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NEW YORK STATE OF OPPORTUNITY. Department of Environmental Conservation

New York State Department of Environmental Conservation

FORT EDWARD LANDFILL SITE PERIODIC REVIEW REPORT

Site Number 558001

January 2018

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1 EXECUTIVE SUMMARY

This Periodic Review Report (PRR) is a required element of the remedial program and the August 2015 Site Management Plan (SMP) for the Fort Edward Landfill located in Fort Edward, New York (hereinafter referred to as the "Site") (Figure 1). The Site is currently in the New York State (NYS) Inactive Hazardous Waste Disposal Site Remedial Program, Site No. 558001, which is administered by the New York State Department of Environmental Conservation (NYSDEC). As the standby consultant, Arcadis, CE, Inc. (Arcadis) is submitting this PRR for the following reporting period: September 1, 2016 through November 30, 2017. Arcadis was assigned the project in August 2016.

The site remediation activities conducted by Arcadis were implemented in conformance with DER-10: Technical Guidance for Site Investigation and Remediation (NYSDEC, May 2010). This PRR was prepared in accordance with the NYSDEC DER-10.

General Electric, Inc. (GE) historically disposed of approximately 850 tons of polychlorinated biphenyl (PCB)-containing scrap capacitors at this landfill. This waste represents approximately 79% of the total hazardous waste identified at this site. As a result of the 1980 "Seven Site Agreement" with the NYSDEC, GE produced a report in 1983 recommending encapsulation of the landfill within a slurry wall and cap; however, operation continued until 1991 and the proposed remedy was not initiated. Due to the extended operation of this landfill and the given problems associated with a similar encapsulation remedy taken at the adjacent Kingsbury Landfill (Site 5-58-008), the 1983 Remedial Design proposal was modified. The modified remedy included the construction of a low permeable landfill cap and a leachate collection system, and the construction of a pre-treatment building with final treatment in three (3) constructed wetland cells (CWTS) (Cell 1, Cell 2, and Cell 3) and a polishing pond.

Based upon remedial and pre-design investigations, it was concluded that landfill-derived contaminants, including PCBs, were migrating from the site through the pathways of groundwater and leachate seepage to surface water. PCBs have been noted in wells upgradient, downgradient, and in the footprint of the landfill historically and currently. It was determined that the environmental condition of the Site had been impacted by volatile organic compounds (VOCs), PCBs, and iron from the Site's historical use as a landfill.

As part of the corrective measures process, a series of leachate collection and treatment system upgrades were implemented based on recommendations in a 2015 Remedial System Optimization (RSO) Report. The RSO upgrades were fully operational in April 2017. However, based on system monitoring data, the current remedial measures do not meet all of the Site remedial action objectives (RAOs).

2 SITE OVERVIEW

The Site is a mixed-waste landfill located in the Town of Fort Edward, New York at 45 Leavy Hollow Lane (Figure 1). The Site is roughly 23 acres and is bounded by the Glens Falls Feeder Canal to the northeast; by a wooded area, private residences and commercial businesses (Burgoyne Avenue) to the northwest; by Leavy Hollow Lane and private residences to the west and southwest; by farm fields to the south and east; and by a bike path to the east (Figure 2).

The geology underlying the Site consists of variable thickness of glacially deposited soil underlain by black shale bedrock. The glacial soil consists of delta sands and interbedded sand-clay lenses. The deltaic sediments overlay lacustrine clay and glacial till (HRP, 2015). On site monitoring wells are screened in the shallow delta sands (MW-1, MW-2, MW-5, MW-6, MW-7, and MW-8), the interbedded sand and clay (MW-2A and MW-6A), the deeper lacustrine clays (MW-1A and MW-6B), and shale (MW-1D). The extraction wells (EW-1, EW-2, and EW-3) are screened at the landfill waste/delta sand interface.

The landfill contains non-hazardous municipal waste and hazardous industrial waste, including PCB-containing electrical components and solvents. The landfill requires continued site management including operation, maintenance and monitoring (OM&M) of the active leachate collection and treatment system, which has been in operation since late 1998.

2.1 Site Description

Topography in the immediate vicinity of the site is characterized by undulating hills, interspersed with slopes and small depressions. The eastern portion of the site is distinguished as a flat, low-lying area which contains several substantial wetlands. A gravel road provides access to the top of the landfill and the wetland expansion areas to the east. Nearby residences are located to the south and the west.

2.2 Site History

The Fort Edward Landfill was used for the disposal of approximately 70% municipal waste and approximately 30% PCB-containing scrap capacitor waste from GE, as well as solvents, from 1969 to 1982 (HRP, 2015). Following a rise in public concern regarding the use of PCBs in the late 1970s, investigation began on the Fort Edward Landfill Site among others, and the Site was placed on the New York State Registry of Inactive Hazardous Waste Sites (Site No. 558001).

In 1984, the NYSDEC approved plans and specifications for a containment remedy for the landfill, but allowed the Town of Fort Edward to receive non-hazardous municipal waste until a waste management system was implemented. The landfill was closed in 1991, and a temporary soil cap was installed over the waste materials between 1990 and 1993 (HPR, 2015).

2.3 Landfill Closure and Remedial Activities

The landfill was covered with a multi-layer cap in 1997 and 1998. Prior to installation of the final cover system, the entire landfill was rough graded. Over 110,000 cubic yards of stripped soils and excavated

materials were relocated and compacted along with 46,000 cubic yards of imported structural fill. The landfill consisted of the following major components (HRP, 2014):

- Gas collection system consisting of a 760-feet subsurface cut-off trench, gas cutoff barrier, cap vents, header piping, 120 gas monitoring piezometers, and seven activated carbon vapor treatment units;
- Leachate collection system consisting of three extraction wells, stone-filled collection trenches, a 2,300-linear foot watertight PVC sheet-pile cutoff wall, over 1,000-feet of gravity drain pipe and force mains, and related connections to the leachate treatment system;
- Three 1.5-acre CWTS, configured to operate in parallel, where Phragmites Australis was used to perform phytoremediation of remaining leachate contaminants;
- Wetland disturbance from CWTS construction and landfill closure activities required the construction of an additional 2 acres of wetlands, in addition to the CWTS cells;
- Installation of the 29.75-acre landfill cover included a multi-layered cover system, drainage swales, culverts, channels, down-chutes, slope stabilization, aggregate roadways, gabion basket barriers, and stilling basins; and
- Final restoration work placed topsoil and seed over 32 acres and installed 6,000 feet of security fence.

The leachate collection and treatment system were designed by URS beginning in 1995, and construction began in July 1997, in parallel to the landfill cap construction. The original on-site leachate collection and treatment system, which discharges treated water to the Glens Falls Feeder Canal to the northeast of the Site, consisted of (HRP, 2014):

- Groundwater/leachate collection trench and three extraction wells for plume control;
- Air stripper for treatment of VOCs;
- Holding tank;
- Three constructed wetland treatment cells consisting of phragmites and engineered soil;
- Polishing pond; and
- The implementation of site controls, including fencing and groundwater monitoring.

The remedial system began operating in September 1998. In October 1998, the air stripper was taken off-line since the VOCs were sufficiently being removed by the CWTS. The O&M of the treatment system and groundwater monitoring responsibilities were assigned to AECOM in June 2007. O&M responsibilities were then transferred from AECOM to Aztech Technologies, Inc. (Aztech) in May 2009. Monitoring and maintenance reporting responsibilities were transferred to HRP in 2011, with Aztech still maintaining on-site OM&M activities (HRP, 2014).

The leachate collection and treatment system were operational for several years until the conveyance system was unable to convey the leachate to the pre-treatment building. The following improvements were implemented between 2011 and 2015:

- A new 6-inch high density polyethylene (HDPE) force main was installed from the collection trench well, EW-4, and the three extraction wells (EW-1 through EW-3) to the pre-treatment building to increase the conveyance capacity;
- Repair of the extraction wells and associated controls;
- Re-development of the extraction wells;
- Installation of a new telemetry control system;
- Installation of a new roadway to the polishing pond;
- A new 4-inch HDPE line was installed from the CWTS effluent collection sump (EW-5) to the inlet of the polishing pond;
- The outlet level control structure of the polishing pond was reconstructed to prevent short circuiting of the pond, which included the replacement of existing corrugated metal outlet structure with a polyethylene pipe;
- An approximately 21-foot by 41-foot pre-engineered steel building addition was constructed to house the new process equipment; and
- The clarifier unit, sludge thickening tank, and catch clarifier tank were placed within the new building addition.

In August 2015 HRP prepared a RSO plan which was submitted to NYSDEC. The RSO plan outlined the necessary tasks required to improve the existing leachate collection and treatment system. HRP prepared a SMP which was submitted to the NYSDEC in August 2015.

3 REMEDIAL SYSTEM OPTIMIZATION SUMMARY

Upon the assignment of the project, Arcadis evaluated the original RSO Plan (as developed by HRP) and suggested several modifications to maximize the treatment capabilities of the existing on-site equipment and facilities. These modifications were approved by the NYSDEC and subsequently implemented by Arcadis from October 2016 through April 2017. The following sections summarize the design/construction upgrades that were made to the leachate collection and treatment system as part of the implementation of the modified RSO.

3.1 Constructed Wetland Treatment System (CWTS)

The following modifications were made to the constructed wetland treatment cells.

- Two-inch diameter HDPE force main piping was installed from the new treatment building addition and tied into the existing CWTS force mains;
- Two-inch diameter HDPE cleanouts were installed in each of the CWTS force mains to allow for camera inspection/jetting and cleaning of the CWTS cell infiltration pipe galleries;
- A new four-inch diameter HDPE cleanout was added to the EW-5 force main;
- A new six-inch diameter HDPE gravity bypass pipe was installed between CWTS Cells 2 and 3 to allow the cells to operate in series;
- Video inspections of landfill leachate collection lines and cleanouts were performed in January 2017. Fouling and blockage of lines was observed in the south and east leachate collection piping; and
- The level control piping for the Cell 1, 2 and 3 effluent chambers were modified to provide easier adjustment of the water levels in each cell.

3.2 Treatment System Upgrades

The following upgrades were made to the on-site treatment system.

- The former treatment system components, including discharge pumps, a steel holding tank, and associated piping were decommissioned from the original treatment system, and were transported offsite in a 10-cubic yard roll-off container by Casella on February 22, 2017. The waste was disposed of at the Casella Landfill located in Clinton County, New York.
- The floor sump (Sump #2) in the new treatment system building was repaired and sealed due to gap between base and sidewalls of the sump that allowed the sump to drain into sub-grade material for the building slab;
- A plate frame filter press was relocated from another NYSDEC site and installed in the treatment building to process sludge from the clarifier;
- A decant tank was installed next to the sludge thickener tank;

- Process piping, and ancillary equipment were installed for the following new major process equipment:
    - Inclined Plate Clarifier (IPC)
    - Sludge Thickener Tank
    - Decant Tank and Pump
    - Clarifier Catch Tank
    - Catch Tank Discharge Pumps
    - Filter Press
    - Building Sump Pumps
    - Pneumatic Sludge Transfer Pumps
    - Air Compressor
- Electrical power conduits and wiring were installed from the existing main motor control cabinets (MCC) and main control panel (MCP) to the new process equipment;
- A new propane heating system and 500-gallon propane storage tank were installed to heat the treatment building;

Startup testing of treatment system, with only well EW-4 online, was completed between January and February 2017. The update process and instrumentation diagram for the treatment system is provided in Appendix A.

To supplement the RSO treatment system upgrades, the addition of chemical amendments was reviewed and tested to maximize the iron removal capacity of the system. Following onsite bench-scale and operational testing, chemical amendments and metering equipment were selected for treatment system. The following chemical treatment equipment were installed onsite in March 2017:

- Chemical metering pumps for oxidizer, coagulant, and flocculant amendments
- One impeller mixer in the IPC influent chamber
- One picket fence mixer in the IPC mixing chamber
- A flocculant mixing tank and metering pump.

Following the startup and testing of the chemical dosing ang mixing systems, the new leachate treatment system was fully operational in March 2017; however, optimization of the chemical dosing continued throughout the summer and fall of 2017 as the system was operated and adjusted.

3.3 Leachate Collection and Extraction System

After startup of the new treatment system, additional system evaluations were performed on the leachate collection system to supplement the RSO upgrades. Extraction wells EW-1 through EW-4 were inspected and the pumps tested. The pumps in each extraction well were also removed and cleaned/or replaced, depending on their condition.

The following remedial enhancement and/or maintenance activities were implemented after the extraction wells were operational:

- Approximately eight feet of sludge that was identified in leachate collection well EW-4 was removed and pumped to a temporary sludge drying bed constructed in CWTS Cell 1. The sludge was pumped through a new two-inch diameter above-grade HDPE force main that was installed between EW-4 and the drying bed in Cell 1;
- Following removal of the sludge, leachate flows into EW-4 were evaluated and the discharge pump was upgraded to maintain sufficient drawdown in the sump so the influent flow from both collection drains could be observed;
- Extraction Well 2 (EW-2) was brought online on March 30, 2017. Extraction wells EW-1 and EW-3 were brought online on May 12, 2017 after inspection and repairs to level and flow sensors were completed; and

All pump upgrades and repairs were completed, and all extraction wells were on-line in May 2017.

3.4 Miscellaneous O&M Activities

The following O&M activities were also conducted concurrently with the RSO.

- A survey was completed in April 2017 to provide revised location and elevation data for monitoring locations and significant site features. This data was used to create a new site plan and as-built of the landfill and major site features (i.e., extraction wells, underground utilities, landfill vents, CWTS).
- Wild parsnip control efforts on select areas of the landfill cap were initiated in May 2017. The control efforts included selective herbicide application and mowing of select cap areas throughout growing season.
- Based on recommendations in the RSO, the defunct vapor phase carbon treatment vessels for the seven landfill gas exhaust vents were taken offline September 2016. The carbon was sampled and profiled, and transported offsite in drums by Veolia on October 6, 2017. The waste was processed and disposed of at Veolia's incineration facility located in Sauget, Illinois. The landfill vents were reconfigured to allow passive venting and to protect the venting system from the elements.

3.5 Current Status

Leachate and groundwater recovered from extraction wells EW-1, EW-2, EW-3 and leachate collection well EW-4 are pumped to the treatment plant at a combined average total flow rate that has ranged from approximately 8 gallons per minute (GPM) (October 20017) to 12 GPM (July 2017) since January 2017. As shown on the Process and Instrumentation Diagram (P&ID) (Appendix A), when the leachate enters the treatment plant, it is first treated with bleach to oxidize the iron. The leachate then enters the inlet of the inclined plate clarifier (IPC) where coagulant and flocculant amendments are added. After passing through the clarifier, the treated water is discharged via gravity to the Clarifier Catch Tank. From there, the water is pumped to the CWTS. In the CWTS, water passes through a matrix of phragmites. According to design documents, the phragmites are planted in high organic topsoil. The soil is designed

to provide chelation and ion exchange. The plants increase horizontal permeability of the soil, provide organic matter to promote biodegradation, and promote oxygen-carbon dioxide exchange through porous tissue. Water that discharges from the CWTS collects in a common sump (EW-5). Water is pumped from EW-5 to the Polishing Pond before being discharged to the Glens Fall Feder Canal.

As shown in the P&ID, sludge that accumulates in the IPC is pumped by a feed pump to the Sludge Thickener Tank. The sludge is retained in the tank until the solids settle to the bottom. Water is then decanted from the sludge and directed to the Decant Tank, where it is then pumped back to the inlet of the of the IPC.

Solids in the Sludge Thickener Tank are pumped to the Filter Press for processing. The sludge is pumped into the filter press at increasing pressures up to 90 pounds per square inch (psi). The filter press retains the solids and returns the filtrate to the Decant Tank. For final sludge processing, compressed air (up to 100 psi) is applied to the sludge that is retained in the filter press plates (i.e. blow down). The blow down procedure compresses the sludge to remove additional filtrate liquid. Blow down is continued (approximately one hour) until the volume water being returned from the filter press approaches zero. At the end of the blow down cycle, the filter press is opened and the dried filter cakes (approximately 20% solids) are removed and placed into UN-approved 55-gallon drums for off-site transportation and disposal.

Treatment plant O&M and performance monitoring are described further in Section 5 and Section 6, respectively.

4 REMEDY PERFORMANCE, EFFECTIVENESS AND PROTECTIVENESS

4.1 Remedial Action Objectives

The RAOs for the Fort Edward Landfill are outlined in the August 2015 SMP. The RAOs are based on DER requirements and include the following elements:

Groundwater RAOs

RAOs for Public Health Protection

- Prevent ingestion of groundwater with contaminant levels exceeding drinking water standards.
- Prevent contact with, or inhalation of, volatiles from contaminated groundwater.

RAOs for Environmental Protection

- Restore the groundwater aquifer to pre-disposal/pre-release conditions, to the extent practicable.
- Prevent the discharge of contaminants to surface water.
- Remove the source of ground or surface water contamination.

Soil RAOs

RAOs for Public Health Protection

- Prevent ingestion/direct contact with contaminated soil.
- Prevent inhalation of or exposure from contaminants volatilizing from contaminants in soil.

RAOs for Environmental Protection

- Prevent migration of contaminants that would result in groundwater or surface water contamination.

Surface Water RAOs

RAOs for Public Health Protection

- Prevent ingestion of water impacted by contaminants.
- Prevent contact or inhalation of contaminants from impacted water bodies.
- Prevent surface water contamination which may result in fish advisories.

RAOs for Environmental Protection

- Restore surface water to ambient water quality criteria for the contaminant of concern.
- Prevent impacts to biota from ingestion/direct contact with surface water causing toxicity and impacts from bioaccumulation through the marine or aquatic food chain.

Sediment RAOs

RAOs for Public Health Protection

- Prevent direct contact with contaminated sediments.
- Prevent surface water contamination which may result in fish advisories.

RAOs for Environmental Protection

- Prevent releases of contaminant(s) from sediments that would result in surface water levels in excess of (ambient water quality criteria).
- Prevent impacts to biota from ingestion/direct contact with sediments causing toxicity or impacts from bioaccumulation through the marine or aquatic food chain.
- Restore sediments to pre-release/background conditions to the extent feasible.

Soil Vapor RAOs

RAOs for Public Health Protection

- Mitigate impacts to public health resulting from existing, or the potential for, soil vapor intrusion into buildings at a site.

4.2 Institutional and Engineering Controls

An Institutional and Engineering Control (IC/EC) Plan is provided in the August 2015 SMP. The IC/EC Plan provides procedures for implementation and management of the controls for site.

4.2.1 Institutional Controls

Institutional Controls at the Site consist of:

- The property may be used for commercial use provided that the long-term Engineering Controls (ECs), and Institutional Controls (ICs) included in the SMP are employed.
- The SMP and all documents within the SMP must be adhered to.
- All ECs must be inspected at a frequency and in a manner defined in the SMP.
- The use of groundwater underlying the property is prohibited without necessary water quality treatment as determined by the NYSDEC and the Health Department to render it safe for use as drinking water or for commercial use, and the user must first notify and obtain written approval to do so from the Department.
- Groundwater and other environmental or public health monitoring must be performed as defined in the SMP.
- Data and information pertinent to Site management must be reported at the frequency and in a manner defined in the SMP.
- All future activities that will disturb remaining contaminated material must be conducted in accordance with the SMP.
- Monitoring to assess the performance and effectiveness of the remedy must be performed as defined in the SMP.

- Operation, maintenance, monitoring, inspection and reporting of any mechanical or physical component of the remedy shall be performed as defined in the SMP.
- Access to the Site must be provided to agents, employees or other representatives of the State of New York with reasonable prior notice to the property owner to assure compliance with the restrictions and performance of the SMP requirements.
- The potential for vapor intrusion must be evaluated for any buildings developed in the area within the IC boundaries noted as the property boundaries noted in the SMP and any potential impacts that are identified must be monitored or mitigated.
- Vegetable gardens and farming on the Site are prohibited.

4.2.2 Engineering Controls

Engineering Controls at the Site consist of:

- Fencing/access control;
- A landfill cover system; and
- Leachate Collection and Groundwater Treatment System.

5 OPERATION AND MAINTENANCE

The current O&M Plan was prepared by URS in February 2000, and is provided in the SMP. The SMP and O&M Plan will be revised and updated in 2018 to include RSO upgrades.

5.1 System Operation and Maintenance

The following sections summarize the collection and treatment system O&M program. Aztech performed the Site O&M, including maintenance of the leachate collection and treatment system from May 2009 through August 2016. The Site work transitioned from Aztech to Arcadis during the August - September 2016 events. Arcadis continued with bi-weekly site/system inspections through December 2016. However, the system O&M activities and schedules were modified during the implementation of the RSO upgrades between December 2016 and April 2017. These modifications are summarized in the sections below.

The full-scale treatment system was brought online in April 2017 and has been in operation since that time. The treatment system operated continuously, with brief periods of shutdown due to scheduled operation and maintenance (O&M), and/or alarm conditions, and non-routine maintenance activities. The most notable system shutdown occurred during the week of October 23, 2017 when an electrical power surge to the treatment building disabled one phase of power and damaged the air compressor motor starter.

O&M site visits consisted of system inspection, recording of operating parameters, influent and effluent system sampling, and investigation/troubleshooting of any alarm conditions. System alarm verification was performed remotely via desktop software. The O&M data generated during each monthly visit are summarized in monthly progress reports. A summary of the O&M related tasks is provided below:

Weekly System O&M Inspections:

- Inspection of all vessels, tanks, pipes and fittings for leaks
- Checking air compressor oil level and pressure to assure proper operation;
- Inspection of pneumatic transfer pumps for proper operation and repair/cleaning, as needed;
- Monitor and record the system gauge readings to determine if the system is operating within the designed operational ranges;
- Maintain chemical metering pumps and change-out chemical drums, as needed;
- Make up 500-gallon batch of flocculant;
- Transfer sludge from IPC to thickener tank;
- Process sludge from thickener through filter press, and drum filter press cake material.

Monthly System O&M Inspections:

- Inspection and cleaning of IPC, as needed;
- Record total volume of leachate recovered and average recovery flow rates;
- Inspect extraction well operation, and clean pumps, as needed;
- Collect system influent samples and submit for laboratory analysis of site-specific contaminants of concerns (COCs) (results are summarized in Section 6.2.1);
- Collect system mid-treatment samples (post-catch tank, post Cell #2 and #3) and submit for laboratory analysis of site-specific COCs (results are summarized in Section 6.2.2);
- Collect system effluent (Polishing Pond Effluent)) and submit for laboratory analysis of site-specific COCs (results are summarized in Section 6.2.3).

Site Maintenance:

- Site Maintenance activities that have been completed include mowing of the area around the treatment building and CWTS, and the trimming of phragmites to limit the growth of the plants to the CWTS.
- The landfill cap is mowed annually by the regional NYSDEC maintenance department.
- Landfill perimeter fencing, and gates are inspected and repaired, as needed.

5.2 System Operational Data

The system operational data for 2016 through 2017 is summarized in Table 1. These data include the average and cumulative recovered leachate flows and extraction well recovery rates.

Total extracted leachate flow readings were collected from individual extraction well flowmeters and summarized in Table 2. A cumulative total of 4,593,300 gallons of leachate was recovered by the system from January 2017 through November 2017. This total flow corresponds to an average recovery rate of approximately 9.6 GPM. Cumulative and average recovery flowrates, respectively, for each extraction well is provided below:

- EW-1 – 89,114 gallons, 0.3 GPM
- EW-2 – 90,832 gallons, 0.2 GPM
- EW-3 – 307,320 gallons, 1.0 GPM
- EW-4 – 4,108,034 gallons, 8.5 GPM

Sludge generation began in March-April 2017. The total volume of sludge cake generated and processed through the treatment system through November 2017 is approximately 1,200 gallons. Based on the concentrations of PCBs in the sludge, the sludge cakes are profiled and disposed as a Toxic Substances Control Act (TSCA) waste. The sludge cakes are transported offsite in drums by Veolia at a minimum

frequency of every 90 days. The waste stream is processed and disposed at Veolia's incineration facility in Port Arthur, Texas.

6 PERFORMANCE AND EFFECTIVENESS MONITORING

Performance and effectiveness monitoring are currently completed in accordance with the 2015 SMP and in consultation with NYSDEC. The Monitoring Plan will be revised and updated in 2018 to reflect the RSO upgrades and will include revised sampling locations and requirements for evaluation of the leachate collection and treatment system, groundwater, surface water, and sediment.

6.1 Leachate Collection System

Leachate collection system samples are currently collected from extraction wells EW-1, EW-2, and EW-3 and leachate collection well EW-4 on a quarterly basis. The samples are analyzed for VOCs, PCBs, Metals, total dissolved solids (TDS), and total suspended solids (TSS). A summary of data for each is sample location is provided in Table 3 (EW-1), Table 4 (EW-2), Table 5 (EW-3), and Table 6 (EW-4).

6.1.1 VOCs

Tables 3 through Table 6 show that VOCs were detected in samples from each of the extraction wells at concentrations greater than the applicable NYSDEC Class GA Standards. BTEX (benzene, toluene, ethylbenzene, and xylene) and chlorinated solvents are present in the samples from EW-1 at concentrations significantly greater than the respective NYSDEC Class GA Standards. The Samples from EW- 2 and EW-3 contained benzene, chlorobenzene, and/or 1,4-dichlorobenze at concentrations greater than the corresponding NYSDEC Class GA Standards. As shown in Table 6, no VOCs were detected at concentrations greater than the NYSDEC Class GA Standards in the samples from leachate collection well EW-4.

6.1.2 PCBs

As shown in Table 3, the concentrations of PCB Aroclor 1060 in the May, July, and October 2017 samples from extraction well EW-1 were 910 micrograms per liter (ug/L), 250 ug/L, and 3,300 ug/L, respectively. Table 3 shows that these concentrations are significantly greater than the NYSDEC Class GA Standard of 0.09 ug/L. The samples from Leachate collection well EW-4 ranged from 0.29 ug/L in the May 2017 samples to 0.63 ug/L in the July 2017 samples. As shown in Table 4 and Table 5, the samples from extraction wells EW-2 and EW-3 did not contain any PCBs at concentrations greater than the indicated laboratory quantitation limits.

6.1.3 Metals

As shown in Tables 3 through Table 6, iron, magnesium, manganese, and/or sodium were detected in the samples from extraction wells EW-1, EW-2, and EW-3 and leachate collection well EW-4 at concentrations greater than the corresponding NYSDEC Class GA Standards. As shown in Table 3, the maximum concentrations of iron (82 milligrams per liter (mg/L)), magnesium (58 mg/L) and sodium (210 mg/L) were reported in the samples form EW-1. The maximum concentration of manganese was reported in the samples from EW-4 (2.0 mg/L).

6.1.4 TDS and TSS

As shown in Table 3, the maximum concentration of TDS (1,300 mg/L) was reported in the samples from EW-1. Table 4 shows that the maximum concentration of TSS was reported in the sample from EW-2 (120 mg/L).

6.1.5 Perfluorinated Alkyl Substance

At the request of the NYSDEC, Perfluorinated Alkyl Substances (PFAS) were added to the leachate collection system sample analyses in August 2017. The total PFAS concentrations in the August 2017 samples from the extraction wells and leachate recovery well ranged from 37.6 nanograms per liter (ng/L) in EW-4 to 1590.3 ng/L in EW-1. The current NYSDEC Health Advisory Limit (HAL) for PFAS in groundwater is 70 ng/L.

6.2 Leachate Treatment System

As indicated in Section 3.5, leachate enters the treatment plant (influent) and is treated for iron and solids removal through chemical amendments and the ICP. After treatment in the ICP, the water is discharged by gravity to the Clarifier Catch Tank. From there, water is pumped in batches to the CWTS (Cell 3 and Cell 2, respectively) for additional treatment. Water discharged from Cell 2 is pumped to the inlet of Polishing Pond for additional clarification. The water that discharges from the Polishing Pond is the final effluent of the treatment system. The effluent discharges by gravity to the Glens Falls Feder Canal. The analytical data presented below are provided in the order of sequence that leachate is processed through the treatment system. Figure 3 provides a graphic representation of the analytical results for VOCs, PCBs, and iron from the June, August, and November 2017 sampling events.

The treatment system effluent limitations from the O&M Manual, which are discharged under a state pollutant discharge elimination system (SPDES) equivalency permit to the Glens Falls Feeder Canal, are listed on Table 7. The effluent limitations are generally based on the NYSDEC, Division of Water, Technical and Operational Guidance Series 1.1.1 (TOGS 1.1.1), “Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations”, dated June 1998, using water class A, A-S, AA, AA-S, B, C (source of drinking water with fish propagation) – Type H(WS) and A(C).

6.2.1 Influent Analytical Results

The monthly influent concentrations of VOCs, PCBs, Metals, and TDS/TSS in leachate are provided in Table 8.

Cumulative influent concentrations during 2017 ranged from non-detect (ND) to 21 μg/L for cis-1,2-dichloroethene (DCE), ND to 19 μg/L for vinyl chloride(VC), and ND to 80 μg/L for total PCBs. Select metal influent concentrations were as follows; 10 to 71 milligrams per liter (mg/L) for iron and ND to 2.1 mg/L for manganese. Influent concentrations of TDS and TSS ranged from 220 mg/L to 620 mg/L, and 12 mg/L to 110 mg/L, respectively. As shown in Table 8, the concentrations of VOCs, PCBs, iron, and TSS/TDS all increased beginning in May 2017, which corresponds to the reactivation of extraction well EW-1. The July 2017 influent concentration of total PFAS was 59.7 ng/L.

6.2.2 Mid-Treatment Analytical Results

6.2.2.1 Clarifier Catch Tank

As shown in Tables 9, iron concentrations in samples from the Clarifier Catch Tank since full-scale treatment plant operations have been implemented (March 2017) ranged from 0.89 mg/L to 13 mg/L. In comparison to the influent iron concentrations, this represents an average iron reduction of approximately 60%. This includes the August 2017 data when the chemical oxidant (bleach) was not being added to the influent due to a maintenance issue. Therefore, the average reduction rate is likely greater than 60%.

Tables 8 and 9 show that, compared to influent concentrations, there is no significant reduction in VOCs or PCBs resulting from treatment in the IPC.

Since December 2016, TDS concentrations have ranged from 380 mg/L (October 2017) to 550 mg/L (May 2017); TSS concentrations have ranged from ND (February 2017) to 120 mg/L (December 2017).

The PFAS concentration in the August 2017 sample was 88.8 ng/L.

6.2.2.2 Cell 3

Samples from Cell 3 can be collected from two locations; where water discharges Cell 3 and enters the bypass pipe that connects Cell 3 to Cell 2 (Cell 3 Bypass), or from the Cell 3 level control chamber (Cell 3 Chamber) (Figure 2). Prior to installation of the bypass pipe, and prior to the Cell 3 water level reaching the invert of the newly installed bypass pipe, no samples were collected from this location. Therefore, samples from Cell 3 prior to June 2017 were collected from Cell 3 Chamber. A summary of data from each location are provided below and presented in Table 10 (Cell 3 Chamber) and Table 11 (Cell 3 Bypass).

Cell 3 Chamber

As shown in Table 10, between September 2017 and June 2017, the concentrations of DCE and VC in the samples from Cell 3 Chamber have ranged from ND to a maximum of 3.2 μg/L and 1.3J μg/L, respectively. No PCBs were detected in any of the samples between September 2016 and June 2017.

Iron and manganese concentrations ranged from ND and 0.053 mg/L, respectively (April 2017) to a maximum of 19 mg/L and 2.3 mg/L, respectively in May 2017.

Between September 2016 and June 2017, TDS concentrations ranged between 210 mg/L and 490 mg/L and TSS concentrations ranged from ND to 41 mg/L.

Cell 3 Bypass

As shown in Table 11, since July 2017, the concentrations of DCE in the Cell 3 Bypass samples have ranged from 0.85J μg/L to a maximum of 9.2 μg/L and VC concentrations have ranged from ND to 4.2 μg/L. The November 2017 samples from Cell 3 Bypass contained 1,2-dichlorethane (0.74J μg/L) and 1,2-thrichloroethane (1.1 μg/L) at concentrations greater than the respective NYSDEC Standards. Benzene (0.14J μg/L), bromodichloromethane (1μg/L), and chlorodibromomethane (0.16J μg/L) were detected for this first time in the November 2017 samples from Cell 3 Bypass.

Since June 2017, total PCB concentrations have ranged from 0.44 μg/L (June 2017) to 3.9 μg/L (September 2017).

Between June and November 2017, iron and manganese concentrations have decreased from a maximum of 16 mg/L and 1.9 mg/L, respectively, to 1.7 mg/L and 0.61 mg/L, respectively. However, these results continue to exceed the corresponding NYSDEC Class GA Standards.

Since June 2017, TDS concentrations have ranged from 240 mg/L to 590 mg/L and TSS concentrations have ranged from ND to 54 mg/L.

The concentration of total PFAS in the July 2017 sample was 24 ng/L.

6.2.2.3 Cell 2

Samples from Cell 2 are collected where Cell 2 discharges into the Cell 2 level control chamber. As indicated in Section 6.2, water that is discharged from the treatment plant enters Cell 2 from the Cell 2/3 Bypass pipe. As indicated in Section 6.2.2.2, water did not start flowing through the Cell 2/3 Bypass pipe until June 2017. Therefore, samples collected from the Cell 2 chamber prior to June 2017 do not represent current operating conditions. Analytical data from Cell 2 are provided in Table 12.

Prior to June 2017, the only VOCs detected in the samples from Cell 2 was 1,2-dibromo-3-chloropropane. This compound was detected in September and November 2016 samples at 8.2J μg/L and 15J μg/L, respectively. Since June 2017, none of the samples from Cell 2 have contained 1,2-dibromo-3-chloropropane above the indicated quantitation limits. In June 2017, the concentrations of DCE was 2.3 μg/L. The concentrations of DCE increased to a maximum of 6.7 μg/L in September 2017 then decreased to 1.5 μg/L in November 2017. VC concentrations increased from ND in June 2017 to a maximum of 1.6J in the August 2017 samples from Cell 2.

6.2.2.4 Cell 1

Cell 1 has not been used as part of the leachate treatment system since prior to September 2016. Therefore, analytical samples are not collected from this cell on a regular basis. However, due to precipitation events and potential groundwater infiltration into the treatment cell, Cell 1 continues to discharge into collection well W5. Therefore, discharge from Cell 1 is still contributing to the Polishing Pond. As shown in Table 13, none of the 2017 samples from Cell 1 contained detectable concentrations of VOCs or PCBs. The last time samples were collected form Cell 1 (July 2017), Iron (8.2 mg/L) and manganese (0.85 mg/L) were the only metals detected at concentrations greater than the applicable NYSDEC Class GA Standards.

In July 2017, the TDS and TSS concentrations were 380 mg/L and ND, respectively. The total PFAS concentration in the July 2017 samples from Cell 1 was 41.4 ng/L.

6.2.3 Effluent Analytical Results

As shown in Table 14, DCE was detected in the June and November 2017 Polishing Pond effluent samples at 0.17 μg/L and 0.20 μg/L, respectively. With the exception of acetone (a common laboratory contaminant) and one detection of toluene (0.2 μg/L) in February 2017, no other VOCs have been detected in the effluent samples between September 2016 and November 2017.

Table 14 shows that no PCBs have been detected in the Polishing Pond effluent samples between September 2016 and November 2017.

Between September 2016 and November 2017, iron concentrations have ranged from ND (October 2017) to 6.0 mg/L in September 2016. Since the RSO upgrades were implemented, the maximum iron concentration was 4.4 mg/L (June 2017). Since then, the concentrations of iron have generally decreased. The November 2017 iron concentration was 1.5 mg/L, which represents an approximately 95% reduction in iron compared to the November 2017 influent concentration (28 mg/L). However, as shown in Table 14, this result is still more than twice the corresponding SPDES Effluent Limit.

Since September 2016, the concentration of manganese has ranged from 0.29 mg/L (October 2016) to a maximum of 2.4 mg/L (September 2017). However, since September 2017, the concentrations of manganese have decreased. The November 2017 manganese concentration was 0.85 mg/L, which is greater than the corresponding SPDES Effluent Limit.

Since September 2016, TDS concentrations have ranged from 190 mg/L (February 2017) to 520 mg/L (November 2017) and the concentrations of TSS have fluctuated between ND and a maximum of 42 mg/L (June 2017).

The July 2017 concentration of total PFAS was 38.2 ng/L, which is less than the current NYSDEC HAL of 70 ng/L.

6.3 Groundwater

Groundwater monitoring was conducted in August 2017 in accordance with the five-quarter sampling frequency defined in the site SMP and in consultation with NYSDEC. The data were provided to the NYSDEC in the Annual Groundwater Monitoring Report (Arcadis, 2017). At the request of the NYSDEC, PFAS and 1,4-dioxane were included in the analytical parameters for the August 2017 sampling event. The tables and figures discussed in Sections 6.3 through 6.5 are provided in Appendix B.

During the sampling event, monitoring wells (MW-1, MW-1A, MW-1D, MW-2, MW-2A, MW-5, MW-6, MW-6A, MW-6B, MW-7, MW-8, MW-9 (formerly MW-NEW), and MW-11), three extraction wells (EW-1 through EW-3), and leachate collection well EW-4 (Figure B2) were sampled. What had been called monitoring well MW-4 was not sampled because Arcadis determined that it is a clean-out for a former force main and not a monitoring well. Monitoring well MW-10 was sampled during this event, but was later determined to also be a former force main clean-out. Therefore, data collected from this location will not be discussed. The next scheduled groundwater sampling event will be in Fourth Quarter 2018.

6.4 Groundwater Sampling

Prior to sampling each well, a depth-to-water measurement is taken using an electronic water level indicator. Table B1 summarizes the depths to groundwater measured during the August 2017 sampling event. Potentiometric contours based on groundwater levels measured in monitoring wells screened in the shallow deltaic sand unit (listed in Section 2) are presented on Figure B2. As shown on Figure B2, the direction of groundwater flow is generally toward the east-southeast, consistent with previous measurements.

Each monitoring well was sampled in accordance with United States Environmental Protection Agency (USEPA) low-flow groundwater sampling techniques using either a bladder pump or a peristaltic pump, each with single-use disposable tubing. Prior to use at each monitoring well, the bladder pump was decontaminated in an Alconox bath followed by a perfluorinated compound (PFC) - free water rinse. Grab samples were collected at each extraction well and the leachate collection well using dedicated polyvinyl chloride (PVC) disposable bailers.

Prior to sampling, groundwater was pumped through a flow cell equipped with a multi-parameter probe (e.g., YSI®) and temperature, conductivity, pH, turbidity, dissolved oxygen (DO), and oxidation-reduction potential (ORP) measurements were recorded on groundwater sampling purge logs. All groundwater samples were collected in laboratory-provided containers in decreasing order of volatility. Samples were packed on ice, placed in cooler, and submitted under Chain-of-Custody procedures to Con-Test for analysis of Target Compound List (TCL) VOCs, Target Analyte List (TAL) metals and mercury, PCBs, TDS, and TSS.

