from soil vapors migrating into buildings.

The remedial program was intended to remove source area soils and eliminate the threat to human health and the environment associated with potential exposure to residual impacted soil.

4. Site Management Plan Compliance

This section details the requirements of the SMP, and whether these requirements were met. The elements of the SMP, engineering and institutional controls, groundwater monitoring, site maintenance and regulatory reporting requirements, are described in the subsections below.

4.1 Engineering Control Compliance

The Engineering Control System includes both the groundwater collection and treatment system (GWTS) and the composite cover system. The GWTS, as described in Section 4.1.1, is operational and designed to extract impacted groundwater, treat the groundwater on-site, and inject the treated groundwater into the soils with residual contamination at the source area and/ or discharge to the Hudson River. The results of the GWTS monitoring, and performance groundwater monitoring data are described in the following sections.

4.1.1 OnSite Groundwater Treatment System Monitoring

This section evaluates the performance of the GWTS, summarizes the results of groundwater performance monitoring, and evaluates the effectiveness of the GWTS in accordance with the Objective and Goals of the GWTS, as outlined in the O&M Manual (SMP – Appendix C) and detailed in Section 4.1.1.3 below.

Since 2004, BASF has been operating a treatment system at the Site that extracts groundwater from a set of extraction wells. The former GWTS experienced significant operational problems, mostly related to clogging of the air diffusers and encrustation of the carbon beds due to high levels of dissolved solids, (e.g. calcium carbonate, iron, and manganese). In the summer of 2016, the former trailer-based groundwater treatment system) was decommissioned and demolished, and a new, skid-mounted GWTS was constructed in a 40 x 40 foot structure on the existing 60 x 60 foot concrete containment pad in an effort to improve treatment system performance and streamline operations and monitoring. The new on-site GWTS, extracts groundwater via a system of seven (7) individual wells located within the GCS trenches which combine in a single influent stream, which is then routed to an equalization tank. The groundwater is treated via filtration, ultraviolet disinfection (UV) disinfection, iron and hardness removal, air stripping, and carbon adsorption before being re-injected into the onsite re-injection galleries (Gallery 1 or 2). Additional GWTS details are described below and in Section 2.2.1.2 of the SMP.

The current GWTS consists of the following key components:

- Filter cartridge filtration and bacteria destruction via ultra-violet (UV) disinfection for extraction wells 3 and 8 only;
- Influent flow equalization;
- Chemical injection for iron and hardness removal;
- Filter cartridge filtration;
- Volatile organic compound (VOC) and semi-volatile organic compound (SVOC) removal via air-stripping;
- Off-Gas treatment via vapor-phase carbon and ion exchange;
- Filter cartridge filtration and;
- Liquid granular activated carbon.

4.1.1.1 Evaluation of Groundwater Treatment System

As discussed above, the old treatment system experienced significant operational problems prior to system upgrades in 2016. The original system was shut down May 4, 2016 and the new GWTS start-up occurred on July 29, 2016.

The section below evaluates the annual groundwater treated and discharged and sampling events, as required to confirm compliance with discharge permit limits. The groundwater analytical results were compared to the AWQSGVs, total annual groundwater treated and discharged into the site re-injection galleries and approximate runtimes for this PRR reporting period are listed below:

- 2020 – 4.78 Million (MM) gallons; with an approximate runtime of 89.9%;
- 2021 – 3.97 MM; with an approximate runtime of 83.0%;
- 2022 – 4.99 MM gallons; with an approximate runtime of 87.1%;

For the new GWTS, the average groundwater extraction flowrate is 11 - 13 gallons per minute (GPM). A summary of the groundwater treated and discharged per year can be found in Appendix C through Appendix E. The system is operated 24 hours a day with periodic temporary shutdowns for routine maintenance such as influent pipe cleaning, equalization tank cleaning, air stripper cleaning, carbon changeouts.

The GWTS influent is sampled monthly and the GWTS effluent is sampled biweekly to confirm compliance with discharge permit requirements and to evaluate the effectiveness of the GWTS. A sampling schedule for specific parameters can be found in Section 4.3 of the SMP. The analytical results with highlighted exceedances for the GWTS effluent can be found in Appendices C through E. Observed trends from January 2020 through December 2022 are summarized below.

Volatile Organic Compounds (VOCs)

VOCs were not detected above the AWQSGVs in the effluent sampling data.

Semi-volatile Organic Compounds (SVOCs)

SVOCs were not detected above the AWQSGVs in the effluent sampling data.

Metals and pH

The primary exceedances of AWQSGVs for metals was from iron and manganese which is naturally occurring in the groundwater. There were no exceedances in other metals observed in the data. In 2020, there were six (6) exceedances of iron and four (4) exceedances of manganese. In 2021, there were seven (7) exceedances of manganese and no exceedances of iron. In 2022, there were six (6) exceedances of iron and one (1) exceedance of manganese. There were no exceedances for pH.

4.1.1.2 Groundwater Performance Monitoring Results

As discussed in Section 4.3.1 of the SMP, performance monitoring of groundwater takes place every fifth quarter. The groundwater analytical results from 2017 through 2022 are summarized in Tables 1 through 3 and are presented on Plate 1. The groundwater analytical results were compared to the AWQSGVs.

Volatile Organic Compounds in Groundwater

The results for VOCs in groundwater are summarized in Table 1.

Monitoring well MW-105R continues to have the highest concentrations of 1,2-dichloroethane (1,2-DCA), benzene, and chlorobenzene, though concentrations of those three compounds continued to decline in response to remedial efforts. This monitoring location is downgradient of a former source area identified during the Remedial Investigation in the vicinity of former Building 81.

During the monitoring period from 2021 through 2022:

- 1,2-DCA in MW-105R decreased from 55,000 µg/L to 28,000 µg/L. 1,2-DCA had been as high as 120,000 µg/L in 2017.
- Benzene in MW-105R decreased from 2,800 µg/L to 1,500 µg/L. Benzene had been as high as 7,400 µg/L in 2017.
- Chlorobenzene in MW-105R decreased from 2,600 µg/L to 1,200 µg/L. Chlorobenzene had been as high as 6,300 µg/L in 2017.

Overall, VOCs in groundwater appear to be decreasing over time at all other monitoring locations with one exception. Chlorobenzene concentrations at location LG-PZ-24R have remained stable based on the latest sampling data. LG-PZ-24R is located along the northern property boundary of the Main Plant.

Semi-Volatile Organic Compounds in Groundwater

The results for SVOCs in groundwater are summarized in Table 2.

During the monitoring period from 2021 through 2022, there were only sporadic, relatively low-level exceedances of AWQSGVs for SVOCs in groundwater.

1,4-dioxane was detected above the AWQSGV of 0.35 µg/L in two monitoring wells during the 2021 through 2022 monitoring period.

- 1,4-dioxane in LG-PZ-24R decreased from 16.2 µg/L to 13.8 µg/L. 1,4-dioxane had been as high as 16.2 µg/L in LG-PZ-24R in 2020.
- 1,4-dioxane in MP-MW-105R remained stable during the 2021 through 2022 monitoring period, ranging from 1.58 to 1.63 µg/L. 1,4-dioxane had been as high as 4.54 µg/L in MP-MW-105R in 2017.

Metals in Groundwater

The results for metals in groundwater are summarized in Table 3.

The primary exceedances of AWQSGVs for metals were for arsenic in Lagoon Area wells. This issue was the subject of a Focused Feasibility Study (FFS) that was presented to the NYSDEC in July 2010, as well as a supplemental March 2011 letter that incorporated the December 2010 groundwater monitoring results. In summary, the FFS concluded that the most appropriate remedy for arsenic in Lagoon Area groundwater was ongoing monitoring in conjunction with the extensive remedial work that has already been conducted. Although arsenic remains at concentrations greater than the AWQSGVs in groundwater, there is no exposure pathway.

Summary

A review of the results of Performance Monitoring of the GCS indicates that groundwater quality is impacted by VOCs, and SVOCs in the vicinity of MP-MW-105R, which is immediately adjacent to a GCS extraction trench, and by arsenic beneath the Lagoon Area.

The concentrations of 1,2-DCA, chlorobenzene, and benzene have all declined significantly since the last PRR monitoring period.

Further remediation action is not recommended at this time other than continued groundwater monitoring, operation of the GCS and the GWTS.

4.1.1.3 Evaluation of GWTS Effectiveness

The Objectives and Goals of the GWTS outlined in the O&M Manual are as follows:

System Objectives:

- Eliminate the exposure pathway of groundwater contaminants to human and ecological receptors; and
- Eliminate the offsite transport of onsite contaminants and prevent the exceedance of New York State ambient water quality standards and guidance values (AWQSGVs).
- Based on treatment limitations of the GWTS, the current operational objective is to continuously operate as many of the available extraction wells as can be efficiently treated by the existing GWTS.

The Performance Goals for the GWTS are as follows:

- Maintain safe operations;
- Maintain efficient and cost-effective operations given the limitations in the GWTS;
- Obtain and record useful operational and analytical data from the extraction wells and overall system;
- Achieve continuous operation of the GWTS with minimal downtime;
- Achieve compliance with the 0.6 microgram per liter ($\mu\text{g/l}$) discharge to groundwater standard of 1,2 DCA; and
- Remove VOCs from air streams consistent with the requirements of DAR-1.

Throughout the PRR reporting period, the GWTS continues to make significant progress towards meeting the System Objectives and Performance Goals. The GWTS is being operated safely and routine/regular system maintenance is occurring to minimize the downtime in system operations, as discussed in Section 4.1.1.1, annual system runtimes have increased from 2015 (~70%) to 2022 (~87%). The system upgrade in 2016 appears to have resulted in an increase in runtimes. In addition, groundwater volumes treated and discharged into the re-injection galleries have been consistent from 2022 – 2022 at an average of 4.58 million gallons.

There have been no exceedance of VOCs including 1,2-DCA in the system effluent.

Over the past year, there have been occasional exceedances of the naturally-occurring metals iron and manganese in the effluent. However, most recently, no exceedances have been noted and mass concentrations have been reduced significantly from the influent prior to discharge into the re-injection galleries. The effectiveness of the UV system and additional filtration system to address the solids loading was evaluated and a field test of a zero-gravity filter system was conducted in the first quarter of 2019. This system proved ineffective, as the flowrate of the system was too low, high solids and low pressure. Additional consideration is also being made regarding modifications of the existing well construction.

4.1.2 Composite Cover System Monitoring

Monitoring, inspection and maintenance (MI&M) requirements for the composite cover system are discussed in the SMP and are summarized in the table below. During the Site inspection completed by Roux Associates on May 1, 2019, woody vegetation (trees) greater than 1-inch diameter were identified growing within the composite cover. The identified trees were removed by BASF. During the following inspection completed by Roux Associates on April 22, 2022 there were few trees remaining. However, the composite cover system is serving its purpose and the trees were removed. The cover systems are performing as designed and are effective. However, based upon the cap inspection observations in 2022, continued maintenance involving removal of trees potentially affecting the cap integrity is recommended. The inspection forms are provided in Appendix B and the results are summarized below, and recommendations for continued cap maintenance are summarized below:

- Existing Surface Cap: Woody vegetation (trees) greater than 1-inch in diameter should be removed.
- Main Plant Excavation Areas Cap: Woody vegetation greater than 1-inch in diameter should be removed.
- Former Buildings Foundation Cap With Basements: Signs of settlement and subsidence should be filled in; woody vegetation greater than 1-inch in diameter should be removed.
- Former Buildings Foundation Cap Without Basements: Woody vegetation greater than 1-inch in diameter should be removed.
- Former Building 67- Cracks were observed in the Elastocoat® cap that need to be sealed; Woody vegetation greater than 1-inch in diameter observed along the perimeter should be removed.
- Lagoon Area Vegetated Soil Cap- the lagoon vegetation was not inspected in 2019 and 2022 due to the ongoing remediation work associated with OU-2 and the area within the immediate vicinity being used for staging.
- Main Plant Vegetated Soil Cap- Woody vegetation greater than 1-inch in diameter should be removed from asphalt areas, animal burrows, settlement and subsidence should be filled in.

The composite cover system is a permanent control, and the quality and integrity of this system will be inspected at defined, regular intervals in perpetuity, or until the Site is re-developed.

4.2 Institutional Control Compliance

A series of Institutional Controls is required by the ROD to: (1) implement, maintain and monitor Engineering Control systems; (2) prevent future exposure to remaining contamination by controlling disturbances of the subsurface contamination; and, (3) limit the use and development of the site to restricted industrial/commercial uses only. Adherence to these Institutional Controls on the Site is required by the Deed Restriction and is implemented under the NYSDEC-approved SMP. The Institutional Controls and Site restrictions that apply to the Site are:

- Compliance with the Deed Restriction and the SMP by the Grantor and the Grantor's successors and assigns.
- All Engineering Controls must be operated and maintained as specified in the SMP.
- All Engineering Controls on the Controlled Property must be inspected at a frequency and in a manner defined in the SMP.
- Groundwater, soil vapor and other environmental or public health monitoring must be performed as defined in the SMP.

- Data and information pertinent to Site Management of the Controlled Property must be reported at the frequency and in a manner defined in the SMP.

Institutional Controls identified in the Deed Restriction may not be discontinued without an amendment to, or extinguishment of, the Deed Restriction.

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

- The property may only be used for Industrial/Commercial use provided that the long-term Engineering and Institutional Controls included in the SMP are employed.
- The property may not be used for a higher level of use, such as Restricted Residential use without additional remediation and amendment of the Deed Restriction, as approved by the NYSDEC.
- All future activities on the property that will disturb remaining contaminated material must be conducted in accordance with the SMP.
- The use of the groundwater underlying the property is prohibited without treatment rendering it safe for intended use.
- The potential for vapor intrusion must be evaluated for any buildings developed on the Site, and any potential impacts that are identified must be monitored or mitigated.
- Vegetable gardens and farming on the property are prohibited.
- The site owner or remedial party will submit to NYSDEC a written statement that certifies, under penalty of perjury, that: (1) controls employed at the Controlled Property are unchanged from the previous certification or that any changes to the controls were approved by the NYSDEC; and, (2) nothing has occurred that impairs the ability of the controls to protect public health and environment or that constitute a violation or failure to comply with the SMP. NYSDEC retains the right to access such Controlled Property at any time in order to evaluate the continued maintenance of any and all controls. This certification shall be submitted annually, or an alternate period of time that NYSDEC may allow and will be made by an expert that the NYSDEC finds acceptable.

The Site is in compliance with the Institutional Controls as noted above and described in further detail in the following sections.

4.2.1 Excavation Work Plan Compliance

The site has been remediated for Industrial/Commercial use. Any future intrusive work that will penetrate the soil cover or cap, or encounter or disturb the remaining contamination, including any modifications or repairs to the existing cover system, will be performed in compliance with the Excavation Work Plan (EWP) in Appendix D of the SMP. Excavation activities that have occurred since NYSDEC approval of the Construction Completion Report for Operable Unit 1 on June 3, 2014, included the Building 81 source area removal are discussed below.

In October 2014, in the vicinity of former Building 81, approximately 1,200 cubic yards of 1,2-DCA impacted soil were removed from below the water table (6 to 12 feet bls) staged and property characterized for offsite disposal. The fill material from above the impacted soils was excavated, staged and reused as backfill in the excavation areas.

4.2.2 Soil Vapor Intrusion Evaluation

Prior to the construction of any enclosed structures located onsite, a soil vapor intrusion (SVI) evaluation will be performed to determine whether any mitigation measures are necessary to eliminate potential

exposure to vapors in the proposed structure. Alternatively, an SVI mitigation system may be installed as an element of the building foundation without first conducting an investigation. Prior to conducting an SVI investigation or installing a mitigation system, a work plan will be developed and submitted to the NYSDEC and NYSDOH for approval.

Soil vapor monitoring was performed in April 2012 along the perimeter of the Main Plant. The purpose of the soil vapor monitoring was to assess the potential for offsite migration of VOCs in soil vapor once the cap had been installed at the Site. All VOCs were either not-detected or present at concentrations below their respective NYSDOH/USEPA OSWER SVI guidance values, with the exception of carbon tetrachloride detected at 11 micrograms per cubic meter ($\mu\text{g}/\text{m}^3$), which exceeded the NYSDEC guidance value of 5 $\mu\text{g}/\text{m}^3$,

On July 30, 2015, Roux Associates completed a survey of the soil vapor points, Four of the nine soil vapor points were located. The remaining five soil vapor points may have been covered. The soil vapor points will need to be replaced when the Site is redevelopment if building construction is planned.

4.3 Inspections and Notifications

4.3.1 Site-Wide Inspection

In accordance with the SMP, Site-wide inspections are performed on a regular schedule at a minimum of once a year and after all severe weather conditions that may affect Engineering Controls or monitoring devices (as applicable). Note that the occurrence of the Covid-19 Pandemic impacted the ability to perform the 2020 and 2021 Site wide inspections.

4.3.1.1 Monitoring Reporting Requirements

The Site MI&M Forms are included in Appendix B. The findings of the inspections are summarized in Section 4.1.2.

4.3.2 Notification Compliance

Notifications will be submitted by the property owner to the NYSDEC as needed for the following reasons:

- 60-day advance notice of any proposed changes in Site use that are required under the terms of the Order on Consent, 6NYCRR Part 375, and/or Environmental Conservation Law.
- 7-day advance notice of any proposed ground-intrusive activities pursuant to the EWP.
- Notice within 48-hours of any damage or defect to the foundations or structures that reduces or has the potential to reduce the effectiveness of other Engineering Controls and likewise any action to be taken to mitigate the damage or defect.
- Verbal notice by noon of the following day of any emergency, such as a fire, flood, or earthquake that reduces or has the potential to reduce the effectiveness of Engineering Controls in place at the site, with written confirmation within 7 days that includes a summary of actions taken, or to be taken, and the potential impact to the environment and the public.
- Follow-up status reports on actions taken to respond to any emergency event requiring ongoing responsive action shall be submitted to the NYSDEC within 45 days and shall describe and document actions taken to restore the effectiveness of the ECs.

Any change in the ownership of the site or the responsibility for implementing the SMP will include the following notifications:

- At least 60 days prior to the change, the NYSDEC will be notified in writing of the proposed change. This will include a certification that the prospective purchaser has been provided with a copy of the Order on Consent, and all approved work plans and reports, including the SMP.
- Within 15 days after the transfer of all or part of the Site, the new owner's name, contact representative, and contact information will be confirmed in writing.

Notifications during the PRR Reporting Period

The SMP was updated in 2019 and submitted to the NYSDEC on December 5, 2019. Approval of the SMP revisions is pending.

4.4 Contingency Plan Compliance

Emergencies may include injury to personnel, fire or explosion, environmental release, or serious weather conditions. A general Contingency Plan is provided as Appendix G in the SMP that outlines requirements for addressing these types of contingency conditions. There were no issues during the PRR reporting period.

4.5 Certification of Engineering and Institutional Controls

After the last inspection of the reporting period, a qualified environmental professional will prepare the following certification:

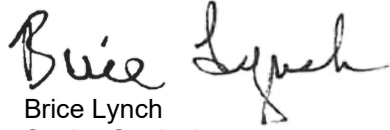
- For each institutional or engineering control identified for the site, I certify that all of the following statements are true:
 - The inspection of the site to confirm the effectiveness of the institutional and engineering controls required by the remedial program was performed under my direction;
 - The institutional control and/or engineering control employed at this site is unchanged from the date the control was put in place, or last approved by the Department;
 - Nothing has occurred that would impair the ability of the control to protect the public health and environment;
 - Nothing has occurred that would constitute a violation or failure to comply with any site management plan for this control;
 - Access to the site will continue to be provided to the Department to evaluate the remedy, including access to evaluate the continued maintenance of this control;
 - If a financial assurance mechanism is required under the oversight document for the site, the mechanism remains valid and sufficient for the intended purpose under the document;
 - Use of the site is compliant with the deed restriction;
 - The engineering control systems are performing as designed and are effective;
 - To the best of my knowledge and belief, the work and conclusions described in this certification are in accordance with the requirements of the site remedial program; and
 - The information presented in this report is accurate and complete.

I certify that all information and statements in this certification form are true. I understand that a false statement made herein is punishable as a Class "A" misdemeanor, pursuant to Section 210.45 of the Penal Law. I, Charles J. McGuckin, P.E., of Roux Environmental Engineering and Geology D.P.C., am certifying as Owner's Designated Representative Rendering Certification for the Site.

The completed Institutional and Engineering Controls Certification Form is provided in Appendix A.

Respectfully submitted,

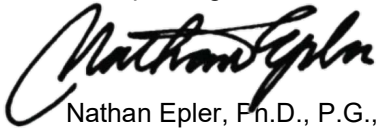
ROUX ENVIRONMENTAL ENGINEERING & GEOLOGY, D.P.C.

A handwritten signature in black ink, appearing to read "Brice Lynch".

Brice Lynch
Senior Geologist

A handwritten signature in black ink, appearing to read "Charles J. McGuckin".

Charles J. McGuckin, P.E.
Principal Engineer

A handwritten signature in black ink, appearing to read "Nathan Epler".

Nathan Epler, Ph.D., P.G., New York
Principal Hydrogeologist

TABLES

1. Summary of Volatile Organic Compounds in Groundwater
2. Summary of Semivolatile Organic Compounds in Groundwater
3. Summary of Metals in Groundwater
4. Summary of Perfluorinated Alkyl Acids and Dioxane in Groundwater

Notes Utilized Throughout Tables	
Groundwater Tables	
J -	Estimated Value
U -	Compound was analyzed for but not detected
J- -	Estimated value, low bias
FD -	Duplicate
NA -	Compound was not analyzed for by laboratory
µg/L -	Micrograms per liter
ng/L -	Nanogram per liter
NYSDEC -	New York State Department of Environmental Conservation
AWQSGVs -	Ambient Water-Quality Standards and Guidance Values
--	No NYSDEC AWQSGV available
Bold data indicates that parameter was detected above the NYSDEC AWQSGVs	
Emerging Contaminants (Per- and Polyfluoroalkyl Substances and 1,4-Dioxane)	
	Bold data indicates that parameter was detected
	Shaded data indicates that parameter exceeded the NYSDEC Ambient Water-Quality Guidance Values

Table 1. Summary of Volatile Organic Compounds in Groundwater, 70 Riverside Drive, Rensselaer, New York

Sample Designation: LG-MW-6R			LG-MW-6R	LG-MW-6R	LG-MW-6R	LG-MW-6R	LG-MW-6R	LG-MW-6R
Sample Date: 09/20/2017			07/03/2018	12/18/2019	01/26/2021	05/10/2022	05/10/2022	
Normal Sample or Field Duplicate:			N	N	N	N	N	FD
Parameter	NYSDEC Ambient Water Quality Standards and Guidance	Units						
1,1,1-Trichloroethane (TCA)	5	UG/L	2 U	2 U	2 U	2 U	2 U	2 U
1,1,2,2-Tetrachloroethane	5	UG/L	1 U	1 U	1 U	1 U	1 U	1 U
1,1,2-Trichloroethane	1	UG/L	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U
1,1-Dichloroethane	5	UG/L	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U
1,1-Dichloroethene	5	UG/L	1 U	1 U	1 U	1 U	1 U	1 U
1,2-Dichlorobenzene	3	UG/L	5 U	NA	NA	NA	NA	NA
1,2-Dichloroethane	0.6	UG/L	7.6	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U
1,2-Dichloropropane	1	UG/L	3.5 U	3.5 U	3.5 U	3.5 U	3.5 U	3.5 U
1,3-Dichlorobenzene	3	UG/L	5 U	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	3	UG/L	5 U	NA	NA	NA	NA	NA
2-Chloroethyl Vinyl Ether	--	UG/L	10 U	10 U	10 U	10 U	10 U	10 U
2-Hexanone	50	UG/L	10 U	10 U	10 U	10 U	10 U	10 U
Acetone	50	UG/L	10 U	10 U	10 U	10 U	10 U	10 U
Acrolein	5	UG/L	8 U	8 U	8 U	8 U	8 U	8 U
Acrylonitrile	5	UG/L	1.1 J	10 U	10 U	10 U	10 U	10 U
Benzene	1	UG/L	1.8	1 U	1 U	1 U	1 U	1 U
Bromodichloromethane	50	UG/L	1 U	1 U	1 U	1 U	1 U	1 U
Bromoform	50	UG/L	1 U	1 U	1 U	1 U	1 U	1 U
Bromomethane	5	UG/L	5 U	5 U	5 U	5 U	5 U	5 U
Carbon Disulfide	60	UG/L	5 U	5 U	5 U	5 U	5 U	5 U
Carbon Tetrachloride	5	UG/L	1 U	1 U	1 U	1 U	1 U	1 U
Chlorobenzene	5	UG/L	7	1.9 J	1.4 J	1.3 J	1.2 J	1.2 J
Chloroethane	5	UG/L	2 U	2 U	2 U	2 U	2 U	2 U
Chloroform	7	UG/L	1.5 U	1 U	1 U	1 U	1 U	1 U
Chloromethane	--	UG/L	5 U	5 U	5 U	5 U	5 U	5 U
Cis-1,2-Dichloroethylene	5	UG/L	1 U	1 U	1 U	1 U	1 U	1 U
Cis-1,3-Dichloropropene	5	UG/L	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U
Dibromochloromethane	50	UG/L	1 U	1 U	1 U	1 U	1 U	1 U
Dibromomethane	5	UG/L	1 U	1 U	1 U	1 U	1 U	1 U
Ethylbenzene	5	UG/L	1 U	1 U	1 U	1 U	1 U	1 U
m,p-Xylene	5	UG/L	2 U	2 U	2 U	2 U	2 U	2 U
Methyl Ethyl Ketone (2-Butanone)	50	UG/L	10 U	10 U	10 U	10 U	10 U	10 U
Methyl Isobutyl Ketone (4-Methyl-2-Pentanone)	--	UG/L	10 U	10 U	10 U	10 U	10 U	10 U
Methylene Chloride	5	UG/L	5 U	5 U	1 U	1 U	1 U	1 U

Table 1. Summary of Volatile Organic Compounds in Groundwater, 70 Riverside Drive, Rensselaer, New York

Sample Designation:			LG-MW-6R	LG-MW-6R	LG-MW-6R	LG-MW-6R	LG-MW-6R	LG-MW-6R
Sample Date:			09/20/2017	07/03/2018	12/18/2019	01/26/2021	05/10/2022	05/10/2022
Normal Sample or Field Duplicate:			N	N	N	N	N	FD
Parameter	NYSDEC Ambient Water Quality Standards and Guidance	Units						
O-Xylene (1,2-Dimethylbenzene)	5	UG/L	1 U	1 U	1 U	1 U	1 U	1 U
Styrene	5	UG/L	1 U	1 U	1 U	1 U	1 U	1 U
Tetrachloroethylene (PCE)	5	UG/L	1.5 U	1.5 U	1 U	1 U	1 U	1 U
Toluene	5	UG/L	1 U	1 U	1 U	1 U	1 U	1 U
Trans-1,2-Dichloroethene	5	UG/L	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U
Trans-1,3-Dichloropropene	--	UG/L	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U
Trichloroethylene (TCE)	5	UG/L	1 U	1 U	1 U	1 U	1 U	1 U
Trichlorofluoromethane	5	UG/L	5 U	5 U	5 U	5 U	5 U	5 U
Vinyl Acetate	--	UG/L	10 U	10 U	10 U	10 U	10 U	10 U
Vinyl Chloride	2	UG/L	1 U	1 U	1 U	1 U	1 U	1 U
Xylenes	5	UG/L	1 U	1 U	1 U	1 U	1 U	1 U

Table 1. Summary of Volatile Organic Compounds in Groundwater, 70 Riverside Drive, Rensselaer, New York

Sample Designation: LG-PZ-10R			LG-PZ-10R	LG-PZ-10R	LG-PZ-10R
Sample Date: 09/20/2017			07/03/2018	07/03/2018	07/03/2018
Normal Sample or Field Duplicate:			N	N	FD
Parameter	NYSDEC Ambient Water Quality Standards and Guidance	Units			
1,1,1-Trichloroethane (TCA)	5	UG/L	2 U	2 U	2 U
1,1,2,2-Tetrachloroethane	5	UG/L	1 U	1 U	1 U
1,1,2-Trichloroethane	1	UG/L	1.5 U	1.5 U	1.5 U
1,1-Dichloroethane	5	UG/L	1.5 U	1.5 U	1.5 U
1,1-Dichloroethene	5	UG/L	1 U	1 U	1 U
1,2-Dichlorobenzene	3	UG/L	5 U	NA	NA
1,2-Dichloroethane	0.6	UG/L	0.92 J	1.5 U	1.5 U
1,2-Dichloropropane	1	UG/L	3.5 U	3.5 U	3.5 U
1,3-Dichlorobenzene	3	UG/L	5 U	NA	NA
1,4-Dichlorobenzene	3	UG/L	5 U	NA	NA
2-Chloroethyl Vinyl Ether	--	UG/L	10 U	10 U	10 U
2-Hexanone	50	UG/L	10 U	10 U	10 U
Acetone	50	UG/L	10 U	10 U	10 U
Acrolein	5	UG/L	8 U	8 U	8 U
Acrylonitrile	5	UG/L	10 U	10 U	10 U
Benzene	1	UG/L	1 U	1 U	1 U
Bromodichloromethane	50	UG/L	1 U	1 U	1 U
Bromoform	50	UG/L	1 U	1 U	1 U
Bromomethane	5	UG/L	5 U	5 U	5 U
Carbon Disulfide	60	UG/L	5 U	5 U	5 U
Carbon Tetrachloride	5	UG/L	1 U	1 U	1 U
Chlorobenzene	5	UG/L	3.5 U	3.5 U	3.5 U
Chloroethane	5	UG/L	2 U	2 U	2 U
Chloroform	7	UG/L	1.5 U	1 U	1 U
Chloromethane	--	UG/L	5 U	5 U	5 U
Cis-1,2-Dichloroethylene	5	UG/L	1 U	1 U	1 U
Cis-1,3-Dichloropropene	5	UG/L	1.5 U	1.5 U	1.5 U
Dibromochloromethane	50	UG/L	1 U	1 U	1 U
Dibromomethane	5	UG/L	1 U	1 U	1 U
Ethylbenzene	5	UG/L	1 U	1 U	1 U
m,p-Xylene	5	UG/L	2 U	2 U	2 U
Methyl Ethyl Ketone (2-Butanone)	50	UG/L	10 U	10 U	10 U
Methyl Isobutyl Ketone (4-Methyl-2-Pentanone)	--	UG/L	10 U	10 U	10 U
Methylene Chloride	5	UG/L	5 U	5 U	5 U

Table 1. Summary of Volatile Organic Compounds in Groundwater, 70 Riverside Drive, Rensselaer, New York

Sample Designation: LG-PZ-10R			LG-PZ-10R	LG-PZ-10R
Sample Date: 09/20/2017			07/03/2018	07/03/2018
Normal Sample or Field Duplicate:			N	FD
Parameter	NYSDEC Ambient Water Quality Standards and Guidance	Units		
O-Xylene (1,2-Dimethylbenzene)	5	UG/L	1 U	1 U
Styrene	5	UG/L	1 U	1 U
Tetrachloroethylene (PCE)	5	UG/L	1.5 U	1.5 U
Toluene	5	UG/L	1 U	1 U
Trans-1,2-Dichloroethene	5	UG/L	1.5 U	1.5 U
Trans-1,3-Dichloropropene	--	UG/L	1.5 U	1.5 U
Trichloroethylene (TCE)	5	UG/L	1 U	1 U
Trichlorofluoromethane	5	UG/L	5 U	5 U
Vinyl Acetate	--	UG/L	10 U	10 U
Vinyl Chloride	2	UG/L	1 U	1 U
Xylenes	5	UG/L	1 U	1 U

Table 1. Summary of Volatile Organic Compounds in Groundwater, 70 Riverside Drive, Rensselaer, New York

Sample Designation: LG-PZ-24R			LG-PZ-24R	LG-PZ-24R	LG-PZ-24R	LG-PZ-24R	LG-PZ-24R	LG-PZ-24R
Sample Date: 09/20/2017			07/03/2018	12/18/2019	12/18/2019	01/26/2021	05/10/2022	
Normal Sample or Field Duplicate:			N	N	N	FD	N	N
Parameter	NYSDEC Ambient Water Quality Standards and Guidance	Units						
1,1,1-Trichloroethane (TCA)	5	UG/L	4 U	5 U	2 U	2 U	4 U	2 U
1,1,2,2-Tetrachloroethane	5	UG/L	2 U	2.5 U	1 U	1 U	2 U	1 U
1,1,2-Trichloroethane	1	UG/L	3 U	3.8 U	1.5 U	1.5 U	3 U	1.5 U
1,1-Dichloroethane	5	UG/L	3 U	3.8 U	1.5 U	1.5 U	3 U	1.5 U
1,1-Dichloroethene	5	UG/L	2 U	2.5 U	1 U	1 U	2 U	1 U
1,2-Dichlorobenzene	3	UG/L	10 U	NA	NA	NA	NA	NA
1,2-Dichloroethane	0.6	UG/L	100	2.1 J	1.5	1.5	3 U	0.64 J
1,2-Dichloropropane	1	UG/L	7 U	8.8 U	3.5 U	3.5 U	7 U	3.5 U
1,3-Dichlorobenzene	3	UG/L	10 U	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	3	UG/L	10 U	NA	NA	NA	NA	NA
2-Chloroethyl Vinyl Ether	--	UG/L	20 U	25 U	10 U	10 U	20 U	10 U
2-Hexanone	50	UG/L	20 U	25 U	10 U	10 U	20 U	10 U
Acetone	50	UG/L	20 U	25 U	10 U	10 U	20 U	10 U
Acrolein	5	UG/L	16 U	20 U	8 U	8 U	16 U	8 U
Acrylonitrile	5	UG/L	20 U	25 U	10 U	10 U	20 U	10 U
Benzene	1	UG/L	24	6.8	7.5	7.9	5.6	3
Bromodichloromethane	50	UG/L	2 U	2.5 U	1 U	1 U	2 U	1 U
Bromoform	50	UG/L	2 U	2.5 U	1 U	1 U	2 U	1 U
Bromomethane	5	UG/L	10 U	12 U	5 U	5 U	10 U	5 U
Carbon Disulfide	60	UG/L	10 U	12 U	5 U	5 U	10 U	5 U
Carbon Tetrachloride	5	UG/L	2 U	2.5 U	1 U	1 U	2 U	1 U
Chlorobenzene	5	UG/L	230	300	100	100	320	150
Chloroethane	5	UG/L	4 U	5 U	2 U	2 U	4 U	2 U
Chloroform	7	UG/L	3 U	2.5 U	1 U	1 U	2 U	1 U
Chloromethane	--	UG/L	10 U	12 U	5 U	5 U	10 U	5 U
Cis-1,2-Dichloroethylene	5	UG/L	2 U	2.5 U	1 U	1 U	0.43 J	0.19 J
Cis-1,3-Dichloropropene	5	UG/L	3 U	3.8 U	1.5 U	1.5 U	3 U	1.5 U
Dibromochloromethane	50	UG/L	2 U	2.5 U	1 U	1 U	2 U	1 U
Dibromomethane	5	UG/L	2 U	2.5 U	1 U	1 U	2 U	1 U
Ethylbenzene	5	UG/L	1.6 J	2.5 U	0.79 J	0.81 J	2 U	0.3 J
m,p-Xylene	5	UG/L	4 U	5 U	2 U	2 U	4 U	2 U
Methyl Ethyl Ketone (2-Butanone)	50	UG/L	20 U	25 U	10 U	10 U	20 U	10 U
Methyl Isobutyl Ketone (4-Methyl-2-Pentanone)	--	UG/L	20 U	25 U	10 U	10 U	20 U	10 U
Methylene Chloride	5	UG/L	10 U	1.6 J	1 U	1 U	2 U	1 U

Table 1. Summary of Volatile Organic Compounds in Groundwater, 70 Riverside Drive, Rensselaer, New York

