

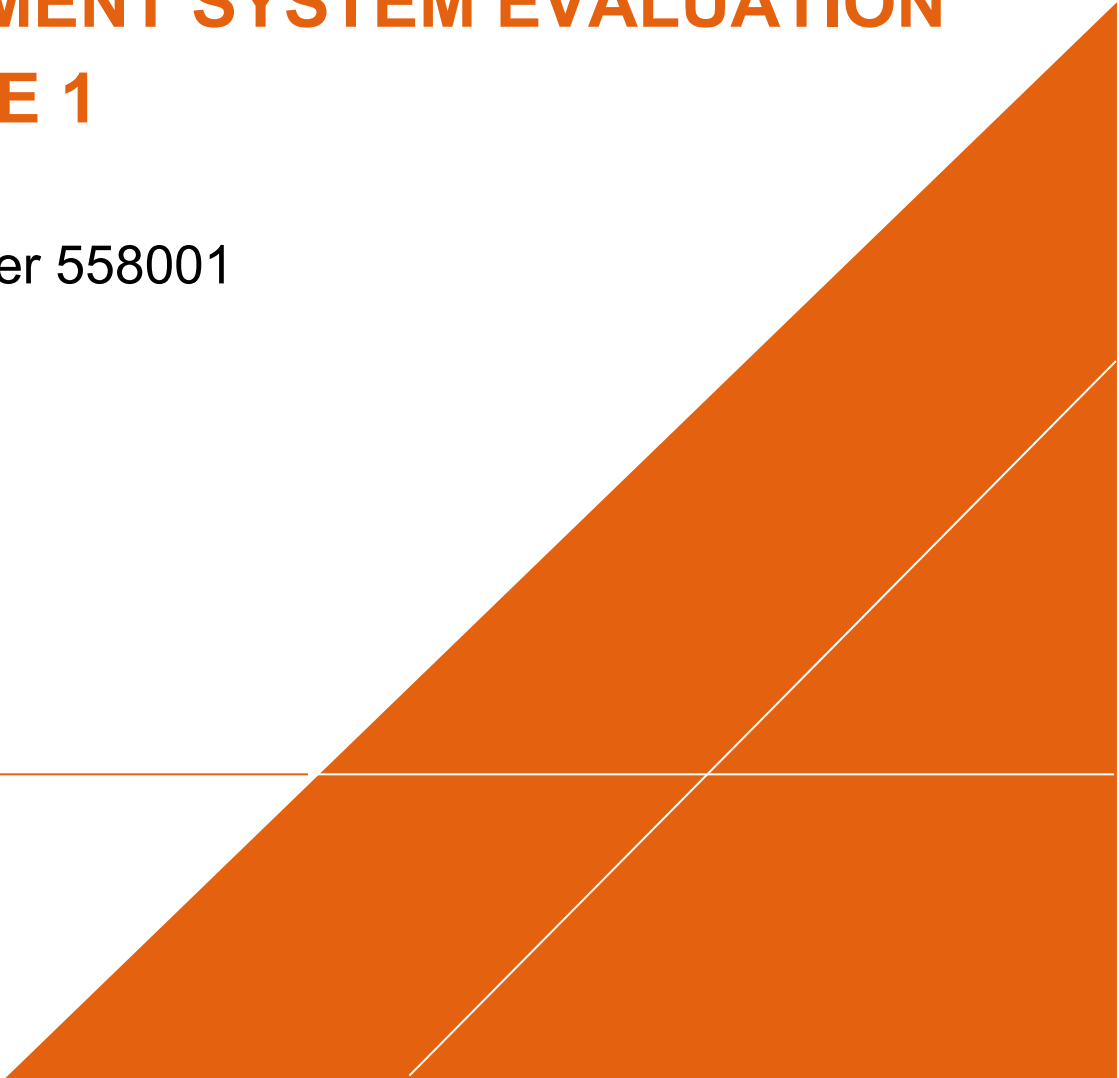


**Department of
Environmental
Conservation**

FORT EDWARD LANDFILL SITE & TREATMENT SYSTEM EVALUATION – PHASE 1

Site Number 558001

June 2020

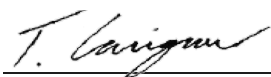
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Site & Treatment System Evaluation – Phase 1

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ACRONYMS AND ABBREVIATIONS

AIX	anionic ion exchange
Arcadis CE	Arcadis
BV	bed volumes
cis-1,2-DCE	cis-1,2-dichloroethylene
CWTS	constructed wetland treatment system
DUSR	Data Usability Summary Report
EBCT	empty bed contact time
GAC	granular activated carbon
HAL	Health Advisor Limit
IPC	Inclined Plate Clarifier
MCL	Maximum Contaminant Level
mg	milligram
mg/day	milligram per day
mg/L	milligram per liter
µg/Kg	microgram per kilogram
µg/L	microgram per liter
NEtFOSAA	n-ethylperfluorooctanesulfonamidoacetic acid
ng/L	nanogram per liter
NYS	New York State
NYSDEC	New York State Department of Environmental Conservation
%	percent
PCB	polychlorinated biphenyl
PFAA	perfluoroalkyl acids
PFAS	Perfluorinated Alkyl Substances
PFBA	perfluorobutanoic acid
PFBS	perfluorobutanesulfonic acid
PFHpA	perfluoroheptanoic acid
PFHxA	perfluorohexanoic acid
PFHxS	perfluorohexanesulfonic acid

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PFOA	perfluorooctanoic acid
PFOS	perfluorooctanesulfonic acid
PFPeA	perfluoropentanoic acid
RAO	remedial action objectives
RSO	Remedial System Optimization
RSSCT	rapid small-scale column testing
SMP	site management plan
SPDES	State Pollution Discharge Elimination System
TAL	Target Analyte List
TOC	total organic carbon
TOP	Total Oxidizable Precursor
USEPA	United States Environmental Protection Agency
VC	vinyl chloride
VOC	volatile organic compounds

1 INTRODUCTION

Arcadis CE, Inc. (Arcadis) has prepared this report to summarize the results of Leachate Collection and Treatment System Characterization - Phase 1 performed at the Fort Edward Landfill in Fort Edward, New York (Site) (Figure 1). This work was performed at the request of the New York State Department of Environmental Conservation (NYSDEC) as part of a larger program to identify and evaluate alternatives for upgrading the Site's current leachate (e.g., leachate and impacted groundwater) collection and treatment system. The program consists of three phases:

- **Phase 1: Leachate Collection and Treatment System Characterization** – Evaluate whether existing treatment system can meet current effluent limitations for iron, polychlorinated biphenyls (PCBs), and volatile organic compounds (VOCs). Also assess concentrations and fate of perfluorinated alkyl substances (PFAS) at various stages in the treatment process.
- **Phase 2: Treatment System Upgrade** – Design and install treatment system upgrades to allow for treatment of all contaminants to current or revised effluent limitations.
- **Phase 3: Evaluation of Leachate Collection System Functionality and Constructed Wetland Treatment System (CWTS) Status** – Conduct subsurface investigations to evaluate leachate capture and downgradient water quality along the eastern side of the landfill and in/downgradient of the existing CWTS cells.

Since Phase 3 of the program could provide information necessary to properly design an upgrade to the treatment system (i.e., additional flow/contaminant loading), Phase 3 is being implemented concurrently with Phase 1. As of May 2020, seven new monitoring wells and six temporary monitoring have been installed and sampled. Additional monitoring well installations are scheduled for Summer 2020. The results of the Phase 3 evaluations will be reported under separate cover.

1.1 Background

Based upon remedial and pre-design investigations completed by previous NYSDEC standby engineering consultants, it was determined that volatile organic compounds (VOCs), polychlorinated biphenyls (PCBs), and metals from the Site's historical use as a landfill had impacted soil and groundwater at the Site. In consultation with NYSDEC and based on the 2015 Remedial System Optimization (RSO) Work Plan (HRP, 2015), Arcadis implemented a series of leachate collection and treatment system upgrades in October 2016 through April 2017. The treatment system upgrades included the addition of a clarifier and sludge pretreatment upstream of the CWTS cells 1, 2, and 3, and Polishing Pond to reduce iron concentrations in the treatment system effluent. The RSO upgrades were fully operational in April 2017; however, system and groundwater monitoring data has concluded that the existing remedial measures do not meet Site remedial action objectives (RAOs) nor the State Pollution Discharge Elimination System (SPDES) Equivalency Permit. At this time, the treatment system can not effectively treat contaminant concentrations encountered when all four extraction wells EW-1, EW-2, EW-3, and EW-4 are online. Under current conditions, only the leachate from collection sump EW-4 (which has a lower contaminant load than the other extraction wells) can be treated to effluent standards.

In July and August 2017, samples from the treatment system and groundwater monitoring wells were analyzed for PFAS and 1,4-dioxane at the request of the NYSDEC. Perfluorooctanoic acid (PFOA) was detected at concentrations greater than the USEPA United States Environmental Protection Agency (USEPA) Health Advisory Limit (HAL) of 70 nanograms per liter (ng/L) in monitoring wells MW-5 (190 ng/L) and MW-9 (110 ng/L), extraction well EW-1 (1,300 ng/L), and the Unnamed Pond (130 ng/L). Perfluorooctanesulfonic acid (PFOS) was detected at concentrations greater than the USEPA HAL in monitoring well MW-5 (90 ng/L) and extraction well EW-1 (73 ng/L). Total PFAS was detected at concentrations greater than the USEPA HAL in monitoring wells MW-2 (90.13 ng/L), MW-5 (391.4 ng/L), MW-9 (184.4 ng/L), extraction wells EW-1 (1,590.3 ng/L), EW-2 (136.7 ng/L), EW-3 (129 ng/L), the Clarifier Catch Tank (88.8 ng/L), the Unnamed Pond (210.47 ng/L), and Polishing Pond Influent (81.19 ng/L). 1,4-dioxane was also detected at concentrations greater than the method detection limit in monitoring wells MW-5 (110 micrograms per liter [µg/L]), MW-6 (3.2 µg/L), MW-6A (9.6 µg/L), MW-9 (5.2 µg/L), extraction wells EW-1 (140 µg/L), EW-2 (48 µg/L), EW-3 (74 µg/L), leachate collection sump EW-4 (3.9 µg/L), Influent (8.2 µg/L), Clarifier Catch Tank (11 µg/L), the Unnamed Pond (14 µg/L), Polishing Pond Influent (6.5 µg/L), and Polishing Pond Effluent (2.4 µg/L). At the time of sampling, a HAL was not available for 1,4-dioxane.

1.2 Scope of Work

Based on the number and magnitude of USEPA HAL exceedances for PFOA, PFOS, and total PFAS, and historical analytical data, Arcadis recommended a treatment system evaluation be completed to assess the effectiveness of the treatment system to reduce PFAS, VOCs, PCBs, and metals prior to discharge to the Glens Falls Feeder Canal. This evaluation included a mass balance of PFAS, VOCs, PCBs, and metals were calculated to assess potential data gaps and better understand the processes occurring within the treatment system. This evaluation focused on the processes within the treatment building as they are the main components of the treatment system. The processes outside and downstream of the treatment building are not included in this evaluation as they are fully understood from numerous previous sampling events and investigations.

As PFAS sampling and analysis was completed only once prior to this evaluation, additional sampling and analysis was required to determine if the treatment system would be able to reduce PFAS concentrations to applicable standards such as the USEPA HAL, NYSDEC Guidance Values, and the proposed New York State (NYS) Maximum Contaminant Levels (MCLs).

2 TREATMENT SYSTEM CHARACTERIZATION SAMPLING

A process and instrumentation diagram of the treatment system and associated leachate collection and extraction wells is included as Figure 2. Three extraction wells (EW-1, EW-2, and EW-3) and leachate collection sump EW-4 convey leachate impacted groundwater to the treatment system within a common header. As noted above, extraction wells EW-1, EW-2, and EW-3 were previously taken offline temporarily due to the elevated concentrations of VOCs and PCBs. However, each leachate collection and extraction well were temporarily brought online to complete the system evaluation.

Samples were collected from the combined system Influent prior to the addition of oxidant, the Clarifier Catch Tank effluent discharge, and the Decant Tank within 24 hours of bringing each EW online on November 6, 2019. A second round of samples were collected two weeks later on November 20, 2019. The timing of these two sampling events was chosen to reflect contaminant concentrations at startup, when they are anticipated to be highest, and after concentrations have equilibrated (i.e., after two weeks). The Filter Press sludge was sampled once during the second sampling event on November 20, 2019. The Filter Press was operated weekly between sampling events to ensure that leachate from all extraction wells and leachate collection sump was processed prior to sampling.

Leachate samples were sent for analysis to Eurofins TestAmerica and were analyzed for the following:

- PFAS using two methods: USEPA Method 537 Modified (14 target compound list), analyzed by Eurofins TestAmerica, and Total Oxidizable Precursor (TOP) Assay, subcontracted to ALS Environmental, to assess the presence of PFAS not on the Method 537 Modified target component list.
- VOCs by USEPA Method 8260C.
- PCBs by USEPA Method 8082A.
- Target Analyte List (TAL) metals and mercury by USEPA Method 6010D/7470A.

The Filter Press sludge sample was sent for analysis to Eurofins TestAmerica was analyzed for the following:

- PFAS (by TOP Assay and USEPA Method 537 Modified (14 target compound list).
- VOCs by USEPA Method 8260C.
- PCBs by USEPA Method 8082A.
- TAL metals and mercury by USEPA Method 6010D/7470A.

The laboratory analytical data reports are provided in Appendix A. The November 6 and 20, 2019 data was validated by a third-party validator and a Data Usability Summary Report (DUSR) was prepared and is presented in Appendix B.

In addition, Arcadis collected and analyzed samples for several additional parameters that would be required to evaluate treatment system upgrade alternatives. These analyses included:

- Alkalinity by USEPA Method 2320B;
- Chloride, nitrate, and sulfate by USEPA Method 300;
- Hardness by USEPA Method 2340C;
- Heterotrophic plate count by USEPA Method 9215B;
- Methylene blue active substances by USEPA Method 425.1;

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- Total dissolved solids by USEPA Method 160.1;
- Total organic carbon by USEPA Method 9060A;
- Total suspended solids by USEPA Method 160.2; and
- UV absorbance by USEPA Method 5910B.

An additional round of aqueous samples was collected from each extraction well on November 26, 2019 as part of the routine quarterly system sampling. These samples were analyzed for the following:

- VOCs by USEPA Method 8260C;
- PCBs by USEPA Method 8082A; and
- TAL metals and mercury by USEPA Method 6010D/7470A.

3 MASS BALANCE

3.1 Background and Assumptions

A mass balance is a common engineering analysis tool used to track materials entering, leaving, and transforming within a system. A mass balance approach was applied to the Site treatment system to assess PFAS, VOCs, PCBs, and metals inputs to the treatment system, losses in the filter sludge cake and aqueous effluent, and transformation or intercompartmental transfer within the system. An understanding of the treatment system organization and flow pathways is critical to the mass balance assessment.

The analytical results from the November 6, November 20, and November 26, 2019 sampling events were used to provide supporting data for developing a VOCs, PCBs, metals, and PFAS mass balance. The process flow diagram, Figure 3-1, illustrates the treatment system components and processes.

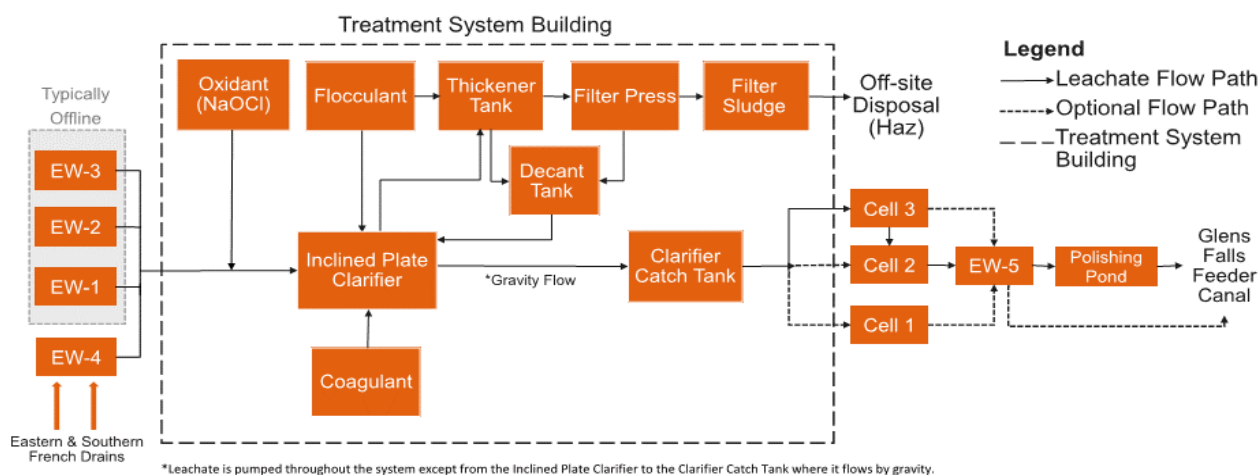


Figure 3-1: Treatment System Process Diagram

Mass balance estimates were calculated for both sampling events with the following flow assumptions:

1. The flow rate is constant from the pre-oxidant combined system Influent to the influent of the Inclined Plate Clarifier (IPC). The oxidant addition flow is assumed to be negligible compared to the total influent flow from the extraction wells.
2. The flow rate of the influent to the Thickener Tank is equal to the flow rate of the effluent from the Decant Tank. The liquid fraction of the Filter Press sludge is assumed to be negligible compared to the Thickener influent and Decant Tank effluent flow rates.
3. The flow rate of the pre-oxidant combined system Influent (i.e., "pre-oxidant Influent") is equal to the flowrate of the Clarifier Catch Tank effluent. Flocculant and coagulant addition flows are assumed to be negligible compared to the flow rate of the IPC effluent. The flow rate from the IPC to the Thickener Tank is assumed to be equal to the flow rate from the Decant Tank to the IPC.

Flow rates were recorded at the treatment system during all sampling events and are included in Table 1. Flow was similar during each of the sampling events with marginally higher flow rates on November 6 and November 20, 2019. On those dates, flow rates at each of the individual leachate collection and extraction wells differed by less than 10%. Leachate collection and extraction well flow rates for each sampling event were combined for use as the influent flow rate for mass balance calculations.

3.2 PFAS Mass Balance

This section discusses the PFAS mass balance calculated from the analytical and flow data obtained from each of the three sampling events.

The first sampling event (November 6, 2019) was performed 24 hours after bringing all leachate collection and extraction wells online, and the second sampling event (November 20, 2019) was performed approximately 2 weeks after the first sampling event. The third sampling event (November 26, 2019) was performed approximately 3 weeks after the first event to test individual extraction wells. Table 2 shows the PFAS 537 Modified analytical results from leachate samples collected during each sampling event. PFOA was detected in all leachate samples collected at concentrations greater than the NYSDEC Guidance Value (10 ng/L) and proposed NYS MCL (10 ng/L). There were no detections greater than the USEPA HAL.

Table 3 shows the mass flow rates of the pre-oxidant Influent, Clarifier Catch Tank effluent, and the net PFAS mass flow rate change between these two points, based on the USEPA 537 modified data. PFAS mass loading rates were calculated using the flow rates from Table 1 and analytical data collected (Table 2) during each sampling event. PFAS concentrations were assumed not to vary significantly within the day of analysis. There was a 9.3% decrease in total detected PFAS mass in the pre-oxidant Influent and a 14.6% decrease in the Clarifier Catch Tank, respectively between each sampling event. A decrease in PFAS mass in samples is expected between startup and equilibrium, because while the system is off, PFAS will desorb from the solids into the aqueous phase. For this system, we see a more significant decrease in PFAS mass in the Clarifier Catch Tank after 2 weeks of operation than we do in the pre-oxidant Influent sample. Measurable PFAS mass increases were observed from the combined system pre-oxidant Influent to the Clarifier Catch Tank effluent on both sampling dates: approximately 3.4 milligrams (mg) per day of additional PFAS were generated on November 6, 2019 and 2.7 mg per day of additional PFAS were generated on November 20, 2019. The higher PFAS loading in the November 6, 2019 sample is due to a higher concentrated liquid PFAS loading after the treatment system was brought online. By November 20, 2019, PFAS concentrations had reached an equilibrium within the system.

The PFAS loading is mainly composed of perfluorohexanoic acid (PFHxA) and PFOA; however, perfluorobutanesulfonic acid (PFBS), perfluorohexanesulfonic acid (PFHxS), perfluoroheptanoic acid (PFHpA), and PFOS contributed substantially to PFAS loading.

Only one PFAS compound, N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA), was detected in the Filter Press sludge sample taken November 20, 2019 (Table 4). NEtFOSAA was detected as an estimated value in the Filter Press sludge. In the aqueous samples, NEtFOSAA was not detected in the pre-oxidant Influent, and only as an estimated value in the Decant Tank and Clarifier Catch Tank. These low-level results suggest that either it is present in concentrations below detection limits in the pre-oxidant Influent and is concentrated in the Filter Press sludge sample, or that oxidant addition is converting

precursors to NETFOSAA. The lack of corresponding PFAS detections from the liquid phases in the filter sludge indicates that PFAS may be adsorbing to filter sludge at levels that are below the solids analysis detection limits, or that they primarily occur in the aqueous phase and that filter sludge is not a reservoir for these compounds.

The mass balance for the treatment system indicates approximately a 50% increase in measurable PFAS from the pre-oxidant Influent to the Clarifier Catch (system effluent) sample (Table 3). The oxidant dosing is partially responsible for the observed increase as partial conversion of polyfluorinated precursors to measurable PFAS appears to be occurring during this oxidation step. PFAS concentrations increase between the Influent and decant process (Table 5), supporting this mechanism of precursor conversion. TOP Assay analysis further confirms this likelihood. TOP Assay uses oxidation as part of a laboratory analysis to convert unmeasurable polyfluoroalkyl precursors to measurable perfluoroalkyl acids (PFAA). Post-TOP Assay increases relative to Pre-TOP Assay results indicate a presence of and a potential for precursor conversion in a system. While this transformation suggests an increase in PFAS load in the system, it is merely indicating a conversion of individually undetectable polyfluoroalkyl acids into detectable perfluoroalkyl acids. This conversion will make effluent PFOA and PFOS values higher, potentially increasing likelihood for required treatment, but does not change the strategy for treatment.

Table 5 reports PFAS concentration data for the pre-oxidant Influent, Decant Tank, and Clarifier Catch Tank effluent sampling points, as determined using TOP Assay. Notably, perfluorobutanoic acid (PFBA) and perfluoropentanoic acid (PFPeA) were not included in the targeted compound list for Method 537 Modified by Eurofins TestAmerica, but were detected during TOP Assay analysis performed by ALS Environmental because a larger targeted compound list was used during the TOP Assay analysis. Increases in PFBA, PFPeA, perfluorohexanoic acid, and PFOA concentrations were observed after the application of TOP Assay in the combined system Influent samples (Table 5). This increasing concentration trend indicates a presence of polyfluorinated precursor compounds that are not individually quantifiable using the Method 537 Modified analysis. Importantly, precursor conversion does not appear to be the only element responsible for PFAS mass increases from the Influent to Decant Tank. The total Post-TOP Assay concentrations are higher in the Decant Tank and Clarifier Catch relative to the Influent, suggesting that net PFAS mass is introduced by the sludge thickening process, possibly from desorption of residual PFAS mass. The Filter Press sludge cake analytical results (Table 6) do not provide evidence that they are the source of the residual mass. We would expect precursors to adsorb more readily to sludge because of the non-flourinated carbons, but these detections are so low that it is not indicative of substantial hidden PFAS loading.