6.4.1 Groundwater Sampling Results

6.4.1.1 VOCs

The August 2017 analytical data for VOCs are summarized on Table B2 and Figure B10. VOCs were detected at concentrations greater than the NYSDEC Class GA Standards in wells screened in the shallow delta sands (MW-5, MW-6, MW-9), the interbedded sand and clay (MW-6A), and the landfill waste/delta sand interface (EW-1, EW-2, and EW-3) as summarized below:

- Benzene (2.1 μg/), DCE (50 μg/L), VC (710 μg/L), and 1,4-dioxane (110 μg/L) in samples from MW-5.
- Benzene (3.2 μg/L), chlorobenzene (23 μg/L), and 1,4-dioxane (3.2 μg/L) in samples from MW-6.
- 1,3-dichlorobenzene (4.0 μg/L), 1,4-dichlorobenzene (3.1 μg/L), 1,4-dioxane (9.6 μg/L), and 1,2,4-trichlorobenzene (6.1 μg/L) in samples from MW-6A.
- 1,4-dioxane was detected at 5.2 μg/L in samples from MW-9.
- Benzene (10 J μg/L), chlorobenzene (7.8 J μg/L), 1,1-dichloroethene (7.5 J μg/L), cis-1,2-dichloroethene (1,600 μg/L), trans-1,2-dichloroethene (16 J μg/L), VC (3,000 μg/L), m- and p-xylene (24 J μg/L), and 1,4-dioxane (140 μg/L) in samples from extraction well EW-1.
- Benzene (4.7 μg/L) and 1,4-dioxane (48 μg/L) in samples from EW-2.
- Benzene (4.6 μg/L), chlorobenzene (32 μg/L), 1,4-dichlorobenzene (6.5 μg/L), and 1,4-dioxane (74 μg/L) in samples from EW-3.

Total VOC concentration trends for upgradient and downgradient monitoring locations from May 1995 to August 2017 are presented on Figures B3 and B4, respectively. As shown on Figure B3, the total VOC concentrations in the upgradient wells have generally decreased from 2010 through 2017, with the exception of the 2016 sample from MW-1A (451μg/L). Prior to 2016, the maximum concentration of total

VOCs in samples from this well was detected in 1995 (11 μg/L). In 2017, no VOCs were detected in the samples from MW-1A. Therefore, the 2016 result may be anomalous.

As show on in Figure B4, the total VOC concentrations in downgradient monitoring wells have been generally consistent since 2007. At MW-6A, VOC concentrations increased from 8.0 μg/L to 67.7 μg/L between 2007 and 2011 and since then has decreased to 27.26 μg/L in 2017. MW-6 total VOC concentrations have remained relatively constant between 2007 and 2012 (at approximately 23 μg/L), but increased slightly to 40.75 μg/L in 2015 and then decreased to 29.71 μg/L in 2017. No VOCs have been detected at MW-6B since May 1999, with the exception of a low total VOC concentration of 0.94 μg/L in 2015. The concentrations of total VOCs in the samples from MW-2A was 0.28 J μg/L. As shown in Table B15, the last detection of VOCs in samples from this well was in 2004 (4.0 μg/L).

The concentration of total VOCs in the sample from MW-9 in 2017 was 5.2 μg/L. As shown in Table B15, the last detection of VOCs in samples from this well was in 2004 (4.0 μg/L).

As shown in Table B15, total VOC concentrations in extraction wells EW-1 through EW-3 have generally increased since 2013. The extraction wells were not in operation in 2016 and were brought back online in May 2017.

The concentration of total VOCs in leachate collection well EW-4 was 3.99 μg/L. As shown in Table B15, EW-4 has not been analyzed for VOCs since 2013. However, the concentrations between the 2013 sampling event (1.2 μg/L) and 2017 are in the same order of magnitude.

6.4.1.2 PCBs

PCB data for the 2017 groundwater sampling event are summarized in Table B3 and Figure B10. Historical results for PCBs in upgradient and downgradient monitoring wells are presented on Figures B5 and Figure B6, respectively.

As shown in Table B3, PCBs were not detected in any of the samples collected from the groundwater monitoring wells during the 2017 sampling event. However, as shown on Figures B4 and B5, PCBs have historically been detected in both upgradient and downgradient groundwater samples since 2012. The absence of PCBs in the 2017 samples may possibly be explained by differences in groundwater sampling techniques. In 2016, groundwater samples were collected by purging multiple well volumes using an electric submersible sample pump prior to sample collection. As indicated in Section 2.3, in 2017, groundwater sampling was performed in accordance with USEPA low-flow sampling techniques. This method limits drawdown and disturbance in the well during purging and sampling. Therefore, higher the concentrations of PCBs may correspond to sampling events where more aggressive purging techniques were used, which could mobilize PCBs that were entrained (particulates/soil) in the sand pack of the monitoring well and/or the surrounding formation.

Table B3 shows that PCBs Aroclor 1016 was detected in the samples from extraction well EW-1 (250 μg/L) and leachate collection well EW-4 (0.63 μg/L) at concentrations greater than the corresponding NYSDEC Class GA Standard. Figure B10 and Table B15 show that these concentrations are less than the historic PCB results at these locations.

6.4.1.3 Metals

Metals data for the 2017 groundwater sampling event are summarized in Table B4. As shown in Table B4, with the exception of MW-8, at least one metal was detected at a concentration greater than the respective NYSDEC Class GA Standards in samples from the 13 monitoring wells, extraction wells EW-1 through EW-3, and leachate collection well EW-4. The most frequent exceedances were iron, magnesium, manganese, and sodium. Arsenic was detected in only two samples (MW-5 and EW-2) at concentrations equal to or slightly greater than the respective NYSDEC Class GA Standard of 0.025 mg/L.

Iron

Iron concentrations exceeded the NYSDEC Class GA Standard (0.3 milligrams per liter [mg/L]) in groundwater samples from nine of the 13 monitoring wells, all three extraction wells, and the leachate collection well during the 2017 sampling event. The concentrations exceeding the NYSDEC Class GA Standard ranged from 0.37 mg/L (MW-1D) to 160 mg/L (MW-7) (Table B4).

Historical data trends for iron are summarized in Table B15 and presented in Figures B7 and B8. As shown on Figure B7, iron concentrations in samples from upgradient monitoring wells have generally been decreasing since 2007, and were all less than the corresponding NYSDEC GA Standard in 2016. With the exception of the sample from MW-1D (0.37 mg/L) in 2017, the concentrations of iron in the upgradient wells remain below the respective NYSDEC Class GA Standard. As shown in Figure B8, the iron concentrations in the samples from down gradient monitoring wells were all greater than the corresponding NYSDEC Class GA Standard of 0.03 mg/L.

Magnesium

Three of the 13 groundwater samples and the three extraction well samples (EW-1 through EW-3) in 2017 contained concentrations of magnesium that exceeded the NYSDEC Class GA Standard (35 mg/L). As shown in Table B4, the concentrations of magnesium that exceeded the NYSDEC Class GA Standard ranged from 39 mg/L (EW-1) to 150 mg/L in the sample from MW-9.

Manganese

Manganese concentrations exceeded the NYSDEC Class GA Standard (0.3 mg/L) in samples from six monitoring wells, extraction wells EW-1 and EW-2, and the leachate collection well during the 2017 groundwater sampling event (Table B4). Manganese concentrations exceeding the NYSDEC Class GA Standard ranged from 0.31 mg/L in the sample from MW-2A to 3.4 mg/L in the sample from MW-7.

Sodium

As shown in Table B4, sodium concentrations exceeded the NYSDEC Class GA Standard (20 mg/L) in samples from 10 of the 13 monitoring wells, the three extraction wells, and the leachate collection well samples collected during the 2017 sampling event. The concentrations of sodium that exceeded the NYSDEC Class GA Standard ranged from 23 mg/L in the sample MW-1A, to 230 mg/L in the sample from MW-5.

6.4.1.4 General Chemistry

As shown in Table B5, TDS concentrations ranged from 40 mg/L to 1,200 mg/L, and TSS concentrations ranged from non-detect to 220 mg/L. In general, the lowest concentrations of TDS and TSS were reported in samples from the upgradient monitoring locations and the highest concentrations were reported in samples from the downgradient monitoring locations.

6.4.1.5 PFAS

As shown in Table B5, PFAS compounds were detected in samples from 11 of the 13 monitoring wells at concentrations ranging from non-detect to 190 ng/L. As shown in Table B6, total PFAS concentrations were greater than the NYSDEC HAL in the samples from MW-2 (90.13 ng/L), MW-5 (391.40 ng/L), MW-9 (184.40 ng/L), EW-1 (1,590.3 ng/L), EW-2 (136.70 ng/L), and EW-3 (129 ng/L).

6.5 Surface Water and Sediment Sampling

Surface water and sediment samples were collected in accordance with the SMP. However, after evaluating the previous sample data there was some uncertainty of sampling locations. Therefore, surface water and sediment sampling locations were re-established prior to this event in consultation with the NYSDEC. With the exception of the off-site samples from the Glens Falls Feeder Canal (GFFC1, GFFC2, and GFFC3), the revised sampling locations were marked with a wooden stake and surveyed by a licensed surveyor in April 2017 (Figure B9).

Six surface water samples and sediment samples were collected at the following locations; Unnamed Pond, Polishing Pond Influent, Polishing Pond Effluent, and three locations within the Glens Falls Feeder Canal (GFFC1, GFFC2, and GFFC3). Three additional sediment samples were collected from the constructed wetland treatment cells (CWTC) (Cell 1, Cell 2, and Cell 3). Surface water samples were analyzed for VOCs, PCBs, metals, TDS, TSS, PFAS, and 1,4-dioxane. Sediment samples were analyzed for VOCs, PCBs, and metals.

6.5.1 Surface Water Sampling Results

Surface water sample analytical results are discussed below and are summarized in Tables B7 through B11.

Prior to collecting surface water samples, pH, conductivity, turbidity, DO, temperature and ORP were measured using a water quality meter and recorded on surface water sampling logs (Appendix A). Surface water samples were collected by slowly submerging dedicated, unpreserved sample containers in surface water to minimize disturbance of any sediment or vegetation during sampling. The samples were then poured into the required sample containers.

6.5.1.1 VOCs

As shown in Table B7, VOCs were not detected at concentrations greater than the NYSDEC Class GA Groundwater Standards in any of the surface water locations. Table B7 shows that 1,4-dioxane was detected in the samples collected from Unnamed Pond (14 μg/L), Polishing Pond Influent (6.5 μg/L), and Polishing Pond Effluent (2.4 μg/L). Low estimated concentrations of acetone were also detected at

Unnamed Pond and Polishing Pond Effluent at 9.9 J μg/L and 9.2 J μg/L, respectively. Cis-1,2-dichloroethene was detected in the Polishing Pond Influent sample at 2.6 μg/L.

6.5.1.2 PCBs

As shown in Table B8, PCBs were not detected in any of the surface water sampling locations at concentrations greater than the indicated quantitation limits.

6.5.1.3 Metals

Metals were detected in one or more of the surface water samples collected during the 2017 sampling event, including aluminium, arsenic, barium, calcium, iron, magnesium, manganese, potassium, sodium, and zinc. As show in Table B9, iron, manganese, and sodium were the only metals detected at concentrations greater than the corresponding NYSDEC standards. Table B9 shows that the only metals to exceed the NYSDEC Class GA Standards in Glens Falls Feeder Canal samples were Manganese in GFFC-1 (20 mg/L) and iron in GFFC-2 (0.31). The iron exceedances in the samples from Unnamed Pond and the Polishing Pond ranged from 2.3 mg/L (Polishing Pond Influent) to 5.5 mg/L (Polishing Pond Effluent). Sodium concentrations in the samples from Unnamed Pond, Polishing Pond Influent and Polishing Pond Effluent samples were 60 mg/L, 58 mg/L, and 48 mg/L, respectively. As shown in Table B9, these concentrations exceed the corresponding NYSDEC GA Standard of 20 mg/L. Manganese exceeded the NYSDEC Class GA Standard concentration of 0.3 mg/L in the samples from the Polishing Pond Influent (1.0 mg/L) and Polishing Pond Effluent (0.9 mg/L).

6.5.1.4 General Chemistry

As shown in Table B10, TDS concentrations ranged from 46 mg/L in the sample from GFFC1 to 420 mg/L in the Polishing Pond Influent and Polishing Pond Effluent samples. TSS were below the reporting limit in the samples from Unnamed Pond, GFFC1 and GFFC3. The maximum TSS concentration was in the Polishing Pond Effluent sample (110 mg/L).

6.5.1.5 PFAS

PFAS concentrations are summarized in Table B11. Individual PFAS compounds were detected in the samples from Unnamed Pond, Polishing Pond Influent and Polishing Pond Effluent. Total PFAS concentrations were greater than the NYSDEC HAL of 70 ng/L in the samples from Unnamed Pond (210.47 ng/L) and Polishing Pond Influent (391.40 ng/L). As shown in Table B11, PFAS were not detected in the samples from the Glens Falls Feeder Canal (GFFC1, GFF2, and GFFC3) with the exception of a low estimated detection of Perfluoroheptanoic acid (PFHpA) in the sample from GFFC2 (0.9 J ng/L).

6.5.2 Sediment Sampling Results

Sediment sample analytical results are discussed below and are summarized in Tables B12 through B14.

Sediment samples were collected immediately following the collection of the surface water samples (Section 3.1). Sediment samples were collected from a depth of 0 to 0.5 feet below the sediment surface and placed directly into laboratory provided sample jars.

6.5.2.1 VOCs

Table 12 shows that only three of the nine sediment sample locations contained VOCs at concentrations greater than the respective laboratory reporting limits. As shown in Table B12, the concentration of total VOCs in these samples ranged from 0.0071 milligrams per kilogram (mg/kg) in the Cell 3 sample to 0.632 in the Cell 1 sample.

6.5.2.2 PCBs

PCB-1248 and PCB-1254 were detected in the sediment sample from the Glens Falls Feeder Canal location GFFC1 at concentrations of 0.32 mg/Kg and 0.23 mg/Kg, respectively. As shown in Table B13, no PCBs were detected in any of the other sediment samples.

6.5.2.3 Metals

Metals were detected in all of the sediment samples, including aluminium, barium, beryllium, calcium, chromium, cobalt, copper, iron, lead, magnesium, manganese, mercury, nickel, potassium, sodium, vanadium, and zinc. Metal concentrations for sediment samples are provided on Table B14.

7 SUMMARY AND RECOMMENDATIONS

The following sections summarize the leachate collection and treatment system operation and performance, and groundwater data conclusions for the 2016 - 2017 reporting period.

7.1 Performance Summary

Since the RSO upgrades have been implemented, the rate of leachate being collected and treated through the treatment system has increased from approximately 3 GPM to an average of 9 GPM. In addition, the influent concentrations of VOCs, PCB, and metals have increased significantly, primarily due to contributions from extraction well EW-1.

Treatment plant upgrades account for an average iron reduction of 60% through the ICP, with up to 95% iron removal through additional treatment in the CWTS and Polishing Pond. However, iron results from Cell 2 and Cell 3 indicate that iron loading in the CWTS will likely result in continued exceedances for iron (and other metals) from the Polishing Pond. Additionally, sludge accumulations observed in EW-4; Level Control Sumps 1, 2, and 3; and pump station W5, will also contribute to contaminant loading. VOC and PCB data show that there is generally no significant reduction in concentrations through treatment in the ICP. VOC and PCB mass removal are generally accomplished through treatment in the CWTS (Cell 2 and Cell 3). However, since EW-1 was restarted, the concentrations of VOCs and PCBs in samples from Cell 2 and Cell 3 have generally increased. Therefore, continued contaminant loading of VOCs and PCBs from EW-1 in Cell 2 and Cell 3 may result in future detections of these compounds in the Polishing Pond.

Total concentrations of VOCs appear to be decreasing within the monitoring well network. In addition, PCB concentrations have dropped to non-detect levels in all upgradient and downgradient monitoring wells. However, the recent change in groundwater sampling technique may explain the absence of PCBs reported in samples from groundwater monitoring wells across the site. VOCs and/or PCBs were detected in the samples from extraction wells EW-1 thorough EW-3 and leachate collection well EW-4. Consistent with previous years, the maximum concentrations of VOCs and PCBs were reported in the samples from EW-1. None of the surface water samples collected from the site or the Glens Fall Feeder Canal contained VOCs at concentrations greater than the applicable NYSDEC Standards or PCBs at concentrations greater than the laboratory quantitation limits. The sediment samples from Cell 1 and Cell 3 were the only samples to contain detectable levels of VOCs. The only sediment sample to contain detected levels of PCBs was in the upgradient sample from the Glens Falls Feeder Canal (GFFC1).

A total of five metals were detected in groundwater at concentrations exceeding the NYSDEC Class GA Standards, with iron and sodium concentrations exceeding in the majority of the wells. In general, most of the detected metals in groundwater remain consistent with historical results. Surface water samples contained iron, magnesium and sodium concentrations greater than the NYSDEC Class GA Standards.

PFAS sampling was conducted in 2017 at the request of the NYSDEC. PFAS were detected at concentrations greater than the NYSDEC HAL of 70 ng/L in samples from three downgradient monitoring wells, three extraction wells, and the surface water samples from Unnamed Pond and the Polishing Pond. The maximum concentration of PFAS was in the sample from EW-1 (1,590.3 ng/L).

7.2 Comparison to Remedial Action Objectives

In general, the RAOs presented in Section 4 of this report are being met with respect to human health because the ICs for the site prohibit the use of groundwater from the site and the EC (landfill cap and perimeter fence) prevent exposure, ingestion, or direct contact with contaminated media. However, surface water samples from the Polishing Pond have contained low-level VOCs (1,4-dioxane and cis-1,2-DCE); concentrations of iron, manganese, and sodium greater than the respective NYSDEC Standards; and PFAS at concentrations greater than the NYSDEC HAL.

The RAOs are not being met for environmental protection since there continue to be concentrations of VOC, PCBs, metals and/or PFAS greater than the respective NYSDEC Standards or NYSDEC HAL in groundwater and surface water samples from the site.

The following conclusions discuss the effectiveness, and deficiencies, of the Site's remedial system in comparison to the applicable Site RAOs:

- RAO 1 - Prevent ingestion of groundwater outside of the landfill boundaries with contaminant levels exceeding drinking water standards:
    - Residential and commercial properties adjacent to the landfill have been connected to the municipal water supply, thereby preventing the ingestion of impacted groundwater from private wells immediately adjacent to the Site. However, the downgradient monitoring well samples have contained concentrations that exceed the applicable standards for VOCs, PCBs, and metals (most commonly iron, manganese, magnesium, and sodium) and the extent of the groundwater plume beyond those wells is unknown.
- RAO 2 - Prevent contact with or inhalation of volatiles from contaminated groundwater:
    - Inhalation and contact with impacted vapors has been minimized by supplying homes adjacent to the landfill with municipal water. Groundwater or vapor intrusion impacts have not been observed in the vicinity of the homes adjacent to the landfill, based on the soil vapor intrusion investigation (HRP, 2013).
- RAO 3 - Prevent the discharge of contaminants to surface water:
    - Data from the 2013 - 2017 reporting period indicate that the leachate collection and treatment system has only been partially effective at recovering leachate from the subsurface at the Site, this is demonstrated through the following metrics:
        - Groundwater quality in the monitoring well network continues to indicate that leachate is not being fully captured by the collection system and continues to impact the surrounding groundwater; and
        - The metals concentrations (primarily iron) in the leachate treatment system effluent continue to exceed the SPDES equivalent discharge limitations.

Based on these data, the ECs are not functioning as designed and certification of the remedy is not possible at this time. The IC/EC Certification forms are provided in Appendix C.

7.3 Recommendations

7.3.1 Short Term

The recommendations and planned action items for future site operations are presented below. System operation and performance monitoring will continue to focus on optimizing the iron removal and overall treatment efficiency of existing collection system network and the associated treatment systems.

The following items are recommended to further optimize the leachate recovery and treatment system:

- Perform pipe inspections and jetting on leachate collection lines to improve leachate collection from the landfill cell.
- Remove accumulated sludge in leachate collection well EW-4, which can result in lower leachate recovery rates.
- Evaluate options for enhancing the capacity of EW-4 if pipe jetting results in increased flow rates to the EW-4 leachate collection well.
- Perform pipe inspection and jetting on force main and inlet gallery to Cell 3. This could remove decades of accumulated iron that have fouled the inlet piping and may result in improved treatment efficacy of the treatment Cell.
- Remove iron sludge from CWTS level chambers for Cells 1, 2, and 3; and collection sump W5. The accumulated iron sludge in these locations contributes to iron loading of the Polishing Pond.
- Evaluate if VOC removal is possible within the IPC. Air diffusers placed in the IPC, for example, may volatize VOCs before they are discharged to the CWTS. This would reduce contaminant loading of the CWTS and the potential for VOCs impacts to the Polishing Pond.
- Evaluate if post-IPC filtration can result in lower concentrations of iron and PCBs. Reduced concentrations of iron and PCBs would reduce contaminant loading of the CWTS and the potential for future impacts to the Polishing Pond.
- Evaluate options for monitoring and protecting the treatment plant electrical components from power surges or partial loss of power (i.e. loss of one leg of three phase power). The October 2017 power failure resulted in down-time and equipment damage. Installation of a phase monitor or other device could prevent future equipment damage and reduce system downtime.
- Evaluate discharge pump options for W5. This pump is occasionally overwhelmed during high run-off and/or precipitation events. Therefore, it may be necessary to upgrade the pump in W5.

The following recommendations are suggested for the Monitoring Program:

- Update the SMP with the revised data collection points established in 2017 in consultation with NYSDEC.
- Due to fluctuations in PCB results for groundwater, re-develop all monitoring wells and landfill piezometers to improve hydraulic properties and data quality.

7.3.2 Long Term

The following items should be considered to improve the long-term operation and maintenance and monitoring of the site:

- Install additional monitoring wells to evaluate down gradient groundwater impacts along the eastern side of the landfill cell. Currently, there is only one groundwater monitoring well along the eastern edge of the landfill cell (MW-5). Additional groundwater data should be collected to evaluate the horizonal and vertical extent of groundwater contamination.

If VOC, PCB, and metals removal can be accomplished in the treatment plant, such that discharge concentrations meet the required effluent criteria, then the following items should be considered:

- Change the location of the SPDES discharge point to the W5 overflow. During the RSO upgrades, a bypass pipe was installed that allows the treatment plant to discharge directly to the W5 sump. If the level in W5 is permitted to increase, it can discharge from the W5 overflow, which discharges to the Glens Falls Feeder Canal. This would eliminate the need to operate and maintain the CWTS (Cell 1, Cell 2 or Cell 3), W5 pump station, and the Polishing Pond.
- Evaluate options for closure of the CWTS. Phragmites plants should be eliminated and treatment cells abandoned.
- Evaluate options for additional capture of leachate along the eastern side of the landfill cell to reduce or eliminate surface water discharges. Options may include extending the leachate collection piping along the eastern side of the landfill or installing additional extraction wells.

8 REFERENCES

Arcadis, 2017. Fort Edward Landfill 2017 Annual Groundwater Monitoring Report, Site Number 558001. Arcadis CE, Inc., December 2017.

HRP, 2013. Soil Vapor Intrusion Investigation Report, Fort Edward Landfill, Leavy Hollow Lane, Fort Edward, New York 12828. Site ID #558001. HRP Engineering P.C., May 2013.

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HRP, 2015. Site Management Plan, Fort Edward Landfill, Washington County, Fort Edward, New York. NYSDEC Site #558001, HRP Engineering P.C., August 2015.

TABLES

Table 1
Leachate Collection System Recovery Volumes
Fort Edward Landfill, Fort Edward, NY
NYSDEC Site # 558001

Month	EW-1	EW-2	EW-3	EW-4	Gallons Per Month
January 2017	-	-	-	377,622	**377,622**
February 2017	-	-	-	365,085	**365,085**
March 2017	-	790	-	378,187	**378,977**
April 2017	-	12,893	284	321,751	**334,928**
May 2017	13,225	11,833	21,556	358,482	**405,096**
June 2017	15,799	13,986	46,800	366,488	**443,073**
July 2017	15,039	17,556	48,360	445,614	**526,569**
August 2017	13,341	14,956	48,360	412,728	**489,385**
September 2017	12,929	12,353	46,800	385,943	**458,025**
October 2017	7,324	254	48,360	289,752	**345,690**
November 2017	11,457	6,211	46,800	406,382	**470,850**
Jan-Nov 2017 Total	**89,114**	**90,832**	**307,320**	**4,108,034**	**4,595,300**

Table 2
Extraction Well Flow Rate
Fort Edward Landfill, Fort Edward, NY
NYSDEC Site # 558001

Month	EW-1	EW-2	EW-3	EW-4	Gallons Per Minute Per Month
January 2017	-	-	-	8.5	**8.5**
February 2017	-	-	-	9.1	**9.1**
March 2017	-	0.0	-	8.5	**8.5**
April 2017	-	0.3	0.0	7.4	**7.8**
May 2017	0.3	0.3	0.5	8.0	**9.1**
June 2017	0.4	0.3	1.1	8.5	**10.3**
July 2017	0.3	0.4	1.1	10.0	**11.8**
August 2017	0.3	0.3	1.1	9.2	**11.0**
September 2017	0.3	0.3	1.1	8.9	**10.6**
October 2017	0.2	0.0	1.1	6.5	**7.7**
November 2017	0.3	0.1	1.1	9.4	**10.9**
Jan-Nov 2017 Total	**0.3**	**0.2**	**1.0**	**8.5**	**9.6**

Table 3
Treatment System Analytical Data - EW-1
Fort Edward Landfill, Fort Edward, NY
NYSDEC Site # 558001

Chemical Name	NYSDEC Class GA GW Standard	NYSDEC Class GA GW Effluent Limitation	5/24/2017		7/31/2017		10/30/2017	
Volatile Organic Compounds (ug/L)								
ACETONE	50	50	17	J	50	U	11	J
BENZENE	1	1	**8.8**		**10**	**J**	**9.9**	
BROMOCHLOROMETHANE	5	5	1.0	U	1.0	U	1.0	U
BROMODICHLOROMETHANE	50	50	0.5	U	0.5	U	0.5	U
BROMOFORM	50	50	1.0	U	1.0	U	1.0	U
BROMOMETHANE	5	5	2.0	U	2.0	U	2.0	U
2-BUTANONE (MEK)	50	50	47		20	U	18	J
CARBON DISULFIDE	60	60	4.0	U	4.0	U	4.0	U
CARBON TETRACHLORIDE	5	5	5.0	U	5.0	U	5.0	U
CHLOROBENZENE	5	5	**7.4**		**7.8**	**J**	**8.9**	
CHLORODIBROMOMETHANE	50	--	0.5	U	0.5	U	0.5	U
CHLOROETHANE	5	5	2.0	U	2.0	U	0.33	J
CYCLOHEXANE	--	--	0.64		5.0	U	1.1	J
1,2-DIBROMO-3-CHLOROPROPANE	0.04	0.04	5.0	U	5.0	U	5.0	U
1,2-DIBROMOETHANE (ETHYLENE DIBROMIDE)	0.0006	0.0006	0.5	U	0.5	U	0.5	U
1,2-DICHLOROBENZENE	3	3	1.0	U	1.0	U	0.21	J
1,3-DICHLOROBENZENE	3	3	0.39	J	1.0	U	0.44	J
1,4-DICHLOROBENZENE	3	3	0.67	J	1.0	U	0.97	J
DICHLORODIFLUOROMETHANE	5	5	1.1	J	2.0	U	0.29	J
1,1-DICHLOROETHANE	5	5	1.0	U	1.0	U	1.0	U
CIS-1,2-DICHLOROETHYLENE	5	5	**320**		**1,600**		**840**	
TRANS-1,2-DICHLOROETHYLENE	5	5	**5.8**		**16**	**J**	**12**	
1,2-DICHLOROETHANE	0.6	0.6	1.0	U	1.0	U	1.0	U
1,1-DICHLOROETHYLENE	5	5	2.6		**7.5**	**J**	4.7	
1,2-DICHLOROPROPANE	1	1	1.0	U	1.0	U	1.0	U
CIS-1,3-DICHLOROPROPENE	0.4	0.4	0.5	U	0.5	U	0.5	U
TRANS-1,3-DICHLOROPROPENE	0.4	0.4	0.5	U	0.5	U	0.5	U
1,4-DIOXANE	--	--	140		140		120	
ETHYLBENZENE	5	5	**7.2**		1.0	U	**6.2**	
2-HEXANONE	50	50	10	U	10	U	10	U
ISOPROPYLBENZENE (CUMENE)	5	5	3.1		1.0	U	2.5	
METHYL ACETATE	--	--	1.0	U	1.0	U	1.0	U
METHYL TERT-BUTYL ETHER (MTBE)	10	10	1.0	U	1.0	U	0.72	
METHYLCYCLOHEXANE	--	--	1.4		1.0	U	1.0	U
METHYLENE CHLORIDE	5	5	5.0	U	5.0	U	5.0	U
METHYL ISOBUTYL KETONE (4-METHYL-2-PENTANONE)	--	--	35		10	U	65	
STYRENE	5	930	1.0	U	1.0	U	1.0	U
1,1,1,2- TETRACHLOROETHANE	5	5	1.0	U	1.0	U	1.0	U
TETRACHLOROETHYLENE(PCE)	5	5	1.0	U	1.0	U	1.0	U
TOLUENE	5	5	**28**		**12**	**J**	**13**	
1,2,3-TRICHLOROBENZENE	5	5	5.0	U	5.0	U	5.0	U
1,2,4-TRICHLOROBENZENE	5	5	1.0	U	1.0	U	1.0	U
1,1,1-TRICHLOROETHANE	5	5	1.0	U	1.0	U	1.0	U
1,1,2-TRICHLOROETHANE	1	1	1.0	U	1.0	U	1.0	U
TRICHLOROETHYLENE (TCE)	5	5	1.0	U	1.0	U	1.0	U
TRICHLOROFLUOROMETHANE	5	5	2.0	U	2.0	U	2.0	U
1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE	5	5	1.0	U	1.0	U	1.0	U
VINYL CHLORIDE	2	2	**390**		**3,000**		**1,100**	
M,P-XYLENES	5	5	**36**		**24**	**J**	**32**	
O-XYLENE (1,2-DIMETHYLBENZENE)	5	5	3.8		1.0	U	4.0	
XYLENES, TOTAL	5	5	**40**		3.0	U	**36**	

Table 3
Treatment System Analytical Data - EW-1
Fort Edward Landfill, Fort Edward, NY
NYSDEC Site # 558001

Polychlorinated Biphenyls (ug/L)								
PCB-1016 (AROCLOR 1016)	*	*	**910**		**250**		**3,300**	
PCB-1221 (AROCLOR 1221)	*	*	100	U	100	U	480	U
PCB-1232 (AROCLOR 1232)	*	*	100	U	100	U	480	U
PCB-1242 (AROCLOR 1242)	*	*	100	U	100	U	480	U
PCB-1248 (AROCLOR 1248)	*	*	100	U	100	U	480	U
PCB-1254 (AROCLOR 1254)	*	*	100	U	100	U	480	U
PCB-1260 (AROCLOR 1260)	*	*	100	U	100	U	480	U
PCB-1262 (AROCLOR 1262)	*	*	100	U	100	U	480	U
PCB-1268 (AROCLOR 1268)	*	*	100	U	100	U	480	U
PCB Total	0.09	0.09	**910**		**250**		**3,300**	
Metals (mg/L)								
ALUMINUM	--	2	0.18		0.05	U	0.05	U
ANTIMONY	0.003	0.006	0.05	U	0.05	U	0.05	U
ARSENIC	0.025	0.05	0.010	U	0.0034		0.01	U
BARIUM	1	2	0.42		0.52		0.55	
BERYLLIUM	0.003	0.003	0.004	U	0.004	U	0.004	U
CADMIUM	0.005	0.01	0.004	U	0.004	U	0.004	U
CALCIUM	--	--	180		170		160	
CHROMIUM, TOTAL	0.05	0.1	0.01	U	0.01	U	0.01	U
COBALT	--	--	0.05	U	0.0075		0.05	U
COPPER	0.2	1	0.01	U	0.01	U	0.01	U
IRON	0.3	0.6	**72**		**55**		**82**	
LEAD	0.025	0.05	0.01	U	0.01	U	0.01	U
MAGNESIUM	35	35	**57**		**58**		**56**	
MANGANESE	0.3	0.6	**1.6**		**1.4**		**1.1**	
MERCURY	0.0007	0.0014	0.0001	U	0.0001	U	0.0001	U
NICKEL	0.1	0.2	0.019		0.01	U	0.021	
POTASSIUM	--	--	35		35		37	
SELENIUM	0.01	0.02	0.05	U	0.05	U	0.05	U
SILVER	0.05	0.1	0.005	U	0.005	U	0.005	U
SODIUM	20	--	**190**		**210**		**200**	
THALLIUM	0.0005	0.0005	0.05	U	0.05	U	0.05	U
VANADIUM	--	--	0.01	U	0.01	U	0.01	U
ZINC	2	5	0.075		0.02	U	0.036	
Conventional Chemistry (mg/L)								
TOTAL DISSOLVED SOLIDS	--	--	1,300		1,200		1,300	
TOTAL SUSPENDED SOLIDS	--	--	70		30		64	
Perfluorinated Alkyl Substance (ng/L)								
PERFLUOROBUTANESULFONIC ACID (PFBS)	70		NA		7.5		NA	
PERFLUOROHEXANESULFONIC ACID (PFHxS)	70		NA		47		NA	
PERFLUOROHEPTANOIC ACID (PFHpA)	70		NA		160		NA	
PERFLUOROOCTANOIC ACID (PFOA)	70		NA		1,300		NA	
PERFLUOROOCTANESULFONIC ACID (PFOS)	70		NA		73	B	NA	
PERFLUORONONANOIC ACID (PFNA)	70		NA		2.8		NA	
TOTAL PFAS	70		NA		1,590.3		NA	

Notes:

Constitutents detected above the NYSDEC Class GA GW Standard are in **bold**.

Constitutents detected above the NYSDEC Class GA GW Effluent Limitation are highlighted in yellow.

* The NYSDEC Class GA GW Standard and Effluent Limitation for PCBs is 0.09 ug/L.

The current NYSDEC Health Advisory Limit for PFAS is 70 nanograms per liter for individual and total PFAS. Constituents detected above this standard are highlighted in orang

Definitions:

NYSDEC Class GA GW Standard - New York State Department of Environmental Conservation Groundwater Standard and Guidance Value.

NYSDEC Class GA GW Effluent Limitation - New York State Department of Environmental Conservation Effluent Limitation.

U - The compound was analyzed for but not detected. The associated value is the compound quantitation limit.

J - The concentration is an approximate value.

B - Compound was found in the blank and sample.

T - LCS or LCSD is outside acceptable limits.

mg/L - milligrams per liter

ng/L - nanograms per liter

ug/L - micrograms per liter

NA - Not Analyzed

Table 4
Treatment System Analytical Data - EW-2
Fort Edward Landfill, Fort Edward, NY
NYSDEC Site # 558001

Chemical Name	NYSDEC Class GA GW Standard	NYSDEC Class GA GW Effluent Limitation	4/28/2017		5/24/2017		7/31/2017		10/30/2017	
Volatile Organic Compounds (ug/L)										
ACETONE	50	50	17	J	50	U	12	J	16	J
BENZENE	1	1	0.63	J	**2.3**		**4.7**		**5.4**	
BROMOCHLOROMETHANE	5	5	1.0	U	1.0	U	1.0	U	1.0	U
BROMODICHLOROMETHANE	50	50	0.5	U	0.5	U	0.5	U	0.5	U
BROMOFORM	50	50	1.0	U	1.0	U	1.0	U	1.0	U
BROMOMETHANE	5	5	2.0	U	2.0	U	2.0	U	2.0	U
2-BUTANONE (MEK)	50	50	20	U	20	U	20	U	20	U
CARBON DISULFIDE	60	60	4.0	U	4.0	U	4.0	U	4.0	U
CARBON TETRACHLORIDE	5	5	5.0	U	5.0	U	5.0	U	5.0	U
CHLOROBENZENE	5	5	0.26	J	0.93	J	1.4		1.8	
CHLORODIBROMOMETHANE	50	--	0.5	U	0.5	U	0.5	U	0.5	U
CHLOROETHANE	5	5	2.0	U	2.0	U	2.0	U	0.28	J
CYCLOHEXANE	--	--	5.0	U	5.0	U	5.0	U	0.92	J
1,2-DIBROMO-3-CHLOROPROPANE	0.04	0.04	5.0	U	5.0	U	5.0	U	5.0	U
1,2-DIBROMOETHANE (ETHYLENE DIBROMIDE)	0.0006	0.0006	0.5	U	0.5	U	0.5	U	0.5	U
1,2-DICHLOROBENZENE	3	3	1.0	U	1.0	U	1.0	U	1.0	U
1,3-DICHLOROBENZENE	3	3	1.0	U	1.0	U	1.0	U	1.0	U
1,4-DICHLOROBENZENE	3	3	1.0	U	0.29	J	0.49	J	0.44	J
DICHLORODIFLUOROMETHANE	5	5	2.0	U	2.0	U	2.0	U	0.37	J
1,1-DICHLOROETHANE	5	5	0.44	J	1.1		1.4		1.1	
CIS-1,2-DICHLOROETHYLENE	5	5	1.0	U	0.37	J	0.45	J	0.7	J
TRANS-1,2-DICHLOROETHYLENE	5	5	1.0	U	1.0	U	1.0	U	1.0	U
1,2-DICHLOROETHANE	0.6	0.6	1.0	U	1.0	U	1.0	U	1.0	U
1,1-DICHLOROETHYLENE	5	5	1.0	U	1.0	U	1.0	U	1.0	U
1,2-DICHLOROPROPANE	1	1	1.0	U	1.0	U	1.0	U	1.0	U
CIS-1,3-DICHLOROPROPENE	0.4	0.4	0.5	U	0.5	U	0.5	U	0.5	U
TRANS-1,3-DICHLOROPROPENE	0.4	0.4	0.5	U	0.5	U	0.5	U	0.5	U
1,4-DIOXANE	--	--	50	U	50	U	48		49	J
ETHYLBENZENE	5	5	1.0	U	1.0	U	1.0	U	1.0	U
2-HEXANONE	50	50	10	U	10	U	10	U	10	U
ISOPROPYLBENZENE (CUMENE)	5	5	0.12	J	0.34	J	0.4	J	0.35	J
METHYL ACETATE	--	--	1.0	U	1.0	U	1.0	U	1.0	U
METHYL TERT-BUTYL ETHER (MTBE)	10	10	0.5	J	0.92	J	0.96	J	0.9	J
METHYL CYCLOHEXANE	--	--	1.0	U	1.0	U	1.0	U	1.0	U
METHYLENE CHLORIDE	5	5	5.0	U	5.0	U	5.0	U	5.0	U
METHYL ISOBUTYL KETONE (4-METHYL-2-PENTANONE)	--	--	10	U	10	U	10	U	10	U
STYRENE	5	930	1.0	U	1.0	U	1.0	U	1.0	U
1,1,1,2-TETRACHLOROETHANE	5	5	1.0	U	1.0	U	1.0	U	1.0	U
TETRACHLOROETHYLENE (PCE)	5	5	1.0	U	1.0	U	1.0	U	1.0	U
TOLUENE	5	5	1.0	U	1.0	U	1.0	U	1.0	U
1,2,3-TRICHLOROBENZENE	5	5	5.0	U	5.0	U	5.0	U	5.0	U
1,2,4-TRICHLOROBENZENE	5	5	1.0	U	1.0	U	1.0	U	1.0	U
1,1,1-TRICHLOROETHANE	5	5	1.0	U	1.0	U	1.0	U	1.0	U
1,1,2-TRICHLOROETHANE	1	1	1.0	U	1.0	U	1.0	U	1.0	U
TRICHLOROETHYLENE (TCE)	5	5	1.0	U	1.0	U	1.0	U	1.0	U
TRICHLOROFLUOROMETHANE	5	5	2.0	U	2.0	U	2.0	U	2.0	U
1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE	5	5	1.0	U	1.0	U	1.0	U	1.0	U
VINYL CHLORIDE	2	2	2.0	U	0.44	J	2.0	U	0.34	J
M,P-XYLENES	5	5	0.27	J	2.0		1.2	J	2.0	U
O-XYLENE (1,2-DIMETHYLBENZENE)	5	5	1.0	U	0.21	J	0.17	J	0.2	J
XYLENES, TOTAL	5	5	3.0	U	2.0	J	1.2	J	3.0	U

Table 4
Treatment System Analytical Data - EW-2
Fort Edward Landfill, Fort Edward, NY
NYSDEC Site # 558001

Polychlorinated Biphenyls (ug/L)												
PCB-1016 (AROCLOR 1016)	*	*	0.2	U	0.2	U	0.2	U	0.19	U		
PCB-1221 (AROCLOR 1221)	*	*	0.2	U	0.2	U	0.2	U	0.19	U		
PCB-1232 (AROCLOR 1232)	*	*	0.2	U	0.2	U	0.2	U	0.19	U		
PCB-1242 (AROCLOR 1242)	*	*	0.2	U	0.2	U	0.2	U	0.19	U		
PCB-1248 (AROCLOR 1248)	*	*	0.2	U	0.2	U	0.2	U	0.19	U		
PCB-1254 (AROCLOR 1254)	*	*	0.2	U	0.2	U	0.2	U	0.19	U		
PCB-1260 (AROCLOR 1260)	*	*	0.2	U	0.2	U	0.2	U	0.19	U		
PCB-1262 (AROCLOR 1262)	*	*	0.2	U	0.2	U	0.2	U	0.19	U		
PCB-1268 (AROCLOR 1268)	*	*	0.2	U	0.2	U	0.2	U	0.19	U		
PCB Total	0.09	0.09	0.2	U	0.2	U	0.2	U	0.19	U		
Metals (mg/L)												
ALUMINUM	--	2	0.05	U	0.05	U	0.05	U	0.05	U		
ANTIMONY	0.003	0.006	0.05	U	0.05	U	0.05	U	0.05	U		
ARSENIC	0.025	0.05	**0.041**		**0.049**		**0.025**		0.014			
BARIUM	1	2	0.15		0.22		0.12		0.14			
BERYLLIUM	0.003	0.003	0.004	U	0.004	U	0.004	U	0.004	U		
CADMIUM	0.005	0.01	0.004	U	0.004	U	0.004	U	0.004	U		
CALCIUM	--	--	120		130		130		120			
CHROMIUM, TOTAL	0.05	0.1	0.01	U	0.01	U	0.01	U	0.01	U		
COBALT	--	--	0.05	U	0.05	U	0.008		0.05	U		
COPPER	0.2	1	0.011		0.034		0.01	U	0.01	U		
IRON	0.3	0.6	**29**		**68**		**22**		**40**			
LEAD	0.025	0.05	0.01	U	0.01	U	0.01	U	0.01	U		
MAGNESIUM	35	35	**42**		**43**		**45**		**41**			
MANGANESE	0.3	0.6	**0.85**		**1.1**		**1.1**		**0.93**			
MERCURY	0.0007	0.0014	0.0001	U	0.0001	U	0.0001	U	0.0001	U		
NICKEL	0.1	0.2	0.017		0.01	U	0.01	U	0.011			
POTASSIUM	--	--	3.5		2.6		2.6		3.9			
SELENIUM	0.01	0.02	0.05	U	0.05	U	0.05	U	0.05	U		
SILVER	0.05	0.1	0.005	U	0.005	U	0.005	U	0.005	U		
SODIUM	20	--	**120**		**99**		**110**		**100**			
THALLIUM	0.0005	0.0005	0.05	U	0.05	U	0.05	U	0.05	U		
VANADIUM	--	--	0.01	U	0.01	U	0.01	U	0.01	U		
ZINC	2	5	0.02	U	0.02	U	0.02	U	0.02	U		
Conventional Chemistry (mg/L)												
TOTAL DISSOLVED SOLIDS	--	--	540		740		750		870			
TOTAL SUSPENDED SOLIDS	--	--	65		120		35		56			
Perfluorinated Alkyl Substance (ng/L)												
PERFLUOROBUTANESULFONIC ACID (PFBS)	70		NA		NA		2.7		NA			
PERFLUOROHEXANESULFONIC ACID (PFHxS)	70		NA		NA		15		NA			
PERFLUOROHEPTANOIC ACID (PFHpA)	70		NA		NA		28		NA			
PERFLUOROOCTANOIC ACID (PFOA)	70		NA		NA		68		NA			
PERFLUOROOCTANESULFONIC ACID (PFOS)	70		NA		NA		23		NA			
PERFLUORONONANOIC ACID (PFNA)	70		NA		NA		2.0	U	NA			
TOTAL PFAS	70		NA		NA		136.7		NA			

Notes:

Constitutents detected above the NYSDEC Class GA GW Standard are in **bold**.