Sample Designation:			LG-PZ-24R	LG-PZ-24R	LG-PZ-24R	LG-PZ-24R	LG-PZ-24R	LG-PZ-24R
Sample Date:			09/20/2017	07/03/2018	12/18/2019	12/18/2019	01/26/2021	05/10/2022
Normal Sample or Field Duplicate:			N	N	N	FD	N	N
Parameter	NYSDEC Ambient Water Quality Standards and Guidance	Units						
O-Xylene (1,2-Dimethylbenzene)	5	UG/L	2 U	2.5 U	1 U	1 U	2 U	1 U
Styrene	5	UG/L	2 U	2.5 U	1 U	1 U	2 U	1 U
Tetrachloroethylene (PCE)	5	UG/L	3 U	3.8 U	1 U	1 U	2 U	1 U
Toluene	5	UG/L	2 U	2.5 U	1 U	1 U	2 U	1 U
Trans-1,2-Dichloroethene	5	UG/L	3 U	3.8 U	1.5 U	1.5 U	3 U	1.5 U
Trans-1,3-Dichloropropene	--	UG/L	3 U	3.8 U	1.5 U	1.5 U	3 U	1.5 U
Trichloroethylene (TCE)	5	UG/L	2 U	2.5 U	1 U	1 U	2 U	1 U
Trichlorofluoromethane	5	UG/L	10 U	12 U	5 U	5 U	10 U	5 U
Vinyl Acetate	--	UG/L	20 U	25 U	10 U	10 U	20 U	10 U
Vinyl Chloride	2	UG/L	2 U	2.5 U	1 U	1 U	2 U	1 U
Xylenes	5	UG/L	2 U	2.5 U	1 U	1 U	2 U	1 U

Table 1. Summary of Volatile Organic Compounds in Groundwater, 70 Riverside Drive, Rensselaer, New York

Sample Designation:			LG-PZ-6R	LG-PZ-6R	LG-PZ-6R	LG-PZ-6R	LG-PZ-6R
Sample Date:			09/20/2017	07/03/2018	12/18/2019	01/26/2021	05/10/2022
Normal Sample or Field Duplicate:			N	N	N	N	N
Parameter	NYSDEC Ambient Water Quality Standards and Guidance	Units					
1,1,1-Trichloroethane (TCA)	5	UG/L	2 U	2 U	2 U	2 U	2 U
1,1,2,2-Tetrachloroethane	5	UG/L	1 U	1 U	1 U	1 U	1 U
1,1,2-Trichloroethane	1	UG/L	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U
1,1-Dichloroethane	5	UG/L	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U
1,1-Dichloroethene	5	UG/L	1 U	1 U	1 U	1 U	1 U
1,2-Dichlorobenzene	3	UG/L	5 U	NA	NA	NA	NA
1,2-Dichloroethane	0.6	UG/L	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U
1,2-Dichloropropane	1	UG/L	3.5 U	3.5 U	3.5 U	3.5 U	3.5 U
1,3-Dichlorobenzene	3	UG/L	5 U	NA	NA	NA	NA
1,4-Dichlorobenzene	3	UG/L	5 U	NA	NA	NA	NA
2-Chloroethyl Vinyl Ether	--	UG/L	10 U	10 U	10 U	10 U	10 U
2-Hexanone	50	UG/L	10 U	10 U	10 U	10 U	10 U
Acetone	50	UG/L	10 U	10 U	10 U	10 U	10 U
Acrolein	5	UG/L	8 U	8 U	8 U	8 U	8 U
Acrylonitrile	5	UG/L	10 U	10 U	10 U	10 U	10 U
Benzene	1	UG/L	1 U	1 U	1 U	1 U	1 U
Bromodichloromethane	50	UG/L	1 U	1 U	1 U	1 U	1 U
Bromoform	50	UG/L	1 U	1 U	1 U	1 U	1 U
Bromomethane	5	UG/L	5 U	5 U	5 U	5 U	5 U
Carbon Disulfide	60	UG/L	5 U	5 U	5 U	5 U	5 U
Carbon Tetrachloride	5	UG/L	1 U	1 U	1 U	1 U	1 U
Chlorobenzene	5	UG/L	2 U	3.5 U	3.5 U	3.5 U	3.5 U
Chloroethane	5	UG/L	2 U	2 U	2 U	2 U	2 U
Chloroform	7	UG/L	1.5 U	1 U	1 U	1 U	1 U
Chloromethane	--	UG/L	5 U	5 U	5 U	5 U	5 U
Cis-1,2-Dichloroethylene	5	UG/L	1 U	1 U	1 U	1 U	1 U
Cis-1,3-Dichloropropene	5	UG/L	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U
Dibromochloromethane	50	UG/L	1 U	1 U	1 U	1 U	1 U
Dibromomethane	5	UG/L	1 U	1 U	1 U	1 U	1 U
Ethylbenzene	5	UG/L	1 U	1 U	1 U	1 U	1 U
m,p-Xylene	5	UG/L	2 U	2 U	2 U	2 U	2 U
Methyl Ethyl Ketone (2-Butanone)	50	UG/L	10 U	10 U	10 U	10 U	10 U
Methyl Isobutyl Ketone (4-Methyl-2-Pentanone)	--	UG/L	10 U	10 U	10 U	10 U	10 U
Methylene Chloride	5	UG/L	5 U	5 U	1 U	1 U	1 U

Table 1. Summary of Volatile Organic Compounds in Groundwater, 70 Riverside Drive, Rensselaer, New York

Sample Designation:			LG-PZ-6R	LG-PZ-6R	LG-PZ-6R	LG-PZ-6R	LG-PZ-6R
Sample Date:			09/20/2017	07/03/2018	12/18/2019	01/26/2021	05/10/2022
Normal Sample or Field Duplicate:			N	N	N	N	N
Parameter	NYSDEC Ambient Water Quality Standards and Guidance	Units					
O-Xylene (1,2-Dimethylbenzene)	5	UG/L	1 U	1 U	1 U	1 U	1 U
Styrene	5	UG/L	1 U	1 U	1 U	1 U	1 U
Tetrachloroethylene (PCE)	5	UG/L	1.5 U	1.5 U	1 U	1 U	1 U
Toluene	5	UG/L	1 U	1 U	1 U	1 U	1 U
Trans-1,2-Dichloroethene	5	UG/L	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U
Trans-1,3-Dichloropropene	--	UG/L	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U
Trichloroethylene (TCE)	5	UG/L	1 U	1 U	1 U	1 U	1 U
Trichlorofluoromethane	5	UG/L	5 U	5 U	5 U	5 U	5 U
Vinyl Acetate	--	UG/L	10 U	10 U	10 U	10 U	10 U
Vinyl Chloride	2	UG/L	1 U	1 U	1 U	1 U	1 U
Xylenes	5	UG/L	1 U	1 U	1 U	1 U	1 U

Table 1. Summary of Volatile Organic Compounds in Groundwater, 70 Riverside Drive, Rensselaer, New York

Sample Designation:			MP-MW-105R	MP-MW-105R	MP-MW-105R	MP-MW-105R	MP-MW-105R	MP-MW-105R	MP-MW-105R
Sample Date:			09/20/2017	09/20/2017	07/03/2018	12/18/2019	01/26/2021	01/26/2021	05/10/2022
Normal Sample or Field Duplicate:			N	FD	N	N	N	FD	N
Parameter	NYSDEC Ambient Water Quality Standards and Guidance	Units							
1,1,1-Trichloroethane (TCA)	5	UG/L	2000 U	2000 U	800 U	1000 U	800 U	1000 U	500 U
1,1,2,2-Tetrachloroethane	5	UG/L	1000 U	1000 U	400 U	500 U	400 U	500 U	250 U
1,1,2-Trichloroethane	1	UG/L	1500 U	1500 U	600 U	750 U	600 U	750 U	380 U
1,1-Dichloroethane	5	UG/L	1500 U	1500 U	600 U	750 U	600 U	750 U	380 U
1,1-Dichloroethene	5	UG/L	1000 U	1000 U	400 U	500 U	400 U	500 U	250 U
1,2-Dichlorobenzene	3	UG/L	5000 U	5000 U	NA	NA	NA	NA	NA
1,2-Dichloroethane	0.6	UG/L	120000	98000	53000	64000	52000	55000	28000
1,2-Dichloropropane	1	UG/L	3500 U	3500 U	1400 U	1800 U	1400 U	1800 U	880 U
1,3-Dichlorobenzene	3	UG/L	5000 U	5000 U	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	3	UG/L	5000 U	5000 U	NA	NA	NA	NA	NA
2-Chloroethyl Vinyl Ether	--	UG/L	10000 U	10000 U	4000 U	5000 U	4000 U	5000 U	2500 U
2-Hexanone	50	UG/L	10000 U	10000 U	4000 U	5000 U	4000 U	5000 U	2500 U
Acetone	50	UG/L	10000 U	10000 U	4000 U	5000 U	4000 U	5000 U	2500 U
Acrolein	5	UG/L	8000 U	8000 U	3200 U	4000 U	3200 U	4000 U	2000 U
Acrylonitrile	5	UG/L	10000 U	10000 U	4000 U	5000 U	4000 U	5000 U	2500 U
Benzene	1	UG/L	7400	6600	4600	4200	2700	2800	1500
Bromodichloromethane	50	UG/L	1000 U	1000 U	400 U	500 U	400 U	500 U	250 U
Bromoform	50	UG/L	1000 U	1000 U	400 U	500 U	400 U	500 U	250 U
Bromomethane	5	UG/L	5000 U	5000 U	2000 U	2500 U	2000 U	2500 U	1200 U
Carbon Disulfide	60	UG/L	5000 U	5000 U	2000 U	2500 U	2000 U	2500 U	1200 U
Carbon Tetrachloride	5	UG/L	1000 U	1000 U	400 U	500 U	400 U	500 U	250 U
Chlorobenzene	5	UG/L	6300	5000	4800	3900	2200	2600	1200
Chloroethane	5	UG/L	2000 U	2000 U	800 U	1000 U	800 U	1000 U	500 U
Chloroform	7	UG/L	1500 U	1500 U	400 U	500 U	400 U	500 U	250 U
Chloromethane	--	UG/L	5000 U	5000 U	2000 U	2500 U	2000 U	2500 U	1200 U
Cis-1,2-Dichloroethylene	5	UG/L	1000 U	1000 U	400 U	500 U	400 U	500 U	250 U
Cis-1,3-Dichloropropene	5	UG/L	1500 U	1500 U	600 U	750 U	600 U	750 U	380 U
Dibromochloromethane	50	UG/L	1000 U	1000 U	400 U	500 U	400 U	500 U	250 U
Dibromomethane	5	UG/L	1000 U	1000 U	400 U	500 U	400 U	500 U	250 U
Ethylbenzene	5	UG/L	1000 U	1000 U	400 U	500 U	400 U	500 U	250 U
m,p-Xylene	5	UG/L	2000 U	2000 U	800 U	1000 U	800 U	1000 U	500 U
Methyl Ethyl Ketone (2-Butanone)	50	UG/L	10000 U	10000 U	4000 U	5000 U	4000 U	5000 U	2500 U
Methyl Isobutyl Ketone (4-Methyl-2-Pentanone)	--	UG/L	10000 U	10000 U	4000 U	5000 U	4000 U	5000 U	2500 U
Methylene Chloride	5	UG/L	5000 U	5000 U	260 J	500 U	400 U	500 U	250 U

Table 1. Summary of Volatile Organic Compounds in Groundwater, 70 Riverside Drive, Rensselaer, New York

Sample Designation:			MP-MW-105R	MP-MW-105R	MP-MW-105R	MP-MW-105R	MP-MW-105R	MP-MW-105R	MP-MW-105R
Sample Date:			09/20/2017	09/20/2017	07/03/2018	12/18/2019	01/26/2021	01/26/2021	05/10/2022
Normal Sample or Field Duplicate:			N	FD	N	N	N	FD	N
Parameter	NYSDEC Ambient Water Quality Standards and Guidance	Units							
O-Xylene (1,2-Dimethylbenzene)	5	UG/L	1000 U	1000 U	400 U	500 U	400 U	500 U	250 U
Styrene	5	UG/L	1000 U	1000 U	400 U	500 U	400 U	500 U	250 U
Tetrachloroethylene (PCE)	5	UG/L	1500 U	1500 U	600 U	500 U	400 U	500 U	250 U
Toluene	5	UG/L	1000 U	1000 U	400 U	500 U	400 U	500 U	250 U
Trans-1,2-Dichloroethene	5	UG/L	1500 U	1500 U	600 U	750 U	600 U	750 U	380 U
Trans-1,3-Dichloropropene	--	UG/L	1500 U	1500 U	600 U	750 U	600 U	750 U	380 U
Trichloroethylene (TCE)	5	UG/L	1000 U	1000 U	400 U	500 U	400 U	500 U	250 U
Trichlorofluoromethane	5	UG/L	5000 U	5000 U	2000 U	2500 U	2000 U	2500 U	1200 U
Vinyl Acetate	--	UG/L	10000 U	10000 U	4000 U	5000 U	4000 U	5000 U	2500 U
Vinyl Chloride	2	UG/L	1000 U	1000 U	270 J	280 J	180 J	200 J	110 J
Xylenes	5	UG/L	1000 U	1000 U	400 U	500 U	400 U	500 U	250 U

Table 2. Summary of Semivolatile Organic Compounds in Groundwater, 70 Riverside Drive, Rensselaer, New York

Sample Designation:			LG-MW-6R	LG-MW-6R	LG-MW-6R	LG-MW-6R	LG-MW-6R	LG-MW-6R
Sample Date:			09/20/2017	07/03/2018	12/18/2019	01/26/2021	05/10/2022	05/10/2022
Normal Sample or Field Duplicate:			N	N	N	N	N	FD
Parameter	NYSDEC Ambient Water Quality Standards and Guidance	Units						
1,2,4-Trichlorobenzene	5	UG/L	5 U	NA	NA	NA	NA	NA
1,4-Dioxane (P-Dioxane)	0.35	UG/L	0.457	NA	0.154	0.209	0.237	0.253
2,4,5-Trichlorophenol	--	UG/L	5 U	5 U	5 U	5 U	5 U	5 U
2,4,6-Trichlorophenol	--	UG/L	5 U	5 U	5 U	5 U	5 U	5 U
2,4-Dichlorophenol	5	UG/L	5 U	5 U	5 U	5 U	5 U	5 U
2,4-Dimethylphenol	50	UG/L	5 U	5 U	5 U	5 U	5 U	5 U
2,4-Dinitrophenol	10	UG/L	20 U	20 U	20 U	20 U	20 U	20 U
2,4-Dinitrotoluene	5	UG/L	5 U	5 U	5 U	5 U	5 U	5 U
2,6-Dinitrotoluene	5	UG/L	5 U	5 U	5 U	5 U	5 U	5 U
2-Chloronaphthalene	10	UG/L	2 U	2 U	2 U	2 U	2 U	2 U
2-Chlorophenol	--	UG/L	2 U	2 U	2 U	2 U	2 U	2 U
2-Methylnaphthalene	--	UG/L	2 U	2 U	2 U	2 U	2 U	2 U
2-Methylphenol (O-Cresol)	--	UG/L	5 U	5 U	5 U	5 U	5 U	5 U
2-Nitrophenol	--	UG/L	5 U	5 U	5 U	5 U	5 U	5 U
3- And 4- Methylphenol (Total)	--	UG/L	5 U	5 U	5 U	5 U	5 U	5 U
3,3'-Dichlorobenzidine	5	UG/L	5 U	5 U	5 U	5 U	5 U	5 U
4,6-Dinitro-2-Methylphenol	--	UG/L	10 U	10 U	10 U	10 U	10 U	10 U
4-Bromophenyl Phenyl Ether	--	UG/L	2 U	2 U	2 U	2 U	2 U	2 U
4-Chloro-3-Methylphenol	--	UG/L	2 U	2 U	2 U	2 U	2 U	2 U
4-Chloroaniline	5	UG/L	5 U	5 U	5 U	5 U	5 U	5 U
4-Chlorophenyl Phenyl Ether	--	UG/L	2 U	2 U	2 U	2 U	2 U	2 U
4-Nitrophenol	--	UG/L	10 U	10 U	10 U	10 U	10 U	10 U
Acenaphthene	20	UG/L	2 U	2 U	2 U	2 U	2 U	2 U
Acenaphthylene	20	UG/L	2 U	2 U	2 U	2 U	2 U	2 U
Anthracene	50	UG/L	2 U	2 U	2 U	2 U	2 U	2 U
Azobenzene	--	UG/L	2 U	2 U	2 U	2 U	2 U	2 U
Benzidine	5	UG/L	20 U	20 U	20 U	20 U	20 U	20 U
Benzo(A)Anthracene	0.002	UG/L	2 U	2 U	2 U	2 U	2 U	2 U
Benzo(A)Pyrene	0	UG/L	2 U	2 U	2 U	2 U	2 U	2 U
Benzo(B)Fluoranthene	0.002	UG/L	2 U	2 U	2 U	2 U	2 U	2 U
Benzo(G,H,I)Perylene	--	UG/L	2 U	2 U	2 U	2 U	2 U	2 U
Benzo(K)Fluoranthene	0.002	UG/L	2 U	2 U	2 U	2 U	2 U	2 U
Benzoic Acid	--	UG/L	50 U	50 U	50 U	50 U	50 U	50 U
Benzyl Alcohol	--	UG/L	2 U	2 U	2 U	2 U	2 U	2 U

Table 2. Summary of Semivolatile Organic Compounds in Groundwater, 70 Riverside Drive, Rensselaer, New York

Sample Designation:			LG-MW-6R	LG-MW-6R	LG-MW-6R	LG-MW-6R	LG-MW-6R	LG-MW-6R
Sample Date:			09/20/2017	07/03/2018	12/18/2019	01/26/2021	05/10/2022	05/10/2022
Normal Sample or Field Duplicate:			N	N	N	N	N	FD
Parameter	NYSDEC Ambient Water Quality Standards and Guidance	Units						
Benzyl Butyl Phthalate	50	UG/L	5 U	5 U	5 U	5 U	5 U	5 U
Bis(2-Chloroethoxy) Methane	5	UG/L	5 U	5 U	5 U	5 U	5 U	5 U
Bis(2-Chloroethyl) Ether (2-Chloroethyl Ether)	1	UG/L	2 U	2 U	2 U	2 U	2 U	2 U
Bis(2-Chloroisopropyl) Ether	5	UG/L	2 U	2 U	2 U	2 U	2 U	2 U
Bis(2-Ethylhexyl) Phthalate	5	UG/L	3 U	3 U	2.2 U	2.2 U	2.2 U	2.2 U
Chrysene	0.002	UG/L	2 U	2 U	2 U	2 U	2 U	2 U
Dibenz(A,H)Anthracene	--	UG/L	2 U	2 U	2 U	2 U	2 U	2 U
Dibenzofuran	--	UG/L	2 U	2 U	2 U	2 U	2 U	2 U
Diethyl Phthalate	50	UG/L	5 U	5 U	5 U	5 U	5 U	5 U
Dimethyl Phthalate	50	UG/L	5 U	5 U	5 U	5 U	5 U	5 U
Di-N-Butyl Phthalate	50	UG/L	5 U	5 U	5 U	5 U	5 U	5 U
Di-N-Octylphthalate	--	UG/L	5 U	5 U	5 U	5 U	5 U	5 U
Fluoranthene	50	UG/L	2 U	2 U	2 U	2 U	2 U	2 U
Fluorene	50	UG/L	2 U	2 U	2 U	2 U	2 U	2 U
Hexachlorobenzene	0.04	UG/L	2 U	2 U	2 U	2 U	2 U	2 U
Hexachlorobutadiene	0.5	UG/L	2 U	NA	NA	NA	NA	NA
Hexachlorocyclopentadiene	5	UG/L	10 U	10 U	10 U	10 U	10 U	10 U
Hexachloroethane	5	UG/L	2 U	2 U	2 U	2 U	2 U	2 U
Indeno(1,2,3-C,D)Pyrene	0.002	UG/L	2 U	2 U	2 U	2 U	2 U	2 U
Isophorone	50	UG/L	5 U	5 U	5 U	5 U	5 U	5 U
Naphthalene	10	UG/L	2 U	NA	NA	NA	NA	NA
Nitrobenzene	0.4	UG/L	2 U	2 U	2 U	2 U	2 U	2 U
N-Nitrosodimethylamine	--	UG/L	2 U	2 U	2 U	2 U	2 U	2 U
N-Nitrosodi-N-Propylamine	--	UG/L	5 U	5 U	5 U	5 U	5 U	5 U
N-Nitrosodiphenylamine	50	UG/L	2 U	2 U	2 U	2 U	2 U	2 U
Pentachlorophenol	1	UG/L	5 U	NA	NA	NA	NA	NA
Phenanthrene	50	UG/L	2 U	2 U	2 U	2 U	2 U	2 U
Phenol	1	UG/L	5 U	5 U	5 U	5 U	5 U	5 U
Pyrene	50	UG/L	2 U	2 U	2 U	2 U	2 U	2 U

Table 2. Summary of Semivolatile Organic Compounds in Groundwater, 70 Riverside Drive, Rensselaer, New York

Sample Designation:			LG-PZ-10R	LG-PZ-10R	LG-PZ-10R
Sample Date:			09/20/2017	07/03/2018	07/03/2018
Normal Sample or Field Duplicate:			N	N	FD
Parameter	NYSDEC Ambient Water Quality Standards and Guidance	Units			
1,2,4-Trichlorobenzene	5	UG/L	5 U	NA	NA
1,4-Dioxane (P-Dioxane)	0.35	UG/L	0.297	NA	NA
2,4,5-Trichlorophenol	--	UG/L	5 U	5 U	5 U
2,4,6-Trichlorophenol	--	UG/L	5 U	5 U	5 U
2,4-Dichlorophenol	5	UG/L	5 U	5 U	5 U
2,4-Dimethylphenol	50	UG/L	5 U	5 U	5 U
2,4-Dinitrophenol	10	UG/L	20 U	20 U	20 U
2,4-Dinitrotoluene	5	UG/L	5 U	5 U	5 U
2,6-Dinitrotoluene	5	UG/L	5 U	5 U	5 U
2-Chloronaphthalene	10	UG/L	2 U	2 U	2 U
2-Chlorophenol	--	UG/L	2 U	2 U	2 U
2-Methylnaphthalene	--	UG/L	2 U	2 U	2 U
2-Methylphenol (O-Cresol)	--	UG/L	5 U	5 U	5 U
2-Nitrophenol	--	UG/L	5 U	5 U	5 U
3- And 4- Methylphenol (Total)	--	UG/L	5 U	5 U	5 U
3,3'-Dichlorobenzidine	5	UG/L	5 U	5 U	5 U
4,6-Dinitro-2-Methylphenol	--	UG/L	10 U	10 U	10 U
4-Bromophenyl Phenyl Ether	--	UG/L	2 U	2 U	2 U
4-Chloro-3-Methylphenol	--	UG/L	2 U	2 U	2 U
4-Chloroaniline	5	UG/L	5 U	5 U	5 U
4-Chlorophenyl Phenyl Ether	--	UG/L	2 U	2 U	2 U
4-Nitrophenol	--	UG/L	10 U	10 U	10 U
Acenaphthene	20	UG/L	2 U	2 U	2 U
Acenaphthylene	20	UG/L	2 U	2 U	2 U
Anthracene	50	UG/L	2 U	2 U	2 U
Azobenzene	--	UG/L	2 U	2 U	2 U
Benzidine	5	UG/L	20 U	20 U	20 U
Benzo(A)Anthracene	0.002	UG/L	2 U	2 U	2 U
Benzo(A)Pyrene	0	UG/L	2 U	2 U	2 U
Benzo(B)Fluoranthene	0.002	UG/L	2 U	2 U	2 U
Benzo(G,H,I)Perylene	--	UG/L	2 U	2 U	2 U
Benzo(K)Fluoranthene	0.002	UG/L	2 U	2 U	2 U
Benzoic Acid	--	UG/L	50 U	50 U	50 U
Benzyl Alcohol	--	UG/L	2 U	2 U	2 U

Table 2. Summary of Semivolatile Organic Compounds in Groundwater, 70 Riverside Drive, Rensselaer, New York

Sample Designation:			LG-PZ-10R	LG-PZ-10R	LG-PZ-10R
Sample Date:			09/20/2017	07/03/2018	07/03/2018
Normal Sample or Field Duplicate:			N	N	FD
Parameter	NYSDEC Ambient Water Quality Standards and Guidance	Units			
Benzyl Butyl Phthalate	50	UG/L	5 U	5 U	5 U
Bis(2-Chloroethoxy) Methane	5	UG/L	5 U	5 U	5 U
Bis(2-Chloroethyl) Ether (2-Chloroethyl Ether)	1	UG/L	2 U	2 U	2 U
Bis(2-Chloroisopropyl) Ether	5	UG/L	2 U	2 U	2 U
Bis(2-Ethylhexyl) Phthalate	5	UG/L	2 J	3 U	3 U
Chrysene	0.002	UG/L	2 U	2 U	2 U
Dibenz(A,H)Anthracene	--	UG/L	2 U	2 U	2 U
Dibenzofuran	--	UG/L	2 U	2 U	2 U
Diethyl Phthalate	50	UG/L	5 U	5 U	5 U
Dimethyl Phthalate	50	UG/L	5 U	5 U	5 U
Di-N-Butyl Phthalate	50	UG/L	5 U	5 U	5 U
Di-N-Octylphthalate	--	UG/L	5 U	5 U	5 U
Fluoranthene	50	UG/L	2 U	2 U	2 U
Fluorene	50	UG/L	2 U	2 U	2 U
Hexachlorobenzene	0.04	UG/L	2 U	2 U	2 U
Hexachlorobutadiene	0.5	UG/L	2 U	NA	NA
Hexachlorocyclopentadiene	5	UG/L	10 U	10 U	10 U
Hexachloroethane	5	UG/L	2 U	2 U	2 U
Indeno(1,2,3-C,D)Pyrene	0.002	UG/L	2 U	2 U	2 U
Isophorone	50	UG/L	5 U	5 U	5 U
Naphthalene	10	UG/L	2 U	NA	NA
Nitrobenzene	0.4	UG/L	2 U	2 U	2 U
N-Nitrosodimethylamine	--	UG/L	2 U	2 U	2 U
N-Nitrosodi-N-Propylamine	--	UG/L	5 U	5 U	5 U
N-Nitrosodiphenylamine	50	UG/L	2 U	2 U	2 U
Pentachlorophenol	1	UG/L	5 U	NA	NA
Phenanthrene	50	UG/L	2 U	2 U	2 U
Phenol	1	UG/L	5 U	5 U	5 U
Pyrene	50	UG/L	2 U	2 U	2 U

Table 2. Summary of Semivolatile Organic Compounds in Groundwater, 70 Riverside Drive, Rensselaer, New York

Sample Designation:			LG-PZ-24R	LG-PZ-24R	LG-PZ-24R	LG-PZ-24R	LG-PZ-24R	LG-PZ-24R
Sample Date:			09/20/2017	07/03/2018	12/18/2019	12/18/2019	01/26/2021	05/10/2022
Normal Sample or Field Duplicate:			N	N	N	FD	N	N
Parameter	NYSDEC Ambient Water Quality Standards and Guidance	Units						
1,2,4-Trichlorobenzene	5	UG/L	5 U	NA	NA	NA	NA	NA
1,4-Dioxane (P-Dioxane)	0.35	UG/L	15	NA	4.33	4.24	16.2	13.8
2,4,5-Trichlorophenol	--	UG/L	5 U	5 U	5 U	5 U	5 U	5 U
2,4,6-Trichlorophenol	--	UG/L	5 U	5 U	5 U	5 U	5 U	5 U
2,4-Dichlorophenol	5	UG/L	5 U	5 U	5 U	5 U	5 U	5 U
2,4-Dimethylphenol	50	UG/L	5 U	5 U	5 U	5 U	5 U	5 U
2,4-Dinitrophenol	10	UG/L	20 U	20 U	20 U	20 U	20 U	20 U
2,4-Dinitrotoluene	5	UG/L	5 U	5 U	5 U	5 U	5 U	5 U
2,6-Dinitrotoluene	5	UG/L	5 U	5 U	5 U	5 U	5 U	5 U
2-Chloronaphthalene	10	UG/L	2 U	2 U	2 U	2 U	2 U	2 U
2-Chlorophenol	--	UG/L	2 U	2 U	2 U	2 U	2 U	2 U
2-Methylnaphthalene	--	UG/L	0.95 J	2 U	2 U	2 U	2 U	2 U
2-Methylphenol (O-Cresol)	--	UG/L	5 U	5 U	5 U	5 U	5 U	5 U
2-Nitrophenol	--	UG/L	5 U	5 U	5 U	5 U	5 U	5 U
3- And 4- Methylphenol (Total)	--	UG/L	5 U	5 U	5 U	5 U	5 U	5 U
3,3'-Dichlorobenzidine	5	UG/L	5 U	5 U	5 U	5 U	5 U	5 U
4,6-Dinitro-2-Methylphenol	--	UG/L	10 U	10 U	10 U	10 U	10 U	10 U
4-Bromophenyl Phenyl Ether	--	UG/L	2 U	2 U	2 U	2 U	2 U	2 U
4-Chloro-3-Methylphenol	--	UG/L	2 U	2 U	2 U	2 U	2 U	2 U
4-Chloroaniline	5	UG/L	5 U	5 U	5 U	5 U	5 U	5 U
4-Chlorophenyl Phenyl Ether	--	UG/L	2 U	2 U	2 U	2 U	2 U	2 U
4-Nitrophenol	--	UG/L	10 U	10 U	10 U	10 U	10 U	10 U
Acenaphthene	20	UG/L	2 U	2 U	2 U	2 U	2 U	2 U
Acenaphthylene	20	UG/L	2 U	2 U	2 U	2 U	2 U	2 U
Anthracene	50	UG/L	2 U	2 U	2 U	2 U	2 U	2 U
Azobenzene	--	UG/L	2 U	2 U	2 U	2 U	2 U	2 U
Benzidine	5	UG/L	20 U	20 U	20 U	20 U	20 U	20 U
Benzo(A)Anthracene	0.002	UG/L	2 U	2 U	2 U	2 U	2 U	2 U
Benzo(A)Pyrene	0	UG/L	2 U	2 U	2 U	2 U	2 U	2 U
Benzo(B)Fluoranthene	0.002	UG/L	2 U	2 U	2 U	2 U	2 U	2 U
Benzo(G,H,I)Perylene	--	UG/L	2 U	2 U	2 U	2 U	2 U	2 U
Benzo(K)Fluoranthene	0.002	UG/L	2 U	2 U	2 U	2 U	2 U	2 U
Benzoic Acid	--	UG/L	6.9 J	50 U	50 U	50 U	50 U	50 U
Benzyl Alcohol	--	UG/L	2 U	2 U	2 U	2 U	2 U	2 U

Table 2. Summary of Semivolatile Organic Compounds in Groundwater, 70 Riverside Drive, Rensselaer, New York

Sample Designation:			LG-PZ-24R	LG-PZ-24R	LG-PZ-24R	LG-PZ-24R	LG-PZ-24R	LG-PZ-24R
Sample Date:			09/20/2017	07/03/2018	12/18/2019	12/18/2019	01/26/2021	05/10/2022
Normal Sample or Field Duplicate:			N	N	N	FD	N	N
Parameter	NYSDEC Ambient Water Quality Standards and Guidance	Units						
Benzyl Butyl Phthalate	50	UG/L	5 U	5 U	5 U	5 U	5 U	5 U
Bis(2-Chloroethoxy) Methane	5	UG/L	5 U	5 U	5 U	5 U	5 U	5 U
Bis(2-Chloroethyl) Ether (2-Chloroethyl Ether)	1	UG/L	2 U	2 U	2 U	2 U	2 U	2 U
Bis(2-Chloroisopropyl) Ether	5	UG/L	2 U	2 U	2 U	2 U	2 U	2 U
Bis(2-Ethylhexyl) Phthalate	5	UG/L	3.1	3 U	2.2 U	2.2 U	2.2 U	2.2 U
Chrysene	0.002	UG/L	2 U	2 U	2 U	2 U	2 U	2 U
Dibenz(A,H)Anthracene	--	UG/L	2 U	2 U	2 U	2 U	2 U	2 U
Dibenzofuran	--	UG/L	2 U	2 U	2 U	2 U	2 U	2 U
Diethyl Phthalate	50	UG/L	5 U	5 U	5 U	5 U	5 U	5 U
Dimethyl Phthalate	50	UG/L	5 U	5 U	5 U	5 U	5 U	5 U
Di-N-Butyl Phthalate	50	UG/L	5 U	5 U	5 U	5 U	5 U	5 U
Di-N-Octylphthalate	--	UG/L	5 U	5 U	5 U	5 U	5 U	5 U
Fluoranthene	50	UG/L	2 U	2 U	2 U	2 U	2 U	2 U
Fluorene	50	UG/L	2 U	2 U	2 U	2 U	2 U	2 U
Hexachlorobenzene	0.04	UG/L	2 U	2 U	2 U	2 U	2 U	2 U
Hexachlorobutadiene	0.5	UG/L	2 U	NA	NA	NA	NA	NA
Hexachlorocyclopentadiene	5	UG/L	10 U	10 U	10 U	10 U	10 U	10 U
Hexachloroethane	5	UG/L	2 U	2 U	2 U	2 U	2 U	2 U
Indeno(1,2,3-C,D)Pyrene	0.002	UG/L	2 U	2 U	2 U	2 U	2 U	2 U
Isophorone	50	UG/L	5 U	5 U	5 U	5 U	5 U	5 U
Naphthalene	10	UG/L	2 U	NA	NA	NA	NA	NA
Nitrobenzene	0.4	UG/L	2 U	2 U	2 U	2 U	2 U	2 U
N-Nitrosodimethylamine	--	UG/L	2 U	2 U	2 U	2 U	2 U	2 U
N-Nitrosodi-N-Propylamine	--	UG/L	5 U	5 U	5 U	5 U	5 U	5 U
N-Nitrosodiphenylamine	50	UG/L	280	86	93	110	48	48.1
Pentachlorophenol	1	UG/L	5 U	NA	NA	NA	NA	NA
Phenanthrene	50	UG/L	2 U	2 U	2 U	2 U	2 U	2 U
Phenol	1	UG/L	5 U	5 U	5 U	5 U	5 U	5 U
Pyrene	50	UG/L	2 U	2 U	2 U	2 U	2 U	2 U

Table 2. Summary of Semivolatile Organic Compounds in Groundwater, 70 Riverside Drive, Rensselaer, New York

Sample Designation:			LG-PZ-6R	LG-PZ-6R	LG-PZ-6R	LG-PZ-6R	LG-PZ-6R
Sample Date:			09/20/2017	07/03/2018	12/18/2019	01/26/2021	05/10/2022
Normal Sample or Field Duplicate:			N	N	N	N	N
Parameter	NYSDEC Ambient Water Quality Standards and Guidance	Units					
1,2,4-Trichlorobenzene	5	UG/L	5 U	NA	NA	NA	NA
1,4-Dioxane (P-Dioxane)	0.35	UG/L	0.447	NA	0.144	0.168	0.183
2,4,5-Trichlorophenol	--	UG/L	5 U	5 U	5 U	5 U	5 U
2,4,6-Trichlorophenol	--	UG/L	5 U	5 U	5 U	5 U	5 U
2,4-Dichlorophenol	5	UG/L	5 U	5 U	5 U	5 U	5 U
2,4-Dimethylphenol	50	UG/L	5 U	5 U	5 U	5 U	5 U
2,4-Dinitrophenol	10	UG/L	20 U	20 U	20 U	20 U	20 U
2,4-Dinitrotoluene	5	UG/L	5 U	5 U	5 U	5 U	5 U
2,6-Dinitrotoluene	5	UG/L	5 U	5 U	5 U	5 U	5 U
2-Chloronaphthalene	10	UG/L	2 U	2 U	2 U	2 U	2 U
2-Chlorophenol	--	UG/L	2 U	2 U	2 U	2 U	2 U
2-Methylnaphthalene	--	UG/L	2 U	2 U	2 U	2 U	2 U
2-Methylphenol (O-Cresol)	--	UG/L	5 U	5 U	5 U	5 U	5 U
2-Nitrophenol	--	UG/L	5 U	5 U	5 U	5 U	5 U
3- And 4- Methylphenol (Total)	--	UG/L	5 U	5 U	5 U	5 U	5 U
3,3'-Dichlorobenzidine	5	UG/L	5 U	5 U	5 U	5 U	5 U
4,6-Dinitro-2-Methylphenol	--	UG/L	10 U	10 U	10 U	10 U	10 U
4-Bromophenyl Phenyl Ether	--	UG/L	2 U	2 U	2 U	2 U	2 U
4-Chloro-3-Methylphenol	--	UG/L	2 U	2 U	2 U	2 U	2 U
4-Chloroaniline	5	UG/L	5 U	5 U	5 U	5 U	5 U
4-Chlorophenyl Phenyl Ether	--	UG/L	2 U	2 U	2 U	2 U	2 U
4-Nitrophenol	--	UG/L	10 U	10 U	10 U	10 U	10 U
Acenaphthene	20	UG/L	2 U	2 U	2 U	2 U	2 U
Acenaphthylene	20	UG/L	2 U	2 U	2 U	2 U	2 U
Anthracene	50	UG/L	2 U	2 U	2 U	2 U	2 U
Azobenzene	--	UG/L	2 U	2 U	2 U	2 U	2 U
Benzidine	5	UG/L	20 U	20 U	20 U	20 U	20 U
Benzo(A)Anthracene	0.002	UG/L	2 U	2 U	2 U	2 U	2 U
Benzo(A)Pyrene	0	UG/L	2 U	2 U	2 U	2 U	2 U
Benzo(B)Fluoranthene	0.002	UG/L	2 U	2 U	2 U	2 U	2 U
Benzo(G,H,I)Perylene	--	UG/L	2 U	2 U	2 U	2 U	2 U
Benzo(K)Fluoranthene	0.002	UG/L	2 U	2 U	2 U	2 U	2 U
Benzoic Acid	--	UG/L	50 U	50 U	50 U	50 U	50 U
Benzyl Alcohol	--	UG/L	2 U	2 U	2 U	2 U	2 U