TOP Assay results in the Decant and Clarifier Catch Tank effluent samples indicate that additional precursors remain throughout the process and that precursors are only partially converted via the oxidant addition step in the treatment process. Concentrations of PFAS are relatively stable between the Decant Tank and the Clarifier Catch Tank effluent, suggesting that additional PFAS mass is not introduced between these units, either from conversion of precursors or from desorption of residual PFAS mass present in the system (i.e., decant tank and/or IPC). 6:2 fluorotelomer sulfonic acid, a precursor compound, is detected in the post-oxidation decant tank sample on November 6, but nowhere else either in Method 537 Modified or TOP Assay sampling. This result is an analytical anomaly as precursors are converted by oxidation into PFAA and are not expected to be present after experiencing two oxidation steps: oxidation prior to entering the IPC and during TOP Assay analysis preparation.

The lack of PFAS present in the Filter Press sludge indicates that PFAS mass is not likely being removed in this waste stream. Consequently, the increases in concentrations from the pre-oxidant Influent to the Decant Tank and Clarifier Catch Tank effluent that don't correspond with precursor conversion, suggest that there may be a latent source of PFAS in the treatment system. The low level PFAS concentrations and the small differential in detected concentrations could also be explained by acceptable analytical variability and sample time collections. Additional site investigation would be required to better explain why there is an apparent increase in PFAS concentrations in the system. However, the small difference in Influent and Clarifier Catch Tank effluent PFAS concentrations suggest that treatment of PFAS for this system will be most effective in the system effluent, not at an interim step in the process.

3.3 VOCs, PCBs, and Metals Mass Balance

This section discusses the VOCs, PCBs, and metals mass balance calculated from the analytical and flow data obtained from the first two sampling events.

3.3.1 VOCs

Chloroform, cis-1,2-dichloroethene (cis-1,2-DCE), and vinyl chloride (VC) were detected in the pre-oxidant Influent, Decant Tank, and Clarifier Catch Tank effluent samples during November 6 and 20, 2019 sampling events (Table 7). Benzene, chlorobenzene, 1,4-dichlorobenzene, 1,2-dichloroethane, cis-1,2-DCE, toluene, VC, and total xylenes were detected at concentrations greater than the corresponding NYSDEC Class GA Standards in one or more samples collected during the November 2019 sampling events, with the exception of the EW-4 sample. Acetone, bromodichloromethane, chlorobenzene, chloroethane, 1,4-dichlorobenzene, 4-methyl-2-pentanone, and toluene were also detected during sampling events, but were not consistently reported for each sample. For the purposes of this evaluation, the VOCs mass balance included bromodichloromethane, chlorobenzene, chloroethane, chloroform, cis-1,2-DCE, and VC concentrations as they were detected in the pre-oxidant Influent and Clarifier Catch Tank effluent samples.

Bromodichloromethane (10 micrograms per kilogram [$\mu\text{g/Kg}$]) and chloroform (240 $\mu\text{g/Kg}$) were also detected in the filter sludge sample (Table 8). These concentrations indicate that select VOC analytes are passing through the system and have concentrated in the Filter Press sludge.

Table 9 shows the VOCs, PCBs, and metals mass flow rates of extraction wells EW-1, EW-2, EW-3, the leachate collection sump EW-4, pre-oxidant Influent, and Clarifier Catch Tank effluent. VOC mass loading rates were calculated using the above flow rates and analytical data collected during each sampling event. EW-1, EW-2, EW-3, and EW-4 were sampled on November 26, 2019 as part of the routine quarterly system sampling. Based on the flow rates and analytical data, EW-1 introduces a total of 1,680 milligrams per day (mg/day) of VOC mass to the system, which is significantly more than the other extraction wells and leachate collection sump combined, which contributed 127 mg/day of total VOC mass.

As indicated in Table 1, extraction wells EW-1, EW-2, and EW-3, are approximately 1.5%, 0.5%, and 1.5% of the total extracted flow, respectively. The leachate collection sump EW-4 is approximately 96.5% of the total extracted flow. Based on the November 26, 2019 analytical data, total VOCs mass flux is reduced approximately by 75% from the combined extraction wells and leachate collection sump (1,807 mg/day) to the pre-oxidant Influent (446 mg/day). This reduction indicates that the high VOC mass

loading rates from EW-1 are greatly reduced when EW-4 is also in operation, which is most likely diluting the VOC concentrations in the combined leachate prior to reaching the treatment system influent.

Although there is a reduction (most likely resulting from dilution from EW-4) in VOCs from the extraction wells and leachate collection sump to the pre-oxidant Influent, a reduction in VOCs from the pre-oxidant Influent to the Clarifier Catch Tank effluent was not observed, as anticipated. As presented on Table 9, total VOC concentrations between the Clarifier Catch Tank effluent and the pre-oxidant Influent are relatively the same order of magnitude. The primary VOC constituents detected within the system include cis-1,2-DCE and VC, with the cis-1,2-DCE only appearing within the decant and catch tanks samples. Additional site investigation would be required to better explain why there is an apparent increase in cis-1,2-DCE concentrations in the system. However, the small difference in Influent and Clarifier Catch Tank effluent total VOC concentrations suggest that treatment of VOCs for this system will be most effective in the system effluent, not at an interim step in the process.

3.3.2 PCBs

PCB analyses were performed during all three aqueous sampling events and on the Filter Press sludge. The resultant data is inconsistent as different PCBs were reported in the aqueous and Filter Press sludge phases. As presented on Tables 10 and 11 respectively, PCB compounds, Aroclor 1221 and 1232, were detected in the aqueous streams within the system; and only Aroclor 1016 was detected in the Filter Press sludge sample. Aroclor 1221 and 1232 were detected at concentrations greater than the corresponding NYSDEC Class GA Standards of 0.09 µg/L. PCB conversion is not expected based on existing treatment processes. Although Aroclor 1016 was not detected in the November 6 and 20, 2019 aqueous sampling events, it has been one of the most common PCB detections from the monthly and quarterly sampling events. Aroclor 1016 is most likely being retained in the solids phase within the IPC and Thickener Tank prior to being processed within the Filter Press.

For the purposes of this evaluation, the PCBs mass balance included Aroclor 1221 and 1232 concentrations as they were detected in one or more aqueous sample. As presented on Table 9, EW-1 introduces PCBs (623 mg/day) to the system significantly more than the other extraction wells and leachate collection sump combined (195 mg/day). Based on the November 26, 2019 analytical data, total PCBs mass flux is relatively similar from the combined extraction wells and leachate collection sump (819 mg/day) and the pre-oxidant Influent (837 mg/day). This is an approximate difference of 2.3%, most likely due to the variability in sample collection times.

The net mass flow change between the pre-oxidant Influent and the Clarifier Catch (effluent) indicates that in general, a PCB reduction is not observed within the treatment system. Although a reduction was seen on the November 26, 2019 sampling event, this is most likely due to the variability in sample collection times. The historical analytical data also supports this hypothesis. Additional process and site characterization data would be needed to further explain the anomalies seen in the existing data. However, the small difference in Influent and Clarifier Catch Tank effluent total PCB concentrations suggest that treatment of total PCBs for this system will be most effective in the system effluent, not at an interim step in the process.

3.3.3 Metals

Metals analyses were performed during all three aqueous sampling events and on the Filter Press sludge. As presented on Tables 12 and 13, aluminum, arsenic, barium, calcium, chromium, cobalt, copper, iron, lead, magnesium, manganese, nickel, potassium, sodium, thallium, vanadium, and zinc were detected in one or more sample. Aluminum, iron, magnesium, manganese, sodium, and thallium were detected at concentrations greater than the corresponding NYSDEC Class GA Standards.

For the purposes of this evaluation, the metals mass balance includes aluminum, arsenic, barium, calcium, chromium, cobalt, copper, iron, lead, magnesium, manganese, nickel, potassium, sodium, vanadium, and zinc concentrations as they were detected in the pre-oxidant Influent and Clarifier Catch Tank effluent samples.

On average, total metals loading decreased from the pre-oxidant Influent to the Clarifier Catch Tank effluent stream, as designed, and anticipated. This decrease in metals concentration is due to metals being oxidized and precipitating out in the IPC before discharge. However, aluminum, copper, magnesium, nickel, potassium, and sodium increased in mass from the pre-oxidant Influent to the Clarifier Catch Tank effluent stream, which is unexpected. Additional data would be needed to determine why these concentrations are increasing through the system.

Metals consistently observed in the treatment process greater than the NYSDEC Class GA Standards include iron and manganese. Although the current treatment system has been able to substantially reduce iron and reduce some of the manganese concentrations, these metals are still present at concentrations greater than applicable standards prior to leaving the treatment system, indicating that upgrades or additional chemical augmentation (e.g., oxidant, coagulant, and flocculant) to the treatment system would be required to meet standards using the existing system.

4 CONCLUSIONS AND RECOMMENDATIONS

4.1 Conclusions

As part of the site and treatment system evaluation, the Leachate Collection Treatment System was sampled three times in November 2019. The analytical data collected from the November 2019 sampling events indicate that PFAS, VOCs, PCBs and metals are not being treated and/or reduced to meet all applicable NYSDEC Guidance Values, Proposed NYS MCLs, NYSDEC Class GA Standards, or SPDES Equivalency Permit standards prior to leaving the treatment building.

4.1.1 PFAS

PFAS are entering the treatment system via the leachate collection and extraction well network and are transported throughout the system without evident treatment. Increasing concentrations in the Decant Tank associated with the sludge thickening process and similar concentrations in the Clarifier Catch Tank effluent indicate that there either may be an existing PFAS source within the system that is supplementing the Influent PFAS load, or that the net increase in concentration may be due to acceptable analytical variability. Whichever the explanation, the difference in concentrations between the pre-oxidant Influent and the Decant Tank is not significant enough to suggest that treatment be initiated as part of the sludge thickening process, but rather treated at the system effluent.

Although the extraction wells and leachate collection sump were not sampled in November 2019 for PFAS, they were sampled and analyzed for PFAS in July 2017. PFAS detected at concentrations greater than the USEPA HAL are summarized below:

- EW-1: PFOA (1,300 ng/L), PFOS (73 ng/L), and total PFAS (1,590.3 ng/L).
- EW-2: Total PFAS was detected at 136.7 ng/L.
- EW-3: Total PFAS was detected at 129 ng/L.

PFAS detected at concentrations greater than the NYSDEC Guidance Values and Proposed NYS MCLs in 2019 are summarized below:

- Pre-oxidant Influent: PFOA ranged from 17 to 29 ng/L.
- Decant Tank: PFOA ranged from 34.8 to 53 ng/L and PFOS was detected at 11 ng/L.
- Clarifier Catch Tank effluent: PFOA ranged from 30 to 51 ng/L and PFOS ranged from 10 to 12 ng/L.

Maximum observed total PFAS concentrations reached approximately 100 ng/L in the Decant Tank and Clarifier Catch Tank effluent samples when the extraction wells and leachate collection sump were first brought online (November 6, 2019). Based on the July 2017 and November 2019 sampling analytical, PFAS is not being treated nor reduced by the treatment system. PFAS reduction will be required prior to discharge from the Clarifier Catch Tank effluent as PFOA and PFOS were detected at concentrations greater than the NYSDEC Guidance Values and Proposed NYS MCLs.

On November 20, 2019, total organic carbon (TOC) and iron concentrations observed in the Clarifier Catch Tank effluent samples were 5.6 milligrams per liter (mg/L) and 1.92 mg/L, respectively. These

parameters and PFAS analytical indicate that the leachate leaving the existing treatment system would be a good candidate for adsorptive separation PFAS treatment technologies, such as granular activated carbon (GAC) or strong base anionic ion exchange (AIX) resin.

4.1.2 VOCs

As indicated in section 3.3.1, EW-1 introduces a total of 1,680 mg/day of VOC mass to the system, which is significantly more than the other extraction wells and leachate collection sump combined, which contributed 127 mg/day of total VOC mass. Although there is a reduction (most likely resulting from dilution from EW-4) in VOCs from the extraction wells and leachate collection sump to the pre-oxidant Influent, a reduction in VOCs from the pre-oxidant Influent to the Clarifier Catch Tank effluent was not observed, as anticipated.

VOCs detected at concentrations greater than the NYSDEC Class GA Standards are summarized below:

- EW-1: Benzene (7.7 µg/L), chlorobenzene (5.6 µg/L), 1,2-dichloroethane (450 µg/L), toluene (9.2 µg/L), VC (630 µg/L), and total xylenes (30 µg/L) in the sample collected from extraction well EW-1.
- EW-2: Benzene (5.2 µg/L) in the sample collected from extraction well EW-2.
- EW-3: Benzene (2.3 µg/L), chlorobenzene (18 µg/L), and 1,4-dichlorobenzene (5.1 µg/L) in the sample collected from extraction well EW-3.
- pre-oxidant Influent: VC ranged from 2.3 to 5.3 µg/L.
- Decant Tank: Cis-1,2-DCE ranged from 5.4 to 5.6 µg/L and VC ranged from 4.6 to 5.5 µg/L.
- Clarifier Catch Tank effluent: 1,2-dichloroethane (6.5 µg/L), cis-1,2-DCE ranged from 6.0 to 6.3 µg/L, and VC ranged from 3.9 to 7.3 µg/L.

Based on the November 2019 sampling analytical, VOC reduction is required prior to discharge from the Clarifier Catch Tank effluent as VOCs were detected at concentrations greater than the NYSDEC Class GA Standards.

4.1.3 PCBs

As indicated in section 3.3.2, a PCB reduction is not observed within the treatment system. Although a reduction was seen on the November 26, 2019 sampling event, this is most likely due to the variability in sample collection times.

PCBs detected at concentrations greater than the NYSDEC Class GA Standards are summarized below:

- EW-1: Aroclor 1232 detected at 450 µg/L.
- EW-3: Aroclor 1221 detected at 1.7 µg/L.
- EW-4: Aroclor 1221 detected at 2.0 µg/L.
- Pre-oxidant Influent: Aroclor 1232 ranged from 4.5 to 8.4 µg/L.
- Decant Tank: Aroclor 1232 ranged from 30 J to 54 µg/L.

- Clarifier Catch Tank effluent: Aroclor 1232 ranged from 5.3 to 7.2 µg/L.

Based on the November 2019 sampling analytical, PCB reduction is required prior to discharge from the Clarifier Catch Tank effluent as PCBs were detected at concentrations greater than the NYSDEC Class GA Standards. Due to the magnitude of PCB loading from extraction well EW-1 and the PCB concentrations in the Clarifier Catch Tank effluent, a PCB treatment technology such as filtration would need to be incorporated into the treatment system to meet effluent standards.

4.1.4 Metals

As stated in Section 3.3.3, on average, total metals loading decreased from the pre-oxidant Influent to the Clarifier Catch Tank effluent stream, as designed, and anticipated. This decrease in metals concentration is due to metals being oxidized and precipitating out in the IPC before discharge. However, aluminum, copper, magnesium, nickel, potassium, and sodium increased in mass from the pre-oxidant Influent to the Clarifier Catch Tank effluent stream, which is unexpected. Additional data would be needed to determine why these concentrations are increasing through the system.

Metals detected at concentrations greater than the NYSDEC Class GA Standards are summarized below:

- EW-1: Iron (60,100 µg/L), magnesium (62,100 µg/L), manganese (847 µg/L), and sodium (230,000 µg/L).
- EW-2: Iron (20,900 µg/L), magnesium (38,700 µg/L), manganese (721 µg/L), and sodium (94,600 µg/L).
- EW-3: Iron (51,600 µg/L) and sodium (60,600 µg/L).
- EW-4: Iron (22,400 µg/L), manganese (1,830 µg/L), and sodium (43,600 µg/L).
- pre-oxidant Influent: Iron ranged from 8,480 to 11,000 µg/L, manganese ranged from 1,780 to 1,940 µg/L, sodium ranged from 47,400 to 67,400 µg/L, and thallium (5.5 J µg/L).
- Decant Tank: Aluminum ranged from 4,420 to 5,400 µg/L, iron ranged from 32,100 to 58,600 µg/L, manganese ranged from 2,120 to 3,340 µg/L, sodium ranged from 57,400 to 66,300 µg/L, and thallium ranged from 6.6 J to 7.0 J µg/L.
- Clarifier Catch Tank effluent: Iron ranged from 1,920 to 4,380 µg/L, manganese ranged from 1,620 to 1,910 µg/L, and sodium ranged from 54,700 to 59,40 µg/L.

Although the current treatment system has been able to substantially reduce iron and reduce some of the manganese concentrations, these metals are still greater than applicable standards prior to leaving the treatment system, indicating that upgrades or additional chemical augmentation (e.g., oxidant, coagulant, and flocculant) to the treatment system would be required to meet effluent standards. A bench-scale testing of the leachate metals' concentrations could be conducted to maximize the iron and manganese removal capacity of the treatment system.

4.2 Recommendations

Based on the historical analytical data and November 2019 sampling analytical, the following recommendations are suggested.

4.2.1 Short Term

Due to the magnitude of PFAS, VOCs, PCBs, and metals concentrations greater than the NYSDEC Guidance Values, Proposed NYS MCLs, and NYSDEC Class GA Standards, Arcadis recommends that a treatability study be performed to determine the best treatment technology for managing PFAS, VOCs, PCBs, and metals impacts in the system effluent. This study would include:

- Evaluation if PFAS reduction and removal is possible downgradient of the IPC. The PFAS component of the treatability study would consist of rapid small-scale column testing (RSSCT) to determine the expected capacity of GAC for use at the site. RSSCT uses modified GAC media to reduce overall runtime for bench-scale testing and requires the grinding of GAC media into smaller sizes before filling the testing columns. Grinding allows for proportional reduction of empty bed contact time (EBCT) as the vessel size decreases. The resulting data from RSSCT is the time to breakthrough of a constituent reported in bed volumes (BV). The tested GAC would include three different GAC media: Calgon Filtrasorb F400 (bituminous carbon), Evoqua AquaCarb 1230CX (modified coconut-shell carbon), and Cabot HydroDarco 4000 (lignite carbon).
 - In contrast to GAC, a reliable RSSCT-type bench-scale test for resin has not yet been developed because AIX resin has not yet been proven to have equivalent performance characteristics if ground into a smaller size for bench-scale column testing. Purolite has developed AIX resin computer modeling to simulate AIX resin consumption rates. Influent stream data could be provided from bench-scale influent sampling to Purolite as an assumption for what could be expected for loading on the resin. Results of the discussed treatability work will provide necessary data to develop a conceptual design and budgetary costing as part of the treatability study.
- Evaluate if VOC removal is possible within the IPC. Air diffusers placed in the IPC, for example, may volatilize VOCs before they leave the treatment building.
- Evaluate if post-IPC filtration can result in lower concentrations of PCBs. Filtration via granular activated carbon could be installed to reduce PCB concentrations.
- Evaluate if further chemical augmentation and post-IPC filtration can result in lower concentrations of iron and manganese. On January 24, 2019, Arcadis installed two bag filter vessels at the discharge point of the treatment system as part of a bag filter pilot test. 50-micron bag filters were installed in series and operated by ball valves. During the bag filter pilot test, the discharge pressure to Cell 3 was too high, resulting in a high level alarm in the Clarifier Catch Tank because the discharge pumps could not keep up with influent flow from EW-4, most likely due to iron fouling in Cell 3 piping. Based on the results of the bag filter pilot test, mechanical filtration via disc cleaning filters could be installed to reduce iron and manganese concentrations below standards prior to discharge.

4.2.2 Long Term

If PFAS, VOC, PCB, and metals removal can be accomplished in the treatment system, such that discharge concentrations meet the required effluent criteria, then the following items should be considered to improve the long-term operation and maintenance of the treatment system:

- Change the location of the SPDES discharge point to the collection sump EW-5 gravity overflow pipe and remove CWTS Cells 1, 2, and 3, and the Polishing Pond from the existing treatment process. If the level in EW-5 is permitted to increase, it can discharge from the EW-5 overflow pipe, 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), EW-5 pump station, and the Polishing Pond.
- Evaluate options for closure of the CWTS as accumulated iron sludge within the CWTS beds and piping network contributes to iron loading of the Polishing Pond. Phragmites plants should be eliminated and treatment cells abandoned.
- An update to the existing SPDES equivalency permit, as discharge from the treatment system has not met all NYSDEC Class GA Groundwater standards and the last revision was prior to implementation of the RSO. Based on the Clarifier Catch Tank effluent data from March 2017 through December 2019 and RSO upgrades, proposed modifications to the SPDES equivalency permit are included in Appendix C. The SPDES equivalency permit included in Appendix C was extracted from the 2015 SMP (HRP, 2015) which was last updated in August 2015. Arcadis' proposed modifications are in red font.

5 REFERENCES

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

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
Extraction Well Flow Per Day
Fort Edward Landfill, Fort Edward, NY
NYSDEC Site # 558001

Date	EW Flow Per Day (GPD)				Total Flow (GPD)
	EW-1	EW-2	EW-3	EW-4	
11/6/2019	438	146	436	26,599	27,619
11/20/2019	406	143	428	26,186	27,163
11/26/2019	366	133	375	25,450	26,324
Average	403	141	413	26,078	27,035
Average % of Extracted Flow	1.5%	0.5%	1.5%	96.5%	100.0%

Notes:

1. Total flow (GPD) data were used in mass flux calculations.
2. Flow data is collected on the NYSDEC System and stored in the C-More totalizer data file.