Constitutents detected above the NYSDEC Class GA GW Effluent Limitation are highlighted in yellow.

* The NYSDEC Class GA GW Standard and Effluent Limitation for PCBs is 0.09 ug/L.

The current NYSDEC Health Advisory Limit for PFAS is 70 nanograms per liter for individual and total PFAS. Constituents detected above this standard are highlighted in orange.

Definitions:

NYSDEC Class GA GW Standard - New York State Department of Environmental Conservation Groundwater Standard and Guidance Value.
NYSDEC Class GA GW Effluent Limitation - New York State Department of Environmental Conservation Effluent Limitation.
U - The compound was analyzed for but not detected. The associated value is the compound quantitation limit.
J - The concentration is an approximate value.
B - Compound was found in the blank and sample.
T - LCS or LCSD is outside acceptable limits.
mg/L - milligrams per liter
ng/L - nanograms per liter
ug/L - micrograms per liter
NA - Not Analyzed

Table 5
Treatment System Analytical Data - EW-3
Fort Edward Landfill, Fort Edward, NY
NYSDEC Site # 558001

Chemical Name	NYSDEC Class GA GW Standard	NYSDEC Class GA GW Effluent Limitation	5/24/2017		7/31/2017		10/30/2017	
Volatile Organic Compounds (ug/L)								
ACETONE	50	50	50	U	9.9	J	11	J
BENZENE	1	1	**4.2**		**4.6**		**3.9**	
BROMOCHLOROMETHANE	5	5	1.0	U	1.0	U	1.0	U
BROMODICHLOROMETHANE	50	50	0.5	U	0.5	U	0.5	U
BROMOFORM	50	50	1.0	U	1.0	U	1.0	U
BROMOMETHANE	5	5	2.0	U	2.0	U	2.0	U
2-BUTANONE (MEK)	50	50	20	U	20	U	20	U
CARBON DISULFIDE	60	60	4.0	U	4.0	U	4.0	U
CARBON TETRACHLORIDE	5	5	5.0	U	5.0	U	5.0	U
CHLOROBENZENE	5	5	**30**		**32**		**23**	
CHLORODIBROMOMETHANE	50	--	0.5	U	0.5	U	0.5	U
CHLOROETHANE	5	5	0.51	J	0.79	J	0.72	J
CYCLOHEXANE	--	--	0.92	J	1.1	J	1.3	J
1,2-DIBROMO-3-CHLOROPROPANE	0.04	0.04	5.0	U	5.0	U	5.0	U
1,2-DIBROMOETHANE (ETHYLENE DIBROMIDE)	0.0006	0.0006	0.5	U	0.5	U	0.5	U
1,2-DICHLOROBENZENE	3	3	0.52	J	0.57	J	0.5	J
1,3-DICHLOROBENZENE	3	3	0.31	J	0.34	J	0.39	J
1,4-DICHLOROBENZENE	3	3	**6.5**		**6.5**		**6.1**	
DICHLORODIFLUOROMETHANE	5	5	2.0	U	2.0	U	2.0	U
1,1-DICHLOROETHANE	5	5	1.0	U	1.0	U	1.0	U
CIS-1,2-DICHLOROETHYLENE	5	5	1.0	U	1.0	U	1.0	U
TRANS-1,2-DICHLOROETHYLENE	5	5	1.0	U	1.0	U	1.0	U
1,2-DICHLOROETHANE	0.6	0.6	1.0	U	1.0	U	1.0	U
1,1-DICHLOROETHYLENE	5	5	1.0	U	1.0	U	1.0	U
1,2-DICHLOROPROPANE	1	1	1.0	U	1.0	U	1.0	U
CIS-1,3-DICHLOROPROPENE	0.4	0.4	0.5	U	0.5	U	0.5	U
TRANS-1,3-DICHLOROPROPENE	0.4	0.4	0.5	U	0.5	U	0.5	U
1,4-DIOXANE	--	--	81		1.3		71	
ETHYLBENZENE	5	5	1.0	U	1.0	U	1.0	U
2-HEXANONE	50	50	10	U	10	U	10	U
ISOPROPYLBENZENE (CUMENE)	5	5	1.3		1.2		1.0	
METHYL ACETATE	--	--	1.0	U	1.0	U	1.0	U
METHYL TERT-BUTYL ETHER (MTBE)	10	10	0.68	J	0.69	J	0.63	J
METHYL CYCLOHEXANE	--	--	1.0	U	0.65	J	1.0	U
METHYLENE CHLORIDE	5	5	5.0	U	5.0	U	5.0	U
METHYL ISOBUTYL KETONE (4-METHYL-2-PENTANONE)	--	--	10	U	10	U	10	U
STYRENE	5	930	1.0	U	1.0	U	1.0	U
1,1,1,2-TETRACHLOROETHANE	5	5	1.0	U	1.0	U	1.0	U
TETRACHLOROETHYLENE (PCE)	5	5	1.0	U	1.0	U	1.0	U
TOLUENE	5	5	1.0	U	1.0	U	1.0	U
1,2,3-TRICHLOROBENZENE	5	5	5.0	U	5.0	U	5.0	U
1,2,4-TRICHLOROBENZENE	5	5	1.0	U	1.0	U	1.0	U
1,1,1-TRICHLOROETHANE	5	5	1.0	U	1.0	U	1.0	U
1,1,2-TRICHLOROETHANE	1	1	1.0	U	1.0	U	1.0	U
TRICHLOROETHYLENE (TCE)	5	5	1.0	U	1.0	U	1.0	U
TRICHLOROFLUOROMETHANE	5	5	2.0	U	2.0	U	2.0	U
1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE	5	5	1.0	U	1.0	U	1.0	U
VINYL CHLORIDE	2	2	2.0	U	2.0	U	2.0	U
M,P-XYLENES	5	5	2.0	U	2.0	U	0.29	J
O-XYLENE (1,2-DIMETHYLBENZENE)	5	5	0.16	J	0.18	J	0.2	J
XYLENES, TOTAL	5	5	3.0	U	3.0	U	3.0	U

Table 5
Treatment System Analytical Data - EW-3
Fort Edward Landfill, Fort Edward, NY
NYSDEC Site # 558001

Polychlorinated Biphenyls (ug/L)								
PCB-1016 (AROCLOR 1016)	*	*	0.2	U	0.2	U	0.18	U
PCB-1221 (AROCLOR 1221)	*	*	0.2	U	0.2	U	0.18	U
PCB-1232 (AROCLOR 1232)	*	*	0.2	U	0.2	U	0.18	U
PCB-1242 (AROCLOR 1242)	*	*	0.2	U	0.2	U	0.18	U
PCB-1248 (AROCLOR 1248)	*	*	0.2	U	0.2	U	0.18	U
PCB-1254 (AROCLOR 1254)	*	*	0.2	U	0.2	U	0.18	U
PCB-1260 (AROCLOR 1260)	*	*	0.2	U	0.2	U	0.18	U
PCB-1262 (AROCLOR 1262)	*	*	0.2	U	0.2	U	0.18	U
PCB-1268 (AROCLOR 1268)	*	*	0.2	U	0.2	U	0.18	U
PCB Total	0.09	0.09	0.2	U	0.2	U	0.18	U
Metals (mg/L)								
ALUMINUM	--	2	0.05	U	0.05	U	0.11	
ANTIMONY	0.003	0.006	0.05	U	0.05	U	0.05	U
ARSENIC	0.025	0.05	0.012		0.0098		0.01	U
BARIUM	1	2	0.31		0.3		0.27	
BERYLLIUM	0.003	0.003	0.004	U	0.004	U	0.004	U
CADMIUM	0.005	0.01	0.004	U	0.004	U	0.004	U
CALCIUM	--	--	83		80		73	
CHROMIUM, TOTAL	0.05	0.1	0.01	U	0.01	U	0.01	U
COBALT	--	--	0.05	U	0.009		0.05	U
COPPER	0.2	1	0.01	U	0.01	U	0.01	U
IRON	0.3	0.6	**35**		**33**		**38**	
LEAD	0.025	0.05	0.01	U	0.01	U	0.01	U
MAGNESIUM	35	35	**39**		**39**		**36**	
MANGANESE	0.3	0.6	0.17		0.21		0.2	
MERCURY	0.0007	0.0014	0.0001	U	0.0001	U	0.0001	U
NICKEL	0.1	0.2	0.01	U	0.01	U	0.01	U
POTASSIUM	--	--	51		49		42	
SELENIUM	0.01	0.02	0.05	U	0.05	U	0.05	U
SILVER	0.05	0.1	0.005	U	0.005	U	0.005	U
SODIUM	20	--	**120**		**120**		**93**	
THALLIUM	0.0005	0.0005	0.05	U	0.05	U	0.05	U
VANADIUM	--	--	0.011		0.01	U	0.01	U
ZINC	2	5	0.025		0.02	U	0.02	U
Conventional Chemistry (mg/L)								
TOTAL DISSOLVED SOLIDS	--	--	760		730		660	
TOTAL SUSPENDED SOLIDS	--	--	64		40		81	
Perfluorinated Alkyl Substance (ng/L)								
PERFLUOROBUTANESULFONIC ACID (PFBS)	70		NA		3.0		NA	
PERFLUOROHEXANESULFONIC ACID (PFHxS)	70		NA		12		NA	
PERFLUOROHEPTANOIC ACID (PFHpA)	70		NA		29		NA	
PERFLUOROOCTANOIC ACID (PFOA)	70		NA		64		NA	
PERFLUOROOCTANESULFONIC ACID (PFOS)	70		NA		21		NA	
PERFLUORONONANOIC ACID (PFNA)	70		NA		2.0	U	NA	
TOTAL PFAS	70		NA		129		NA	

Notes:

Constitutents detected above the NYSDEC Class GA GW Standard are in **bold**.

Constitutents detected above the NYSDEC Class GA GW Effluent Limitation are highlighted in yellow.

* The NYSDEC Class GA GW Standard and Effluent Limitation for PCBs is 0.09 ug/L.

The current NYSDEC Health Advisory Limit for PFAS is 70 nanograms per liter for individual and total PFAS. Constituents detected above this standard are highlighted in orange.

Definitions:

NYSDEC Class GA GW Standard - New York State Department of Environmental Conservation Groundwater Standard and Guidance Value.
NYSDEC Class GA GW Effluent Limitation - New York State Department of Environmental Conservation Effluent Limitation.
U - The compound was analyzed for but not detected. The associated value is the compound quantitation limit.
J - The concentration is an approximate value.
B - Compound was found in the blank and sample.
T - LCS or LCSD is outside acceptable limits.
mg/L - milligrams per liter
ng/L - nanograms per liter
ug/L - micrograms per liter
NA - Not Analyzed

Table 6
Treatment System Analytical Data - EW-4
Fort Edward Landfill, Fort Edward, NY
NYSDEC Site # 558001

Chemical Name	NYSDEC Class GA GW Standard	NYSDEC Class GA GW Effluent Limitation	4/27/2017		5/24/2017		7/31/2017		10/30/2017	
Volatile Organic Compounds (ug/L)										
ACETONE	50	50	50	U	50	U	50	U	50	U
BENZENE	1	1	1.0	U	0.16	J	1.0	U	0.22	J
BROMOCHLOROMETHANE	5	5	1.0	U	1.0	U	1.0	U	1.0	U
BROMODICHLOROMETHANE	50	50	0.5	U	0.5	U	0.5	U	0.5	U
BROMOFORM	50	50	1.0	U	1.0	U	1.0	U	1.0	U
BROMOMETHANE	5	5	2.0	U	2.0	U	2.0	U	2.0	U
2-BUTANONE (MEK)	50	50	20	U	20	U	20	U	20	U
CARBON DISULFIDE	60	60	4.0	U	4.0	U	4.0	U	4.0	U
CARBON TETRACHLORIDE	5	5	5.0	U	5.0	U	5.0	U	5.0	U
CHLOROBENZENE	5	5	0.28	J	0.26	J	1.0	U	0.24	J
CHLORODIBROMOMETHANE	50	--	0.5	U	0.5	U	0.5	U	0.5	U
CHLOROETHANE	5	5	2.0	U	2.0	U	2.0	U	0.39	J
CYCLOHEXANE	--	--	5.0	U	5.0	U	5.0	U	5.0	U
1,2-DIBROMO-3-CHLOROPROPANE	0.04	0.04	5.0	U	5.0	U	5.0	U	5.0	U
1,2-DIBROMOETHANE (ETHYLENE DIBROMIDE)	0.0006	0.0006	0.5	U	0.5	U	0.5	U	0.5	U
1,2-DICHLOROBENZENE	3	3	1.0	U	1.0	U	1.0	U	1.0	U
1,3-DICHLOROBENZENE	3	3	1.0	U	1.0	U	1.0	U	1.0	U
1,4-DICHLOROBENZENE	3	3	1.0	U	1.0	U	1.0	U	0.15	J
DICHLORODIFLUOROMETHANE	5	5	2.0	U	2.0	U	2.0	U	2.0	U
1,1-DICHLOROETHANE	5	5	1.0	U	1.0	U	1.0	U	1.0	U
CIS-1,2-DICHLOROETHYLENE	5	5	0.44	J	0.31	J	1.0	U	0.25	J
TRANS-1,2-DICHLOROETHYLENE	5	5	1.0	U	1.0	U	1.0	U	1.0	U
1,2-DICHLOROETHANE	0.6	0.6	1.0	U	1.0	U	1.0	U	1.0	U
1,1-DICHLOROETHYLENE	5	5	1.0	U	1.0	U	1.0	U	1.0	U
1,2-DICHLOROPROPANE	1	1	1.0	U	1.0	U	1.0	U	1.0	U
CIS-1,3-DICHLOROPROPENE	0.4	0.4	0.5	U	0.5	U	0.5	U	0.5	U
TRANS-1,3-DICHLOROPROPENE	0.4	0.4	0.5	U	0.5	U	0.5	U	0.5	U
1,4-DIOXANE	--	--	50	U	50	U	3.9		50	U
ETHYLBENZENE	5	5	1.0	U	1.0	U	1.0	U	1.0	U
2-HEXANONE	50	50	10	U	10	U	10	U	10	U
ISOPROPYLBENZENE (CUMENE)	5	5	1.0	U	1.0	U	1.0	U	1.0	U
METHYL ACETATE	--	--	1.0	U	1.0	U	1.0	U	1.0	U
METHYL TERT-BUTYL ETHER (MTBE)	10	10	1.0	U	1.0	U	0.09	J	1.0	U
METHYL CYCLOHEXANE	--	--	1.0	U	1.0	U	1.0	U	1.0	U
METHYLENE CHLORIDE	5	5	5.0	U	5.0	U	5.0	U	5.0	U
METHYL ISOBUTYL KETONE (4-METHYL-2-PENTANONE)	--	--	10	U	10	U	10	U	10	U
STYRENE	5	930	1.0	U	1.0	U	1.0	U	1.0	U
1,1,1,2-TETRACHLOROETHANE	5	5	1.0	U	1.0	U	1.0	U	1.0	U
TETRACHLOROETHYLENE (PCE)	5	5	1.0	U	1.0	U	1.0	U	1.0	U
TOLUENE	5	5	1.0	U	1.0	U	1.0	U	1.0	U
1,2,3-TRICHLOROBENZENE	5	5	5.0	U	5.0	U	5.0	U	5.0	U
1,2,4-TRICHLOROBENZENE	5	5	1.0	U	1.0	U	1.0	U	1.0	U
1,1,1-TRICHLOROETHANE	5	5	1.0	U	1.0	U	1.0	U	1.0	U
1,1,2-TRICHLOROETHANE	1	1	1.0	U	1.0	U	1.0	U	1.0	U
TRICHLOROETHYLENE (TCE)	5	5	1.0	U	1.0	U	1.0	U	1.0	U
TRICHLOROFLUOROMETHANE	5	5	2.0	U	2.0	U	2.0	U	2.0	U
1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE	5	5	1.0	U	1.0	U	1.0	U	1.0	U
VINYL CHLORIDE	2	2	2.0	U	2.0	U	2.0	U	2.0	U
M,P-XYLENES	5	5	2.0	U	2.0	U	2.0	U	2.0	U
O-XYLENE (1,2-DIMETHYLBENZENE)	5	5	1.0	U	1.0	U	1.0	U	1.0	U
XYLENES, TOTAL	5	5	3.0	U	3.0	U	3.0	U	3.0	U

Table 7
Effluent Limitations for the Discharge to the Glens Falls Feeder Canal
Fort Edward Landfill, Fort Edward, New York
NYSDEC Site # 558001

Analyte	Concentration (Daily Maximum)*
Instantaneous pH (Range)	6.0 9.0 Standard Units
Total Dissolved Solids	500,000
Total Suspended Solids	50,000
Arsenic	150
Barium	3,500 (Daily Average)
Cadmium	1
Chromium (Total)	210
Cobalt	5
Copper	24
Iron	300
Lead	3
Mercury	0.8
Nickel	9.6
Vanadium	14.0
Zinc	170
Vinyl Chloride	50
Chloroethane	20
Methylene Chloride	50
1,1-Dichloroethane	30
1,2 Dichloroethene (Total)	30
Chloroform	150
Bromodichloromethane	30
Benzene	10
Toluene	10
Chlorobenzene	10
Ethylbenzene	10
Xylenes, Total	10
Phenols, Total Phenolics	8 (Daily Average)
Aroclor 1016 (PCB)	ND (0.065)
Aroclor 1221 (PCB)	ND (0.065)
Aroclor 1242 (PCB)	ND (0.065)

Notes:

* Unless otherwise indicated

NYSDEC, Division of Water Technical and Operational Guidance Series 1.1.1 (TOGS 1.1.1), “Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations”, dated June 1998

Definitions:

ug/L - micrograms per liter or parts per billion

Table 6
Treatment System Analytical Data - EW-4
Fort Edward Landfill, Fort Edward, NY
NYSDEC Site # 558001

Polychlorinated Biphenyls (ug/L)												
PCB-1016 (AROCLOR 1016)	*	*	**0.4**		**0.29**		**0.63**		**0.37**	
PCB-1221 (AROCLOR 1221)	*	*	0.2	U	0.2	U	0.2	U	0.18	U
PCB-1232 (AROCLOR 1232)	*	*	0.2	U	0.2	U	0.2	U	0.18	U
PCB-1242 (AROCLOR 1242)	*	*	0.2	U	0.2	U	0.2	U	0.18	U
PCB-1248 (AROCLOR 1248)	*	*	0.2	U	0.2	U	0.2	U	0.18	U
PCB-1254 (AROCLOR 1254)	*	*	0.2	U	0.2	U	0.2	U	0.18	U
PCB-1260 (AROCLOR 1260)	*	*	0.2	U	0.2	U	0.2	U	0.18	U
PCB-1262 (AROCLOR 1262)	*	*	0.2	U	0.2	U	0.2	U	0.18	U
PCB-1268 (AROCLOR 1268)	*	*	0.2	U	0.2	U	0.2	U	0.18	U
PCB Total	0.09	0.09	**0.4**		**0.29**		**0.63**		**0.37**	
Metals (mg/L)												
ALUMINUM	--	2	0.05	U	0.05	U	0.05	U	0.05	U
ANTIMONY	0.003	0.006	0.05	U	0.05	U	0.05	U	0.05	U
ARSENIC	0.025	0.05	0.01	U	0.01	U	0.0083		0.01	U
BARIUM	1	2	0.063		0.055		0.086		0.05	U
BERYLLIUM	0.003	0.003	0.004	U	0.004	U	0.004	U	0.004	U
CADMIUM	0.005	0.01	0.004	U	0.004	U	0.004	U	0.004	U
CALCIUM	--	--	82		92		100		86	
CHROMIUM, TOTAL	0.05	0.1	0.01	U	0.01	U	0.01	U	0.01	U
COBALT	--	--	0.05	U	0.05	U	0.05	U	0.05	U
COPPER	0.2	1	0.01	U	0.01	U	0.01	U	0.01	U
IRON	0.3	0.6	**32**		**20**		**60**		**21**	
LEAD	0.025	0.05	0.01	U	0.01	U	0.01	U	0.01	U
MAGNESIUM	35	35	23		22		24		20	
MANGANESE	0.3	0.6	**1.7**		**1.7**		**2.0**		**1.8**	
MERCURY	0.0007	0.0014	0.0001	U	0.0001	U	0.0001	U	0.0001	U
NICKEL	0.1	0.2	0.01	U	0.01	U	0.01	U	0.01	U
POTASSIUM	--	--	3.3		3.1		3.7		3.5	
SELENIUM	0.01	0.02	0.05	U	0.05	U	0.05	U	0.05	U
SILVER	0.05	0.1	0.005	U	0.005	U	0.005	U	0.005	U
SODIUM	20	--	**48**		**43**		**52**		**45**	
THALLIUM	0.0005	0.0005	0.05	U	0.05	U	0.05	U	0.05	U
VANADIUM	--	--	0.01	U	0.01	U	0.01	U	0.01	U
ZINC	2	5	0.02	U	0.02	U	0.02	U	0.02	U
Conventional Chemistry (mg/L)												
TOTAL DISSOLVED SOLIDS	--	--	370		510		410		420	
TOTAL SUSPENDED SOLIDS	--	--	47		27		110		22	
Perfluorinated Alkyl Substance (ng/L)												
PERFLUOROBUTANESULFONIC ACID (PFBS)	70		NA		NA		2.0	U	NA	
PERFLUOROHEXANESULFONIC ACID (PFHxS)	70		NA		NA		1.7	J	NA	
PERFLUOROHEPTANOIC ACID (PFHpA)	70		NA		NA		8.3		NA	
PERFLUOROOCTANOIC ACID (PFOA)	70		NA		NA		20		NA	
PERFLUOROOCTANESULFONIC ACID (PFOS)	70		NA		NA		7.6		NA	
PERFLUORONONANOIC ACID (PFNA)	70		NA		NA		2.0	U	NA	
TOTAL PFAS	70		NA		NA		37.6		NA	

Notes:
Constitutents detected above the NYSDEC Class GA GW Standard are in **bold**.
Constitutents detected above the NYSDEC Class GA GW Effluent Limitation are highlighted in yellow.
* The NYSDEC Class GA GW Standard and Effluent Limitation for PCBs is 0.09 ug/L.
The current NYSDEC Health Advisory Limit for PFAS is 70 nanograms per liter for individual and total PFAS. Constituents detected above this standard are highlighted

Definitions:
NYSDEC Class GA GW Standard - New York State Department of Environmental Conservation Groundwater Standard and Guidance Value.
NYSDEC Class GA GW Effluent Limitation - New York State Department of Environmental Conservation Effluent Limitation.
U - The compound was analyzed for but not detected. The associated value is the compound quantitation limit.
J - The concentration is an approximate value.
B - Compound was found in the blank and sample.
T - LCS or LCSD is outside acceptable limits.
mg/L - milligrams per liter
ng/L - nanograms per liter
ug/L - micrograms per liter
NA - Not Analyzed

Table 8
Treatment System Analytical Data - Influent
Fort Edward Landfill, Fort Edward, NY
NYSDEC Site # 558001

ARCADIS Design & Consultancy for natural and built assets

Chemical Name	NYSDEC Class GA GW Standard	NYSDEC Class GA GW Effluent Limitation	9/13/2016	10/19/2016	11/15/2016	12/28/2016	1/19/2017	2/28/2017	3/29/2017	4/27/2017	5/24/2017	6/28/2017	7/31/2017	8/29/2017	9/25/2017	10/30/2017	11/27/2017
Volatile Organic Compounds (ug/L)																	
ACETONE	50	50	9.2 J	50 U	7.0 J	6.9 J	33 J	12 J	19 J	50 U	50 U	50 U	50 U	16 J	50 U	50 U	50 U
BENZENE	1	1	0.21 J	0.27 J	0.13 J	0.34 J	0.29 J	0.2 J	1.0 U	0.27 J	0.38 J	0.19 J	0.47 J	0.34 J	0.7 J	0.24 J	0.48 J
BROMOCHLOROMETHANE	5	5	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
BROMODICHLOROMETHANE	50	50	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	2.6	1.0 U	0.5 U	0.5 U
BROMOFORM	50	50	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
BROMOMETHANE	5	5	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
2-BUTANONE (MEK)	50	50	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	6.6 J	1.0 U	1.0 U	20.0 U
CARBON DISULFIDE	60	60	4.0 U	4.0 U	4.0 U	4.0 U	4.0 U	4.0 U	4.0 U	4.0 U	4.0 U	2.5 J	4.0 U	4.0 U	4.0 U	4.0 U	1.0 U
CARBON TETRACHLORIDE	5	5	5.0 U	5.0 U	0.3 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
CHLOROBENZENE	5	5	0.39 J	0.38 J	0.21 J	0.34 J	0.65 J	0.29 J	0.25 J	0.29 J	0.59 J	0.23 J	0.76 J	0.57 J	0.77 J	0.31 J	0.58 J
CHLORODIBROMOMETHANE	50	--	2.0 U	2.0 U	2.0 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.24 J	1.0 U	1.0 U	0.5 U
CHLOROETHANE	5	5	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	0.42 J	0.55 J	2.0 U
CYCLOHEXANE	--	--	0.3 U	0.3 U	0.3 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
1,2-DIBROMO-3-CHLOROPROPANE	0.04	0.04	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
1,2-DIBROMOETHANE (ETHYLENE DIBROMIDE)	0.0006	0.0006	0.2 U	0.2 U	0.2 U	1.0 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,2-DICHLOROBENZENE	3	3	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,3-DICHLOROBENZENE	3	3	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,4-DICHLOROBENZENE	3	3	0.18 J	0.19 J	1.0 U	0.18 J	0.17 J	0.15 J	0.16 J	1.0 U	0.2 J	1.0 U	0.21 J	0.15 J	0.18 J	0.18 J	0.16 J
DICHLORODIFLUOROMETHANE	5	5	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
1,1-DICHLOROETHANE	5	5	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
CIS-1,2-DICHLOROETHYLENE	5	5	1.0 U	1.0 U	1.0 U	1.0 U	0.46 J	0.43 J	0.5 J	0.4 J	**7.0**	2.6	**8.9**	**11**	**21**	0.19 J	**13**
TRANS-1,2-DICHLOROETHYLENE	5	5	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	0.26 J	0.16 J	0.34 J	1.0 U	0.25 J
1,2-DICHLOROETHANE	0.6	0.6	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1-DICHLOROETHYLENE	5	5	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-DICHLOROPROPANE	1	1	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
CIS-1,3-DICHLOROPROPENE	0.4	0.4	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
TRANS-1,3-DICHLOROPROPENE	0.4	0.4	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,4-DIOXANE	--	--	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U	8.2	50 U	50 U	50 U	50 U
ETHYLBENZENE	5	5	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	0.15 J	1.0 U	1.0 U	1.0 U	0.14 J	1.0 U	1.0 U
2-HEXANONE	50	50	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
ISOPROPYLBENZENE (CUMENE)	5	5	1.0 U	1.0 U	1.0 U	1.0 U	0.13 J	1.0 U	1.0 U	1.0 U	0.12 J	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U
METHYL ACETATE	--	--	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
METHYL TERT-BUTYL ETHER (MTBE)	10	10	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	0.09 J	1.0 U	1.0 U	1.0 U	1.0 U
METHYL CYCLOHEXANE	--	--	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
METHYLENE CHLORIDE	5	5	3.2 U	5.0 U	3.2 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
METHYL ISOBUTYL KETONE (4-METHYL-2-PENTANONE)	--	--	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
STYRENE	5	930	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1,1,2-TETRACHLOROETHANE	5	5	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
TETRACHLOROETHYLENE (PCE)	5	5	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
TOLUENE	5	5	1.0 U	1.0 U	1.0 U	0.24 J	1.0 U	1.0 U	1.0 U	1.0 U	0.55 J	1.0 U	0.2 J	0.18 J	0.43 J	1.0 U	1.0 U
1,2,3-TRICHLOROBENZENE	5	5	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
1,2,4-TRICHLOROBENZENE	5	5	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1,1-TRICHLOROETHANE	5	5	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1,2-TRICHLOROETHANE	1	1	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
TRICHLOROETHYLENE (TCE)	5	5	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
TRICHLOROFLUOROMETHANE	5	5	2.0 U	2.0 U	2.0 U	2.0 U	1.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE	5	5	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
VINYL CHLORIDE	2	2	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	0.18 J	2.0 U	2.0 U	**11**	**3.0**	**14**	**5.2**	**19**	2.0 U	**14**
M,P-XYLENES	5	5	3.0 U	3.0 U	3.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	0.58 J	2.0 U	0.26 J	0.35 J	0.6 J	2.0 U	2.0 U
O-XYLENE (1,2-DIMETHYLBENZENE)	5	5	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	0.14 J	1.0 U	1.0 U	1.0 U
XYLENES, TOTAL	5	5	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U

Table 8
Treatment System Analytical Data - Influent
Fort Edward Landfill, Fort Edward, NY
NYSDEC Site # 558001

Polychlorinated Biphenyls (ug/L)																	
PCB-1016 (AROCLOR 1016)	*	*	0.2 U	0.2 U	0.2 U	**0.6**	0.2 U	0.2 U	**0.81**	**0.34**	**4.1**	**80**	**25**	2.0 U	4.0 U	**2.2**	1.9 U
PCB-1221 (AROCLOR 1221)	*	*	**1.5**	0.2 U	0.2 U	0.2 U	**2.2**	0.2 U	0.2 U	0.2 U	1.0 U	1.0 U	4.0 U	2.0 U	4.0 U	0.19 U	1.9 U
PCB-1232 (AROCLOR 1232)	*	*	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	1.0 U	1.0 U	4.0 U	2.0 U	**30**	0.19 U	**17**
PCB-1242 (AROCLOR 1242)	*	*	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	**0.93**	0.2 U	0.2 U	1.0 U	1.0 U	4.0 U	**8.5**	4.0 U	0.19 U	1.9 U
PCB-1248 (AROCLOR 1248)	*	*	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	1.0 U	1.0 U	4.0 U	2.0 U	4.0 U	0.19 U	1.9 U
PCB-1254 (AROCLOR 1254)	*	*	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	1.0 U	1.0 U	4.0 U	2.0 U	4.0 U	0.19 U	1.9 U
PCB-1260 (AROCLOR 1260)	*	*	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	1.0 U	1.0 U	4.0 U	2.0 U	4.0 U	0.19 U	1.9 U
PCB-1262 (AROCLOR 1262)	*	*	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	1.0 U	1.0 U	4.0 U	2.0 U	4.0 U	0.19 U	1.9 U
PCB-1268 (AROCLOR 1268)	*	*	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	1.0 U	1.0 U	4.0 U	2.0 U	4.0 U	0.19 U	1.9 U
PCB Total	0.09	0.09	**1.5**	0.2 U	0.2 U	**0.6**	**2.2**	**0.93**	**0.81**	**0.34**	**4.1**	**80**	**25**	**8.5**	**30**	**2.2**	**17**
Metals (mg/L)																	
ALUMINUM	--	2	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.06	0.05 U	0.05 U	0.09	0.05 U	13	0.050 U	0.05 U	0.05 U
ANTIMONY	0.003	0.006	0.005 U	0.005 U	0.005 U	0.050 U	0.050 U	0.050 U	**0.052**	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
ARSENIC	0.025	0.05	0.019	0.0021	0.002 U	0.01 U	0.02	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.0059	0.01 U	0.01 U	0.01 U	0.01 U
BARIUM	1	2	0.076	0.05 U	0.05 U	0.05 U	0.13	0.054	0.05 U	0.05	0.061	0.08	0.08	0.11	0.066	0.053	0.068
BERYLLIUM	0.003	0.003	0.002 U	0.002 U	0.002 U	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U
CADMIUM	0.005	0.01	0.0025 U	0.0025 U	0.0025 U	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U
CALCIUM	--	--	83	81	80	79	99	94	90	81	100	100	96	98	91	87	99
CHROMIUM, TOTAL	0.05	0.1	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U
COBALT	--	--	0.01 U	0.01 U	0.01 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
COPPER	0.2	1	0.025 U	0.025 U	0.025 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U
IRON	0.3	0.6	**55**	**25**	**24**	**16**	**71**	**11**	**10**	**15**	**16**	**39**	**40**	**12**	**17**	**25**	**28**
LEAD	0.025	0.05	0.005 U	0.005 U	0.005 U	0.01 U	0.01 U	0.01 U	0.01	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U
MAGNESIUM	35	35	19	19	18	19	26	25	23	22	25	26	24	25	24	19	23
MANGANESE	0.3	0.6	**2.1**	2.0 U	**1.8**	**1.8**	**1.9**	**1.8**	**1.7**	**1.6**	**1.9**	**1.8**	**1.9**	**2.1**	**1.8**	**1.8**	**1.8**
MERCURY	0.0007	0.0014	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U
NICKEL	0.1	0.2	0.025 U	0.025 U	0.025 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U
POTASSIUM	--	--	2.8	3.1	3.1	3.8	5.5	3.8	3.4	3.1	4.5	3.5	4.3	5.6	4.7	3.1	4.1
SELENIUM	0.01	0.02	0.025 U	0.025 U	0.025 U	0.05 U	0.05 U	**0.052**	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
SILVER	0.05	0.1	0.0025 U	0.0025 U	0.0025 U	0.005	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U
SODIUM	20	--	**47**	**50**	**49**	**48**	**57**	**51**	**47**	**48**	**65**	**180**	**53**	**70**	**52**	**44**	**47**
THALLIUM	0.0005	0.0005	0.001 U	0.001 U	0.001 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
VANADIUM	--	--	0.025 U	0.025 U	0.025 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U
ZINC	2	5	0.071	0.05 U	0.05 U	0.02 U	0.02 U	0.025	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U
Conventional Chemistry (mg/L)																	
TOTAL DISSOLVED SOLIDS	--	--	390	220	400	340	510	290	470	270	540	620	430	550	380	530	470
TOTAL SUSPENDED SOLIDS	--	--	110	21	15	49	42	18	22	31	42	80	84	100	12	27	36
Perfluorinated Alkyl Substance (ng/L)																	
PERFLUOROBUTANESULFONIC ACID (PFBS)	70		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	2.0 U	NA	NA	NA	NA
PERFLUOROHEXANESULFONIC ACID (PFHxS)	70		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	2.9	NA	NA	NA	NA
PERFLUOROHEPTANOIC ACID (PFHpA)	70		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	12	NA	NA	NA	NA
PERFLUOROOCTANOIC ACID (PFOA)	70		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	37	NA	NA	NA	NA
PERFLUOROOCTANESULFONIC ACID (PFOS)	70		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	7.8	NA	NA	NA	NA
PERFLUORONONANOIC ACID (PFNA)	70		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	2.0 U	NA	NA	NA	NA
TOTAL PFAS	70		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	59.7	NA	NA	NA	NA

Notes:

Constitutents detected above the NYSDEC Class GA GW Standard are in **bold**.

Constitutents detected above the NYSDEC Class GA GW Effluent Limitation are highlighted in yellow.

* The NYSDEC Class GA GW Standard and Effluent Limitation for PCBs is 0.09 ug/L.

The current NYSDEC Health Advisory Limit for PFAS is 70 nanograms per liter for individual and total PFAS. Constituents detected above this standard are highlighted in orange.

Definitions:

NYSDEC Class GA GW Standard - New York State Department of Environmental Conservation Groundwater Standard and Guidance Value.

NYSDEC Class GA GW Effluent Limitation - New York State Department of Environmental Conservation Effluent Limitation.

U - The compound was analyzed for but not detected. The associated value is the compound quantitation limit.

J - The concentration is an approximate value.

B - Compound was found in the blank and sample.