Table 2. Summary of Semivolatile Organic Compounds in Groundwater, 70 Riverside Drive, Rensselaer, New York

Sample Designation:			LG-PZ-6R	LG-PZ-6R	LG-PZ-6R	LG-PZ-6R	LG-PZ-6R
Sample Date:			09/20/2017	07/03/2018	12/18/2019	01/26/2021	05/10/2022
Normal Sample or Field Duplicate:			N	N	N	N	N
Parameter	NYSDEC Ambient Water Quality Standards and Guidance	Units					
Benzyl Butyl Phthalate	50	UG/L	5 U	5 U	5 U	5 U	5 U
Bis(2-Chloroethoxy) Methane	5	UG/L	5 U	5 U	5 U	5 U	5 U
Bis(2-Chloroethyl) Ether (2-Chloroethyl Ether)	1	UG/L	2 U	2 U	2 U	2 U	2 U
Bis(2-Chloroisopropyl) Ether	5	UG/L	2 U	2 U	2 U	2 U	2 U
Bis(2-Ethylhexyl) Phthalate	5	UG/L	3 U	3 U	2.2 U	2.2 U	2.2 U
Chrysene	0.002	UG/L	2 U	2 U	2 U	2 U	2 U
Dibenz(A,H)Anthracene	--	UG/L	2 U	2 U	2 U	2 U	2 U
Dibenzofuran	--	UG/L	2 U	2 U	2 U	2 U	2 U
Diethyl Phthalate	50	UG/L	5 U	5 U	5 U	5 U	5 U
Dimethyl Phthalate	50	UG/L	5 U	5 U	5 U	5 U	5 U
Di-N-Butyl Phthalate	50	UG/L	5 U	5 U	5 U	5 U	5 U
Di-N-Octylphthalate	--	UG/L	5 U	5 U	5 U	5 U	5 U
Fluoranthene	50	UG/L	2 U	2 U	2 U	2 U	2 U
Fluorene	50	UG/L	2 U	2 U	2 U	2 U	2 U
Hexachlorobenzene	0.04	UG/L	2 U	2 U	2 U	2 U	2 U
Hexachlorobutadiene	0.5	UG/L	2 U	NA	NA	NA	NA
Hexachlorocyclopentadiene	5	UG/L	10 U	10 U	10 U	10 U	10 U
Hexachloroethane	5	UG/L	2 U	2 U	2 U	2 U	2 U
Indeno(1,2,3-C,D)Pyrene	0.002	UG/L	2 U	2 U	2 U	2 U	2 U
Isophorone	50	UG/L	5 U	5 U	5 U	5 U	5 U
Naphthalene	10	UG/L	2 U	NA	NA	NA	NA
Nitrobenzene	0.4	UG/L	2 U	2 U	2 U	2 U	2 U
N-Nitrosodimethylamine	--	UG/L	2 U	2 U	2 U	2 U	2 U
N-Nitrosodi-N-Propylamine	--	UG/L	5 U	5 U	5 U	5 U	5 U
N-Nitrosodiphenylamine	50	UG/L	2 U	2 U	2 U	2 U	2 U
Pentachlorophenol	1	UG/L	5 U	NA	NA	NA	NA
Phenanthrene	50	UG/L	2 U	2 U	2 U	2 U	2 U
Phenol	1	UG/L	5 U	5 U	5 U	5 U	5 U
Pyrene	50	UG/L	2 U	2 U	2 U	2 U	2 U

Table 2. Summary of Semivolatile Organic Compounds in Groundwater, 70 Riverside Drive, Rensselaer, New York

Sample Designation:			MP-MW-105R	MP-MW-105R	MP-MW-105R	MP-MW-105R	MP-MW-105R	MP-MW-105R	MP-MW-105R
Sample Date:			09/20/2017	09/20/2017	07/03/2018	12/18/2019	01/26/2021	01/26/2021	05/10/2022
Normal Sample or Field Duplicate:			N	FD	N	N	N	FD	N
Parameter	NYSDEC Ambient Water Quality Standards and Guidance	Units							
1,2,4-Trichlorobenzene	5	UG/L	5 U	5 U	NA	NA	NA	NA	NA
1,4-Dioxane (P-Dioxane)	0.35	UG/L	4.54	2.85	NA	2.44	1.58	1.63	1.59
2,4,5-Trichlorophenol	--	UG/L	5 U	5 U	5 U	5 U	5 U	5 U	5 U
2,4,6-Trichlorophenol	--	UG/L	5 U	5 U	5 U	5 U	5 U	5 U	5 U
2,4-Dichlorophenol	5	UG/L	5 U	5 U	5 U	5 U	5 U	5 U	5 U
2,4-Dimethylphenol	50	UG/L	5 U	5 U	5 U	5 U	5 U	5 U	5 U
2,4-Dinitrophenol	10	UG/L	20 U	20 U	20 U	20 U	20 U	20 U	20 U
2,4-Dinitrotoluene	5	UG/L	5 U	5 U	5 U	5 U	5 U	5 U	5 U
2,6-Dinitrotoluene	5	UG/L	5 U	5 U	5 U	5 U	5 U	5 U	5 U
2-Chloronaphthalene	10	UG/L	2 U	2 U	2 U	2 U	2 U	2 U	2 U
2-Chlorophenol	--	UG/L	2.3	1.8 J	1.7 J	0.87 J	3.96	2 U	1.19 J
2-Methylnaphthalene	--	UG/L	2 U	2 U	2 U	2 U	2 U	2 U	2 U
2-Methylphenol (O-Cresol)	--	UG/L	5 U	5 U	5 U	5 U	5 U	5 U	5 U
2-Nitrophenol	--	UG/L	5 U	5 U	5 U	5 U	5 U	5 U	5 U
3- And 4- Methylphenol (Total)	--	UG/L	5 U	5 U	5 U	0.58 J	5 U	5 U	5 U
3,3'-Dichlorobenzidine	5	UG/L	5 U	5 U	5 U	5 U	5 U	5 U	5 U
4,6-Dinitro-2-Methylphenol	--	UG/L	10 U	10 U	10 U	10 U	10 U	10 U	10 U
4-Bromophenyl Phenyl Ether	--	UG/L	2 U	2 U	2 U	2 U	2 U	2 U	2 U
4-Chloro-3-Methylphenol	--	UG/L	2 U	2 U	2 U	2 U	2 U	2 U	2 U
4-Chloroaniline	5	UG/L	5 U	5 U	5 U	5 U	5 U	5 U	5 U
4-Chlorophenyl Phenyl Ether	--	UG/L	2 U	2 U	2 U	2 U	2 U	2 U	2 U
4-Nitrophenol	--	UG/L	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Acenaphthene	20	UG/L	2 U	2 U	2 U	2 U	2 U	2 U	2 U
Acenaphthylene	20	UG/L	2 U	2 U	2 U	2 U	2 U	2 U	2 U
Anthracene	50	UG/L	2 U	2 U	2 U	2 U	2 U	2 U	2 U
Azobenzene	--	UG/L	2 U	2 U	2 U	2 U	2 U	2 U	2 U
Benzidine	5	UG/L	20 U	20 U	20 U	20 U	20 U	20 U	20 U
Benzo(A)Anthracene	0.002	UG/L	2 U	2 U	2 U	2 U	2 U	2 U	2 U
Benzo(A)Pyrene	0	UG/L	2 U	2 U	2 U	2 U	2 U	2 U	2 U
Benzo(B)Fluoranthene	0.002	UG/L	2 U	2 U	2 U	2 U	2 U	2 U	2 U
Benzo(G,H,I)Perylene	--	UG/L	2 U	2 U	2 U	2 U	2 U	2 U	2 U
Benzo(K)Fluoranthene	0.002	UG/L	2 U	2 U	2 U	2 U	2 U	2 U	2 U
Benzoic Acid	--	UG/L	370	360	170	190	238	171	124
Benzyl Alcohol	--	UG/L	2 U	2 U	2 U	2 U	2 U	2 U	2 U

Table 2. Summary of Semivolatile Organic Compounds in Groundwater, 70 Riverside Drive, Rensselaer, New York

Sample Designation:			MP-MW-105R	MP-MW-105R	MP-MW-105R	MP-MW-105R	MP-MW-105R	MP-MW-105R	MP-MW-105R
Sample Date:			09/20/2017	09/20/2017	07/03/2018	12/18/2019	01/26/2021	01/26/2021	05/10/2022
Normal Sample or Field Duplicate:			N	FD	N	N	N	FD	N
Parameter	NYSDEC Ambient Water Quality Standards and Guidance	Units							
Benzyl Butyl Phthalate	50	UG/L	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Bis(2-Chloroethoxy) Methane	5	UG/L	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Bis(2-Chloroethyl) Ether (2-Chloroethyl Ether)	1	UG/L	2 U	2 U	2 U	2 U	2 U	2 U	2 U
Bis(2-Chloroisopropyl) Ether	5	UG/L	2 U	2 U	2 U	2 U	2 U	2 U	2 U
Bis(2-Ethylhexyl) Phthalate	5	UG/L	4.1	3 U	3 U	2.2 U	2.2 U	2.2 U	2.2 U
Chrysene	0.002	UG/L	2 U	2 U	2 U	2 U	2 U	2 U	2 U
Dibenz(A,H)Anthracene	--	UG/L	2 U	2 U	2 U	2 U	2 U	2 U	2 U
Dibenzofuran	--	UG/L	2 U	2 U	2 U	2 U	2 U	2 U	2 U
Diethyl Phthalate	50	UG/L	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Dimethyl Phthalate	50	UG/L	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Di-N-Butyl Phthalate	50	UG/L	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Di-N-Octylphthalate	--	UG/L	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Fluoranthene	50	UG/L	2 U	2 U	2 U	2 U	2 U	2 U	2 U
Fluorene	50	UG/L	2 U	2 U	2 U	2 U	2 U	2 U	2 U
Hexachlorobenzene	0.04	UG/L	2 U	2 U	2 U	2 U	2 U	2 U	2 U
Hexachlorobutadiene	0.5	UG/L	2 U	2 U	NA	NA	NA	NA	NA
Hexachlorocyclopentadiene	5	UG/L	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Hexachloroethane	5	UG/L	2 U	2 U	2 U	2 U	2 U	2 U	2 U
Indeno(1,2,3-C,D)Pyrene	0.002	UG/L	2 U	2 U	2 U	2 U	2 U	2 U	2 U
Isophorone	50	UG/L	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Naphthalene	10	UG/L	2.4	1.8 J	NA	NA	NA	NA	NA
Nitrobenzene	0.4	UG/L	3.5	3.2	2 U	2 U	2 U	2 U	2 U
N-Nitrosodimethylamine	--	UG/L	2 U	2 U	2 U	2 U	2 U	2 U	2 U
N-Nitrosodi-N-Propylamine	--	UG/L	5 U	5 U	5 U	5 U	5 U	5 U	5 U
N-Nitrosodiphenylamine	50	UG/L	2 U	2 U	2 U	2 U	2 U	2 U	2 U
Pentachlorophenol	1	UG/L	5 U	5 U	NA	NA	NA	NA	NA
Phenanthrene	50	UG/L	2 U	2 U	2 U	2 U	2 U	2 U	2 U
Phenol	1	UG/L	4.5 J	3.6 J	3.8 J	2.9 J	9.45	7.53	2.46 J
Pyrene	50	UG/L	2 U	2 U	2 U	2 U	2 U	2 U	2 U

Table 3. Summary of Metals in Groundwater, 70 Riverside Drive, Rensselaer, New York

Sample Designation:			LG-MW-6R	LG-MW-6R	LG-MW-6R	LG-MW-6R	LG-MW-6R	LG-MW-6R	LG-MW-6R	LG-MW-6R	LG-MW-6R	LG-MW-6R	LG-MW-6R	LG-MW-6R
Sample Date:			09/20/2017	09/20/2017	07/03/2018	07/03/2018	12/18/2019	12/18/2019	01/26/2021	01/26/2021	05/10/2022	05/10/2022	05/10/2022	05/10/2022
Normal Sample or Field Duplicate:			N	N	N	N	N	N	N	N	N	N	FD	FD
Total or Dissolved:			Total	Dissolved	Total	Dissolved	Total	Dissolved	Total	Dissolved	Total	Dissolved	Total	Dissolved
Parameter	NYSDEC Ambient Water Quality Standards and Guidance Values	Units												
Aluminum	--	UG/L	100 U	100 U	10 U	10 U	100 U	100 UJ	100 U	100 U	100 U	38 J	64 J	100 U
Antimony	3	UG/L	50 U	50 U	3.2 J	1.44 J	50 U	50 UJ	50 U	50 U	50 U	50 U	50 U	50 U
Arsenic	25	UG/L	7560	69	3838	3197	1910	962 J-	5080	1680	2480	2260	2460	2210
Barium	1000	UG/L	287	142	239.8	226.3	149	124 J-	264	160	196	187	195	185
Beryllium	3	UG/L	5 U	5 U	0.5 U	0.5 U	5 U	5 UJ	5 U	5 U	5 U	5 U	5 U	5 U
Cadmium	5	UG/L	1 J	5 U	0.2 U	0.2 U	5 U	5 UJ	1 J	5 U	5 U	5 U	5 U	5 U
Calcium	--	UG/L	160000	159000	174000	163000	171000	169000 J-	167000	154000	156000	151000	154000	152000
Chromium, Total	50	UG/L	3 J	2 J	1.84	1.98	2 J	4 J-	10 U	10 U	10 U	2 J	10 U	10 U
Cobalt	--	UG/L	20 U	20 U	0.74	0.78	20 U	20 UJ	20 U	20 U	20 U	20 U	20 U	20 U
Copper	200	UG/L	10 U	10 U	1 U	1 U	10 U	10 UJ	10 U	10 U	10 U	10 U	10 U	10 U
Iron	300	UG/L	31200	50 U	34100	32400	12900	4110 J-	36000	9330	20900	19000	20600	18800
Lead	25	UG/L	10 U	10 U	1 U	1 U	3 J	10 UJ	10 U	10 U	3 J	4 J	10 U	10 U
Magnesium	35000	UG/L	35800	35300	32200	34500	33600	33300 J-	32400	31000	28300	28900	27900	28700
Manganese	300	UG/L	2060	1920	2084	2108	1750	1720 J-	2350	2250	1640	1580	1620	1590
Mercury	0.7	UG/L	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 UJ	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
Nickel	100	UG/L	25 U	25 U	0.76 J	0.76 J	25 U	25 UJ	25 U	25 U	25 U	25 U	25 U	25 U
Potassium	--	UG/L	4540	4640	4290	3990	4480	4520 J-	4840	4810	4480	4180	4460	4230
Selenium	10	UG/L	10 U	10 U	5 U	5 U	10 U	10 UJ	10 U	10 U	10 U	10 U	10 U	10 U
Silver	50	UG/L	7 U	7 U	0.4 U	0.4 U	7 U	7 UJ	7 U	7 U	7 U	7 U	7 U	7 U
Sodium	20000	UG/L	36900	37600	31600	28600	30900	30300 J-	41300	41900	74700	76900	73500	76600
Thallium	0.5	UG/L	20 U	20 U	0.19 J	0.5 U	20 U	20 UJ	20 U	20 U	20 U	20 U	20 U	20 U
Vanadium	--	UG/L	10 U	10 U	5 U	5 U	10 U	10 UJ	10 U	10 U	10 U	2 J	10 U	10 U
Zinc	2000	UG/L	24 J	7 J	10 U	10 U	50 U	50 UJ	50 U	50 U	4 J	50 U	50 U	50 U

Table 3. Summary of Metals in Groundwater, 70 Riverside Drive, Rensselaer, New York

Sample Designation:			LG-PZ-10R	LG-PZ-10R	LG-PZ-10R	LG-PZ-10R	LG-PZ-10R	LG-PZ-10R
Sample Date:			09/20/2017	09/20/2017	07/03/2018	07/03/2018	07/03/2018	07/03/2018
Normal Sample or Field Duplicate:			N	N	N	N	FD	FD
Total or Dissolved:			Total	Dissolved	Total	Dissolved	Total	Dissolved
Parameter	NYSDEC Ambient Water Quality Standards and Guidance Values	Units						
Aluminum	--	UG/L	100 U	100 U	9.91 J	10 U	10 U	3.4 J
Antimony	3	UG/L	7 J	9 J	7.58	11.57	7.29	11.18
Arsenic	25	UG/L	21300	14400	10380	9373	9933	9341
Barium	1000	UG/L	30	13	17.68	13.05	17.02	13.78
Beryllium	3	UG/L	5 U	5 U	0.5 U	0.5 U	0.5 U	0.5 U
Cadmium	5	UG/L	5 U	5 U	0.2 U	0.2 U	0.2 U	0.2 U
Calcium	--	UG/L	126000	121000	112000	101000	109000	105000
Chromium, Total	50	UG/L	10 U	10 U	0.33 J	0.35 J	0.43 J	0.41 J
Cobalt	--	UG/L	20 U	20 U	0.55	0.49 J	0.57	0.59
Copper	200	UG/L	10 U	10 U	0.56 J	1 U	0.66 J	0.6 J
Iron	300	UG/L	7440	38 J	3060	1610	2410	1470
Lead	25	UG/L	10 U	10 U	1 U	1 U	1 U	1 U
Magnesium	35000	UG/L	24600	23800	18700	19500	18700	19900
Manganese	300	UG/L	600	511	354.6	363.2	344.9	357.4
Mercury	0.7	UG/L	0.2 U	0.2 U	0.2 U	0.15 J	0.2 U	0.07 J
Nickel	100	UG/L	25 U	25 U	0.65 J	0.59 J	0.57 J	2 U
Potassium	--	UG/L	4600	4540	4140	3840	4070	3960
Selenium	10	UG/L	4 J	10 U	5 U	5 U	5 U	5 U
Silver	50	UG/L	7 U	7 U	0.4 U	0.4 U	0.4 U	0.4 U
Sodium	20000	UG/L	69100	68800	47100	42500	48500	43900
Thallium	0.5	UG/L	20 U	20 U	0.5 U	0.5 U	0.5 U	0.5 U
Vanadium	--	UG/L	10 U	10 U	5 U	5 U	5 U	5 U
Zinc	2000	UG/L	56	10 J	18.19	10.33	19.79	11.16

Table 3. Summary of Metals in Groundwater, 70 Riverside Drive, Rensselaer, New York

Sample Designation:			LG-PZ-24R	LG-PZ-24R	LG-PZ-24R	LG-PZ-24R	LG-PZ-24R	LG-PZ-24R	LG-PZ-24R	LG-PZ-24R	LG-PZ-24R	LG-PZ-24R	LG-PZ-24R	LG-PZ-24R
Sample Date:			09/20/2017	09/20/2017	07/03/2018	07/03/2018	12/18/2019	12/18/2019	12/18/2019	12/18/2019	01/26/2021	01/26/2021	05/10/2022	05/10/2022
Normal Sample or Field Duplicate:			N	N	N	N	N	N	FD	FD	N	N	N	N
Total or Dissolved:			Total	Dissolved	Total	Dissolved	Total	Dissolved	Total	Dissolved	Total	Dissolved	Total	Dissolved
Parameter	NYSDEC Ambient Water Quality Standards and Guidance Values	Units												
Aluminum	--	UG/L	102	100 U	4.73 J	3.9 J	100 U	100 UJ	100 U	100 UJ	100 U	100 U	43 J	100 U
Antimony	3	UG/L	50 U	50 U	1.1 J	1.34 J	50 U	50 UJ	50 U	50 UJ	14 J	50 U	50 U	50 U
Arsenic	25	UG/L	2180	207	1119	1085	941	721 J-	1060	742 J-	898	575	1200	1200
Barium	1000	UG/L	43	36	32.63	32.41	29	27 J-	30	27 J-	24	21	31	29
Beryllium	3	UG/L	5 U	5 U	0.5 U	0.5 U	5 U	5 UJ	5 U	5 UJ	5 U	5 U	5 U	5 U
Cadmium	5	UG/L	5 U	5 U	0.2 U	0.2 U	5 U	5 UJ	5 U	5 UJ	5 U	5 U	5 U	5 U
Calcium	--	UG/L	73900	71100	82900	81100	58600	56300 J-	60700	59500 J-	62400	62000	77900	76600
Chromium, Total	50	UG/L	10 U	10 U	0.39 J	0.4 J	10 U	10 UJ	10 U	3 J-	10 U	10 U	10 U	10 U
Cobalt	--	UG/L	20 U	20 U	0.77	0.77	20 U	20 UJ	20 U	20 UJ	20 U	20 U	20 U	20 U
Copper	200	UG/L	5 J	10 U	3.28	1.73	10 U	10 UJ	10 U	10 UJ	5 J	4 J	5 J	4 J
Iron	300	UG/L	5420	23 J	2380	2560	1740	1090 J-	1870	1060 J-	946	329	1300	1130
Lead	25	UG/L	10 U	10 U	1 U	1 U	3 J	10 UJ	10 U	10 UJ	10 U	10 U	10 U	3 J
Magnesium	35000	UG/L	31400	29900	33000	33900	20300	18000 J-	20800	18600 J-	21600	20900	24300	25300
Manganese	300	UG/L	724	688	491.6	521.9	281	275 J-	300	290 J-	246	227	233	217
Mercury	0.7	UG/L	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 UJ	0.2 U	0.2 UJ	0.2 U	0.2 U	0.2 U	0.2 U
Nickel	100	UG/L	5 J	5 J	3.48	3.58	3 J	3 J-	3 J	4 J-	2 J	2 J	3 J	2 J
Potassium	--	UG/L	8940	8760	7550	7420	6010	6010 J-	6260	6210 J-	6720	6590	7400	6960
Selenium	10	UG/L	10 U	10 U	5 U	5 U	10 U	10 UJ	10 U	10 UJ	10 U	10 U	10 U	10 U
Silver	50	UG/L	7 U	7 U	0.4 U	0.4 U	7 U	7 UJ	7 U	7 UJ	7 U	7 U	7 U	7 U
Sodium	20000	UG/L	185000	182000	169000	147000	51900	51600 J-	57600	56500 J-	110000	104000	84600	88300
Thallium	0.5	UG/L	20 U	20 U	0.5 U	0.5 U	20 U	20 UJ	20 U	20 UJ	20 U	20 U	20 U	20 U
Vanadium	--	UG/L	10 U	10 U	5 U	5 U	10 U	10 UJ	10 U	10 UJ	10 U	10 U	2 J	2 J
Zinc	2000	UG/L	34 J	26 J	19.19	18.28	9 J	10 J-	11 J	13 J-	9 J	9 J	9 J	10 J

Table 3. Summary of Metals in Groundwater, 70 Riverside Drive, Rensselaer, New York

Sample Designation:			LG-PZ-6R	LG-PZ-6R	LG-PZ-6R	LG-PZ-6R	LG-PZ-6R	LG-PZ-6R	LG-PZ-6R	LG-PZ-6R	LG-PZ-6R	LG-PZ-6R
Sample Date:			09/20/2017	09/20/2017	07/03/2018	07/03/2018	12/18/2019	12/18/2019	01/26/2021	01/26/2021	05/10/2022	05/10/2022
Normal Sample or Field Duplicate:			N	N	N	N	N	N	N	N	N	N
Total or Dissolved:			Total	Dissolved	Total	Dissolved	Total	Dissolved	Total	Dissolved	Total	Dissolved
Parameter	NYSDEC Ambient Water Quality Standards and Guidance Values	Units										
Aluminum	--	UG/L	52 J	100 U	15.6	10 U	100 U	100 UJ	100 U	100 U	100 U	48 J
Antimony	3	UG/L	50 U	50 U	5 U	1.13 J	50 U	50 UJ	50 U	50 U	50 U	50 U
Arsenic	25	UG/L	665	65	657.4	420.1	1000	529 J-	609	302	675	456
Barium	1000	UG/L	224	114	89.67	58.7	64	33 J-	131	85	135	109
Beryllium	3	UG/L	5 U	5 U	0.5 U	0.5 U	5 U	5 UJ	5 U	5 U	5 U	5 U
Cadmium	5	UG/L	1 J	5 U	0.2 U	0.2 U	5 U	5 UJ	5 U	5 U	5 U	5 U
Calcium	--	UG/L	142000	133000	82400	77100	63500	61400 J-	119000	120000	120000	116000
Chromium, Total	50	UG/L	16	14	0.72 J	0.7 J	10 U	2 J-	10 U	10 U	10 U	10 U
Cobalt	--	UG/L	20 U	20 U	0.5 U	0.5 U	20 U	20 UJ	20 U	20 U	20 U	20 U
Copper	200	UG/L	10 U	10 U	1 U	1 U	10 U	10 UJ	10 U	10 U	10 U	10 U
Iron	300	UG/L	20100	174	10100	6380	5150	344 J-	8560	2150	10300	7730
Lead	25	UG/L	3 J	10 U	1 U	1 U	4 J	10 UJ	10 U	10 U	10 U	10 U
Magnesium	35000	UG/L	31000	29200	14200	14400	11000	10600 J-	22000	21700	21500	21500
Manganese	300	UG/L	2030	1820	932.5	934.5	529	481 J-	1100	1090	1090	1030
Mercury	0.7	UG/L	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 UJ	0.2 U	0.2 U	0.2 U	0.2 U
Nickel	100	UG/L	25 U	25 U	2 U	2 U	25 U	25 UJ	25 U	25 U	25 U	25 U
Potassium	--	UG/L	5980	5740	1950	1860	2220 J	2210 J-	4070	4080	3690	3460
Selenium	10	UG/L	10 U	10 U	5 U	5 U	10 U	10 UJ	10 U	10 U	10 U	10 U
Silver	50	UG/L	7 U	7 U	0.4 U	0.4 U	7 U	7 UJ	7 U	7 U	7 U	7 U
Sodium	20000	UG/L	65300	62300	16800	16900	64100	61600 J-	76500	76300	70600	73200
Thallium	0.5	UG/L	20 U	20 U	0.5 U	0.5 U	20 U	20 UJ	20 U	20 U	20 U	20 U
Vanadium	--	UG/L	10 U	10 U	5 U	5 U	10 U	10 UJ	10 U	10 U	10 U	2 J
Zinc	2000	UG/L	2 J	5 J	10 U	10 U	50 U	50 UJ	50 U	50 U	50 U	50 U

Table 3. Summary of Metals in Groundwater, 70 Riverside Drive, Rensselaer, New York

Sample Designation:			MP-MW-105R	MP-MW-105R	MP-MW-105R	MP-MW-105R	MP-MW-105R	MP-MW-105R	MP-MW-105R	MP-MW-105R	MP-MW-105R
Sample Date:			09/20/2017	09/20/2017	09/20/2017	09/20/2017	07/03/2018	07/03/2018	12/18/2019	12/18/2019	01/26/2021
Normal Sample or Field Duplicate:			N	N	FD	FD	N	N	N	N	N
Total or Dissolved:			Total	Dissolved	Total	Dissolved	Total	Dissolved	Total	Dissolved	Total
Parameter	NYSDEC Ambient Water Quality Standards and Guidance Values	Units									
Aluminum	--	UG/L	57100	56800	40200	39600	24300	26700	31100	26800 J-	16100
Antimony	3	UG/L	50 U	50 U	50 U	50 U	5 U	0.62 J	50 U	50 UJ	50 U
Arsenic	25	UG/L	23	15	22	13	25.5	23.9	16	12 J-	28
Barium	1000	UG/L	13	13	15	13	29.11	22.68	9 J	9 J-	14
Beryllium	3	UG/L	3 J	3 J	2 J	2 J	1.91	1.97	2 J	2 J-	1 J
Cadmium	5	UG/L	6	6	5	5	1.19	1.13	2 J	5 UJ	2 J
Calcium	--	UG/L	114000	118000	112000	106000	179000	163000	117000	117000 J-	71800
Chromium, Total	50	UG/L	5 J	3 J	3 J	3 J	1.83	1.61	3 J	2 J-	10 U
Cobalt	--	UG/L	108	112	86	89	79.27	82.14	79	79 J-	49
Copper	200	UG/L	115	99	75	71	35.72	23.27	55 U	10 UJ	59
Iron	300	UG/L	80500	80200	74300	70700	91100	86300	68400	66600 J-	32100
Lead	25	UG/L	28	17	28	19	19.29	17.34	14	6 J-	5 J
Magnesium	35000	UG/L	47700	47800	41700	40900	44000	44700	39600	37900 J-	23600
Manganese	300	UG/L	7480	7780	6280	6320	7113	6531	5740	5720 J-	3400
Mercury	0.7	UG/L	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 UJ	0.2 U
Nickel	100	UG/L	181	185	144	149	127.7	126.7	130	117 J-	79
Potassium	--	UG/L	5810	6050	6110	5750	7270	6720	4930	4990 J-	3190
Selenium	10	UG/L	10 U	3 J	10 U	4 J	7.7	4.4 J	10 U	10 UJ	10 U
Silver	50	UG/L	7 U	7 U	7 U	7 U	0.4 U	0.4 U	7 U	7 UJ	7 U
Sodium	20000	UG/L	37700	39000	38700	37700	51500	43400	109000	104000 J-	29200
Thallium	0.5	UG/L	5 J	4 J	5 J	20 U	0.17 J	0.16 J	20 U	3 J-	20 U
Vanadium	--	UG/L	17	14	14	11	13.22	12.95	15	8 J-	5 J
Zinc	2000	UG/L	5120	5200	3850	4080	2716	2556	2940	3010 J-	2040

Table 3. Summary of Metals in Groundwater, 70 Riverside Drive, Rensselaer, New York

Sample Designation:			MP-MW-105R	MP-MW-105R	MP-MW-105R	MP-MW-105R	MP-MW-105R
Sample Date:			01/26/2021	01/26/2021	01/26/2021	05/10/2022	05/10/2022
Normal Sample or Field Duplicate:			N	FD	FD	N	N
Total or Dissolved:			Dissolved	Total	Dissolved	Total	Dissolved
Parameter	NYSDEC Ambient Water Quality Standards and Guidance Values	Units					
Aluminum	--	UG/L	11500	15800	8200	22100	19600
Antimony	3	UG/L	9 J	50 U	33 J	50 U	50 U
Arsenic	25	UG/L	25	28	20	19	14
Barium	1000	UG/L	14	14	13	19	19
Beryllium	3	UG/L	1 J	1 J	1 J	1 J	1 J
Cadmium	5	UG/L	2 J	2 J	2 J	2 J	1 J
Calcium	--	UG/L	73900	72000	68100	78400	77200
Chromium, Total	50	UG/L	10 U	10 U	10 U	10 U	10 U
Cobalt	--	UG/L	50	49	44	47	47
Copper	200	UG/L	57	58	47	59	48
Iron	300	UG/L	32700	31800	29100	28300	27500
Lead	25	UG/L	4 J	5 J	4 J	6 J	8 J
Magnesium	35000	UG/L	23400	23200	21300	23500	24100
Manganese	300	UG/L	3480	3380	3080	3310	3170
Mercury	0.7	UG/L	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
Nickel	100	UG/L	81	78	71	75	72
Potassium	--	UG/L	3140	3150	3000	2660	2670
Selenium	10	UG/L	10 U	10 U	10 U	10 U	10 U
Silver	50	UG/L	7 U	7 U	7 U	7 U	7 U
Sodium	20000	UG/L	28800	28800	28700	13000	13600
Thallium	0.5	UG/L	20 U	20 U	20 U	20 U	20 U
Vanadium	--	UG/L	2 J	5 J	10 U	3 J	6 J
Zinc	2000	UG/L	2080	2010	1810	2050	2080

Table 4. Summary of Perfluorinated Alkyl Acids and Dioxane in Groundwater, 70 Riverside Drive, Rensselaer, New York

Sample Designation:			LG-MW-6R	LG-MW-6R	LG-MW-6R	LG-MW-6R	LG-MW-6R
Sample Date:			09/20/2017	12/18/2019	01/26/2021	05/10/2022	05/10/2022
Normal Sample or Field Duplicate:			N	N	N	N	FD
Parameter	NYSDEC Ambient Water- Quality Guidance Values	Units					
1,4-Dioxane (P-Dioxane)	350	NG/L	457	154	209	237	253
2-(N-methyl perfluorooctanesulfonamido) acetic acid	--	NG/L	NA	0.607 U	0.618 U	0.654 U	0.598 U
N-ethyl perfluorooctanesulfonamidoacetic acid	--	NG/L	NA	0.753 U	1.18 JF	0.811 U	0.742 U
Perfluorobutanesulfonic acid (PFBS)	--	NG/L	NA	0.223 U	1.8 J	1.44 J	1.19 J
Perfluorobutanoic Acid	--	NG/L	NA	7.67	8.59	13.4	11.6
Perfluorodecane Sulfonic Acid	--	NG/L	NA	2.1	0.934 U	0.989 U	0.904 U
Perfluorodecanoic acid (PFDA)	--	NG/L	NA	1.51 J	2.01	0.932 J	1.12 J
Perfluorododecanoic acid (PFDoA)	--	NG/L	NA	0.348 U	0.355 U	0.375 U	0.343 U
Perfluoroheptane Sulfonate (PFHPS)	--	NG/L	NA	0.644 U	0.656 U	0.694 U	0.635 U
Perfluoroheptanoic acid (PFHpA)	--	NG/L	NA	4.2	8.26	17.4	16
Perfluorohexanesulfonic acid (PFHxS)	--	NG/L	NA	3.34	4.26	6.22	5.24
Perfluorohexanoic acid (PFHxA)	--	NG/L	NA	6.71	8.58	14.3	13
Perfluorononanoic acid (PFNA)	--	NG/L	NA	1.69 J	1.65 J	1.99 J	2.26
Perfluorooctane Sulfonamide (FOSA)	--	NG/L	NA	0.543 U	0.553 U	0.585 U	0.535 U
Perfluorooctanesulfonic acid (PFOS)	2.7	NG/L	68.5	53.1	59.4	39.2	35.4
Perfluorooctanoic acid (PFOA)	6.7	NG/L	15.4	9.01	10.2 F	16.4	14.6
Perfluoropentanoic Acid (PFPeA)	--	NG/L	NA	8.14	12.1	24.7	21.3
Perfluorotetradecanoic acid (PFTA)	--	NG/L	NA	0.232 U	0.236 U	0.25 U	0.229 U
Perfluorotridecanoic Acid (PFTriA)	--	NG/L	NA	0.306 U	0.312 U	0.33 U	0.302 U
Perfluoroundecanoic Acid (PFUnA)	--	NG/L	NA	0.243 U	0.248 U	0.262 U	0.24 U
Sodium 1H,1H,2H,2H-Perfluorodecane Sulfonate (8:2)	--	NG/L	NA	1.13 U	1.16 U	1.22 U	1.12 U
Sodium 1H,1H,2H,2H-Perfluorooctane Sulfonate (6:2)	--	NG/L	NA	1.25 U	1.27 U	8.48	7.95
TOTAL PFOA AND PFOS	--	NG/L	NA	62.1	69.6	55.6	50

Table 4. Summary of Perfluorinated Alkyl Acids and Dioxane in Groundwater, 70 Riverside Drive, Rensselaer, New York