Definitions:

EW - Extraction Well
 GPD - Gallons per day

Table 2
PFAS 537 Modified Analytical Results for Treatment System Leachate
Fort Edward Landfill, Fort Edward, NY
NYSDEC # 558001

Location	USEPA LIFETIME HEALTH ADVISORY	NYSDEC GUIDANCE VALUE	INFLUENT		DECANT TANK		CLARIFIER CATCH				METHOD BLANK ¹	
Sample Date			11/6/2019	11/20/2019	11/6/2019	11/20/2019	11/6/2019	11/6/2019 DUP-1	11/20/2019	11/20/2019 DUP-1	11/6/2019	11/20/2019
Perfluorinated Alkyl Substances (PFAS) by 537 Modified (ng/L)												
Perfluorobutanesulfonic acid (PFBS)	--	100	1.34 J	1.33 J	1.91 U	1.37 J	1.32 J	1.25 J	1.48 J	1.5 J	2.00 U	2.00 U
Perfluorohexanesulfonic acid (PFHxS)	--	100	2.33 B	2.19 B	2.93 B	2.53 B	2.69 B	3.02 B	2.69 B	2.9 B	0.328 J	0.329 J
Perfluorooctanesulfonic acid (PFOS)	70	10*	5.86	6.06	8.12	7.46	8.40	6.70	8.02	8.73	2.00 U	2.00 U
Perfluorohexanoic acid (PFHxA)	--	100	23.3	21.5	32	28	33.5	32.4	28.7	30.2	2.00 U	2.00 U
Perfluoroheptanoic acid (PFHpA)	--	100	7.62	8.43	10.5	10.0	11.3	10.4	9.68	10.4	2.00 U	2.00 U
Perfluorooctanoic acid (PFOA)	70	10*	24.2	20.1	39.5	34.8	40.4	40.8	35.3	33.9	2.00 U	2.00 U
Perfluorononanoic acid (PFNA)	--	100	1.97 U	1.8 U	0.32 JB	1.79 U	0.68 JB	1.87 U	0.25 J	0.38 J	0.312 J	2.00 U
Perfluorodecanoic acid (PFDA)	--	100	1.97 U	1.8 U	1.91 U	1.79 U	1.87 U	1.87 U	1.81 U	1.82 U	2.00 U	2.00 U
Perfluoroundecanoic acid (PFUnDA)	--	100	1.97 U	1.8 U	1.91 U	1.79 U	1.87 U	1.87 U	1.81 U	1.82 U	2.00 U	2.00 U
Perfluorododecanoic acid (PFDoDA)	--	100	1.97 U	1.8 U	1.91 U	1.79 U	1.87 U	1.87 U	1.81 U	1.82 U	2.00 U	2.00 U
Perfluorotridecanoic acid (PFTrDA)	--	100	1.97 U	1.8 U	1.91 U	1.79 U	1.87 U	1.87 U	1.81 U	1.82 U	2.00 U	2.00 U
Perfluorotetradecanoic acid (PFTeDA)	--	100	1.97 U	1.8 U	1.91 U	1.79 U	1.87 U	1.87 U	1.81 U	1.82 U	2.00 U	2.00 U
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	--	100	19.7 U	18 U	6.89 J	4.27 J	3.2 J	18.7 U	18.1 U	1.98 J	20.0 U	20.0 U
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	--	100	19.7 U	18 U	19.1 U	17.9 U	18.7 U	18.7 U	18.1 U	18.2 U	20.0 U	20.0 U
Total PFOA + PFOS	70	--	30.06	26.16	47.62	42.26	48.80	47.50	43.32	42.63	2.00 U	2.00 U
Total PFAS	--	500	64.65	59.61	100.26	88.43	101.49	94.57	86.12	89.61	0.64	0.329

Notes:

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

Concentrations detected above the United States Environmental Protection Agency Lifetime Health Advisory are highlighted in orange.

Concentrations detected above the New York State Department of Environmental Conservation Guidance Value are highlighted in yellow.

* The Proposed New York State Maximum Contaminant Level.

1. Only the Method Blank samples with detections are reported in this table.

Definitions:

B - The compound was found in the associated blank as well as in the sample.

J - The concentration is an approximate value.

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

ng/L - nanogram per liter

"--" - No regulatory criteria exists for respective analyte.

Table 3
PFAS 537 Modified Mass Balance for Treatment System Leachate
Fort Edward Landfill, Fort Edward, NY
NYSDEC # 558001

Location	INFLUENT		CLARIFIER CATCH (EFFLUENT)		NET MASS FLOW CHANGE BETWEEN INFLUENT AND EFFLUENT	
	11/6/2019	11/20/2019	11/6/2019	11/20/2019	11/6/2019	11/20/2019
Perfluorinated Alkyl Substances (PFAS) by 537 Modified (µg/day)						
Perfluorobutanesulfonic acid (PFBS)	140	137	138	152	-2	15
Perfluorohexanesulfonic acid (PFHxS)	244	225	281	277	38	51
Perfluorooctanesulfonic acid (PFOS)	613	623	878	825	266	202
Perfluorohexanoic acid (PFHxA)	2,436	2,211	3,502	2,951	1,066	740
Perfluoroheptanoic acid (PFHpA)	797	867	1,181	995	385	129
Perfluorooctanoic acid (PFOA)	2,530	2,067	4,224	3,630	1,694	1,563
Perfluorononanoic acid (PFNA)	---	---	71	26	NC	NC
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	---	---	335	204	NC	NC
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	---	---	---	---	NC	NC
Total PFAS (µg/day)	6,760	6,130	10,610	9,060	3,447	2,700

Mass flux is calculated using combined flow rates reported on Table 1.

Only PFAS reported with detected concentrations on Tables 2 and 3 are included in the mass flux calculation.

Mass flux from the Decant Tank back to the IPC was not calculated because flow rates were not available for that stream.

Definitions:

"---" - The analytical sample was non-detect, so a mass flux was not calculated.

µg/day - microgram per day

NC - Not calculated as the Pre-Oxidant Influent analyte was non-detect.

Table 4
PFAS 537 Modified Analytical Results for Treatment System Filter Sludge
Fort Edward Landfill, Fort Edward, NY
NYSDEC # 558001

Location	FILTER SLUDGE
Sample Date	11/20/2019
Perfluorinated Alkyl Substances (PFAS) by 537 Modified (µg/Kg)	
Perfluorobutanesulfonic acid (PFBS)	1.00 U
Perfluorohexanesulfonic acid (PFHxS)	1.00 U
Perfluorooctanesulfonic acid (PFOS)	2.50 U
Perfluorohexanoic acid (PFHxA)	1.00 U
Perfluoroheptanoic acid (PFHpA)	1.00 U
Perfluorooctanoic acid (PFOA)	1.00 U
Perfluorononanoic acid (PFNA)	1.00 U
Perfluorodecanoic acid (PFDA)	1.00 U
Perfluoroundecanoic acid (PFUnDA)	1.00 U
Perfluorododecanoic acid (PFDoDA)	1.00 U
Perfluorotridecanoic acid (PFTTrDA)	1.00 U
Perfluorotetradecanoic acid (PFTeDA)	1.00 U
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	2.61 J
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	1.00 U
Total PFAS	2.61

Notes:

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

Definitions:

B - The compound was found in the associated blank as well as in the sample.

J - The concentration is an approximate value.

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

µg/Kg - microgram per kilogram

"--" - No regulatory criteria exists for respective analyte.

Table 5
PFAS TOP Assay Analytical Results for Treatment System Leachate
Fort Edward Landfill, Fort Edward, NY
NYSDEC # 558001

Location	USEPA LIFETIME HEALTH ADVISORY	NYSDEC GUIDANCE VALUE	INFLUENT				DECANT TANK			
Sample Date			11/6/2019 Pre- Oxidation	11/6/2019 Post- Oxidation	11/20/2019 Pre- Oxidation	11/20/2019 Post- Oxidation	11/6/2019 Pre- Oxidation	11/6/2019 Post- Oxidation	11/20/2019 Pre- Oxidation	11/20/2019 Post- Oxidation
Perfluorinated Alkyl Substances (PFAS) by TOP Assay (ng/L) ¹										
Perfluorobutanesulfonic acid (PFBS)	--	100	8.6 U	10 U	8.4 U	10 U	8.6 U	10 U	8.4 U	10 U
Perfluoropentane sulfonic acid (PFPeS)	--	100	NA	10 U	NA	10 U	NA	10 U	NA	10 U
Perfluorohexanesulfonic acid (PFHxS)	--	100	8.6 U	10 U	8.4 U	10 U	8.6 U	10 U	8.4 U	10 U
Perfluoroheptane sulfonic acid (PFHpS)	--	100	8.6 U	10 U	8.4 U	10 U	8.6 U	10 U	8.4 U	10 U
Perfluorooctanesulfonic acid (PFOS)	70	10*	8.6 U	10 U	8.4 U	10 U	8.6 U	11	8.4 U	11
Perfluorononane sulfonic acid (PFNS)	--	100	NA	10 U	NA	10 U	NA	10 U	NA	10 U
Perfluorodecane sulfonic acid (PFDS)	--	100	8.6 U	10 U	8.4 U	10 U	8.6 U	10 U	8.4 U	10 U
Perfluorobutanoic acid (PFBA)	--	100	8.6 U	22	8.4 U	43 B	11	24	9.0	41 B
Perfluoropentanoic acid (PFPeA)	--	100	15	39 B	14	35 B	19	39 B	18	39 B
Perfluorohexanoic acid (PFHxA)	--	100	18	40 B	8.4 U	46 BX	24	44 B	22	51 BX
Perfluoroheptanoic acid (PFHpA)	--	100	8.6 U	10 U	8.4 U	10	10	16	10	13
Perfluorooctanoic acid (PFOA)	70	10*	23	29	17	24	41	53	36	51
Perfluorononanoic acid (PFNA)	--	100	8.6 U	10 U	8.4 U	10 U	8.6 U	10 U	8.4 U	10 U
Perfluorodecanoic acid (PFDA)	--	100	8.6 U	10 U	8.4 U	10 U	8.6 U	10 U	8.4 U	10 U
Perfluoroundecanoic acid (PFUnDA)	--	100	8.6 U	10 U	8.4 U	10 U	8.6 U	10 U	8.4 U	10 U
Perfluorododecanoic acid (PFDoDA)	--	100	8.6 U	10 U	8.4 U	10 U	8.6 U	10 U	8.4 U	10 U
Perfluorotridecanoic acid (PFTTrDA)	--	100	8.6 U	10 U	8.4 U	10 U	8.6 U	10 U	8.4 U	10 U
Perfluorotetradecanoic acid (PFTeDA)	--	100	8.6 U	10 U	8.4 U	10 U	8.6 U	10 U	8.4 U	10 U
Perfluorooctane sulfonamide (FOSA)	--	100	8.6 U	10 U	8.4 U	10 UR	8.6 U	10 U	8.4 U	10 UR
N-Methyl perfluorooctane sulfonamide (MeFOSA)	--	100	8.6 U	10 U	8.4 U	10 U	8.6 U	10 U	8.4 U	10 U
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	--	100	8.6 U	10 U	8.4 U	10 U	8.6 U	10 U	8.4 U	10 U
N-Methyl perfluorooctane sulfonamidoethanol	--	100	8.6 U	10 U	8.4 U	10 U	8.6 U	10 U	8.4 U	10 U
N-Ethyl perfluorooctane sulfonamidoethanol	--	100	8.6 U	10 U	8.4 U	10 U	8.6 U	10 U	8.4 U	10 U
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	--	100	NA	10 U	NA	10 U	NA	10 U	NA	10 U
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	--	100	NA	10 U	NA	10 U	NA	10 U	NA	10 U
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	--	100	NA	10 U	NA	10 U	NA	10 U	NA	10 U
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	--	100	8.6 U	10 UR	8.4 U	10 UR	8.6 U	17 R	8.4 U	10 UR
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	--	100	8.6 U	10 U	8.4 U	10 U	8.6 U	10 U	8.4 U	10 U
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	--	100	NA	10 U	NA	10 U	NA	10 U	NA	10 U
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	--	100	NA	10 U	NA	10 U	NA	10 U	NA	10 U
Total PFOA + PFOS	70	--	23.0	29.0	17.0	24.0	41.0	64.0	36.0	62.0
Total PFAS	--	500	56.0	130.0	31.0	158.0	105.0	204.0	95.0	206.0

Notes:

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

Concentrations detected above the United States Environmental Protection Agency Lifetime Health Advisory are highlighted in orange.

Concentrations detected above the New York State Department of Environmental Conservation Guidance Value are highlighted in yellow.

* The Proposed New York State Maximum Contaminant Level.

1. Pre-Oxidation and Post-Oxidation analysis performed by Method 537 and ALS SOP, respectively.
2. Only the Method Blank samples with detections are reported in this table.

Definitions:

B - The compound was found in the associated blank as well as in the sample.

J - The concentration is an approximate value.

R - The data are unusable. The sample results are rejected due to serious deficiencies in meeting Quality Control limits. The analyte may or may not be present.

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

X - The results reported for Perfluorohexanoic acid (PFHxA) in all field samples may be subject to a high bias due to the presence of non-target matrix interferences that were not sufficiently resolved from the chromatographic peak associated with the target analyte. The results in question were flagged with an "X" qualifier to indicate the possible high bias so no further corrective

NA - Not Analyzed

ng/L - nanogram per liter

"--" - No regulatory criteria exists for respective analyte.

Table 5
PFAS TOP Assay Analytical Results for Treatment System Leachate
Fort Edward Landfill, Fort Edward, NY
NYSDEC # 558001

Location	USEPA LIFETIME HEALTH ADVISORY	NYSDEC GUIDANCE VALUE	CLARIFIER CATCH								METHOD BLANK ²	
Sample Date			11/6/2019 Pre- Oxidation	11/6/2019 Pre- Oxidation DUP-1	11/6/2019 Post- Oxidation	11/6/2019 Post- Oxidation DUP-1	11/20/2019 Pre- Oxidation	11/20/2019 Pre- Oxidation DUP-1	11/20/2019 Post- Oxidation	11/20/2019 Post- Oxidation DUP-1	11/6/2019 Post- Oxidation	11/20/2019 Post- Oxidation
Perfluorinated Alkyl Substances (PFAS) by TOP Assay (ng/L)¹												
Perfluorobutanesulfonic acid (PFBS)	--	100	8.6 U	8.6 U	10 U	10 U	8.4 U	8.4 U	10 U	10 U	10 U	10 U
Perfluoropentane sulfonic acid (PFPeS)	--	100	NA	NA	10 U	10 U	NA	NA	10 U	10 U	10 U	10 U
Perfluorohexanesulfonic acid (PFHxS)	--	100	8.6 U	8.6 U	10 U	10 U	8.4 U	8.4 U	10 U	10 U	10 U	10 U
Perfluoroheptane sulfonic acid (PFHpS)	--	100	8.6 U	8.6 U	10 U	10 U	8.4 U	8.4 U	10 U	10 U	10 U	10 U
Perfluorooctanesulfonic acid (PFOS)	70	10*	8.6 U	8.6	12	10 U	8.4 U	8.4 U	10 U	10	10 U	10 U
Perfluorononane sulfonic acid (PFNS)	--	100	NA	NA	10 U	10 U	NA	NA	10 U	10 U	10 U	10 U
Perfluorodecane sulfonic acid (PFDS)	--	100	8.6 U	8.6 U	10 U	10 U	8.4 U	8.4 U	10 U	10 U	10 U	10 U
Perfluorobutanoic acid (PFBA)	--	100	10	9.8	27	25	9.5	8.8	36 B	36 B	10 U	10 U
Perfluoropentanoic acid (PFPeA)	--	100	19	19	42 B	38 B	20	17	40 B	41 B	13	14 U
Perfluorohexanoic acid (PFHxA)	--	100	23	24	49 B	47 B	21	20	54 BX	51 BX	13	22 U
Perfluoroheptanoic acid (PFHpA)	--	100	9.9	9.5	14	12	12	11	15	15	10 U	10 U
Perfluorooctanoic acid (PFOA)	70	10*	38	38	51	49	32	30	43	44	10 U	10 U
Perfluorononanoic acid (PFNA)	--	100	8.6 U	8.6 U	10 U	10 U	8.4 U	8.4 U	10 U	10 U	10 U	10 U
Perfluorodecanoic acid (PFDA)	--	100	8.6 U	8.6 U	10 U	10 U	8.4 U	8.4 U	10 U	10 U	10 U	10 U
Perfluoroundecanoic acid (PFUnDA)	--	100	8.6 U	8.6 U	10 U	10 U	8.4 U	8.4 U	10 U	10 U	10 U	10 U
Perfluorododecanoic acid (PFDoDA)	--	100	8.6 U	8.6 U	10 U	10 U	8.4 U	8.4 U	10 U	10 U	10 U	10 U
Perfluorotridecanoic acid (PFTTrDA)	--	100	8.6 U	8.6 U	10 U	10 U	8.4 U	8.4 U	10 U	10 U	10 U	10 U
Perfluorotetradecanoic acid (PFTeDA)	--	100	8.6 U	8.6 U	10 U	10 U	8.4 U	8.4 U	10 U	10 U	10 U	10 U
Perfluorooctane sulfonamide (FOSA)	--	100	8.6 U	8.6 U	10 U	10 U	8.4 U	8.4 U	10 UR	10 UR	10 U	10 U
N-Methyl perfluorooctane sulfonamide (MeFOSA)	--	100	8.6 U	8.6 U	10 U	10 U	8.4 U	8.4 U	10 U	10 U	10 U	10 U
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	--	100	8.6 U	8.6 U	10 U	10 U	8.4 U	8.4 U	10 U	10 U	10 U	10 U
N-Methyl perfluorooctane sulfonamidoethanol	--	100	8.6 U	8.6 U	10 U	10 U	8.4 U	8.4 U	10 U	10 U	10 U	10 U
N-Ethyl perfluorooctane sulfonamidoethanol	--	100	8.6 U	8.6 U	10 U	10 U	8.4 U	8.4 U	10 U	10 U	10 U	10 U
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	--	100	NA	NA	10 U	10 U	NA	NA	10 U	10 U	10 U	10 U
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	--	100	NA	NA	10 U	10 U	NA	NA	10 U	10 U	10 U	10 U
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	--	100	NA	NA	10 U	10 U	NA	NA	10 U	10 U	10 U	10 U
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	--	100	8.6 U	8.6 U	10 UR	10 UR	8.4 U	8.4 U	10 UR	10 UR	10 U	10 U
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	--	100	8.6 U	8.6 U	10 U	10 U	8.4 U	8.4 U	10 U	10 U	10 U	10 U
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	--	100	NA	NA	10 U	10 U	NA	NA	10 U	10 U	10 U	10 U
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	--	100	NA	NA	10 U	10 U	NA	NA	10 U	10 U	10 U	10 U
Total PFOA + PFOS	70	--	38.0	46.6	63.0	49.0	32.0	30.0	43.0	54.0	10 U	10 U
Total PFAS	--	500	99.9	108.9	195.0	171.0	94.5	86.8	188.0	197.0	26.0	46.0

Notes:

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

Concentrations detected above the United States Environmental Protection Agency Lifetime Health Advisory are highlighted in orange.

Concentrations detected above the New York State Department of Environmental Conservation Guidance Value are highlighted in yellow.

* The Proposed New York State Maximum Contaminant Level.

1. Pre-Oxidation and Post-Oxidation analysis performed by Method 537 and ALS SOP, respectively.
2. Only the Method Blank samples with detections are reported in this table.

Definitions:

B - The compound was found in the associated blank as well as in the sample.

J - The concentration is an approximate value.

R - The data are unusable. The sample results are rejected due to serious deficiencies in meeting Quality Control limits. The analyte may or may not be present.

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

X - The results reported for Perfluorohexanoic acid (PFHxA) in all field samples may be subject to a high bias due to the presence of non-target matrix interferences that were not sufficiently resolved from the chromatographic peak associated with the target analyte. The results in question were flagged with an "X" qualifier to indicate the possible high bias so no further corrective

NA - Not Analyzed

ng/L - nanogram per liter

"--" - No regulatory criteria exists for respective analyte.

Table 6
PFAS TOP Assay Analytical Results for Treatment System Filter Sludge
Fort Edward Landfill, Fort Edward, NY
NYSDEC # 558001

Location	FILTER SLUDGE		METHOD BLANK ²
Sample Date	11/20/2019 Pre- Oxidation	11/20/2019 Post- Oxidation	11/20/2019 Post- Oxidation
Perfluorinated Alkyl Substances (PFAS) by TOP Assay (ng/g)¹			
Perfluorobutanesulfonic acid (PFBS)	3.4 U	4.2 U	3.4 U
Perfluoropentane sulfonic acid (PFPeS)	3.4 U	4.2 U	3.4 U
Perfluorohexanesulfonic acid (PFHxS)	3.4 U	4.2 U	3.4 U
Perfluoroheptane sulfonic acid (PFHpS)	3.4 U	4.2 U	3.4 U
Perfluorooctanesulfonic acid (PFOS)	3.4 U	4.2 U	3.4 U
Perfluorononane sulfonic acid (PFNS)	3.4 U	4.2 U	3.4 U
Perfluorodecane sulfonic acid (PFDS)	3.4 U	4.2 U	3.4 U
Perfluorobutanoic acid (PFBA)	3.4 U	4.3	3.4 U
Perfluoropentanoic acid (PFPeA)	3.4 U	9.1 B	2.1
Perfluorohexanoic acid (PFHxA)	3.4 U	5.2 B	1.2
Perfluoroheptanoic acid (PFHpA)	3.4 U	4.2 U	3.4 U
Perfluorooctanoic acid (PFOA)	3.4 U	4.2 U	3.4 U
Perfluorononanoic acid (PFNA)	3.4 U	4.2 U	3.4 U
Perfluorodecanoic acid (PFDA)	3.4 U	4.2 U	3.4 U
Perfluoroundecanoic acid (PFUnDA)	3.4 U	4.2 U	3.4 U
Perfluorododecanoic acid (PFDoDA)	3.4 U	4.2 U	3.4 U
Perfluorotridecanoic acid (PFTrDA)	3.4 U	4.2 U	3.4 U
Perfluorotetradecanoic acid (PFTeDA)	3.4 U	4.2 U	3.4 U
Perfluorooctane sulfonamide (FOSA)	3.4 U	4.2 U	3.4 U
N-Methyl perfluorooctane sulfonamide (MeFOSA)	3.4 U	4.2 U	3.4 U
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	3.4 U	4.2 U	3.4 U
N-Methyl perfluorooctane sulfonamidoethanol	3.4 U	4.2 U	3.4 U
N-Ethyl perfluorooctane sulfonamidoethanol	3.4 U	4.2 U	3.4 U
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	3.4 U	4.2 U	3.4 U
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	3.4 U	4.2 U	3.4 U
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	3.4 U	4.2 U	3.4 U
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	3.4 U	4.2 U	3.4 U
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	3.4 U	4.2 U	3.4 U
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	3.4 U	4.2 U	3.4 U
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	3.4 U	4.2 U	3.4 U
Total PFAS	3.4 U	18.6	3.3

Notes:

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

1. Pre-Oxidation and Post-Oxidation analysis performed by Method 537 and ALS SOP, respectively.
2. Only the Method Blank sample with detections are reported in this table.

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.