T - LCS or LCSD is outside acceptable limits.

mg/L - milligrams per liter

ng/L - nanograms per liter

ug/L - micrograms per liter

NA - Not Analyzed

Table 9
Treatment System Analytical Data - Clarifier Catch Tank
Fort Edward Landfill, Fort Edward, NY
NYSDEC Site # 558001

Chemical Name	NYSDEC Class GA GW Standard	NYSDEC Class GA GW Effluent Limitation	12/28/2016	1/19/2017	2/28/2017	3/29/2017	4/27/2017	5/24/2017	6/28/2017	7/31/2017	8/29/2017	9/25/2017	10/30/2017	11/27/2017
Volatile Organic Compounds (ug/L)														
ACETONE	50	50	50 J	130	23 J	27 J	12 J	50 U	5.6 J	8.1 J	50 U	8.7 J	50 U	50 U
BENZENE	1	1	0.32 J	0.28 J	0.14 J	0.16 J	0.24 J	0.47 J	0.31 J	0.74 J	0.63 J	0.71 J	0.24 J	0.37 J
BROMOCHLOROMETHANE	5	5	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
BROMODICHLOROMETHANE	50	50	0.5 U	0.5 U	0.5 U	1.2 U	0.61	0.5	0.38 J	1.1 J	0.5 U	0.54	0.5 U	0.5 U
BROMOFORM	50	50	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
BROMOMETHANE	5	5	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
2-BUTANONE (MEK)	50	50	30	20 U	20 U	4.0 J	7.7 J	20 U	3.5 J	20 U	20 U	8.0 J	20 U	20 U
CARBON DISULFIDE	60	60	4.0 U	4.0 U	4.0 U	4.0 U	4.0 U	4.0 U	2.5 J	4.0 U	4.0 U	4.0 U	4.0 U	1.0 U
CARBON TETRACHLORIDE	5	5	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
CHLOROBENZENE	5	5	0.31 J	0.53 J	0.23 J	0.2 J	0.27 J	0.67 J	0.32 J	1.3	1.1	0.86 J	0.27 J	0.50 J
CHLORODIBROMOMETHANE	50	--	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
CHLOROETHANE	5	5	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	0.37 J	2.0 U	2.0 U
CYCLOHEXANE	--	--	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
1,2-DIBROMO-3-CHLOROPROPANE	0.04	0.04	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
1,2-DIBROMOETHANE (ETHYLENE DIBROMIDE)	0.0006	0.0006	1.0 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,2-DICHLOROBENZENE	3	3	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,3-DICHLOROBENZENE	3	3	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,4-DICHLOROBENZENE	3	3	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	0.23 J	1.0 U	0.31 J	0.27 J	0.25 J	0.16 J	0.19 J
DICHLORODIFLUOROMETHANE	5	5	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
1,1-DICHLOROETHANE	5	5	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
CIS-1,2-DICHLOROETHYLENE	5	5	1.0 U	0.42 J	0.28 J	0.38 J	0.30 J	10	8.8	25	17	20	0.3 J	8.9
TRANS-1,2-DICHLOROETHYLENE	5	5	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	0.46 J	0.33 J	0.31 J	1.0 U	1.0 U
1,2-DICHLOROETHANE	0.6	0.6	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1-DICHLOROETHYLENE	5	5	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-DICHLOROPROPANE	1	1	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
CIS-1,3-DICHLOROPROPENE	0.4	0.4	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
TRANS-1,3-DICHLOROPROPENE	0.4	0.4	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,4-DIOXANE	--	--	50 U	50 U	50 U	50 U	50 U	50 U	50 U	11	50 U	50 U	50 U	50 U
ETHYLBENZENE	5	5	0.2 J	1.0 U	1.0 U	1.0 U	1.0 U	0.20 J	1.0 U	0.13 J	0.18 J	0.16 J	1.0 U	1.0 U
2-HEXANONE	50	50	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
ISOPROPYLBENZENE (CUMENE)	5	5	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	0.18 J	0.16 J	1.0 U	1.0 U	2.0 U
METHYL ACETATE	--	--	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
METHYL TERT-BUTYL ETHER (MTBE)	10	10	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	0.12 J	1.0 U	1.0 U	1.0 U
METHYL CYCLOHEXANE	--	--	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.00 U	1.0 U	1.0 U	1.0 U	1.0 U
METHYLENE CHLORIDE	5	5	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
METHYL ISOBUTYL KETONE (4-METHYL-2-PENTANO	--	--	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
STYRENE	5	930	1.0 U	1.0 U	1.0 U	0.3 J	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1,1,2-TETRACHLOROETHANE	5	5	NA	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
TETRACHLOROETHYLENE (PCE)	5	5	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
TOLUENE	5	5	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	0.85 J	0.29 J	0.51 J	0.34 J	0.46 J	1.0 U	1.0 U
1,2,3-TRICHLOROBENZENE	5	5	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
1,2,4-TRICHLOROBENZENE	5	5	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1,1-TRICHLOROETHANE	5	5	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1,2-TRICHLOROETHANE	1	1	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
TRICHLOROETHYLENE (TCE)	5	5	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
TRICHLOROFLUOROMETHANE	5	5	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE	5	5	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
VINYL CHLORIDE	2	2	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	14	7.6	37	14	15	0.2 J	8.0
M,P-XYLENES	5	5	0.64 J	2.0 U	2.0 U	2.0 U	2.0 U	0.89 J	0.50 J	0.37 J	0.71 J	0.62 J	2.0 U	2.0 U
O-XYLENE (1,2-DIMETHYLBENZENE)	5	5	0.47 J	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	0.19 J	0.17 J	1.0 U	1.0 U
XYLENES, TOTAL	5	5	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U

Table 9
Treatment System Analytical Data - Clarifier Catch Tank
Fort Edward Landfill, Fort Edward, NY
NYSDEC Site # 558001

Polychlorinated Biphenyls (ug/L)																														
PCB-1016 (AROCLOR 1016)	*	*	**0.34**		0.2	U	0.2	U	**0.72**		**0.34**		**4.1**		**7.9**		**21**		4.0	U	4.0	U	**3.3**		3.9	U
PCB-1221 (AROCLOR 1221)	*	*	0.2	U	**2.0**		0.2	U	0.2	U	0.2	U	1.0	U	1.0	U	1.0	U	4.0	U	4.0	U	0.77	U	3.9	U
PCB-1232 (AROCLOR 1232)	*	*	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	1.0	U	1.0	U	1.0	U	4.0	U	**37**		0.77	U	**23**	
PCB-1242 (AROCLOR 1242)	*	*	0.2	U	0.2	U	**0.84**		0.2	U	0.2	U	1.0	U	1.0	U	1.0	U	**20**		4.0	U	0.77	U	3.9	U
PCB-1248 (AROCLOR 1248)	*	*	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	1.0	U	1.0	U	1.0	U	4.0	U	4.0	U	0.77	U	3.9	U
PCB-1254 (AROCLOR 1254)	*	*	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	1.0	U	1.0	U	1.0	U	4.0	U	4.0	U	0.77	U	3.9	U
PCB-1260 (AROCLOR 1260)	*	*	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	1.0	U	1.0	U	1.0	U	4.0	U	4.0	U	0.77	U	3.9	U
PCB-1262 (AROCLOR 1262)	*	*	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	1.0	U	1.0	U	1.0	U	4.0	U	4.0	U	0.77	U	3.9	U
PCB-1268 (AROCLOR 1268)	*	*	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	1.0	U	1.0	U	1.0	U	4.0	U	4.0	U	0.77	U	3.9	U
PCB Total	0.09	0.09	**0.34**		**2.0**		**0.84**		**0.72**		**0.34**		**4.1**		**7.9**		**21**		**20**		**37**		**3.3**		**23**	
Metals (mg/L)																														
ALUMINUM	--	2	0.05	U	0.06		0.05	U	0.65		1.9		0.54		0.35		0.57		0.73		1.5		0.33		0.39	
ANTIMONY	0.003	0.006	0.05	U	0.05	U	0.05	U	**0.051**		0.05	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05	U
ARSENIC	0.025	0.05	0.01	U	0.023		0.01	U	0.01	U	0.01	U	0.01	U	0.01	U	0.01	U	0.01	U	0.01	U	0.01	U	0.01	U
BARIUM	1	2	0.07		0.068		0.05	U	0.05	U	0.05	U	0.053		0.056		0.061		0.063		0.06		0.05	U	0.07	
BERYLLIUM	0.003	0.003	0.004	U	0.004	U	0.004	U	0.004	U	0.004	U	0.004	U	0.004	U	0.004	U	0.004	U	0.004	U	0.004	U	0.004	U
CADMIUM	0.005	0.01	0.004	U	0.004	U	0.004	U	0.004	U	0.004	U	0.004	U	0.004	U	0.004	U	0.004	U	0.004	U	0.004	U	0.004	U
CALCIUM	--	--	85		95		92		88		83		100		100		97		91		88		86		100	
CHROMIUM, TOTAL	0.05	0.1	0.01	U	0.01	U	0.01	U	0.01	U	0.01	U	0.01	U	0.01	U	0.01	U	0.01	U	0.01	U	0.01	U	0.01	U
COBALT	--	--	0.05	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05	U
COPPER	0.2	1	0.078		0.015		0.011		0.010	U	0.010	U	0.010	U	0.190		0.010	U	0.018		0.018		0.02		0.013	
IRON	0.3	0.6	**42**		**21**		**5.6**		**0.89**		**7.1**		**4.0**		**5.0**		**4.3**		**13**		**6.7**		**11**		**12**	
LEAD	0.025	0.05	0.086		0.038		0.01	U	0.01	U	0.01	U	0.01	U	0.01	U	0.01	U	0.01	U	0.01	U	0.01	U	0.01	U
MAGNESIUM	35	35	20		25		24		22		23		25		26		26		25		24		20		23	
MANGANESE	0.3	0.6	**1.9**		**1.8**		**1.9**		**1.4**		**1.6**		**1.8**		**1.8**		**1.8**		**1.8**		**1.7**		**1.8**		**1.8**	
MERCURY	0.0007	0.0014	0.0001	U	0.0001	U	0.0001	U	0.0001	U	0.0001	U	0.0001	U	0.0001	U	0.0001	U	0.0001	U	0.0001	U	0.0001	U	0.0001	U
NICKEL	0.1	0.2	0.01	U	0.01	U	0.01	U	0.01	U	0.01	U	0.01	U	0.01	U	0.01	U	0.013		0.042		0.05		0.016	
POTASSIUM	--	--	4.1		5.7		3.7		3.6		3.2		5.1		4		6.3		5.4		5.3		3.3		5.1	
SELENIUM	0.01	0.02	0.05	U	0.05	U	**0.057**		0.05	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05	U
SILVER	0.05	0.1	0.005	U	0.005	U	0.005	U	0.005	U	0.005	U	0.005	U	0.005	U	0.005	U	0.005	U	0.005	U	0.005	U	0.005	U
SODIUM	20	--	**48**		**55**		**50**		**59**		**59**		**61**		**58**		**75**		**59**		**66**		**56**		**55**	
THALLIUM	0.0005	0.0005	0.05	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05	U
VANADIUM	--	--	0.01	U	0.01	U	0.01	U	0.01	U	0.01	U	0.01	U	0.01	U	0.01	U	0.01	U	0.01	U	0.01	U	0.01	U
ZINC	2	5	0.2		0.076		0.048		0.027		0.02	U	0.035		0.49		0.02	U	0.1		0.02	U	0.15		0.27	
Conventional Chemistry (mg/L)																														
TOTAL DISSOLVED SOLIDS	--	--	400		460		410		520		440		550		480		480		450		380		460		540	
TOTAL SUSPENDED SOLIDS	--	--	120		47		5.0	U	40		32		23		5.0		14		45		12		48		11	
Perfluorinated Alkyl Substance (ng/L)																														
PERFLUOROBUTANESULFONIC ACID (PFBS)	70		NA		NA		NA		NA		NA		NA		NA		2.0	U	NA		NA		NA		NA	
PERFLUOROHEXANESULFONIC ACID (PFHxS)	70		NA		NA		NA		NA		NA		NA		NA		3.6		NA		NA		NA		NA	
PERFLUOROHEPTANOIC ACID (PFHpA)	70		NA		NA		NA		NA		NA		NA		NA		14		NA		NA		NA		NA	
PERFLUOROOCTANOIC ACID (PFOA)	70		NA		NA		NA		NA		NA		NA		NA		63		NA		NA		NA		NA	
PERFLUOROOCTANESULFONIC ACID (PFOS)	70		NA		NA		NA		NA		NA		NA		NA		8.2		NA		NA		NA		NA	
PERFLUORONONANOIC ACID (PFNA)	70		NA		NA		NA		NA		NA		NA		NA		2.0	U	NA		NA		NA		NA	
TOTAL PFAS	70		NA		NA		NA		NA		NA		NA		NA		88.8		NA		NA		NA		NA	

Notes:

Constitutents detected above the NYSDEC Class GA GW Standard are in **bold**.

Constitutents detected above the NYSDEC Class GA GW Effluent Limitation are highlighted in yellow.

* The NYSDEC Class GA GW Standard and Effluent Limitation for PCBs is 0.09 ug/L.

The current NYSDEC Health Advisory Limit for PFAS is 70 nanograms per liter for individual and total PFAS. Constituents detected above this standard are highlighted in orange.

Definitions:

NYSDEC Class GA GW Standard - New York State Department of Environmental Conservation Groundwater Standard and Guidance Value.
NYSDEC Class GA GW Effluent Limitation - New York State Department of Environmental Conservation Effluent Limitation.
U - The compound was analyzed for but not detected. The associated value is the compound quantitation limit.
J - The concentration is an approximate value.
B - Compound was found in the blank and sample.
T - LCS or LCSD is outside acceptable limits.
mg/L - milligrams per liter
ng/L - nanograms per liter
ug/L - micrograms per liter
NA - Not Analyzed

Table 10
Treatment System Analytical Data - Cell 3 Chamber
Fort Edward Landfill, Fort Edward, NY
NYSDEC Site # 558001

Chemical Name	NYSDEC Class GA GW Standard	NYSDEC Class GA GW Effluent Limitation	11/15/2016		12/18/2016		1/19/2017		2/28/2017		3/29/2017		4/27/2017		5/24/2017		7/31/2017	
Volatile Organic Compounds (ug/L)																		
ACETONE	50	50	9.7	J	11	J	19	J	29	J	23	J	6.9	J	9.5	J	50	U
BENZENE	1	1	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
BROMOCHLOROMETHANE	5	5	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
BROMODICHLOROMETHANE	50	50	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
BROMOFORM	50	50	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
BROMOMETHANE	5	5	2.0	U	2.0	U	2.0	U	2.0	U	2.0	U	2.0	U	2.0	U	2.0	U
2-BUTANONE (MEK)	50	50	20	U	20	U	20	U	20	U	20	U	20	U	13	J	20	U
CARBON DISULFIDE	60	60	4.0	U	4.0	U	4.0	U	4.0	U	4.0	U	4.0	U	4.0	U	4.0	U
CARBON TETRACHLORIDE	5	5	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U
CHLOROBENZENE	5	5	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
CHLORODIBROMOMETHANE	50	--	2.0	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
CHLOROETHANE	5	5	2.0	U	2.0	U	2.0	U	2.0	U	2.0	U	2.0	U	2.0	U	2.0	U
CYCLOHEXANE	--	--	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U
1,2-DIBROMO-3-CHLOROPROPANE	0.04	0.04	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U
1,2-DIBROMOETHANE (ETHYLENE DIBROMIDE)	0.0006	0.0006	0.5	U	1.0	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2-DICHLOROBENZENE	3	3	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
1,3-DICHLOROBENZENE	3	3	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
1,4-DICHLOROBENZENE	3	3	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
DICHLORODIFLUOROMETHANE	5	5	2.0	U	2.0	U	2.0	U	2.0	U	2.0	U	2.0	U	2.0	U	2.0	U
1,1-DICHLOROETHANE	5	5	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
CIS-1,2-DICHLOROETHYLENE	5	5	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	0.68	J	0.85	J
TRANS-1,2-DICHLOROETHYLENE	5	5	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
1,2-DICHLOROETHANE	0.6	0.6	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
1,1-DICHLOROETHYLENE	5	5	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
1,2-DICHLOROPROPANE	1	1	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
CIS-1,3-DICHLOROPROPENE	0.4	0.4	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
TRANS-1,3-DICHLOROPROPENE	0.4	0.4	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,4-DIOXANE	--	--	50	U	50	U	50	U	50	U	50	U	50	U	50	U	1.3	
ETHYLBENZENE	5	5	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
2-HEXANONE	50	50	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U
ISOPROPYLBENZENE (CUMENE)	5	5	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
METHYL ACETATE	--	--	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
METHYL TERT-BUTYL ETHER (MTBE)	10	10	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
METHYL CYCLOHEXANE	--	--	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
METHYLENE CHLORIDE	5	5	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U
METHYL ISOBUTYL KETONE (4-METHYL-2-PENTAN	--	--	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U
STYRENE	5	930	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
1,1,1,2-TETRACHLOROETHANE	5	5	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
TETRACHLOROETHYLENE (PCE)	5	5	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
TOLUENE	5	5	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
1,2,3-TRICHLOROBENZENE	5	5	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U
1,2,4-TRICHLOROBENZENE	5	5	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
1,1,1-TRICHLOROETHANE	5	5	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
1,1,2-TRICHLOROETHANE	1	1	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
TRICHLOROETHYLENE (TCE)	5	5	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
TRICHLOROFLUOROMETHANE	5	5	2.0	U	2.0	U	2.0	U	2.0	U	2.0	U	2.0	U	2.0	U	2.0	U
1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE	5	5	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
VINYL CHLORIDE	2	2	2.0	U	2.0	U	2.0	U	2.0	U	2.0	U	2.0	U	1.3	J	2.0	U
M,P-XYLENES	5	5	2.0	U	2.0	U	2.0	U	2.0	U	2.0	U	2.0	U	2.0	U	2.0	U
O-XYLENE (1,2-DIMETHYLBENZENE)	5	5	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
XYLENES, TOTAL	5	5	3.0	U	3.0	U	3.0	U	3.0	U	3.0	U	3.0	U	3.0	U	3.0	U

Table 10
Treatment System Analytical Data - Cell 3 Chamber
Fort Edward Landfill, Fort Edward, NY
NYSDEC Site # 558001

Polychlorinated Biphenyls (ug/L)																						
PCB-1016 (AROCLOR 1016)	*	*	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U		
PCB-1221 (AROCLOR 1221)	*	*	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U		
PCB-1232 (AROCLOR 1232)	*	*	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U		
PCB-1242 (AROCLOR 1242)	*	*	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U		
PCB-1248 (AROCLOR 1248)	*	*	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U		
PCB-1254 (AROCLOR 1254)	*	*	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U		
PCB-1260 (AROCLOR 1260)	*	*	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U		
PCB-1262 (AROCLOR 1262)	*	*	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U		
PCB-1268 (AROCLOR 1268)	*	*	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U		
PCB Total	0.09	0.09	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U		
Metals (mg/L)																						
ALUMINUM	--	2	0.12		0.05	U	0.05	U	0.05	U	0.065		0.05	U	0.05	U	0.086					
ANTIMONY	0.003	0.006	0.005	U	0.05	U	0.05	U	0.05	U	0.056		0.05	U	0.05	U	0.05	U				
ARSENIC	0.025	0.05	0.002	U	0.01	U	0.01	U	0.01	U	0.01	U	0.01	U	0.019		0.018					
BARIUM	1	2	0.059		0.057		0.059		0.050	U	0.050	U	0.071	U	0.060		0.082					
BERYLLIUM	0.003	0.003	0.002	U	0.004	U	0.004	U	0.004	U	0.004	U	0.004	U	0.004	U	0.004	U				
CADMIUM	0.005	0.01	0.0025	U	0.004	U	0.004	U	0.004	U	0.004	U	0.004	U	0.004	U	0.004	U				
CALCIUM	--	--	97		110		110		83		92		40		110		70					
CHROMIUM, TOTAL	0.05	0.1	0.005	U	0.01	U	0.01	U	0.01	U	0.01	U	0.01	U	0.01	U	0.01	U				
COBALT	--	--	0.005	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05	U				
COPPER	0.2	1	0.025	U	0.01	U	0.01	U	0.01	U	0.01	U	0.01	U	0.01	U	0.01	U				
IRON	0.3	0.6	**0.75**		**5.0**		**3.0**		**0.81**		**1.7**		0.05	U	**19**		**16**					
LEAD	0.025	0.05	0.005	U	0.01	U	0.01	U	0.01	U	0.01	U	0.01	U	0.01	U	0.01	U				
MAGNESIUM	35	35	14		17		21		15		17		11		21		12					
MANGANESE	0.3	0.6	**0.33**		**1.1**		**0.83**		**0.43**		**0.66**		0.053		**2.3**		**0.99**					
MERCURY	0.0007	0.0014	0.0001	U	0.0001	U	0.0001	U	0.0001	U	0.0001	U	0.0001	U	0.0001	U	0.0001	U				
NICKEL	0.1	0.2	0.025	U	0.014		0.013		0.01	U	0.01	U	0.01	U	0.01	U	0.01	U				
POTASSIUM	--	--	3.1		7.7		9.1		4.7		4.0		2.0	U	6.5		3.2					
SELENIUM	0.01	0.02	0.025	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05	U				
SILVER	0.05	0.1	0.0025	U	0.005	U	0.005	U	0.005	U	0.005	U	0.005	U	0.005	U	0.005	U				
SODIUM	20	--	**34**		**37**		**48**		**30**		**36**		13		**49**		15					
THALLIUM	0.0005	0.0005	0.0011		0.05	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05	U				
VANADIUM	--	--	0.025	U	0.01	U	0.01	U	0.01	U	0.01	U	0.01	U	0.01	U	0.01	U				
ZINC	2	5	0.05	U	0.02	U	0.02		0.02	U	0.02	U	0.02	U	0.02	U	0.02	U				
Conventional Chemistry (mg/L)																						
TOTAL DISSOLVED SOLIDS	--	--	440		430		490		210		450		420		470		240					
TOTAL SUSPENDED SOLIDS	--	--	5.0	U	26		10		5.0	U	11		20		41		54					
Perfluorinated Alkyl Substance (ng/L)																						
PERFLUOROBUTANESULFONIC ACID (PFBS)	70		NA		NA		NA		NA		NA		NA		NA		2.0	U				
PERFLUOROHEXANESULFONIC ACID (PFHxS)	70		NA		NA		NA		NA		NA		NA		NA		1.1	J				
PERFLUOROHEPTANOIC ACID (PFHpA)	70		NA		NA		NA		NA		NA		NA		NA		6.3					
PERFLUOROOCTANOIC ACID (PFOA)	70		NA		NA		NA		NA		NA		NA		NA		14					
PERFLUOROOCTANESULFONIC ACID (PFOS)	70		NA		NA		NA		NA		NA		NA		NA		2.6					
PERFLUORONONANOIC ACID (PFNA)	70		NA		NA		NA		NA		NA		NA		NA		0.9	J				
TOTAL PFAS	70		NA		NA		NA		NA		NA		NA		NA		24.9					

Notes:
Constitutents detected above the NYSDEC Class GA GW Standard are in **bold**.
Constitutents detected above the NYSDEC Class GA GW Effluent Limitation are highlighted in yellow.
* The NYSDEC Class GA GW Standard and Effluent Limitation for PCBs is 0.09 ug/L.
The current NYSDEC Health Advisory Limit for PFAS is 70 nanograms per liter for individual and total PFAS. Constituents detected above this standard are highlighted in oran

Definitions:
NYSDEC Class GA GW Standard - New York State Department of Environmental Conservation Groundwater Standard and Guidance Value.
NYSDEC Class GA GW Effluent Limitation - New York State Department of Environmental Conservation Effluent Limitation.
U - The compound was analyzed for but not detected. The associated value is the compound quantitation limit.
J - The concentration is an approximate value.
B - Compound was found in the blank and sample.
T - LCS or LCSD is outside acceptable limits.
mg/L - milligrams per liter
ng/L - nanograms per liter
ug/L - micrograms per liter
NA - Not Analyzed

Table 11
Treatment System Analytical Data - Cell 3 Bypass
Fort Edward Landfill, Fort Edward, NY
NYSDEC Site # 558001

Chemical Name	NYSDEC Class GA GW Standard	NYSDEC Class GA GW Effluent Limitation	6/28/2017		8/29/2017		9/25/2017		10/30/2017		11/27/2017	
Volatile Organic Compounds (ug/L)												
ACETONE	50	50	50	U	50	U	50	U	50	U	50	U
BENZENE	1	1	1.0	U	1.0	U	1.0	U	1.0	U	0.14	J
BROMOCHLOROMETHANE	5	5	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
BROMODICHLOROMETHANE	50	50	0.5	U	0.5	U	0.5	U	0.5	U	1.0	
BROMOFORM	50	50	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
BROMOMETHANE	5	5	2.0	U	2.0	U	2.0	U	2.0	U	2.0	U
2-BUTANONE (MEK)	50	50	20	U	20	U	20	U	20	U	20	U
CARBON DISULFIDE	60	60	2.6	J	4.0	U	4.0	U	4.0	U	1.0	U
CARBON TETRACHLORIDE	5	5	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U
CHLOROBENZENE	5	5	1.0	U	0.16	J	1.0	U	1.0	U	1.0	U
CHLORODIBROMOMETHANE	50	--	0.5	U	0.50	U	0.5	U	0.5	U	0.16	J
CHLOROETHANE	5	5	2.0	U	2.0	U	2.0	U	2.0	U	2.0	U
CYCLOHEXANE	--	--	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U
1,2-DIBROMO-3-CHLOROPROPANE	0.04	0.04	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U
1,2-DIBROMOETHANE (ETHYLENE DIBROMIDE)	0.0006	0.0006	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2-DICHLOROBENZENE	3	3	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
1,3-DICHLOROBENZENE	3	3	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
1,4-DICHLOROBENZENE	3	3	1.0	U	1.0	U	1.00	U	1.0	U	1.0	U
DICHLORODIFLUOROMETHANE	5	5	2.0	U	2.0	U	2.0	U	2.0	U	2.0	U
1,1-DICHLOROETHANE	5	5	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
CIS-1,2-DICHLOROETHYLENE	5	5	3.2		**7.0**		**9.2**		0.19	J	**5.0**	
TRANS-1,2-DICHLOROETHYLENE	5	5	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
1,2-DICHLOROETHANE	0.6	0.6	1.0	U	1.0	U	1.0	U	1.0	U	**0.74**	**J**
1,1-DICHLOROETHYLENE	5	5	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
1,2-DICHLOROPROPANE	1	1	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
CIS-1,3-DICHLOROPROPENE	0.4	0.4	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
TRANS-1,3-DICHLOROPROPENE	0.4	0.4	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,4-DIOXANE	--	--	50	U	50	U	50	U	50	U	50	U
ETHYLBENZENE	5	5	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
2-HEXANONE	50	50	10	U	10	U	10	U	10	U	10	U
ISOPROPYLBENZENE (CUMENE)	5	5	1.0	U	1.0	U	1.0	U	1.0	U	2.0	U
METHYL ACETATE	--	--	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
METHYL TERT-BUTYL ETHER (MTBE)	10	10	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
METHYL CYCLOHEXANE	--	--	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
METHYLENE CHLORIDE	5	5	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U
METHYL ISOBUTYL KETONE (4-METHYL-2-PENTAN	--	--	10	U	10	U	10	U	10	U	10	U
STYRENE	5	930	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
1,1,1,2-TETRACHLOROETHANE	5	5	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
TETRACHLOROETHYLENE (PCE)	5	5	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
TOLUENE	5	5	0.2	J	1.0	U	0.23	J	1.0	U	1.0	U
1,2,3-TRICHLOROBENZENE	5	5	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U
1,2,4-TRICHLOROBENZENE	5	5	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
1,1,1-TRICHLOROETHANE	5	5	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
1,1,2-TRICHLOROETHANE	1	1	1.0	U	1.0	U	1.0	U	1.0	U	**1.1**	
TRICHLOROETHYLENE (TCE)	5	5	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
TRICHLOROFLUOROMETHANE	5	5	2.0	U	2.0	U	2.0	U	2.0	U	2.0	U
1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE	5	5	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
VINYL CHLORIDE	2	2	2.0	U	**2.5**		1.4	J	2.0	U	**4.2**	
M,P-XYLENES	5	5	2.0	U	2.0	U	2.0	U	2.0	U	2.0	U
O-XYLENE (1,2-DIMETHYLBENZENE)	5	5	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
XYLENES, TOTAL	5	5	3.0	U	3.0	U	3.0	U	3.0	U	3.0	U

Table 11
Treatment System Analytical Data - Cell 3 Bypass
Fort Edward Landfill, Fort Edward, NY
NYSDEC Site # 558001

Polychlorinated Biphenyls (ug/L)																
PCB-1016 (AROCLOR 1016)	*	*	**0.44**		0.2	U	1.0	U	**0.53**		0.19	U				
PCB-1221 (AROCLOR 1221)	*	*	0.2	U	0.2	U	1.0	U	0.19	U	0.19	U				
PCB-1232 (AROCLOR 1232)	*	*	0.2	U	0.2	U	**3.9**		0.19	U	**0.97**					
PCB-1242 (AROCLOR 1242)	*	*	0.2	U	**1.1**		1.0	U	0.19	U	0.19	U				
PCB-1248 (AROCLOR 1248)	*	*	0.2	U	0.2	U	1.0	U	0.19	U	0.19	U				
PCB-1254 (AROCLOR 1254)	*	*	0.2	U	0.2	U	1.0	U	0.19	U	0.19	U				
PCB-1260 (AROCLOR 1260)	*	*	0.2	U	0.2	U	1.0	U	0.19	U	0.19	U				
PCB-1262 (AROCLOR 1262)	*	*	0.2	U	0.2	U	1.0	U	0.19	U	0.19	U				
PCB-1268 (AROCLOR 1268)	*	*	0.2	U	0.2	U	1.0	U	0.19	U	0.19	U				
PCB Total	0.09	0.09	**0.44**		**1.1**		**3.9**		**0.53**		**0.97**					
Metals (mg/L)																
ALUMINUM	--	2	3.0		0.091		0.087		0.05	U	0.05	U				
ANTIMONY	0.003	0.006	0.05	U	0.05	U	0.05	U	0.05	U	0.05	U				
ARSENIC	0.025	0.05	0.01	U	0.01	U	0.01	U	0.01	U	0.01	U				
BARIUM	1	2	0.11		0.083		0.071		0.05	U	0.066					
BERYLLIUM	0.003	0.003	0.004	U	0.004	U	0.004	U	0.004	U	0.004	U				
CADMIUM	0.005	0.01	0.004	U	0.004	U	0.004	U	0.004	U	0.004	U				
CALCIUM	--	--	120		110		100		89		110					
CHROMIUM, TOTAL	0.05	0.1	0.01	U	0.01	U	0.01	U	0.01	U	0.01	U				
COBALT	--	--	0.05	U	0.05	U	0.05	U	0.05	U	0.05	U				
COPPER	0.2	1	0.01	U	0.01	U	0.01	U	0.01	U	0.01	U				
IRON	0.3	0.6	**16**		**6.4**		**5.5**		**0.55**		**1.7**					
LEAD	0.025	0.05	0.01	U	0.01	U	0.01	U	0.01	U	0.01	U				
MAGNESIUM	35	35	26		25		24		20		24					
MANGANESE	0.3	0.6	**1.9**		**1.4**		**1.4**		**0.35**		**0.61**					
MERCURY	0.0007	0.0014	0.0001	U	0.0001	U	0.0001	U	0.0001	U	0.0001	U				
NICKEL	0.1	0.2	0.01	U	0.01	U	0.01	U	0.01	U	0.01	U				
POTASSIUM	--	--	2.2		2.4		2.9		3.1		5.3					
SELENIUM	0.01	0.02	0.05	U	0.05	U	0.05	U	0.05	U	0.05	U				
SILVER	0.05	0.1	0.005	U	0.005	U	0.005	U	0.005	U	0.005	U				
SODIUM	20	--	**64**		**71**		**67**		**52**		**63**					
THALLIUM	0.0005	0.0005	0.05	U	0.05	U	0.05	U	0.05	U	0.05	U				
VANADIUM	--	--	0.01	U	0.01	U	0.01	U	0.01	U	0.01	U				
ZINC	2	5	0.02	U	0.02	U	0.02	U	0.02	U	0.02	U				
Conventional Chemistry (mg/L)																
TOTAL DISSOLVED SOLIDS	--	--	450		440		450		480		590					
TOTAL SUSPENDED SOLIDS	--	--	10		16		34		5.0	U	8.0					
Perfluorinated Alkyl Substance (ng/L)																
PERFLUOROBUTANESULFONIC ACID (PFBS)	70		NA		NA		NA		NA		NA					
PERFLUOROHEXANESULFONIC ACID (PFHxS)	70		NA		NA		NA		NA		NA					
PERFLUOROHEPTANOIC ACID (PFHpA)	70		NA		NA		NA		NA		NA					
PERFLUOROOCTANOIC ACID (PFOA)	70		NA		NA		NA		NA		NA					
PERFLUOROOCTANESULFONIC ACID (PFOS)	70		NA		NA		NA		NA		NA					
PERFLUORONONANOIC ACID (PFNA)	70		NA		NA		NA		NA		NA					
TOTAL PFAS	70		NA		NA		NA		NA		NA					

Notes:
Constitutents detected above the NYSDEC Class GA GW Standard are in **bold**.
Constitutents detected above the NYSDEC Class GA GW Effluent Limitation are highlighted in yellow.
* The NYSDEC Class GA GW Standard and Effluent Limitation for PCBs is 0.09 ug/L.
The current NYSDEC Health Advisory Limit for PFAS is 70 nanograms per liter for individual and total PFAS. Constituents detected above this standard are highlighted

Definitions:
NYSDEC Class GA GW Standard - New York State Department of Environmental Conservation Groundwater Standard and Guidance Value.
NYSDEC Class GA GW Effluent Limitation - New York State Department of Environmental Conservation Effluent Limitation.
U - The compound was analyzed for but not detected. The associated value is the compound quantitation limit.
J - The concentration is an approximate value.
B - Compound was found in the blank and sample.
T - LCS or LCSD is outside acceptable limits.
mg/L - milligrams per liter
ng/L - nanograms per liter
ug/L - micrograms per liter
NA - Not Analyzed

Table 12
Treatment System Analytical Data - Cell 2 Effluent
Fort Edward Landfill, Fort Edward, NY
NYSDEC Site # 558001

Chemical Name	NYSDEC Class GA GW Standard	NYSDEC Class GA GW Effluent Limitation	9/13/2016	11/15/2016	4/27/2017	5/24/2017	6/28/2017	7/31/2017	8/29/2017	9/25/2017	10/30/2017	11/27/2017
Volatile Organic Compounds (ug/L)												
ACETONE	50	50	1.0 U	1.0 U	1.0 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U
BENZENE	1	1	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
BROMOCHLOROMETHANE	5	5	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
BROMODICHLOROMETHANE	50	50	1.0 U	1.0 U	1.0 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
BROMOFORM	50	50	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
BROMOMETHANE	5	5	1.0 U	1.0 U	1.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
2-BUTANONE (MEK)	50	50	1.0 U	1.0 U	1.0 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U
CARBON DISULFIDE	60	60	5.0 U	5.0 U	5.0 U	4.0 U	2.7 J	4.0 U	4.0 U	4.0 U	4.0 U	1.0 U
CARBON TETRACHLORIDE	5	5	0.5 U	0.5 U	0.5 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
CHLOROBENZENE	5	5	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
CHLORODIBROMOMETHANE	50	--	1.0 U	1.0 U	1.0 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
CHLOROETHANE	5	5	1.0 U	1.0 U	1.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
CYCLOHEXANE	--	--	1.0 U	1.0 U	1.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
1,2-DIBROMO-3-CHLOROPROPANE	0.04	0.04	**8.2 J**	**15 J**	50 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
1,2-DIBROMOETHANE (ETHYLENE DIBROMIDE)	0.0006	0.0006	1.0 U	1.0 U	1.0 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,2-DICHLOROBENZENE	3	3	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,3-DICHLOROBENZENE	3	3	0.5 U	0.5 U	0.5 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,4-DICHLOROBENZENE	3	3	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
DICHLORODIFLUOROMETHANE	5	5	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
1,1-DICHLOROETHANE	5	5	20 U	**5.2 J**	20 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
CIS-1,2-DICHLOROETHYLENE	5	5	5.0 U	5.0 U	5.0 U	0.69 J	2.3	4.5	**5.5**	**6.7**	1.6	1.5
TRANS-1,2-DICHLOROETHYLENE	5	5	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-DICHLOROETHANE	0.6	0.6	2.0 U	2.0 U	0.5 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1-DICHLOROETHYLENE	5	5	2.0 U	2.0 U	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-DICHLOROPROPANE	1	1	NA	NA	NA	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
CIS-1,3-DICHLOROPROPENE	0.4	0.4	1.0 U	1.0 U	1.0 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
TRANS-1,3-DICHLOROPROPENE	0.4	0.4	1.0 U	1.0 U	1.0 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,4-DIOXANE	--	--	0.5 U	0.5 U	0.5 U	50 U	50 U	5.7	50 U	50 U	50 U	50 U
ETHYLBENZENE	5	5	5.0 U	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
2-HEXANONE	50	50	NA	NA	NA	10 U	10 U	10 U	10 U	10 U	10 U	10 U
ISOPROPYLBENZENE (CUMENE)	5	5	2.0 U	2.0 U	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U
METHYL ACETATE	--	--	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
METHYL TERT-BUTYL ETHER (MTBE)	10	10	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
METHYL CYCLOHEXANE	--	--	2.0 U	2.0 U	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
METHYLENE CHLORIDE	5	5	1.0 U	1.0 U	1.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
METHYL ISOBUTYL KETONE (4-METHYL-2-PENTA	--	--	1.0 U	1.0 U	1.0 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
STYRENE	5	930	10 U	10 U	10 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1,1,2-TETRACHLOROETHANE	5	5	5.0 U	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
TETRACHLOROETHYLENE (PCE)	5	5	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
TOLUENE	5	5	NA	NA	NA	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2,3-TRICHLOROBENZENE	5	5	NA	NA	NA U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
1,2,4-TRICHLOROBENZENE	5	5	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1,1-TRICHLOROETHANE	5	5	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1,2-TRICHLOROETHANE	1	1	5.0 U	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
TRICHLOROETHYLENE (TCE)	5	5	NA	NA	NA	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
TRICHLOROFLUOROMETHANE	5	5	0.5 U	0.5 U	0.5 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE	5	5	50 U	50 U	50 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
VINYL CHLORIDE	2	2	1.0 U	1.0 U	1.0 U	0.62 J	2.0 U	2.0 U	1.6 J	1.4 J	0.41 J	0.39 J
M,P-XYLENES	5	5	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
O-XYLENE (1,2-DIMETHYLBENZENE)	5	5	2.0 U	2.0 U	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
XYLENES, TOTAL	5	5	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U

Table 12
Treatment System Analytical Data - Cell 2 Effluent
Fort Edward Landfill, Fort Edward, NY
NYSDEC Site # 558001

ARCADIS Design & Consultancy for natural and built assets

Polychlorinated Biphenyls (ug/L)																						
PCB-1016 (AROCLOR 1016)	*	*	0.2	U	NA		0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.19	U	0.19	U
PCB-1221 (AROCLOR 1221)	*	*	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.19	U	0.19	U
PCB-1232 (AROCLOR 1232)	*	*	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.19	U	**0.39**	
PCB-1242 (AROCLOR 1242)	*	*	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.19	U	0.19	U
PCB-1248 (AROCLOR 1248)	*	*	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.19	U	0.19	U
PCB-1254 (AROCLOR 1254)	*	*	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.19	U	0.19	U
PCB-1260 (AROCLOR 1260)	*	*	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.19	U	0.19	U
PCB-1262 (AROCLOR 1262)	*	*	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.19	U	0.19	U
PCB-1268 (AROCLOR 1268)	*	*	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.19	U	0.19	U
PCB Total	0.09	0.09	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.19	U	**0.39**	
Metals (mg/L)																						
ALUMINUM	--	2	0.05	U	0.05	U	0.17		0.05	U	0.077		0.062		0.056		0.05	U	0.072		0.05	U
ANTIMONY	0.003	0.006	0.005	U	0.005	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05	U
ARSENIC	0.025	0.05	0.0029		0.0029		0.01	U	0.012		0.01	U	0.0062		0.01	U	0.01	U	0.01	U	0.01	U
BARIUM	1	2	0.063		0.073		0.12		0.074		0.067		0.073		0.077		0.08		0.064		0.062	
BERYLLIUM	0.003	0.003	0.002	U	0.002	U	0.004	U	0.004	U	0.004	U	0.004	U	0.004	U	0.004	U	0.004	U	0.004	U
CADMIUM	0.005	0.01	0.0025	U	0.0025	U	0.004	U	0.004	U	0.004	U	0.004	U	0.004	U	0.004	U	0.004	U	0.004	U
CALCIUM	--	--	130		240		62		110		100		110		110		110		110		100	
CHROMIUM, TOTAL	0.05	0.1	0.005	U	0.005	U	0.01	U	0.01	U	0.01	U	0.01	U	0.01	U	0.01	U	0.01	U	0.01	U
COBALT	--	--	0.013		0.048		0.05	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05	U
COPPER	0.2	1	0.025	U	0.025	U	0.01	U	0.01	U	0.01	U	0.01	U	0.01	U	0.01	U	0.01	U	0.01	U
IRON	0.3	0.6	**2.0**		**22**		**0.39**		**9.2**		**9.4**		**11**		**10**		**10**		**10**		**6.6**	
LEAD	0.025	0.05	0.005	U	0.005	U	0.01	U	0.01	U	0.01	U	0.01	U	0.01	U	0.01	U	0.01	U	0.01	U
MAGNESIUM	35	35	20		31		20		17		19		20		23		22		21		20	
MANGANESE	0.3	0.6	**0.72**		**0.86**		**2.6**		**1.8**		**1.5**		**1.5**		**1.5**		**1.4**		**1.2**		**0.92**	
MERCURY	0.0007	0.0014	0.0001	U	0.0001	U	0.0001	U	0.0001	U	0.0001	U	0.0001	U	0.0001	U	0.0001	U	0.0001	U	0.0001	U
NICKEL	0.1	0.2	0.077		0.026		0.01	U	0.014		0.01	U	0.01	U	0.01	U	0.01	U	0.01	U	0.01	U
POTASSIUM	--	--	2.8		4.6		2.0	U	3.5		2.0	U	2.0	U	2.1		2.0	U	2.0	U	2.9	
SELENIUM	0.01	0.02	0.0025	U	0.0025	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05	U	0.034	U
SILVER	0.05	0.1	0.0025	U	0.0025	U	0.005	U	0.005	U	0.005	U	0.005	U	0.005	U	0.005	U	0.005	U	0.005	U
SODIUM	20	--	**36**		**43**		**47**		**41**		**51**		**60**		**66**		**65**		**61**		**54**	
THALLIUM	0.0005	0.0005	0.001	U	0.001	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05	U
VANADIUM	--	--	0.025	U	0.025	U	0.01	U	0.01	U	0.01	U	0.01	U	0.01	U	0.01	U	0.01	U	0.01	U
ZINC	2	5	0.05	U	0.05	U	0.02	U	0.02	U	0.02	U	0.02	U	0.02	U	0.02	U	0.02	U	0.02	U
Conventional Chemistry (mg/L)																						
TOTAL DISSOLVED SOLIDS	--	--	560		920		250		510		410		490		590		490		600		510	
TOTAL SUSPENDED SOLIDS	--	--	5.0	U	21		19		37		5.0	U	17		22		7.0		22		5.0	
Perfluorinated Alkyl Substance (ng/L)																						
PERFLUOROBUTANESULFONIC ACID (PFBS)	70		NA		NA		NA		NA		NA		2.0	U	NA		NA		NA		NA	
PERFLUOROHEXANESULFONIC ACID (PFHxS)	70		NA		NA		NA		NA		NA		2.3		NA		NA		NA		NA	
PERFLUOROHEPTANOIC ACID (PFHpA)	70		NA		NA		NA		NA		NA		11.0		NA		NA		NA		NA	
PERFLUOROOCTANOIC ACID (PFOA)	70		NA		NA		NA		NA		NA		41		NA		NA		NA		NA	
PERFLUOROOCTANESULFONIC ACID (PFOS)	70		NA		NA		NA		NA		NA		5.0		NA		NA		NA		NA	
PERFLUORONONANOIC ACID (PFNA)	70		NA		NA		NA		NA		NA		2.0	U	NA		NA		NA		NA	
TOTAL PFAS	70		NA		NA		NA		NA		NA		59.3		NA		NA		NA		NA	

Notes:

Constitutents detected above the NYSDEC Class GA GW Standard are in **bold**.