Sample Designation: LG-PZ-10R		Sample Date: 09/20/2017	
Normal Sample or Field Duplicate: N			
Parameter	NYSDEC Ambient Water- Quality Guidance Values	Units	
1,4-Dioxane (P-Dioxane)	350	NG/L	297
2-(N-methyl perfluorooctanesulfonamido) acetic acid	--	NG/L	NA
N-ethyl perfluorooctanesulfonamidoacetic acid	--	NG/L	NA
Perfluorobutanesulfonic acid (PFBS)	--	NG/L	NA
Perfluorobutanoic Acid	--	NG/L	NA
Perfluorodecane Sulfonic Acid	--	NG/L	NA
Perfluorodecanoic acid (PFDA)	--	NG/L	NA
Perfluorododecanoic acid (PFDoA)	--	NG/L	NA
Perfluoroheptane Sulfonate (PFHPS)	--	NG/L	NA
Perfluoroheptanoic acid (PFHpA)	--	NG/L	NA
Perfluorohexanesulfonic acid (PFHxS)	--	NG/L	NA
Perfluorohexanoic acid (PFHxA)	--	NG/L	NA
Perfluorononanoic acid (PFNA)	--	NG/L	NA
Perfluorooctane Sulfonamide (FOSA)	--	NG/L	NA
Perfluorooctanesulfonic acid (PFOS)	2.7	NG/L	10.6
Perfluorooctanoic acid (PFOA)	6.7	NG/L	12
Perfluoropentanoic Acid (PFPeA)	--	NG/L	NA
Perfluorotetradecanoic acid (PFTA)	--	NG/L	NA
Perfluorotridecanoic Acid (PFTriA)	--	NG/L	NA
Perfluoroundecanoic Acid (PFUnA)	--	NG/L	NA
Sodium 1H,1H,2H,2H-Perfluorodecane Sulfonate (8:2)	--	NG/L	NA
Sodium 1H,1H,2H,2H-Perfluorooctane Sulfonate (6:2)	--	NG/L	NA
TOTAL PFOA AND PFOS	--	NG/L	NA

Table 4. Summary of Perfluorinated Alkyl Acids and Dioxane in Groundwater, 70 Riverside Drive, Rensselaer, New York

Sample Designation: LG-PZ-24R			LG-PZ-24R	LG-PZ-24R	LG-PZ-24R	LG-PZ-24R	LG-PZ-24R
Sample Date: 09/20/2017			12/18/2019	12/18/2019	01/26/2021	05/10/2022	
Normal Sample or Field Duplicate:			N	N	FD	N	N
Parameter	NYSDEC Ambient Water- Quality Guidance Values	Units					
1,4-Dioxane (P-Dioxane)	350	NG/L	15000	4330	4240	16200	13800
2-(N-methyl perfluorooctanesulfonamido) acetic acid	--	NG/L	NA	0.591 U	0.604 U	0.587 U	0.602 U
N-ethyl perfluorooctanesulfonamidoacetic acid	--	NG/L	NA	0.734 U	0.75 U	0.728 U	0.747 U
Perfluorobutanesulfonic acid (PFBS)	--	NG/L	NA	3.04	2.87	7.6	2.98
Perfluorobutanoic Acid	--	NG/L	NA	7.7	7.65	8.57	7.36
Perfluorodecane Sulfonic Acid	--	NG/L	NA	0.894 U	0.914 U	0.888 U	0.91 U
Perfluorodecanoic acid (PFDA)	--	NG/L	NA	0.792 J	0.851 J	0.71 J	0.654 J
Perfluorododecanoic acid (PFDoA)	--	NG/L	NA	0.339 U	0.347 U	0.337 U	0.346 U
Perfluoroheptane Sulfonate (PFHPS)	--	NG/L	NA	1.2 J	1.61 J	1.88	2.45
Perfluoroheptanoic acid (PFHpA)	--	NG/L	NA	7.42	7.64	8.91	6.65
Perfluorohexanesulfonic acid (PFHxS)	--	NG/L	NA	29.6	33.3	33.7	25.5
Perfluorohexanoic acid (PFHxA)	--	NG/L	NA	8.97	9.03	12.1	8.31
Perfluorononanoic acid (PFNA)	--	NG/L	NA	2.32	2.41	2.15	2.81
Perfluorooctane Sulfonamide (FOSA)	--	NG/L	NA	0.529 U	0.541 U	0.525 U	0.539 U
Perfluorooctanesulfonic acid (PFOS)	2.7	NG/L	152	97.2	111	104	128
Perfluorooctanoic acid (PFOA)	6.7	NG/L	37.8	12	12.4	17.8 F	14.1
Perfluoropentanoic Acid (PFPeA)	--	NG/L	NA	8.66	8.2	13.4	9.54
Perfluorotetradecanoic acid (PFTA)	--	NG/L	NA	0.226 U	0.231 U	0.225 U	0.23 U
Perfluorotridecanoic Acid (PFTriA)	--	NG/L	NA	0.298 U	0.305 U	0.296 U	0.304 U
Perfluoroundecanoic Acid (PFUnA)	--	NG/L	NA	0.237 U	0.242 U	0.235 U	0.242 U
Sodium 1H,1H,2H,2H-Perfluorodecane Sulfonate (8:2)	--	NG/L	NA	1.1 U	1.13 U	1.1 U	1.13 U
Sodium 1H,1H,2H,2H-Perfluorooctane Sulfonate (6:2)	--	NG/L	NA	1.22 U	1.37 J	1.21 U	2.16
TOTAL PFOA AND PFOS	--	NG/L	NA	109	123	122	142

Table 4. Summary of Perfluorinated Alkyl Acids and Dioxane in Groundwater, 70 Riverside Drive, Rensselaer, New York

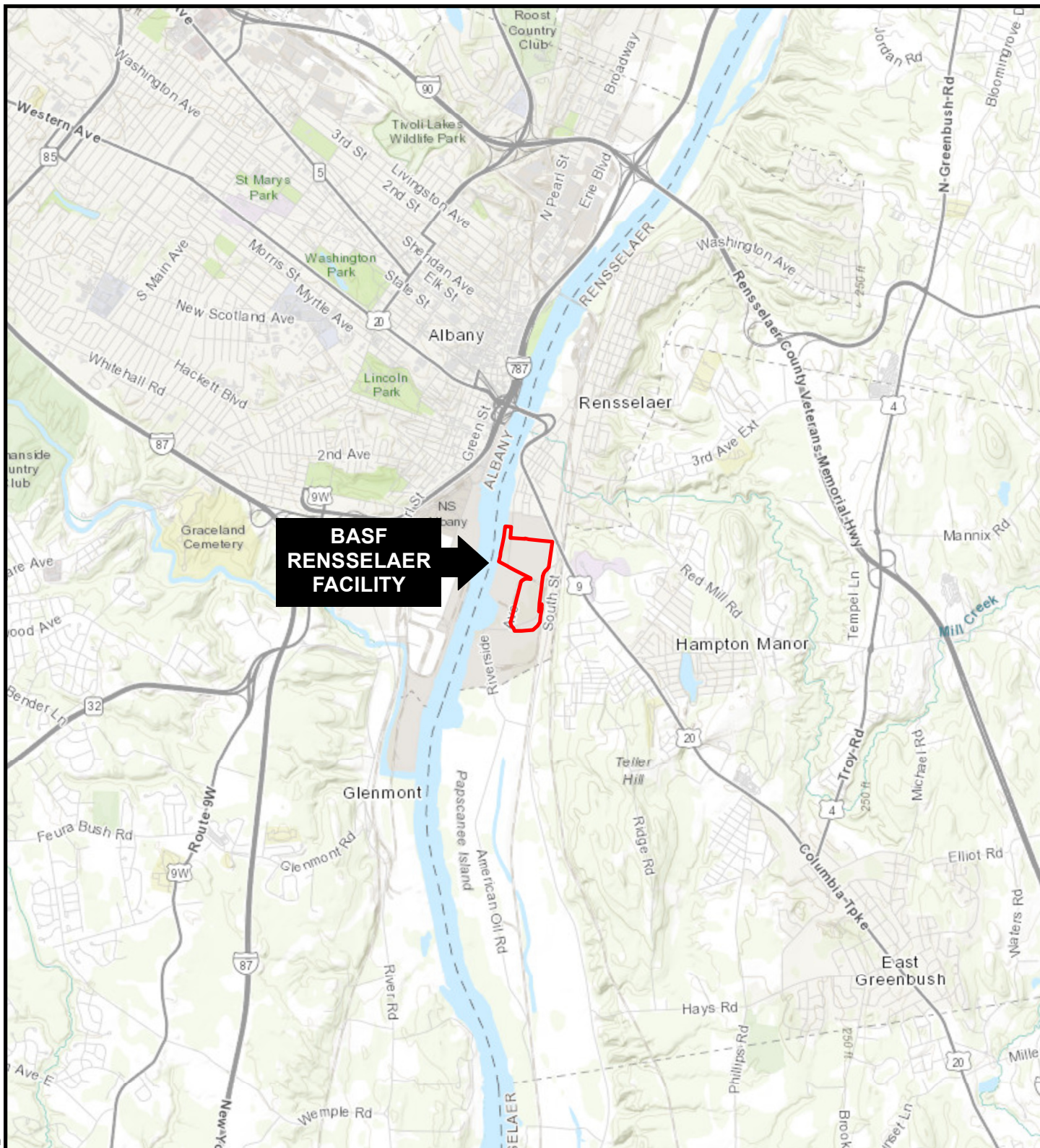
Sample Designation:			LG-PZ-6R	LG-PZ-6R	LG-PZ-6R	LG-PZ-6R
Sample Date:			09/20/2017	12/18/2019	01/26/2021	05/10/2022
Normal Sample or Field Duplicate:			N	N	N	N
Parameter	NYSDEC Ambient Water- Quality Guidance Values	Units				
1,4-Dioxane (P-Dioxane)	350	NG/L	447	144	168	183
2-(N-methyl perfluorooctanesulfonamido) acetic acid	--	NG/L	NA	0.611 U	0.586 U	0.584 U
N-ethyl perfluorooctanesulfonamidoacetic acid	--	NG/L	NA	0.758 U	0.727 U	0.724 U
Perfluorobutanesulfonic acid (PFBS)	--	NG/L	NA	1.98	1.02 J	0.843 J
Perfluorobutanoic Acid	--	NG/L	NA	7.72	5.72	5.74
Perfluorodecane Sulfonic Acid	--	NG/L	NA	0.924 U	0.887 U	0.882 U
Perfluorodecanoic acid (PFDA)	--	NG/L	NA	0.287 U	0.275 U	0.274 U
Perfluorododecanoic acid (PFDoA)	--	NG/L	NA	0.351 U	0.336 U	0.335 U
Perfluoroheptane Sulfonate (PFHPS)	--	NG/L	NA	0.649 U	0.622 U	0.62 U
Perfluoroheptanoic acid (PFHpA)	--	NG/L	NA	1.68 J	2.58	1.69 J
Perfluorohexanesulfonic acid (PFHxS)	--	NG/L	NA	1.23 J	1.5 J	1.57 J
Perfluorohexanoic acid (PFHxA)	--	NG/L	NA	5.72	4.12	2.51
Perfluorononanoic acid (PFNA)	--	NG/L	NA	0.562 J	0.336 J	0.317 J
Perfluorooctane Sulfonamide (FOSA)	--	NG/L	NA	0.547 U	0.525 U	0.522 U
Perfluorooctanesulfonic acid (PFOS)	2.7	NG/L	11.2	3.61	3.53	2.87
Perfluorooctanoic acid (PFOA)	6.7	NG/L	14.4	3.57	3.88 F	3.01 F
Perfluoropentanoic Acid (PFPeA)	--	NG/L	NA	7.19	5.67	3.58
Perfluorotetradecanoic acid (PFTA)	--	NG/L	NA	0.234 U	0.224 U	0.223 U
Perfluorotridecanoic Acid (PFTrIA)	--	NG/L	NA	0.309 U	0.296 U	0.295 U
Perfluoroundecanoic Acid (PFUnA)	--	NG/L	NA	0.245 U	0.235 U	0.234 U
Sodium 1H,1H,2H,2H-Perfluorodecane Sulfonate (8:2)	--	NG/L	NA	1.14 U	1.1 U	1.09 U
Sodium 1H,1H,2H,2H-Perfluorooctane Sulfonate (6:2)	--	NG/L	NA	1.26 U	1.2 U	6.36
TOTAL PFOA AND PFOS	--	NG/L	NA	7.18	7.41	5.88

Table 4. Summary of Perfluorinated Alkyl Acids and Dioxane in Groundwater, 70 Riverside Drive, Rensselaer, New York

Sample Designation:			MP-MW-105R	MP-MW-105R	MP-MW-105R	MP-MW-105R	MP-MW-105R	MP-MW-105R	MP-MW-105R	MP-MW-105R
Sample Date:			09/20/2017	09/20/2017	12/18/2019	06/18/2020	06/18/2020	01/26/2021	01/26/2021	05/10/2022
Normal Sample or Field Duplicate:			N	FD	N	N	FD	N	FD	N
Parameter	NYSDEC Ambient Water- Quality Guidance Values	Units								
1,4-Dioxane (P-Dioxane)	350	NG/L	4540	2850	2440	NA	NA	1580	1630	1590
2-(N-methyl perfluorooctanesulfonamido) acetic acid	--	NG/L	NA	NA	0.611 U	0.621 J	0.774 J	0.609 U	0.593 U	0.607 U
N-ethyl perfluorooctanesulfonamidoacetic acid	--	NG/L	NA	NA	1.19 J	2.1	2.39	0.755 U	0.735 U	0.753 U
Perfluorobutanesulfonic acid (PFBS)	--	NG/L	NA	NA	88.8	6.96	6.67	21.8	21.5	12.9
Perfluorobutanoic Acid	--	NG/L	NA	NA	86.9	30.4	30.8	30.6	29.8	19.4
Perfluorodecane Sulfonic Acid	--	NG/L	NA	NA	0.924 U	0.879 U	0.874 U	0.921 U	0.896 U	0.918 U
Perfluorodecanoic acid (PFDA)	--	NG/L	NA	NA	5.55	11.1	11.7	4.23	4.23	4.26
Perfluorododecanoic acid (PFDoA)	--	NG/L	NA	NA	0.351 U	0.334 U	0.332 U	0.35 U	0.34 U	0.472 J
Perfluoroheptane Sulfonate (PFHPS)	--	NG/L	NA	NA	600	11	10.8	17.6	18.4	10.1
Perfluoroheptanoic acid (PFHpA)	--	NG/L	NA	NA	119	63.8	65.4	57.7	57.7	32.3
Perfluorohexanesulfonic acid (PFHxS)	--	NG/L	NA	NA	2750 J-	103	104	347	339	198
Perfluorohexanoic acid (PFHxA)	--	NG/L	NA	NA	417	65.3	64	93.9	91.2	51.3
Perfluorononanoic acid (PFNA)	--	NG/L	NA	NA	31.7	23.3	22.9	9.16	9.67	7.2
Perfluorooctane Sulfonamide (FOSA)	--	NG/L	NA	NA	0.547 U	0.52 U	0.517 U	0.545 U	0.53 U	0.543 U
Perfluorooctanesulfonic acid (PFOS)	2.7	NG/L	5130	4160	31300 J-	1410	1320	1720	1790	1200
Perfluorooctanoic acid (PFOA)	6.7	NG/L	40.9	41.6	116	53.1	54.4	36.8 F	37.2 F	28.1
Perfluoropentanoic Acid (PFPeA)	--	NG/L	NA	NA	277	89	88	89.8	89	51.5
Perfluorotetradecanoic acid (PFTA)	--	NG/L	NA	NA	0.234 U	0.222 U	0.221 U	0.233 U	0.227 U	0.232 U
Perfluorotridecanoic Acid (PFTriA)	--	NG/L	NA	NA	0.309 U	0.293 U	0.292 U	0.307 U	0.299 U	0.306 U
Perfluoroundecanoic Acid (PFUnA)	--	NG/L	NA	NA	0.245 U	0.624 J	0.782 J	0.706 J	0.71 J	1.94
Sodium 1H,1H,2H,2H-Perfluorodecane Sulfonate (8:2)	--	NG/L	NA	NA	72	66	63.2	11.6	11	10.3
Sodium 1H,1H,2H,2H-Perfluorooctane Sulfonate (6:2)	--	NG/L	NA	NA	96.4	60.4	59.1	47.2	50.4	34.1
TOTAL PFOA AND PFOS	--	NG/L	NA	NA	NA	NA	NA	1760	1830	1230

FIGURES

1. Site Location Map
2. Facility Map



QUADRANGLE LOCATION



Title:

SITE LOCATION MAP

RENSSELAER, NEW YORK

Prepared for:

BASF CORPORATION
FLORHAM PARK, NEW JERSEY



Compiled by: K.S.

Date: 09/12/19

FIGURE

Prepared by: M.S.R.

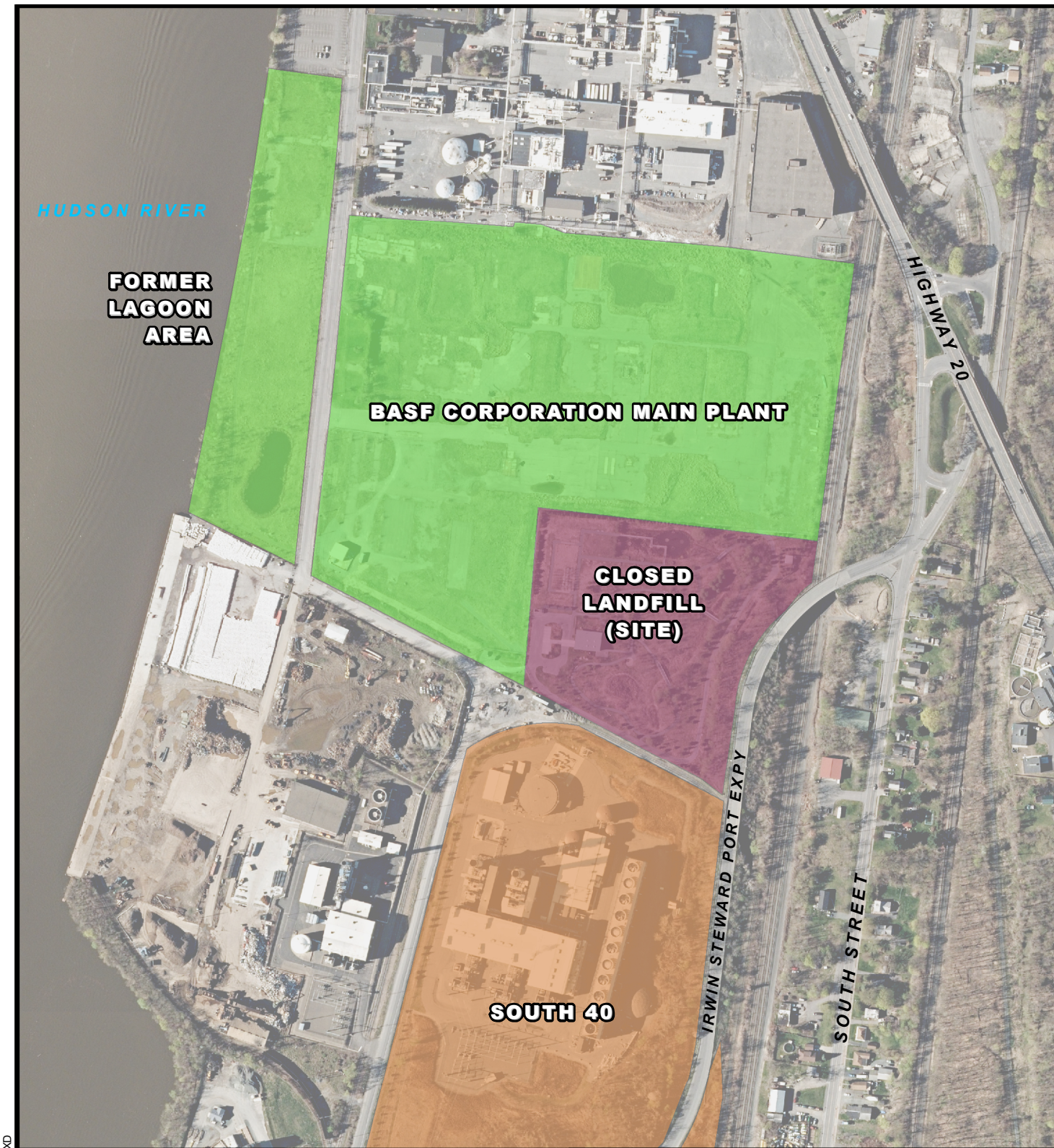
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Project Mgr: K.S.

Project: 0251.0011Y054

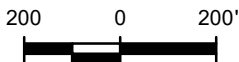
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LEGEND

- BASF CORPORATION MAIN PLANT
- FORMER LAGOON AREA
- CLOSED LANDFILL (SITE)
- SOUTH 40



Title:

FACILITY

RENSSELAER, NEW YORK

Prepared for:

BASF CORPORATION
FLORHAM PARK, NEW JERSEY



Compiled by: K.S.

Date: 09/12/19

FIGURE

Prepared by: M.S.R.

Scale: AS SHOWN

Project Mgr: K.S.

Project: 0251.0011Y054

File: 0251.0011Y650.2.mxd

2

APPENDICES

- A. Institutional and Engineering Controls Certification Form
- B. Site Monitoring, Inspection and Maintenance Forms
- C. 2020 GWTS Influent and Effluent Sampling Data
- D. 2021 GWTS Influent and Effluent Sampling Data
- E. 2022 GWTS Influent and Effluent Sampling Data

APPENDIX A

Institutional and Engineering Controls Certification Form



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



Site No.	Site Details	Box 1
442027		
Site Name BASF – Manufacturing Plant		
Site Address: 36 Riverside Avenue Zip Code: 12144		
City/Town: Rensselaer		
County: Rensselaer		
Site Acreage: 45.320		
Reporting Period: August 31, 2019 to June 30, 2023		
		YES NO
1. Is the information above correct?		☒ ☐
If NO, include handwritten above or on a separate sheet.		
2. Has some or all of the site property been sold, subdivided, merged, or undergone a tax map amendment during this Reporting Period?		☐ ☒
3. Has there been any change of use at the site during this Reporting Period (see 6NYCRR 375-1.11(d))?		☒ ☐
4. Have any federal, state, and/or local permits (e.g., building, discharge) been issued for or at the property during this Reporting Period?		☐ ☒
If you answered YES to questions 2 thru 4, include documentation or evidence that documentation has been previously submitted with this certification form.		
5. Is the site currently undergoing development?		☒ ☐

	Box 2
	YES NO
6. Is the current site use consistent with the use(s) listed below? Restricted-Residential, Commercial, and Industrial	☒ ☐
7. Are all ICs/ECs in place and functioning as designed?	☒ ☐

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

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



Signature of Owner, Remedial Party or Designated Representative

7/7/2023

Date

Description of Institutional Controls

<u>Parcel</u>	<u>Owner</u>	<u>Institutional Controls</u>
154.00-5-2.132	BASF Wyandotte Corp	Ground Water Use Restriction Land use Restriction Interim Site Management Plan IC/EC Plan Soil Management Plan Building Use Restriction Monitoring Plan

Institutional Controls (ICs)

1. Compliance with the Deed Restriction and the Interim Site Management Plan (ISMP) by the Grantor and the Grantor's successors and assigns.
2. All Engineering Controls must be operated and maintained as specified in the ISMP.
3. All Engineering Controls on the Controlled Property must be inspected at a frequency and in a manner defined in the ISMP.
4. Groundwater, soil vapor and other environmental or public health monitoring must be performed as defined in the ISMP.
5. Data and information pertinent to Interim Site Management of the Controlled Property must be reported at the frequency and in a manner defined in the ISMP.
6. The property may only be used for Industrial/Commercial use provided that the long-term Engineering and Institutional Controls included in the ISMP are employed.
7. The property may not be used for a higher level of use, such as Restricted Residential use without additional remediation and amendment of the Deed Restriction, as approved by the NYSDEC.
8. All future activities on the property that will disturb remaining contaminated material must be conducted in accordance with the ISMP.
9. The use of the groundwater underlying the property is prohibited without treatment rendering it safe for intended use.
10. The potential for vapor intrusion must be evaluated for any buildings developed on the Site, and any potential impacts that are identified must be monitored or mitigated.
11. Vegetable gardens and farming on the property are prohibited.
12. The site owner or remedial party will submit to NYSDEC a written statement that certifies, under penalty of perjury, that: (1) controls employed at the Controlled Property are unchanged from the previous certification or that any changes to the controls were approved by the NYSDEC; and, (2) nothing has occurred that impairs the ability of the controls to protect public health and environment or that constitute a violation or failure to comply with the ISMP. NYSDEC retains the right to access such Controlled Property at any time in order to evaluate the continued maintenance of any and all controls. This certification shall be submitted annually, or an alternate period of time that NYSDEC may allow and will be made by an expert that the NYSDEC finds acceptable.

Description of Engineering ControlsParcel**154.00-5-2.132**Owner

BASF Wyandotte Corp

Engineering Controls

Cover System

Groundwater Treatment System

Engineering Controls (ECs)

1. Composite Cover System

Exposure to remaining contamination in soil/fill at the site is prevented by a composite cover system that covers remaining contamination. The composite cover system consists of the following components which are described in further detail below:

- Existing Surface Pavement Cap;
- Main Plant Excavation Areas Cap;
- Former Buildings Foundation Cap;
- Lagoon Area Vegetative Cap; and
- Main Plant Vegetative Cap.

2. On-Site Groundwater Treatment System

The groundwater treatment system was installed to treat groundwater collected from the Site Groundwater Collection System (GCS) trenches. The primary contaminants found in the groundwater are chlorinated benzenes, benzene, chlorinated ethanes (primarily 1,2-dichloroethane), and arsenic. Water is pumped from 6 recovery wells located within the GCS trenches and conveyed to the treatment system through individual lines. The groundwater treatment system consists of the following key components:

- Influent equalizations;
- Metals removal system (aeration, vapor phase GAC off-gas treatment; filtration; and metals adsorption);
- VOC/ SVOC removal system (air stripping; vapor phase GAC off-gas treatment; and liquid phase GAC); and
- Dissolved oxygen injection system.

Periodic Review Report (PRR) Certification Statements

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

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

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

YES NO

☒X ☐

2. If this site has an IC/EC Plan (or equivalent as required in the Decision Document), for each Institutional or Engineering control listed in Boxes 3 and/or 4, I certify by checking "YES" below that all of the following statements are true:

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

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

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

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

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

YES NO

☒X ☐

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

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



7/7/2023

Signature of Owner, Remedial Party or Designated Representative

Date

IC CERTIFICATIONS
SITE NO. C442027

Box 6

SITE OWNER OR DESIGNATED REPRESENTATIVE SIGNATURE

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

I Peter Bongiorno at 100 Park Ave, Florham Park, NJ 07932,
print name print business address

am certifying as BASF Corporation (Owner or Remedial Party)

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

 7/7/2023
Signature of Owner, Remedial Party, or Designated Representative Date
Rendering Certification

EC CERTIFICATIONS

Box 7

Qualified Environmental Professional Signature

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

I Nathan Epler, Ph.D. at 209 Shafter Street, Islandia, NY, 11749,
print name print business address

am certifying as a Qualified Environmental Professional for the BASF Corporation
(Owner or Remedial Party)

Nathan Epler, Ph.D.  6-30-2023
Signature of Qualified Environmental Professional, for Stamp Date
the Owner or Remedial Party, Rendering Certification (Required for PE)

APPENDIX B

Site Monitoring, Inspection and Maintenance Forms

Add supports?
Natural + landscap + areas.

ROUX ASSOCIATES, INC. / REMEDIAL ENGINEERING, P.C.
MONTHLY SITE MONITORING, INSPECTION AND MAINTENANCE FORM

Client: BASF Corp
Location: Rensselaer, NY
Project Number: 0251.0011Y
Job: OU-1 Cap
Performed by: (BT + KS) on (5/1/2009)

Inspection of Existing Surface (Asphalt, gravel RR tracks, natural & landscaped areas):

Yes No

- ☒ ☐ Woody shrubs/ trees observed in Asphalt areas?
☐ ☒ Signs of disturbance to asphalt areas ?
☐ ☒ Other conditions (i.e., stressed vegetation, insect infestation, etc.) observed?
If yes, refer to Page 3 for additional clarification.

Inspection of Main Plant Excavation Areas Cap (Areas 2 and 4B -gravel top)

Yes No

- ☐ ☒ Signs of disturbance to gravel areas ?
☐ ☒ Woody shrubs/ trees observed?
☐ ☒ Other damage observed? If yes, refer to Page 3 for additional clarification.

Inspection of Former Buildings - Clay Cap

Yes No

- ☐ ☒ Significant rills or gullies observed?
☐ ☒ Signs of settlement/ subsidence observed?
☐ ☒ Significant animal burrows observed?
☐ ☒ Significant bare spots observed?
☒ ☐ Woody shrubs/ trees observed?
☐ ☒ Underlying orange demarcation barrier exposed? (approximately 16-inches below land surface)
☒ ☐ Are soil caps sloped to allow for drainage away from the peak?
☐ ☒ Other damage observed? If yes, refer to Page 3 for additional clarification.

Inspection of Former Buildings - Concrete Cap

Yes No

- ☐ ☒ Significant disturbance to concrete cap areas ?
☒ ☐ Woody shrubs/ trees observed?
☐ ☒ Other damage observed? If yes, refer to Page 3 for additional clarification.

Inspection of Former Buildings -Building 67 Elastocoat Cap

Yes No

- ☒ ☐ Significant cracks, bubbles or flaking of the elastocoat? *crack do not penetrate cap. Monitor.*
☐ ☒ Other damage observed? If yes, refer to Page 3 for additional clarification.

ROUX ASSOCIATES, INC. / REMEDIAL ENGINEERING, P.C.
MONTHLY SITE MONITORING, INSPECTION AND MAINTENANCE FORM

Client: **BASF Corp**
Location: **Rensselaer, NY**
Project Number: **0251.0011Y**
Job: **OU-1 Cap**
Performed by: () on ()

Inspection of Lagoon Area Vegetative Cap:

Hudson Dewatering Activities

Yes	No	
☐	☐	Significant rills or gullies observed?
☐	☐	Signs of settlement/ subsidence observed?
☐	☐	Significant animal burrows observed?
☐	☐	Significant bare spots observed?
☐	☐	Underlying demarcation barrier exposed? (RCA is demarcation layer-approximately 30-inches below land surface)
☐	☐	Other conditions (i.e., stressed vegetation, insect infestation, etc.) observed?

If yes, refer to Page 3 for additional clarification.

Inspection of Main Plant Vegetative Cap (stormwater detention areas and swales and three grass capped areas)

Yes	No	
☐	☒	Significant rills or gullies observed in detention areas?
☐	☒	Signs of settlement/ subsidence observed?
☒	☐	Significant animal burrows observed?
☒	☐	Woody shrubs/ trees observed?
☐	☒	Underlying demarcation barrier exposed? (bottom of 6 to 12-inch topsoil layer)
☐	☒	Other conditions (i.e., stressed vegetation, insect infestation, etc.) observed?

If yes, refer to Page 3 for additional clarification.



Legend

- OU-1 Area
- Existing Surface Cap**
 - Existing Natural & Landscaped Area Cap
 - Existing Asphalt, Concrete, Gravel & Railroad Track Areas
- Former Building Foundations**
 - Former Buildings without Basements - Concrete Cap
 - Former Buildings with Basements - Low Permeability Soil Cap
 - Former Building 67 - Elastocoat Cap

Main Plant Excavation Areas 2 & 4B

- Main Plant Excavation Areas - Gravel Cap

Lagoon Cap

- Lagoon Stormwater Detention Area Cap
- Lagoon Vegetative Soil Cap

Main Plant Vegetative Cap

- Gravel Vegetated Swales
- Grassed Stormwater Detention Areas

COMPOSITE COVER SYSTEM

BASF FORMER FIBERS PLANT
70 RIVERSIDE AVE, RENSSELAER, NEW YORK

Prepared For: **BASF CORPORATION**
FLORHAM PARK, NEW JERSEY

ROUX ASSOCIATES, INC.
*Environmental Consulting
& Management*

Compiled by: K.S.	Date: 15DEC2015
Prepared by: K.S.	Scale: 1"= 300'
Project Mgr: K.S.	Office: NY
File: 0251.0011Y628.101	Project: 0251.0011Y051

OU-1
COMPOSITE COVER SYSTEM

Title:

FIGURE
2

ROUX ASSOCIATES, INC. / REMEDIAL ENGINEERING, P.C.
MONTHLY SITE MONITORING, INSPECTION AND MAINTENANCE FORM

Client: BASF Corp
Location: Rensselaer, NY
Project Number: 0251.0011Y045
Job: OU-1 Cap
Performed by: (Brandon Vella) on (April 22, 2022)

Inspection of Existing Surface (Asphalt, gravel RR tracks, natural & landscaped areas):

Yes No

- ☒ ☐ Woody shrubs/ trees observed in Asphalt areas greater than one-inch in diameter?
☐ ☒ Signs of disturbance to asphalt areas ?
☐ ☒ Other conditions (i.e., stressed vegetation, invasive plants, insect infestation, etc.) observed?
If yes, refer to Page 3 for additional clarification.

Inspection of Main Plant Excavation Areas (Areas 2 and 4B -gravel top)

Yes No

- ☐ ☒ Signs of disturbance to gravel areas ?
☒ ☐ Woody shrubs/ trees observed greater than one-inch in diameter?
☐ ☒ Other damage observed? If yes, refer to Page 3 for additional clarification.

Inspection of Former Buildings Clay Cap

Yes No

- ☐ ☒ Significant rills or gullies observed?
☒ ☐ Signs of settlement/ subsidence observed?
☐ ☒ Significant animal burrows observed?
☐ ☒ Significant bare spots observed?
☒ ☐ Woody shrubs/ trees observed greater than one-inch in diameter?
☐ ☒ Underlying orange demarcation barrier exposed?
☒ ☐ Are soil caps sloped to allow for drainage away from the peak?
☐ ☒ Other damage observed? If yes, refer to Page 3 for additional clarification.

Inspection of Former Buildings Concrete Caps

Yes No

- ☒ ☐ Woody shrubs/ trees observed greater than one-inch in diameter?
☐ ☒ Other damage observed? If yes, refer to Page 3 for additional clarification.

Inspection of Building 67 Elastocoat Cap

Yes No

- ☒ ☐ Significant cracks, bubbles or flaking of the elastocoat?
☒ ☐ Signs that the elastocoat is separating from the geotextile membrane underneath?
☐ ☒ Other damage observed? If yes, refer to Page 3 for additional clarification.

ROUX ASSOCIATES, INC. / REMEDIAL ENGINEERING, P.C.
MONTHLY SITE MONITORING, INSPECTION AND MAINTENANCE FORM

Client: BASF Corp
Location: Rensselaer, NY
Project Number: 0251.0011Y045
Job: OU-1 Cap
Performed by: (Brandon Vella) on (April 22, 2022)

Inspection of Lagoon Area Vegetative Soil Cap: - No Access

Yes No

- ☐ ☐ Significant rills or gullies observed?
- ☐ ☐ Signs of settlement/ subsidence observed?
- ☐ ☐ Significant animal burrows observed?
- ☐ ☐ Significant bare spots observed?
- ☐ ☐ Underlying demarcation barrier exposed (i.e. biota barrier/recycled concrete aggregate (RCA))?
- ☐ ☐ Other conditions (i.e., stressed vegetation, invasive plants, insect infestation, etc.) observed?

If yes, refer to Page 3 for additional clarification.

Inspection of Main Plant Vegetative Soil Cap (stormwater detention areas and swales)

Yes No

- ☐ ☒ Significant rills or gullies observed in detention areas?
- ☒ ☐ Signs of settlement/ subsidence observed?
- ☒ ☐ Significant animal burrows observed?
- ☒ ☐ Woody shrubs/ trees observed greater than one-inch in diameter?
- ☐ ☒ Underlying demarcation barrier exposed (i.e. bottom of 6 to 12-inch topsoil demarcation layer exposed)?
- ☐ ☒ Other conditions (i.e., stressed vegetation, invasive plants, insect infestation, etc.) observed?

If yes, refer to Page 3 for additional clarification.