Table 7
Volatile Organic Compound Analytical Results for Treatment System Leachate
Fort Edward Landfill, Fort Edward, NY
NYSDEC Site # 558001

Location	NYSDEC Class GA GW Standard	NYSDEC Class GA GW Effluent Limitation	EW-1	EW-2	EW-3	EW-4	INFLUENT			DECANT TANK		CLARIFIER CATCH		
Sample Date			11/26/2019				11/6/2019	11/20/2019	11/26/2019	11/6/2019	11/20/2019	11/6/2019	11/20/2019	11/26/2019
Volatile Organic Compounds (VOCs) (µg/L)														
Acetone	50	50	23 U	5.0 U	15	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	6.8	5.0 U	5.0 U	5.0 U
Benzene	1	1	7.7	5.2	2.3	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
Bromodichloromethane	50	50	2.0 U	1.0 U	1.0 U	1.0 U	0.71 J	1.0 U	1.0 U	1.0 U	1.4	1.0 U	1.0	0.87 J
Bromoform	50	50	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
Bromomethane	5	5	2.0 U	1.0 U	1.0 U	1.0 U	1.0 UJ	1.0 U	1.0 U	1.0 U	1.0 U	1.0 UJ	1.0 U	1.0 U
2-Butanone (MEK)	50	50	10 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	5.0 U	5.0 U	5.0 U
Carbon Disulfide	60	60	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
Carbon Tetrachloride	5	5	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
Chlorobenzene	5	5	5.6	1.2	18	1.0 U	1.0 U	0.8 J	1.0 U	0.45 J	0.5 J	0.58 J	0.57 J	0.51 J
Chlorodibromomethane	50	--	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	0.31 J	1.0 U
Chloroethane	5	5	2.0 U	1.0 U	0.7 J	0.34 J	1.0 UJ	0.51 J	0.48 J	1.0 U	0.44 J	1.0 UJ	0.47 J	0.35 J
Chloroform	7	7	2.0 U	1.0 U	1.0 U	1.0 U	2.4	1.0 U	1.0 U	2.9	8.6	0.39 J	2.7	2.0 U
Chloromethane	--	--	2.0 U	1.0 U	1.0 U	1.0 U	0.41 J	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Cyclohexane	--	--	2.0 U	1.0 U	0.5 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	1.0 U
1,2-Dibromo-3-chloropropane (DBCP)	0.04	0.04	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
1,2-Dibromoethane (EDB)	0.0006	0.0006	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
1,2-Dichlorobenzene	3	3	2.0 U	1.0 U	0.46 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	1.0 U
1,3-Dichlorobenzene	3	3	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
1,4-Dichlorobenzene	3	3	0.72 J	1.0 U	5.1	1.0 U	1.0 U	0.36 J	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Dichlorodifluoromethane (Freon 12)	5	5	4.2	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	0.87 J
1,1-Dichloroethane	5	5	2.0 U	0.91 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	1.0 U	1.0 U
1,2-Dichloroethane	0.6	0.6	450	0.36 J	1.0 U	0.29 J	1.0 U	1.0 U	1.7	1.0 U	1.0 U	1.0 U	1.0 U	6.5
1,1-Dichloroethylene	5	5	4.3	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
cis-1,2-Dichloroethylene	5	5	2.0 U	1.0 U	1.0 U	1.0 U	1.9	3.2	1.0 U	5.4	5.6	6.3	6.0	1.0 U
trans-1,2-Dichloroethylene	5	5	3.2	0.91 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	1.0 U	1.0 U
1,2-Dichloropropane	1	1	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
cis-1,3-Dichloropropene	0.4	0.4	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
trans-1,3-Dichloropropene	0.4	0.4	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
Ethylbenzene	5	5	2.8	1.0 U	1.0 U	1.0 U	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 (MBK)	50	50	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
Isopropylbenzene (Cumene)	5	5	1.4 J	1.0 U	0.62 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	1.0 U
Methyl Acetate	--	--	10 U	5.0 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	5.0 U	5.0 U
Methyl tert-Butyl Ether (MTBE)	10	10	2.0 U	0.77 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	1.0 U	1.0 U
Methyl Cyclohexane	--	--	0.59 J	1.0 U	0.38 J	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	5.1 U	1.0 U	1.0 U	1.0 U
Methylene Chloride	5	5	2.0 U	1.0 U	1.0 U	1.0 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
4-Methyl-2-pentanone (MIBK)	--	--	43	5.0 U	5.0 U	5.0 U	1.0 U	5.0 U	5.0 U	5.0 U	2.0 J	5.0 U	5.0 U	5.0 U
Styrene	5	930	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
1,1,2,2-Tetrachloroethane	5	5	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 UJ	1.0 U	1.0 U	1.0 UJ	1.0 U	1.0 UJ	1.0 U
Tetrachloroethylene	5	5	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
Toluene	5	5	9.2	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	0.43 J	1.0 U	1.0 U
1,2,4-Trichlorobenzene	5	5	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
1,1,1-Trichloroethane	5	5	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
1,1,2-Trichloroethane	1	1	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
Trichloroethylene	5	5	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
Trichlorofluoromethane (Freon 11)	5	5	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
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	5	5	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
Vinyl Chloride	2	2	630	0.41 J	1.0 U	1.0 U	0.96 J	5.3	2.3	5.5	4.6	6.2	3.9	7.3
Xylenes, Total	5	5	30	1.4 J	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
Total VOCs	--	--	1192.7	11.16	43.06	0.63	6.38	10.17	4.48	14.25	29.94	13.90	14.95	16.40

Notes:
Constituents detected above the New York State Department of Environmental Conservation Class GA Groundwater Standard are in **bold**.
Constituents detected above the New York State Department of Environmental Conservation Class GW Effluent Limitation are highlighted in yellow.

Definitions:
J - The concentration is an approximate value.
U - The compound was analyzed for but not detected. The associated value is the compound quantitation limit.
UJ - The analyte was analyzed for, but was not detected. The associated reported quantitation limit is approximate and may be inaccurate or imprecise.
µg/L - microgram per liter
"--" - No regulatory criteria exists for respective analyte.

Table 8
Volatile Organic Compound Analytical Results for Treatment System Filter Sludge
Fort Edward Landfill, Fort Edward, NY
NYSDEC Site # 558001

Location	FILTER SLUDGE
Sample Date	11/20/2019
Volatile Organic Compounds (VOCs) (µg/Kg)	
Acetone	3.0 U
Benzene	5.1 U
Bromodichloromethane	10
Bromoform	5.1 U
Bromomethane	5.1 U
2-Butanone (MEK)	25 U
Carbon Disulfide	5.1 U
Carbon Tetrachloride	5.1 U
Chlorobenzene	5.1 U
Chlorodibromomethane	5.1 U
Chloroethane	5.1 U
Chloroform	240
Chloromethane	5.1 U
Cyclohexane	5.1 U
1,2-Dibromo-3-chloropropane (DBCP)	5.1 U
1,2-Dibromoethane (EDB)	5.1 U
1,2-Dichlorobenzene	5.1 U
1,3-Dichlorobenzene	5.1 U
1,4-Dichlorobenzene	5.1 U
Dichlorodifluoromethane (Freon 12)	5.1 U
1,1-Dichloroethane	5.1 U
1,2-Dichloroethane	5.1 U
1,1-Dichloroethylene	5.1 U
cis-1,2-Dichloroethylene	5.1 U
trans-1,2-Dichloroethylene	5.1 U
1,2-Dichloropropane	5.1 U
cis-1,3-Dichloropropene	5.1 U
trans-1,3-Dichloropropene	5.1 U
Ethylbenzene	5.1 U
2-Hexanone (MBK)	25 U
Isopropylbenzene (Cumene)	5.1 U
Methyl Acetate	25 U
Methyl tert-Butyl Ether (MTBE)	5.1 U
Methyl Cyclohexane	5.1 U
Methylene Chloride	5.1 U
4-Methyl-2-pentanone (MIBK)	25 U
Styrene	5.1 U
1,1,2,2-Tetrachloroethane	5.1 U
Tetrachloroethylene	5.1 U
Toluene	5.1 U
1,2,4-Trichlorobenzene	5.1 U
1,1,1-Trichloroethane	5.1 U
1,1,2-Trichloroethane	5.1 U
Trichloroethylene	5.1 U
Trichlorofluoromethane (Freon 11)	5.1 U
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	5.1 U
Vinyl Chloride	5.1 U
Xylenes, Total	10 U
Total VOCs	250

Notes:

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

Definitions:

J - The concentration is an approximate value.

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

µg/Kg - microgram per kilogram

Table 9

VOCs, PCBs, and Metals Mass Balance for Treatment System Leachate
Fort Edward Landfill, Fort Edward, NY
NYSDEC Site # 558001

Location	EW-1	EW-2	EW-3	EW-4	INFLUENT			CLARIFIER CATCH (EFFLUENT)			NET MASS FLOW CHANGE BETWEEN INFLUENT AND EFFLUENT		
Sample Date	11/26/2019				11/6/2019	11/20/2019	11/26/2019	11/6/2019	11/20/2019	11/26/2019	11/6/2019	11/20/2019	11/26/2019
Volatile Organic Compounds (VOCs) (mg/day)													
Bromodichloromethane	--	--	--	--	74	--	--	--	103	87	-74	103	87
Chlorobenzene	7.8	0.6	26	--	--	82	--	61	59	51	61	-24	51
Chloroethane	--	--	1.0	33	--	52	48	--	48	35	--	-4	-13
Chloroform	--	--	--	--	251	--	--	41	278	199	-210	278	199
cis-1,2-Dichloroethylene	623	0.2	--	28	199	329	169	659	617	648	460	288	478
Vinyl Chloride	873	0.2	--	--	100	545	229	648	401	727	548	-144	498
Total VOCs (mg/day) ¹	1,680	5.2	61	61	667	1,046	446	1,453	1,537	1,834	784	497	1,300
Polychlorinated Biphenyls (PCBs) (mg/day)													
PCB-1221 (AROCLOR 1221)	--	--	2.4	193	--	--	--	--	--	--	--	--	--
PCB-1232 (AROCLOR 1232)	623	--	--	--	470	504	837	669	545	717	199	41	-120
Total PCBs (mg/day)	623	--	2.4	193	470	504	837	669	545	717	199	41	-120
Metals (mg/day)													
Aluminum	41	25	559	--	--	--	9,168	31,051	53,674	32,983	31,051	53,674	23,816
Arsenic	7.1	12	19	1,050	--	--	797	--	--	707	--	--	-90
Barium	543	62	315	4,576	4,747	4,709	4,663	4,841	4,349	4,155	94	-360	-508
Calcium	223,059	58,401	103,058	7,658,929	8,740,321	8,092,181	8,489,940	9,012,149	8,071,617	8,280,681	271,828	-20,564	-209,259
Chromium	5.0	1.5	6.5	260	251	--	189	--	--	149	-251	--	-40
Cobalt	10	--	14	231	261	237	269	272	257	279	11	20	10
Copper	--	7.0	--	--	--	--	--	1,474	--	--	1,474	--	--
Iron	83,266	10,522	73,248	2,157,988	1,021,447	871,940	1,096,119	457,926	197,420	137,513	-563,521	-674,520	-958,606
Lead	27	2.1	10	337	--	278	--	366	--	--	366	-278	--
Magnesium	86,037	19,484	48,690	1,830,436	2,038,711	1,974,204	2,062,697	2,164,170	1,994,769	2,082,626	125,459	20,565	19,929
Manganese	1,173	363	336	176,300	202,826	183,025	191,323	199,689	166,573	167,407	-3,137	-16,452	-23,915
Nickel	35	5.0	12	--	199	185	--	5,207	1,841	608	5,008	1,656	608
Potassium	63,593	1,460	42,160	264,932	360,695	410,264	327,839	463,153	432,885	383,642	102,458	22,621	55,802
Sodium	318,656	47,627	86,023	4,200,369	7,046,622	5,069,181	4,723,276	5,718,846	6,107,695	5,659,960	-1,327,776	1,038,514	936,683
Vanadium	5.4	3.0	8.5	--	--	--	--	--	--	--	--	--	--
Zinc	28	310	35	--	9,922	2,159	2,122	4,506	2,838	1,395	-5,416	679	-727
Total Metals (mg/day)	776,487	138,286	354,495	16,295,407	19,426,000	16,608,364	16,908,403	18,063,650	17,033,918	16,752,106	-1,362,352	425,555	-156,297
Total Metals (kg/day)	0.78	0.14	0.35	16.30	19.43	16.61	16.91	18.06	17.03	16.75	-1.36	0.43	-0.16

Notes:

Total VOCs mass flux calculation calculated from Total VOCs of all detected and estimated analytes from the sampling event.

Mass flux is calculated using combined flow rates reported on Table 1.

Mass flux from the Decant Tank back to the IPC was not calculated because flow rates were not available for that stream.

Definitions:

"---" - The analytical sample was non-detect, so a mass flux was not calculated.

mg/day - milligram per day

kg/day - kilogram per day

Table 10
Polychlorinated Biphenyl Analytical Results for Treatment System Leachate
Fort Edward Landfill, Fort Edward, NY
NYSDEC Site # 558001

Location	NYSDEC Class GA GW Standard	NYSDEC Class GA GW Effluent Limitation	EW-1	EW-2	EW-3	EW-4	INFLUENT			DECANT TANK		CLARIFIER CATCH		
Sample Date			11/26/2019				11/6/2019	11/20/2019	11/26/2019	11/6/2019	11/20/2019	11/6/2019	11/20/2019	11/26/2019
Polychlorinated Biphenyls (PCBs) (µg/L)														
PCB-1016 (AROCOR 1016)	*	*	40 U	0.8 U	0.8 U	0.8 U	0.4 U	0.4 U	0.8 U	4.0 U	4.0 U	0.8 U	0.4 U	0.8 U
PCB-1221 (AROCOR 1221)	*	*	40 U	0.8 U	1.7	2.0	0.4 U	0.4 U	0.8 U	4.0 U	4.0 U	0.8 U	0.4 U	0.8 U
PCB-1232 (AROCOR 1232)	*	*	450	0.8 U	0.8 U	0.8 U	4.5	4.9	8.4	54	30 J	6.4	5.3	7.2
PCB-1242 (AROCOR 1242)	*	*	40 U	0.8 U	0.8 U	0.8 U	0.4 U	0.4 U	0.8 U	4.0 U	4.0 U	0.8 U	0.4 U	0.8 U
PCB-1248 (AROCOR 1248)	*	*	40 U	0.8 U	0.8 U	0.8 U	0.4 U	0.4 U	0.8 U	4.0 U	4.0 U	0.8 U	0.4 U	0.8 U
PCB-1254 (AROCOR 1254)	*	*	40 U	0.8 U	0.8 U	0.8 U	0.4 U	0.4 U	0.8 U	4.0 U	4.0 U	0.8 U	0.4 U	0.8 U
PCB-1260 (AROCOR 1260)	*	*	40 U	0.8 U	0.8 U	0.8 U	0.4 U	0.4 U	0.8 U	4.0 U	4.0 U	0.8 U	0.4 U	0.8 U
PCB-1262 (AROCOR 1262)	*	*	40 U	0.8 U	0.8 U	0.8 U	0.4 U	0.4 U	0.8 U	4.0 U	4.0 U	0.8 U	0.4 U	0.8 U
PCB-1268 (AROCOR 1268)	*	*	40 U	0.8 U	0.8 U	0.8 U	0.4 U	0.4 U	0.8 U	4.0 U	4.0 U	0.8 U	0.4 U	0.8 U
Total PCBs	*	*	450	0.8 U	1.7	2.0	4.5	4.9	8.4	54	30	6.4	5.3	7.2

Notes:

Constituents detected above the New York State Department of Environmental Conservation Class GA Groundwater Standard are in **bold**.

Constituents detected above the New York State Department of Environmental Conservation Class GA Groundwater Effluent Limitation are highlighted in yellow.

* The New York State Department of Environmental Conservation Class GA Groundwater Standard and Effluent Limitation for PCBs is 0.09 ug/L.

Definitions:

J - The analyte was positively identified; the associated numerical value is an approximate concentration of the analyte in the sample.

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

µg/L - microgram per liter

Table 11
Polychlorinated Biphenyl Analytical Results for Treatment System Filter Sludge
Fort Edward Landfill, Fort Edward, NY
NYSDEC Site # 558001

Location	FILTER SLUDGE
Sample Date	11/20/2019
Polychlorinated Biphenyls (PCBs) (µg/Kg)	
PCB-1016 (AROCLOR 1016)	55,000
PCB-1221 (AROCLOR 1221)	7,300 U
PCB-1232 (AROCLOR 1232)	7,300 U
PCB-1242 (AROCLOR 1242)	7,300 U
PCB-1248 (AROCLOR 1248)	7,300 U
PCB-1254 (AROCLOR 1254)	7,300 U
PCB-1260 (AROCLOR 1260)	7,300 U
PCB-1262 (AROCLOR 1262)	7,300 U
PCB-1268 (AROCLOR 1268)	7,300 U
Total PCBs	55,000

Notes:

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

Definitions:

J - The concentration is an approximate value.

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

µg/Kg - microgram per kilogram

Table 12
Metals Analytical Results for Treatment System Leachate
Fort Edward Landfill, Fort Edward, NY
NYSDEC # 558001

Location	NYSDEC Class GA GW Standard	NYSDEC Class GA GW Effluent Limitation	EW-1	EW-2	EW-3	EW-4	INFLUENT			DECANT TANK		CLARIFIER CATCH		
Sample Date			11/26/2019				11/6/2019	11/20/2019	11/26/2019	11/6/2019	11/20/2019	11/6/2019	11/20/2019	11/26/2019
Metals (µg/L)														
Aluminum	--	2,000	29.6 J	49 J	394	200 U	200 U	200 U	92 J	5,400	4,420	297	522	331
Antimony	3.0	6.0	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U
Arsenic	30	50	5.1 J	24.3	13.5 J	10.9 J	15 U	15 U	8.0 J	9.6 J	6.3 J	15 U	15 U	7.1 J
Barium	1,000	2,000	392	124 J	222	47.5 J	45.4 J	45.8 J	46.8 J	92.4 J	72.7 J	46.3 J	42.3 J	41.7 J
Beryllium	3.0	3.0	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
Cadmium	5.0	10	2.0 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
Calcium	--	--	161,000	116,000	72,600	79,500	83,600	78,700	85,200	90,200	86,900	86,200	78,500	83,100
Chromium	50	100	3.6 J	3.0 J	4.6 J	2.7 J	2.4 J	10 U	1.9 J	2.8 J	5.5 J	10 U	10 U	1.5 J
Cobalt	--	--	7.2 J	5.0 U	9.8 J	2.4 J	2.5 J	2.3 J	2.7 J	2.4 J	2.6 J	2.6 J	2.5 J	2.8 J
Copper	200	1,000	25 U	13.9 J	25 U	25 U	25 U	25 U	25 U	25 U	25 U	14.1 J	25 U	25 U
Iron	300	600	60,100	20,900	51,600	22,400	9,770	8,480	11,000	58,600	32,100	4,380	1,920	1,380
Lead	30	50	19.8	4.1 J	6.8 J	3.5 J	10 U	2.7 J	10 U	8.8 J	4.9 J	3.5 J	10 U	10 U
Magnesium	35,000	35,000	62,100	38,700	34,300	19,000	19,500	19,200	20,700	20,300	20,400	20,700	19,400	20,900
Manganese	300	600	847	721	237	1,830	1,940	1,780	1,920	2,120	3,340	1,910	1,620	1,680
Mercury	0.07	1.4	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	0.2 U	0.2 U	0.2 U
Nickel	100	200	25.6 J	10 J	8.7 J	40 U	1.9 J	1.8 J	10 U	3.3 J	3.9 J	49.8	17.9 J	6.1 J
Potassium	--	--	45,900	2,900 J	29,700	2,750 J	3,450 J	3,990 J	3,290 J	4,380 J	4,490 J	4,430 J	4,210 J	3,850 J
Selenium	10	20	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U
Silver	50	100	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Sodium	20,000	--	230,000	94,600	60,600	43,600	67,400	49,300	47,400	57,400	66,300	54,700	59,400	56,800
Thallium	0.5	0.5	20 U	20 U	20 U	20 U	5.5 J	20 U	20 U	7.0 J	6.6 J	20 U	20 U	20 U
Vanadium	--	--	3.9 J	50 U	0.6 J	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U
Zinc	2,000	5,000	20.3 J	616	24.4 J	30 U	94.9	21 J	21.3 J	9.3 J	23.4 J	43.1	27.6 J	14 J

Notes:

Constituents detected above the New York State Department of Environmental Conservation Class GA Groundwater Standard are in **bold**.

Constituents detected above the New York State Department of Environmental Conservation Class GA Groundwater Effluent Limitation are highlighted in yellow.

Definitions:

B - The compound was found in the associated blank as well as in the sample.

J - The concentration is an approximate value.

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

µg/L - microgram per liter

"--" - No regulatory criteria exists for respective analyte.

Table 13
Metals Analytical Results for Treatment System Filter Sludge
Fort Edward Landfill, Fort Edward, NY
NYSDEC # 558001

Location	FILTER SLUDGE
Sample Date	11/20/2019
Metals (mg/Kg)	
Aluminum	77,000
Antimony	21 U
Arsenic	54.6
Barium	294
Beryllium	2.1 U
Cadmium	4.2 U
Calcium	13,900
Chromium	43.4
Cobalt	52.5 U
Copper	27.3 U
Iron	460,000
Lead	42.1
Magnesium	487 J
Manganese	2,170
Mercury	0.091 U
Nickel	11.9 J
Potassium	5,460 U
Selenium	21 U
Silver	10.5 U
Sodium	445 J
Thallium	21 U
Vanadium	18.6 J
Zinc	34.4

Notes:

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

Definitions:

B - The compound was found in the associated blank as well as in the sample.

J - The concentration is an approximate value.