Constitutents detected above the NYSDEC Class GA GW Effluent Limitation are highlighted in yellow.

* The NYSDEC Class GA GW Standard and Effluent Limitation for PCBs is 0.09 ug/L.

The current NYSDEC Health Advisory Limit for PFAS is 70 nanograms per liter for individual and total PFAS. Constituents detected above this standard are highlighted in orange.

Definitions:

NYSDEC Class GA GW Standard - New York State Department of Environmental Conservation Groundwater Standard and Guidance Value.
NYSDEC Class GA GW Effluent Limitation - New York State Department of Environmental Conservation Effluent Limitation.
U - The compound was analyzed for but not detected. The associated value is the compound quantitation limit.
J - The concentration is an approximate value.
B - Compound was found in the blank and sample.
T - LCS or LCSD is outside acceptable limits.
mg/L - milligrams per liter
ng/L - nanograms per liter
ug/L - micrograms per liter
NA - Not Analyzed

Table 13
Treatment System Analytical Data - Cell 1 Effluent
Fort Edward Landfill, Fort Edward, NY
NYSDEC Site # 558001

Chemical Name	NYSDEC Class GA GW Standard	NYSDEC Class GA GW Effluent Limitation	9/13/2016	4/27/2017	5/24/2017	6/28/2017	7/31/2017
Volatile Organic Compounds (ug/L)							
ACETONE	50	50	9.2 J	6.6 J U	50 U	50 U	50 U
BENZENE	1	1	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
BROMOCHLOROMETHANE	5	5	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
BROMODICHLOROMETHANE	50	50	1.0 U	1.0 U	0.5 U	0.5 U	0.5 U
BROMOFORM	50	50	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
BROMOMETHANE	5	5	1.0 U	1.0 U	2.0 U	2.0 U	2.0 U
2-BUTANONE (MEK)	50	50	1.0 U	1.0 U	20 U	20 U	20 U
CARBON DISULFIDE	60	60	5.0 U	5.0 U	4.0 U	4.0 U	4.0 U
CARBON TETRACHLORIDE	5	5	0.5 U	0.5 U	5.0 U	5.0 U	5.0 U
CHLOROBENZENE	5	5	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
CHLORODIBROMOMETHANE	50	--	1.0 U	1.0 U	0.5 U	0.5 U	0.5 U
CHLOROETHANE	5	5	1.0 U	1.0 U	2.0 U	2.0 U	2.0 U
CYCLOHEXANE	--	--	1.0 U	1.0 U	5.0 U	5.0 U	5.0 U
1,2-DIBROMO-3-CHLOROPROPANE	0.04	0.04	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
1,2-DIBROMOETHANE (ETHYLENE DIBROMIDE)	0.0006	0.0006	1.0 U	1.0 U	0.5 U	0.5 U	0.5 U
1,2-DICHLOROBENZENE	3	3	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,3-DICHLOROBENZENE	3	3	0.5 U	0.5 U	1.0 U	1.0 U	1.0 U
1,4-DICHLOROBENZENE	3	3	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
DICHLORODIFLUOROMETHANE	5	5	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
1,1-DICHLOROETHANE	5	5	20 U	20 U	1.0 U	1.0 U	1.0 U
CIS-1,2-DICHLOROETHYLENE	5	5	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U
TRANS-1,2-DICHLOROETHYLENE	5	5	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-DICHLOROETHANE	0.6	0.6	2.0 U	0.5 U	1.0 U	1.0 U	1.0 U
1,1-DICHLOROETHYLENE	5	5	2.0 U	2.0 U	1.0 U	1.0 U	1.0 U
CIS-1,3-DICHLOROPROPENE	0.4	0.4	1.0 U	1.0 U	0.5 U	0.5 U	0.5 U
TRANS-1,3-DICHLOROPROPENE	0.4	0.4	1.0 U	1.0 U	0.5 U	0.5 U	0.5 U
1,4-DIOXANE	--	--	0.5 U	0.5 U	50 U	50 U	5.5
ETHYLBENZENE	5	5	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U
2-HEXANONE	50	50	10 U	10 U	10 U	10 U	10 U
ISOPROPYLBENZENE (CUMENE)	5	5	2.0 U	2.0 U	1.0 U	1.0 U	1.0 U
METHYL ACETATE	--	--	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
METHYL TERT-BUTYL ETHER (MTBE)	10	10	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
METHYL CYCLOHEXANE	--	--	2.0 U	2.0 U	1.0 U	1.0 U	1.0 U
METHYLENE CHLORIDE	5	5	1.0 U	1.0 U	5.0 U	5.0 U	5.0 U
METHYL ISOBUTYL KETONE (4-METHYL-2-PENTANONE)	--	--	1.0 U	1.0 U	10 U	10 U	10 U
STYRENE	5	930	10 U	10 U	1.0 U	1.0 U	1.0 U
1,1,1,2-TETRACHLOROETHANE	5	5	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U
TETRACHLOROETHYLENE (PCE)	5	5	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
TOLUENE	5	5	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2,3-TRICHLOROBENZENE	5	5	5.0 U	1.0 U	5.0 U	5.0 U	5.0 U
1,2,4-TRICHLOROBENZENE	5	5	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1,1-TRICHLOROETHANE	5	5	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1,2-TRICHLOROETHANE	1	1	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U
TRICHLOROETHYLENE (TCE)	5	5	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
TRICHLOROFLUOROMETHANE	5	5	0.5 U	0.5 U	2.0 U	2.0 U	2.0 U
1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE	5	5	50 U	50 U	1.0 U	1.0 U	1.0 U
VINYL CHLORIDE	2	2	1.0 U	1.0 U	2.0 U	2.0 U	2.0 U
M,P-XYLENES	5	5	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
O-XYLENE (1,2-DIMETHYLBENZENE)	5	5	2.0 U	2.0 U	1.0 U	1.0 U	1.0 U
XYLENES, TOTAL	5	5	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U

Table 13
Treatment System Analytical Data - Cell 1 Effluent
Fort Edward Landfill, Fort Edward, NY
NYSDEC Site # 558001

Polychlorinated Biphenyls (mg/L)																
PCB-1016 (AROCLOR 1016)	*	*	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U				
PCB-1221 (AROCLOR 1221)	*	*	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U				
PCB-1232 (AROCLOR 1232)	*	*	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U				
PCB-1242 (AROCLOR 1242)	*	*	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U				
PCB-1248 (AROCLOR 1248)	*	*	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U				
PCB-1254 (AROCLOR 1254)	*	*	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U				
PCB-1260 (AROCLOR 1260)	*	*	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U				
PCB-1262 (AROCLOR 1262)	*	*	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U				
PCB- 1268 (AROCLOR 1268)	*	*	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U				
PCB Total	0.09	0.09	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U				
Metals (mg/L)																
ALUMINUM	--	2	0.1		0.05	U	0.05	U	0.05	U	0.05	U				
ANTIMONY	0.003	0.006	0.005	U	0.05	U	0.05	U	0.05	U	0.05	U				
ARSENIC	0.025	0.05	0.012		0.01	U	0.01	U	0.01	U	0.0061					
BARIUM	1	2	0.12		0.1		0.061		0.061		0.05	U				
BERYLLIUM	0.003	0.003	0.002	U	0.004	U	0.004	U	0.004	U	0.004	U				
CADMIUM	0.005	0.01	0.0025	U	0.004	U	0.004	U	0.004	U	0.004	U				
CALCIUM	--	--	110		74		130		130		110					
CHROMIUM, TOTAL	0.05	0.1	0.005	U	0.01	U	0.01	U	0.01	U	0.01	U				
COBALT	--	--	0.005	U	0.05	U	0.05	U	0.05	U	0.05	U				
COPPER	0.2	1	0.025	U	0.01	U	0.01	U	0.01	U	0.01	U				
IRON	0.3	0.6	**45**		0.05	U	**10**		**10**		**8.2**					
LEAD	0.025	0.05	0.005	U	0.01	U	0.01	U	0.01	U	0.01	U				
MAGNESIUM	35	35	18		30		25		25		16					
MANGANESE	0.3	0.6	**1.3**		0.054		**1.3**		**1.3**		**0.85**					
MERCURY	0.0007	0.0014	0.0001	U	0.0001	U	0.0001	U	0.0001	U	0.0001	U				
NICKEL	0.1	0.2	0.025	U	0.01	U	0.02		0.02		0.01	U				
POTASSIUM	--	--	2.2		3.3		2.2		2.2		2.0	U				
SELENIUM	0.01	0.02	0.025	U	0.05	U	0.05	U	0.05	U	0.05	U				
SILVER	0.05	0.1	0.0025	U	0.005	U	0.005	U	0.005	U	0.005	U				
SODIUM	20	--	**36**		18		**23**		**23**		**22**					
THALLIUM	0.0005	0.0005	0.001	U	0.05	U	0.05	U	0.05	U	0.05	U				
VANADIUM	--	--	0.025	U	0.01	U	0.01	U	0.01	U	0.01	U				
ZINC	2	5	0.098		0.02	U	0.02	U	0.02	U	0.02	U				
Conventional Chemistry (mg/L)																
TOTAL DISSOLVED SOLIDS	--	--	410		200		510		510		380					
TOTAL SUSPENDED SOLIDS	--	--	130		91		49		49		5.0	U				
Perfluorinated Alkyl Substance (ng/L)																
PERFLUOROBUTANESULFONIC ACID (PFBS)	70		NA		NA		NA		NA		2.0	U				
PERFLUOROHEXANESULFONIC ACID (PFHxS)	70		NA		NA		NA		NA		2.0					
PERFLUOROHEPTANOIC ACID (PFHpA)	70		NA		NA		NA		NA		8.0					
PERFLUOROOCTANOIC ACID (PFOA)	70		NA		NA		NA		NA		27					
PERFLUOROOCTANESULFONIC ACID (PFOS)	70		NA		NA		NA		NA		4.4					
PERFLUORONONANOIC ACID (PFNA)	70		NA		NA		NA		NA		2.0	U				
TOTAL PFAS	70		NA		NA		NA		NA		41.4					

Notes:
Constitutents detected above the NYSDEC Class GA GW Standard are in **bold**.
Constitutents detected above the NYSDEC Class GA GW Effluent Limitation are highlighted in yellow.
* The NYSDEC Class GA GW Standard and Effluent Limitation for PCBs is 0.09 ug/L.
The current NYSDEC Health Advisory Limit for PFAS is 70 nanograms per liter for individual and total PFAS. Constituents detected above this standard are highlighted in orange.

Definitions:
NYSDEC Class GA GW Standard - New York State Department of Environmental Conservation Groundwater Standard and Guidance Value.
NYSDEC Class GA GW Effluent Limitation - New York State Department of Environmental Conservation Effluent Limitation.
U - The compound was analyzed for but not detected. The associated value is the compound quantitation limit.
J - The concentration is an approximate value.
B - Compound was found in the blank and sample.
T - LCS or LCSD is outside acceptable limits.
mg/L - milligrams per liter
ng/L - nanograms per liter
ug/L - micrograms per liter
NA - Not Analyzed

Table 14
Treatment System Analytical Data - Polishing Pond Effluent
Fort Edward Landfill, Fort Edward, NY
NYSDEC Site # 558001

Chemical Name	NYSDEC Class GA GW Standard	NYSDEC Class GA GW Effluent Limitation	9/13/2016	10/19/2016	11/15/2016	12/28/2016	1/19/2017	2/28/2017	3/29/2017	4/27/2017	5/24/2017	6/28/2017	7/31/2017	8/29/2017	9/25/2017	10/30/2017	11/27/2017
Volatile Organic Compounds (ug/L)																	
ACETONE	50	50	11 J	100 U	7.3 J	20 J	24 J	22 J	16 J	5.4 J	50 U	50 U	50 U	50 U	50 U	5.6 J	50 U
BENZENE	1	1	1.0 U	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
BROMOCHLOROMETHANE	5	5	1.0 U	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
BROMODICHLOROMETHANE	50	50	0.5 U	1.0 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
BROMOFORM	50	50	1.0 U	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
BROMOMETHANE	5	5	2.0 U	4.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
2-BUTANONE (MEK)	50	50	20 U	40 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U
CARBON DISULFIDE	60	60	4.0 U	8.0 U	4.0 U	4.0 U	4.0 U	4.0 U	4.0 U	4.0 U	4.0 U	2.6 J	4.0 U	4.0 U	4.0 U	4.0 U	1.0 U
CARBON TETRACHLORIDE	5	5	5.0 U	10.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
CHLOROBENZENE	5	5	1.0 U	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
CHLORODIBROMOMETHANE	50	--	2.0 U	4.0 U	2.0 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
CHLOROETHANE	5	5	2.0 U	4.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
CYCLOHEXANE	--	--	5.0 U	10 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
1,2-DIBROMO-3-CHLOROPROPANE	0.04	0.04	5.0 U	10 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
1,2-DIBROMOETHANE (ETHYLENE DIBROMIDE)	0.0006	0.0006	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,2-DICHLOROBENZENE	3	3	1.0 U	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,3-DICHLOROBENZENE	3	3	1.0 U	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,4-DICHLOROBENZENE	3	3	1.0 U	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
DICHLORODIFLUOROMETHANE	5	5	2.0 U	4.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
1,1-DICHLOROETHANE	5	5	1.0 U	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
CIS-1,2-DICHLOROETHYLENE	5	5	1.0 U	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	0.2 J	1.0 U	1.0 U	1.0 U	1.0 U	0.17 J
TRANS-1,2-DICHLOROETHYLENE	5	5	1.0 U	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-DICHLOROETHANE	0.6	0.6	1.0 U	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1-DICHLOROETHYLENE	5	5	1.0 U	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-DICHLOROPROPANE	1	1	1.0 U	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
CIS-1,3-DICHLOROPROPENE	0.4	0.4	0.5 U	1.0 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
TRANS-1,3-DICHLOROPROPENE	0.4	0.4	0.5 U	1.0 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,4-DIOXANE	--	--	50 U	100 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U	2.5	50 U	50 U	50 U	50 U
ETHYLBENZENE	5	5	1.0 U	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
2-HEXANONE	50	50	10 U	20 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
ISOPROPYLBENZENE (CUMENE)	5	5	1.0 U	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U
METHYL ACETATE	--	--	1.0 U	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
METHYL TERT-BUTYL ETHER (MTBE)	10	10	1.0 U	2.0 U	1.0 U	10 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
METHYL CYCLOHEXANE	--	--	1.0 U	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
METHYLENE CHLORIDE	5	5	5.0 U	10 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
METHYL ISOBUTYL KETONE (4-METHYL-2-PENTANONE)	--	--	10 U	20 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
STYRENE	5	930	1.0 U	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1,1,2-TETRACHLOROETHANE	5	5	NA	NA	NA	NA	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
TETRACHLOROETHYLENE (PCE)	5	5	1.0 U	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
TOLUENE	5	5	0.56 J	2.0 U	1.0 U	1.0 U	1.0 U	0.24 J	1.0 U	1.0 U	1.0 U	1.2	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2,3-TRICHLOROBENZENE	5	5	5.0 U	10 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
1,2,4-TRICHLOROBENZENE	5	5	1.0 U	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1,1-TRICHLOROETHANE	5	5	1.0 U	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1,2-TRICHLOROETHANE	1	1	1.0 U	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
TRICHLOROETHYLENE (TCE)	5	5	1.0 U	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
TRICHLOROFLUOROMETHANE	5	5	2.0 U	4.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE	5	5	1.0 U	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
VINYL CHLORIDE	2	2	2.0 U	4.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
M,P-XYLENES	5	5	2.0 U	4.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
O-XYLENE (1,2-DIMETHYLBENZENE)	5	5	1.0 U	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
XYLENES, TOTAL	5	5	3.0 U	6.0 U	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U

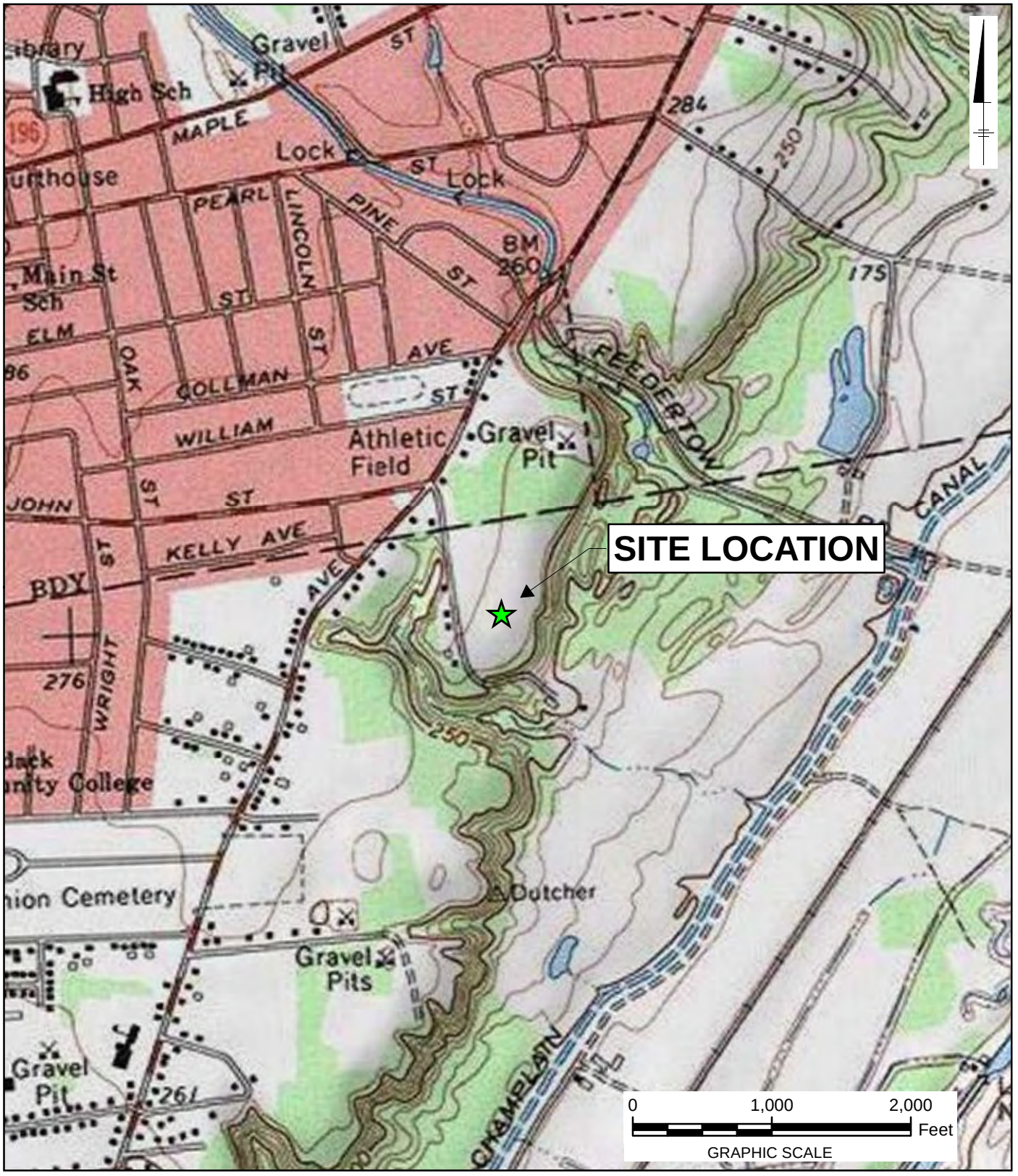
Table 14
Treatment System Analytical Data - Polishing Pond Effluent
Fort Edward Landfill, Fort Edward, NY
NYSDEC Site # 558001

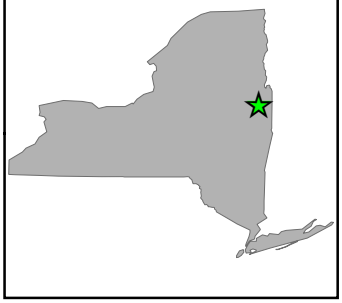
Polychlorinated Biphenyls (ug/L)																																
PCB-1016 (AROCLOR 1016)	*	*	0.2	U	0.2	U	NA		0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.19	U	0.2	U	0.2	U	0.2	U	0.19	U	0.2	U
PCB-1221 (AROCLOR 1221)	*	*	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.19	U	0.2	U	0.2	U	0.2	U	0.19	U	0.2	U
PCB-1232 (AROCLOR 1232)	*	*	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.19	U	0.2	U	0.2	U	0.2	U	0.19	U	0.2	U
PCB-1242 (AROCLOR 1242)	*	*	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.19	U	0.2	U	0.2	U	0.2	U	0.19	U	0.2	U
PCB-1248 (AROCLOR 1248)	*	*	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.19	U	0.2	U	0.2	U	0.2	U	0.19	U	0.2	U
PCB-1254 (AROCLOR 1254)	*	*	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.19	U	0.2	U	0.2	U	0.2	U	0.19	U	0.2	U
PCB-1260 (AROCLOR 1260)	*	*	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.19	U	0.2	U	0.2	U	0.2	U	0.19	U	0.2	U
PCB-1262 (AROCLOR 1262)	*	*	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.19	U	0.2	U	0.2	U	0.2	U	0.19	U	0.2	U
PCB-1268 (AROCLOR 1268)	*	*	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.19	U	0.2	U	0.2	U	0.2	U	0.19	U	0.2	U
PCB Total	0.09	0.09	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.19	U	0.2	U	0.2	U	0.2	U	0.19	U	0.2	U
Metals (mg/L)																																
ALUMINUM	--	2	0.05	U	0.05	U	0.05	U	0.24		0.12		0.085		0.16		0.05	U	0.05	U	0.27		0.05	U	0.12		0.13		0.053		0.05	U
ANTIMONY	0.003	0.006	0.005	U	0.005	U	0.005	U	0.05	U	0.05	U	0.05	U	**0.055**		0.05	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05	U
ARSENIC	0.025	0.05	0.0022		0.002	U	0.003		0.01	U	0.013		0.01	U	0.01	U	0.01	U	0.010	U	0.01	U	0.0034		0.01	U	0.01	U	0.01	U	0.01	U
BARIUM	1	2	0.07		0.05	U	0.05	U	0.05	U	0.05		0.05	U	0.05	U	0.05	U	0.05	U	0.056		0.052		0.05	U	0.052		0.05	U	0.05	U
BERYLLIUM	0.003	0.003	0.002	U	0.002	U	0.002	U	0.004	U	0.004	U	0.004	U	0.004	U	0.004	U	0.004	U	0.004	U	0.004	U	0.004	U	0.004	U	0.004	U	0.004	U
CADMIUM	0.005	0.01	0.0025	U	0.0025	U	0.0025	U	0.004	U	0.004	U	0.004	U	0.004	U	0.004	U	0.004	U	0.004	U	0.004	U	0.004	U	0.004	U	0.004	U	0.004	U
CALCIUM	--	--	89		66		88		96		99		74		92		64		90		86		89		86		94		79		99	
CHROMIUM, TOTAL	0.05	0.1	0.005	U	0.005	U	0.005	U	0.01	U	0.01	U	0.01	U	0.01	U	0.01	U	0.01	U	0.01	U	0.01	U	0.01	U	0.01	U	0.01	U	0.01	U
COBALT	--	--	0.005	U	0.005	U	0.005	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05	U
COPPER	0.2	1	0.025	U	0.025	U	0.025	U	0.01	U	0.01	U	0.01	U	0.01	U	0.01	U	0.01	U	0.01	U	0.01	U	0.01	U	0.01	U	0.01	U	0.01	U
IRON	0.3	0.6	**6.0**		0.05	U	**4.1**		**4.7**		**2.7**		**1.5**		**1.1**		**1.4**		**1.8**		**4.4**		**3.6**		**4.0**		**4.2**		**1.4**		**1.5**	
LEAD	0.025	0.05	0.005	U	0.005	U	0.005	U	0.01	U	0.01	U	0.01	U	0.01	U	0.01	U	0.01	U	0.01	U	0.01	U	0.01	U	0.01	U	0.01	U	0.01	U
MAGNESIUM	35	35	21		21		29		21		21		15		18		15		18		18		21		26		26		20		23	
MANGANESE	0.3	0.6	**1.4**		**0.29**		**3.7**		**1.3**		**0.88**		**0.66**		**0.34**		**0.84**		**0.96**		**1.7**		**1.9**		**2.7**		**2.4**		**0.53**		**0.85**	
MERCURY	0.0007	0.0014	0.0001	U	0.0001	U	0.0001	U	0.0001	U	0.0001	U	0.0001	U	0.0001	U	0.0001	U	0.0001	U	0.0001	U	0.0001	U	0.0001	U	0.0001	U	0.0001	U	0.0001	U
NICKEL	0.1	0.2	0.025	U	0.025	U	0.025	U	0.01	U	0.01	U	0.01	U	0.01	U	0.01	U	0.01	U	0.01	U	0.01	U	0.01	U	0.01	U	0.01	U	0.01	U
POTASSIUM	--	--	2.0	U	2.8		2.0	U	4.6		8.5		3.7		3.4		2.2		2.1		2.0	U	2.0	U	2.0	U	2.0	U	6.6		3.1	
SELENIUM	0.01	0.02	0.025	U	0.025	U	0.025	U	0.05	U	0.05	U	**0.06**		0.05	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05	U
SILVER	0.05	0.1	0.0025	U	0.0025	U	0.0025	U	0.005	U	0.005	U	0.005	U	0.005	U	0.005	U	0.005	U	0.005	U	0.005	U	0.005	U	0.005	U	0.005	U	0.005	U
SODIUM	20	--	**33**		**36**		**25**		**28**		**40**		**23**		**31**		**16**		**32**		**38**		**40**		**41**		**44**		**52**		**49**	
THALLIUM	0.0005	0.0005	0.001	U	0.001	U	0.001	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05	U
VANADIUM	--	--	0.025	U	0.025	U	0.025	U	0.01	U	0.01	U	0.01	U	0.01	U	0.01	U	0.01	U	0.01	U	0.01	U	0.01	U	0.01	U	0.01	U	0.01	U
ZINC	2	5	0.05	U	0.05	U	0.05	U	0.02	U	0.02	U	0.02	U	0.02	U	0.02	U	0.02	U	0.02	U	0.02	U	0.02	U	0.02	U	0.02	U	0.02	U
Conventional Chemistry (mg/L)																																
TOTAL DISSOLVED SOLIDS	--	--	380		280		400		330		440		190		430		280		390		320		410		420		420		500		520	
TOTAL SUSPENDED SOLIDS	--	--	28		5.0	U	5.0	U	22		15		5.0	U	9.0		14		5.0	U	42		14		22		8.0		17		5	U
Perfluorinated Alkyl Substance (ng/L)																																
PERFLUOROBUTANESULFONIC ACID (PFBS)	70		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		2.0	U	NA		NA		NA		NA	
PERFLUOROHEXANESULFONIC ACID (PFHxS)	70		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		1.9	J	NA		NA		NA		NA	
PERFLUOROHEPTANOIC ACID (PFHpA)	70		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		11		NA		NA		NA		NA	
PERFLUOROOCTANOIC ACID (PFOA)	70		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		23		NA		NA		NA		NA	
PERFLUOROOCTANESULFONIC ACID (PFOS)	70		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		2.3		NA		NA		NA		NA	
PERFLUORONONANOIC ACID (PFNA)	70		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		2.0	U	NA		NA		NA		NA	
TOTAL PFAS	70		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		38.2		NA		NA		NA		NA	

Notes:
Constitutents detected above the NYSDEC Class GA GW Standard are in **bold**.
Constitutents detected above the NYSDEC Class GA GW Effluent Limitation are highlighted in yellow.
* The NYSDEC Class GA GW Standard and Effluent Limitation for PCBs is 0.09 ug/L.
The current NYSDEC Health Advisory Limit for PFAS is 70 nanograms per liter for individual and total PFAS. Constituents detected above this standard are highlighted in orange.

Definitions:
NYSDEC Class GA GW Standard - New York State Department of Environmental Conservation Groundwater Standard and Guidance Value.
NYSDEC Class GA GW Effluent Limitation - New York State Department of Environmental Conservation Effluent Limitation.
U - The compound was analyzed for but not detected. The associated value is the compound quantitation limit.
J - The concentration is an approximate value.
B - Compound was found in the blank and sample.
T - LCS or LCSD is outside acceptable limits.
mg/L - milligrams per liter
ng/L - nanograms per liter
ug/L - micrograms per liter
NA - Not Analyzed

FIGURES





NOTE:

1. USGS QUADRANGLE INFORMATION
   QUAD ID: 43073-C5
   NAME: HUDSON FALLS, NEW YORK
   DATE PUB: 1968

FORT EDWARD LANDFILL
45 LEAVY HOLLOW LANE
FORT EDWARD, NEW YORK

PERIODIC REVIEW REPORT 2017

SITE LOCATION MAP

ARCADIS Design & Consultancy for natural and built assets

FIGURE 1

City: SYR Div/Group: IM/DV Created By: J.RAPP Last Saved By: jrapp
Fort Edward (00266434.0000)
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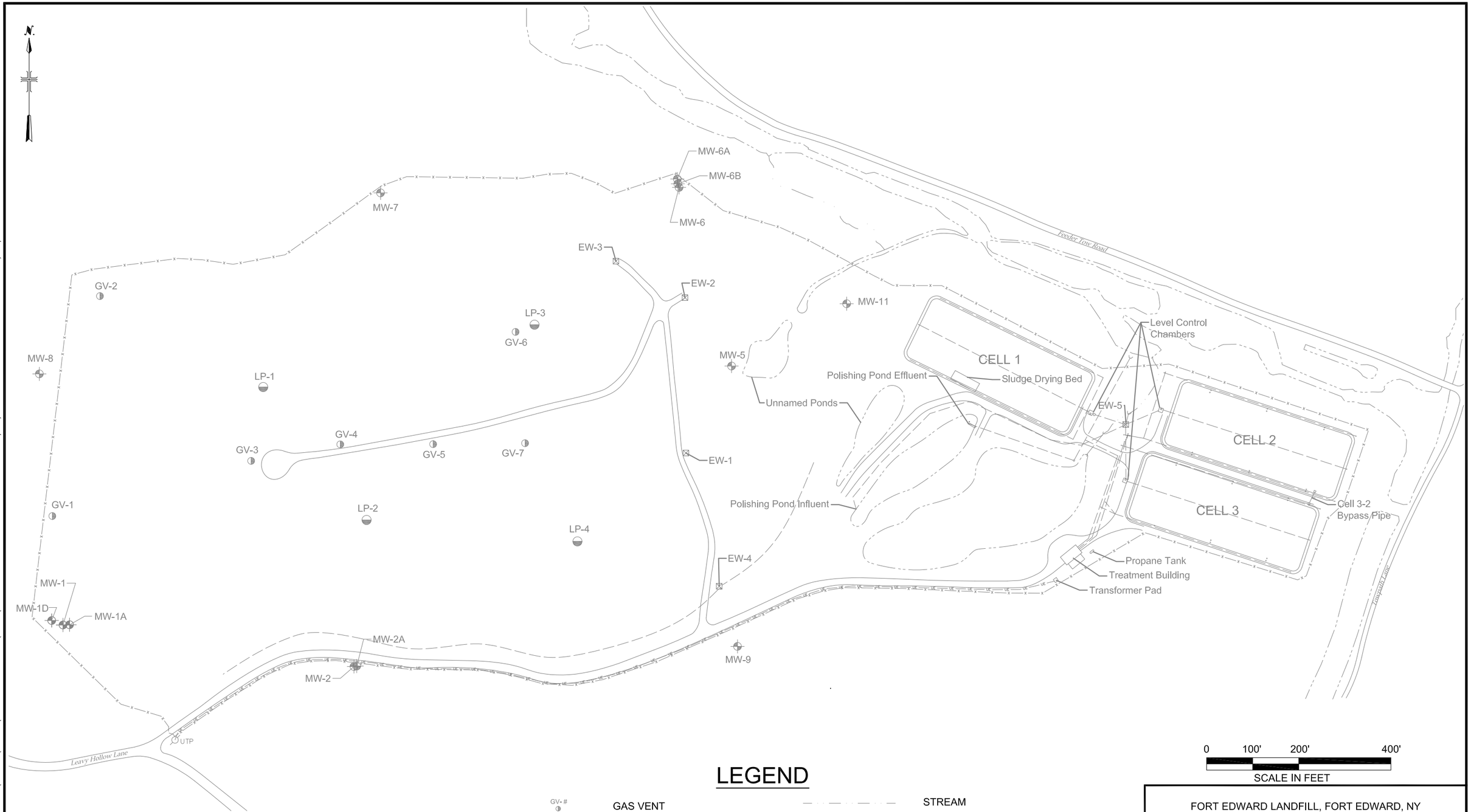


0 100' 200' 400'

SCALE IN FEET

LEGEND

GV-#	GAS VENT
MW-#	MONITORING WELL
LP-#	PIEZOMETER
UTP	UTILITY POLE
	EXTRACTION WELL
	STREAM
	ROAD
	EDGE OF POND
	UNDERGROUND TREATMENT PIPING
UE	UNDERGROUND ELECTRIC
X	FENCE

MAP BASED ON SURVEY PERFORMED BY DARRAH LAND SURVEYING, PLLC, APRIL 2017.
ORTHOIMAGERY FROM NYS ORTHOIMAGERY APPLICATION ONLINE DATED 2013.