ROUX ASSOCIATES, INC. / REMEDIAL ENGINEERING, P.C.	
MONTHLY SITE MONITORING, INSPECTION AND MAINTENANCE FORM	
Client:	BASF Corp
Location:	Rensselaer, NY
Project Number:	0251.0011Y042
Job:	OU-1 Cap
Performed by:	(Brandon Vella) on (April 22, 2022)

APPENDIX C

2020 GWTS Influent and Effluent Sampling Data

Table 2
BASF Rensselaer
Flow Data
January 2020

Jan-20	Influent (GPD)	Gallery1 (GPD)	Gallery2 (GPD)
1	8	8	13
2	10,887	6,699	6,476
3	12,806	8,625	3,889
4	12,242	7,385	5,072
5	10,237	7,008	3,847
6	10,624	7,572	3,889
7	10,306	7,610	3,347
8	10,678	7,168	3,370
9	10,807	6,415	3,819
10	13,008	6,701	5,268
11	12,583	5,043	7,296
12	11,975	4,841	6,413
13	11,166	7,959	3,948
14	10,546	7,794	4,150
15	11,612	7,639	4,721
16	11,145	2,815	8,637
17	11,194	8,679	1,146
18	11,254	8,452	50
19	10,210	10,580	1,808
20	11,427	9,812	2,245
21	11,208	7,395	3,817
22	10,697	4,812	6,365
23	9,562	3,651	6,138
24	11,164	3,506	5,737
25	10,966	4,175	6,815
26	10,182	3,529	6,191
27	10,464	4,185	6,765
28	9,846	3,403	6,138
29	7,143	3,538	6,012
30	6,256	4,496	7,242
31	5,083	4,036	6,382
Average (Daily)	10,235	5,985	4,742
Totals	317,283	185,529	147,007

Note: Data shown is last reading of the 24-hour period for each day
(system logs data every ten minutes)

Table 2
BASF Rensselaer
Flow Data
February 2020

Feb-20	Influent (GPD)	Gallery1 (GPD)	Gallery2 (GPD)
1	4,379	3,172	5,703
2	10,832	3,790	6,188
3	10,737	4,715	6,390
4	11,145	4,126	7,057
5	10,348	3,529	6,090
6	10,145	3,740	6,380
7	10,622	2,905	5,856
8	10,258	3,685	6,792
9	9,455	3,452	7,036
10	10,819	3,586	6,725
11	10,567	3,403	6,222
12	9,613	3,349	5,735
13	8,307	3,687	7,160
14	10,782	2,802	6,785
15	11,227	2,880	6,928
16	6,386	3,229	3,254
17	10,618	3,302	6,476
18	10,498	2,865	6,886
19	9,760	3,044	6,529
20	8,915	2,935	6,477
21	10,834	3,105	7,290
22	8	4	6
23	6	2	10
24	11,677	4,726	7,696
25	11,275	3,653	6,107
26	11,648	4,824	7,633
27	11,372	3,866	6,847
28	10,555	4,482	7,000
29	9,342	4,667	7,082
Average (Daily)	9,384	3,363	6,081
Totals	272,129	97,526	176,341

Note: Data shown is last reading of the 24-hour period for each day
(system logs data every ten minutes)

Table 2
BASF Rensselaer
Flow Data
March 2020

Mar-20	Influent (GPD)	Gallery1 (GPD)	Gallery2 (GPD)
1	7,372	3,601	6889
2	11,288	3,536	5938
3	11,521	3,506	7277
4	10,433	4,669	6680
5	10,090	10	6
6	11,404	2,995	6348
7	10,924	3,437	6804
8	9,386	3,525	7238
9	10,290	4,005	5863
10	10,498	3,685	5993
11	9,648	4,877	4456
12	8,581	5,323	4238
13	10,588	5,983	3407
14	10,155	6,825	4149
15	9,907	6,371	4480
16	9,592	4,511	4673
17	10,048	5,161	4379
18	10,092	5,289	4549
19	10,037	5,388	4429
20	10,113	6,075	4994
21	10,349	5,476	5289
22	9,689	5,587	4763
23	9,380	5,844	4856
24	8,743	5,528	4616
25	8,150	6,277	4091
26	10	8	13
27	9,695	5,789	4124
28	9,377	4,862	3214
29	9,024	6,281	4509
30	11,765	7,263	4650
31	10,721	5,329	3130
Average (Daily)	9,641	4,742	4,711
Totals	298,871	147,017	146,044

Note: Data shown is last reading of the 24-hour period for each day
(system logs data every ten minutes)

Table 2
BASF Rensselaer
Flow Data
April 2020

Apr-20	Influent (GPD)	Gallery1 (GPD)	Gallery2 (GPD)
1	9,527	5,869	4389
2	7,891	5,209	4025
3	11,034	5,964	4112
4	11,446	6,466	4347
5	11,917	10,134	10494
6	9,297	5,190	4162
7	10,847	5,789	4938
8	8,364	32	10151
9	7,219	4,944	4854
10	12,213	5,856	5945
11	12,209	6,678	5766
12	11,282	5,499	4726
13	11,980	5,154	5236
14	11,351	5,194	4871
15	10,327	5,152	5192
16	10,355	5,673	5043
17	10	10	11
18	10	4	13
19	11	8	15
20	10,887	5,642	5100
21	11,032	5,917	5196
22	10,639	5,203	4061
23	10,029	5,695	4389
24	8,982	5,894	4339
25	8,236	5,486	3414
26	6,735	5,896	4910
27	10,271	6,283	4307
28	11,385	5,350	3944
29	11,389	5,650	4768
30	9,688	5,314	4997
Average (Daily)	9,219	5,038	4,591
Totals	276,564	151,152	137,718

Note: Data shown is last reading of the 24-hour period for each day
(system logs data every ten minutes)

Table 2
BASF Rensselaer
Flow Data
May 2020

May-20	Influent (GPD)	Gallery1 (GPD)	Gallery2 (GPD)
1	10,731	4,770	4822
2	11,236	6,229	4141
3	9,407	5,652	4883
4	7,530	5,320	11
5	7,853	5,282	1623
6	8,618	5,505	4469
7	8,200	5,749	2718
8	7,195	5,335	2457
9	7,929	4,904	10
10	7,662	5,280	532
11	7,877	6,147	11
12	7,013	4,763	11
13	6,899	5,180	2335
14	7,979	5,175	3473
15	10,546	5,583	2359
16	10,557	6,401	4496
17	10,296	5,226	5053
18	10,117	5,154	4044
19	10,302	4,932	3613
20	10,624	6,352	4271
21	11,402	6,659	3529
22	10,920	6,909	4417
23	10,807	5,276	5074
24	11,212	5,064	5272
25	11,110	5,217	5350
26	11,440	7,383	3399
27	9,405	3,550	13
28	8,927	5,501	3334
29	8,623	5,135	15
30	8,106	6,146	1892
31	7,565	4,688	3973
Average (Daily)	9,293	5,499	2,955
Totals	288,088	170,464	91,600

Note: Data shown is last reading of the 24-hour period for each day
(system logs data every ten minutes)

Table 2
BASF Rensselaer
Flow Data
July 2020

Jul-20	Influent (GPD)	Gallery1 (GPD)	Gallery2 (GPD)
1	5,917	4,976	1,436
2	5,865	3,494	2,552
3	6,083	3,006	6,472
4	5,695	4,788	759
5	5,673	4,015	13
6	5,756	4,957	1,593
7	5,308	4,692	1,768
8	5,247	6,003	2,667
9	11	6	1,822
10	6,022	4,541	1,534
11	6,022	4,257	1,705
12	10	-	15
13	6,435	4,652	2,142
14	6,098	4,679	1,375
15	6,422	4,530	2,907
16	6,203	4,706	86
17	6,018	5,220	2,560
18	6,352	4,452	4,005
19	5,852	4,324	240
20	6,138	5,163	5,192
21	6,228	4,168	1,318
22	11	10	15
23	6,363	4,131	13
24	6,186	4,749	2,443
25	11	10	13
26	8	8	17
27	6,390	4,917	3,180
28	6,437	4,891	1,736
29	9,407	5,856	3,977
30	9,348	5,331	3,775
31	8,913	5,150	3,780
Average (Daily)	5,369	3,925	1,971
Totals	166,428	121,681	61,110

Note: Data shown is last reading of the 24-hour period for each day
(system logs data every ten minutes)

Table 2
BASF Rensselaer
Flow Data
August 2020

Aug-20	Influent (GPD)	Gallery1 (GPD)	Gallery2 (GPD)
1	5,917	4,976	1,436
2	5,865	3,494	2,552
3	6,083	3,006	6,472
4	5,695	4,788	759
5	5,673	4,015	13
6	5,756	4,957	1,593
7	5,308	4,692	1,768
8	5,247	6,003	2,667
9	11	6	1,822
10	6,022	4,541	1,534
11	6,022	4,257	1,705
12	10	-	15
13	6,435	4,652	2,142
14	6,098	4,679	1,375
15	6,422	4,530	2,907
16	6,203	4,706	86
17	6,018	5,220	2,560
18	6,352	4,452	4,005
19	5,852	4,324	240
20	6,138	5,163	5,192
21	6,228	4,168	1,318
22	11	10	15
23	6,363	4,131	13
24	6,186	4,749	2,443
25	11	10	13
26	8	8	17
27	6,390	4,917	3,180
28	6,437	4,891	1,736
29	9,407	5,856	3,977
30	9,348	5,331	3,775
31	8,913	5,150	3,780
Average (Daily)	5,369	3,925	1,971
Totals	166,428	121,681	61,110

Note: Data shown is last reading of the 24-hour period for each day
(system logs data every ten minutes)

Table 2
BASF Rensselaer
Flow Data
September 2020

Sep-20	Influent (GPD)	Gallery1 (GPD)	Gallery2 (GPD)
1	5,430	6	15
2	5,388	4,587	1,453
3	5,463	3,895	2,735
4	5,318	2,823	1,461
5	5,047	3,302	3,136
6	11	6	6
7	13	3,445	1,192
8	5,489	8	6,619
9	5,528	4,393	15
10	5,486	1,463	13
11	5,579	2,285	1,459
12	5,600	4,051	5,943
13	13	3,084	2,953
14	5,642	2	4,694
15	5,694	4,204	1,440
16	11	2,140	1,429
17	11	36	19
18	5,854	4,179	1,364
19	5,690	3,599	1,663
20	5,688	4,417	2,136
21	5,793	4,252	1,776
22	11	67	1,755
23	6,132	4,047	5,102
24	6,081	2,846	4,665
25	6,102	4,074	15
26	6,142	4,404	1,390
27	6,044	2,705	3,798
28	5,922	4,595	3,126
29	5,751	4,339	11
30	5,512	5,354	3,422
Average (Daily)	4,548	2,954	2,160
Totals	136,446	88,607	64,807

Note: Data shown is last reading of the 24-hour period for each day
(system logs data every ten minutes)

Table 2
BASF Rensselaer
Flow Data
October 2020

Oct-20	Influent (GPD)	Gallery1 (GPD)	Gallery2 (GPD)
1	5,884	3,025	11
2	5,844	4,362	1,877
3	5,562	4,322	174
4	5,619	4,391	3,315
5	5,440	4,240	1,310
6	5,545	10	10
7	5,238	3,849	990
8	13	8	6
9	8	8	11
10	10	10	11
11	10	8	6
12	10	10	10
13	11	8	10
14	10	11	10
15	10	8	13
16	10	8	10
17	10	6	6
18	8	8	10
19	5,629	8	4,694
20	5,667	10	5,331
21	5,697	3,811	1,984
22	5,739	4,414	1,696
23	5,692	3,153	2,451
24	5,789	4,528	1,341
25	5,510	4,187	1,848
26	5,325	4,259	1,545
27	5,243	4,368	1,566
28	5,528	3,710	1,886
29	5,392	4,070	1,705
30	5,207	4,419	1,944
31	5,385	4,032	1,677
Average (Daily)	3,582	2,234	1,208
Totals	111,042	69,257	37,455

Note: Data shown is last reading of the 24-hour period for each day
(system logs data every ten minutes)

Table 2
BASF Rensselaer
Flow Data
November 2020

Nov-20	Influent (GPD)	Gallery1 (GPD)	Gallery2 (GPD)
1	5,177	3,851	1,574
2	5,308	4,351	1,268
3	5,310	10	2,646
4	5,119	4,667	1,463
5	5,135	4,763	2,735
6	4,891	4,404	10
7	4,990	3,655	2,211
8	4,854	4,736	2,590
9	4,744	4,433	11
10	6,094	4,438	2,607
11	5,898	4,490	4,074
12	5,606	4,595	6
13	5,325	4,288	-
14	5,072	4,749	4
15	5,171	3,305	2,464
16	4,854	4,187	4,955
17	5,037	5,211	3,096
18	4,978	4,629	10
19	4,536	4,570	3,264
20	4,595	4,072	11
21	3,992	4,633	15
22	3,090	4,501	1,781
23	2,729	4,416	76
24	2,531	4,385	1,415
25	5,728	4,253	1,799
26	5,541	4,616	1,648
27	6,085	4,337	11
28	3,723	3,475	10
29	3,792	3,683	10
30	4,969	4,706	2
Average (Daily)	4,673	4,078	1,347
Totals	144,873	126,410	41,766

Note: Data shown is last reading of the 24-hour period for each day
(system logs data every ten minutes)

Table 2
BASF Rensselaer
Flow Data
December 2020

Dec-20	Influent (GPD)	Gallery1 (GPD)	Gallery2 (GPD)
1	5,961	5,245	3,126
2	4,915	4,877	2,106
3	3,679	4,772	2,506
4	3,372	3,908	3,264
5	5,859	4,866	1,703
6	6,420	5,146	1,755
7	6,456	3,824	3,027
8	6,510	5,829	4,114
9	6,811	5,604	3,651
10	6,550	4,910	2,869
11	6,807	3,977	677
12	6,634	3,954	10
13	5,608	4,026	1,776
14	5,489	3,569	1,326
15	5,550	4	137
16	5,419	4,746	2,209
17	5,396	4,040	4,974
18	5,255	156	1,717
19	4,669	2,871	5,022
20	3,365	4,330	3,115
21	6,788	5,486	4,017
22	6,426	3,832	2,070
23	5,510	4,387	1,820
24	3,609	4,862	1,774
25	3,063	4,513	3,944
26	2,737	4,524	38
27	2,840	4,290	1,637
28	6,348	5,707	3,853
29	5,905	10	-
30	5,850	4,770	3,586
31	5,896	486	29
Average (Daily)	5,345	3,985	2,318
Totals	165,700	123,520	71,849

Note: Data shown is last reading of the 24-hour period for each day
(system logs data every ten minutes)

Table 1

BASF Rensselaer

Analytical Results

January 2020

Parameter	Units	Effluent Limit Daily Max.	Frequency of Analysis	Effluent 1/14/20	Effluent 1/28/20
Flow	GPD	72,000	Daily	10,546	9,846
pH	SU	6.5 - 8.5	Bi-weekly	7.8	8.2
Benzene	ug/L	1	Bi-weekly	<1	<1
Chlorobenzene	ug/L	5	Bi-weekly	<5	<5
1,2-dichloroethane	ug/L	0.6	Bi-weekly	<0.6	<0.6
Ethylbenzene	ug/L	5	Bi-weekly	<5	<5
Toluene	ug/L	5	Bi-weekly	<5	<5
1,2,4-Trichlorobenzene	ug/L	5	Bi-weekly	<5	<5
Vinyl Chloride	ug/L	2	Bi-weekly	<2	<2
Butylbenzyl phthalate	ug/L	10	Bi-weekly	<5	<5
Bis(2-ethylhexyl)phthalate	ug/L	5	Bi-weekly	<5	<5
Naphthalene	ug/L	10	Bi-weekly	<5	<5
Phenol	ug/L	2	Bi-weekly	<2	<2
Aluminum	ug/L	2,000	Bi-weekly	<100	<100
Arsenic	ug/L	50	Bi-weekly	6	9
Barium	ug/L	1,200	Bi-weekly	69	65
Chromium	ug/L	100	Bi-weekly	<5	<5
Cobalt	ug/L	140	Bi-weekly	<50	<50
Copper	ug/L	330	Bi-weekly	<5	<5
Iron	ug/L	600	Bi-weekly	585	604
Manganese	ug/L	300	Bi-weekly	<20	<20
Nickel	ug/L	200	Bi-weekly	<20	<20
Zinc	ug/L	1,000	Bi-weekly	11	<10
Sodium	ug/L	Monitor	Bi-weekly	30,000	27,300
Total Dissolved Solids	mg/l	Monitor	Bi-weekly	365	400

Notes:

1. "<" indicates that result is below the method detection limit.
2. ***Bold and italic*** indicates an exceedence of the Effluent Limit Daily Max.

Table 1

BASF Rensselaer

Analytical Results

February 2020

Parameter	Units	Effluent Limit Daily Max.	Frequency of Analysis	Effluent 2/11/20	Effluent 2/27/20
Flow	GPD	72,000	Daily	10,567	11,372
pH	SU	6.5 - 8.5	Bi-weekly	7.9	7.8
Benzene	ug/L	1	Bi-weekly	<1	<1
Chlorobenzene	ug/L	5	Bi-weekly	<5	<5
1,2-dichloroethane	ug/L	0.6	Bi-weekly	<0.6	<0.6
Ethylbenzene	ug/L	5	Bi-weekly	<5	<5
Toluene	ug/L	5	Bi-weekly	<5	<5
1,2,4-Trichlorobenzene	ug/L	5	Bi-weekly	<5	<5
Vinyl Chloride	ug/L	2	Bi-weekly	<2	<2
Butylbenzyl phthalate	ug/L	10	Bi-weekly	<5	<5
Bis(2-ethylhexyl)phthalate	ug/L	5	Bi-weekly	<5	<5
Naphthalene	ug/L	10	Bi-weekly	<5	<5
Phenol	ug/L	2	Bi-weekly	<2	<2
Aluminum	ug/L	2,000	Bi-weekly	<100	<100
Arsenic	ug/L	50	Bi-weekly	12	9
Barium	ug/L	1,200	Bi-weekly	72	62
Chromium	ug/L	100	Bi-weekly	6	<5
Cobalt	ug/L	140	Bi-weekly	<50	<50
Copper	ug/L	330	Bi-weekly	5	<5
Iron	ug/L	600	Bi-weekly	587	504
Manganese	ug/L	300	Bi-weekly	<20	<20
Nickel	ug/L	200	Bi-weekly	<20	<20
Zinc	ug/L	1,000	Bi-weekly	<10	<10
Sodium	ug/L	Monitor	Bi-weekly	28,700	30,100
Total Dissolved Solids	mg/l	Monitor	Bi-weekly	420	440

Notes:

1. "<" indicates that result is below the method detection limit.
2. ***Bold and italic*** indicates an exceedence of the Effluent Limit Daily Max.

Table 1

BASF Rensselaer

Analytical Results

March 2020

Parameter	Units	Effluent Limit Daily Max.	Frequency of Analysis	Effluent 3/10/20	Effluent 3/24/20
Flow	GPD	72,000	Daily	10,498	8,743
pH	SU	6.5 - 8.5	Bi-weekly	7.7	7.7
Benzene	ug/L	1	Bi-weekly	<1	<1
Chlorobenzene	ug/L	5	Bi-weekly	<5	<5
1,2-dichloroethane	ug/L	0.6	Bi-weekly	<0.6	<0.6
Ethylbenzene	ug/L	5	Bi-weekly	<5	<5
Toluene	ug/L	5	Bi-weekly	<5	<5
1,2,4-Trichlorobenzene	ug/L	5	Bi-weekly	<5	<5
Vinyl Chloride	ug/L	2	Bi-weekly	<2	<2
Butylbenzyl phthalate	ug/L	10	Bi-weekly	<5	<5
Bis(2-ethylhexyl)phthalate	ug/L	5	Bi-weekly	<5	<5
Naphthalene	ug/L	10	Bi-weekly	<5	<5
Phenol	ug/L	2	Bi-weekly	<2	<2
Aluminum	ug/L	2,000	Bi-weekly	<100	<100
Arsenic	ug/L	50	Bi-weekly	9	10
Barium	ug/L	1,200	Bi-weekly	63	67
Chromium	ug/L	100	Bi-weekly	<5	<5
Cobalt	ug/L	140	Bi-weekly	<50	<50
Copper	ug/L	330	Bi-weekly	<5	<5
Iron	ug/L	600	Bi-weekly	567	616
Manganese	ug/L	300	Bi-weekly	<20	<20
Nickel	ug/L	200	Bi-weekly	<20	<20
Zinc	ug/L	1,000	Bi-weekly	<10	17
Sodium	ug/L	Monitor	Bi-weekly	28,400	27,900
Total Dissolved Solids	mg/l	Monitor	Bi-weekly	405	445

Notes:

1. "<" indicates that result is below the method detection limit.
2. ***Bold and italic*** indicates an exceedence of the Effluent Limit Daily Max.

Table 1

BASF Rensselaer

Analytical Results

April 2020

Parameter	Units	Effluent Limit Daily Max.	Frequency of Analysis	Effluent 4/16/20	Effluent 4/28/20
Flow	GPD	72,000	Daily	10,355	11,385
pH	SU	6.5 - 8.5	Bi-weekly	7.9	7.6
Benzene	ug/L	1	Bi-weekly	<1	<1
Chlorobenzene	ug/L	5	Bi-weekly	<5	<5
1,2-dichloroethane	ug/L	0.6	Bi-weekly	<0.6	<0.6
Ethylbenzene	ug/L	5	Bi-weekly	<5	<5
Toluene	ug/L	5	Bi-weekly	<5	<5
1,2,4-Trichlorobenzene	ug/L	5	Bi-weekly	<5	<5
Vinyl Chloride	ug/L	2	Bi-weekly	<2	<2
Butylbenzyl phthalate	ug/L	10	Bi-weekly	<5	<5
Bis(2-ethylhexyl)phthalate	ug/L	5	Bi-weekly	<5	<5
Naphthalene	ug/L	10	Bi-weekly	<5	<5
Phenol	ug/L	2	Bi-weekly	<2	<2
Aluminum	ug/L	2,000	Bi-weekly	<100	125
Arsenic	ug/L	50	Bi-weekly	11	6
Barium	ug/L	1,200	Bi-weekly	53	97
Chromium	ug/L	100	Bi-weekly	<5	<5
Cobalt	ug/L	140	Bi-weekly	<50	<50
Copper	ug/L	330	Bi-weekly	<5	8
Iron	ug/L	600	Bi-weekly	179	488
Manganese	ug/L	300	Bi-weekly	101	516
Nickel	ug/L	200	Bi-weekly	<20	<20
Zinc	ug/L	1,000	Bi-weekly	<10	12
Sodium	ug/L	Monitor	Bi-weekly	27,400	29,800
Total Dissolved Solids	mg/l	Monitor	Bi-weekly	390	385

Notes:

1. "<" indicates that result is below the method detection limit.
2. ***Bold and italic*** indicates an exceedence of the Effluent Limit Daily Max.

Table 1

BASF Rensselaer

Analytical Results

May 2020

Parameter	Units	Effluent Limit Daily Max.	Frequency of Analysis	Effluent 5/14/20	Effluent 5/28/20
Flow	GPD	72,000	Daily	7,979	8,927
pH	SU	6.5 - 8.5	Bi-weekly	8.0	7.3
Benzene	ug/L	1	Bi-weekly	<1	<1
Chlorobenzene	ug/L	5	Bi-weekly	<5	<5
1,2-dichloroethane	ug/L	0.6	Bi-weekly	<0.6	<0.6
Ethylbenzene	ug/L	5	Bi-weekly	<5	<5
Toluene	ug/L	5	Bi-weekly	<5	<5
1,2,4-Trichlorobenzene	ug/L	5	Bi-weekly	<5	<5
Vinyl Chloride	ug/L	2	Bi-weekly	<2	<2
Butylbenzyl phthalate	ug/L	10	Bi-weekly	<5	<5
Bis(2-ethylhexyl)phthalate	ug/L	5	Bi-weekly	<5	<5
Naphthalene	ug/L	10	Bi-weekly	<5	<5
Phenol	ug/L	2	Bi-weekly	<2	<2
Aluminum	ug/L	2,000	Bi-weekly	<100	<100
Arsenic	ug/L	50	Bi-weekly	10	14
Barium	ug/L	1,200	Bi-weekly	47	53
Chromium	ug/L	100	Bi-weekly	<5	<5
Cobalt	ug/L	140	Bi-weekly	<50	<50
Copper	ug/L	330	Bi-weekly	<5	6
Iron	ug/L	600	Bi-weekly	201	418
Manganese	ug/L	300	Bi-weekly	20	33
Nickel	ug/L	200	Bi-weekly	<20	<20
Zinc	ug/L	1,000	Bi-weekly	<10	<10
Sodium	ug/L	Monitor	Bi-weekly	36,000	37,900
Total Dissolved Solids	mg/l	Monitor	Bi-weekly	430	485

Notes:

1. "<" indicates that result is below the method detection limit.
2. ***Bold and italic*** indicates an exceedence of the Effluent Limit Daily Max.

Table 1

BASF Rensselaer

Analytical Results

June 2020

Parameter	Units	Effluent Limit Daily Max.	Frequency of Analysis	Effluent 6/10/20	Effluent 6/23/20
Flow	GPD	72,000	Daily	10,933	10,605
pH	SU	6.5 - 8.5	Bi-weekly	7.3	7.7
Benzene	ug/L	1	Bi-weekly	<1	<1
Chlorobenzene	ug/L	5	Bi-weekly	<5	<5
1,2-dichloroethane	ug/L	0.6	Bi-weekly	<0.6	<0.6
Ethylbenzene	ug/L	5	Bi-weekly	<5	<5
Toluene	ug/L	5	Bi-weekly	<5	<5
1,2,4-Trichlorobenzene	ug/L	5	Bi-weekly	<5	<5
Vinyl Chloride	ug/L	2	Bi-weekly	<2	<2
Butylbenzyl phthalate	ug/L	10	Bi-weekly	<5	<5
Bis(2-ethylhexyl)phthalate	ug/L	5	Bi-weekly	<5	<5
Naphthalene	ug/L	10	Bi-weekly	<5	<5
Phenol	ug/L	2	Bi-weekly	<2	<2
Aluminum	ug/L	2,000	Bi-weekly	<100	<100
Arsenic	ug/L	50	Bi-weekly	9	6
Barium	ug/L	1,200	Bi-weekly	38	44
Chromium	ug/L	100	Bi-weekly	<5	<5
Cobalt	ug/L	140	Bi-weekly	<50	<50
Copper	ug/L	330	Bi-weekly	<5	<5
Iron	ug/L	600	Bi-weekly	179	167
Manganese	ug/L	300	Bi-weekly	<20	60
Nickel	ug/L	200	Bi-weekly	<20	<20
Zinc	ug/L	1,000	Bi-weekly	<10	<10
Sodium	ug/L	Monitor	Bi-weekly	47,400	45,500
Total Dissolved Solids	mg/l	Monitor	Bi-weekly	375	470

Notes:

1. "<" indicates that result is below the method detection limit.
2. ***Bold and italic*** indicates an exceedence of the Effluent Limit Daily Max.

Table 1

BASF Rensselaer

Analytical Results

July 2020

Parameter	Units	Effluent Limit Daily Max.	Frequency of Analysis	Effluent 7/7/20	Effluent 7/21/20
Flow	GPD	72,000	Daily	5,308	6,228
pH	SU	6.5 - 8.5	Bi-weekly	8.2	7.9
Benzene	ug/L	1	Bi-weekly	<1	<1
Chlorobenzene	ug/L	5	Bi-weekly	<5	<5
1,2-dichloroethane	ug/L	0.6	Bi-weekly	<0.6	<0.6
Ethylbenzene	ug/L	5	Bi-weekly	<5	<5
Toluene	ug/L	5	Bi-weekly	<5	<5
1,2,4-Trichlorobenzene	ug/L	5	Bi-weekly	<5	<5
Vinyl Chloride	ug/L	2	Bi-weekly	<2	<2
Butylbenzyl phthalate	ug/L	10	Bi-weekly	<5	<5
Bis(2-ethylhexyl)phthalate	ug/L	5	Bi-weekly	<5	<5
Naphthalene	ug/L	10	Bi-weekly	<5	<5
Phenol	ug/L	2	Bi-weekly	<2	<2
Aluminum	ug/L	2,000	Bi-weekly	<100	<100
Arsenic	ug/L	50	Bi-weekly	14	19
Barium	ug/L	1,200	Bi-weekly	40	64
Chromium	ug/L	100	Bi-weekly	<5	<5
Cobalt	ug/L	140	Bi-weekly	<50	<50
Copper	ug/L	330	Bi-weekly	6	<5
Iron	ug/L	600	Bi-weekly	488	541
Manganese	ug/L	300	Bi-weekly	<20	<20
Nickel	ug/L	200	Bi-weekly	<20	<20
Zinc	ug/L	1,000	Bi-weekly	<10	<10
Sodium	ug/L	Monitor	Bi-weekly	44,700	47,100
Total Dissolved Solids	mg/l	Monitor	Bi-weekly	490	465

Notes:

1. "<" indicates that result is below the method detection limit.
2. ***Bold and italic*** indicates an exceedence of the Effluent Limit Daily Max.

Table 1

BASF Rensselaer

Analytical Results

August 2020

Parameter	Units	Effluent Limit Daily Max.	Frequency of Analysis	Effluent 8/4/20	Effluent 8/18/20
Flow	GPD	72,000	Daily	5,695	6,352
pH	SU	6.5 - 8.5	Bi-weekly	8.0	7.9
Benzene	ug/L	1	Bi-weekly	<1	<1
Chlorobenzene	ug/L	5	Bi-weekly	<5	<5
1,2-dichloroethane	ug/L	0.6	Bi-weekly	<0.6	<0.6
Ethylbenzene	ug/L	5	Bi-weekly	<5	<5
Toluene	ug/L	5	Bi-weekly	<5	<5
1,2,4-Trichlorobenzene	ug/L	5	Bi-weekly	<5	<5
Vinyl Chloride	ug/L	2	Bi-weekly	<2	<2
Butylbenzyl phthalate	ug/L	10	Bi-weekly	<5	<5
Bis(2-ethylhexyl)phthalate	ug/L	5	Bi-weekly	<5	<5
Naphthalene	ug/L	10	Bi-weekly	<5	<5
Phenol	ug/L	2	Bi-weekly	<2	<2
Aluminum	ug/L	2,000	Bi-weekly	<100	<100
Arsenic	ug/L	50	Bi-weekly	13	12
Barium	ug/L	1,200	Bi-weekly	62	73
Chromium	ug/L	100	Bi-weekly	<5	<5
Cobalt	ug/L	140	Bi-weekly	<50	<50
Copper	ug/L	330	Bi-weekly	6	<5
Iron	ug/L	600	Bi-weekly	567	520
Manganese	ug/L	300	Bi-weekly	<20	<20
Nickel	ug/L	200	Bi-weekly	<20	<20
Zinc	ug/L	1,000	Bi-weekly	<10	<10
Sodium	ug/L	Monitor	Bi-weekly	22,900	41,300
Total Dissolved Solids	mg/l	Monitor	Bi-weekly	415	500

Notes:

1. "<" indicates that result is below the method detection limit.
2. ***Bold and italic*** indicates an exceedence of the Effluent Limit Daily Max.

Table 1
BASF Rensselaer
Analytical Results
September 2020

Parameter	Units	Effluent Limit	Frequency	Effluent	Effluent	Effluent	Effluent	Effluent
		Daily Max.	of Analysis	9/3/20	9/10/20	9/15/20	9/22/20	9/29/20
Flow	GPD	72,000	Daily	5,463	5,486	5,694	11	5,751
pH	SU	6.5 - 8.5	Bi-weekly	8.2	8	7.9	7.9	--
Benzene	ug/L	1	Bi-weekly	<1	<1	<1	<1	<1
Chlorobenzene	ug/L	5	Bi-weekly	<5	<5	<5	<5	<5
1,2-dichloroethane	ug/L	0.6	Bi-weekly	<0.6	<0.6	<0.6	<0.6	<0.6
Ethylbenzene	ug/L	5	Bi-weekly	<5	<5	<5	<5	<5
Toluene	ug/L	5	Bi-weekly	<5	<5	<5	<5	<5
1,2,4-Trichlorobenzene	ug/L	5	Bi-weekly	<5	<5	<5	<5	<5
Vinyl Chloride	ug/L	2	Bi-weekly	<2	<2	<2	<2	<2
Butylbenzyl phthalate	ug/L	10	Bi-weekly	<5	<5	<5	<5	<5
Bis(2-ethylhexyl)phthalate	ug/L	5	Bi-weekly	<5	<5	<5	<5	<5
Naphthalene	ug/L	10	Bi-weekly	<5	<5	<5	<5	<5
Phenol	ug/L	2	Bi-weekly	<2	<2	<2	<2	<2
Aluminum	ug/L	2,000	Bi-weekly	<100	<100	<100	<100	<100
Arsenic	ug/L	50	Bi-weekly	9	11	11	11	9
Barium	ug/L	1,200	Bi-weekly	59	68	61	87	90
Chromium	ug/L	100	Bi-weekly	<5	<5	<5	<5	<5
Cobalt	ug/L	140	Bi-weekly	<50	<50	<50	<50	<50
Copper	ug/L	330	Bi-weekly	6	<5	<5	<5	<5
Iron	ug/L	600	Bi-weekly	405	740	717	848	881
Manganese	ug/L	300	Bi-weekly	<20	<20	<20	<20	<20
Nickel	ug/L	200	Bi-weekly	<20	<20	<20	<20	<20
Zinc	ug/L	1,000	Bi-weekly	<10	<10	<10	<10	<10
Sodium	ug/L	Monitor	Bi-weekly	43,100	92,600	43,500	25,700	89,600
Total Dissolved Solids	mg/l	Monitor	Bi-weekly	590	490	495	535	575

Notes:

1. "<" indicates that result is below the method detection limit.
2. **Bold and italic** indicates an exceedence of the Effluent Limit Daily Max.

Table 1
BASF Rensselaer
Analytical Results
October 2020

Parameter	Units	Effluent Limit Daily Max.	Frequency of Analysis	Effluent 10/23/20	Effluent 10/28/20
Flow	GPD	72,000	Daily	5,692	5,528
pH	SU	6.5 - 8.5	Bi-weekly	7.9	8.3
Benzene	ug/L	1	Bi-weekly	<1	<1
Chlorobenzene	ug/L	5	Bi-weekly	<5	<5
1,2-dichloroethane	ug/L	0.6	Bi-weekly	<0.6	<0.6
Ethylbenzene	ug/L	5	Bi-weekly	<5	<5
Toluene	ug/L	5	Bi-weekly	<5	<5
1,2,4-Trichlorobenzene	ug/L	5	Bi-weekly	<5	<5
Vinyl Chloride	ug/L	2	Bi-weekly	<2	<2
Butylbenzyl phthalate	ug/L	10	Bi-weekly	<5	<5
Bis(2-ethylhexyl)phthalate	ug/L	5	Bi-weekly	<5	<5
Naphthalene	ug/L	10	Bi-weekly	<5	<5
Phenol	ug/L	2	Bi-weekly	<2	<2
Aluminum	ug/L	2,000	Bi-weekly	<100	<100
Arsenic	ug/L	50	Bi-weekly	22	10
Barium	ug/L	1,200	Bi-weekly	76	101
Chromium	ug/L	100	Bi-weekly	<5	7
Cobalt	ug/L	140	Bi-weekly	<50	<50
Copper	ug/L	330	Bi-weekly	6	<5
Iron	ug/L	600	Bi-weekly	57	222
Manganese	ug/L	300	Bi-weekly	507	623
Nickel	ug/L	200	Bi-weekly	<20	<20
Zinc	ug/L	1,000	Bi-weekly	<10	<10
Sodium	ug/L	Monitor	Bi-weekly	43,700	59,500
Total Dissolved Solids	mg/l	Monitor	Bi-weekly	495	630

Notes:

1. "<" indicates that result is below the method detection limit.
2. ***Bold and italic*** indicates an exceedence of the Effluent Limit Daily Max.