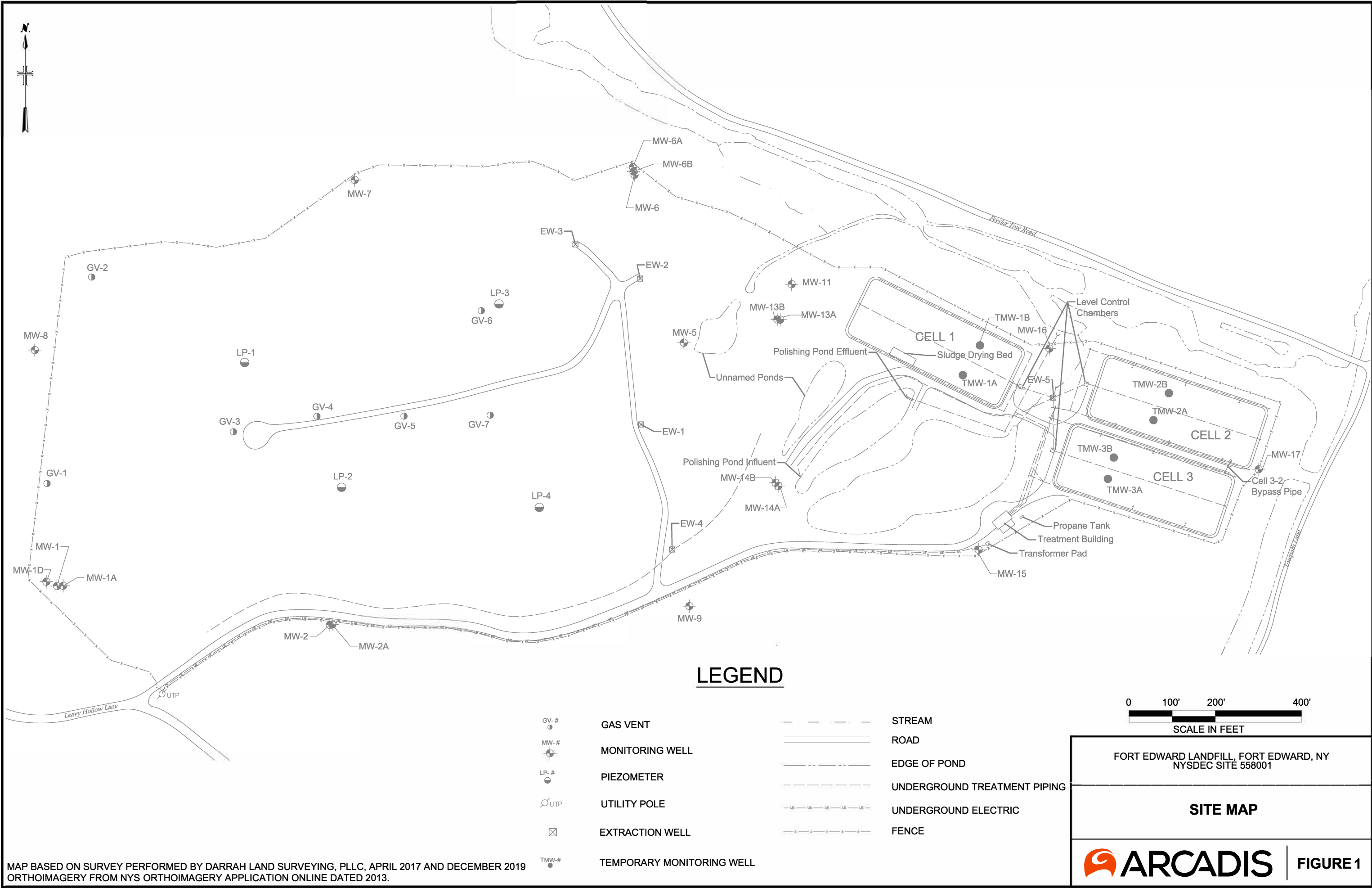
U - The compound was analyzed for but not detected. The associated value is the compound quantitation limit.

mg/Kg - microgram per kilogram

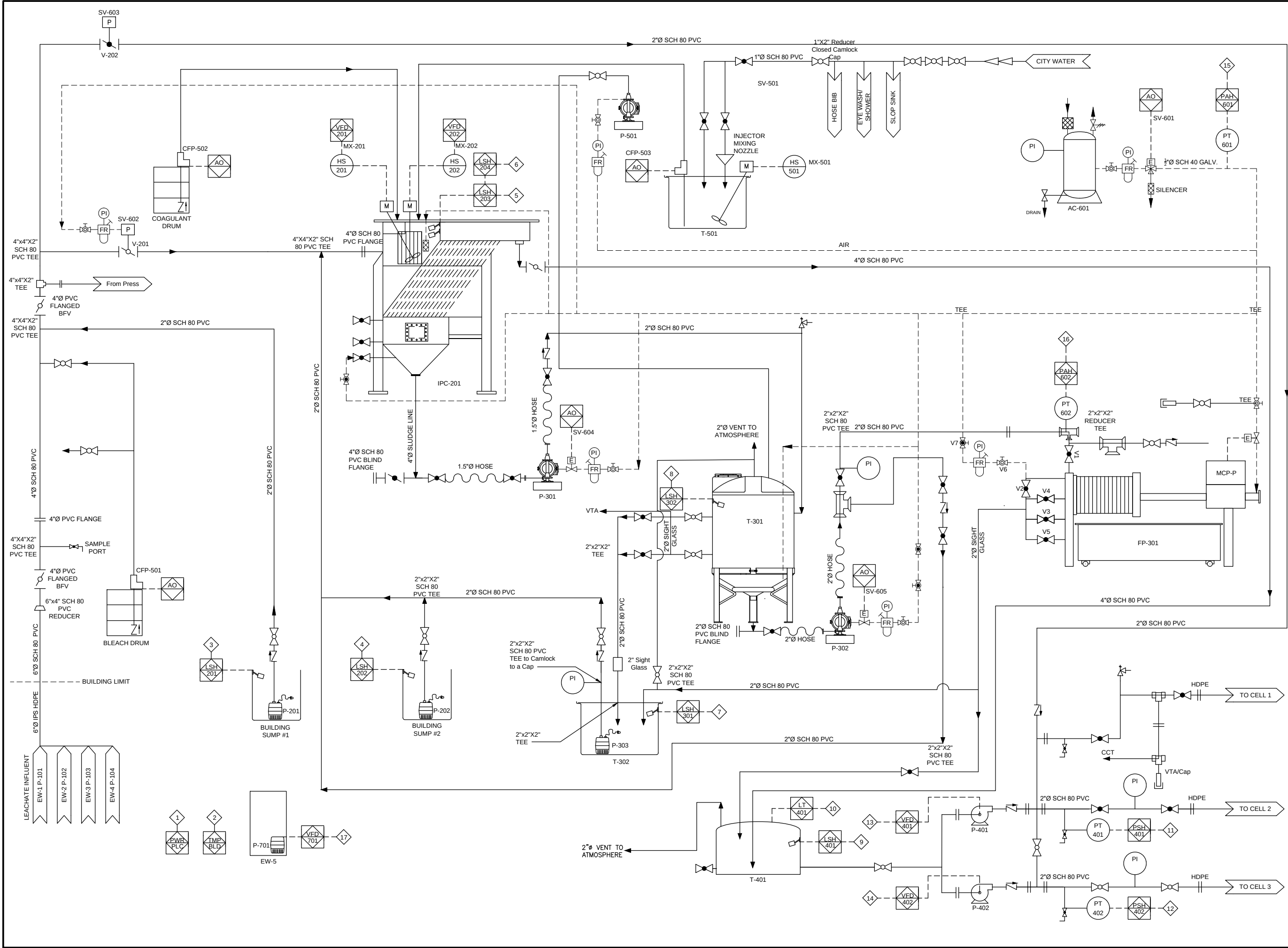
FIGURES



USER: BDPOWERS FILENAME: G:\ACAD\PROJ\00266434.0000\PRR\FIG2-SITE MAP.DWG SAVE DATE: 1/14/2020 1:54 PM PLOT DATE: 1/15/2020 9:40 AM



User: MULLINS Spec: AUS-NC5000 File: G:\ACAD\PROJ\00266434.0000\PSD\I-03 - 2019.DWG Scale: 1:1 Saved Date: 2/1/2019 Time: 12:58 Plot Date: Mullins, Jasmine: 1/7/2020; 14:01; Layout: I-03



LEGAL ENTITY:
ARCADIS CE, INC.

CONSULTANTS

DRAFT

SEALS



**FORT EDWARD LANDFILL
LEACHY HOLLOW ROAD
FORT EDWARD, NEW YORK**

NYSDEC SITE 558001

**REMEDIAL SYSTEM
OPTIMIZATION**

NO.	DATE	ISSUED FOR	BY

COPYRIGHT: ARCADIS CE, INC.
2018

DATE: JANUARY 2018
PROJECT NO.: 00266434.0000
FILE NAME: I-03 - 2019
DESIGNED BY: T. CARIGNAN
DRAWN BY: S. HAUSMANN
CHECKED BY:

SHEET TITLE

**PIPING AND
INSTRUMENTATION
DIAGRAM**

SCALE: NOT TO SCALE

I-03
SHEET 3 OF 9

APPENDIX A

Analytical Data Packages



ANALYTICAL REPORT

Eurofins TestAmerica, Savannah
5102 LaRoche Avenue
Savannah, GA 31404
Tel: (912)354-7858

Laboratory Job ID: 680-177473-1

Client Project/Site: DEC - Fort Edward Landfill Site:558001

For:

New York State D.E.C.
625 Broadway
11th Floor
Albany, New York 12233-3256

Attn: Mr. Payson Long



Authorized for release by:
12/2/2019 4:42:40 PM

Julie Gilmore, Project Manager I
(484)685-0865
julie.gilmore@testamericainc.com

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The test results in this report meet all 2003 NELAC and 2009 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

Definitions/Glossary

Client: New York State D.E.C.
Project/Site: DEC - Fort Edward Landfill Site:558001

Job ID: 680-177473-1

Qualifiers

General Chemistry

Qualifier	Qualifier Description
N	Spiked sample recovery is not within control limits.
U	Indicates analyzed for but not detected.

Glossary

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

Sample Summary

Client: New York State D.E.C.

Job ID: 680-177473-1

Project/Site: DEC - Fort Edward Landfill Site:558001

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
680-177473-1	INFLUENT-20191126	Water	11/26/19 08:30	11/27/19 10:10	
680-177473-2	CCT-20191126	Water	11/26/19 08:40	11/27/19 10:10	

Case Narrative

Client: New York State D.E.C.
Project/Site: DEC - Fort Edward Landfill Site:558001

Job ID: 680-177473-1

Job ID: 680-177473-1

Laboratory: Eurofins TestAmerica, Savannah

Narrative

CASE NARRATIVE

Client: New York State D.E.C.

Project: DEC - Fort Edward Landfill Site:558001

Report Number: 680-177473-1

This case narrative is in the form of an exception report, where only the anomalies related to this report, method specific performance and/or QA/QC issues are discussed. If there are no issues to report, this narrative will include a statement that documents that there are no relevant data issues.

It should be noted that samples with elevated Reporting Limits (RLs) as a result of a dilution may not be able to satisfy customer reporting limits in some cases. Such increases in the RLs are unavoidable but acceptable consequence of sample dilution that enables quantification of target analytes or interferences which exceed the calibration range of the instrument.

Calculations are performed before rounding to avoid round-off errors in calculated results.

All holding times were met and proper preservation noted for the methods performed on these samples, unless otherwise detailed in the individual sections below.

RECEIPT

The samples were received on 11/27/2019; the samples arrived in good condition, properly preserved and on ice. The temperature of the coolers at receipt was 2.8 C.

Note: All samples which require thermal preservation are considered acceptable if the arrival temperature is within 2C of the required temperature or method specified range. For samples with a specified temperature of 4C, samples with a temperature ranging from just above freezing temperature of water to 6C shall be acceptable. Samples that are hand delivered immediately following collection may not meet these criteria, however they will be deemed acceptable according to NELAC standards, if there is evidence that the chilling process has begun, such as arrival on ice, etc.

METHYLENE BLUE ACTIVE SUBSTANCES

Samples INFLUENT-20191126 (680-177473-1) and CCT-20191126 (680-177473-2) were analyzed for Methylene Blue Active Substances in accordance with EPA Method 425.1. The samples were analyzed on 11/28/2019.

No difficulties were encountered during the MBAS surfactants analysis.

All quality control parameters were within the acceptance limits.

Client Sample Results

Client: New York State D.E.C.
Project/Site: DEC - Fort Edward Landfill Site:558001

Job ID: 680-177473-1

Client Sample ID: INFLUENT-20191126

Lab Sample ID: 680-177473-1

Date Collected: 11/26/19 08:30

Matrix: Water

Date Received: 11/27/19 10:10

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methylene Blue Active Substances	0.20	U N	0.20	0.10	mg/l LAS MW 340	—		11/28/19 07:57	1
Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total Unspecified Organics	0.00900	U	0.00900	0.00900	1/cm	—		11/27/19 17:35	1

Client Sample ID: CCT-20191126

Lab Sample ID: 680-177473-2

Date Collected: 11/26/19 08:40

Matrix: Water

Date Received: 11/27/19 10:10

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methylene Blue Active Substances	0.20	U N	0.20	0.10	mg/l LAS MW 340	—		11/28/19 07:58	1
Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total Unspecified Organics	1.18		0.00900	0.00900	1/cm	—		11/27/19 17:35	1

QC Sample Results

Client: New York State D.E.C.
Project/Site: DEC - Fort Edward Landfill Site:558001

Job ID: 680-177473-1

Method: 425.1-1971 - Methylene Blue Active Substances

Lab Sample ID: MB 680-598418/3

Matrix: Water

Analysis Batch: 598418

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methylene Blue Active Substances	0.20	U	0.20	0.10	mg/l LAS MW 340			11/28/19 07:54	1

Lab Sample ID: LCS 680-598418/4

Matrix: Water

Analysis Batch: 598418

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Methylene Blue Active Substances	0.500	0.556		mg/l LAS MW 340		111	70 - 130

Lab Sample ID: LCSD 680-598418/5

Matrix: Water

Analysis Batch: 598418

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Methylene Blue Active Substances	0.500	0.577		mg/l LAS MW 340		115	70 - 130	4	15

Method: SM 5910B - Organic Constituents, UV-Absorbing

Lab Sample ID: MB 680-598397/2

Matrix: Water

Analysis Batch: 598397

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total Unspecified Organics	0.00900	U	0.00900	0.00900	1/cm			11/27/19 17:33	1

Lab Sample ID: LCS 680-598397/3

Matrix: Water

Analysis Batch: 598397

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Unspecified Organics	0.144	0.148		1/cm		103	80 - 120

QC Association Summary

Client: New York State D.E.C.
Project/Site: DEC - Fort Edward Landfill Site:558001

Job ID: 680-177473-1

General Chemistry

Analysis Batch: 598397

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-177473-1	INFLUENT-20191126	Total/NA	Water	SM 5910B	
680-177473-2	CCT-20191126	Total/NA	Water	SM 5910B	
MB 680-598397/2	Method Blank	Total/NA	Water	SM 5910B	
LCS 680-598397/3	Lab Control Sample	Total/NA	Water	SM 5910B	

Analysis Batch: 598418

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-177473-1	INFLUENT-20191126	Total/NA	Water	425.1-1971	
680-177473-2	CCT-20191126	Total/NA	Water	425.1-1971	
MB 680-598418/3	Method Blank	Total/NA	Water	425.1-1971	
LCS 680-598418/4	Lab Control Sample	Total/NA	Water	425.1-1971	
LCSD 680-598418/5	Lab Control Sample Dup	Total/NA	Water	425.1-1971	

Lab Chronicle

Client: New York State D.E.C.
Project/Site: DEC - Fort Edward Landfill Site:558001

Job ID: 680-177473-1

Client Sample ID: INFLUENT-20191126

Lab Sample ID: 680-177473-1

Date Collected: 11/26/19 08:30

Matrix: Water

Date Received: 11/27/19 10:10

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	425.1-1971		1	100 mL	100 mL	598418	11/28/19 07:57	WRB	TAL SAV
		Instrument ID: SPC6								
Total/NA	Analysis	SM 5910B		1			598397	11/27/19 17:35	JLD	TAL SAV
		Instrument ID: SPC8								

Client Sample ID: CCT-20191126

Lab Sample ID: 680-177473-2

Date Collected: 11/26/19 08:40

Matrix: Water

Date Received: 11/27/19 10:10

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	425.1-1971		1	100 mL	100 mL	598418	11/28/19 07:58	WRB	TAL SAV
		Instrument ID: SPC6								
Total/NA	Analysis	SM 5910B		1			598397	11/27/19 17:35	JLD	TAL SAV
		Instrument ID: SPC8								

Laboratory References:

TAL SAV = Eurofins TestAmerica, Savannah, 5102 LaRoche Avenue, Savannah, GA 31404, TEL (912)354-7858

Accreditation/Certification Summary

Client: New York State D.E.C.
Project/Site: DEC - Fort Edward Landfill Site:558001

Job ID: 680-177473-1

Laboratory: Eurofins TestAmerica, Savannah

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
	AFCEE	SAVLAB	
Alabama	State	41450	06-30-20
Alaska	State	GA00006	06-30-20
Alaska (UST)	State	17-016	09-30-20
ANAB	Dept. of Defense ELAP	L2463	09-22-22
ANAB	ISO/IEC 17025	L2463.01	09-22-22
Arizona	State	AZ0808	12-14-19
Arkansas DEQ	State	19-015-0	02-01-20
California	State	2939	06-30-20
Colorado	State	GA00006	12-31-19
Connecticut	State	PH-0161	03-31-21
Florida	NELAP	E87052	06-30-20
GA Dept. of Agriculture	State Program	N/A	06-12-20
Georgia	State	E87052	06-30-20
Georgia (DW)	State	803	06-30-20
Guam	State	19-007R	04-17-20
Hawaii	State	<cert No.>	06-30-20
Illinois	NELAP	004547	11-27-20
Indiana	State	C-GA-02	06-30-20
Iowa	State	353	09-22-20
Kansas	NELAP	E-10322	10-15-20
Kentucky (DW)	State	KY90084	12-31-19
Kentucky (UST)	State	<cert No.>	06-30-20
Kentucky (WW)	State	KY90084	12-31-19
Louisiana	NELAP	02011	06-30-20
Louisiana (DW)	State	LA009	12-31-19
Maine	State	GA00006	09-26-20
Maryland	State	250	12-31-19
Massachusetts	State	M-GA006	06-30-20
Michigan	State	9925	06-30-20
Mississippi	State	<cert No.>	06-30-20
Nebraska	State	NE-OS-7-04	06-30-20
New Hampshire	NELAP	2096	05-29-20
New Jersey	NELAP	GA769	06-30-20
New Mexico	State	GA00006	06-30-20
New York	NELAP	10842	04-01-20
North Carolina (DW)	State	13701	07-31-20
North Carolina (WW/SW)	State	269	12-31-19
Oklahoma	State	9984	08-31-20
Pennsylvania	NELAP	68-00474	06-30-20
Puerto Rico	State	GA00006	01-01-20
South Carolina	State	98001	06-30-20
Tennessee	State	02961	06-30-20
Texas	NELAP	T1047004185-19-14	11-30-19
Texas	TCEQ Water Supply	T104704185	09-23-20
US Fish & Wildlife	US Federal Programs	LE058448-0	07-31-20
USDA	US Federal Programs	P330-18-00313	10-29-21
Virginia	NELAP	10509	06-14-20
Washington	State	C805	06-10-20
West Virginia (DW)	State	9950C	12-31-19

Eurofins TestAmerica, Savannah

Accreditation/Certification Summary

Client: New York State D.E.C.
Project/Site: DEC - Fort Edward Landfill Site:558001

Job ID: 680-177473-1

Laboratory: Eurofins TestAmerica, Savannah (Continued)

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
West Virginia DEP	State	094	11-30-19
Wisconsin	State	999819810	08-31-20
Wyoming	State	8TMS-L	06-30-20 *

Laboratory: Eurofins TestAmerica, Edison

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Connecticut	State	PH-0200	09-30-20
DE Haz. Subst. Cleanup Act (HSCA)	State	<cert No.>	12-31-21
Georgia	State	12028 (NJ)	06-30-20
Massachusetts	State Program	M-NJ312	06-30-20
New Jersey	NELAP	12028	06-30-20
New York	NELAP	11452	04-01-20
Pennsylvania	NELAP	68-00522	02-28-20
Rhode Island	State	LAO00132	12-30-19
USDA	US Federal Programs	P330-18-00135	05-03-21

* Accreditation/Certification renewal pending - accreditation/certification considered valid.

Eurofins TestAmerica, Savannah

Method Summary

Client: New York State D.E.C.

Job ID: 680-177473-1

Project/Site: DEC - Fort Edward Landfill Site:558001

Method	Method Description	Protocol	Laboratory
425.1-1971	Methylene Blue Active Substances	EPA	TAL SAV
SM 5910B	Organic Constituents, UV-Absorbing	SM	TAL SAV

Protocol References:

EPA = US Environmental Protection Agency

SM = "Standard Methods For The Examination Of Water And Wastewater"

Laboratory References:

TAL SAV = Eurofins TestAmerica, Savannah, 5102 LaRoche Avenue, Savannah, GA 31404, TEL (912)354-7858

Chain of Custody Record



Client Information Client Contact: Jasmine Mullins Company: ARCADIS U.S. Inc. Address: 855 Route 146 Suite 210 City: Clifton Park State, Zip: NY, 12065 Phone: 518-402-9625(Tel) Email: jasmine.mullins@arcadis.com Project Name: DEC - Fort Edward Landfill Site: 558001 Site: FORT EDWARD LANDFILL		Supplier: Jasmine Mullins Lab PM: Gilmore, Julie L. E-Mail: julie.gilmore@testamericainc.com Due Date Requested: <u>STANDARD</u> TAT Requested (days): PO #: 518-402-9625(Tel) Callout: 137562 Site: 558001 WO #: Project #: 46030964 SSOW#:	Carrier Tracking Note(s): GOC No: 460-121488-78318.1 Page: Page 1 of 1 Job #:
Analysis Requested Perform MS/MSD (Yes or No) ☒ N 59108 - Organic Constituents, UV-Absorbing 425.1 - Methylene Blue Active Substances (MBAS)		Preservation Codes: A - HCL B - NaOH C - Zn Acetate D - Nitric Acid E - NaHSO4 F - MeOH G - Amchlor H - Ascorbic Acid I - Ice J - DI Water K - EDTA L - EDA M - Hexane N - None O - AsNaO2 P - Na2O4S Q - Na2SO3 R - Na2SO3 S - H2SO4 T - TSP Dodecahydrate U - Acetone V - MCAA W - pH 4.5 Z - other (specify) Other:	
Sample Identification INFUGENT-20191126 CCT-20191126		Total Number of Containers: ☒ N Note:	
Sample Date: 11/26/2019 0830 Sample Time: 11/26/2019 0840 Sample Type (C=Comp, G=grab): G Matrix (Water, Solid, Other): Water	Sample Date: 11/26/2019 0830 Sample Time: 11/26/2019 0840 Sample Type (C=Comp, G=grab): G Matrix (Water, Solid, Other): Water	680-177473 Chain of Custody	
Possible Hazard Identification ☒ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological		Sample Disposal (A fee may be assessed if samples are retained longer than 1 month) ☐ Return To Client ☒ Disposal By Lab ☐ Archive For _____ Months	
Deliverable Requested: I, II, III, IV, Other (specify) CATEGORY A - NYDEC EQUIS		Special Instructions/QC Requirements:	
Empty Kit Relinquished by:		Method of Shipment:	
Relinquished by: <u>Jasmine Mullins</u> Relinquished by:		Received by: <u>ARCADIS</u> Company: ARCADIS Date/Time: 11/26/2019 1035	
Relinquished by:		Received by: <u>P.S.</u> Company: <u>ARCADIS</u> Date/Time: 11/27/2019 1010	
Relinquished by:		Received by: <u>P.S.</u> Company: <u>ARCADIS</u> Date/Time: 11/27/2019 1010	
Custody Seals Intact: Δ Yes Δ No		Custody Seal No.: 27/28	

Login Sample Receipt Checklist

Client: New York State D.E.C.

Job Number: 680-177473-1

Login Number: 177473

List Source: Eurofins TestAmerica, Savannah

List Number: 1

Creator: Laughlin, Paul D

Question	Answer	Comment
Radioactivity wasn't checked or is $\leq$ background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	N/A	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is $<6\text{mm}$ (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

ANALYTICAL REPORT

Eurofins TestAmerica, Edison
777 New Durham Road
Edison, NJ 08817
Tel: (732)549-3900

Laboratory Job ID: 460-196154-1

Client Project/Site: DEC - Fort Edward Landfill Site:558001

For:

New York State D.E.C.
625 Broadway
11th Floor
Albany, New York 12233-3256

Attn: Mr. Payson Long



Authorized for release by:
1/13/2020 10:25:07 AM

Julie Gilmore, Project Manager I
(484)685-0865
julie.gilmore@testamericainc.com

LINKS

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results through
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www.testamericainc.com

The test results in this report meet all 2003 NELAC and 2009 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

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Definitions/Glossary

Client: New York State D.E.C.
Project/Site: DEC - Fort Edward Landfill Site:558001

Job ID: 460-196154-1

Qualifiers

GC/MS VOA

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

GC Semi VOA

Qualifier	Qualifier Description
U	Analyzed for but not detected.

LCMS

Qualifier	Qualifier Description
B	The analyte was found in an associated blank, as well as in the sample.
J	Indicates an estimated value.
U	Analyzed for but not detected.

Metals

Qualifier	Qualifier Description
J	Sample result is greater than the MDL but below the CRDL
U	Indicates analyzed for but not detected.

Glossary

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

Case Narrative

Client: New York State D.E.C.
Project/Site: DEC - Fort Edward Landfill Site:558001

Job ID: 460-196154-1

Job ID: 460-196154-1

Laboratory: Eurofins TestAmerica, Edison

Narrative

CASE NARRATIVE

Client: New York State D.E.C.