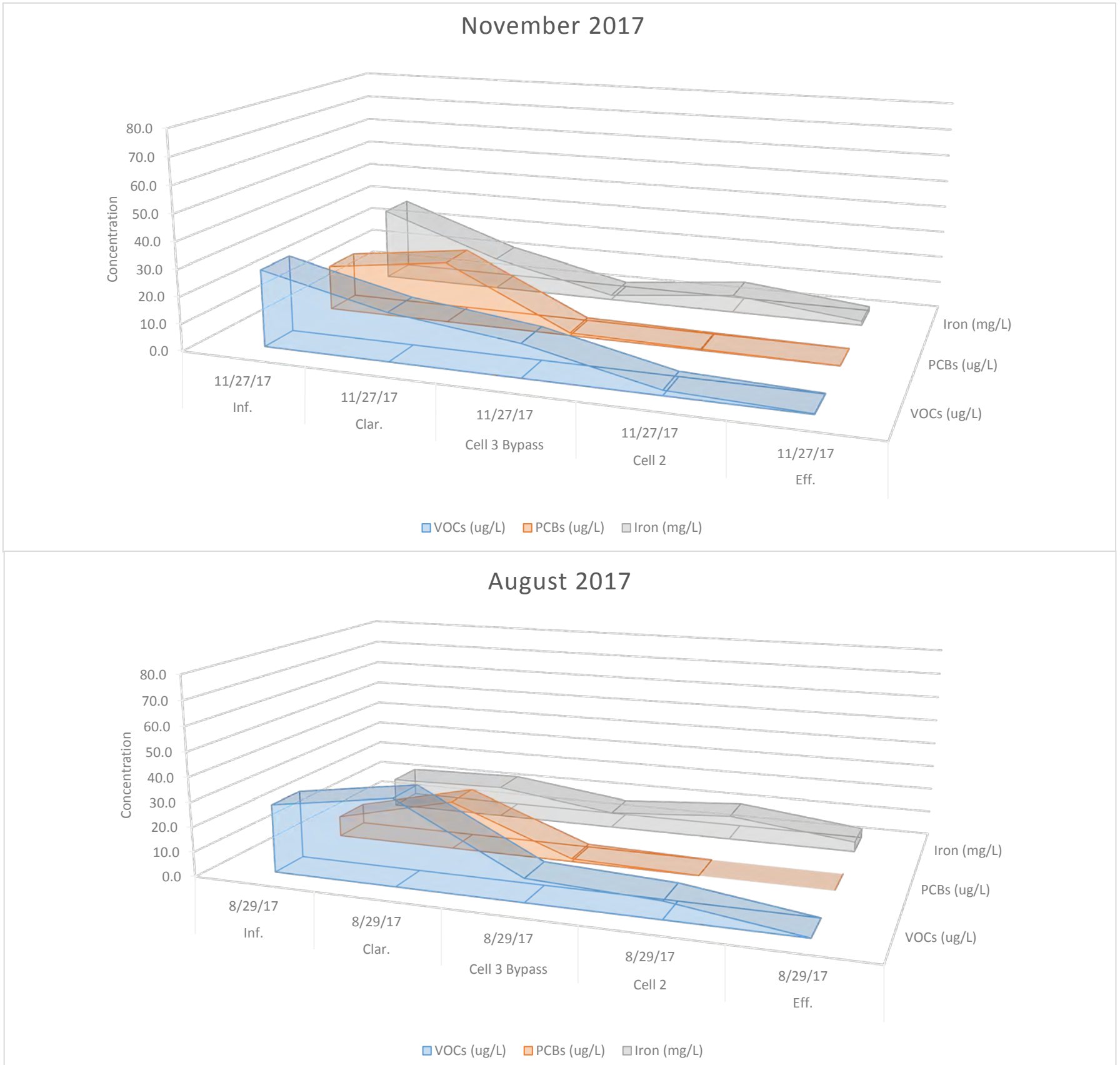
FORT EDWARD LANDFILL, FORT EDWARD, NY
NYSDEC SITE 558001

SITE MAP

ARCADIS | **FIGURE 2**

USER: JMULLINS FILENAME: G:\ACAD\PROJ\00266434.0000\PRR\FIG2-SITE MAP.DWG SAVE DATE: 1/11/2018 7:54 PM PLOT DATE: 1/11/2018 7:55 PM

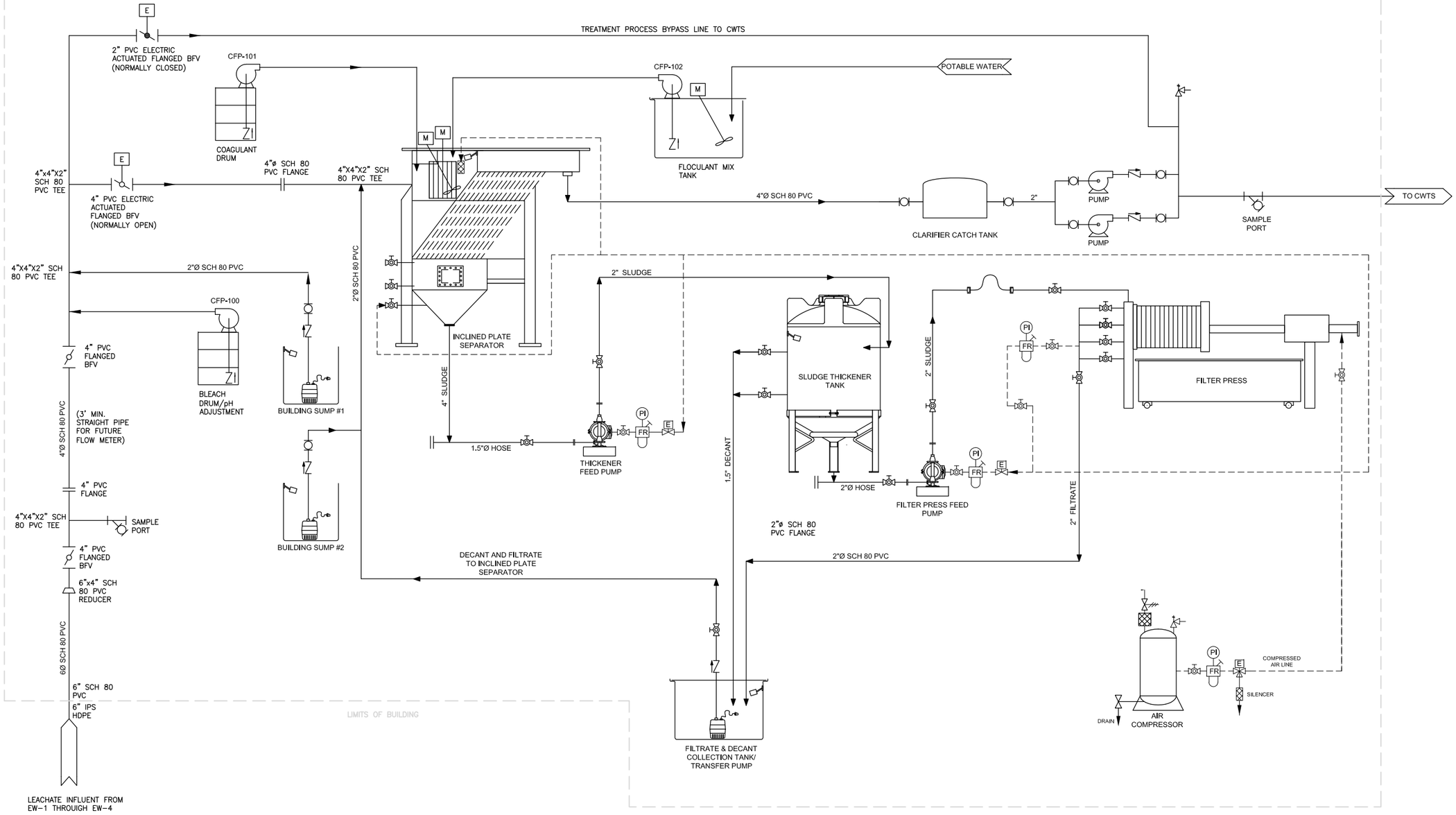
Figure 3
Treatment System Analytical Results
Fort Edward Landfill, Fort Edward, NY
NYSDEC Site # 558001



G:\PROJECT\00266434.0000\Reports (old and new)\PRR\PRR 2017\Figures\Figure 3

APPENDIX A

Process and Instrumentation Diagram



User: TCARIGNAN Spec: AUS-NCSMOD File: G:\CAD\PROJ\00266434.0000\SHEETS\I-01V2.DWG Scale: 1:1 SavedDate: 1/12/2018 Time: 12:37 Plot Date: Carignon, Todd, 1/12/2018, 12:39 - Layout: I-01

ARCADIS

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DRAFT

NEW YORK STATE OF OPPORTUNITY. Department of Environmental Conservation

FORT EDWARD LANDFILL
LEAVY HOLLOW ROAD
FORT EDWARD, NEW YORK

NYSDEC SITE 558001

REMEDIAL SYSTEM OPTIMIZATION

NO.	DATE	ISSUED FOR	BY

DATE:	JANUARY 2018
PROJECT NO.:	00266434.0000
FILE NAME:	I-01V2
DESIGNED BY:	T. CARIGNAN
DRAWN BY:	S. HAUSMANN
CHECKED BY:	X. LASTNAME

SHEET TITLE

P&ID DIAGRAM

SCALE: NOT TO SCALE

I-01

SHEET 1 OF 1

APPENDIX B

2017 Groundwater Sampling Report Tables and Figures

Table 1
Summary of Water Level Data
Fort Edward Landfill, Fort Edward, NY
NYSDEC Site # 558001

Well ID	Measuring Point Elevation (ft. amsl)	August 2017	
		Depth to Water (ft.)	Groundwater Elevation (ft. amsl)
MW-1	256.94	37.06	219.88
MW-1A	253.55	39.73	213.82
MW-1D	258.66	46.70	211.96
MW-2	193.86	7.34	186.52
MW-2A	193.93	8.80	185.13
MW-5	183.43	7.49	175.94
MW-6	192.98	8.05	184.93
MW-6A	192.80	9.56	183.24
MW-6B	192.55	14.95	177.60
MW-7	210.47	16.77	193.70
MW-8	240.09	7.58	232.51
MW-9	174.49	7.94	166.55
MW-11	182.36	16.22	166.14

Notes:
All measurments in feet.

Definitions:
amsl - above mean sea level
ft - feet

Table 2
Volatile Organic Compound Analytical Results for 2017 Groundwater
Fort Edward Landfill, Fort Edward, NY
NYSDEC Site # 558001

Location	NYSDEC Class GA GW Standard	MW-1	MW-1A	DUP-MW-1A	MW-1D	MW-2	MW-2A	MW-5	MW-6	MW-6A	MW-6B	MW-7	MW-8	MW-9	MW-10	MW-11	EW-1	EW-2	EW-3	EW-4
Sample Date		8/2/2017	8/3/2017	8/3/2017	8/1/2017	8/3/2017	8/2/2017	8/7/2017	8/3/2017	8/3/2017	8/3/2017	8/1/2017	8/1/2017	8/1/2017	8/1/2017	8/2/2017	7/31/2017	7/31/2017	7/31/2017	7/31/2017
Units	ug/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
Acetone	50	50 U	50 U	50 U	50 U	50 U	50 U	20 J	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U	1,200 U	12 J	10 J	50 U
Benzene	1	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	**2.1**	**3.2**	0.47 J	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	**10 J**	**4.7**	**4.6**	1.0 U
Bromochloromethane	5	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	25 U	1.0 U	1.0 U	1.0 U
Bromodichloromethane	50	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	12 U	0.5 U	0.5 U	0.5 U
Bromoform	50	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	50 U	2.0 U	2.0 U	2.0 U
Bromomethane	5	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	120 U	5.0 U	5.0 U	5.0 U
2-Butanone (MEK)	50	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	500 U	20 U	20 U	20 U
Carbon Disulfide	60	4.0 U	4.0 U	4.0 U	4.0 U	4.0 U	4.0 U	4.0 U	4.0 U	4.0 U	4.0 U	4.0 U	4.0 U	4.0 U	4.0 U	4.0 U	100 U	4.0 U	4.0 U	4.0 U
Carbon Tetrachloride	5	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	120 U	5.0 U	5.0 U	5.0 U
Chlorobenzene	5	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	**3.0**	**23**	**3.6**	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	**7.8 J**	**1.4**	**32**	1.0 U
Chlorodibromomethane	50	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	50 U	2.0 U	2.0 U	2.0 U
Chloroethane	5	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	1.0 J	1.8 J	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	120 U	5.0 U	0.8 J	5.0 U
Cyclohexane	--	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	1.4 J	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	120 U	5.0 U	1.1 J	5.0 U
1,2-Dibromo-3-chloropropane (DBCP)	0.04	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	120 U	5.0 U	5.0 U	5.0 U
1,2-Dibromoethane (EDB)	0.0006	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	12 U	0.5 U	0.5 U	0.5 U
1,2-Dichlorobenzene	3	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	0.29 J	0.41 J	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	25 U	1.0 U	0.57 J	1.0 U
1,3-Dichlorobenzene	3	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	0.34 J	**4.0**	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	25 U	1.0 U	0.34 J	1.0 U
1,4-Dichlorobenzene	3	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	0.79 J	**1.5**	**3.1**	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	25 U	0.49 J	**6.5**	1.0 U
Dichlorodifluoromethane (Freon 12)	5	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	50 U	2.0 U	2.0 U	2.0 U
1,1-Dichloroethane	5	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	0.34 J	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	25 U	**1.4**	1.0 U	1.0 U
1,2-Dichloroethane	0.6	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	50 U	2.0 U	2.0 U	2.0 U
1,1-Dichloroethylene	5	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	**7.5 J**	1.0 U	1.0 U	1.0 U
cis-1,2-Dichloroethylene	5	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	**50**	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	**1,600**	0.5 J	1.0 U	1.0 U
trans-1,2-Dichloroethylene	5	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	0.18 J	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	**16 J**	1.0 U	1.0 U	1.0 U
1,2-Dichloropropane	1	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	25 U	1.0 U	1.0 U	1.0 U
cis-1,3-Dichloropropene	0.4	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	12 U	0.5 U	0.5 U	0.5 U
trans-1,3-Dichloropropene	0.4	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	12 U	0.5 U	0.5 U	0.5 U
1,4-Dioxane	--	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U	0.28 J	**110**	**3.2**	**9.6**	0.4 U	0.4 U	0.4 U	**5.2**	0.4 U	0.4 U	**140**	**48**	**74**	**3.9**
Ethylbenzene	5	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	0.54 J	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	25 U	1.0 U	1.0 U	1.0 U
2-Hexanone (MBK)	50	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	250 U	10 U	10 U	10 U
Isopropylbenzene (Cumene)	5	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	0.74 J	0.38 J	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	25 U	0.4 J	**1.2**	1.0 U
Methyl Acetate	--	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	25 U	1.0 U	1.0 U	1.0 U
Methyl tert-Butyl Ether (MTBE)	10	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	**1.4**	1.0 U	0.22 J	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	25 U	0.96 J	0.69 J	0.09 J
Methyl Cyclohexane	--	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	0.71 J	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	25 U	1.0 U	0.65 J	1.0 U
Methylene Chloride	5	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U	120 U	5.0 U	5.0 U	5.0 U
4-Methyl-2-pentanone (MIBK)	--	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	250 U	10 U	10 U	10 U
Styrene	5	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	25 U	1.0 U	1.0 U	1.0 U
1,1,1,2-Tetrachloroethane	5	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	25 U	1.0 U	1.0 U	1.0 U
Tetrachloroethylene	5	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	25 U	1.0 U	1.0 U	1.0 U
Toluene	5	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	**2.1**	1.0 U	0.17 J	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	12 J	1.0 U	1.0 U	1.0 U
1,2,3-Trichlorobenzene	5	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	120 U	5.0 U	5.0 U	5.0 U
1,2,4-Trichlorobenzene	5	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	**6.1**	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	25 U	1.0 U	1.0 U	1.0 U
1,1,1-Trichloroethane	5	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	25 U	1.0 U	1.0 U	1.0 U
1,1,2-Trichloroethane	1	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	25 U	1.0 U	1.0 U	1.0 U
Trichloroethylene	5	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	0.44 J	25 U	1.0 U	1.0 U	1.0 U
Trichlorofluoromethane (Freon 11)	5	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	50 U	2.0 U	2.0 U	2.0 U
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	5	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	25 U	1.0 U	1.0 U	1.0 U
Vinyl Chloride	2	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	**710**	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	**3,000**	2.0 U	2.0 U	2.0 U
m+p Xylene	5	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	**3.8**	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	**24 J**	1.2 J	2.0 U	2.0 U
o-Xylene	5	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	**1.3**	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	25 U	0.2 J	0.2 J	1.0 U
Xylenes (total)	5	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	75 U	1.2 J	3.0 U	3.0 U
Total VOCs	--	ND	ND	ND	ND	ND	0.28 J	908.4	32.9	29.5	ND	ND	ND	5.2	ND	0.44	4,817.3	72.37	132.52	3.99

Notes:
Concentrations detected above the reporting limit are in **bold.**
Concentrations detected above the NYSDEC Class GA GW Standard are highlighted in yellow.

Definitions:
U - The compound was analyzed for but not detected. The associated value is the compound quantitation limit.
J - The concentration is an approximate value.
ug/L - micrograms per Liter
ND - Not Detected
"--" - No regulatory criteria exists for respective analyte.

Table 3
PCB Analytical Results for 2017 Groundwater
Fort Edward Landfill, Fort Edward, NY
NYSDEC Site # 558001

Location	NYSDEC Class GA GW Standard	MW-1	MW-1A	DUP-MW-1A	MW-1D	MW-2	MW-2A	MW-5	MW-6	MW-6A	MW-6B	MW-7	MW-8	MW-9	MW-10	MW-11	EW-1	EW-2	EW-3	EW-4
Sample Date		8/2/2017	8/3/2017	8/3/2017	8/1/2017	8/3/2017	8/2/2017	8/7/2017	8/3/2017	8/3/2017	8/3/2017	8/1/2017	8/1/2017	8/1/2017	8/1/2017	8/2/2017	7/31/2017	7/31/2017	7/31/2017	7/31/2017
Units	ug/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
PCB-1016	--	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.19 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	**250**	0.20 U	0.20 U	**0.63**
PCB-1221	--	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.19 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	100 U	0.20 U	0.20 U	0.20 U
PCB-1232	--	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.19 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	100 U	0.20 U	0.20 U	0.20 U
PCB-1242	--	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.19 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	100 U	0.20 U	0.20 U	0.20 U
PCB-1248	--	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.19 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	100 U	0.20 U	0.20 U	0.20 U
PCB-1254	--	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.19 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	100 U	0.20 U	0.20 U	0.20 U
PCB-1260	--	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.19 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	100 U	0.20 U	0.20 U	0.20 U
PCB-1262	--	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.19 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	100 U	0.20 U	0.20 U	0.20 U
PCB-1268	--	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.19 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	100 U	0.20 U	0.20 U	0.20 U
Total PCB	0.09	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.19 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	**250**	0.20 U	0.20 U	**0.63**

Notes:
Concentrations detected above the reporting limit are in **bold.**
Concentrations detected above the NYSDEC Class GA GW Standard are highlighted in yellow.
The NYSDEC Class GA GW Standard for Total PCBs is 0.09 ug/L.

Definitions:
U - The compound was analyzed for but not detected. The associated value is the compound quantitation limit.
J - The concentration is an approximate value.
ug/L - micrograms per Liter
"--" - No regulatory criteria exists for respective analyte.

Table 4
Metals Analytical Results for 2017 Groundwater
Fort Edward Landfill, Fort Edward, NY
NYSDEC Site # 558001

Location	NYSDEC Class GA GW Standard	MW-1	MW-1A	DUP-MW-1A	MW-1D	MW-2	MW-2A	MW-5	MW-6	MW-6A	MW-6B	MW-7	MW-8	MW-9	MW-10	MW-11	EW-1	EW-2	EW-3	EW-4
Sample Date		8/2/2017	8/3/2017	8/3/2017	8/1/2017	8/2/2017	8/2/2017	8/7/2017	8/3/2017	8/3/2017	8/3/2017	8/1/2017	8/1/2017	8/1/2017	8/1/2017	8/2/2017	7/31/2017	7/31/2017	7/31/2017	7/31/2017
Units	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
Aluminum	--	0.05 U	**0.15**	**0.14**	**0.21**	0.05 U	0.05 U	**1.8**	0.05 U	0.05 U	**0.062**	0.05 U	0.05 U	**0.14**	0.05 U	**0.61**	0.05 U	0.05 U	0.05 U	0.05 U
Antimony	0.003	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
Arsenic	0.025	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	**0.029**	0.01 U	**0.016**	**0.012**	0.01 U	0.01 U	**0.013**	0.01 U	0.01 U	0.0034	**0.025**	0.0098	0.0083
Barium	1	0.05 U	0.05 U	0.05 U	**0.41**	0.05 U	**0.076**	**0.4**	**0.055**	**0.13**	0.05 U	**0.053**	0.05 U	**0.061**	0.05 U	**0.058**	**0.52**	**0.12**	**0.3**	**0.086**
Beryllium	0.003	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U
Cadmium	0.005	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U
Calcium	--	**37**	**12**	**12**	**20**	**82**	**38**	**120**	**73**	**100**	**8.4**	**50**	**57**	**71**	**84**	**56**	**170**	**130**	**80**	**100**
Chromium	0.05	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U
Cobalt	--	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.0075	0.008	0.009	0.05 U
Copper	0.2	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U
Iron	0.3	0.05 U	**0.093**	**0.088**	**0.37**	**5.2**	**14**	**54**	**120**	**21**	**0.24**	**160**	**0.057**	**2.5**	**8.6**	**0.51**	**55**	**22**	**33**	**60**
Lead	0.025	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U
Magnesium	35	**7.8**	**1.4**	**1.4**	**4.8**	**12**	**14**	**45**	**16**	**41**	**1.4**	**9.7**	**12**	**150**	**15**	**16**	**58**	**45**	**39**	**24**
Manganese	0.3	0.01 U	**0.01**	0.01 U	**0.019**	**0.33**	**0.31**	**1.3**	**1.8**	**1.6**	**0.015**	**3.4**	**0.011**	**0.037**	**0.97**	**0.078**	**1.4**	**1.1**	**0.21**	**2.0**
Mercury	0.0007	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.00001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U
Nickel	0.1	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	**0.024**	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U
Potassium	--	2.0 U	2.0 U	2.0 U	**2.9**	**2.5**	2.0 U	**17**	**6.0**	**7.8**	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	**35.0**	**2.6**	**49.0**	**3.7**
Selenium	0.01	0.005 U	0.5 U	0.500 U	0.05 U	0.05 U	0.05 U	0.5 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
Silver	0.05	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U
Sodium	20	**41**	**23**	**23**	**42**	**51**	**45**	**230**	**6.7**	**39**	**42**	**2.6**	**15**	**160**	**4.5**	**41**	**210**	**110**	**120**	**52**
Thallium	0.0005	0.05 U	0.05 U	0.05 U	0.01 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
Vanadium	--	0.01 U	0.01 U	0.010 U	0.02 U	0.01 U	0.01 U	**0.013**	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U
Zinc	2	0.02 U	0.02 U	0.020 U	0.02 U	0.02 U	0.02 U	**0.05**	0.02 U	0.02 U	**0.031**	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U

Notes:
Concentrations detected above the reporting limit are in **bold.**
Concentrations detected above the NYSDEC Class GA GW Standard are highlighted in yellow.

Definitions:
U - The compound was analyzed for but not detected. The associated value is the compound quantitation limit.
J - The concentration is an approximate value.
mg/L - milligrams per Liter
"--" - No regulatory criteria exists for respective analyte.

Table 5
General Chemistry Analytical Results for 2017 Groundwater
Fort Edward Landfill, Fort Edward, NY
NYSDEC Site # 558001

Location	NYSDEC Class GA GW Standard	MW-1	MW-1A	DUP-MW-1A	MW-1D	MW-2	MW-2A	MW-5	MW-6	MW-6A	MW-6B	MW-7	MW-8	MW-9	MW-10	MW-11	EW-1	EW-2	EW-3	EW-4
Sample Date		8/2/2017	8/3/2017	8/3/2017	8/1/2017	8/3/2017	8/2/2017	8/7/2017	8/3/2017	8/3/2017	8/3/2017	8/1/2017	8/1/2017	8/1/2017	8/1/2017	8/2/2017	7/31/2017	7/31/2017	7/31/2017	7/31/2017
Units	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
Total Dissolved Solids	--	**220**	**110**	**40**	**120**	**360**	**270**	**1,100**	**290**	**550**	**80**	**280**	**170**	**970**	**100**	**280**	**1,200**	**750**	**730**	**410**
Total Suspended Solids	--	5 U	5 U	5 U	5 U	5 U	**13**	**220**	**140**	**45**	5 U	**63**	5 U	5 U	**16**	5 U	**30**	**35**	**40**	**110**

Notes:
Concentrations detected above the reporting limit are in **bold.**

Definitions:
U - The compound was analyzed for but not detected. The associated value is the compound quantitation limit.
mg/L - milligrams per Liter
"--" - No regulatory criteria exists for respective analyte.

Table 6
Perfluorinated Alkyl Substances Analytical Results for 2017 Groundwater
Fort Edward Landfill, Fort Edward, NY
NYSDEC Site # 558001

Location	NYSDEC Standard	MW-1	MW-1A	DUP-MW-1A	MW-1D	MW-2	MW-2A	MW-5	MW-6	MW-6A	MW-6B	MW-7	MW-8	MW-9	MW-10	MW-11	EW-1	EW-2	EW-3	EW-4
Sample Date		8/2/2017	8/3/2017	8/3/2017	8/1/2017	8/2/2017	8/2/2017	8/4/2017	8/3/2017	8/3/2017	8/3/2017	8/1/2017	8/1/2017	8/1/2017	8/1/2017	8/2/2017	7/31/2017	7/31/2017	7/31/2017	7/31/2017
Units	ng/L	ng/L	ng/L	ng/L	ng/L	ng/L	ng/L	ng/L	ng/L	ng/L	ng/L	ng/L	ng/L	ng/L	ng/L	ng/L	ng/L	ng/L	ng/L	ng/L
Perfluorobutanesulfonic acid (PFBS)	70	1.2 J	2.0 U	NS	2.0 U	1.1 J	**2.9**	**5.0**	2.0 U	2.0 U	2.0 U	2.0 U	1.3 J	**5.8**	2.0 U	2.0 U	**7.5**	**2.7**	**3.0**	2.0 U
Perfluorohexanesulfonic acid (PFHxS)	70	**2.3**	2.0 U	NS	2.0 U	1.9 J	2.0 U	**40**	2.0 U	**3.0**	2.0 U	2.0 U	2.0 U	**5.6**	2.0 U	2.0 U	**47**	**15**	**12**	1.7 J
Perfluoroheptanoic acids (PFHpA)	70	**11**	2.0 U	NS	2.0 U	**3.2**	1.7 J	**65**	**2.9**	**6.4**	0.84 J	0.93 J	2.0 U	**53**	**2.2**	2.0 U	**160**	**28**	**29**	**8.3**
Perfluorooctanoic acid (PFOA)	70	**6.7**	2.0 U	NS	2.0 U	**25**	**2.3**	**190**	**14**	**19**	2.0 U	**2.9**	2.0 U	**110**	**7.7**	2.0 U	**1,300**	**68**	**64**	**20**
Perfluorooctanesulfonic acid (PFOS)	70	**2.4**	2.0 U	NS	2.0 U	**58**	2.0 U	**90**	**9.8**	**8.4**	2.0 U	2.0 U	2.0 U	**10**	**23**	2.0 U	**73** B	**23**	**21**	**7.6**
Perfluorononanoic acid (PFNA)	70	2.0 U	2.0 U	NS	2.0 U	0.93 J	2.0 U	1.4 J	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	**2.8**	2.0 U	2.0 U	2.0 U
Total PFAS	70	23.6	2.0 U	NS	2.0 U	90.13	6.9	391.4	26.7	36.8	0.84 J	3.83	1.3 J	184.4	32.9	2.0 U	1,590.3	136.7	129	35.9

Notes:
Concentrations detected above the reporting limit are in **bold.**
The NYSDEC has currently set a standard of 70 nanograms per liter for individual and total PFAS. Concentrations detected above this standard are highlighted in yellow.

Definitions:
U - The compound was analyzed for but not detected. The associated value is the compound quantitation limit.
J - The concentration is an approximate value.
ng/L - nanograms per Liter

Table 7
Volatile Organic Compounds Analytical Results for 2017 Surface Water
Fort Edward Landfill, Fort Edward, NY
NYSDEC # 558001

Location	NYSDEC Class GA GW Standard	Unnamed Pond	Polishing Pond Influent	Polishing Pond Effluent	GFFC1	GFFC2	GFFC3
Sample Date		8/4/2017	8/9/2017	8/4/2017	7/31/2017	8/4/2017	8/4/2017
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Acetone	50	9.9 J	50 U	9.2 J	50 U	50 U	50 U
Benzene	1	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Bromochloromethane	5	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Bromodichloromethane	50	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Bromoform	50	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
Bromomethane	5	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
2-Butanone (MEK)	50	20 U	20 U	20 U	20 U	20 U	20 U
Carbon Disulfide	60	4.0 U	4.0 U	4.0 U	4.0 U	4.0 U	4.0 U
Carbon Tetrachloride	5	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Chlorobenzene	5	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Chlorodibromomethane	50	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
Chloroethane	5	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Cyclohexane	--	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
1,2-Dibromo-3-chloropropane (DBCP)	0.04	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
1,2-Dibromoethane (EDB)	0.0006	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,2-Dichlorobenzene	3	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,3-Dichlorobenzene	3	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,4-Dichlorobenzene	3	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Dichlorodifluoromethane (Freon 12)	5	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
1,1-Dichloroethane	5	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichloroethane	0.6	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
1,1-Dichloroethylene	5	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
cis-1,2-Dichloroethylene	5	1.0 U	**2.6**	1.0 U	1.0 U	1.0 U	1.0 U
trans-1,2-Dichloroethylene	5	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichloropropane	1	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
cis-1,3-Dichloropropene	0.4	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
trans-1,3-Dichloropropene	0.4	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,4-Dioxane	--	**14**	**6.5**	**2.4**	0.4 U	0.4 U	0.4 U
Ethylbenzene	5	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
2-Hexanone (MBK)	50	10 U	10 U	10 U	10 U	10 U	10 U
Isopropylbenzene (Cumene)	5	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Methyl Acetate	--	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Methyl tert-Butyl Ether (MTBE)	10	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Methyl Cyclohexane	--	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Methylene Chloride	5	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
4-Methyl-2-pentanone (MIBK)	--	10 U	10 U	10 U	10 U	10 U	10 U
Styrene	5	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1,1,2-Tetrachloroethane	5	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Tetrachloroethylene	5	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Toluene	5	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2,3-Trichlorobenzene	5	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
1,2,4-Trichlorobenzene	5	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1,1-Trichloroethane	5	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1,2-Trichloroethane	1	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Trichloroethylene	5	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Trichlorofluoromethane (Freon 11)	5	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 11)	5	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Vinyl Chloride	2	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
m+p Xylene	5	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
o-Xylene	5	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Xylenes (total)	5	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U
Total VOCs	--	23.9	9.1	11.6	ND	ND	ND

Notes:
Concentrations detected above the reporting limit are in **bold.**
Concentrations detected above the NYSDEC Class GA GW Standard are highlighted in yellow.

Definitions:
U - The compound was analyzed for but not detected. The associated value is the compound quantitation limit.
J - The concentration is an approximate value.
ug/L - Micrograms per Liter
"--" - No regulatory criteria exists for respective analyte.

Table 8
PCB Analytical Results for 2017 Surface Water
Fort Edward Landfill, Fort Edward, NY
NYSDEC Site # 558001

Location	NYSDEC Class GA GW Standard	Unnamed Pond	Polishing Pond Influent	Polishing Pond Effluent	GFFC1	GFFC2	GFFC3
Sample Date		8/4/2017	8/4/2017	8/4/2017	7/31/2017	8/4/2017	8/4/2017
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
PCB-1016	--	0.20 U	0.18 U	0.20 U	0.20 U	0.20 U	0.20 U
PCB-1221	--	0.20 U	0.18 U	0.20 U	0.20 U	0.20 U	0.20 U
PCB-1232	--	0.20 U	0.18 U	0.20 U	0.20 U	0.20 U	0.20 U
PCB-1242	--	0.20 U	0.18 U	0.20 U	0.20 U	0.20 U	0.20 U
PCB-1248	--	0.20 U	0.18 U	0.20 U	0.20 U	0.20 U	0.20 U
PCB-1254	--	0.20 U	0.18 U	0.20 U	0.20 U	0.20 U	0.20 U
PCB-1260	--	0.20 U	0.18 U	0.20 U	0.20 U	0.20 U	0.20 U
PCB-1262	--	0.20 U	0.18 U	0.20 U	0.20 U	0.20 U	0.20 U
PCB-1268	--	0.20 U	0.18 U	0.20 U	0.20 U	0.20 U	0.20 U
Total PCBs	0.09	0.20 U	0.18 U	0.20 U	0.20 U	0.20 U	0.20 U

Notes:
Concentrations detected above the reporting limit are in **bold.**
Concentrations detected above the NYSDEC Class GA GW Standard are highlighted in yellow.
The NYSDEC Class GA GW Standard for Total PCBs is 0.09 ug/L.

Definitions:
U - The compound was analyzed for but not detected. The associated value is the compound quantitation limit.
ug/L - micrograms per Liter
"--" - No regulatory criteria exists for respective analyte.

Table 9
Metals Analytical Results for 2017 Surface Water
Fort Edward Landfill, Fort Edward, NY
NYSDEC Site # 558001

Location	NYSDEC Class GA GW Standard	Unnamed Pond	Polishing Pond Influent	Polishing Pond Effluent	GFFC1	GFFC2	GFFC3
Sample Date		8/4/2017	8/4/2017	8/4/2017	7/31/2017	8/4/2017	8/4/2017
Units	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
Aluminum	--	0.05 U	**0.06**	**0.077**	**0.051**	**0.096**	**0.073**
Antimony	0.003	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
Arsenic	0.025	0.01 U	**0.01**	0.01 U	0.01 U	0.01 U	0.01 U
Barium	1	**0.062**	**0.056**	**0.055**	0.05 U	0.05 U	0.05 U
Beryllium	0.003	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U
Cadmium	0.005	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U
Calcium	--	**51**	**100**	**85**	**8.1**	**10**	**8.3**
Chromium	0.05	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U
Cobalt	--	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
Copper	0.2	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U
Iron	0.3	**3.1**	**5.5**	**2.3**	**0.24**	**0.31**	**0.25**
Lead	0.025	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U
Magnesium	35	**24**	**22**	**20**	**1.5**	**2.0**	**1.5**
Manganese	0.3	**0.12**	**1.0**	**0.9**	**20**	**0.07**	**0.019**
Mercury	0.0007	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U
Nickel	0.1	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U
Potassium	--	**2.7**	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
Selenium	0.01	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
Silver	0.05	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U
Sodium	20	**60**	**58**	**48**	**10**	**9.5**	**9.0**
Thallium	0.0005	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
Vanadium	--	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U
Zinc	2	0.02 U	0.02 U	**0.17**	0.02 U	0.02 U	0.02 U

Notes:
Concentrations detected above the reporting limit are in **bold.**
Concentrations detected above the NYSDEC Class GA GW Standard are highlighted in yellow.

Definitions:
U - The compound was analyzed for but not detected. The associated value is the compound quantitation limit.
mg/L - milligrams per Liter
"--" - No regulatory criteria exists for respective analyte.

Table 10
General Chemistry Analytical Results for 2017 Surface Water
Fort Edward Landfill, Fort Edward, NY
NYSDEC Site # 558001

Location	NYSDEC Class GA GW Standard	Unnamed Pond	Polishing Pond Influent	Polishing Pond Effluent	GFFC1	GFFC2	GFFC3
Sample Date		8/4/2017	8/4/2017	8/4/2017	7/31/2017	8/4/2017	8/4/2017
Units	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
Total Dissolved Solids	--	**400**	**420**	**420**	**46**	**270**	**110**
Total Suspended Solids	--	5 U	**20**	**110**	5 U	**7**	5 U

Notes:
Concentrations detected above the reporting limit are in **bold.**

Definitions:
U - The compound was analyzed for but not detected. The associated value is the compound quantitation limit.
mg/L - milligrams per Liter
"--" - No regulatory criteria exists for respective analyte.

Table 11
Perfluorinated Alkyl Substances Analytical Results for 2017 Surface Water
Fort Edward Landfill, Fort Edward, NY
NYSDEC Site # 558001

Location	NYSDEC Standard	Unnamed Pond	Polishing Pond Influent	Polishing Pond Effluent	GFFC1	GFFC2	GFFC3
Sample Date		8/4/2017	8/4/2017	8/4/2017	7/31/2017	8/4/2017	8/4/2017
Units	ng/L	ng/L	ng/L	ng/L	ng/L	ng/L	ng/L
Perfluorobutanesulfonic acid (PFBS)	70	**2.1**	1.4 J	1.3 J	2.0 U	2.0 U	2.0 U
Perfluorohexanesulfonic acid (PFHxS)	70	**9.4**	**3.1**	**2.1**	2.0 U	2.0 U	2.0 U
Perfluoroheptanoic acids (PFHpA)	70	**29**	**15**	**12**	2.0 U	0.9 J	2.0 U
Perfluorooctanoic acid (PFOA)	70	**130**	**51**	**31**	2.0 U	2.0 U	2.0 U
Perfluorooctanesulfonic acid (PFOS)	70	**39**	**9.7**	**3.9**	2.0 U	2.0 U	2.0 U
Perfluorononanoic acid (PFNA)	70	0.97 J	0.99 J	2.0 U	2.0 U	2.0 U	2.0 U
Total PFAS	70	210.47	81.19	50.3	2.0 U	0.9 J	2.0 U

Notes:
Concentrations detected above the reporting limit are in **bold.**

The NYSDEC has currently set a standard of 70 nanograms per liter for individual and total PFAS. Concentrations detected above this standard are highlighted in yellow.