Table 1
BASF Rensselaer
Analytical Results
November 2020

				Effluent 11/4/20	Effluent 11/11/20	Effluent 11/18/20	Effluent 11/24/20
Parameter	Units	Effluent Limit Daily Max.	Frequency of Analysis				
Flow	GPD	72,000	Daily	5,119	5,898	4,978	2,531
pH	SU	6.5 - 8.5	Weekly	8.2	8.1	8.4	8.4
Benzene	ug/L	1	Weekly	<1	<1	<1	<1
Chlorobenzene	ug/L	5	Weekly	<5	<5	<5	<5
1,2-dichloroethane	ug/L	0.6	Weekly	<0.6	<0.6	<0.6	<0.6
Ethylbenzene	ug/L	5	Weekly	<5	<5	<5	<5
Toluene	ug/L	5	Weekly	<5	<5	<5	<5
1,2,4-Trichlorobenzene	ug/L	5	Weekly	<5	<5	<5	<5
Vinyl Chloride	ug/L	2	Weekly	<2	<2	<2	<2
Butylbenzyl phthalate	ug/L	10	Weekly	<5	<5	<5	<5
Bis(2-ethylhexyl)phthalate	ug/L	5	Weekly	<5	<5	<5	<5
Naphthalene	ug/L	10	Weekly	<5	<5	<5	<5
Phenol	ug/L	2	Weekly	<2	<2	<2	<2
Aluminum	ug/L	2,000	Weekly	<100	<100	<100	<100
Arsenic	ug/L	50	Weekly	<5	11	10	7
Barium	ug/L	1,200	Weekly	102	120	109	92
Chromium	ug/L	100	Weekly	<5	<5	<5	<5
Cobalt	ug/L	140	Weekly	<50	<50	<50	<50
Copper	ug/L	330	Weekly	<5	<5	6	<5
Iron	ug/L	600	Weekly	73	148	139	80
Manganese	ug/L	300	Weekly	378	110	55	30
Nickel	ug/L	200	Weekly	<20	<20	<20	<20
Zinc	ug/L	1,000	Weekly	<10	<10	11	<10
Sodium	ug/L	Monitor	Weekly	68,800	47,400	49,800	53,800
Total Dissolved Solids	mg/l	Monitor	Weekly	580	540	620	485

Notes:

1. "<" indicates that result is below the method detection limit.
2. ***Bold and italic*** indicates an exceedence of the Effluent Limit Daily Max.

Table 1
BASF Rensselaer
Analytical Results
December 2020

				Effluent 12/1/20	Effluent 12/8/20	Effluent 12/15/20	Effluent 12/22/20	Effluent 12/29/20
Parameter	Units	Effluent Limit Daily Max.	Frequency of Analysis					
Flow	GPD	72,000	Daily	5,961	6,510	5,550	6,426	5,905
pH	SU	6.5 - 8.5	Weekly	7.9	8.3	7.6	8	8.1
Benzene	ug/L	1	Weekly	<1	<1	<1	<1	<1
Chlorobenzene	ug/L	5	Weekly	<5	<5	<5	<5	<5
1,2-dichloroethane	ug/L	0.6	Weekly	<0.6	<0.6	<0.6	<0.6	<0.6
Ethylbenzene	ug/L	5	Weekly	<5	<5	<5	<5	<5
Toluene	ug/L	5	Weekly	<5	<5	<5	<5	<5
1,2,4-Trichlorobenzene	ug/L	5	Weekly	<5	<5	<5	<5	<5
Vinyl Chloride	ug/L	2	Weekly	<2	<2	<2	<2	<2
Butylbenzyl phthalate	ug/L	10	Weekly	<5	<5	<5	<5	<5
Bis(2-ethylhexyl)phthalate	ug/L	5	Weekly	<5	<5	<5	<5	<5
Naphthalene	ug/L	10	Weekly	<5	<5	<5	<5	<5
Phenol	ug/L	2	Weekly	<2	<2	<2	<2	<2
Aluminum	ug/L	2,000	Weekly	<100	<100	162	<100	<100
Arsenic	ug/L	50	Weekly	6	7	<5	<5	<5
Barium	ug/L	1,200	Weekly	80	92	64	65	54
Chromium	ug/L	100	Weekly	<5	11	<5	<5	<5
Cobalt	ug/L	140	Weekly	<50	<50	<50	<50	<50
Copper	ug/L	330	Weekly	<5	<5	<5	<5	<5
Iron	ug/L	600	Weekly	221	354	386	271	111
Manganese	ug/L	300	Weekly	21	<20	<20	<20	<20
Nickel	ug/L	200	Weekly	<20	<20	<20	<20	<20
Zinc	ug/L	1,000	Weekly	<10	<10	<10	<10	<10
Sodium	ug/L	Monitor	Weekly	19,800	37,800	31,700	44,700	26,800
Total Dissolved Solids	mg/l	Monitor	Weekly	340	435	420	505	430

Notes:

1. "<" indicates that result is below the method detection limit.
2. ***Bold and italic*** indicates an exceedence of the Effluent Limit Daily Max.

APPENDIX D

2021 GWTS Influent and Effluent Sampling Data

Table 2
BASF Rensselaer
Flow Data
January 2021

Jan-21	Influent (GPD)	Gallery1 (GPD)	Gallery2 (GPD)
1	5,852	5,350	4,295
2	5,625	4,852	3,630
3	5,446	4,107	2,726
4	5,875	4,351	3,895
5	6,115	8	141
6	6,102	2,979	3,523
7	5,606	6	10
8	6,319	84	1,537
9	6,277	4,515	4,240
10	6,266	3,458	2,020
11	6,092	8	34
12	6,100	122	2,230
13	5,442	4,925	3,866
14	5,369	86	1,644
15	8	8	10
16	8	8	11
17	11	6	11
18	7,115	5,512	3,445
19	6,041	5,097	-
20	6,502	5,434	10
21	5,934	4,202	1,440
22	5,564	5,171	4,807
23	5,409	4,713	4
24	5,484	4,133	2
25	5,232	5,262	5,003
26	6,630	5,303	4,694
27	6,893	5,247	2,701
28	6,500	5,175	1,757
29	6,697	5,522	2,987
30	6,558	4,885	4,673
31	6,376	4,845	1,629
Average (Daily)	5,466	3,399	2,160
Totals	169,446	105,371	66,974

Note: Data shown is last reading of the 24-hour period for each day
(system logs data every ten minutes)

Table 2
BASF Rensselaer
Flow Data
February 2021

Feb-21	Influent (GPD)	Gallery1 (GPD)	Gallery2 (GPD)
1	5,745	5,291	1,778
2	5,964	3,962	2,329
3	5,509	5,169	1,963
4	3,902	2,459	2,592
5	3,918	4,406	4,393
6	3,565	10	3,243
7	3,553	11	2,583
8	5,303	2,850	4,267
9	5,203	6	3,687
10	-	-	-
11	4,301	2,886	4
12	5,728	4,601	2,222
13	5,560	5,261	1,768
14	5,299	5,182	2
15	3,788	5,207	2,895
16	3,563	4,688	4,837
17	3,592	3,418	3,107
18	2,874	8	4
19	10	6	4
20	11	6	6
21	11	8	10
22	6,548	6	3,756
23	11	8	13
24	13	8	17
25	11	10	15
26	13	8	17
27	10	4	15
28	15	4	17
Average (Daily)	3,001	1,981	1,627
Totals	84,022	55,478	45,542

Note: Data shown is last reading of the 24-hour period for each day
(system logs data every ten minutes)

Table 2
BASF Rensselaer
Flow Data
March 2021

Mar-21	Influent (GPD)	Gallery1 (GPD)	Gallery2 (GPD)
1	11	6	11
2	13	8	11
3	11	8	13
4	8	8	11
5	6,119	4	5,732
6	5,951	4	5,837
7	5,667	6	5,732
8	5,564	3,582	6
9	5,404	4,011	1,936
10	5,138	3,677	2,886
11	5,247	3,777	1,516
12	5,360	3,941	1,375
13	5,509	3,904	2,049
14	5,385	4,191	2,041
15	5,430	5,095	2,981
16	4,904	4,040	1,734
17	5,274	5,673	1,335
18	5,085	4,700	1,602
19	4,889	4,520	2,005
20	4,856	3,914	2,056
21	4,654	3,695	11
22	4,425	4,473	2,083
23	4,732	3,870	6
24	4,507	5,724	2,117
25	4,431	3,922	1,745
26	4,667	4,511	1,728
27	4,614	4,282	4,263
28	4,635	5,604	3,246
29	5,303	4,385	1,654
30	5,240	4,379	2,365
31	5,087	4,158	6
Average (Daily)	4,455	3,357	1,939
Totals	138,119	104,068	60,094

Note: Data shown is last reading of the 24-hour period for each day
(system logs data every ten minutes)

Table 2
BASF Rensselaer
Flow Data
April 2021

Apr-21	Influent (GPD)	Gallery1 (GPD)	Gallery2 (GPD)
1	5,098	4,545	1,570
2	5,018	4,322	1,944
3	5,102	4,618	1,776
4	5,083	4,520	1,429
5	5,011	4,767	1,310
6	6,729	4,858	2,813
7	7,044	2,996	3,149
8	6,731	4,076	15
9	6,546	4,812	15
10	6,353	4,994	19
11	6,144	5,024	1,928
12	6,317	5,930	3,655
13	6,214	5,215	4,562
14	5,745	5,568	1,963
15	5,863	3,933	2,211
16	5,856	3,468	2,419
17	5,432	3,408	13
18	5,446	3,851	3,202
19	5,028	4,679	10
20	5,205	4,833	1,787
21	4,980	4,580	15
22	4,902	4,711	1,453
23	6,727	4,854	1,501
24	6,554	5,217	5,291
25	6,683	4,604	2,564
26	6,397	4,557	50
27	6,405	4,889	1,461
28	5,613	4,217	17
29	5,474	5,545	479
30	6,724	4,170	10
Average (Daily)	5,881	4,592	1,621
Totals	176,427	137,760	48,631

Note: Data shown is last reading of the 24-hour period for each day
(system logs data every ten minutes)

Table 2
BASF Rensselaer
Flow Data
May 2021

May-21	Influent (GPD)	Gallery1 (GPD)	Gallery2 (GPD)
1	6,876	4,648	2,279
2	6,548	4,921	1,719
3	4,114	6	10
4	4,374	3,866	2,367
5	4,326	3,161	4,223
6	4,362	1,953	10
7	3,918	2,283	15
8	4,112	3,899	10
9	3,960	2,562	2,079
10	4,002	3,794	10
11	8	8	4
12	8	6	4
13	8	6	10
14	8	8	10
15	8	8	11
16	8	10	13
17	8	8	11
18	5,098	8	5,047
19	4,736	10	4,395
20	13	4	11
21	10	8	15
22	13	6	15
23	11	10	11
24	11	8	11
25	4,391	3,721	2,922
26	4,183	3,859	92
27	4,187	2,882	11
28	4,194	3,687	1,530
29	4,183	3,899	1,726
30	3,914	2,804	6
Average (Daily)	2,720	1,735	877
Totals	81,590	52,047	26,297

Note: Data shown is last reading of the 24-hour period for each day
(system logs data every ten minutes)

Table 2
BASF Rensselaer
Flow Data
June 2021

Jun-21	Influent (GPD)	Gallery1 (GPD)	Gallery2 (GPD)
1	8	11	10
2	4,103	2,300	1,324
3	4,452	2,913	3,723
4	4,452	3,822	1,949
5	11	10	17
6	11	11	15
7	11	8	17
8	11	8	15
9	11	11	15
10	10	10	13
11	10	6	11
12	10	6	13
13	11	10	13
14	4,242	2,869	11
15	4,208	3,912	2,573
16	6,437	5,362	3,122
17	6,643	4,776	4,576
18	6,462	5,652	3,031
19	6,628	4,883	4,309
20	6,573	4,891	17
21	6,226	4,633	2,935
22	6,580	5,062	1,772
23	6,607	4,593	1,320
24	6,411	4,593	1,726
25	6,567	4,425	1,434
26	6,445	5,318	13
27	6,203	4,940	1,526
28	5,739	4,847	1,921
29	6,350	4,147	2,867
30	6,203	4,269	3,113
Average (Daily)	3,921	2,943	1,447
Totals	117,636	88,294	43,404

Note: Data shown is last reading of the 24-hour period for each day
(system logs data every ten minutes)

Table 2
BASF Rensselaer
Flow Data
July 2021

Jul-21	Influent (GPD)	Gallery1 (GPD)	Gallery2 (GPD)
1	6,495	5,152	3,805
2	6,575	4,360	4,456
3	6,727	4,185	3,809
4	11	2	11
5	2	11	13
6	7,271	3,449	1,398
7	6,754	4,553	2,323
8	6,701	4,492	1,692
9	6,630	5,001	1,812
10	6,796	5,175	1,871
11	6,802	5,087	3,111
12	5,978	5,039	1,295
13	5,983	4,713	2,237
14	6,035	4,789	2,260
15	5,827	5,230	1,619
16	5,764	3,273	1,579
17	5,926	3,754	1,848
18	6,041	4,383	3,048
19	6,750	4,496	13
20	6,508	5,200	1,997
21	6,279	5,272	1,909
22	6,142	4,648	3,779
23	6,018	4,875	3,162
24	6,380	4,908	3,101
25	6,228	5,104	1,848
26	6,567	4,686	13
27	6,592	4,910	1,677
28	6,161	5,211	2,653
29	6,552	4,946	1,472
30	6,331	4,015	1,566
31	6,037	4,234	1,802
Average (Daily)	5,963	4,360	2,038
Totals	184,861	135,153	63,184

Note: Data shown is last reading of the 24-hour period for each day
(system logs data every ten minutes)

Table 2
BASF Rensselaer
Flow Data
August 2021

Aug-21	Influent (GPD)	Gallery1 (GPD)	Gallery2 (GPD)
1	6,106	3,376	2,724
2	7,389	5,575	2,422
3	8,070	5,335	3,386
4	7,992	4,469	3,801
5	7,469	4,910	2,794
6	7,521	5,566	2,333
7	7,345	5,205	1,617
8	6,937	4,801	3,126
9	13	6	15
10	4	6	15
11	10	10	15
12	6	8	15
13	15	10	15
14	13	2	11
15	2	8	11
16	7,572	5,219	5,035
17	7,662	5,472	2,249
18	7,750	5,276	3,424
19	7,610	4,757	2,001
20	7,877	5,032	1,844
21	7,628	4,273	2,314
22	7,727	4,625	3,145
23	8,434	5,346	1,545
24	8,442	4,953	1,661
25	6,205	3,689	1,879
26	8,227	4,999	2,968
27	8,146	5,159	2,548
28	7,696	4,923	2,569
29	11	10	13
30	5,039	4,343	2,594
31	5,011	4,160	3,796
Average (Daily)	5,482	3,597	1,996
Totals	169,930	111,521	61,889

Note: Data shown is last reading of the 24-hour period for each day
(system logs data every ten minutes)

Table 2
BASF Rensselaer
Flow Data
September 2021

Sep-21	Influent (GPD)	Gallery1 (GPD)	Gallery2 (GPD)
1	5,081	3,996	13
2	5,110	4,965	420
3	5,037	4,250	40
4	5,310	4,137	4,147
5	5,018	3,910	2,932
6	5,272	2,470	3,119
7	5,104	4,332	3,981
8	5,146	5,112	4,097
9	5,539	4,759	3,313
10	5,552	6	1,867
11	5,550	6,378	12,232
12	5,110	6	13
13	5,741	3,788	3,241
14	5,697	4,005	2,876
15	5,394	4,667	1,444
16	5,575	3,960	3,006
17	5,674	4,356	11
18	5,367	4,784	10
19	5,623	4,837	2,041
20	5,989	4,103	3,048
21	5,325	5,240	2,956
22	5,793	4,557	1,776
23	5,570	4,122	2,867
24	5,552	4,458	147
25	5,612	3,849	1,558
26	5,295	3,096	3,298
27	5,522	4,179	1,696
28	5,573	4,784	2,596
29	5,861	4,746	4,030
30	11	10	11
Average (Daily)	5,097	3,802	2,348
Totals	158,007	117,859	72,786

Note: Data shown is last reading of the 24-hour period for each day
(system logs data every ten minutes)

Table 2
BASF Rensselaer
Flow Data
October 2021

Oct-21	Influent (GPD)	Gallery1 (GPD)	Gallery2 (GPD)
1	8	8	10
2	11	10	10
3	11	10	11
4	13	10	11
5	13	17	10
6	11	8	11
7	11	10	-
8	11	8	10
9	11	10	11
10	13	11	6
11	13	8	10
12	11	10	10
13	5,455	10	4,492
14	5,619	10	4,747
15	5,264	8	5,453
16	5,329	10	5,434
17	4,713	10	5,360
18	5,220	4,492	1,678
19	5,165	4,547	1,881
20	5,615	4,297	11
21	5,648	4,494	2,586
22	5,362	4,561	1,892
23	5,489	4,278	1,272
24	5,503	5,369	10
25	5,171	4,511	19
26	3,672	3,290	1,930
27	3,292	2,802	4
28	3,265	3,185	6
29	5,695	4,807	1,551
30	5,339	5,240	101
31	5,058	4,934	2,338
Average (Daily)	3,097	1,967	1,319
Totals	96,017	60,969	40,875

Note: Data shown is last reading of the 24-hour period for each day
(system logs data every ten minutes)

Table 2
BASF Rensselaer
Flow Data
November 2021

Nov-21	Influent (GPD)	Gallery1 (GPD)	Gallery2 (GPD)
1	4,969	4,772	1,734
2	5,142	5,280	3,632
3	5,159	5,034	6
4	5,079	5,035	3,590
5	4,938	4,856	1,476
6	4,791	5,333	2,676
7	4,982	5,020	1,711
8	6,907	5,203	1,516
9	6,647	5,013	13
10	9,342	5,507	4,232
11	9,289	4,849	3,388
12	8,871	5,278	4,065
13	8,785	5,200	3,916
14	6,722	6,628	4,234
15	9,230	5,117	3,811
16	9,031	5,434	4,425
17	10,073	5,261	5,108
18	10,252	6,163	5,348
19	11,389	6,184	6,189
20	11,238	5,343	4,549
21	11,183	5,653	4,490
22	8,627	5,619	2,808
23	8,499	5,011	2,754
24	8,511	6,100	3,138
25	8,162	5,325	4,063
26	7,910	5,190	2,834
27	7,612	5,236	4,089
28	7,309	4,988	3,922
29	10,605	5,364	4,263
30	10,349	5,505	5,314
Average (Daily)	8,054	5,350	3,443
Totals	241,606	160,498	103,294

Note: Data shown is last reading of the 24-hour period for each day
(system logs data every ten minutes)

Table 2
BASF Rensselaer
Flow Data
December 2021

Dec-21	Influent (GPD)	Gallery1 (GPD)	Gallery2 (GPD)
1	10,399	5,241	6,313
2	6,907	3,666	2,911
3	7,427	5,547	11
4	6,975	5,024	3,944
5	7,113	5,169	3,218
6	9,756	5,941	3,321
7	9,503	6,096	4,652
8	9,466	5,531	3,075
9	10,042	6,973	4,213
10	9,997	5,175	4,604
11	9,751	6,670	5,541
12	9,569	5,465	3,738
13	10,761	6,157	4,805
14	10,525	5,692	4,490
15	10,534	5,823	4,900
16	10,115	6,527	4,549
17	10,039	5,751	5,493
18	9,518	5,573	3,979
19	9,215	5,171	4,704
20	10,397	7,401	5,140
21	10,678	7,002	3,925
22	10,100	7,387	3,424
23	7,916	6,867	3,279
24	7,557	6,365	3,826
25	7,021	6,085	3,727
26	5,903	5,488	4,685
27	10,594	7,046	4,700
28	10,357	7,290	4,004
29	9,186	7,296	2,939
30	7,670	6,992	3,056
31	6,100	7,252	3,241
Average (Daily)	9,067	6,118	4,013
Totals	281,088	189,662	124,407

Note: Data shown is last reading of the 24-hour period for each day
(system logs data every ten minutes)

Table 1
BASF Rensselaer
Analytical Results
January 2021

Parameter	Units	Effluent Limit Daily Max.	Frequency of Analysis	Effluent 1/5/21	Effluent 1/12/21	Effluent 1/21/21	Effluent 1/26/21
Flow	GPD	72,000	Daily	6,115	6,100	5,934	6,630
pH	SU	6.5 - 8.5	Weekly	8.0	8.0	8	8
Benzene	ug/L	1	Weekly	<1	<1	<1	<1
Chlorobenzene	ug/L	5	Weekly	<5	<5	<5	<5
1,2-dichloroethane	ug/L	0.6	Weekly	<0.6	<0.6	<0.6	<0.6
Ethylbenzene	ug/L	5	Weekly	<5	<5	<5	<5
Toluene	ug/L	5	Weekly	<5	<5	<5	<5
1,2,4-Trichlorobenzene	ug/L	5	Weekly	<5	<5	<5	<5
Vinyl Chloride	ug/L	2	Weekly	<2	<2	<2	<2
Butylbenzyl phthalate	ug/L	10	Weekly	<5	<5	<5	<5
Bis(2-ethylhexyl)phthalate	ug/L	5	Weekly	<5	<5	<5	<5
Naphthalene	ug/L	10	Weekly	<5	<5	<5	<5
Phenol	ug/L	2	Weekly	<2	<2	<2	<2
Aluminum	ug/L	2,000	Weekly	<100	<100	162	<100
Arsenic	ug/L	50	Weekly	<5	10	<5	<5
Barium	ug/L	1,200	Weekly	75	76	53	82
Chromium	ug/L	100	Weekly	<5	<5	<5	<5
Cobalt	ug/L	140	Weekly	<50	<50	<50	<50
Copper	ug/L	330	Weekly	<5	<5	<5	<5
Iron	ug/L	600	Weekly	243	223	191	309
Manganese	ug/L	300	Weekly	<20	<20	<20	<20
Nickel	ug/L	200	Weekly	<20	<20	<20	<20
Zinc	ug/L	1,000	Weekly	<10	<10	<10	<10
Sodium	ug/L	Monitor	Weekly	26,000	29,500	27,500	30,000
Total Dissolved Solids	mg/l	Monitor	Weekly	500	515	545	695

Notes:

1. "<" indicates that result is below the method detection limit.
2. ***Bold and italic*** indicates an exceedence of the Effluent Limit Daily Max.

Table 1
BASF Rensselaer
Analytical Results
February 2021

				Effluent 2/3/21	Effluent 2/9/21	Effluent 2/17/21	Effluent 2/23/21
Parameter	Units	Effluent Limit Daily Max.	Frequency of Analysis				
Flow	GPD	72,000	Daily	5,509	5,203	3,592	6,548
pH	SU	6.5 - 8.5	Weekly	7.9	8.0	8	8
Benzene	ug/L	1	Weekly	<1	<1	<1	<1
Chlorobenzene	ug/L	5	Weekly	<5	<5	<5	<5
1,2-dichloroethane	ug/L	0.6	Weekly	<0.6	<0.6	<0.6	<0.6
Ethylbenzene	ug/L	5	Weekly	<5	<5	<5	<5
Toluene	ug/L	5	Weekly	<5	<5	<5	<5
1,2,4-Trichlorobenzene	ug/L	5	Weekly	<5	<5	<5	<5
Vinyl Chloride	ug/L	2	Weekly	<2	<2	<2	<2
Butylbenzyl phthalate	ug/L	10	Weekly	<5	<5	<5	<5
Bis(2-ethylhexyl)phthalate	ug/L	5	Weekly	<5	<5	<5	<5
Naphthalene	ug/L	10	Weekly	<5	<5	<5	<5
Phenol	ug/L	2	Weekly	<2	<2	<2	<2
Aluminum	ug/L	2,000	Weekly	<100	<100	<100	<100
Arsenic	ug/L	50	Weekly	<5	6	14	5
Barium	ug/L	1,200	Weekly	85	83	112	89
Chromium	ug/L	100	Weekly	<5	13	<5	<5
Cobalt	ug/L	140	Weekly	<50	<50	<50	<50
Copper	ug/L	330	Weekly	<5	15	<5	20
Iron	ug/L	600	Weekly	237	463	441	448
Manganese	ug/L	300	Weekly	<20	<20	<20	<20
Nickel	ug/L	200	Weekly	<20	<20	<20	<20
Zinc	ug/L	1,000	Weekly	12	13	18	19
Sodium	ug/L	Monitor	Weekly	36,900	53,200	39,600	30,200
Total Dissolved Solids	mg/l	Monitor	Weekly	445	520	455	535

Notes:

1. "<" indicates that result is below the method detection limit.
2. ***Bold and italic*** indicates an exceedence of the Effluent Limit Daily Max.

Table 1
BASF Rensselaer
Analytical Results
March 2021

				Effluent 3/9/21	Effluent 3/16/21	Effluent 3/30/21
Parameter	Units	Effluent Limit Daily Max.	Frequency of Analysis			
Flow	GPD	72,000	Daily	5,404	4,904	5,240
pH	SU	6.5 - 8.5	Weekly	8.0	8.0	8.0
Benzene	ug/L	1	Weekly	<1	<1	<1
Chlorobenzene	ug/L	5	Weekly	<5	<5	<5
1,2-dichloroethane	ug/L	0.6	Weekly	<0.6	<0.6	<0.6
Ethylbenzene	ug/L	5	Weekly	<5	<5	<5
Toluene	ug/L	5	Weekly	<5	<5	<5
1,2,4-Trichlorobenzene	ug/L	5	Weekly	<5	<5	<5
Vinyl Chloride	ug/L	2	Weekly	<2	<2	<2
Butylbenzyl phthalate	ug/L	10	Weekly	<5	<5	<5
Bis(2-ethylhexyl)phthalate	ug/L	5	Weekly	<5	<5	<5
Naphthalene	ug/L	10	Weekly	<5	<5	<5
Phenol	ug/L	2	Weekly	<2	<2	<2
Aluminum	ug/L	2,000	Weekly	<100	<100	<100
Arsenic	ug/L	50	Weekly	<5	<5	<5
Barium	ug/L	1,200	Weekly	60	54	71
Chromium	ug/L	100	Weekly	<5	<5	<5
Cobalt	ug/L	140	Weekly	<50	<50	<50
Copper	ug/L	330	Weekly	<5	<5	<5
Iron	ug/L	600	Weekly	234	173	261
Manganese	ug/L	300	Weekly	<20	<20	<20
Nickel	ug/L	200	Weekly	<20	<20	<20
Zinc	ug/L	1,000	Weekly	10	<10	10
Sodium	ug/L	Monitor	Weekly	29,000	31,200	32,400
Total Dissolved Solids	mg/l	Monitor	Weekly	625	490	420

Notes:

1. "<" indicates that result is below the method detection limit.
2. ***Bold and italic*** indicates an exceedence of the Effluent Limit Daily Max.

Table 1
BASF Rensselaer
Analytical Results
April 2021

				Effluent 4/7/21	Effluent 4/13/21	Effluent 4/20/21	Effluent 4/29/21
Parameter	Units	Effluent Limit Daily Max.	Frequency of Analysis				
Flow	GPD	72,000	Daily	7,044	6,214	5,205	5,474
pH	SU	6.5 - 8.5	Weekly	7.9	8.0	7.9	8.0
Benzene	ug/L	1	Weekly	<1	<1	<1	<1
Chlorobenzene	ug/L	5	Weekly	<5	<5	<5	<5
1,2-dichloroethane	ug/L	0.6	Weekly	<0.6	<0.6	<0.6	<0.6
Ethylbenzene	ug/L	5	Weekly	<5	<5	<5	<5
Toluene	ug/L	5	Weekly	<5	<5	<5	<5
1,2,4-Trichlorobenzene	ug/L	5	Weekly	<5	<5	<5	<5
Vinyl Chloride	ug/L	2	Weekly	<2	<2	<2	<2
Butylbenzyl phthalate	ug/L	10	Weekly	<5	<5	<5	<5
Bis(2-ethylhexyl)phthalate	ug/L	5	Weekly	<5	<5	<5	<5
Naphthalene	ug/L	10	Weekly	<5	<5	<5	<5
Phenol	ug/L	2	Weekly	<2	<2	<2	<2
Aluminum	ug/L	2,000	Weekly	<100	<100	155	<100
Arsenic	ug/L	50	Weekly	<5	7	<5	8
Barium	ug/L	1,200	Weekly	78	92	75	71
Chromium	ug/L	100	Weekly	<5	<5	<5	<5
Cobalt	ug/L	140	Weekly	<50	<50	<50	<50
Copper	ug/L	330	Weekly	<5	7	<5	<5
Iron	ug/L	600	Weekly	316	357	305	466
Manganese	ug/L	300	Weekly	<20	<20	<20	<20
Nickel	ug/L	200	Weekly	<20	<20	<20	<20
Zinc	ug/L	1,000	Weekly	14	13	12	19
Sodium	ug/L	Monitor	Weekly	26,600	32,000	81,000	30,000
Total Dissolved Solids	mg/l	Monitor	Weekly	490	455	505	580

Notes:

1. "<" indicates that result is below the method detection limit.
2. ***Bold and italic*** indicates an exceedence of the Effluent Limit Daily Max.

Table 1
BASF Rensselaer
Analytical Results
May 2021

Parameter	Units	Effluent Limit Daily Max.	Frequency of Analysis	Effluent 5/4/21	Effluent 5/11/21	Effluent 5/20/21	Effluent 5/27/21
Flow	GPD	72,000	Daily	4,374	4,002	4,736	4,187
pH	SU	6.5 - 8.5	Weekly	8.0	8.0	7.0	7.2
Benzene	ug/L	1	Weekly	<1	<1	<1	<1
Chlorobenzene	ug/L	5	Weekly	<5	<5	<5	<5
1,2-dichloroethane	ug/L	0.6	Weekly	<0.6	<0.6	<0.6	<0.6
Ethylbenzene	ug/L	5	Weekly	<5	<5	<5	<5
Toluene	ug/L	5	Weekly	<5	<5	<5	<5
1,2,4-Trichlorobenzene	ug/L	5	Weekly	<5	<5	<5	<5
Vinyl Chloride	ug/L	2	Weekly	<2	<2	<2	<2
Butylbenzyl phthalate	ug/L	10	Weekly	<5	<5	<5	<5
Bis(2-ethylhexyl)phthalate	ug/L	5	Weekly	<5	<5	<5	<5
Naphthalene	ug/L	10	Weekly	<5	<5	<5	<5
Phenol	ug/L	2	Weekly	<2	<2	<2	<2
Aluminum	ug/L	2,000	Weekly	<100	<100	155	<100
Arsenic	ug/L	50	Weekly	7	<5	18	11
Barium	ug/L	1,200	Weekly	89	70	70	79
Chromium	ug/L	100	Weekly	10	<5	<5	<5
Cobalt	ug/L	140	Weekly	<50	<50	<50	<50
Copper	ug/L	330	Weekly	<5	22	<5	<5
Iron	ug/L	600	Weekly	209	163	60	86
Manganese	ug/L	300	Weekly	<20	36	139	230
Nickel	ug/L	200	Weekly	<20	<20	<20	<20
Zinc	ug/L	1,000	Weekly	<10	<10	<10	<10
Sodium	ug/L	Monitor	Weekly	22,200	22,200	34,100	38,700
Total Dissolved Solids	mg/l	Monitor	Weekly	460	455	420	570

Notes:

1. "<" indicates that result is below the method detection limit.
2. ***Bold and italic*** indicates an exceedence of the Effluent Limit Daily Max.

Table 1
BASF Rensselaer
Analytical Results
June 2021

				Effluent 6/3/21	Effluent 6/17/21	Effluent 6/22/21	Effluent 6/29/21
Parameter	Units	Effluent Limit Daily Max.	Frequency of Analysis				
Flow	GPD	72,000	Daily	4,452	6,643	6,580	6,350
pH	SU	6.5 - 8.5	Weekly	8.3	8.5	8.3	8.0
Benzene	ug/L	1	Weekly	<1	<1	<1	<1
Chlorobenzene	ug/L	5	Weekly	<5	<5	<5	<5
1,2-dichloroethane	ug/L	0.6	Weekly	<0.6	<0.6	<0.6	<0.6
Ethylbenzene	ug/L	5	Weekly	<5	<5	<5	<5
Toluene	ug/L	5	Weekly	<5	<5	<5	<5
1,2,4-Trichlorobenzene	ug/L	5	Weekly	<5	<5	<5	<5
Vinyl Chloride	ug/L	2	Weekly	<2	<2	<2	<2
Butylbenzyl phthalate	ug/L	10	Weekly	<5	<5	<5	<5
Bis(2-ethylhexyl)phthalate	ug/L	5	Weekly	<5	<5	<5	<5
Naphthalene	ug/L	10	Weekly	<5	<5	<5	<5
Phenol	ug/L	2	Weekly	<2	<2	<2	<2
Aluminum	ug/L	2,000	Weekly	<100	<100	155	<100
Arsenic	ug/L	50	Weekly	7	9	9	9
Barium	ug/L	1,200	Weekly	120	103	91	110
Chromium	ug/L	100	Weekly	10	<5	<5	<5
Cobalt	ug/L	140	Weekly	<50	<50	<50	<50
Copper	ug/L	330	Weekly	<5	<5	<5	<5
Iron	ug/L	600	Weekly	135	273	374	412
Manganese	ug/L	300	Weekly	570	383	318	765
Nickel	ug/L	200	Weekly	<20	<20	<20	<20
Zinc	ug/L	1,000	Weekly	<10	<10	<10	<10
Sodium	ug/L	Monitor	Weekly	34,300	33,300	40,200	34,500
Total Dissolved Solids	mg/l	Monitor	Weekly	500	515	625	515

Notes:

1. "<" indicates that result is below the method detection limit.
2. ***Bold and italic*** indicates an exceedence of the Effluent Limit Daily Max.

Table 1
BASF Rensselaer
Analytical Results
July 2021

Parameter	Units	Effluent Limit	Frequency	Effluent	Effluent	Effluent	Effluent
		Daily Max.	of Analysis	7/9/21	7/13/21	7/20/21	7/27/2021
Flow	GPD	72,000	Daily	6,630	5,983	6,508	6,592
pH	SU	6.5 - 8.5	Weekly	8.3	8.2	8.3	8.3
Benzene	ug/L	1	Weekly	<1	<1	<1	<1
Chlorobenzene	ug/L	5	Weekly	<5	<5	<5	<5
1,2-dichloroethane	ug/L	0.6	Weekly	<0.6	<0.6	<0.6	<0.6
Ethylbenzene	ug/L	5	Weekly	<5	<5	<5	<5
Toluene	ug/L	5	Weekly	<5	<5	<5	<5
1,2,4-Trichlorobenzene	ug/L	5	Weekly	<5	<5	<5	<5
Vinyl Chloride	ug/L	2	Weekly	<2	<2	<2	<2
Butylbenzyl phthalate	ug/L	10	Weekly	<5	<5	<5	<5
Bis(2-ethylhexyl)phthalate	ug/L	5	Weekly	<5	<5	<5	<5
Naphthalene	ug/L	10	Weekly	<5	<5	<5	<5
Phenol	ug/L	2	Weekly	<2	<2	<2	<2
Aluminum	ug/L	2,000	Weekly	<100	<100	155	<100
Arsenic	ug/L	50	Weekly	9	<5	<5	7
Barium	ug/L	1,200	Weekly	85	87	95	86
Chromium	ug/L	100	Weekly	<5	<5	<5	<5
Cobalt	ug/L	140	Weekly	<50	<50	<50	<50
Copper	ug/L	330	Weekly	<5	<5	<5	<5
Iron	ug/L	600	Weekly	367	311	372	278
Manganese	ug/L	300	Weekly	116	<20	26	23
Nickel	ug/L	200	Weekly	<20	<20	<20	<20
Zinc	ug/L	1,000	Weekly	<10	<10	<10	<10
Sodium	ug/L	Monitor	Weekly	22,400	37,300	24,300	29,200
Total Dissolved Solids	mg/l	Monitor	Weekly	430	17	195	475

Notes:

1. "<" indicates that result is below the method detection limit.
2. ***Bold and italic*** indicates an exceedence of the Effluent Limit Daily Max.