Project: DEC - Fort Edward Landfill Site:558001

Report Number: 460-196154-1

This case narrative is in the form of an exception report, where only the anomalies related to this report, method specific performance and/or QA/QC issues are discussed. If there are no issues to report, this narrative will include a statement that documents that there are no relevant data issues.

It should be noted that samples with elevated Reporting Limits (RLs) as a result of a dilution may not be able to satisfy customer reporting limits in some cases. Such increases in the RLs are unavoidable but acceptable consequence of sample dilution that enables quantification of target analytes or interferences which exceed the calibration range of the instrument.

Calculations are performed before rounding to avoid round-off errors in calculated results.

All holding times were met and proper preservation noted for the methods performed on these samples, unless otherwise detailed in the individual sections below.

RECEIPT

The samples were received on 11/07/2019; the samples arrived in good condition, properly preserved and on ice. The temperature of the coolers at receipt was 1.6 C.

Note: All samples which require thermal preservation are considered acceptable if the arrival temperature is within 2C of the required temperature or method specified range. For samples with a specified temperature of 4C, samples with a temperature ranging from just above freezing temperature of water to 6C shall be acceptable. Samples that are hand delivered immediately following collection may not meet these criteria, however they will be deemed acceptable according to NELAC standards, if there is evidence that the chilling process has begun, such as arrival on ice, etc.

VOLATILE ORGANIC COMPOUNDS (GC-MS)

Samples INFLUENT-20191106 (460-196154-1), CCT-20191106 (460-196154-2), DECANT TANK-20191106 (460-196154-3) and TRIPBLANK-20191106 (460-196154-5) were analyzed for Volatile organic compounds (GC-MS) in accordance with EPA SW-846 Methods 8260C. The samples were analyzed on 11/16/2019 and 11/18/2019.

The continuing calibration verification (CCV) analyzed in batch 460-655890 was outside the method criteria for the following analyte(s): 1,1,2,2-Tetrachloroethane (biased low); Chloroethane, Chloromethane, 1,1,2-Trichloro-1,2,2-trifluoroethane, 1,1-Dichloroethene, Bromomethane, Dichlorodifluoromethane and Trichlorofluoromethane (biased high). A CCV standard at or below the reporting limit (RL) was analyzed with the affected samples and found to be acceptable. As indicated in the reference method, sample analysis may proceed; however, any detection for the affected analyte(s) is considered estimated.

The laboratory control sample (LCS) and / or laboratory control sample duplicate (LCSD) for analytical batch 460-655890 recovered outside control limits for the following analytes: Bromomethane, Chloroethane and Dichlorodifluoromethane. These analytes were biased high in the LCS/LCSD and were not detected in the associated samples; therefore, the data have been reported.

Bromomethane, Chloroethane and Dichlorodifluoromethane failed the recovery criteria high for LCS 460-655890/4. Bromomethane and Chloroethane failed the recovery criteria high for LCSD 460-655890/5. Refer to the QC report for details.

No other difficulties were encountered during the volatiles analysis.

All other quality control parameters were within the acceptance limits.

Case Narrative

Client: New York State D.E.C.
Project/Site: DEC - Fort Edward Landfill Site:558001

Job ID: 460-196154-1

Job ID: 460-196154-1 (Continued)

Laboratory: Eurofins TestAmerica, Edison (Continued)

POLYCHLORINATED BIPHENYLS (PCBS)

Samples INFLUENT-20191106 (460-196154-1), CCT-20191106 (460-196154-2) and DECANT TANK-20191106 (460-196154-3) were analyzed for polychlorinated biphenyls (PCBs) in accordance with EPA SW-846 Method 8082A. The samples were prepared on 11/11/2019 and analyzed on 11/12/2019.

The following samples were diluted to bring the concentration of target analytes within the calibration range: CCT-20191106 (460-196154-2) and DECANT TANK-20191106 (460-196154-3) at 2.0, 2.0, 10.0 and 10.0. Elevated reporting limits (RLs) are provided.

Samples CCT-20191106 (460-196154-2)[2X] and DECANT TANK-20191106 (460-196154-3)[10X] required dilution prior to analysis. The reporting limits have been adjusted accordingly.

No difficulties were encountered during the PCBs analysis.

All quality control parameters were within the acceptance limits.

PERFLUORINATED HYDROCARBONS (PFC)

Samples INFLUENT-20191106 (460-196154-1), CCT-20191106 (460-196154-2), DECANT TANK-20191106 (460-196154-3) and DUP-1-20191106 (460-196154-4) were analyzed for Perfluorinated Hydrocarbons (PFC) in accordance with PFC. The samples were prepared on 11/16/2019 and analyzed on 11/18/2019.

Perfluoroundecanoic acid (PFUnA) in the following continuing calibration verification (CCVL) outside ion ratio criteria. There is no impact to the data since Perfluoroundecanoic acid (PFUnA) is within control limits for the percent difference and the associated continuing calibration verification (CCV) is within control limits.

Due to a shortage in the marketplace for 13C3-PFBS, the target analytes Perfluorobutanesulfonic acid (PFBS) and/or Perfluoropentanesulfonic acid (PFPeS) could not be quantitated against 13C3-PFBS (its labeled variant) as listed in the SOP. PFBS and PFPeS were quantitated versus 18O2-PFHxS instead. (ICV 320-337024/12)

Perfluorohexanesulfonic acid (PFHxS) and Perfluorononanoic acid (PFNA) were detected in method blank MB 320-339119/1-A at levels that were above the method detection limit but below the reporting limit. The values should be considered estimates, and have been flagged. If the associated sample reported a result above the MDL and/or RL, the result has been flagged. Refer to the QC report for details.

No other difficulties were encountered during the Perfluorinated Hydrocarbons (PFC) analysis.

All other quality control parameters were within the acceptance limits.

METALS

Samples INFLUENT-20191106 (460-196154-1), CCT-20191106 (460-196154-2) and DECANT TANK-20191106 (460-196154-3) were analyzed for Metals in accordance with 6010D. The samples were prepared and analyzed on 11/16/2019.

For the duplicate of sample 460-196258-1. Refer to the QC report for details.

No other difficulties were encountered during the Metals analysis.

All other quality control parameters were within the acceptance limits.

TOTAL MERCURY

Samples INFLUENT-20191106 (460-196154-1), CCT-20191106 (460-196154-2) and DECANT TANK-20191106 (460-196154-3) were analyzed for total mercury in accordance with EPA SW-846 Methods 7470A. The samples were prepared and analyzed on 11/19/2019 and 11/20/2019.

No difficulties were encountered during the Hg analysis.

All quality control parameters were within the acceptance limits.

Case Narrative

Client: New York State D.E.C.
Project/Site: DEC - Fort Edward Landfill Site:558001

Job ID: 460-196154-1

Job ID: 460-196154-1 (Continued)

Laboratory: Eurofins TestAmerica, Edison (Continued)

ORGANIC PREP

Method 3535: Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate (MS/MSD) associated with preparation batch 320-339119.

Method 3535: The following samples were observed to contain sediment prior to extraction: INFLUENT-20191106 (460-196154-1), CCT-20191106 (460-196154-2), DECANT TANK-20191106 (460-196154-3) and DUP-1-20191106 (460-196154-4).

Method 3535: The following samples contain non-settleable particulate matter which clogged the solid-phase extraction column: CCT-20191106 (460-196154-2) and DECANT TANK-20191106 (460-196154-3).

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

SUBCONTRACT WORK

Methods Auto_TOPS_Post, Auto_TOPS_Pre, TOPS_Post_Prep, TOPS_Pre_Prep, Total_PFCA_Diff: These methods were subcontracted to ALS Laboratory Group. The subcontract laboratory certifications are different from that of the facility issuing the final report.

Detection Summary

Client: New York State D.E.C.
Project/Site: DEC - Fort Edward Landfill Site:558001

Job ID: 460-196154-1

Client Sample ID: INFLUENT-20191106

Lab Sample ID: 460-196154-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloroform	2.4		1.0	0.33	ug/L	1		8260C	Total/NA
Chloromethane	0.41	J	1.0	0.40	ug/L	1		8260C	Total/NA
cis-1,2-Dichloroethene	1.9		1.0	0.22	ug/L	1		8260C	Total/NA
Dichlorobromomethane	0.71	J	1.0	0.34	ug/L	1		8260C	Total/NA
Vinyl chloride	0.96	J	1.0	0.17	ug/L	1		8260C	Total/NA
Aroclor 1232	4.5		0.40	0.12	ug/L	1		8082A	Total/NA
Polychlorinated biphenyls, Total	4.5		0.40	0.12	ug/L	1		8082A	Total/NA
Perfluorohexanoic acid (PFHxA)	23.3		1.97	0.57	ng/L	1		537 (modified)	Total/NA
Perfluoroheptanoic acid (PFHpA)	7.62		1.97	0.25	ng/L	1		537 (modified)	Total/NA
Perfluorooctanoic acid (PFOA)	24.2		1.97	0.84	ng/L	1		537 (modified)	Total/NA
Perfluorobutanesulfonic acid (PFBS)	1.34	J	1.97	0.20	ng/L	1		537 (modified)	Total/NA
Perfluorohexanesulfonic acid (PFHxS)	2.33	B	1.97	0.17	ng/L	1		537 (modified)	Total/NA
Perfluorooctanesulfonic acid (PFOS)	5.86		1.97	0.53	ng/L	1		537 (modified)	Total/NA
Barium	45.4	J	200	7.7	ug/L	1		6010D	Total/NA
Calcium	83600		5000	222	ug/L	1		6010D	Total/NA
Cobalt	2.5	J	50.0	1.7	ug/L	1		6010D	Total/NA
Chromium	2.4	J	10.0	1.3	ug/L	1		6010D	Total/NA
Iron	9770		150	34.2	ug/L	1		6010D	Total/NA
Potassium	3450	J	5000	323	ug/L	1		6010D	Total/NA
Magnesium	19500		5000	177	ug/L	1		6010D	Total/NA
Manganese	1940		15.0	0.99	ug/L	1		6010D	Total/NA
Sodium	67400		5000	460	ug/L	1		6010D	Total/NA
Nickel	1.9	J	40.0	1.7	ug/L	1		6010D	Total/NA
Thallium	5.5	J	20.0	5.4	ug/L	1		6010D	Total/NA
Zinc	94.9		30.0	3.6	ug/L	1		6010D	Total/NA

Client Sample ID: CCT-20191106

Lab Sample ID: 460-196154-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chlorobenzene	0.58	J	1.0	0.38	ug/L	1		8260C	Total/NA
Chloroform	0.39	J	1.0	0.33	ug/L	1		8260C	Total/NA
cis-1,2-Dichloroethene	6.3		1.0	0.22	ug/L	1		8260C	Total/NA
Toluene	0.43	J	1.0	0.38	ug/L	1		8260C	Total/NA
Vinyl chloride	6.2		1.0	0.17	ug/L	1		8260C	Total/NA
Aroclor 1232	6.4		0.80	0.24	ug/L	2		8082A	Total/NA
Polychlorinated biphenyls, Total	6.4		0.80	0.24	ug/L	2		8082A	Total/NA
Perfluorohexanoic acid (PFHxA)	33.5		1.87	0.54	ng/L	1		537 (modified)	Total/NA
Perfluoroheptanoic acid (PFHpA)	11.3		1.87	0.23	ng/L	1		537 (modified)	Total/NA
Perfluorooctanoic acid (PFOA)	40.4		1.87	0.80	ng/L	1		537 (modified)	Total/NA
Perfluorononanoic acid (PFNA)	0.68	J B	1.87	0.25	ng/L	1		537 (modified)	Total/NA
Perfluorobutanesulfonic acid (PFBS)	1.32	J	1.87	0.19	ng/L	1		537 (modified)	Total/NA
Perfluorohexanesulfonic acid (PFHxS)	2.69	B	1.87	0.16	ng/L	1		537 (modified)	Total/NA
Perfluorooctanesulfonic acid (PFOS)	8.40		1.87	0.51	ng/L	1		537 (modified)	Total/NA
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	3.20	J	18.7	1.78	ng/L	1		537 (modified)	Total/NA
Aluminum	297		200	28.6	ug/L	1		6010D	Total/NA
Barium	46.3	J	200	7.7	ug/L	1		6010D	Total/NA
Calcium	86200		5000	222	ug/L	1		6010D	Total/NA
Cobalt	2.6	J	50.0	1.7	ug/L	1		6010D	Total/NA
Copper	14.1	J	25.0	5.1	ug/L	1		6010D	Total/NA
Iron	4380		150	34.2	ug/L	1		6010D	Total/NA
Potassium	4430	J	5000	323	ug/L	1		6010D	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins TestAmerica, Edison

Detection Summary

Client: New York State D.E.C.
Project/Site: DEC - Fort Edward Landfill Site:558001

Job ID: 460-196154-1

Client Sample ID: CCT-20191106 (Continued)

Lab Sample ID: 460-196154-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Magnesium	20700		5000	177	ug/L	1		6010D	Total/NA
Manganese	1910		15.0	0.99	ug/L	1		6010D	Total/NA
Sodium	54700		5000	460	ug/L	1		6010D	Total/NA
Nickel	49.8		40.0	1.7	ug/L	1		6010D	Total/NA
Lead	3.5	J	10.0	2.5	ug/L	1		6010D	Total/NA
Zinc	43.1		30.0	3.6	ug/L	1		6010D	Total/NA

Client Sample ID: DECANT TANK-20191106

Lab Sample ID: 460-196154-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chlorobenzene	0.45	J	1.0	0.38	ug/L	1		8260C	Total/NA
Chloroform	2.9		1.0	0.33	ug/L	1		8260C	Total/NA
cis-1,2-Dichloroethene	5.4		1.0	0.22	ug/L	1		8260C	Total/NA
Vinyl chloride	5.5		1.0	0.17	ug/L	1		8260C	Total/NA
Aroclor 1232	54		4.0	1.2	ug/L	10		8082A	Total/NA
Polychlorinated biphenyls, Total	54		4.0	1.2	ug/L	10		8082A	Total/NA
Perfluorohexanoic acid (PFHxA)	32.0		1.91	0.55	ng/L	1		537 (modified)	Total/NA
Perfluoroheptanoic acid (PFHpA)	10.5		1.91	0.24	ng/L	1		537 (modified)	Total/NA
Perfluorooctanoic acid (PFOA)	39.5		1.91	0.81	ng/L	1		537 (modified)	Total/NA
Perfluorononanoic acid (PFNA)	0.32	J B	1.91	0.26	ng/L	1		537 (modified)	Total/NA
Perfluorohexanesulfonic acid (PFHxS)	2.93	B	1.91	0.16	ng/L	1		537 (modified)	Total/NA
Perfluorooctanesulfonic acid (PFOS)	8.12		1.91	0.52	ng/L	1		537 (modified)	Total/NA
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	6.89	J	19.1	1.81	ng/L	1		537 (modified)	Total/NA
Aluminum	5400		200	28.6	ug/L	1		6010D	Total/NA
Arsenic	9.6	J	15.0	2.7	ug/L	1		6010D	Total/NA
Barium	92.4	J	200	7.7	ug/L	1		6010D	Total/NA
Calcium	90200		5000	222	ug/L	1		6010D	Total/NA
Cobalt	2.4	J	50.0	1.7	ug/L	1		6010D	Total/NA
Chromium	2.8	J	10.0	1.3	ug/L	1		6010D	Total/NA
Iron	58600		150	34.2	ug/L	1		6010D	Total/NA
Potassium	4380	J	5000	323	ug/L	1		6010D	Total/NA
Magnesium	20300		5000	177	ug/L	1		6010D	Total/NA
Manganese	2120		15.0	0.99	ug/L	1		6010D	Total/NA
Sodium	57400		5000	460	ug/L	1		6010D	Total/NA
Nickel	3.3	J	40.0	1.7	ug/L	1		6010D	Total/NA
Lead	8.8	J	10.0	2.5	ug/L	1		6010D	Total/NA
Thallium	7.0	J	20.0	5.4	ug/L	1		6010D	Total/NA
Zinc	9.3	J	30.0	3.6	ug/L	1		6010D	Total/NA

Client Sample ID: DUP-1-20191106

Lab Sample ID: 460-196154-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluorohexanoic acid (PFHxA)	32.4		1.87	0.54	ng/L	1		537 (modified)	Total/NA
Perfluoroheptanoic acid (PFHpA)	10.4		1.87	0.23	ng/L	1		537 (modified)	Total/NA
Perfluorooctanoic acid (PFOA)	40.8		1.87	0.79	ng/L	1		537 (modified)	Total/NA
Perfluorobutanesulfonic acid (PFBS)	1.25	J	1.87	0.19	ng/L	1		537 (modified)	Total/NA
Perfluorohexanesulfonic acid (PFHxS)	3.02	B	1.87	0.16	ng/L	1		537 (modified)	Total/NA
Perfluorooctanesulfonic acid (PFOS)	6.70		1.87	0.50	ng/L	1		537 (modified)	Total/NA

Client Sample ID: TRIPBLANK-20191106

Lab Sample ID: 460-196154-5

No Detections.

This Detection Summary does not include radiochemical test results.

Eurofins TestAmerica, Edison

Client Sample Results

Client: New York State D.E.C.
Project/Site: DEC - Fort Edward Landfill Site:558001

Job ID: 460-196154-1

Client Sample ID: INFLUENT-20191106

Lab Sample ID: 460-196154-1

Date Collected: 11/06/19 07:35

Matrix: Water

Date Received: 11/07/19 17:00

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	1.0	U	1.0	0.24	ug/L			11/18/19 11:31	1
1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.37	ug/L			11/18/19 11:31	1
1,1,2-Trichloro-1,2,2-trifluoroethane	1.0	U	1.0	0.31	ug/L			11/18/19 11:31	1
1,1,2-Trichloroethane	1.0	U	1.0	0.43	ug/L			11/18/19 11:31	1
1,1-Dichloroethane	1.0	U	1.0	0.26	ug/L			11/18/19 11:31	1
1,1-Dichloroethene	1.0	U	1.0	0.26	ug/L			11/18/19 11:31	1
1,2,4-Trichlorobenzene	1.0	U	1.0	0.37	ug/L			11/18/19 11:31	1
1,2-Dibromo-3-Chloropropane	1.0	U	1.0	0.38	ug/L			11/18/19 11:31	1
1,2-Dichlorobenzene	1.0	U	1.0	0.43	ug/L			11/18/19 11:31	1
1,2-Dichloroethane	1.0	U	1.0	0.43	ug/L			11/18/19 11:31	1
1,2-Dichloropropane	1.0	U	1.0	0.35	ug/L			11/18/19 11:31	1
1,3-Dichlorobenzene	1.0	U	1.0	0.34	ug/L			11/18/19 11:31	1
1,4-Dichlorobenzene	1.0	U	1.0	0.33	ug/L			11/18/19 11:31	1
2-Butanone (MEK)	5.0	U	5.0	1.9	ug/L			11/18/19 11:31	1
2-Hexanone	5.0	U	5.0	1.1	ug/L			11/18/19 11:31	1
4-Methyl-2-pentanone (MIBK)	5.0	U	5.0	1.3	ug/L			11/18/19 11:31	1
Acetone	5.0	U	5.0	4.4	ug/L			11/18/19 11:31	1
Benzene	1.0	U	1.0	0.20	ug/L			11/18/19 11:31	1
Bromoform	1.0	U	1.0	0.54	ug/L			11/18/19 11:31	1
Bromomethane	1.0	U	1.0	0.55	ug/L			11/18/19 11:31	1
Carbon disulfide	1.0	U	1.0	0.82	ug/L			11/18/19 11:31	1
Carbon tetrachloride	1.0	U	1.0	0.21	ug/L			11/18/19 11:31	1
Chlorobenzene	1.0	U	1.0	0.38	ug/L			11/18/19 11:31	1
Chlorodibromomethane	1.0	U	1.0	0.28	ug/L			11/18/19 11:31	1
Chloroethane	1.0	U	1.0	0.32	ug/L			11/18/19 11:31	1
Chloroform	2.4		1.0	0.33	ug/L			11/18/19 11:31	1
Chloromethane	0.41	J	1.0	0.40	ug/L			11/18/19 11:31	1
cis-1,2-Dichloroethene	1.9		1.0	0.22	ug/L			11/18/19 11:31	1
cis-1,3-Dichloropropene	1.0	U	1.0	0.22	ug/L			11/18/19 11:31	1
Cyclohexane	1.0	U	1.0	0.32	ug/L			11/18/19 11:31	1
Dichlorobromomethane	0.71	J	1.0	0.34	ug/L			11/18/19 11:31	1
Dichlorodifluoromethane	1.0	U	1.0	0.31	ug/L			11/18/19 11:31	1
Ethylbenzene	1.0	U	1.0	0.30	ug/L			11/18/19 11:31	1
Ethylene Dibromide	1.0	U	1.0	0.50	ug/L			11/18/19 11:31	1
Isopropylbenzene	1.0	U	1.0	0.34	ug/L			11/18/19 11:31	1
Methyl acetate	5.0	U	5.0	0.79	ug/L			11/18/19 11:31	1
Methyl tert-butyl ether	1.0	U	1.0	0.47	ug/L			11/18/19 11:31	1
Methylcyclohexane	1.0	U	1.0	0.26	ug/L			11/18/19 11:31	1
Methylene Chloride	1.0	U	1.0	0.32	ug/L			11/18/19 11:31	1
Styrene	1.0	U	1.0	0.42	ug/L			11/18/19 11:31	1
Tetrachloroethene	1.0	U	1.0	0.25	ug/L			11/18/19 11:31	1
Toluene	1.0	U	1.0	0.38	ug/L			11/18/19 11:31	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.24	ug/L			11/18/19 11:31	1
trans-1,3-Dichloropropene	1.0	U	1.0	0.49	ug/L			11/18/19 11:31	1
Trichloroethene	1.0	U	1.0	0.31	ug/L			11/18/19 11:31	1
Trichlorofluoromethane	1.0	U	1.0	0.32	ug/L			11/18/19 11:31	1
Vinyl chloride	0.96	J	1.0	0.17	ug/L			11/18/19 11:31	1
Xylenes, Total	2.0	U	2.0	0.65	ug/L			11/18/19 11:31	1

Eurofins TestAmerica, Edison

Client Sample Results

Client: New York State D.E.C.
Project/Site: DEC - Fort Edward Landfill Site:558001

Job ID: 460-196154-1

Client Sample ID: INFLUENT-20191106

Lab Sample ID: 460-196154-1

Date Collected: 11/06/19 07:35

Matrix: Water

Date Received: 11/07/19 17:00

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	96		74 - 132		11/18/19 11:31	1
4-Bromofluorobenzene	95		77 - 124		11/18/19 11:31	1
Dibromofluoromethane (Surr)	92		72 - 131		11/18/19 11:31	1
Toluene-d8 (Surr)	102		80 - 120		11/18/19 11:31	1