Definitions:
U - The compound was analyzed for but not detected. The associated value is the compound quantitation limit.
J - The concentration is an approximate value.
ng/L - nanograms per Liter

Table 12
Volatile Organic Compound Analytical Results for 2017 Sediment
Fort Edward Landfill, Fort Edward, NY
NYSDEC Site # 558001

Location	NYSDEC 6 NYCRR Part 375 Unrestricted Use	Unnamed Pond	Cell 1	Cell 2	Cell 3	Polishing Pond Influent	Polishing Pond Effluent	DUP-Polishing Pond Effluent	GFCC1	GFCC2	GFCC3
Sample Date		8/4/2017	8/3/2017	8/3/2017	8/3/2017	8/4/2017	8/4/2017	8/4/2017	7/31/2017	8/4/2017	8/4/2017
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Acetone	0.05	5.4 U	0.027 U	**0.35**	0.38 U	0.093 J	0.16 U	0.16 U	0.12 U	0.19 U	0.14 U
Acrylonitrile	--	0.54 U	0.016 U	0.02 U	0.023 U	0.012 U	0.0097 U	0.0097 U	0.0073 U	0.012 U	0.0085 U
tert-Amyl Methyl Ether (TAME)	--	0.054 U	0.0027 U	0.0034 U	0.0038 U	0.002 U	0.0016 U	0.0016 U	0.0012 U	0.0019 U	0.0014 U
Benzene	0.06	0.11 U	0.0054 U	0.0067 U	0.0075 U	0.004 U	0.0032 U	0.0032 U	0.0024 U	0.0039 U	0.0028 U
Bromobenzene	--	0.11 U	0.0054 U	0.0067 U	0.0075 U	0.004 U	0.0032 U	0.0032 U	0.0024 U	0.0039 U	0.0028 U
Bromochloromethane	--	0.11 U	0.0054 U	0.0067 U	0.0075 U	0.004 U	0.0032 U	0.0032 U	0.0024 U	0.0039 U	0.0028 U
Bromodichloromethane	--	0.11 U	0.0054 U	0.0067 U	0.0075 U	0.004 U	0.0032 U	0.0032 U	0.0024 U	0.0039 U	0.0028 U
Bromoform	--	0.22 U	0.0054 U	0.0067 U	0.0075 U	0.004 U	0.0032 U	0.0032 U	0.0024 U	0.0039 U	0.0028 U
Bromomethane	--	0.54 U	0.027 U	0.034 U	0.038 U	0.02 U	0.016 U	0.016 U	0.012 U	0.019 U	0.014 U
2-Butanone (MEK)	0.12	2.2 U	0.11 U	**0.18**	0.15 U	0.08 U	0.065 U	0.065 U	0.049 U	0.077 U	0.057 U
tert-Butyl Alcohol (TBA)	--	2.2 U	0.11 U	0.13 U	0.15 U	0.08 U	0.065 U	0.065 U	0.049 U	0.077 U	0.057 U
n-Butylbenzene	12	0.11 U	0.0054 U	0.0067 U	0.0075 U	0.004 U	0.0032 U	0.0032 U	0.0024 U	0.0039 U	0.0028 U
sec-Butylbenzene	11	0.11 U	0.0054 U	0.0067 U	0.0075 U	0.004 U	0.0032 U	0.0032 U	0.0024 U	0.0039 U	0.0028 U
tert-Butylbenzene	5.9	0.11 U	0.0054 U	0.0067 U	0.0075 U	0.004 U	0.0032 U	0.0032 U	0.0024 U	0.0039 U	0.0028 U
tert-Butyl Ethyl Ether (TBEE)	--	0.054 U	0.0027 U	0.0034 U	0.0037 U	0.002 U	0.0016 U	0.0016 U	0.0012 U	0.0019 U	0.0014 U
Carbon Disufide	--	0.32 U	0.016 U	0.02 U	0.023 U	0.012 U	0.0098 U	0.0098 U	0.0073 U	0.012 U	0.0085 U
Carbon Tetrachloride	0.76	0.11 U	0.0054 U	0.0067 U	0.0075 U	0.004 U	0.0032 U	0.0032 U	0.0024 U	0.0039 U	0.0028 U
Chlorobenzene	1.1	0.11 U	0.0054 U	0.0067 U	0.0075 U	0.004 U	0.0032 U	0.0032 U	0.0024 U	0.0039 U	0.0028 U
Chlorodibromomethane	--	0.22 U	0.0054 U	0.0067 U	0.0075 U	0.004 U	0.0032 U	0.0032 U	0.0024 U	0.0039 U	0.0028 U
Chloroethane	--	0.54 U	0.054 U	0.067 U	0.075 U	0.040 U	0.032 U	0.032 U	0.024 U	0.039 U	0.028 U
Chloroform	0.37	0.22 U	0.011 U	0.013 U	0.015 U	0.008 U	0.0065 U	0.0065 U	0.0049 U	0.0077 U	0.0057 U
Chloromethane	--	0.54 U	0.027 U	0.034 U	0.038 U	0.02 U	0.016 U	0.016 U	0.012 U	0.019 U	0.014 U
2-Chlorotoluene	--	0.11 U	0.0054 U	0.0067 U	0.0075 U	0.004 U	0.0032 U	0.0032 U	0.0024 U	0.0039 U	0.0028 U
4-Chlorotoluene	--	0.11 U	0.0054 U	0.0067 U	0.0075 U	0.004 U	0.032 U	0.032 U	0.0024 U	0.0039 U	0.0028 U
1,2-Dibromo-3-chloropropane (DBCP)	--	0.54 U	0.011 U	0.013 U	0.015 U	0.008 U	0.0065 U	0.0065 U	0.0049 U	0.0077 U	0.057 U
1,2-Dibromoethane (EDB)	--	0.054 U	0.0054 U	0.0067 U	0.0075 U	0.004 U	0.0032 U	0.0032 U	0.0024 U	0.0039 U	0.0028 U
Dibromomethane	--	0.11 U	0.0054 U	0.0067 U	0.0075 U	0.004 U	0.32 U	0.32 U	0.0024 U	0.0039 U	0.0028 U
1,2-Dichlorobenzene	1.1	0.11 U	0.0054 U	0.0067 U	0.0075 U	0.004 U	0.0032 U	0.0032 U	0.0024 U	0.0039 U	0.0028 U
1,3-Dichlorobenzene	2.4	0.11 U	0.0054 U	0.0067 U	0.0075 U	0.004 U	0.0032 U	0.0032 U	0.0024 U	0.0039 U	0.0000 U
1,4-Dichlorobenzene	1.8	0.11 U	0.0054 U	0.0067 U	0.0075 U	0.004 U	0.0032 U	0.0032 U	0.0024 U	0.0039 U	0.0028 U
trans-1,4-Dichloro-2-butene	--	0.22 U	0.011 U	0.013 U	0.015 U	0.008 U	0.0065 U	0.0065 U	0.0049 U	0.0077 U	0.0057 U
Dichlorodifluoromethane (Freon 12)	--	0.22 U	0.054 U	0.067 U	0.075 U	0.04 U	0.032 U	0.032 U	0.024 U	0.039 U	0.028 U
1,1-Dichloroethane	0.27	0.11 U	0.0054 U	0.0067 U	0.0075 U	0.004 U	0.0032 U	0.0032 U	0.0024 U	0.0039 U	0.0028 U
1,2-Dichloroethane	0.02	0.22 U	0.0054 U	0.0067 U	0.0075 U	0.004 U	0.0032 U	0.0032 U	0.0024 U	0.0039 U	0.0028 U
1,1-Dichloroethylene	0.33	0.11 U	0.011 U	0.013 U	**0.0071**	0.008 U	0.0065 U	0.0065 U	0.0049 U	0.0077 U	0.0057 U
cis-1,2-Dichloroethylene	0.25	0.11 U	0.0054 U	0.0067 U	0.0075 U	0.004 U	0.0032 U	0.0032 U	0.0024 U	0.0039 U	0.0028 U
trans-1,2-Dichloroethylene	0.19	0.11 U	0.0054 U	0.0067 U	0.0075 U	0.04 U	0.0032 U	0.0032 U	0.0024 U	0.0039 U	0.0028 U
1,2-Dichloropropane	--	0.11 U	0.0054 U	0.0067 U	0.0075 U	0.004 U	0.0032 U	0.0032 U	0.0024 U	0.0039 U	0.0028 U
1,3-Dichloropropane	--	0.054 U	0.0027 U	0.0034 U	0.0038 U	0.002 U	0.0016 U	0.0016 U	0.0012 U	0.0017 U	0.0014 U
2,2-Dichloropropane	--	0.11 U	0.0054 U	0.0067 U	0.0075 U	0.004 U	0.0032 U	0.0032 U	0.0024 U	0.0039 U	0.0028 U
1,1-Dichloropropene	--	0.22 U	0.0054 U	0.0067 U	0.0075 U	0.004 U	0.0032 U	0.0032 U	0.0024 U	0.0039 U	0.0028 U
cis-1,3-Dichloropropene	--	0.054 U	0.0027 U	0.0034 U	0.038 U	0.002 U	0.0016 U	0.0016 U	0.0012 U	0.0017 U	0.0014 U
trans-1,3-Dichloropropene	--	0.054 U	0.0027 U	0.0034 U	0.038 U	0.002 U	0.0016 U	0.0016 U	0.0012 U	0.0017 U	0.0014 U
Diethyl Ether	--	0.22 U	0.054 U	0.067 U	0.075 U	0.04 U	0.032 U	0.032 U	0.024 U	0.039 U	0.028 U
Diisopropyl Ether (DIPE)	--	0.054 U	0.0027 U	0.0034 U	0.0038 U	0.002 U	0.0016 U	0.0016 U	0.0012 U	0.0019 U	0.0014 U
1,4-Dioxane	--	5.4 U	0.27 U	0.34 U	0.38 U	0.2 U	0.2 U	0.2 U	0.12 U	0.19 U	0.14 U
Ethylbenzene	1.0	0.11 U	0.0054 U	0.0067 U	0.0075 U	0.004 U	0.0032 U	0.0032 U	0.0024 U	0.0039 U	0.0028 U
Hexachlorobutadiene	--	0.11 U	0.0054 U	0.0067 U	0.0075 U	0.004 U	0.0032 U	0.0032 U	0.0024 U	0.0039 U	0.0028 U
2-Hexanone (MBK)	--	1.1 U	0.054 U	0.067 U	0.075 U	0.04 U	0.032 U	0.032 U	0.024 U	0.039 U	0.028 U
Isopropylbenzene (Cumene)	--	0.22 U	0.0054 U	0.0067 U	0.0075 U	0.004 U	0.0032 U	0.0032 U	0.0024 U	0.0039 U	0.0028 U
p-Isopropyltoluene (p-Cymene)	--	0.22 U	0.0054 U	0.0067 U	0.0075 U	0.004 U	0.0032 U	0.0032 U	0.0024 U	0.0039 U	0.0028 U
Methyl Acetate	--	1.1 U	0.0054 U	**0.066**	0.0075 U	0.004 U	0.0032 U	0.0032 U	0.0024 U	0.0039 U	0.0028 U
Methyl tert-Butyl Ether (MTBE)	0.93	0.11 U	0.011 U	0.013 U	0.015 U	0.01 U	0.0065 U	0.0065 U	0.0049 U	0.0077 U	0.0057 U
Methyl Cyclohexane	--	0.11 U	0.0054 U	0.0067 U	0.0075 U	0.004 U	0.0032 U	0.0032 U	0.0024 U	0.0039 U	0.0028 U
Methylene Chloride	0.05	0.54 U	0.054 U	0.067 U	0.075 U	0.04 U	0.032 U	0.032 U	0.024 U	0.039 U	0.028 U
4-Methyl-2-pentanone (MIBK)	--	1.1 U	0.054 U	0.067 U	0.075 U	0.04 U	0.032 U	0.032 U	0.024 U	0.039 U	0.028 U
Naphthalene	--	0.22 U	0.011 U	0.013 U	0.015 U	0.01 U	0.0065 U	0.0065 U	0.0049 U	0.0077 U	0.0057 U
n-Propylbenzene	3.9	0.11 U	0.0054 U	0.0067 U	0.0075 U	0.004 U	0.0032 U	0.0032 U	0.0024 U	0.0039 U	0.0028 U
Styrene	--	0.11 U	0.0054 U	0.0067 U	0.0075 U	0.004 U	0.0032 U	0.0032 U	0.0024 U	0.0039 U	0.0028 U
1,1,1,2-Tetrachloroethane	--	0.11 U	0.0054 U	0.0067 U	0.0075 U	0.004 U	0.0032 U	0.0032 U	0.0024 U	0.0039 U	0.0028 U
1,1,2,2-Tetrachloroethane	--	0.054 U	0.0027 U	0.0034 U	0.0038 U	0.002 U	0.0016 U	0.0016 U	0.0012 U	0.0019 U	0.0014 U
Tetrachloroethylene	1.3	0.11 U	0.0054 U	0.0067 U	0.0075 U	0.004 U	0.0032 U	0.0032 U	0.0024 U	0.0039 U	0.0028 U
Tetrahydrofuran	--	1.1 U	0.027 U	0.034 U	0.038 U	0.020 U	0.016 U	0.016 U	0.012 U	0.019 U	0.014 U
Toluene	0.7	0.11 U	0.0054 U	**0.036**	0.0075 U	0.0038 J	0.0032 U	0.0032 U	0.0024 U	0.0039 U	0.0028 U
1,2,3-Trichlorobenzene	--	0.54 U	0.0054 U	0.0067 U	0.0075 U	0.004 U	0.0032 U	0.0032 U	0.0024 U	0.0039 U	0.0028 U
1,2,4-Trichlorobenzene	--	0.11 U	0.0054 U	0.0067 U	0.0075 U	0.004 U	0.0032 U	0.0032 U	0.0024 U	0.0039 U	0.0028 U
1,3,5-Trichlorobenzene	--	0.11 U	0.011 U	0.013 U	0.015 U	0.008 U	0.002 U	0.002 U	0.002 U	0.077 U	0.006 U
1,1,1-Trichloroethane	0.68	0.11 U	0.0054 U	0.0067 U	0.0075 U	0.004 U	0.0032 U	0.0032 U	0.0024 U	0.0039 U	0.0028 U
1,1,2-Trichloroethane	--	0.11 U	0.0054 U	0.0067 U	0.0075 U	0.004 U	0.0032 U	0.0032 U	0.0024 U	0.0039 U	0.0028 U
Trichloroethylene	0.47	0.11 U	0.0054 U	0.0067 U	0.0075 U	0.004 U	0.0032 U	0.0032 U	0.0024 U	0.0039 U	0.0028 U
Trichlorofluoromethane (Freon 11)	--	0.22 U	0.027 U	0.034 U	0.038 U	0.02 U	0.016 U	0.016 U	0.120 U	0.019 U	0.014 U
1,2,3-Trichloropropane	--	0.22 U	0.0054 U	0.0067 U	0.0075 U	0.004 U	0.0032 U	0.0032 U	0.0024 U	0.0039 U	0.0028 U
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	--	0.11 U	0.027 U	0.034 U	0.038 U	0.02 U	0.016 U	0.016 U	0.120 U	0.019 U	0.014 U
1,2,4-Trimethylbenzene	3.6	0.11 U	0.0054 U	0.0067 U	0.0075 U	0.004 U	0.0032 U	0.0032 U	0.0024 U	0.0039 U	0.0028 U
1,3,5-Trimethylbenzene	8.4	0.11 U	0.0054 U	0.0067 U	0.0075 U	0.004 U	0.0032 U	0.0032 U	0.0024 U	0.0039 U	0.0028 U
Vinyl Chloride	0.02	0.22 U	0.027 U	0.034 U	0.038 U	0.02 U	0.016 U	0.016 U	0.012 U	0.019 U	0.014 U
m+p Xylene	100	0.22 U	0.011 U	0.013 U	0.02 U	0.008 U	0.0065 U	0.0065 U	0.0049 U	0.0077 U	0.0057 U
o-Xylene	100	0.11 U	0.0054 U	0.0067 U	0.0075 U	0.004 U	0.0032 U	0.0032 U	0.0024 U	0.0039 U	0.0028 U
Total VOCs	--	ND	ND	0.632	0.0071	0.097	ND	ND	ND	ND	ND

Notes:
Concentrations detected above the reporting limit are in **bold.**
Concentrations detected above the NYSDEC 6 NYCRR Part 375 Unrestricted Use cleanup objective are highlighted in yellow.

Definitions:
U - The compound was analyzed for but not detected. The associated value is the compound quantitation limit.
J - The concentration is an approximate value.
mg/Kg - milligrams per Kilogram
"--" - No regulatory criteria exists for respective analyte.

Table 13
PCB Analytical Results for 2017 Sediment
Fort Edward Landfill, Fort Edward, NY
NYSDEC Site # 558001

Location	NYSDEC 6 NYCRR Part 375 Unrestricted Use	Unnamed Pond	Cell 1	Cell 2	Cell 3	Polishing Pond Influent	Polishing Pond Effluent	DUP-Polishing Pond Effluent	GFCC1	GFCC2	GFCC3
Sample Date		8/4/2017	8/3/2017	8/3/2017	8/3/2017	8/4/2017	8/4/2017	8/4/2017	7/31/2017	8/4/2017	8/4/2017
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
PCB-1016	--	0.16 U	0.24 U	0.20 U	0.35 U	0.18 U	0.15 U	0.13 U	0.13 U	0.20 U	0.13 U
PCB-1221	--	0.16 U	0.24 U	0.20 U	0.35 U	0.18 U	0.15 U	0.13 U	0.13 U	0.20 U	0.13 U
PCB-1232	--	0.16 U	0.24 U	0.20 U	0.35 U	0.18 U	0.15 U	0.13 U	0.13 U	0.20 U	0.13 U
PCB-1242	--	0.16 U	0.24 U	0.20 U	0.35 U	0.18 U	0.15 U	0.13 U	0.13 U	0.20 U	0.13 U
PCB-1248	--	0.16 U	0.24 U	0.20 U	0.35 U	0.18 U	0.15 U	0.13 U	**0.32**	0.20 U	0.13 U
PCB-1254	--	0.16 U	0.24 U	0.20 U	0.35 U	0.18 U	0.15 U	0.13 U	**0.23**	0.20 U	0.13 U
PCB-1260	--	0.16 U	0.24 U	0.20 U	0.35 U	0.18 U	0.15 U	0.13 U	0.13 U	0.20 U	0.13 U
PCB-1262	--	0.16 U	0.24 U	0.20 U	0.35 U	0.18 U	0.15 U	0.13 U	0.13 U	0.20 U	0.13 U
PCB-1268	--	0.16 U	0.24 U	0.20 U	0.35 U	0.18 U	0.15 U	0.13 U	0.13 U	0.20 U	0.13 U
Total PCBs	0.1	0.16 U	0.24 U	0.20 U	0.35 U	0.18 U	0.15 U	0.13 U	**0.55**	0.20 U	0.13 U

Notes:
Concentrations detected above the reporting limit are in **bold.**
Concentrations detected above the NYSDEC 6 NYCRR Part 375 Unrestricted Use cleanup objective are highlighted in yellow.
The NYSDEC6 NYCRR Part 375 Unrestricted Use cleanup objective for PCBs is 0.1 parts per million.

Definitions:
U - The compound was analyzed for but not detected. The associated value is the compound quantitation limit.
J - The concentration is an approximate value.
ppm - parts per million
"--" - No regulatory criteria exists for respective analyte.

Table 14
Metals Analytical Results for 2017 Sediment
Fort Edward Landfill, Fort Edward, NY
NYSDEC # 558001

Location	NYSDEC 6 NYCRR Part 375 Unrestricted Use	Unnamed Pond	Cell 1	Cell 2	Cell 3	Polishing Pond Influent	Polishing Pond Effluent	DUP-Polishing Pond Effluent	GFCC1	GFCC2	GFCC3
Sample Date		8/4/2017	8/3/2017	8/3/2017	8/3/2017	8/4/2017	8/4/2017	8/4/2017	7/31/2017	8/4/2017	8/4/2017
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Aluminum	--	**4,500**	**4,500**	**31,000**	**13,000**	**23,000**	**17,000**	**13,000**	**4,600**	**13,000**	**4,700**
Antimony	--	3.7 U	6.0 U	5.0 U	8.7 U	4.5 U	3.5 U	3.1 U	3.0 U	5.0 U	3.1 U
Arsenic	13	3.7 U	6.0 U	5.0 U	8.7 U	4.5 U	3.5 U	3.1 U	3.0 U	5.0 U	3.1 U
Barium	350	**47**	**34**	**200**	**100**	**160**	**100**	**82**	**27**	**120**	**35**
Beryllium	7.2	0.37 U	0.6 U	**0.61**	0.87 U	0.45 U	0.35 U	0.31 U	0.3 U	0.5 U	0.31 U
Cadmium	2.5	0.37 U	0.6 U	0.5 U	0.87 U	0.45 U	0.35 U	0.31 U	0.3 U	0.5 U	0.31 U
Calcium	--	**13,000**	**150,000**	**8,900**	**17,000**	**3,300**	**5,200**	**2,800**	**1,800**	**6,700**	**2,100**
Chromium	30	**5.1**	**12**	**36**	**19**	**33**	**22**	**17**	**8.7**	**19**	**9.7**
Cobalt	--	3.7 U	6.0 U	**7.8**	8.7 U	**15**	**10**	**7.7**	**5.4**	**9.4**	**4.0**
Copper	50	**3.0**	**11**	**31**	**23**	**13**	**17**	**11**	**12**	**13**	**5.8**
Iron	--	**20,000 B**	**21,000 B**	**25,000 B**	**18,000 B**	**39,000 B**	**34,000 B**	**24,000 B**	**13,000**	**31,000**	**15,000**
Lead	63	**6.7**	**7.1**	**12**	**9.9**	**20**	**9.1**	**5.3**	**49**	**17**	**19**
Magnesium	--	**1,400**	**44,000**	**6,600**	**6,100**	**7,000**	**6,100**	**3,900**	**2,500**	**6,200**	**3,100**
Manganese	1600	**380**	**290**	**220**	**280**	**260**	**330**	**270**	**79**	**790**	**140**
Mercury	0.18	0.04 U	0.06 U	**0.052**	0.084 U	0.045 U	0.038 U	0.031 U	**0.088**	0.048 U	**0.048**
Nickel	30	**3.9**	**11**	**27**	**21**	**23**	**19**	**14**	**8.3**	**19**	**7.1**
Potassium	--	**350**	**900**	**2,600**	**1,500**	**2,200**	**2,000**	**1,600**	**430**	**2,100**	**580**
Selenium	3.9	7.4 U	12 U	10 U	17 U	9.0 U	6.9 U	6.1 U	6.0 U	9.9 U	6.2 U
Silver	2	0.74 U	1.2 U	1.0 U	1.7 U	0.9 U	6.9 U	0.61 U	0.6 U	0.99 U	0.62 U
Sodium	--	150 U	240 U	**300**	**480**	180 U	**190**	**160**	120 U	**210**	120 U
Thallium	--	3.7 U	6.0 U	5.0 U	8.7 U	4.5 U	3.5 U	3.1 U	3.0 U	5.0 U	3.1 U
Vanadium	--	**11**	**16**	**38**	**29**	**50**	**35**	**25**	**16**	**23**	**12**
Zinc	109	**23**	**32**	**73**	**40**	**79**	**64**	**47**	**70**	**76**	**63**

Notes:
Concentrations detected above the reporting limit are in **bold.**
Concentrations detected above the NYSDEC 6 NYCRR Part 375 Unrestricted Use cleanup objective are highlighted in yellow.

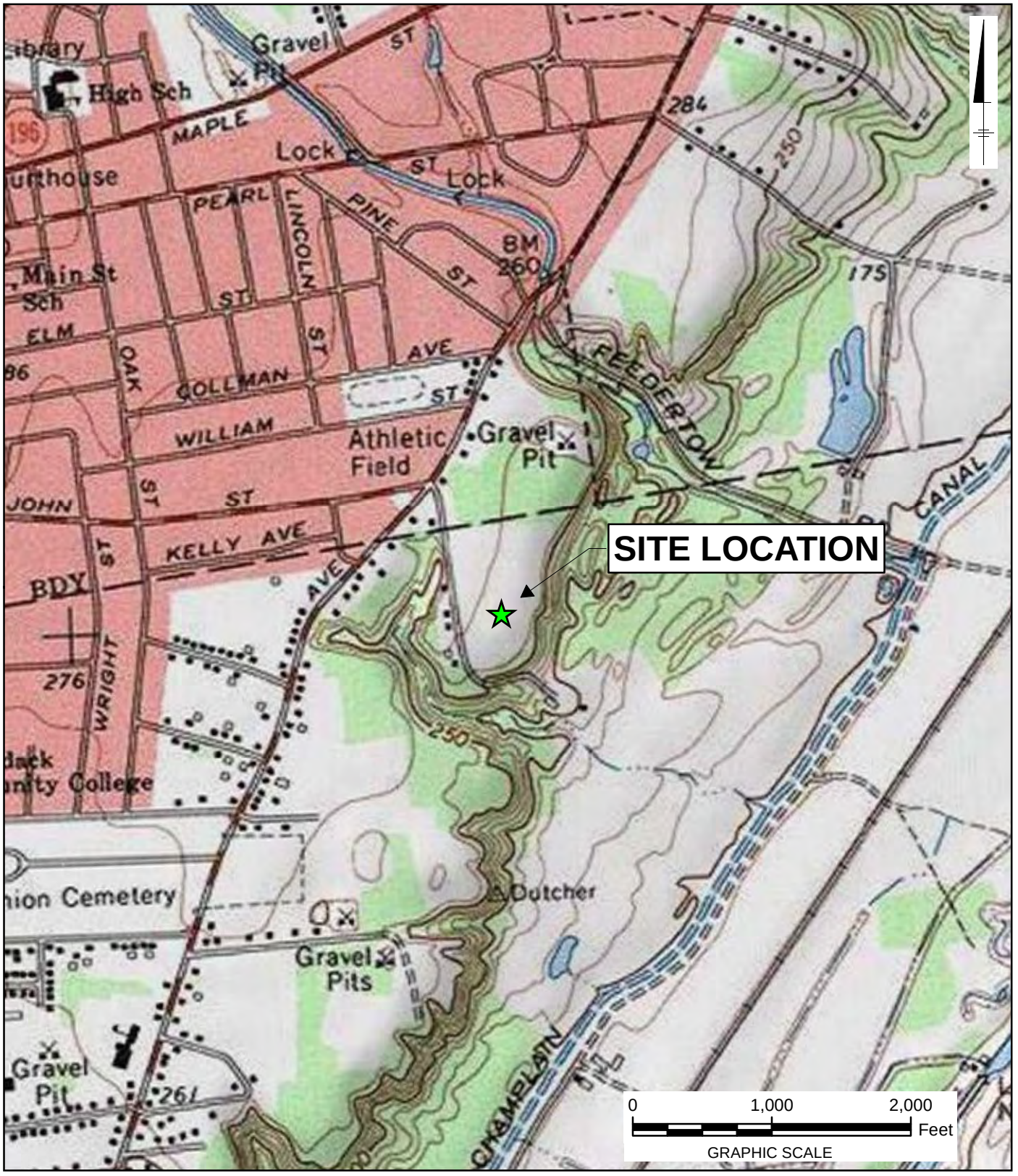
Definitions:
B - The compound was found in the associated blank as well as in the sample.
U - The compound was analyzed for but not detected. The associated value is the compound quantitation limit.
J - The concentration is an approximate value.
ppm - parts per million
"--" - No regulatory criteria exists for respective analyte.

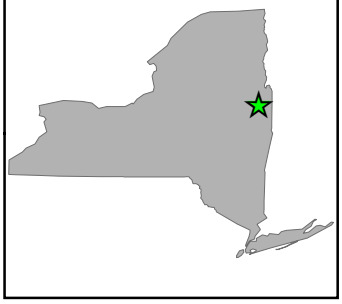
Table 15
Analytical Data May 1995 - August 2017
Fort Edward Landfill, Fort Edward, NY
NYSDEC Site # 558001

Well ID	Parameter	NYSDEC Class GA Standard	Units	Sample Date																	
				May-95	Aug-95	May-99	Oct-99	May-00	Oct-01	May-02	Apr-03	Aug-04	Jul-07	Oct-08	Mar-10	Oct-11	Sep-12	Oct-13	Jan-15	May-16	Aug-17
MW-1	Total VOCs		µg/L	5.0	ND	ND	ND	ND	19	ND	ND	2.0	ND	ND	ND	ND	ND	ND	ND	ND	ND
	Iron	0.30	mg/L	**45.4**	**13**	**0.498**	**1.1**	**2.2**	**1.1**	**1.6**	**1.1**	NA	**20.1**	**1.17**	ND	ND	0.29	0.21	0.053	0.079	ND
	Total PCBs	0.09	µg/L	NA	ND	NA	ND	NA	NA	NA	NA	NA	ND	ND	ND	ND	**0.82**	ND	ND	ND	ND
MW-1A	Total VOCs		µg/L	7.0	11	1.0	ND	3.0	ND	ND	ND	5.0	ND	ND	ND	ND	ND	ND	0.99	451	ND
	Iron	0.30	mg/L	**0.827**	**0.331**	**0.75**	**2.1**	**2.6**	**2.8**	**0.41**	**1.1**	NA	**11.5**	**1.63**	0.185	**0.352**	**0.55**	**0.25**	0.19	**0.48**	0.093
	Total PCBs	0.09	µg/L	ND	ND	NA	ND	NA	NA	NA	NA	NA	ND	ND	ND	ND	**7.4**	ND	**28**	**0.45**	ND
MW-1D	Total VOCs		µg/L	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	26.1	ND	ND	ND	1.1	ND	ND
	Iron	0.30	mg/L	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	0.185	**1.14**	0.19	0.074	0.18	0.2	**0.37**
	Total PCBs	0.09	µg/L	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	ND	ND	**0.81**	ND	ND	ND	ND
MW-2	Total VOCs		µg/L	9.0	8.0	10	ND	ND	ND	ND	ND	5.0	ND	ND	ND	6.7	ND	ND	ND	ND	ND
	Iron	0.30	mg/L	**1.27**	**8.03**	**7.62**	**2.9**	**15**	**1.1**	**5.8**	**5.2**	NA	**9.86**	**5.32**	**2.17**	**4.74**	**2.8**	**2.2**	**1.7**	**5.3**	**5.2**
	Total PCBs	0.09	µg/L	ND	ND	NA	ND	NA	NA	NA	NA	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND
MW-2A	Total VOCs		µg/L	ND	ND	6.0	ND	ND	ND	ND	ND	4.0	ND	ND	ND	ND	ND	ND	ND	ND	0.28
	Iron	0.30	mg/L	**4.62**	**4.89**	**4.83**	**8.6**	**13**	**7.5**	**9.3**	**6.8**	NA	**15.2**	**11.2**	**8.19**	**11.2**	**9.1**	**9.8**	**10.7**	**10.8**	**14**
	Total PCBs	0.09	µg/L	ND	ND	NA	ND	NA	NA	NA	NA	NA	ND	ND	ND	ND	**0.28**	ND	ND	ND	ND
MW-5	Total VOCs		µg/L	8,641	11,438	NS	NS	27,034	50,271	NS	11,352	4,209	NA	NA	365	NS	NS	NS	1,858	1,259	908.4
	Iron	0.30	mg/L	**82.5**	**66.2**	NS	NS	**130**	**95**	NS	**95**	ND	NA	NA	**142**	NS	NS	NS	**56.5**	**100**	**54**
	Total PCBs	0.09	µg/L	ND	ND	NS	NS	NA	NA	NS	NS	ND	NA	NA	ND	NS	NS	NS	**1.1**	**0.54**	ND
MW-6	Total VOCs		µg/L	112	83	26	38	38	62	60	37	63	17	23	25	23	22.4	22.14	40.75	31.7	32.9
	Iron	0.30	mg/L	**37.4**	**63.7**	**49.3**	**80**	**84**	**97**	**100**	**130**	NA	**135**	**120**	**123**	**139**	**103**	**102**	**106**	**106**	**120**
	Total PCBs	0.09	µg/L	ND	ND	NA	ND	ND	NA	NA	NA	**3.3**	ND	**0.43**	**0.72**	**0.18**	**0.37**	ND	**11**	**15**	ND
MW-6A	Total VOCs		µg/L	30	4.0	ND	3.0	13	16	9.0	16	17	8.0	19	44	67.7□	35.41	37.04	35.25	28.18	29.5
	Iron	0.30	mg/L	**0.404**	**0.428**	**0.388**	**2.6**	**35**	**35**	**49**	**54**	NA	**33.1**	**27.4**	**23.4**	**24.4**	**23.8**	**21.2**	**21.2**	**19.7**	**21**
	Total PCBs	0.09	µg/L	ND	ND	NA	ND	NA	NA	NA	NA	NA	ND	ND	ND	ND	ND	ND	**3.8**	**14**	ND
MW-6B	Total VOCs		µg/L	30	ND	8.0	ND	ND	NA	ND	ND	4.0	ND	ND	ND	ND	ND	ND	0.94	ND	ND
	Iron	0.30	mg/L	**8.13**	**19.9**	**49**	**1.2**	**17**	NA	**9.1**	**38**	NA	**157**	**3.16**	**2.38**	**0.521**	**0.78**	**0.35**	**5**	**0.34**	0.24
	Total PCBs	0.09	µg/L	ND	ND	NA	ND	NA	NA	NA	NA	NA	ND	ND	ND	ND	**0.91**	ND	**1.5**	**29**	ND
MW-7	Total VOCs		µg/L	3.0	ND	5.0	ND	ND	ND	ND	NA	11	ND	ND	ND	ND	ND	2.78	1.91	0.6	ND
	Iron	0.30	mg/L	**23.6**	**30.8**	**8.06**	**2.2**	**17**	**23**	**27**	NA	**240**	**217**	**143**	**119**	**188**	**146**	**195**	**154**	**157**	**160**
	Total PCBs	0.09	µg/L	ND	ND	NA	ND	NA	NA	NA	NA	NA	ND	ND	ND	ND	ND	ND	**0.27**	ND	ND
MW-8	Total VOCs		µg/L	ND	ND	ND	ND	ND	ND	ND	ND	6.0	ND	ND	ND	NS	ND	4.4	ND	ND	ND
	Iron	0.30	mg/L	0.195	**0.362**	**0.873**	**0.46**	**1.4**	0.29	**2.3**	NA	NA	**19.9**	0.25	**8.49**	NS	**4.0**	**1.5**	**9.8**	0.073	0.057
	Total PCBs	0.09	µg/L	ND	ND	NA	ND	NA	NA	NA	NA	NA	ND	ND	ND	NS	**1.0**	ND	ND	ND	ND
MW-9	Total VOCs		µg/L	NA	NA	7.0	ND	ND	ND	ND	ND	4.0	ND	ND	ND	ND	ND	ND	ND	ND	5.2
	Iron	0.30	mg/L	NA	NA	**0.946**	**0.56**	**2.0**	**0.26**	**0.39**	**5.3**	NA	**1.59**	0.213	0.14	**23.9**	**8.2**	0.2	**3.0**	**1.4**	**2.5**
	Total PCBs	0.09	µg/L	ND	ND	NA	ND	NA	NA	NA	NA	NA	ND	ND	ND	ND	**1.8**	**0.34**	ND	**4.9**	ND
EW-1	Total VOCs		µg/L	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	630	429	NS	525	1,347	1,170	4,817.3
	Iron	0.30	mg/L	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	**53.7**	**48.5**	NS	**66.2**	**70.2**	**1,530**	**55**
	Total PCBs	0.09	µg/L	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	**49**	**1,824**	NS	**650**	**1,100**	**970**	**250**
EW-2	Total VOCs		µg/L	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	140.8	7.2	NS	5.2	9.29	12.1	72.37
	Iron	0.30	mg/L	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	**40.1**	**24.5**	NS	**27.8**	**29.4**	**30.3**	**22**
	Total PCBs	0.09	µg/L	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	**0.27**	**0.16**	NS	ND	ND	**400**	ND
EW-3	Total VOCs		µg/L	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	53.2	51.2	NS	75.22	68.9	45.1	132.52
	Iron	0.30	mg/L	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	**40.6**	**123**	NS	**33.8**	**31.7**	**33.9**	**33**
	Total PCBs	0.09	µg/L	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	**2.7**	**1.6**	NS	**2.9**	**2.2**	**23**	ND
EW-4	Total VOCs		µg/L	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	ND	ND	NS	1.2	NA	NS	3.99
	Iron	0.30	mg/L	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	**20.1**	**377**	NS	**32.5**	NA	NS	**60**
	Total PCBs	0.09	µg/L	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	**1.6**	**3.3**	NS	**2.06**	**2.3**	NS	**0.63**

Notes:
All Concentrations are in micrograms per liter (µg/L).
Concentrations detected above the NYSDEC Class GA GW Standard are in bold and highlighted in yellow.
95-'00 Data Source: Final Evaluation and Assessment Report. Fort Edward Landfill. NYSDEC. July 2001. URS Consultants
VOC totals from 1995 through 2000 include only concentrations of VOCs that were detected above NYSDEC Class GA Standards, while the 2007, 2008, 2011, 2012, 2015, and 2016 VOC totals include all detections, whether above or below NYSDEC Class GA Standards.

Definitions:
GV - Guidance Value
NA - Not Analyzed
ND - Not detected above the Method Detection Limit or the Reporting Limit.
NS - Not Sampled
VOCs - Volatile Organic Compounds
PCBs - Polychlorinated Biphenyls





NOTE:

1. USGS QUADRANGLE INFORMATION
   QUAD ID: 43073-C5
   NAME: HUDSON FALLS, NEW YORK
   DATE PUB: 1968

FORT EDWARD LANDFILL
45 LEAVY HOLLOW LANE
FORT EDWARD, NEW YORK

ANNUAL GROUNDWATER MONITORING REPORT

SITE LOCATION MAP

ARCADIS Design & Consultancy for natural and built assets

FIGURE 1

City: SYR Div/Group: IM/DV Created By: J.RAPP Last Saved By: jrapp
Fort Edward (00266434.0000)
Q:\FortEdwardLandfill\basemapping\mxd\SiteLocationMap2017.mxd 8/15/2017 9:45:33 PM

N

MW-6A
MW-6B
MW-7
193.70
184.93
MW-6
EW-3
EW-2
166.14
MW-11
GV-2
LP-3
GV-6
232.51
MW-8
175.94
MW-5
LP-1
CELL 1
Polishing Pond Effluent
Unnamed Ponds
GV-4
GV-3
GV-5
GV-7
EW-5
CELL 2
EW-1
Culvert Pipe
GV-1
LP-2
Polishing Pond Influent
CELL 3
LP-4
Propane Tank
Treatment Building
Transformer Pad
EW-4
219.88
MW-1
MW-1D
MW-1A
MW-2A
MW-9
166.55
MW-2
186.52
UMW-1
UTP
Leavy Hollow Lane
Feeder Tow Road
Towpath Line

185 195 205 215 225 175

LEGEND

GV-#	GAS VENT
MW-#	MONITORING WELL
LP-#	PIEZOMETER
UTP	UTILITY POLE
225	POTENTIOMETRIC CONTOUR
186.25	GROUNDWATER ELEVATION (FEET A.M.S.L.)
	STREAM
	ROAD
	EDGE OF POND
	UNDERGROUND TREATMENT PIPING
UE	UNDERGROUND ELECTRIC
	FENCE
EW-#	EXTRACTION WELL
UMW-#	UNIDENTIFIED MONITORING WELL

0 100' 200' 400'
SCALE IN FEET

MAP BASED ON SURVEY PERFORMED BY DARRAH LAND SURVEYING, PLLC, APRIL 2017.
ORTHOIMAGERY FROM NYS ORTHOIMAGERY APPLICATION ONLINE DATED 2013.