Table 1
BASF Rensselaer
Analytical Results
August 2021

				Effluent 8/3/21	Effluent 8/17/21	Effluent 8/25/21
Parameter	Units	Effluent Limit Daily Max.	Frequency of Analysis			
Flow	GPD	72,000	Daily	8,070	7,662	6,205
pH	SU	6.5 - 8.5	Weekly	8.4	8.0	8.2
Benzene	ug/L	1	Weekly	<1	<1	<1
Chlorobenzene	ug/L	5	Weekly	<5	<5	<5
1,2-dichloroethane	ug/L	0.6	Weekly	<0.6	<0.6	<0.6
Ethylbenzene	ug/L	5	Weekly	<5	<5	<5
Toluene	ug/L	5	Weekly	<5	<5	<5
1,2,4-Trichlorobenzene	ug/L	5	Weekly	<5	<5	<5
Vinyl Chloride	ug/L	2	Weekly	<2	<2	<2
Butylbenzyl phthalate	ug/L	10	Weekly	<5	<5	<5
Bis(2-ethylhexyl)phthalate	ug/L	5	Weekly	<5	<5	<5
Naphthalene	ug/L	10	Weekly	<5	<5	<5
Phenol	ug/L	2	Weekly	<2	<2	<2
Aluminum	ug/L	2,000	Weekly	<100	<100	<100
Arsenic	ug/L	50	Weekly	13	7	8
Barium	ug/L	1,200	Weekly	101	62	50
Chromium	ug/L	100	Weekly	5	<5	<5
Cobalt	ug/L	140	Weekly	<50	<50	<50
Copper	ug/L	330	Weekly	<5	<5	<5
Iron	ug/L	600	Weekly	545	138	127
Manganese	ug/L	300	Weekly	<20	255	<20
Nickel	ug/L	200	Weekly	<20	<20	<20
Zinc	ug/L	1,000	Weekly	<10	<10	<10
Sodium	ug/L	Monitor	Weekly	33,600	35,900	34,200
Total Dissolved Solids	mg/l	Monitor	Weekly	570	--	490

Notes:

1. "<" indicates that result is below the method detection limit.
2. ***Bold and italic*** indicates an exceedence of the Effluent Limit Daily Max.
3. Lab error - did not analyze for TDS

Table 1
BASF Rensselaer
Analytical Results
September 2021

				Effluent 9/1/21	Effluent 9/9/21	Effluent 9/15/21	Effluent 9/22/21	Effluent 9/28/21
Parameter	Units	Effluent Limit Daily Max.	Frequency of Analysis					
Flow	GPD	72,000	Daily	5,081	5,539	5,394	5,793	5,573
pH	SU	6.5 - 8.5	Weekly	8.2	8.4	8.3	8.3	8.2
Benzene	ug/L	1	Weekly	<1	<1	<1	<1	<1
Chlorobenzene	ug/L	5	Weekly	<5	<5	<5	<5	<5
1,2-dichloroethane	ug/L	0.6	Weekly	<0.6	<0.6	<0.6	<0.6	<0.6
Ethylbenzene	ug/L	5	Weekly	<5	<5	<5	<5	<5
Toluene	ug/L	5	Weekly	<5	<5	<5	<5	<5
1,2,4-Trichlorobenzene	ug/L	5	Weekly	<5	<5	<5	<5	<5
Vinyl Chloride	ug/L	2	Weekly	<2	<2	<2	<2	<2
Butylbenzyl phthalate	ug/L	10	Weekly	<5	<5	<5	<5	<5
Bis(2-ethylhexyl)phthalate	ug/L	5	Weekly	<5	<5	<5	<5	<5
Naphthalene	ug/L	10	Weekly	<5	<5	<5	<5	<5
Phenol	ug/L	2	Weekly	<2	<2	<2	<2	<2
Aluminum	ug/L	2,000	Weekly	<100	<100	<100	<100	<100
Arsenic	ug/L	50	Weekly	8	12	12	14	9
Barium	ug/L	1,200	Weekly	51	69	85	101	73
Chromium	ug/L	100	Weekly	<5	<5	<5	<5	<5
Cobalt	ug/L	140	Weekly	<50	<50	<50	<50	<50
Copper	ug/L	330	Weekly	<5	<5	<5	<5	<5
Iron	ug/L	600	Weekly	255	492	569	599	548
Manganese	ug/L	300	Weekly	<20	255	<20	<20	<20
Nickel	ug/L	200	Weekly	<20	<20	<20	<20	<20
Zinc	ug/L	1,000	Weekly	<10	<10	<10	<10	<10
Sodium	ug/L	Monitor	Weekly	31,400	36,700	33,200	36,200	24,900
Total Dissolved Solids	mg/l	Monitor	Weekly	355	620	510	955	430

Notes:

1. "<" indicates that result is below the method detection limit.
2. ***Bold and italic*** indicates an exceedence of the Effluent Limit Daily Max.

Table 1

BASF Rensselaer

Analytical Results

October 2021

				Effluent 10/15/21	Effluent 10/21/21	Effluent 10/27/21
Parameter	Units	Effluent Limit Daily Max.	Frequency of Analysis			
Flow	GPD	72,000	Daily	5,264	5,648	3,292
pH	SU	6.5 - 8.5	Weekly	7.3	8.4	8.3
Benzene	ug/L	1	Weekly	<1	<1	<1
Chlorobenzene	ug/L	5	Weekly	<5	<5	<5
1,2-dichloroethane	ug/L	0.6	Weekly	<0.6	<0.6	<0.6
Ethylbenzene	ug/L	5	Weekly	<5	<5	<5
Toluene	ug/L	5	Weekly	<5	<5	<5
1,2,4-Trichlorobenzene	ug/L	5	Weekly	<5	<5	<5
Vinyl Chloride	ug/L	2	Weekly	<2	<2	<2
Butylbenzyl phthalate	ug/L	10	Weekly	<5	<5	<5
Bis(2-ethylhexyl)phthalate	ug/L	5	Weekly	<5	<5	<5
Naphthalene	ug/L	10	Weekly	<5	<5	<5
Phenol	ug/L	2	Weekly	<2	<2	<2
Aluminum	ug/L	2,000	Weekly	<100	<100	<100
Arsenic	ug/L	50	Weekly	6	7	12
Barium	ug/L	1,200	Weekly	61	73	92
Chromium	ug/L	100	Weekly	<5	<5	<5
Cobalt	ug/L	140	Weekly	<50	<50	<50
Copper	ug/L	330	Weekly	<5	<5	<5
Iron	ug/L	600	Weekly	106	273	131
Manganese	ug/L	300	Weekly	513	417	318
Nickel	ug/L	200	Weekly	<20	<20	<20
Zinc	ug/L	1,000	Weekly	11	<10	<10
Sodium	ug/L	Monitor	Weekly	47,500	26,900	17,700
Total Dissolved Solids	mg/l	Monitor	Weekly	785	455	560

Notes:

1. "<" indicates that result is below the method detection limit.
2. **Bold and italic** indicates an exceedence of the Effluent Limit Daily Max.

Table 1
BASF Rensselaer
Analytical Results
November 2021

Parameter	Units	Effluent Limit Daily Max.	Frequency of Analysis	Effluent 11/3/21	Effluent 11/9/21	Effluent 11/17/21	Effluent 11/23/21
Flow	GPD	72,000	Daily	5,159	6,647	10,073	8,499
pH	SU	6.5 - 8.5	Weekly	8.4	8.2	8.1	8.4
Benzene	ug/L	1	Weekly	<1	<1	<1	<1
Chlorobenzene	ug/L	5	Weekly	<5	<5	<5	<5
1,2-dichloroethane	ug/L	0.6	Weekly	<0.6	<0.6	<0.6	<0.6
Ethylbenzene	ug/L	5	Weekly	<5	<5	<5	<5
Toluene	ug/L	5	Weekly	<5	<5	<5	<5
1,2,4-Trichlorobenzene	ug/L	5	Weekly	<5	<5	<5	<5
Vinyl Chloride	ug/L	2	Weekly	<2	<2	<2	<2
Butylbenzyl phthalate	ug/L	10	Weekly	<5	<5	<5	<5
Bis(2-ethylhexyl)phthalate	ug/L	5	Weekly	<5	<5	<5	<5
Naphthalene	ug/L	10	Weekly	<5	<5	<5	<5
Phenol	ug/L	2	Weekly	<2	<2	<2	<2
Aluminum	ug/L	2,000	Weekly	<100	<100	<100	<100
Arsenic	ug/L	50	Weekly	5	11	<5	10
Barium	ug/L	1,200	Weekly	60	85	37	44
Chromium	ug/L	100	Weekly	<5	<5	<5	22
Cobalt	ug/L	140	Weekly	<50	<50	<50	<50
Copper	ug/L	330	Weekly	<5	<5	<5	<5
Iron	ug/L	600	Weekly	255	269	199	268
Manganese	ug/L	300	Weekly	72	67	<20	<20
Nickel	ug/L	200	Weekly	<20	<20	<20	<20
Zinc	ug/L	1,000	Weekly	<10	<10	<10	<10
Sodium	ug/L	Monitor	Weekly	17,000	30,200	24,800	30,600
Total Dissolved Solids	mg/l	Monitor	Weekly	545	505	415	740

Notes:

1. "<" indicates that result is below the method detection limit.
2. ***Bold and italic*** indicates an exceedence of the Effluent Limit Daily Max.

Table 1
BASF Rensselaer
Analytical Results
December 2021

				Effluent 12/1/21	Effluent 12/8/21	Effluent 12/15/21	Effluent 12/22/21	Effluent 12/29/21
Parameter	Units	Effluent Limit Daily Max.	Frequency of Analysis					
Flow	GPD	72,000	Daily	10,399	9,466	10,534	10,100	9,186
pH	SU	6.5 - 8.5	Weekly	8.0	8.1	8.1	8.0	7.9
Benzene	ug/L	1	Weekly	<1	<1	<1	<1	<1
Chlorobenzene	ug/L	5	Weekly	<5	<5	<5	<5	<5
1,2-dichloroethane	ug/L	0.6	Weekly	<0.6	<0.6	<0.6	<0.6	<0.6
Ethylbenzene	ug/L	5	Weekly	<5	<5	<5	<5	<5
Toluene	ug/L	5	Weekly	<5	<5	<5	<5	<5
1,2,4-Trichlorobenzene	ug/L	5	Weekly	<5	<5	<5	<5	<5
Vinyl Chloride	ug/L	2	Weekly	<2	<2	<2	<2	<2
Butylbenzyl phthalate	ug/L	10	Weekly	<5	<5	<5	<5	<5
Bis(2-ethylhexyl)phthalate	ug/L	5	Weekly	<5	<5	<5	<5	<5
Naphthalene	ug/L	10	Weekly	<5	<5	<5	<5	<5
Phenol	ug/L	2	Weekly	<2	<2	<2	<2	<2
Aluminum	ug/L	2,000	Weekly	<100	<100	<100	<100	<100
Arsenic	ug/L	50	Weekly	5	9	11	<5	<5
Barium	ug/L	1,200	Weekly	32	49	41	35	38
Chromium	ug/L	100	Weekly	<5	<5	<5	<5	<5
Cobalt	ug/L	140	Weekly	<50	<50	<50	<50	<50
Copper	ug/L	330	Weekly	<5	<5	<5	<5	<5
Iron	ug/L	600	Weekly	155	443	140	205	219
Manganese	ug/L	300	Weekly	<20	<20	<20	<20	<20
Nickel	ug/L	200	Weekly	<20	<20	<20	<20	<20
Zinc	ug/L	1,000	Weekly	<10	<10	<10	<10	<10
Sodium	ug/L	Monitor	Weekly	29,900	29,500	28,700	26,800	26,700
Total Dissolved Solids	mg/l	Monitor	Weekly	470	430	355	825	535

Notes:

1. "<" indicates that result is below the method detection limit.
2. ***Bold and italic*** indicates an exceedence of the Effluent Limit Daily Max.

APPENDIX E

2022 GWTS Influent and Effluent Sampling Data

Table 2
BASF Rensselaer
Flow Data
January 2022

Jan-22	Influent (GPD)	Gallery1 (GPD)	Gallery2 (GPD)
1	5,026	7,227	3,082
2	4,036	6,283	3,368
3	3,981	6,762	2,531
4	6,155	6,666	4,383
5	5,066	6,844	1,404
6	4,982	5,274	10
7	4,631	6,527	4,723
8	4,009	6,546	2,527
9	3,431	7,206	3,946
10	12,058	6,128	3,906
11	11,677	6,750	4,366
12	8	8	6
13	10,035	6,443	4,084
14	9,428	6,716	3,569
15	7,761	5,789	4,946
16	6,716	6,214	2,462
17	5,116	4,856	3,483
18	5,035	8,268	2,735
19	4,007	7,677	3,111
20	3,115	6,809	1,585
21	10,504	6,498	2,895
22	7,446	4,778	1,501
23	6,802	4,934	4
24	11,353	8,461	3,103
25	11,030	6,764	6,758
26	10,084	5,587	3,887
27	7,757	6,590	5,976
28	6,474	6,271	3,639
29	6,136	5,329	4,870
30	5,266	4,503	6,081
31	4,839	7,849	3,496
Average (Daily)	6,580	6,212	3,304
Totals	203,965	192,559	102,438

Note: Data shown is last reading of the 24-hour period for each day
(system logs data every ten minutes)

Table 2
BASF Rensselaer
Flow Data
February 2022

Feb-22	Influent (GPD)	Gallery1 (GPD)	Gallery2 (GPD)
1	4,376	7,624	2,350
2	4,301	7,486	3,029
3	4,025	5,728	2,373
4	3,702	7,790	2,916
5	3,626	6,577	17
6	3,458	6,991	3,750
7	8,032	4,273	6,355
8	7,397	6,435	4,719
9	6,970	5,558	4,065
10	7,357	5,526	3,117
11	7,248	5,600	3,519
12	7,052	4,202	6
13	6,687	6,014	4,408
14	8,680	5,650	4,191
15	8,801	6,960	3,058
16	8,639	7,269	3,935
17	9,192	5,842	4,385
18	9,571	7,712	6,662
19	8,993	6,310	5,871
20	8,984	4,690	2,584
21	11,101	5,903	3,861
22	10,575	6,321	3,134
23	9,581	6,441	4,379
24	10,424	5,365	3,122
25	9,716	5,018	4,345
26	9,733	4,309	5,545
27	8,862	4,425	4,963
28	10,704	7,424	3,239
Average (Daily)	7,778	6,051	3,711
Totals	217,784	169,442	103,897

Note: Data shown is last reading of the 24-hour period for each day
(system logs data every ten minutes)

Table 2
BASF Rensselaer
Flow Data
March 2022

Mar-22	Influent (GPD)	Gallery1 (GPD)	Gallery2 (GPD)
1	10,046	7,206	3,296
2	9,791	4,612	5,037
3	10,290	5,676	3,386
4	9,590	6,666	3,761
5	9,171	5,974	3,763
6	8,764	5,505	4,696
7	13,518	6,895	2,590
8	13,516	5,188	3,336
9	13,634	6,174	4,410
10	9,442	6,100	3,679
11	9,285	5,695	4,942
12	9,699	5,705	4,099
13	9,205	5,819	4,824
14	10,340	7,055	2,653
15	10,311	6,390	3,340
16	11,839	6,329	109
17	11,210	6,479	3,367
18	10,225	5,900	2,729
19	9,628	5,354	2,750
20	8,127	5,299	3,351
21	10,281	5,821	4,034
22	11,454	6,548	4,852
23	10,876	4,633	2,327
24	10,861	5,272	4,603
25	10,880	5,016	4,377
26	10,925	4,660	4,192
27	9,600	5,514	4,183
28	8,040	4,700	1,555
29	7,847	4,271	4,345
30	8,625	5,125	4,211
31	7,931	6,119	2,577
Average (Daily)	10,160	5,732	3,593
Totals	314,950	177,701	111,376

Note: Data shown is last reading of the 24-hour period for each day
(system logs data every ten minutes)

Table 2
BASF Rensselaer
Flow Data
April 2022

Apr-22	Influent (GPD)	Gallery1 (GPD)	Gallery2 (GPD)
1	8,093	8	11
2	7,746	5,987	4,007
3	7,500	4,589	4,738
4	8,911	3,719	6,569
5	9,220	4,969	1,987
6	9,396	4,381	5,415
7	9,747	5,867	2,977
8	9,642	4,370	3,948
9	9,825	5,171	2,836
10	9,066	5,323	2,890
11	5,571	4,696	1,932
12	5,814	5,831	4,026
13	5,142	4,391	4,240
14	5,659	4,860	1,656
15	6,266	4,711	244
16	6,153	5,314	3,086
17	5,610	3,834	387
18	6,716	4,435	5,011
19	6,441	5,755	2,905
20	6,102	4,351	1,261
21	5,543	3,908	3,265
22	5,907	6,035	3,374
23	5,833	5,760	4,313
24	6,012	4,683	5,413
25	4,555	4,740	4,475
26	4,444	4,730	2,323
27	4,082	2,226	11
28	4,511	2,918	1,432
29	5,020	5,148	5,791
30	2,825	5,028	4,004
Average (Daily)	6,578	4,591	3,151
Totals	197,351	137,737	94,530

Note: Data shown is last reading of the 24-hour period for each day
(system logs data every ten minutes)

Table 2
BASF Rensselaer
Flow Data
May 2022

May-22	Influent (GPD)	Gallery1 (GPD)	Gallery2 (GPD)
1	2,537	10	13
2	10	10	11
3	3,294	1,333	6
4	3,229	1,320	10
5	3,201	3,342	3,107
6	2,956	2,630	21
7	3,176	3,428	6
8	3,561	2,481	13
9	8,316	4,286	2,600
10	10,750	6,327	3,227
11	10,575	5,695	2,901
12	8,915	2,873	2,871
13	8,803	4,011	4,055
14	8,732	3,716	4,225
15	9,991	3,618	4,690
16	9,161	4,267	3,641
17	9,014	4,284	3,737
18	8,627	4,341	4,736
19	10,636	4,166	5,211
20	10,380	4,614	5,676
21	10,367	4,686	5,497
22	10,109	4,961	5,715
23	9,508	4,335	4,593
24	10,304	4,107	4,204
25	8,881	3,950	4,290
26	8,623	4,215	4,356
27	7,992	3,902	3,679
28	7,973	3,380	3,859
29	7,490	3,201	4,105
30	13	10	15
31	8,471	3,532	3,590
Average (Daily)	7,277	3,453	3,054
Totals	225,593	107,031	94,659

Note: Data shown is last reading of the 24-hour period for each day
(system logs data every ten minutes)

Table 2
BASF Rensselaer
Flow Data
June 2022

Jun-22	Influent (GPD)	Gallery1 (GPD)	Gallery2 (GPD)
1	9,222	2,386	4,740
2	9,041	4,253	4,408
3	9,030	4,015	3,794
4	8,787	3,859	4,625
5	7,860	3,428	4,049
6	11	8	15
7	8,331	4,347	4,068
8	8,221	4,017	3,828
9	9,049	4,177	4,370
10	8,654	3,536	4,076
11	8,320	3,607	4,328
12	6,680	3,424	3,239
13	6,500	2,800	1,486
14	6,390	2,886	2,483
15	8,328	3,620	3,824
16	7,231	3,899	3,990
17	7,742	3,960	4,301
18	7,340	3,590	4,221
19	6,609	3,676	3,931
20	6,346	3,883	4,080
21	8,635	3,637	4,549
22	9,388	4,030	4,974
23	9,054	3,954	4,240
24	8,396	3,483	4,202
25	8,686	3,775	4,793
26	13	15	15
27	7,708	3,367	3,397
28	7,343	3,082	2,737
29	7,340	3,071	2,579
30	7,240	2,966	2,970
Average (Daily)	7,450	3,358	3,610
Totals	223,495	100,750	108,314

Note: Data shown is last reading of the 24-hour period for each day
(system logs data every ten minutes)

Table 2
BASF Rensselaer
Flow Data
July 2022

Jul-22	Influent (GPD)	Gallery1 (GPD)	Gallery2 (GPD)
1	6,815	4,503	4,582
2	6,237	3,235	2,987
3	5,840	3,529	3,626
4	13	11	11
5	8,070	3,119	3,817
6	7,670	3,599	3,895
7	7,443	5,608	5,720
8	8,282	3,920	4,282
9	7,513	3,996	4,221
10	7,755	4,129	4,494
11	8,455	3,616	3,897
12	7,921	3,561	4,120
13	8,074	3,439	3,677
14	5,919	3,355	2,852
15	6,119	2,762	2,481
16	5,982	3,056	2,932
17	17	11	10
18	8,215	3,449	3,891
19	17	8	17
20	6,632	3,143	3,466
21	9,239	4,532	4,829
22	9,457	2,823	4,828
23	9,041	4,393	4,408
24	9,190	3,929	4,583
25	9,058	4,343	4,551
26	7,986	4,181	4,372
27	7,626	3,494	3,590
28	7,797	3,246	2,863
29	8,062	3,391	3,374
30	8,124	2,209	13
31	13	10	15
Average (Daily)	6,728	3,181	3,303
Totals	208,583	98,600	102,403

Note: Data shown is last reading of the 24-hour period for each day
(system logs data every ten minutes)

Table 2
BASF Rensselaer
Flow Data
August 2022

Aug-22	Influent (GPD)	Gallery1 (GPD)	Gallery2 (GPD)
1	15	10	15
2	8,680	3,990	4,009
3	8,282	3,285	3,300
4	8,217	3,267	3,410
5	8,362	3,246	3,853
6	8,528	3,990	4,194
7	17	2	17
8	9,003	3,996	4,118
9	15	10	15
10	17	10	10
11	15	10	15
12	8,839	4,068	4,448
13	8,755	3,738	4,513
14	8,799	3,822	4,162
15	8,770	3,784	4,261
16	8,776	3,277	3,746
17	13	10	15
18	13	10	15
19	13	10	15
20	13	10	15
21	13	10	15
22	13	10	15
23	13	10	15
24	13	10	15
25	15	15	17
26	8,991	1,900	5,688
27	9,321	3,374	4,648
28	9,163	3,534	4,274
29	9,424	3,378	4,372
30	9,106	2,209	4,366
31	9,266	10	4,625
Average (Daily)	4,854	1,774	2,329
Totals	150,484	55,001	72,200

Note: Data shown is last reading of the 24-hour period for each day
(system logs data every ten minutes)

Table 2
BASF Rensselaer
Flow Data
September 2022

Sep-22	Influent (GPD)	Gallery1 (GPD)	Gallery2 (GPD)
1	9,117	3,685	4,480
2	13	11	11
3	15	15	15
4	11	10	11
5	17	10	13
6	8,734	3,750	4,479
7	8,270	3,407	4,269
8	8,202	3,973	4,623
9	7,944	3,252	3,716
10	7,868	2,876	3,916
11	7,847	3,244	3,782
12	11	15	11
13	15	8	11
14	17	8	13
15	8,450	3,542	4,152
16	7,820	3,141	3,990
17	8,101	3,035	3,714
18	8,207	3,122	4,011
19	8,053	3,391	4,168
20	7,273	3,168	3,899
21	7,683	3,361	4,139
22	7,513	3,136	3,698
23	7,326	3,016	3,729
24	13	10	10
25	11	11	15
26	8,753	3,210	4,007
27	8,227	3,016	4,137
28	7,937	3,191	3,779
29	13	8	10
30	8,799	3,498	4,185
Average (Daily)	5,409	2,204	2,700
Totals	162,263	66,119	80,995

Note: Data shown is last reading of the 24-hour period for each day
(system logs data every ten minutes)

Table 2
BASF Rensselaer
Flow Data
October 2022

Oct-22	Influent (GPD)	Gallery1 (GPD)	Gallery2 (GPD)
1	13	8	11
2	13	8	10
3	7,794	3,130	3,651
4	8,579	8,665	10
5	8,368	8,104	11
6	8,600	6,012	4,049
7	8,810	2,981	5,421
8	8,938	4,005	3,958
9	8,661	5,793	2,073
10	8,572	3,563	4,276
11	8,688	3,017	4,625
12	6,893	4,288	2,485
13	6,497	2,962	3,489
14	6,319	6,186	11
15	6,493	7,301	11
16	6,521	6,086	2,226
17	6,687	2,667	4,061
18	6,420	1,972	3,735
19	6,874	4,154	2,287
20	6,636	4,082	1,682
21	6,378	3,511	2,916
22	6,317	4,055	2,274
23	6,445	1,761	3,857
24	6,376	4,555	3,414
25	6,384	5,055	2,329
26	6,510	5,097	1,234
27	7,271	3,244	2,613
28	7,864	6,132	6
29	7,504	7,082	6
30	6,437	4,980	6
31	9,009	3,670	3,464
Average (Daily)	6,867	4,327	2,265
Totals	212,873	134,127	70,201

Note: Data shown is last reading of the 24-hour period for each day
(system logs data every ten minutes)

Table 2
BASF Rensselaer
Flow Data
November 2022

Nov-22	Influent (GPD)	Gallery1 (GPD)	Gallery2 (GPD)
1	8,694	2,613	3,973
2	9,222	10	6,441
3	9,230	8,179	11
4	8,360	3,998	4,177
5	8,644	3,412	4,360
6	8,785	1,741	5,669
7	8,494	10	6,878
8	8,314	4,410	3,992
9	8,978	3,176	4,107
10	9,230	3,716	4,620
11	4	11	13
12	8,808	2,916	4,557
13	8,970	3,531	4,631
14	8,505	3,208	6,209
15	7,919	3,166	3,243
16	8,263	4,021	4,141
17	8,145	3,714	3,799
18	8,177	3,954	4,103
19	8,145	3,157	4,456
20	7,807	2,743	3,853
21	7,450	3,412	3,443
22	8,324	3,298	3,504
23	7,677	3,277	3,519
24	7,462	2,550	4,385
25	7,799	2,976	3,593
26	7,614	3,132	4,942
27	11	8	11
28	4	8	13
29	10	8	11
30	11	17	11
Average (Daily)	6,969	2,679	3,556
Totals	209,056	80,369	106,666

Note: Data shown is last reading of the 24-hour period for each day
(system logs data every ten minutes)

Table 2
BASF Rensselaer
Flow Data
December 2022

Dec-22	Influent (GPD)	Gallery1 (GPD)	Gallery2 (GPD)
1	11	11	11
2	11	10	10
3	13	10	15
4	13	10	13
5	15	8	13
6	11	10	11
7	9,512	3,162	4,446
8	9,512	1,892	4,723
9	9,607	10	3,296
10	9,220	2,110	4,200
11	9,379	2,890	4,385
12	6,483	2,790	4,139
13	6,443	3,828	3,033
14	6,508	2,583	2,934
15	6,077	2,565	3,611
16	6,260	2,535	2,800
17	6,132	2,327	2,913
18	6,218	1,781	2,832
19	6,510	2,626	2,689
20	6,580	10	2,359
21	6,413	1,190	1,656
22	6,455	2,535	2,033
23	6,569	4,145	3,338
24	4,597	3,817	3,668
25	4,625	4,532	3,199
26	4,728	10	3,082
27	4,274	2,375	6
28	4,734	2,813	4,213
29	4,574	3,414	10
30	4,561	3,220	4
31	4,208	2,703	1,801
Average (Daily)	5,170	1,997	2,305
Totals	160,256	61,919	71,443

Note: Data shown is last reading of the 24-hour period for each day
(system logs data every ten minutes)

Table 1
BASF Rensselaer
Analytical Results
January 2022

Parameter	Units	Effluent Limit Daily Max.	Frequency of Analysis	Effluent 1/5/22	Effluent 1/12/22	Effluent 1/19/22	Effluent 1/26/22
Flow	GPD	72,000	Daily	5,066	11,677	10,534	10,100
pH	SU	6.5 - 8.5	Weekly	8.1	7.7	7.9	8.1
Benzene	ug/L	1	Weekly	<1	<1	<1	<1
Chlorobenzene	ug/L	5	Weekly	<5	<5	<5	<5
1,2-dichloroethane	ug/L	0.6	Weekly	<0.6	<0.6	<0.6	<0.6
Ethylbenzene	ug/L	5	Weekly	<5	<5	<5	<5
Toluene	ug/L	5	Weekly	<5	<5	<5	<5
1,2,4-Trichlorobenzene	ug/L	5	Weekly	<5	<5	<5	<5
Vinyl Chloride	ug/L	2	Weekly	<2	<2	<2	<2
Butylbenzyl phthalate	ug/L	10	Weekly	<5	<5	<5	<5
Bis(2-ethylhexyl)phthalate	ug/L	5	Weekly	<5	<5	<5	<5
Naphthalene	ug/L	10	Weekly	<5	<5	<5	<5
Phenol	ug/L	2	Weekly	<2	<2	<2	<2
Aluminum	ug/L	2,000	Weekly	<100	267	<100	<100
Arsenic	ug/L	50	Weekly	11	<5	6	17
Barium	ug/L	1,200	Weekly	49	14	37	49
Chromium	ug/L	100	Weekly	<5	<5	<5	<5
Cobalt	ug/L	140	Weekly	<50	<50	<50	<50
Copper	ug/L	330	Weekly	<5	<5	<5	<5
Iron	ug/L	600	Weekly	295	266	83	194
Manganese	ug/L	300	Weekly	<20	<20	<20	<20
Nickel	ug/L	200	Weekly	<20	<20	<20	<20
Zinc	ug/L	1,000	Weekly	12	<10	<10	<10
Sodium	ug/L	Monitor	Weekly	31,200	36,500	37,900	33,900
Total Dissolved Solids	mg/l	Monitor	Weekly	380	415	525	420

Notes:

1. "<" indicates that result is below the method detection limit.
2. ***Bold and italic*** indicates an exceedence of the Effluent Limit Daily Max.

Table 1
BASF Rensselaer
Analytical Results
February 2022

Parameter	Units	Effluent Limit Daily Max.	Frequency of Analysis	Effluent 2/2/22	Effluent 2/9/22	Effluent 2/16/22	Effluent 2/23/22
Flow	GPD	72,000	Daily	4,301	6,970	8,639	9,581
pH	SU	6.5 - 8.5	Weekly	8.0	8.0	8.0	8.0
Benzene	ug/L	1	Weekly	<1	<1	<1	<1
Chlorobenzene	ug/L	5	Weekly	<5	<5	<5	<5
1,2-dichloroethane	ug/L	0.6	Weekly	<0.6	<0.6	<0.6	<0.6
Ethylbenzene	ug/L	5	Weekly	<5	<5	<5	<5
Toluene	ug/L	5	Weekly	<5	<5	<5	<5
1,2,4-Trichlorobenzene	ug/L	5	Weekly	<5	<5	<5	<5
Vinyl Chloride	ug/L	2	Weekly	<2	<2	<2	<2
Butylbenzyl phthalate	ug/L	10	Weekly	<5	<5	<5	<5
Bis(2-ethylhexyl)phthalate	ug/L	5	Weekly	<5	<5	<5	<5
Naphthalene	ug/L	10	Weekly	<5	<5	<5	<5
Phenol	ug/L	2	Weekly	<2	<2	<2	<2
Aluminum	ug/L	2,000	Weekly	<100	267	<100	<100
Arsenic	ug/L	50	Weekly	5	7	9	9
Barium	ug/L	1,200	Weekly	44	38	45	71
Chromium	ug/L	100	Weekly	<5	<5	9	10
Cobalt	ug/L	140	Weekly	<50	<50	<50	<50
Copper	ug/L	330	Weekly	<5	6	5	<5
Iron	ug/L	600	Weekly	<50	61	351	859
Manganese	ug/L	300	Weekly	<20	<20	<20	<20
Nickel	ug/L	200	Weekly	<20	<20	<20	<20
Zinc	ug/L	1,000	Weekly	<10	<10	<10	<10
Sodium	ug/L	Monitor	Weekly	36,500	30,800	42,800	38,200
Total Dissolved Solids	mg/l	Monitor	Weekly	215	525	520	400

Notes:

1. "<" indicates that result is below the method detection limit.
2. ***Bold and italic*** indicates an exceedence of the Effluent Limit Daily Max.

Table 1
BASF Rensselaer
Analytical Results
March 2022

				Effluent 3/2/22	Effluent 3/10/22	Effluent 3/16/22	Effluent 3/23/22	Effluent 3/30/22
Parameter	Units	Effluent Limit Daily Max.	Frequency of Analysis					
Flow	GPD	72,000	Daily	9,791	9,442	11,839	10,876	8,625
pH	SU	6.5 - 8.5	Weekly	7.9	7.8	7.7	7.9	7.8
Benzene	ug/L	1	Weekly	<1	<1	<1	<1	<1
Chlorobenzene	ug/L	5	Weekly	<5	<5	<5	<5	<5
1,2-dichloroethane	ug/L	0.6	Weekly	<0.6	<0.6	<0.6	<0.6	<0.6
Ethylbenzene	ug/L	5	Weekly	<5	<5	<5	<5	<5
Toluene	ug/L	5	Weekly	<5	<5	<5	<5	<5
1,2,4-Trichlorobenzene	ug/L	5	Weekly	<5	<5	<5	<5	<5
Vinyl Chloride	ug/L	2	Weekly	<2	<2	<2	<2	<2
Butylbenzyl phthalate	ug/L	10	Weekly	<5	<5	<5	<5	<5
Bis(2-ethylhexyl)phthalate	ug/L	5	Weekly	<5	<5	<5	<5	<5
Naphthalene	ug/L	10	Weekly	<5	<5	<5	<5	<5
Phenol	ug/L	2	Weekly	<2	<2	<2	<2	<2
Aluminum	ug/L	2,000	Weekly	<100	<100	<100	<100	<100
Arsenic	ug/L	50	Weekly	<5	<5	<5	<5	<5
Barium	ug/L	1,200	Weekly	43	45	63	40	45
Chromium	ug/L	100	Weekly	<5	<5	15	<5	<5
Cobalt	ug/L	140	Weekly	<50	<50	<50	<50	<50
Copper	ug/L	330	Weekly	<5	<5	<5	<5	<5
Iron	ug/L	600	Weekly	661	819	736	528	482
Manganese	ug/L	300	Weekly	<20	<20	<20	<20	<20
Nickel	ug/L	200	Weekly	<20	<20	<20	<20	<20
Zinc	ug/L	1,000	Weekly	<10	14	10	<10	14
Sodium	ug/L	Monitor	Weekly	67,000	47,700	47,500	22,500	33,300
Total Dissolved Solids	mg/l	Monitor	Weekly	465	580	545	620	510

Notes:

1. "<" indicates that result is below the method detection limit.
2. ***Bold and italic*** indicates an exceedence of the Effluent Limit Daily Max.

Table 1
BASF Rensselaer
Analytical Results
April 2022

				Effluent 4/7/22	Effluent 4/13/22	Effluent 4/20/22	Effluent 4/27/22
Parameter	Units	Effluent Limit Daily Max.	Frequency of Analysis				
Flow	GPD	72,000	Daily	9,747	5,142	6,102	4,082
pH	SU	6.5 - 8.5	Weekly	7.8	8.0	8.1	8.0
Benzene	ug/L	1	Weekly	<1	<1	<1	<1
Chlorobenzene	ug/L	5	Weekly	<5	<5	<5	<5
1,2-dichloroethane	ug/L	0.6	Weekly	<0.6	<0.6	<0.6	<0.6
Ethylbenzene	ug/L	5	Weekly	<5	<5	<5	<5
Toluene	ug/L	5	Weekly	<5	<5	<5	<5
1,2,4-Trichlorobenzene	ug/L	5	Weekly	<5	<5	<5	<5
Vinyl Chloride	ug/L	2	Weekly	<2	<2	<2	<2
Butylbenzyl phthalate	ug/L	10	Weekly	<5	<5	<5	<5
Bis(2-ethylhexyl)phthalate	ug/L	5	Weekly	<5	<5	<5	<5
Naphthalene	ug/L	10	Weekly	<5	<5	<5	<5
Phenol	ug/L	2	Weekly	<2	<2	<2	<2
Aluminum	ug/L	2,000	Weekly	<100	<100	<100	<100
Arsenic	ug/L	50	Weekly	<5	<5	7	<5
Barium	ug/L	1,200	Weekly	39	52	47	55
Chromium	ug/L	100	Weekly	<5	<5	<5	<5
Cobalt	ug/L	140	Weekly	<50	<50	<50	<50
Copper	ug/L	330	Weekly	<5	<5	5	<5
Iron	ug/L	600	Weekly	462	544	392	215
Manganese	ug/L	300	Weekly	<20	<20	<20	<20
Nickel	ug/L	200	Weekly	<20	<20	<20	<20
Zinc	ug/L	1,000	Weekly	<10	<10	31	<10
Sodium	ug/L	Monitor	Weekly	11,800	26,900	19,200	24,800
Total Dissolved Solids	mg/l	Monitor	Weekly	375	560	340	455

Notes:

1. "<" indicates that result is below the method detection limit.
2. ***Bold and italic*** indicates an exceedence of the Effluent Limit Daily Max.