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	0.40	U	0.40	0.12	ug/L		11/11/19 17:05	11/12/19 13:02	1
Aroclor 1221	0.40	U	0.40	0.12	ug/L		11/11/19 17:05	11/12/19 13:02	1
Aroclor 1232	4.5		0.40	0.12	ug/L		11/11/19 17:05	11/12/19 13:02	1
Aroclor 1242	0.40	U	0.40	0.12	ug/L		11/11/19 17:05	11/12/19 13:02	1
Aroclor 1248	0.40	U	0.40	0.12	ug/L		11/11/19 17:05	11/12/19 13:02	1
Aroclor 1254	0.40	U	0.40	0.11	ug/L		11/11/19 17:05	11/12/19 13:02	1
Aroclor 1260	0.40	U	0.40	0.11	ug/L		11/11/19 17:05	11/12/19 13:02	1
Aroclor-1262	0.40	U	0.40	0.11	ug/L		11/11/19 17:05	11/12/19 13:02	1
Aroclor 1268	0.40	U	0.40	0.11	ug/L		11/11/19 17:05	11/12/19 13:02	1
Polychlorinated biphenyls, Total	4.5		0.40	0.12	ug/L		11/11/19 17:05	11/12/19 13:02	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	73		10 - 150	11/11/19 17:05	11/12/19 13:02	1
DCB Decachlorobiphenyl	67		10 - 150	11/11/19 17:05	11/12/19 13:02	1

Method: 537 (modified) - Fluorinated Alkyl Substances

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorohexanoic acid (PFHxA)	23.3		1.97	0.57	ng/L		11/16/19 07:46	11/18/19 22:37	1
Perfluoroheptanoic acid (PFHpA)	7.62		1.97	0.25	ng/L		11/16/19 07:46	11/18/19 22:37	1
Perfluorooctanoic acid (PFOA)	24.2		1.97	0.84	ng/L		11/16/19 07:46	11/18/19 22:37	1
Perfluorononanoic acid (PFNA)	1.97	U	1.97	0.27	ng/L		11/16/19 07:46	11/18/19 22:37	1
Perfluorodecanoic acid (PFDA)	1.97	U	1.97	0.31	ng/L		11/16/19 07:46	11/18/19 22:37	1
Perfluoroundecanoic acid (PFUnA)	1.97	U	1.97	1.08	ng/L		11/16/19 07:46	11/18/19 22:37	1
Perfluorododecanoic acid (PFDoA)	1.97	U	1.97	0.54	ng/L		11/16/19 07:46	11/18/19 22:37	1
Perfluorotridecanoic acid (PFTriA)	1.97	U	1.97	1.28	ng/L		11/16/19 07:46	11/18/19 22:37	1
Perfluorotetradecanoic acid (PFTeA)	1.97	U	1.97	0.29	ng/L		11/16/19 07:46	11/18/19 22:37	1
Perfluorobutanesulfonic acid (PFBS)	1.34	J	1.97	0.20	ng/L		11/16/19 07:46	11/18/19 22:37	1
Perfluorohexanesulfonic acid (PFHxS)	2.33	B	1.97	0.17	ng/L		11/16/19 07:46	11/18/19 22:37	1
Perfluorooctanesulfonic acid (PFOS)	5.86		1.97	0.53	ng/L		11/16/19 07:46	11/18/19 22:37	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	19.7	U	19.7	1.87	ng/L		11/16/19 07:46	11/18/19 22:37	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	19.7	U	19.7	3.05	ng/L		11/16/19 07:46	11/18/19 22:37	1
Isotope Dilution	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
13C2 PFHxA	86		25 - 150				11/16/19 07:46	11/18/19 22:37	1
13C4 PFHpA	105		25 - 150				11/16/19 07:46	11/18/19 22:37	1
13C4 PFOA	106		25 - 150				11/16/19 07:46	11/18/19 22:37	1
13C5 PFNA	107		25 - 150				11/16/19 07:46	11/18/19 22:37	1
13C2 PFDA	99		25 - 150				11/16/19 07:46	11/18/19 22:37	1
13C2 PFUnA	95		25 - 150				11/16/19 07:46	11/18/19 22:37	1
13C2 PFDoA	98		25 - 150				11/16/19 07:46	11/18/19 22:37	1
13C2 PFTeDA	98		25 - 150				11/16/19 07:46	11/18/19 22:37	1

Eurofins TestAmerica, Edison

Client Sample Results

Client: New York State D.E.C.
Project/Site: DEC - Fort Edward Landfill Site:558001

Job ID: 460-196154-1

Client Sample ID: INFLUENT-20191106

Lab Sample ID: 460-196154-1

Date Collected: 11/06/19 07:35

Matrix: Water

Date Received: 11/07/19 17:00

Method: 537 (modified) - Fluorinated Alkyl Substances (Continued)

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
18O2 PFHxS	112		25 - 150	11/16/19 07:46	11/18/19 22:37	1
13C4 PFOS	107		25 - 150	11/16/19 07:46	11/18/19 22:37	1
d3-NMeFOSAA	78		25 - 150	11/16/19 07:46	11/18/19 22:37	1
d5-NEtFOSAA	79		25 - 150	11/16/19 07:46	11/18/19 22:37	1

Method: 6010D - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	10.0	U	10.0	1.1	ug/L		11/16/19 00:00	11/16/19 18:01	1
Aluminum	200	U	200	28.6	ug/L		11/16/19 00:00	11/16/19 18:01	1
Arsenic	15.0	U	15.0	2.7	ug/L		11/16/19 00:00	11/16/19 18:01	1
Barium	45.4	J	200	7.7	ug/L		11/16/19 00:00	11/16/19 18:01	1
Beryllium	2.0	U	2.0	0.23	ug/L		11/16/19 00:00	11/16/19 18:01	1
Calcium	83600		5000	222	ug/L		11/16/19 00:00	11/16/19 18:01	1
Cadmium	4.0	U	4.0	0.22	ug/L		11/16/19 00:00	11/16/19 18:01	1
Cobalt	2.5	J	50.0	1.7	ug/L		11/16/19 00:00	11/16/19 18:01	1
Chromium	2.4	J	10.0	1.3	ug/L		11/16/19 00:00	11/16/19 18:01	1
Copper	25.0	U	25.0	5.1	ug/L		11/16/19 00:00	11/16/19 18:01	1
Iron	9770		150	34.2	ug/L		11/16/19 00:00	11/16/19 18:01	1
Potassium	3450	J	5000	323	ug/L		11/16/19 00:00	11/16/19 18:01	1
Magnesium	19500		5000	177	ug/L		11/16/19 00:00	11/16/19 18:01	1
Manganese	1940		15.0	0.99	ug/L		11/16/19 00:00	11/16/19 18:01	1
Sodium	67400		5000	460	ug/L		11/16/19 00:00	11/16/19 18:01	1
Nickel	1.9	J	40.0	1.7	ug/L		11/16/19 00:00	11/16/19 18:01	1
Lead	10.0	U	10.0	2.5	ug/L		11/16/19 00:00	11/16/19 18:01	1
Antimony	20.0	U	20.0	2.9	ug/L		11/16/19 00:00	11/16/19 18:01	1
Selenium	20.0	U	20.0	6.6	ug/L		11/16/19 00:00	11/16/19 18:01	1
Thallium	5.5	J	20.0	5.4	ug/L		11/16/19 00:00	11/16/19 18:01	1
Vanadium	50.0	U	50.0	2.5	ug/L		11/16/19 00:00	11/16/19 18:01	1
Zinc	94.9		30.0	3.6	ug/L		11/16/19 00:00	11/16/19 18:01	1

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.20	U	0.20	0.12	ug/L		11/19/19 03:28	11/19/19 07:57	1

Client Sample ID: CCT-20191106

Lab Sample ID: 460-196154-2

Date Collected: 11/06/19 08:00

Matrix: Water

Date Received: 11/07/19 17:00

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	1.0	U	1.0	0.24	ug/L			11/18/19 11:07	1
1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.37	ug/L			11/18/19 11:07	1
1,1,2-Trichloro-1,2,2-trifluoroethane	1.0	U	1.0	0.31	ug/L			11/18/19 11:07	1
1,1,2-Trichloroethane	1.0	U	1.0	0.43	ug/L			11/18/19 11:07	1
1,1-Dichloroethane	1.0	U	1.0	0.26	ug/L			11/18/19 11:07	1
1,1-Dichloroethene	1.0	U	1.0	0.26	ug/L			11/18/19 11:07	1
1,2,4-Trichlorobenzene	1.0	U	1.0	0.37	ug/L			11/18/19 11:07	1
1,2-Dibromo-3-Chloropropane	1.0	U	1.0	0.38	ug/L			11/18/19 11:07	1
1,2-Dichlorobenzene	1.0	U	1.0	0.43	ug/L			11/18/19 11:07	1
1,2-Dichloroethane	1.0	U	1.0	0.43	ug/L			11/18/19 11:07	1

Eurofins TestAmerica, Edison

Client Sample Results

Client: New York State D.E.C.
Project/Site: DEC - Fort Edward Landfill Site:558001

Job ID: 460-196154-1

Client Sample ID: CCT-20191106

Lab Sample ID: 460-196154-2

Date Collected: 11/06/19 08:00

Matrix: Water

Date Received: 11/07/19 17:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichloropropane	1.0	U	1.0	0.35	ug/L			11/18/19 11:07	1
1,3-Dichlorobenzene	1.0	U	1.0	0.34	ug/L			11/18/19 11:07	1
1,4-Dichlorobenzene	1.0	U	1.0	0.33	ug/L			11/18/19 11:07	1
2-Butanone (MEK)	5.0	U	5.0	1.9	ug/L			11/18/19 11:07	1
2-Hexanone	5.0	U	5.0	1.1	ug/L			11/18/19 11:07	1
4-Methyl-2-pentanone (MIBK)	5.0	U	5.0	1.3	ug/L			11/18/19 11:07	1
Acetone	5.0	U	5.0	4.4	ug/L			11/18/19 11:07	1
Benzene	1.0	U	1.0	0.20	ug/L			11/18/19 11:07	1
Bromoform	1.0	U	1.0	0.54	ug/L			11/18/19 11:07	1
Bromomethane	1.0	U	1.0	0.55	ug/L			11/18/19 11:07	1
Carbon disulfide	1.0	U	1.0	0.82	ug/L			11/18/19 11:07	1
Carbon tetrachloride	1.0	U	1.0	0.21	ug/L			11/18/19 11:07	1
Chlorobenzene	0.58	J	1.0	0.38	ug/L			11/18/19 11:07	1
Chlorodibromomethane	1.0	U	1.0	0.28	ug/L			11/18/19 11:07	1
Chloroethane	1.0	U	1.0	0.32	ug/L			11/18/19 11:07	1
Chloroform	0.39	J	1.0	0.33	ug/L			11/18/19 11:07	1
Chloromethane	1.0	U	1.0	0.40	ug/L			11/18/19 11:07	1
cis-1,2-Dichloroethene	6.3		1.0	0.22	ug/L			11/18/19 11:07	1
cis-1,3-Dichloropropene	1.0	U	1.0	0.22	ug/L			11/18/19 11:07	1
Cyclohexane	1.0	U	1.0	0.32	ug/L			11/18/19 11:07	1
Dichlorobromomethane	1.0	U	1.0	0.34	ug/L			11/18/19 11:07	1
Dichlorodifluoromethane	1.0	U	1.0	0.31	ug/L			11/18/19 11:07	1
Ethylbenzene	1.0	U	1.0	0.30	ug/L			11/18/19 11:07	1
Ethylene Dibromide	1.0	U	1.0	0.50	ug/L			11/18/19 11:07	1
Isopropylbenzene	1.0	U	1.0	0.34	ug/L			11/18/19 11:07	1
Methyl acetate	5.0	U	5.0	0.79	ug/L			11/18/19 11:07	1
Methyl tert-butyl ether	1.0	U	1.0	0.47	ug/L			11/18/19 11:07	1
Methylcyclohexane	1.0	U	1.0	0.26	ug/L			11/18/19 11:07	1
Methylene Chloride	1.0	U	1.0	0.32	ug/L			11/18/19 11:07	1
Styrene	1.0	U	1.0	0.42	ug/L			11/18/19 11:07	1
Tetrachloroethene	1.0	U	1.0	0.25	ug/L			11/18/19 11:07	1
Toluene	0.43	J	1.0	0.38	ug/L			11/18/19 11:07	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.24	ug/L			11/18/19 11:07	1
trans-1,3-Dichloropropene	1.0	U	1.0	0.49	ug/L			11/18/19 11:07	1
Trichloroethene	1.0	U	1.0	0.31	ug/L			11/18/19 11:07	1
Trichlorofluoromethane	1.0	U	1.0	0.32	ug/L			11/18/19 11:07	1
Vinyl chloride	6.2		1.0	0.17	ug/L			11/18/19 11:07	1
Xylenes, Total	2.0	U	2.0	0.65	ug/L			11/18/19 11:07	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	95		74 - 132		11/18/19 11:07	1
4-Bromofluorobenzene	94		77 - 124		11/18/19 11:07	1
Dibromofluoromethane (Surr)	90		72 - 131		11/18/19 11:07	1
Toluene-d8 (Surr)	100		80 - 120		11/18/19 11:07	1

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	0.80	U	0.80	0.24	ug/L		11/11/19 17:05	11/12/19 15:06	2
Aroclor 1221	0.80	U	0.80	0.24	ug/L		11/11/19 17:05	11/12/19 15:06	2
Aroclor 1232	6.4		0.80	0.24	ug/L		11/11/19 17:05	11/12/19 15:06	2

Eurofins TestAmerica, Edison

Client Sample Results

Client: New York State D.E.C.
Project/Site: DEC - Fort Edward Landfill Site:558001

Job ID: 460-196154-1

Client Sample ID: CCT-20191106

Lab Sample ID: 460-196154-2

Date Collected: 11/06/19 08:00

Matrix: Water

Date Received: 11/07/19 17:00

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1242	0.80	U	0.80	0.24	ug/L		11/11/19 17:05	11/12/19 15:06	2
Aroclor 1248	0.80	U	0.80	0.24	ug/L		11/11/19 17:05	11/12/19 15:06	2
Aroclor 1254	0.80	U	0.80	0.21	ug/L		11/11/19 17:05	11/12/19 15:06	2
Aroclor 1260	0.80	U	0.80	0.21	ug/L		11/11/19 17:05	11/12/19 15:06	2
Aroclor-1262	0.80	U	0.80	0.21	ug/L		11/11/19 17:05	11/12/19 15:06	2
Aroclor 1268	0.80	U	0.80	0.21	ug/L		11/11/19 17:05	11/12/19 15:06	2
Polychlorinated biphenyls, Total	6.4		0.80	0.24	ug/L		11/11/19 17:05	11/12/19 15:06	2

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	84		10 - 150	11/11/19 17:05	11/12/19 15:06	2
DCB Decachlorobiphenyl	81		10 - 150	11/11/19 17:05	11/12/19 15:06	2

Method: 537 (modified) - Fluorinated Alkyl Substances

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorohexanoic acid (PFHxA)	33.5		1.87	0.54	ng/L		11/16/19 07:46	11/18/19 22:45	1
Perfluoroheptanoic acid (PFHpA)	11.3		1.87	0.23	ng/L		11/16/19 07:46	11/18/19 22:45	1
Perfluorooctanoic acid (PFOA)	40.4		1.87	0.80	ng/L		11/16/19 07:46	11/18/19 22:45	1
Perfluorononanoic acid (PFNA)	0.68	J B	1.87	0.25	ng/L		11/16/19 07:46	11/18/19 22:45	1
Perfluorodecanoic acid (PFDA)	1.87	U	1.87	0.29	ng/L		11/16/19 07:46	11/18/19 22:45	1
Perfluoroundecanoic acid (PFUnA)	1.87	U	1.87	1.03	ng/L		11/16/19 07:46	11/18/19 22:45	1
Perfluorododecanoic acid (PFDoA)	1.87	U	1.87	0.52	ng/L		11/16/19 07:46	11/18/19 22:45	1
Perfluorotridecanoic acid (PFTriA)	1.87	U	1.87	1.22	ng/L		11/16/19 07:46	11/18/19 22:45	1
Perfluorotetradecanoic acid (PFTeA)	1.87	U	1.87	0.27	ng/L		11/16/19 07:46	11/18/19 22:45	1
Perfluorobutanesulfonic acid (PFBS)	1.32	J	1.87	0.19	ng/L		11/16/19 07:46	11/18/19 22:45	1
Perfluorohexanesulfonic acid (PFHxS)	2.69	B	1.87	0.16	ng/L		11/16/19 07:46	11/18/19 22:45	1
Perfluorooctanesulfonic acid (PFOS)	8.40		1.87	0.51	ng/L		11/16/19 07:46	11/18/19 22:45	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	3.20	J	18.7	1.78	ng/L		11/16/19 07:46	11/18/19 22:45	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	18.7	U	18.7	2.91	ng/L		11/16/19 07:46	11/18/19 22:45	1

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C2 PFHxA	80		25 - 150	11/16/19 07:46	11/18/19 22:45	1
13C4 PFHpA	92		25 - 150	11/16/19 07:46	11/18/19 22:45	1
13C4 PFOA	101		25 - 150	11/16/19 07:46	11/18/19 22:45	1
13C5 PFNA	101		25 - 150	11/16/19 07:46	11/18/19 22:45	1
13C2 PFDA	91		25 - 150	11/16/19 07:46	11/18/19 22:45	1
13C2 PFUnA	84		25 - 150	11/16/19 07:46	11/18/19 22:45	1
13C2 PFDoA	78		25 - 150	11/16/19 07:46	11/18/19 22:45	1
13C2 PFTeA	79		25 - 150	11/16/19 07:46	11/18/19 22:45	1
18O2 PFHxS	110		25 - 150	11/16/19 07:46	11/18/19 22:45	1
13C4 PFOS	96		25 - 150	11/16/19 07:46	11/18/19 22:45	1
d3-NMeFOSAA	70		25 - 150	11/16/19 07:46	11/18/19 22:45	1
d5-NEtFOSAA	67		25 - 150	11/16/19 07:46	11/18/19 22:45	1

Method: 6010D - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	10.0	U	10.0	1.1	ug/L		11/16/19 00:00	11/16/19 18:20	1
Aluminum	297		200	28.6	ug/L		11/16/19 00:00	11/16/19 18:20	1

Eurofins TestAmerica, Edison

Client Sample Results

Client: New York State D.E.C.
Project/Site: DEC - Fort Edward Landfill Site:558001

Job ID: 460-196154-1

Client Sample ID: CCT-20191106

Lab Sample ID: 460-196154-2

Date Collected: 11/06/19 08:00

Matrix: Water

Date Received: 11/07/19 17:00

Method: 6010D - Metals (ICP) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	15.0	U	15.0	2.7	ug/L		11/16/19 00:00	11/16/19 18:20	1
Barium	46.3	J	200	7.7	ug/L		11/16/19 00:00	11/16/19 18:20	1
Beryllium	2.0	U	2.0	0.23	ug/L		11/16/19 00:00	11/16/19 18:20	1
Calcium	86200		5000	222	ug/L		11/16/19 00:00	11/16/19 18:20	1
Cadmium	4.0	U	4.0	0.22	ug/L		11/16/19 00:00	11/16/19 18:20	1
Cobalt	2.6	J	50.0	1.7	ug/L		11/16/19 00:00	11/16/19 18:20	1
Chromium	10.0	U	10.0	1.3	ug/L		11/16/19 00:00	11/16/19 18:20	1
Copper	14.1	J	25.0	5.1	ug/L		11/16/19 00:00	11/16/19 18:20	1
Iron	4380		150	34.2	ug/L		11/16/19 00:00	11/16/19 18:20	1
Potassium	4430	J	5000	323	ug/L		11/16/19 00:00	11/16/19 18:20	1
Magnesium	20700		5000	177	ug/L		11/16/19 00:00	11/16/19 18:20	1
Manganese	1910		15.0	0.99	ug/L		11/16/19 00:00	11/16/19 18:20	1
Sodium	54700		5000	460	ug/L		11/16/19 00:00	11/16/19 18:20	1
Nickel	49.8		40.0	1.7	ug/L		11/16/19 00:00	11/16/19 18:20	1
Lead	3.5	J	10.0	2.5	ug/L		11/16/19 00:00	11/16/19 18:20	1
Antimony	20.0	U	20.0	2.9	ug/L		11/16/19 00:00	11/16/19 18:20	1
Selenium	20.0	U	20.0	6.6	ug/L		11/16/19 00:00	11/16/19 18:20	1
Thallium	20.0	U	20.0	5.4	ug/L		11/16/19 00:00	11/16/19 18:20	1
Vanadium	50.0	U	50.0	2.5	ug/L		11/16/19 00:00	11/16/19 18:20	1
Zinc	43.1		30.0	3.6	ug/L		11/16/19 00:00	11/16/19 18:20	1

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.20	U	0.20	0.12	ug/L		11/19/19 03:28	11/19/19 07:59	1

Client Sample ID: DECANT TANK-20191106

Lab Sample ID: 460-196154-3

Date Collected: 11/06/19 07:50

Matrix: Water

Date Received: 11/07/19 17:00

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	1.0	U	1.0	0.24	ug/L			11/18/19 10:43	1
1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.37	ug/L			11/18/19 10:43	1
1,1,2-Trichloro-1,2,2-trifluoroethane	1.0	U	1.0	0.31	ug/L			11/18/19 10:43	1
1,1,2-Trichloroethane	1.0	U	1.0	0.43	ug/L			11/18/19 10:43	1
1,1-Dichloroethane	1.0	U	1.0	0.26	ug/L			11/18/19 10:43	1
1,1-Dichloroethene	1.0	U	1.0	0.26	ug/L			11/18/19 10:43	1
1,2,4-Trichlorobenzene	1.0	U	1.0	0.37	ug/L			11/18/19 10:43	1
1,2-Dibromo-3-Chloropropane	1.0	U	1.0	0.38	ug/L			11/18/19 10:43	1
1,2-Dichlorobenzene	1.0	U	1.0	0.43	ug/L			11/18/19 10:43	1
1,2-Dichloroethane	1.0	U	1.0	0.43	ug/L			11/18/19 10:43	1
1,2-Dichloropropane	1.0	U	1.0	0.35	ug/L			11/18/19 10:43	1
1,3-Dichlorobenzene	1.0	U	1.0	0.34	ug/L			11/18/19 10:43	1
1,4-Dichlorobenzene	1.0	U	1.0	0.33	ug/L			11/18/19 10:43	1
2-Butanone (MEK)	5.0	U	5.0	1.9	ug/L			11/18/19 10:43	1
2-Hexanone	5.0	U	5.0	1.1	ug/L			11/18/19 10:43	1
4-Methyl-2-pentanone (MIBK)	5.0	U	5.0	1.3	ug/L			11/18/19 10:43	1
Acetone	5.0	U	5.0	4.4	ug/L			11/18/19 10:43	1
Benzene	1.0	U	1.0	0.20	ug/L			11/18/19 10:43	1
Bromoform	1.0	U	1.0	0.54	ug/L			11/18/19 10:43	1

Eurofins TestAmerica, Edison

Client Sample Results

Client: New York State D.E.C.
Project/Site: DEC - Fort Edward Landfill Site:558001