FORT EDWARD LANDFILL, FORT EDWARD, NY
NYSDEC SITE 558001
ANNUAL GROUNDWATER MONITORING REPORT

POTENTIOMETRIC CONTOURS AUGUST 2017

ARCADIS

FIGURE 2

Figure 3
Total VOCs in Upgradient Groundwater
Fort Edward Landfill
Site No. 558001

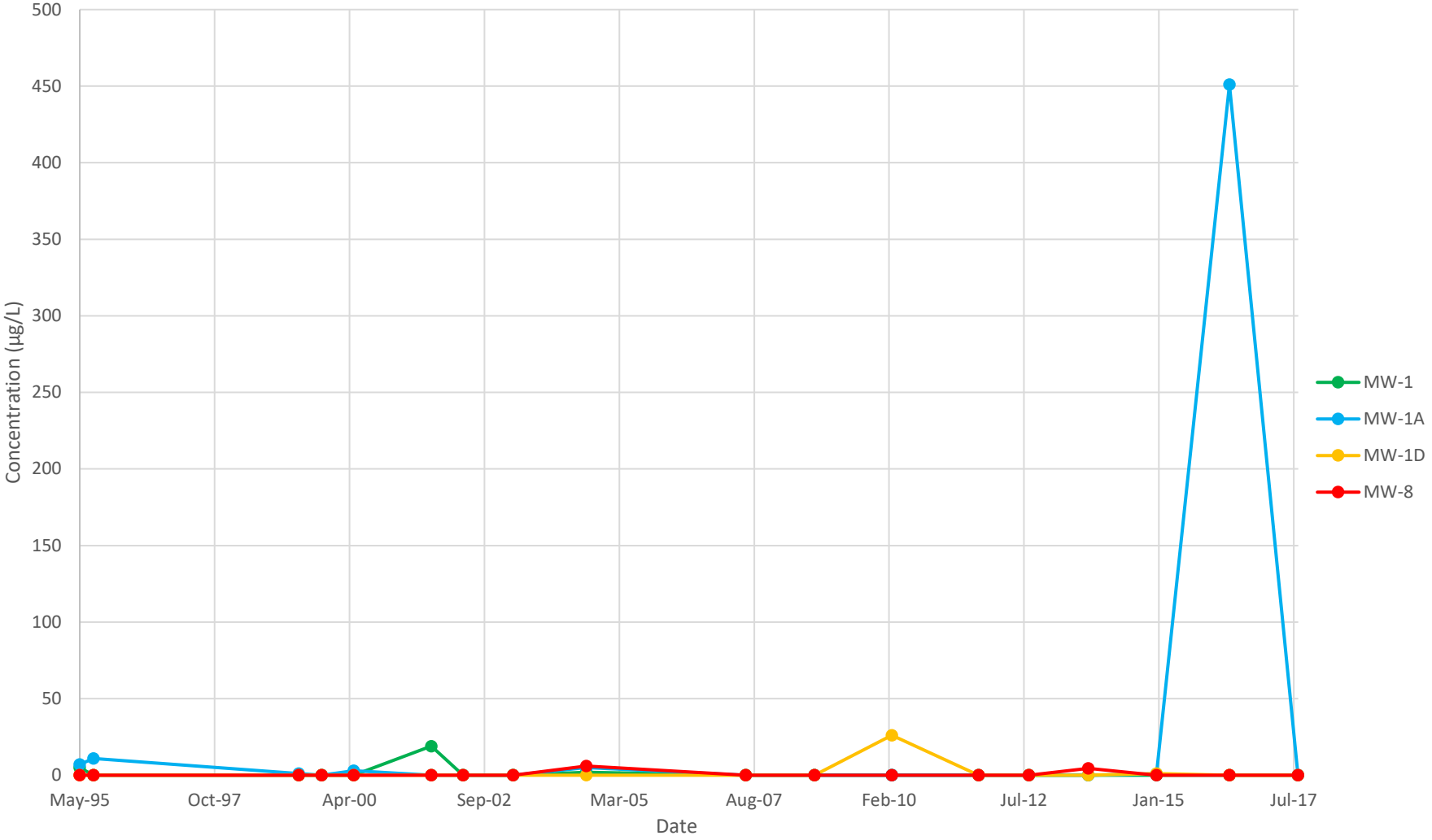


Figure 4
Total VOCs in Downgradient Groundwater
Fort Edward Landfill
Site No. 558001

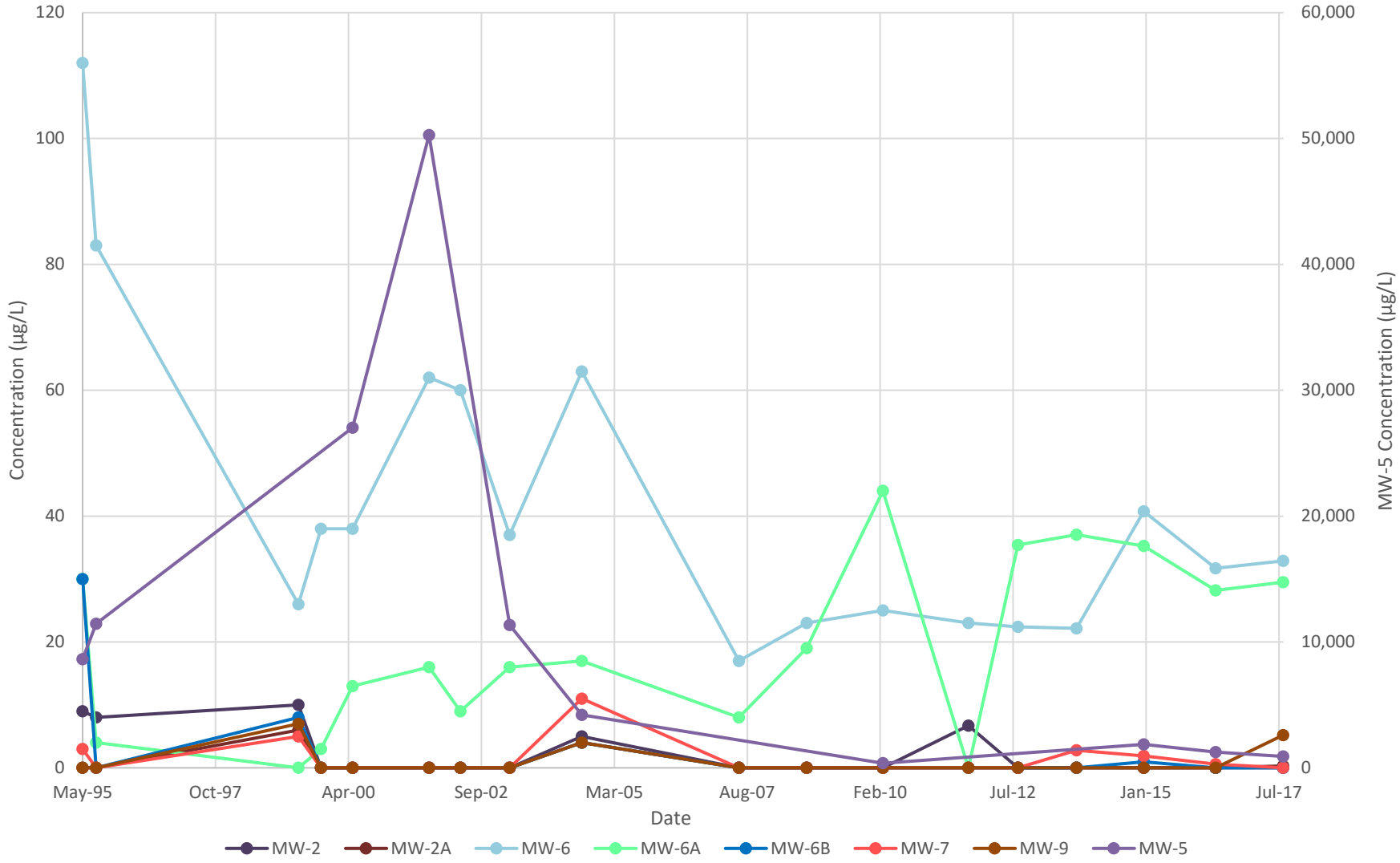


Figure 5
Total PCBs in Upgradient Groundwater
Fort Edward Landfill
Site No. 558001

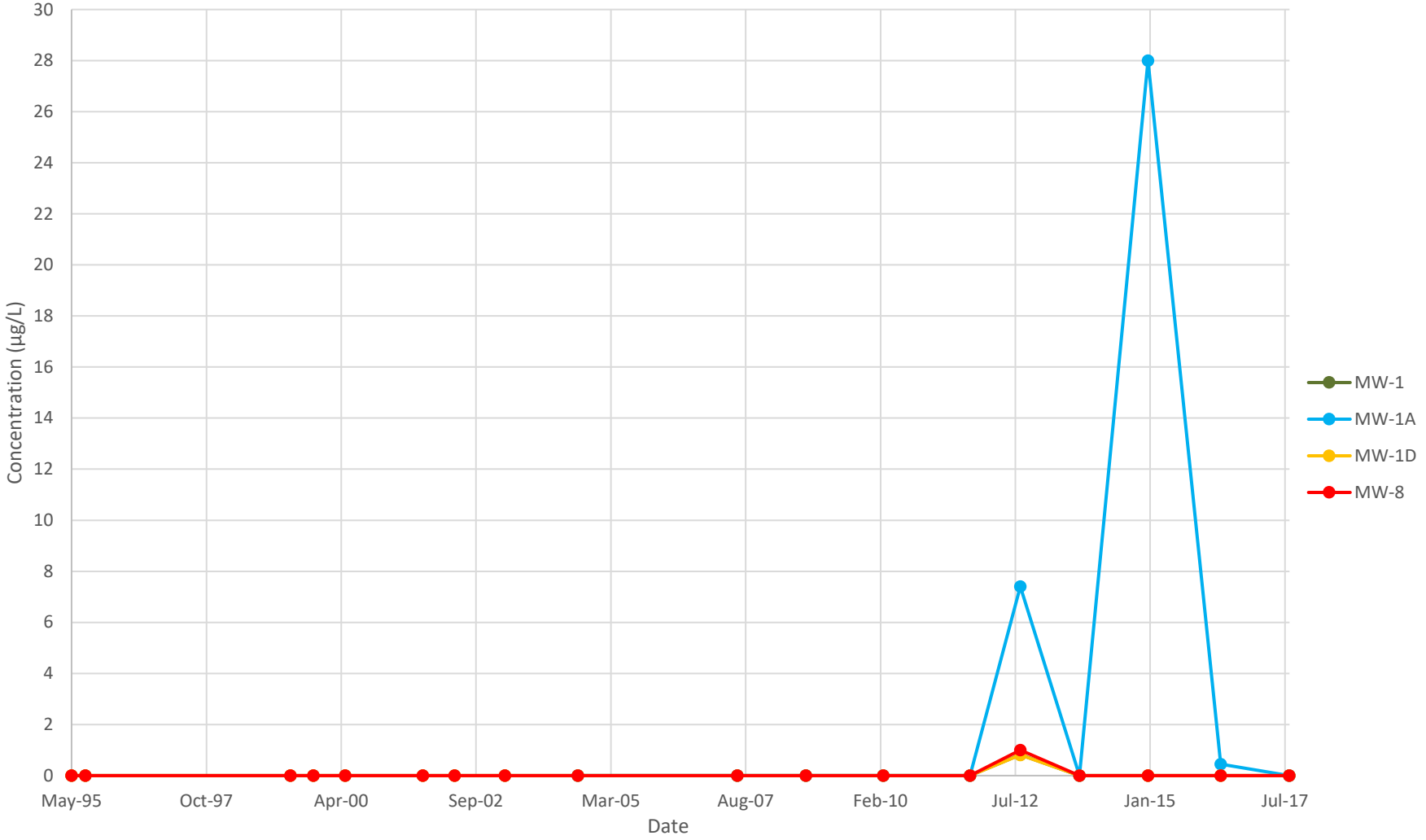


Figure 6
Total PCBs in Downgradient Groundwater
Fort Edward Landfill
Site No. 558001

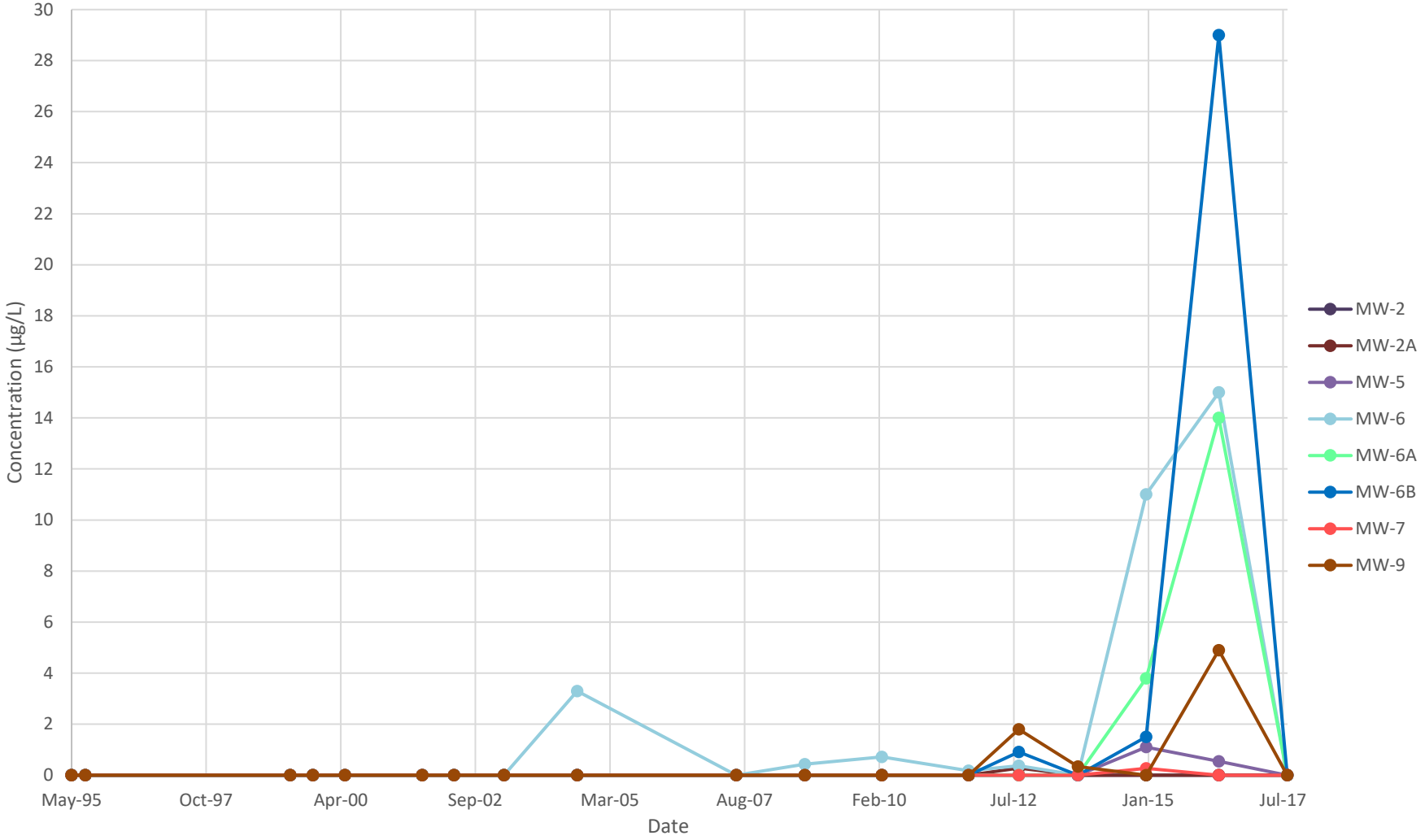


Figure 7
Iron in Upgradient Groundwater
Fort Edward Landfill
Site No. 558001

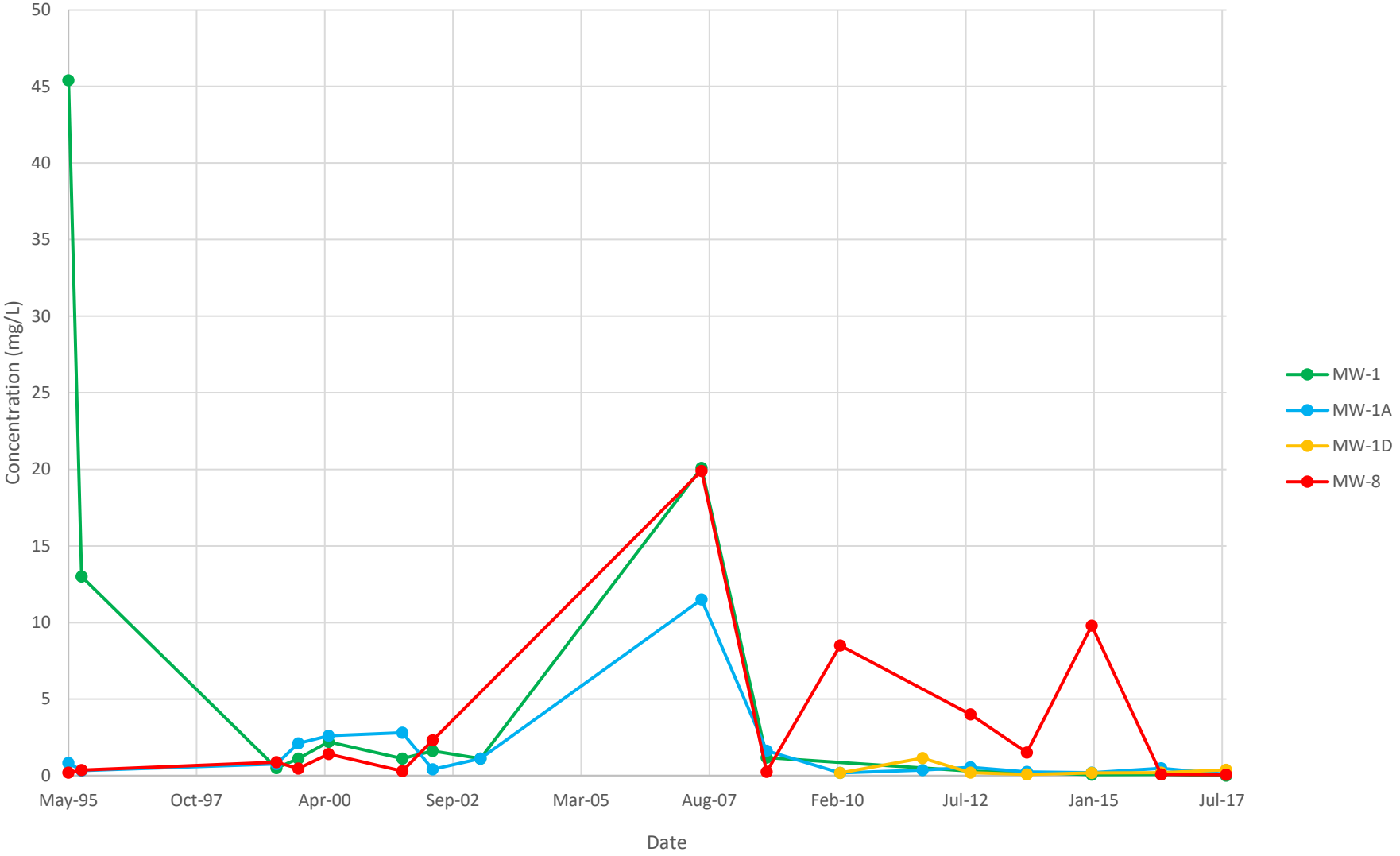
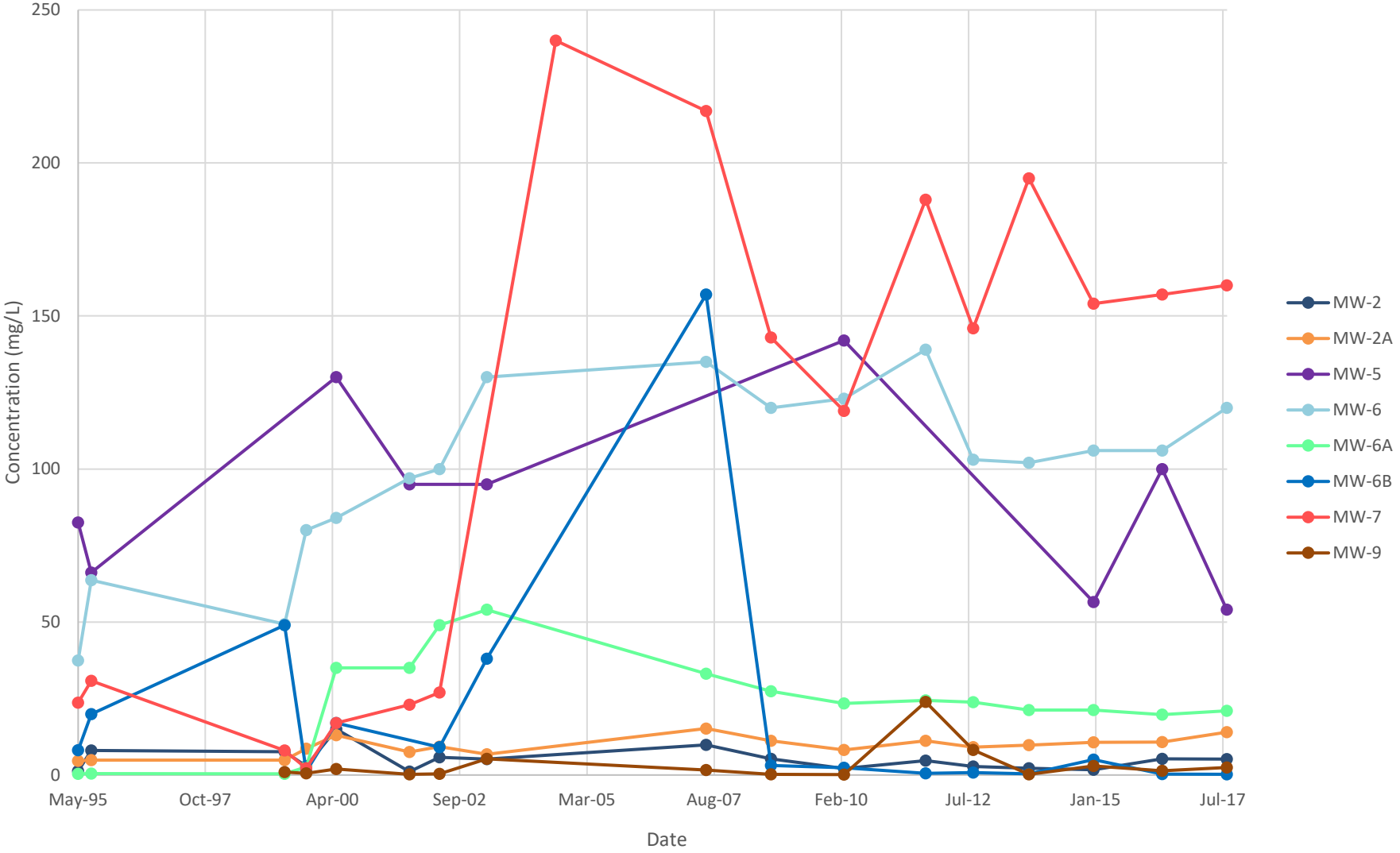
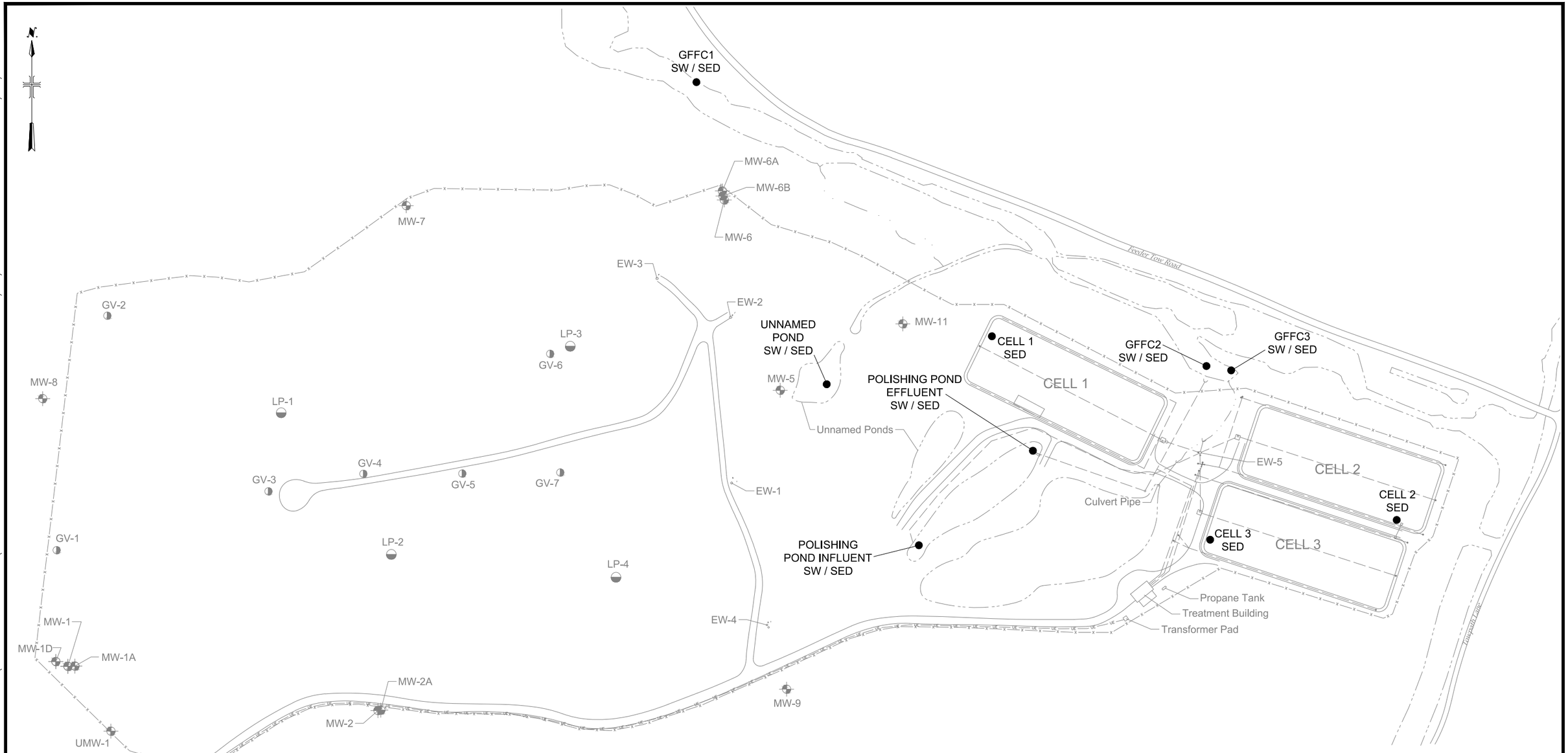


Figure 8
Iron in Downgradient Groundwater
Fort Edward Landfill
Site No. 558001





LEGEND

GV-#	GAS VENT
MW-#	MONITORING WELL
LP-#	PIEZOMETER
UTP	UTILITY POLE
SED	SEDIMENT SAMPLING LOCATIONS
SW / SED	SURFACE WATER / SEDIMENT SAMPLING LOCATIONS
	STREAM
	ROAD
	EDGE OF POND
	UNDERGROUND TREATMENT PIPING
ue ue ue ue ue	UNDERGROUND ELECTRIC
x x x x x	FENCE

0 100' 200' 400'

SCALE IN FEET

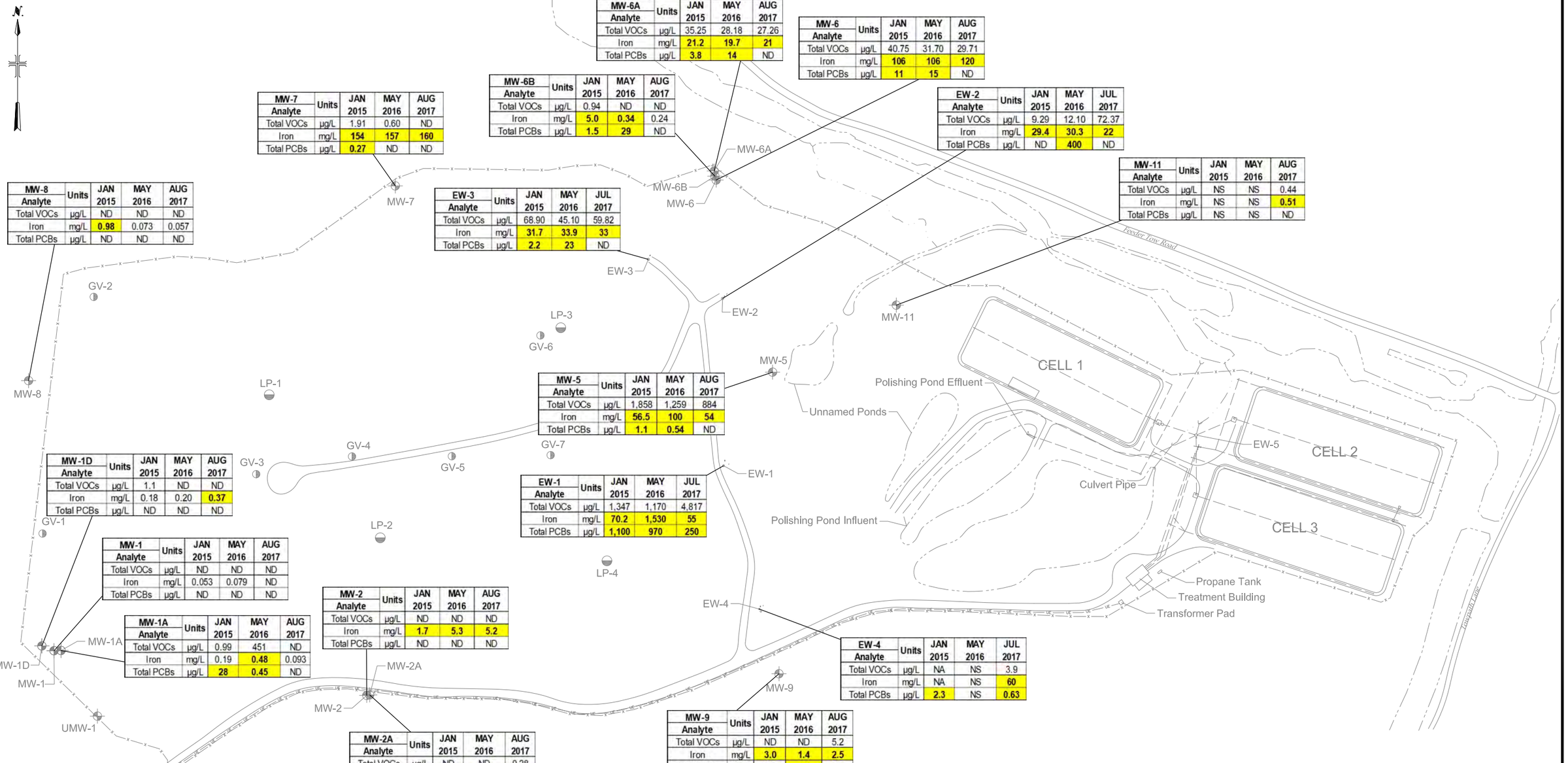
MAP BASED ON SURVEY PERFORMED BY DARRAH LAND SURVEYING, PLLC, APRIL 2017.
ORTHOIMAGERY FROM NYS ORTHOIMAGERY APPLICATION ONLINE DATED 2013.

FORT EDWARD LANDFILL, FORT EDWARD, NY
NYSDEC SITE 558001
ANNUAL GROUNDWATER MONITORING REPORT

SURFACE WATER AND SEDIMENT SAMPLING LOCATIONS

ARCADIS

FIGURE 9



MW-6A Analyte	Units	JAN 2015	MAY 2016	AUG 2017
Total VOCs	µg/L	35.25	28.18	27.26
Iron	mg/L	21.2	19.7	21
Total PCBs	µg/L	3.8	14	ND

MW-6 Analyte	Units	JAN 2015	MAY 2016	AUG 2017
Total VOCs	µg/L	40.75	31.70	29.71
Iron	mg/L	106	106	120
Total PCBs	µg/L	11	15	ND

MW-6B Analyte	Units	JAN 2015	MAY 2016	AUG 2017
Total VOCs	µg/L	0.94	ND	ND
Iron	mg/L	5.0	0.34	0.24
Total PCBs	µg/L	1.5	29	ND

MW-7 Analyte	Units	JAN 2015	MAY 2016	AUG 2017
Total VOCs	µg/L	1.91	0.60	ND
Iron	mg/L	154	157	160
Total PCBs	µg/L	0.27	ND	ND

EW-2 Analyte	Units	JAN 2015	MAY 2016	JUL 2017
Total VOCs	µg/L	9.29	12.10	72.37
Iron	mg/L	29.4	30.3	22
Total PCBs	µg/L	ND	400	ND

MW-11 Analyte	Units	JAN 2015	MAY 2016	AUG 2017
Total VOCs	µg/L	NS	NS	0.44
Iron	mg/L	NS	NS	0.51
Total PCBs	µg/L	NS	NS	ND

MW-8 Analyte	Units	JAN 2015	MAY 2016	AUG 2017
Total VOCs	µg/L	ND	ND	ND
Iron	mg/L	0.98	0.073	0.057
Total PCBs	µg/L	ND	ND	ND

EW-3 Analyte	Units	JAN 2015	MAY 2016	JUL 2017
Total VOCs	µg/L	68.90	45.10	59.82
Iron	mg/L	31.7	33.9	33
Total PCBs	µg/L	2.2	23	ND

MW-5 Analyte	Units	JAN 2015	MAY 2016	AUG 2017
Total VOCs	µg/L	1,858	1,259	884
Iron	mg/L	56.5	100	54
Total PCBs	µg/L	1.1	0.54	ND

MW-1D Analyte	Units	JAN 2015	MAY 2016	AUG 2017
Total VOCs	µg/L	1.1	ND	ND
Iron	mg/L	0.18	0.20	0.37
Total PCBs	µg/L	ND	ND	ND

EW-1 Analyte	Units	JAN 2015	MAY 2016	JUL 2017
Total VOCs	µg/L	1,347	1,170	4,817
Iron	mg/L	70.2	1,530	55
Total PCBs	µg/L	1,100	970	250

MW-1 Analyte	Units	JAN 2015	MAY 2016	AUG 2017
Total VOCs	µg/L	ND	ND	ND
Iron	mg/L	0.053	0.079	ND
Total PCBs	µg/L	ND	ND	ND

MW-2 Analyte	Units	JAN 2015	MAY 2016	AUG 2017
Total VOCs	µg/L	ND	ND	ND
Iron	mg/L	1.7	5.3	5.2
Total PCBs	µg/L	ND	ND	ND

MW-1A Analyte	Units	JAN 2015	MAY 2016	AUG 2017
Total VOCs	µg/L	0.99	451	ND
Iron	mg/L	0.19	0.48	0.093
Total PCBs	µg/L	28	0.45	ND

EW-4 Analyte	Units	JAN 2015	MAY 2016	JUL 2017
Total VOCs	µg/L	NA	NS	3.9
Iron	mg/L	NA	NS	60
Total PCBs	µg/L	2.3	NS	0.63

MW-9 Analyte	Units	JAN 2015	MAY 2016	AUG 2017
Total VOCs	µg/L	ND	ND	5.2
Iron	mg/L	3.0	1.4	2.5
Total PCBs	µg/L	ND	4.9	ND

MW-2A Analyte	Units	JAN 2015	MAY 2016	AUG 2017
Total VOCs	µg/L	ND	ND	0.28
Iron	mg/L	10.7	10.8	14
Total PCBs	µg/L	ND	ND	ND

Analyte	Units	NYSDEC Class GA Standard
Total VOCs	µg/L	--
Iron	mg/L	0.30
Total PCBs	µg/L	0.09

NOTES

1. HIGHLIGHTED VALUES EXCEED NYSDEC CLASS GA STANDARDS.

DEFINITIONS

NA - NOT ANALYZED
NS - NOT SAMPLED
ND - NOT DETECTED
PCBs - POLYCHLORINATED BIPHENYLS
VOCs - VOLATILE ORGANIC COMPOUNDS

LEGEND

GV-# GAS VENT
MW-# MONITORING WELL
LP-# PIEZOMETER
UTP UTILITY POLE
EW-# EXTRACTION WELL
UMW-# UNIDENTIFIED MONITORING WELL
STREAM
ROAD
EDGE OF POND
UNDERGROUND TREATMENT PIPING
UNDERGROUND ELECTRIC
FENCE

MAP BASED ON SURVEY PERFORMED BY DARRAH LAND SURVEYING, PLLC, APRIL 2017.
ORTHOIMAGERY FROM NYS ORTHOIMAGERY APPLICATION ONLINE DATED 2013.

FORT EDWARD LANDFILL, FORT EDWARD, NY
NYSDEC SITE 558001
ANNUAL GROUNDWATER MONITORING REPORT

GROUNDWATER ANALYTICAL RESULTS

ARCADIS

FIGURE 10

APPENDIX C

IC/EC Certification Forms

Enclosure 1
Institutional and Engineering Controls - Property Owner Survey

Site Details **Box 1**

Site No. **558001**

Site Name Fort Edward Landfill

Site Address: Burgoyne Avenue Zip Code: 12828
City/Town: Fort Edward
County: Washington
Site Acreage: 23.0

Reporting Period: November 15, 2013 to November 30, 2017

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

Box 2

	YES	NO
6. Is the current site use consistent with the use(s) listed below? Commercial and Industrial	✓	
7. Are all Institutional Controls (ICs) in place and functioning as designed?	X	

Signature of Property Owner

Date 11/14/17

SITE NO. 558001 **Box 3**

Description of Institutional Controls

Parcel	Owner	Institutional Control
163-1-2	Town of Fort Edward	Soil Management Plan Monitoring Plan O&M Plan Site Management Plan

A decision on the remedy was made in 1988 (Seven Sites Agreement with GE).
Easement for access is in place.

Box 4

Description of Engineering Controls

Parcel	Engineering Control
163-1-2	Groundwater Treatment System Cover System Leachate Collection Groundwater Containment Fencing/Access Control

Engineering Controls include:
-Leachate collection and treatment
-A cover system consisting of a geotextile and soil cover
-Partial Slurry Wall and groundwater collection trenches
-Fencing to control access

Box 5

Periodic Review Report (PRR) Survey Statements

For each Institutional or Engineering control listed in Boxes 3 and/or 4, by checking "YES" below I believe all of the following statements to be true:

(a) the Institutional Control(s) and/or Engineering Control(s) employed at this site remain 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; and

(d) if a Site Management Plan (SMP) exists, nothing has occurred that would constitute a violation or failure to comply with the SMP for this Control.

	YES	NO
		X

Signature of Property Owner

11/14/17
Date

Enclosure 2
Survey Instructions

I. Verification of Site Details (Box 1 and Box 2):
Answer the YES/NO questions in the Verification of Site Details Section. The Property Owner may include handwritten changes and/or other supporting documentation, as necessary.

II. Certification of Institutional / Engineering Controls (Boxes 3, 4, and 5)
Review the listed IC/ECs, confirming that all existing controls are listed, and that all existing controls are still applicable. If there is a control that is no longer applicable the Property Owner should petition the Department separately to request approval to remove the control.

In Box 5, complete the certification for all components, as applicable, by checking the corresponding YES/NO checkbox.

If you cannot respond "YES" for each Control listed in Box 3 & Box 4, sign and date the form in Box 5. Attach supporting documentation that explains why a "YES" response could not be rendered. Note that this survey form should be submitted even if an IC or EC cannot be certified at this time.

III. Helpful Definitions
"Change of use" means the erection of any structure on a site, the paving of a site for use as a roadway or parking lot, the creation of a park or other recreational facility on a site, any activity that is likely to disrupt or expose contamination or increase direct human or environmental exposure, or any other conduct that will or may tend to prevent or significantly interfere with a proposed, ongoing, or completed remedial program.

"Site management" means the activities undertaken as the last phase of the remedial program at a site which continue after a certificate of completion is issued. Site management is conducted in accordance with a site management plan, which identifies and implements the institutional and engineering controls required for a site, as well as any necessary monitoring and/or operation and maintenance of the remedy.

IV. Reference Documents

DER-10	http://www.dec.ny.gov/docs/remediation_hudson_pdf/der10.pdf
Part 375-2.2(a)	http://www.dec.ny.gov/regs/4373.html#15089

Enclosure 1
Engineering Controls - Standby Consultant/Contractor Certification Form

Site Details **Box 1**

Site No. 558001

Site Name Fort Edward Landfill

Site Address: Burgoyne Avenue Zip Code: 12828
City/Town: Fort Edward
County: Washington
Site Acreage: 23.0

Reporting Period: November 15, 2013 to November 30, 2017

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

Box 2

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

IF THE ANSWER TO EITHER QUESTION 6 OR 7 IS NO, sign and date below and contact the DEC PM regarding the development of a Corrective Measures Work Plan to address these issues.

Signature of Standby Consultant/Contractor

1/12/18
Date

SITE NO. 558001 **Box 3**

Description of Institutional Controls

Parcel	Owner	Institutional Control
163-1-2	Town of Fort Edward	Soil Management Plan Monitoring Plan O&M Plan Site Management Plan

A decision on the remedy was made in 1988 (Seven Sites Agreement with GE).
Easement for access is in place.

Box 4

Description of Engineering Controls

Parcel	Engineering Control
163-1-2	Groundwater Treatment System Cover System Leachate Collection Groundwater Containment Fencing/Access Control

Engineering Controls include:
-Leachate collection and treatment
-A cover system consisting of a geotextile and soil cover
-Partial Slurry Wall and groundwater collection trenches
-Fencing to control access

Box 5

Periodic Review Report (PRR) Certification Statements

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

   a) the Periodic Review report and all attachments were prepared under the direction of, and reviewed by, the party making the certification, including data and material prepared by previous contractors for the current certifying period, if any;

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

YES	NO
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) nothing has occurred that would constitute a failure to comply with the Site Management Plan, or equivalent if no Site Management Plan exists.

YES	NO
☐	X

IF THE ANSWER TO QUESTION 2 IS NO, sign and date below and contact the DEC PM regarding the development of a Corrective Measures Work Plan to address these issues.

Signature of Standby Consultant/Contractor

1/12/18
Date

Box 6

IC/EC CERTIFICATIONS

Professional Engineer Signature

I certify that all information in Boxes 2 through 5 are true. I understand that a false statement made herein is punishable as a Class "A" misdemeanor, pursuant to Section 210.45 of the Penal Law.

I _____ at _____
print name

_____

_____,
(print business address)

am certifying as a Professional Engineer.

Signature of Professional Engineer

Stamp
(Required for PE)

Date

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