Table 1
BASF Rensselaer
Analytical Results
May 2022

Parameter	Units	Effluent Limit Daily Max.	Frequency of Analysis	Effluent 5/4/22	Effluent 5/12/22	Effluent 5/18/22	Effluent 5/25/22
Flow	GPD	72,000	Daily	3,229	8,915	8,627	8,881
pH	SU	6.5 - 8.5	Weekly	7.6	8.0	8.1	8.0
Benzene	ug/L	1	Weekly	<1	<1	<1	<1
Chlorobenzene	ug/L	5	Weekly	<5	<5	<5	<5
1,2-dichloroethane	ug/L	0.6	Weekly	<0.6	<0.6	<0.6	<0.6
Ethylbenzene	ug/L	5	Weekly	<5	<5	<5	<5
Toluene	ug/L	5	Weekly	<5	<5	<5	<5
1,2,4-Trichlorobenzene	ug/L	5	Weekly	<5	<5	<5	<5
Vinyl Chloride	ug/L	2	Weekly	<2	<2	<2	<2
Butylbenzyl phthalate	ug/L	10	Weekly	<5	<5	<5	<5
Bis(2-ethylhexyl)phthalate	ug/L	5	Weekly	<5	<5	<5	<5
Naphthalene	ug/L	10	Weekly	<5	<5	<5	<5
Phenol	ug/L	2	Weekly	<2	<2	<2	<2
Aluminum	ug/L	2,000	Weekly	<100	<100	<100	<100
Arsenic	ug/L	50	Weekly	8	7	6	8
Barium	ug/L	1,200	Weekly	59	83	75	79
Chromium	ug/L	100	Weekly	12	16	<5	<5
Cobalt	ug/L	140	Weekly	<50	<50	<50	<50
Copper	ug/L	330	Weekly	<5	6	<5	8
Iron	ug/L	600	Weekly	362	941	660	234
Manganese	ug/L	300	Weekly	<20	<20	<20	<20
Nickel	ug/L	200	Weekly	<20	<20	<20	<20
Zinc	ug/L	1,000	Weekly	<10	11	<10	<10
Sodium	ug/L	Monitor	Weekly	28,600	54,900	33,400	57,600
Total Dissolved Solids	mg/l	Monitor	Weekly	455	580	480	565

Notes:

1. "<" indicates that result is below the method detection limit.
2. ***Bold and italic*** indicates an exceedence of the Effluent Limit Daily Max.

Table 1
BASF Rensselaer
Analytical Results
June 2022

Parameter	Units	Effluent Limit	Frequency of Analysis	Effluent 6/2/22	Effluent 6/9/22	Effluent 6/15/22	Effluent 6/24/22
		Daily Max.					
Flow	GPD	72,000	Daily	9,041	9,049	8,328	8,396
pH	SU	6.5 - 8.5	Weekly	8.0	8.0	7.9	8.0
Benzene	ug/L	1	Weekly	<1	<1	<1	<1
Chlorobenzene	ug/L	5	Weekly	<5	<5	<5	<5
1,2-dichloroethane	ug/L	0.6	Weekly	<0.6	<0.6	<0.6	<0.6
Ethylbenzene	ug/L	5	Weekly	<5	<5	<5	<5
Toluene	ug/L	5	Weekly	<5	<5	<5	<5
1,2,4-Trichlorobenzene	ug/L	5	Weekly	<5	<5	<5	<5
Vinyl Chloride	ug/L	2	Weekly	<2	<2	<2	<2
Butylbenzyl phthalate	ug/L	10	Weekly	<5	<5	<5	<5
Bis(2-ethylhexyl)phthalate	ug/L	5	Weekly	<5	<5	<5	<5
Naphthalene	ug/L	10	Weekly	<5	<5	<5	<5
Phenol	ug/L	2	Weekly	<2	<2	<2	<2
Aluminum	ug/L	2,000	Weekly	<100	<100	<100	<100
Arsenic	ug/L	50	Weekly	7	8	9	8
Barium	ug/L	1,200	Weekly	<10	50	50	54
Chromium	ug/L	100	Weekly	<5	<5	<5	<5
Cobalt	ug/L	140	Weekly	<50	<50	<50	<50
Copper	ug/L	330	Weekly	<5	<5	<5	8
Iron	ug/L	600	Weekly	191	184	110	84
Manganese	ug/L	300	Weekly	<20	<20	<20	<20
Nickel	ug/L	200	Weekly	<20	<20	<20	<20
Zinc	ug/L	1,000	Weekly	<10	<10	<10	<10
Sodium	ug/L	Monitor	Weekly	57,900	45,800	33,600	57,400
Total Dissolved Solids	mg/l	Monitor	Weekly	580	605	690	585

Notes:

1. "<" indicates that result is below the method detection limit.
2. ***Bold and italic*** indicates an exceedence of the Effluent Limit Daily Max.

Table 1
BASF Rensselaer
Analytical Results
July 2022

Parameter	Units	Effluent Limit Daily Max.	Frequency of Analysis	Effluent 7/7/22	Effluent 7/13/22	Effluent 7/21/22	Effluent 7/27/22
Flow	GPD	72,000	Daily	7,443	8,074	9,239	7,626
pH	SU	6.5 - 8.5	Weekly	8.1	8.0	7.9	8.2
Benzene	ug/L	1	Weekly	<1	<1	<1	<1
Chlorobenzene	ug/L	5	Weekly	<5	<5	<5	<5
1,2-dichloroethane	ug/L	0.6	Weekly	<0.6	<0.6	<0.6	<0.6
Ethylbenzene	ug/L	5	Weekly	<5	<5	<5	<5
Toluene	ug/L	5	Weekly	<5	<5	<5	<5
1,2,4-Trichlorobenzene	ug/L	5	Weekly	<5	<5	<5	<5
Vinyl Chloride	ug/L	2	Weekly	<2	<2	<2	<2
Butylbenzyl phthalate	ug/L	10	Weekly	<5	<5	<5	<5
Bis(2-ethylhexyl)phthalate	ug/L	5	Weekly	<5	<5	<5	<5
Naphthalene	ug/L	10	Weekly	<5	<5	<5	<5
Phenol	ug/L	2	Weekly	<2	<2	<2	<2
Aluminum	ug/L	2,000	Weekly	<100	<100	<100	<100
Arsenic	ug/L	50	Weekly	9	7	9	10
Barium	ug/L	1,200	Weekly	52	52	60	54
Chromium	ug/L	100	Weekly	<5	<5	<5	<5
Cobalt	ug/L	140	Weekly	<50	<50	<50	<50
Copper	ug/L	330	Weekly	<5	<5	<5	5
Iron	ug/L	600	Weekly	79	63	77	244
Manganese	ug/L	300	Weekly	<20	<20	41	<20
Nickel	ug/L	200	Weekly	<20	<20	<20	<20
Zinc	ug/L	1,000	Weekly	<10	<10	<10	<10
Sodium	ug/L	Monitor	Weekly	58,800	60,200	62,700	61,200
Total Dissolved Solids	mg/l	Monitor	Weekly	570	605	515	555

Notes:

1. "<" indicates that result is below the method detection limit.
2. ***Bold and italic*** indicates an exceedence of the Effluent Limit Daily Max.

Table 1
BASF Rensselaer
Analytical Results
August 2022

Parameter	Units	Effluent Limit Daily Max.	Frequency of Analysis	Effluent 8/3/22	Effluent 8/17/22	Effluent 8/31/22
Flow	GPD	72,000	Daily	8,282	8,776	9,266
pH	SU	6.5 - 8.5	Weekly	8.2	8.2	8.3
Benzene	ug/L	1	Weekly	<1	<1	<1
Chlorobenzene	ug/L	5	Weekly	<5	<5	<5
1,2-dichloroethane	ug/L	0.6	Weekly	<0.6	<0.6	<0.6
Ethylbenzene	ug/L	5	Weekly	<5	<5	<5
Toluene	ug/L	5	Weekly	<5	<5	<5
1,2,4-Trichlorobenzene	ug/L	5	Weekly	<5	<5	<5
Vinyl Chloride	ug/L	2	Weekly	<2	<2	<2
Butylbenzyl phthalate	ug/L	10	Weekly	<5	<5	<5
Bis(2-ethylhexyl)phthalate	ug/L	5	Weekly	<5	<5	<5
Naphthalene	ug/L	10	Weekly	<5	<5	<5
Phenol	ug/L	2	Weekly	<2	<2	<2
Aluminum	ug/L	2,000	Weekly	<100	<100	<100
Arsenic	ug/L	50	Weekly	7	10	,5
Barium	ug/L	1,200	Weekly	39	58	73
Chromium	ug/L	100	Weekly	<5	8	<5
Cobalt	ug/L	140	Weekly	<50	<50	<50
Copper	ug/L	330	Weekly	<5	<5	<5
Iron	ug/L	600	Weekly	259	148	126
Manganese	ug/L	300	Weekly	<20	33	608
Nickel	ug/L	200	Weekly	<20	<20	<20
Zinc	ug/L	1,000	Weekly	<10	<10	<10
Sodium	ug/L	Monitor	Weekly	25,300	64,100	49,900
Total Dissolved Solids	mg/l	Monitor	Weekly	505	585	510

Notes:

1. "<" indicates that result is below the method detection limit.
2. ***Bold and italic*** indicates an exceedence of the Effluent Limit Daily Max.

Table 1
BASF Rensselaer
Analytical Results
September 2022

Parameter	Units	Effluent Limit Daily Max.	Frequency of Analysis	Effluent 9/8/22	Effluent 9/21/22	Effluent 9/29/22
Flow	GPD	72,000	Daily	8,202	7,683	7,937
pH	SU	6.5 - 8.5	Weekly	8.5	8.3	7.0
Benzene	ug/L	1	Weekly	<1	<1	<1
Chlorobenzene	ug/L	5	Weekly	<5	<5	<5
1,2-dichloroethane	ug/L	0.6	Weekly	<0.6	<0.6	<0.6
Ethylbenzene	ug/L	5	Weekly	<5	<5	<5
Toluene	ug/L	5	Weekly	<5	<5	<5
1,2,4-Trichlorobenzene	ug/L	5	Weekly	<5	<5	<5
Vinyl Chloride	ug/L	2	Weekly	<2	<2	<2
Butylbenzyl phthalate	ug/L	10	Weekly	<5	<5	<5
Bis(2-ethylhexyl)phthalate	ug/L	5	Weekly	<5	<5	<5
Naphthalene	ug/L	10	Weekly	<5	<5	<5
Phenol	ug/L	2	Weekly	<2	<2	<2
Aluminum	ug/L	2,000	Weekly	<100	<100	<100
Arsenic	ug/L	50	Weekly	6	9	6
Barium	ug/L	1,200	Weekly	31	84	64
Chromium	ug/L	100	Weekly	<5	<5	<5
Cobalt	ug/L	140	Weekly	<50	<50	<50
Copper	ug/L	330	Weekly	<5	<5	5
Iron	ug/L	600	Weekly	97	269	221
Manganese	ug/L	300	Weekly	221	144	86
Nickel	ug/L	200	Weekly	<20	<20	<20
Zinc	ug/L	1,000	Weekly	<10	<10	<10
Sodium	ug/L	Monitor	Weekly	50,600	47,600	31,600
Total Dissolved Solids	mg/l	Monitor	Weekly	500	490	510

Notes:

1. "<" indicates that result is below the method detection limit.
2. ***Bold and italic*** indicates an exceedence of the Effluent Limit Daily Max.

Table 1
BASF Rensselaer
Analytical Results
October 2022

Parameter	Units	Effluent Limit	Frequency	Effluent	Effluent	Effluent	Effluent
		Daily Max.	of Analysis	10/6/22	10/11/22	10/19/22	10/26/22
Flow	GPD	72,000	Daily	8,600	8,688	6,874	6,510
pH	SU	6.5 - 8.5	Weekly	7.6	8.3	7.3	8.0
Benzene	ug/L	1	Weekly	<1	<1	<1	<1
Chlorobenzene	ug/L	5	Weekly	<5	<5	<5	<5
1,2-dichloroethane	ug/L	0.6	Weekly	<0.6	<0.6	<0.6	<0.6
Ethylbenzene	ug/L	5	Weekly	<5	<5	<5	<5
Toluene	ug/L	5	Weekly	<5	<5	<5	<5
1,2,4-Trichlorobenzene	ug/L	5	Weekly	<5	<5	<5	<5
Vinyl Chloride	ug/L	2	Weekly	<2	<2	<2	<2
Butylbenzyl phthalate	ug/L	10	Weekly	<5	<5	<5	<5
Bis(2-ethylhexyl)phthalate	ug/L	5	Weekly	<5	<5	<5	<5
Naphthalene	ug/L	10	Weekly	<5	<5	<5	<5
Phenol	ug/L	2	Weekly	<2	<2	<2	<2
Aluminum	ug/L	2,000	Weekly	<100	<100	<100	<100
Arsenic	ug/L	50	Weekly	<5	10	<5	8
Barium	ug/L	1,200	Weekly	66	77	50	66
Chromium	ug/L	100	Weekly	<5	<5	<5	<5
Cobalt	ug/L	140	Weekly	<50	<50	<50	<50
Copper	ug/L	330	Weekly	<5	<5	<5	<5
Iron	ug/L	600	Weekly	443	380	218	195
Manganese	ug/L	300	Weekly	92	51	27	36
Nickel	ug/L	200	Weekly	<20	<20	<20	<20
Zinc	ug/L	1,000	Weekly	<10	<10	<10	<10
Sodium	ug/L	Monitor	Weekly	262,000	54,000	42,100	42,900
Total Dissolved Solids	mg/l	Monitor	Weekly	525	525	445	445

Notes:

1. "<" indicates that result is below the method detection limit.
2. ***Bold and italic*** indicates an exceedence of the Effluent Limit Daily Max.

Table 1
BASF Rensselaer
Analytical Results
November 2022

Parameter	Units	Effluent Limit	Frequency	Effluent	Effluent	Effluent	Effluent
		Daily Max.	of Analysis	11/2/22	11/9/22	11/16/22	11/23/22
Flow	GPD	72,000	Daily	9,222	8,978	8,263	7,677
pH	SU	6.5 - 8.5	Weekly	6.9	8.5	7.3	8.0
Benzene	ug/L	1	Weekly	<1	<1	<1	<1
Chlorobenzene	ug/L	5	Weekly	<5	<5	<5	<5
1,2-dichloroethane	ug/L	0.6	Weekly	<0.6	<0.6	<0.6	<0.6
Ethylbenzene	ug/L	5	Weekly	<5	<5	<5	<5
Toluene	ug/L	5	Weekly	<5	<5	<5	<5
1,2,4-Trichlorobenzene	ug/L	5	Weekly	<5	<5	<5	<5
Vinyl Chloride	ug/L	2	Weekly	<2	<2	<2	<2
Butylbenzyl phthalate	ug/L	10	Weekly	<5	<5	<5	<5
Bis(2-ethylhexyl)phthalate	ug/L	5	Weekly	<5	<5	<5	<5
Naphthalene	ug/L	10	Weekly	<5	<5	<5	<5
Phenol	ug/L	2	Weekly	<2	<2	<2	<2
Aluminum	ug/L	2,000	Weekly	<100	<100	<100	<100
Arsenic	ug/L	50	Weekly	11	10	<5	12
Barium	ug/L	1,200	Weekly	77	67	60	66
Chromium	ug/L	100	Weekly	<5	<5	<5	<5
Cobalt	ug/L	140	Weekly	<50	<50	<50	<50
Copper	ug/L	330	Weekly	<5	<5	<5	<5
Iron	ug/L	600	Weekly	422	406	510	459
Manganese	ug/L	300	Weekly	25	<20	<20	<20
Nickel	ug/L	200	Weekly	<20	<20	<20	<20
Zinc	ug/L	1,000	Weekly	<10	<10	<10	<10
Sodium	ug/L	Monitor	Weekly	54,200	52,900	39,200	50,800
Total Dissolved Solids	mg/l	Monitor	Weekly	370	505	455	450

Notes:

1. "<" indicates that result is below the method detection limit.
2. ***Bold and italic*** indicates an exceedence of the Effluent Limit Daily Max.

Table 1
BASF Rensselaer
Analytical Results
December 2022

Parameter	Units	Effluent Limit	Frequency	Effluent	Effluent	Effluent	Effluent
		Daily Max.	of Analysis	12/8/22	12/14/22	12/21/22	12/29/22
Flow	GPD	72,000	Daily	9,512	6,508	6,413	4,574
pH	SU	6.5 - 8.5	Weekly	7.6	8.1	7.6	7.9
Benzene	ug/L	1	Weekly	<1	<1	<1	<1
Chlorobenzene	ug/L	5	Weekly	<5	<5	<5	<5
1,2-dichloroethane	ug/L	0.6	Weekly	<0.6	<0.6	<0.6	<0.6
Ethylbenzene	ug/L	5	Weekly	<5	<5	<5	<5
Toluene	ug/L	5	Weekly	<5	<5	<5	<5
1,2,4-Trichlorobenzene	ug/L	5	Weekly	<5	<5	<5	<5
Vinyl Chloride	ug/L	2	Weekly	<2	<2	<2	<2
Butylbenzyl phthalate	ug/L	10	Weekly	<5	<5	<5	<5
Bis(2-ethylhexyl)phthalate	ug/L	5	Weekly	<5	<5	<5	<5
Naphthalene	ug/L	10	Weekly	<5	<5	<5	<5
Phenol	ug/L	2	Weekly	<2	<2	<2	<2
Aluminum	ug/L	2,000	Weekly	<100	<100	<100	<100
Arsenic	ug/L	50	Weekly	6	8	<5	<5
Barium	ug/L	1,200	Weekly	43	50	37	35
Chromium	ug/L	100	Weekly	<5	<5	<5	<5
Cobalt	ug/L	140	Weekly	<50	<50	<50	<50
Copper	ug/L	330	Weekly	<5	<5	<5	<5
Iron	ug/L	600	Weekly	297	398	390	525
Manganese	ug/L	300	Weekly	161	<20	<20	<20
Nickel	ug/L	200	Weekly	<20	<20	<20	<20
Zinc	ug/L	1,000	Weekly	<10	<10	<10	<10
Sodium	ug/L	Monitor	Weekly	34,600	47,800	28,200	43,800
Total Dissolved Solids	mg/l	Monitor	Weekly	445	460	470	435

Notes:

1. "<" indicates that result is below the method detection limit.
2. ***Bold and italic*** indicates an exceedence of the Effluent Limit Daily Max.

PLATES

1. Groundwater Quality Data – 2015 through 2022

LG-MW-26	4/29/15
VOCs	NE
SVOCs	
Bis(2-ethylhexyl) phthalate	
Metals, Total	
Arsenic	32
Iron	4900
Manganese	448
Sodium	76000
Metals, Filtered	
Antimony	10 J
Iron	2000
Manganese	440
Sodium	76000

LG-MW-25	4/29/15
VOCs	NE
SVOCs	NE
Metals, Total	
Arsenic	9350
Barium	1150
Iron	110000
Manganese	1900
Mercury	1.72
Sodium	64000
Metals, Filtered	
Antimony	20 J
Arsenic	56
Manganese	337
Sodium	59000

LOP-224R	4/30/15	7/29/16	9/20/17	7/3/18	12/18/19	12/19/19 DUP	1/26/21	5/10/22
Emerging Contaminants								
1,4-Dioxane	NA	NA	1500	NA	4330	4240	16200	1380
Perfluorooctanesulfonic Acid (PFOS)	NA	NA	162	NA	97.2	111	104	128
Perfluorooctanoic Acid (PFOA)	NA	NA	37.8	NA	12	12.4	17.8	14.1
VOCS								
1,2-Dichloroethane	1.7	9.7	100	21.1	1.5	1.5	ND	0.64 J
Benzene	16	68	24	6.8	7.5	7.9	5.6	3
Chlorobenzene	230	70	230	300	100	100	320	150
n-Nitrosodiphenylamine	74	510 E	270 E	88	93	110	NE	NE
Metals, Total								
Antimony	9 J	14 J	ND	NE	ND	ND	14 J	ND
Arsenic	711	3890	2100	1119	941	1060	898	1200
Boron	2400	12500	5420	1760	1740	1760	946	1300
Manganese	420	1540	724	491.6	NE	NE	NE	NE
Sodium	95000	240000	185000	140000	51900	57600	110000	84600
Metals, Filtered								
Arsenic	460	4090	207	1085	721 J	742 J	575	1200
Boron	1100	13000	NE	2550	1090 J	1060 J	320	1130
Manganese	NE	1710	68	521.9	NE	NE	NE	NE
Sodium	71000	280000	182000	147000	51600 J	56500 J	104000	88300

MP-MW-105	4/30/15	7/26/16	8/20/17	9/20/2017 DUP	7/3/18	12/18/19	6/18/20	6/18/20 DUP	1/26/21	1/26/21 DUP	5/10/22
Emerging Contaminants											
1,4-Dioxane	NA	NA	4540	2850	NA	2440	NA	NA	1580	1630	1590
Perfluorooctanesulfonic Acid (PFOS)	NA	NA	6150	4160	NA	31300 J	1410	1320	1720	1790	1200
Perfluorooctanoic Acid (PFOA)	NA	NA	4630	416	NA	116	53.1	54.4	36.6 F	37.2 F	28.1
VOCs											
1,1,2-Trichloroethane	ND	11	ND	ND	ND	ND	NA	NA	ND	ND	ND
1,1-Dichloroethene	ND	16	ND	ND	ND	ND	NA	NA	ND	ND	ND
1,2-Dichlorobenzene	ND	7.7	ND	ND	ND	NA	NA	NA	NA	NA	NA
1,2,3-Trichlorobenzene	99000	18000 E	120000	96000	52000	64000	NA	NA	13000	50000	20000
1,2-Dichloropropane	ND	26	ND	ND	ND	ND	NA	NA	NA	ND	ND
1,4-Dichlorobenzene	ND	4.9 J	ND	ND	ND	NA	NA	NA	NA	NA	NA
Acetone	730 J	230	ND	NA	4200	6600	ND	NA	NA	ND	ND
Benzene	4700	4300 E	7400	6000	4200	4200	NA	NA	2700	2700	1600
Chlorobenzene	3500	2200 E	6300	5000	4800	3900	NA	NA	2200	2600	1200
Chloroform	ND	9.7	ND	ND	ND	ND	NA	NA	NA	ND	ND
Ethylbenzene	ND	10	ND	ND	ND	ND	NA	NA	NA	ND	ND
m,p-Xylene	ND	15	ND	ND	ND	ND	NA	NA	NA	ND	ND
Methylene chloride	ND	NE	ND	ND	260 J	ND	NA	NA	ND	ND	ND
n-Heptane	ND	6	ND	ND	ND	ND	NA	NA	ND	ND	ND
Toluene	ND	120	ND	ND	ND	ND	NA	NA	NA	ND	ND
Trichloroethylene	ND	57	ND	ND	ND	ND	NA	NA	NA	ND	ND
Vinyl chloride	ND	51	ND	ND	270 J	280 J	NA	NA	198 J	200 J	110 J
Xylenes (total)	ND	45 E	ND	ND	ND	ND	NA	NA	ND	ND	ND
SVOCs											
Nitrobenzene	4	ND	3.5	3.2	ND	ND	NA	NA	ND	ND	ND
Phenols (Total)	3.0 J	ND	4.5 J	3.6 J	3.8 J	2.9 J	NA	NA	9.45	7.53	2.46 J
Metals, Total											
Arsenic	NE	6.8	NE	NE	25.5	ND	NA	NA	28	28	NE
Beryllium	NE	4.3	NE	NE	NE	NE	NA	NA	NE	NE	NE
Cadmium	ND	NE	6	NE	NE	NE	NA	NA	NE	NE	NE
Iron	85000	94700	95500	74300	91100	85400	NA	NA	32100	31900	28300
Lead	NE	31	28	28	28	NE	NE	NE	NE	NE	NE
Magnesium	44000	44300	47700	41700	44000	39500	NA	NA	NE	NE	NE
Manganese	7400	7680	7480	6280	7113	5740	NA	NA	3400	3380	3310
Nickel	166	180	181	144	127.7	130	NA	NA	NE	NE	NE
Selenium	76000	50700	37700	38700	51600	51600	NA	NA	23200	28800	28800
Thallium	ND	ND	5.1	5.1	NE	ND	NA	NA	ND	ND	ND
Zinc	4910	5120	5120	3850	2716	2940	NA	NA	2040	2010	2050
Metals, Filtered											
Antimony	NE	NE	ND	NE	NE	ND	NA	NA	9 J	33 J	ND
Arsenic	NE	51	NE	NE	NE	NE	NA	NA	NE	NE	NE
Barium	NE	NE	NE	NE	NE	NE	NA	NA	NE	NE	NE
Beryllium	NE	4.8 J	NE	NE	NE	NE	NA	NA	NE	NE	NE
Cadmium	ND	NE	6	NE	NE	NE	NA	NA	NE	NE	NE
Iron	70000	100000	85000	70700	86300	86400	NA	NA	32700	29100	27500
Lead	NE	ND	29	NE	NE	NE	NA	NA	NE	NE	NE
Magnesium	NE	50000	47800	40900	47400	39600	NA	NA	NE	NE	NE
Manganese	6270	8200	7780	6320	6831	5740	NA	NA	3480	3080	3170
Nickel	148	208	185	149	126.7	130	NA	NA	NE	NE	NE
Selenium	76000	51000	39000	37700	43400	43600	NA	NA	28800	28700	28700
Thallium	ND	ND	4 J	ND	NE	ND	NA	NA	ND	ND	ND
Zinc	4020	6150	5200	4080	2586	2940	NA	NA	2080	NE	2080

MP-MW-108R	4/30/15
VOCs	
1,2-Dichloroethane	0.81 J
SVOCs	
Bis(2-ethylhexyl) phthalate	5.6
Metals, Total	
Antimony	28 J
Manganese	630
Metals, Filtered	
Antimony	26 J
Manganese	604

LG-2P-6R	4/29/15	7/20/16	9/30/17	7/3/18	12/18/19	1/26/21	5/10/22
Emerging Contaminants							
1,4-Dioxane	NA	NA	0.447	NA	NE	NE	NE
Perfluorooctanesulfonic Acid (PFOS)	NA	NA	11.2	NA	NE	NE	2.87
Perfluorooctanoic Acid (PFOA)	NA	NA	14.4	NA	NE	NE	NE
VOCs							
SVOCs	NE	NE	NE	NE	NE	NE	NE
Metals, Total							
Antimony	ND	32 J	ND	ND	ND	ND	ND
Arsenic	968	512	685	657.4	1000	609	675
Barium	905	2340	2010	1870	3418	2150	10000
Copper	958	2190	2030	932.5	529	1100	1100
Mercury	27000	78300	65300	NE	64100	76500	70600
Metals, Filtered							
Antimony	10 J	ND	ND	NE	ND	ND	ND
Arsenic	421	498	68	420.1	529 J	302	486
Barium	7600	23900	NE	6300	3418	2150	7730
Manganese	140	2250	1820	934.5	481 J	1000	1030
Mercury	27000	80000	62300	NE	61600 J	76300	70300

LG-MW-2R	4/28/15
VOCs	NE
SVOCs	NE
Metals, Total	
Arsenic	57
Sodium	320000
Metals, Filtered	
Arsenic	55
Sodium	310000

LG-MW-GR	4/29/15	7/26/16	7/26/16 DUP	9/20/17	7/3/18	12/18/19	1/26/21	5/10/22	5/10/22 DUP
Emerging Contaminants									
1,4-Dioxane	NA	NA	NA	NE	NA	NE	NE	NE	NE
Perfluorooctanesulfonic Acid (PFOS)	NA	NA	NA	68.5	NA	53.1	59.4	39.2	35.4
Perfluorooctanoic Acid (PFDA)	NA	NA	NA	15.4	NA	NE	10.2	1.4	14.6
VOCS									
1,2-Dichloroethane	ND	ND	ND	7.8	ND	ND	ND	ND	ND
Benzene	ND	ND	ND	1.8	ND	ND	ND	ND	ND
Chlorobenzene	NE	NE	NE	7	NE	NE	NE	NE	NE
SVOCs									
Metals, Total									
Antimony	ND	17 J	29 J	ND	3.2 J	ND	ND	ND	ND
Arsenic	4750	2570	2520	7660	3838	1910	5080	2480	2460
Iron	25000	31800	31500	31200	34100	12900	36000	20900	20600
Magnesium	NE	45500	42900	35800	NE	NE	NE	NE	NE
Manganese	2100	2420	2510	2060	2084	1750	2350	1640	1620
Sodium	36000	165000	150500	36900	31600	30900	41300	74700	73500
Metals, Filtered									
Antimony	20 J	ND	ND	ND	NE	ND	ND	ND	ND
Arsenic	3180	2100	2020	69	3197	962 J	1630	2260	2210
Iron	21000	30000	30000	ND	32400	4110 J	9800	12000	18800
Magnesium	36000	47600	45900	NE	35700	NE	NE	NE	NE
Manganese	2100	2560	2580	1920	1780	1720 J	2250	1580	1560
Sodium	30000	100000	110000	37600	28600	30300 J	41900	76800	76600

LG-MW-5R	4/29/15
VOCs	NE
SVOCs	NE
Metals, Total	
Arsenic	106
Iron	6300
Manganese	530
Sodium	56000
Metals, Filtered	
Antimony	10 J
Arsenic	52
Iron	5800
Manganese	531
Sodium	53000

LG-PZ-14R	4/28/15
VOCs	
1,2-Dichloroethane	0.70 J
SVOCs	NE
Metals, Total	
Arsenic	166
Iron	13000
Manganese	2220
Sodium	270000
Metals, Filtered	
Arsenic	84
Iron	11000
Manganese	2300
Sodium	270000

LG-MW-4R	4/28/15
VOCs	
1,2-Dichloroethane	0.98 J
SVOCs	NE
Metals, Total	
Iron	530
Manganese	421
Sodium	46000
Metals, Filtered	
Antimony	10 J
Iron	660
Manganese	423
Sodium	44000

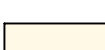
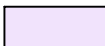
LG-PZ-15R	4/28/15
VOCs	
1,2-Dichloroethane	1.2 J
SVOCs	NE
Metals, Total	
Arsenic	30
Manganese	811
Sodium	94000
Metals, Filtered	
Antimony	30 J
Manganese	673
Sodium	94000

MP-MW-119R	4/28/15
VOCs	NE
SVOCs	NE
Metals, Total	NE
Metals, Filtered	
Antimony	10 J
Thallium	10 J

MP-MW-120	4/28/15
VOCs	NE
SVOCs	NE
Metals, Total	
Iron	34000
Manganese	1800
Sodium	37000
Metals, Filtered	
Antimony	46 J
Iron	34000
Manganese	1840
Sodium	37000

LF-MW-47R	4/27/15	4/27/15 DUP
VOCs		
Benzene	1.9	2.1
Chlorobenzene	130	140
SVOCs	NE	NE
Metals, Total		
Iron	1100	1100
Manganese	1060	1060
Sodium	37000	37000
Metals, Filtered		
Antimony	20 J	ND
Iron	530	510
Manganese	1090	1060
Sodium	40000	39000

LEGEND

	FORMER BUILDING
	STORM SEWER GRATE
ST-MW-12 	WELL IN THE GCS PERFORMANCE MONITORING NETWORK
GCS-EW-14 	GCS EXTRACTION WELL/SUMP LOCATION AND DESIGNATION
MP-PP-4 	PERFORATED PIPE RISER LOCATION AND DESIGNATION
LG-MH-6 	MANHOLE LOCATION AND DESIGNATION
	GROUNDWATER CONTAINMENT SYSTEM TRENCH
	BARBED WIRE FENCE
	CHAINLINK FENCE
	MONITORING WELLS DECOMMISSIONED ON FEBRUARY 6-7, 2017
	GROUNDWATER NO LONGER BEING MONITORED

LOCATION PREFIXES			
LG	LAGOON	LF	LANDFILL
MP	MAIN PLANT	ST	ALBANY MOLECULAR PROPERTY (FORMERLY ORGANICHEM)

TYPICAL DATA BOX INFORMATION			
SAMPLE ID#	LF-MW-4TR	4/27/15	4/27/15 DUP
	LOCATIONS	DATE	DATE
ANALYTES	VOCs		
	Benzene	1.9	2.1
	Chlorobenzene	130	140
	SVOCs	NE	NE
	Metals, Total		
	Iron	1100	1100
	Manganese	1060	1060
	Sodium	37000	37000
	Metals, Filtered		
	Antimony	20 J	ND
	Iron	530	510
	Manganese	1090	1060
	Sodium	40000	39000
	CONCENTRATIONS		

Parameter	NYSDEC AWQS	Units
VOCs		
1,1,2-Trichloroethane	1	µg/L
1,1-Dichloroethene	5	µg/L
1,2-Dichlorobenzene	3	µg/L
2,2-Dichloropropane	0.6	µg/L
1,2-Dichloroethane	1	µg/L
1,4-Dichlorobenzene	3	µg/L
Acetone	50	µg/L
Benzene	1	µg/L
Chlorobenzene	5	µg/L
Chloroform	7	µg/L
Tribromene	5	µg/L
m,p-Xylene	5	µg/L
Methylene chloride	5	µg/L
o-Xylene	5	µg/L
Toluene	5	µg/L
Trichloroethene	5	µg/L
Vinyl chloride	2	µg/L
Xylenes (total)	5	µg/L
SVOCs		
Bis(2-ethylhexyl) phthalate	5	µg/L
Nitrobenzene	0.4	µg/L
N-nitrosodiphenylamine	1	µg/L
Phenols (Total)	1	µg/L
Metals		
Antimony	3	µg/L
Arsenic	25	µg/L
Barium	1000	µg/L
Beryllium	3	µg/L
Cadmium	5	µg/L
Iron	300	µg/L
Lead	25	µg/L
Magnesium	35000	µg/L
Manganese	300	µg/L
Mercury	0.7	µg/L
Nickel	100	µg/L
Sodium	20000	µg/L
Thallium	0.5	µg/L
Zinc	2000	µg/L
PFAS		
1,4-Dioxane (D-Dioxane)	1000	ng/L
Perfluorooctanesulfonic acid (PFOS)	10	ng/L
Perfluorooctanoic acid (PFOA)	10	ng/L

- µg/L – Micrograms per liter
- ng/L – Nanograms per liter
 - NYSEDEC AWQSGVs
- NYSEDEC – New York State Department of Environmental Conservation
- AWQSGVs – Ambient Air Quality Standards and Guidance Values
 - Not detected above NYSEDEC AWQSGV
- B – Found in laboratory blank
- E – Exceeds calibration limit
- D – Dilution
- J – Estimated value
- J – Estimated value, low bias
- F – The ratio of quantifier ion response to quantifier ion response falls outside of the laboratory criteria. Results are considered to be an estimated maximum concentration
- DUP – Duplicate Sample
- VOCs – Volatile Organic Compounds
- SVCOCs – Semivolatile Organic Compounds
- PFAS – Per- and Polyfluoroalkyl Substances
- NE – No exceedances
- ND – Not detected

WELL	JUSTIFICATION
LG-MW-6R	Lagoon Area Arsenic in Groundwater Remediation Monitoring
LG-PZ-10R	Lagoon Area Arsenic in Groundwater Remediation Monitoring
LG-PZ-24R	Downgradient of GCS Area 1 (Western portion)
LG-PZ-6R	Lagoon Area Arsenic in Groundwater Remediation Monitoring
MP-MW-105R	Source area / Downgradient of AOC-1
ST-MW-12	Downgradient of GCS Area 1 (Eastern portion)

NOTE

1. ONLY DETECTIONS OF SITE SPECIFIC COMPOUNDS ABOVE
NYSDEC AMBIENT WATER QUALITY STANDARDS AND GUIDANCE
VALUES ARE SHOWN. ONLY RESULTS FOR FILTERED METALS
SAMPLES ARE SHOWN.

2. DATA FROM LOCATION ST-MW-12 IS FROM ALBANY MOLECULAR RESEARCH INC.

Title:

GROUNDWATER QUALITY DATA 2015 THROUGH 2022

RENSSELAER, NEW YORK FACILITY

Prepared for:

BASF CORPORATION
FLORHAM PARK, NEW JERSEY

	Compiled by: B.L.	Date: 26JUN23	PLATE 1
	Prepared by: B.H.C.	Scale: AS SHOWN	
	Project Mgr: B.L.	Project: 0251.0011Y058	
	File: 0251.0011Y672.01.DWG		