Job ID: 460-196154-1

Client Sample ID: DECANT TANK-20191106

Lab Sample ID: 460-196154-3

Date Collected: 11/06/19 07:50

Matrix: Water

Date Received: 11/07/19 17:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bromomethane	1.0	U	1.0	0.55	ug/L			11/18/19 10:43	1
Carbon disulfide	1.0	U	1.0	0.82	ug/L			11/18/19 10:43	1
Carbon tetrachloride	1.0	U	1.0	0.21	ug/L			11/18/19 10:43	1
Chlorobenzene	0.45	J	1.0	0.38	ug/L			11/18/19 10:43	1
Chlorodibromomethane	1.0	U	1.0	0.28	ug/L			11/18/19 10:43	1
Chloroethane	1.0	U	1.0	0.32	ug/L			11/18/19 10:43	1
Chloroform	2.9		1.0	0.33	ug/L			11/18/19 10:43	1
Chloromethane	1.0	U	1.0	0.40	ug/L			11/18/19 10:43	1
cis-1,2-Dichloroethene	5.4		1.0	0.22	ug/L			11/18/19 10:43	1
cis-1,3-Dichloropropene	1.0	U	1.0	0.22	ug/L			11/18/19 10:43	1
Cyclohexane	1.0	U	1.0	0.32	ug/L			11/18/19 10:43	1
Dichlorobromomethane	1.0	U	1.0	0.34	ug/L			11/18/19 10:43	1
Dichlorodifluoromethane	1.0	U	1.0	0.31	ug/L			11/18/19 10:43	1
Ethylbenzene	1.0	U	1.0	0.30	ug/L			11/18/19 10:43	1
Ethylene Dibromide	1.0	U	1.0	0.50	ug/L			11/18/19 10:43	1
Isopropylbenzene	1.0	U	1.0	0.34	ug/L			11/18/19 10:43	1
Methyl acetate	5.0	U	5.0	0.79	ug/L			11/18/19 10:43	1
Methyl tert-butyl ether	1.0	U	1.0	0.47	ug/L			11/18/19 10:43	1
Methylcyclohexane	1.0	U	1.0	0.26	ug/L			11/18/19 10:43	1
Methylene Chloride	1.0	U	1.0	0.32	ug/L			11/18/19 10:43	1
Styrene	1.0	U	1.0	0.42	ug/L			11/18/19 10:43	1
Tetrachloroethene	1.0	U	1.0	0.25	ug/L			11/18/19 10:43	1
Toluene	1.0	U	1.0	0.38	ug/L			11/18/19 10:43	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.24	ug/L			11/18/19 10:43	1
trans-1,3-Dichloropropene	1.0	U	1.0	0.49	ug/L			11/18/19 10:43	1
Trichloroethene	1.0	U	1.0	0.31	ug/L			11/18/19 10:43	1
Trichlorofluoromethane	1.0	U	1.0	0.32	ug/L			11/18/19 10:43	1
Vinyl chloride	5.5		1.0	0.17	ug/L			11/18/19 10:43	1
Xylenes, Total	2.0	U	2.0	0.65	ug/L			11/18/19 10:43	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	97		74 - 132		11/18/19 10:43	1
4-Bromofluorobenzene	95		77 - 124		11/18/19 10:43	1
Dibromofluoromethane (Surr)	92		72 - 131		11/18/19 10:43	1
Toluene-d8 (Surr)	100		80 - 120		11/18/19 10:43	1

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	4.0	U	4.0	1.2	ug/L		11/11/19 17:05	11/12/19 15:23	10
Aroclor 1221	4.0	U	4.0	1.2	ug/L		11/11/19 17:05	11/12/19 15:23	10
Aroclor 1232	54		4.0	1.2	ug/L		11/11/19 17:05	11/12/19 15:23	10
Aroclor 1242	4.0	U	4.0	1.2	ug/L		11/11/19 17:05	11/12/19 15:23	10
Aroclor 1248	4.0	U	4.0	1.2	ug/L		11/11/19 17:05	11/12/19 15:23	10
Aroclor 1254	4.0	U	4.0	1.1	ug/L		11/11/19 17:05	11/12/19 15:23	10
Aroclor 1260	4.0	U	4.0	1.1	ug/L		11/11/19 17:05	11/12/19 15:23	10
Aroclor-1262	4.0	U	4.0	1.1	ug/L		11/11/19 17:05	11/12/19 15:23	10
Aroclor 1268	4.0	U	4.0	1.1	ug/L		11/11/19 17:05	11/12/19 15:23	10
Polychlorinated biphenyls, Total	54		4.0	1.2	ug/L		11/11/19 17:05	11/12/19 15:23	10

Eurofins TestAmerica, Edison

Client Sample Results

Client: New York State D.E.C.
Project/Site: DEC - Fort Edward Landfill Site:558001

Job ID: 460-196154-1

Client Sample ID: DECANT TANK-20191106

Lab Sample ID: 460-196154-3

Date Collected: 11/06/19 07:50

Matrix: Water

Date Received: 11/07/19 17:00

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	95		10 - 150	11/11/19 17:05	11/12/19 15:23	10
DCB Decachlorobiphenyl	108		10 - 150	11/11/19 17:05	11/12/19 15:23	10

Method: 537 (modified) - Fluorinated Alkyl Substances

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorohexanoic acid (PFHxA)	32.0		1.91	0.55	ng/L		11/16/19 07:46	11/18/19 22:53	1
Perfluoroheptanoic acid (PFHpA)	10.5		1.91	0.24	ng/L		11/16/19 07:46	11/18/19 22:53	1
Perfluorooctanoic acid (PFOA)	39.5		1.91	0.81	ng/L		11/16/19 07:46	11/18/19 22:53	1
Perfluorononanoic acid (PFNA)	0.32	J B	1.91	0.26	ng/L		11/16/19 07:46	11/18/19 22:53	1
Perfluorodecanoic acid (PFDA)	1.91	U	1.91	0.30	ng/L		11/16/19 07:46	11/18/19 22:53	
Perfluoroundecanoic acid (PFUnA)	1.91	U	1.91	1.05	ng/L		11/16/19 07:46	11/18/19 22:53	1
Perfluorododecanoic acid (PFDoA)	1.91	U	1.91	0.53	ng/L		11/16/19 07:46	11/18/19 22:53	1
Perfluorotridecanoic acid (PFTriA)	1.91	U	1.91	1.24	ng/L		11/16/19 07:46	11/18/19 22:53	1
Perfluorotetradecanoic acid (PFTeA)	1.91	U	1.91	0.28	ng/L		11/16/19 07:46	11/18/19 22:53	1
Perfluorobutanesulfonic acid (PFBS)	1.91	U	1.91	0.19	ng/L		11/16/19 07:46	11/18/19 22:53	1
Perfluorohexanesulfonic acid (PFHxS)	2.93	B	1.91	0.16	ng/L		11/16/19 07:46	11/18/19 22:53	1
Perfluorooctanesulfonic acid (PFOS)	8.12		1.91	0.52	ng/L		11/16/19 07:46	11/18/19 22:53	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	6.89	J	19.1	1.81	ng/L		11/16/19 07:46	11/18/19 22:53	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	19.1	U	19.1	2.96	ng/L		11/16/19 07:46	11/18/19 22:53	1
Isotope Dilution	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
13C2 PFHxA	49		25 - 150				11/16/19 07:46	11/18/19 22:53	1
13C4 PFHpA	59		25 - 150				11/16/19 07:46	11/18/19 22:53	1
13C4 PFOA	63		25 - 150				11/16/19 07:46	11/18/19 22:53	1
13C5 PFNA	60		25 - 150				11/16/19 07:46	11/18/19 22:53	1
13C2 PFDA	55		25 - 150				11/16/19 07:46	11/18/19 22:53	1
13C2 PFUnA	50		25 - 150				11/16/19 07:46	11/18/19 22:53	1
13C2 PFDoA	46		25 - 150				11/16/19 07:46	11/18/19 22:53	1
13C2 PFTeDA	41		25 - 150				11/16/19 07:46	11/18/19 22:53	1
18O2 PFHxS	66		25 - 150				11/16/19 07:46	11/18/19 22:53	1
13C4 PFOS	58		25 - 150				11/16/19 07:46	11/18/19 22:53	1
d3-NMeFOSAA	41		25 - 150				11/16/19 07:46	11/18/19 22:53	1
d5-NEtFOSAA	40		25 - 150				11/16/19 07:46	11/18/19 22:53	

Method: 6010D - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	10.0	U	10.0	1.1	ug/L		11/16/19 00:00	11/16/19 18:23	1
Aluminum	5400		200	28.6	ug/L		11/16/19 00:00	11/16/19 18:23	1
Arsenic	9.6	J	15.0	2.7	ug/L		11/16/19 00:00	11/16/19 18:23	1
Barium	92.4	J	200	7.7	ug/L		11/16/19 00:00	11/16/19 18:23	1
Beryllium	2.0	U	2.0	0.23	ug/L		11/16/19 00:00	11/16/19 18:23	1
Calcium	90200		5000	222	ug/L		11/16/19 00:00	11/16/19 18:23	1
Cadmium	4.0	U	4.0	0.22	ug/L		11/16/19 00:00	11/16/19 18:23	1
Cobalt	2.4	J	50.0	1.7	ug/L		11/16/19 00:00	11/16/19 18:23	1
Chromium	2.8	J	10.0	1.3	ug/L		11/16/19 00:00	11/16/19 18:23	1
Copper	25.0	U	25.0	5.1	ug/L		11/16/19 00:00	11/16/19 18:23	1
Iron	58600		150	34.2	ug/L		11/16/19 00:00	11/16/19 18:23	1
Potassium	4380	J	5000	323	ug/L		11/16/19 00:00	11/16/19 18:23	1

Eurofins TestAmerica, Edison

Client Sample Results

Client: New York State D.E.C.
Project/Site: DEC - Fort Edward Landfill Site:558001

Job ID: 460-196154-1

Client Sample ID: DECANT TANK-20191106

Lab Sample ID: 460-196154-3

Date Collected: 11/06/19 07:50

Matrix: Water

Date Received: 11/07/19 17:00

Method: 6010D - Metals (ICP) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Magnesium	20300		5000	177	ug/L		11/16/19 00:00	11/16/19 18:23	1
Manganese	2120		15.0	0.99	ug/L		11/16/19 00:00	11/16/19 18:23	1
Sodium	57400		5000	460	ug/L		11/16/19 00:00	11/16/19 18:23	1
Nickel	3.3	J	40.0	1.7	ug/L		11/16/19 00:00	11/16/19 18:23	1
Lead	8.8	J	10.0	2.5	ug/L		11/16/19 00:00	11/16/19 18:23	1
Antimony	20.0	U	20.0	2.9	ug/L		11/16/19 00:00	11/16/19 18:23	1
Selenium	20.0	U	20.0	6.6	ug/L		11/16/19 00:00	11/16/19 18:23	1
Thallium	7.0	J	20.0	5.4	ug/L		11/16/19 00:00	11/16/19 18:23	1
Vanadium	50.0	U	50.0	2.5	ug/L		11/16/19 00:00	11/16/19 18:23	1
Zinc	9.3	J	30.0	3.6	ug/L		11/16/19 00:00	11/16/19 18:23	1

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.20	U	0.20	0.12	ug/L		11/20/19 11:53	11/20/19 13:15	1

Client Sample ID: DUP-1-20191106

Lab Sample ID: 460-196154-4

Date Collected: 11/06/19 00:00

Matrix: Water

Date Received: 11/07/19 17:00

Method: 537 (modified) - Fluorinated Alkyl Substances

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorohexanoic acid (PFHxA)	32.4		1.87	0.54	ng/L		11/16/19 07:46	11/18/19 23:01	1
Perfluoroheptanoic acid (PFHpA)	10.4		1.87	0.23	ng/L		11/16/19 07:46	11/18/19 23:01	1
Perfluorooctanoic acid (PFOA)	40.8		1.87	0.79	ng/L		11/16/19 07:46	11/18/19 23:01	1
Perfluorononanoic acid (PFNA)	1.87	U	1.87	0.25	ng/L		11/16/19 07:46	11/18/19 23:01	1
Perfluorodecanoic acid (PFDA)	1.87	U	1.87	0.29	ng/L		11/16/19 07:46	11/18/19 23:01	1
Perfluoroundecanoic acid (PFUnA)	1.87	U	1.87	1.03	ng/L		11/16/19 07:46	11/18/19 23:01	1
Perfluorododecanoic acid (PFDoA)	1.87	U	1.87	0.51	ng/L		11/16/19 07:46	11/18/19 23:01	1
Perfluorotridecanoic acid (PFTriA)	1.87	U	1.87	1.21	ng/L		11/16/19 07:46	11/18/19 23:01	1
Perfluorotetradecanoic acid (PFTeA)	1.87	U	1.87	0.27	ng/L		11/16/19 07:46	11/18/19 23:01	1
Perfluorobutanesulfonic acid (PFBS)	1.25	J	1.87	0.19	ng/L		11/16/19 07:46	11/18/19 23:01	1
Perfluorohexanesulfonic acid (PFHxS)	3.02	B	1.87	0.16	ng/L		11/16/19 07:46	11/18/19 23:01	1
Perfluorooctanesulfonic acid (PFOS)	6.70		1.87	0.50	ng/L		11/16/19 07:46	11/18/19 23:01	1
N-ethylperfluorooctanesulfonamidoacetic acid (NETFOSAA)	18.7	U	18.7	1.77	ng/L		11/16/19 07:46	11/18/19 23:01	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	18.7	U	18.7	2.89	ng/L		11/16/19 07:46	11/18/19 23:01	1

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C2 PFHxA	84		25 - 150	11/16/19 07:46	11/18/19 23:01	1
13C4 PFHpA	100		25 - 150	11/16/19 07:46	11/18/19 23:01	1
13C4 PFOA	106		25 - 150	11/16/19 07:46	11/18/19 23:01	1
13C5 PFNA	105		25 - 150	11/16/19 07:46	11/18/19 23:01	1
13C2 PFDA	101		25 - 150	11/16/19 07:46	11/18/19 23:01	1
13C2 PFUnA	101		25 - 150	11/16/19 07:46	11/18/19 23:01	1
13C2 PFDoA	101		25 - 150	11/16/19 07:46	11/18/19 23:01	1
13C2 PFTeA	107		25 - 150	11/16/19 07:46	11/18/19 23:01	1
18O2 PFHxS	117		25 - 150	11/16/19 07:46	11/18/19 23:01	1
13C4 PFOS	107		25 - 150	11/16/19 07:46	11/18/19 23:01	1

Eurofins TestAmerica, Edison

Client Sample Results

Client: New York State D.E.C.
Project/Site: DEC - Fort Edward Landfill Site:558001

Job ID: 460-196154-1

Client Sample ID: DUP-1-20191106

Lab Sample ID: 460-196154-4

Date Collected: 11/06/19 00:00

Matrix: Water

Date Received: 11/07/19 17:00

Method: 537 (modified) - Fluorinated Alkyl Substances (Continued)

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
d3-NMeFOSAA	83		25 - 150	11/16/19 07:46	11/18/19 23:01	1
d5-NEtFOSAA	86		25 - 150	11/16/19 07:46	11/18/19 23:01	1

Client Sample ID: TRIPBLANK-20191106

Lab Sample ID: 460-196154-5

Date Collected: 11/06/19 00:00

Matrix: Water

Date Received: 11/07/19 17:00

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	1.0	U	1.0	0.24	ug/L			11/16/19 12:55	1
1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.37	ug/L			11/16/19 12:55	1
1,1,2-Trichloro-1,2,2-trifluoroethane	1.0	U	1.0	0.31	ug/L			11/16/19 12:55	1
1,1,2-Trichloroethane	1.0	U	1.0	0.43	ug/L			11/16/19 12:55	1
1,1-Dichloroethane	1.0	U	1.0	0.26	ug/L			11/16/19 12:55	1
1,1-Dichloroethene	1.0	U	1.0	0.26	ug/L			11/16/19 12:55	1
1,2,4-Trichlorobenzene	1.0	U	1.0	0.37	ug/L			11/16/19 12:55	1
1,2-Dibromo-3-Chloropropane	1.0	U	1.0	0.38	ug/L			11/16/19 12:55	1
1,2-Dichlorobenzene	1.0	U	1.0	0.43	ug/L			11/16/19 12:55	1
1,2-Dichloroethane	1.0	U	1.0	0.43	ug/L			11/16/19 12:55	1
1,2-Dichloropropane	1.0	U	1.0	0.35	ug/L			11/16/19 12:55	1
1,3-Dichlorobenzene	1.0	U	1.0	0.34	ug/L			11/16/19 12:55	1
1,4-Dichlorobenzene	1.0	U	1.0	0.33	ug/L			11/16/19 12:55	1
2-Butanone (MEK)	5.0	U	5.0	1.9	ug/L			11/16/19 12:55	1
2-Hexanone	5.0	U	5.0	1.1	ug/L			11/16/19 12:55	1
4-Methyl-2-pentanone (MIBK)	5.0	U	5.0	1.3	ug/L			11/16/19 12:55	1
Acetone	5.0	U	5.0	4.4	ug/L			11/16/19 12:55	1
Benzene	1.0	U	1.0	0.20	ug/L			11/16/19 12:55	1
Bromoform	1.0	U	1.0	0.54	ug/L			11/16/19 12:55	1
Bromomethane	1.0	U *	1.0	0.55	ug/L			11/16/19 12:55	1
Carbon disulfide	1.0	U	1.0	0.82	ug/L			11/16/19 12:55	1
Carbon tetrachloride	1.0	U	1.0	0.21	ug/L			11/16/19 12:55	1
Chlorobenzene	1.0	U	1.0	0.38	ug/L			11/16/19 12:55	1
Chlorodibromomethane	1.0	U	1.0	0.28	ug/L			11/16/19 12:55	1
Chloroethane	1.0	U *	1.0	0.32	ug/L			11/16/19 12:55	1
Chloroform	1.0	U	1.0	0.33	ug/L			11/16/19 12:55	1
Chloromethane	1.0	U	1.0	0.40	ug/L			11/16/19 12:55	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.22	ug/L			11/16/19 12:55	1
cis-1,3-Dichloropropene	1.0	U	1.0	0.22	ug/L			11/16/19 12:55	1
Cyclohexane	1.0	U	1.0	0.32	ug/L			11/16/19 12:55	1
Dichlorobromomethane	1.0	U	1.0	0.34	ug/L			11/16/19 12:55	1
Dichlorodifluoromethane	1.0	U *	1.0	0.31	ug/L			11/16/19 12:55	1
Ethylbenzene	1.0	U	1.0	0.30	ug/L			11/16/19 12:55	1
Ethylene Dibromide	1.0	U	1.0	0.50	ug/L			11/16/19 12:55	1
Isopropylbenzene	1.0	U	1.0	0.34	ug/L			11/16/19 12:55	1
Methyl acetate	5.0	U	5.0	0.79	ug/L			11/16/19 12:55	1
Methyl tert-butyl ether	1.0	U	1.0	0.47	ug/L			11/16/19 12:55	1
Methylcyclohexane	1.0	U	1.0	0.26	ug/L			11/16/19 12:55	1
Methylene Chloride	1.0	U	1.0	0.32	ug/L			11/16/19 12:55	1
Styrene	1.0	U	1.0	0.42	ug/L			11/16/19 12:55	1
Tetrachloroethene	1.0	U	1.0	0.25	ug/L			11/16/19 12:55	1

Eurofins TestAmerica, Edison

Client Sample Results

Client: New York State D.E.C.
Project/Site: DEC - Fort Edward Landfill Site:558001

Job ID: 460-196154-1

Client Sample ID: TRIPBLANK-20191106

Lab Sample ID: 460-196154-5

Date Collected: 11/06/19 00:00

Matrix: Water

Date Received: 11/07/19 17:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Toluene	1.0	U	1.0	0.38	ug/L			11/16/19 12:55	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.24	ug/L			11/16/19 12:55	1
trans-1,3-Dichloropropene	1.0	U	1.0	0.49	ug/L			11/16/19 12:55	1
Trichloroethene	1.0	U	1.0	0.31	ug/L			11/16/19 12:55	1
Trichlorofluoromethane	1.0	U	1.0	0.32	ug/L			11/16/19 12:55	1
Vinyl chloride	1.0	U	1.0	0.17	ug/L			11/16/19 12:55	1
Xylenes, Total	2.0	U	2.0	0.65	ug/L			11/16/19 12:55	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	113		74 - 132		11/16/19 12:55	1
4-Bromofluorobenzene	107		77 - 124		11/16/19 12:55	1
Dibromofluoromethane (Surr)	119		72 - 131		11/16/19 12:55	1
Toluene-d8 (Surr)	103		80 - 120		11/16/19 12:55	1

Surrogate Summary

Client: New York State D.E.C.
Project/Site: DEC - Fort Edward Landfill Site:558001

Job ID: 460-196154-1

Method: 8260C - Volatile Organic Compounds by GC/MS

Matrix: Water

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)			
		DCA (74-132)	BFB (77-124)	DBFM (72-131)	TOL (80-120)
460-196154-1	INFLUENT-20191106	96	95	92	102
460-196154-2	CCT-20191106	95	94	90	100
460-196154-3	DECANT TANK-20191106	97	95	92	100
460-196154-5	TRIPBLANK-20191106	113	107	119	103
LCS 460-655890/4	Lab Control Sample	107	105	114	99
LCS 460-656186/4	Lab Control Sample	95	92	92	103
LCSD 460-655890/5	Lab Control Sample Dup	116	111	121	107
LCSD 460-656186/5	Lab Control Sample Dup	93	95	91	103
MB 460-655890/9	Method Blank	114	106	120	102
MB 460-656186/8	Method Blank	96	95	92	102

Surrogate Legend

DCA = 1,2-Dichloroethane-d4 (Surr)

BFB = 4-Bromofluorobenzene

DBFM = Dibromofluoromethane (Surr)

TOL = Toluene-d8 (Surr)

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Matrix: Water

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)	
		DCBP1 (10-150)	DCBP2 (10-150)
460-196154-1	INFLUENT-20191106	73	67
460-196154-2	CCT-20191106	84	81
460-196154-3	DECANT TANK-20191106	95	108
LCS 460-654480/2-A	Lab Control Sample	109	104
LCSD 460-654480/3-A	Lab Control Sample Dup	95	90
MB 460-654480/1-A	Method Blank	95	90

Surrogate Legend

DCBP = DCB Decachlorobiphenyl

Isotope Dilution Summary

Client: New York State D.E.C.
Project/Site: DEC - Fort Edward Landfill Site:558001

Job ID: 460-196154-1

Method: 537 (modified) - Fluorinated Alkyl Substances

Matrix: Water

Prep Type: Total/NA

Percent Isotope Dilution Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	PFHxA (25-150)	PFHpA (25-150)	PFOA (25-150)	PFNA (25-150)	PFDA (25-150)	PFUnA (25-150)	PFDaA (25-150)	PFTDA (25-150)
460-196154-1	INFLUENT-20191106	86	105	106	107	99	95	98	98
460-196154-2	CCT-20191106	80	92	101	101	91	84	78	79
460-196154-3	DECANT TANK-20191106	49	59	63	60	55	50	46	41
460-196154-4	DUP-1-20191106	84	100	106	105	101	101	101	107
LCS 320-339119/2-A	Lab Control Sample	107	108	114	107	104	107	107	113
LCSD 320-339119/3-A	Lab Control Sample Dup	103	108	107	106	102	103	110	115
MB 320-339119/1-A	Method Blank	105	104	110	105	99	100	105	108

Percent Isotope Dilution Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	PFHxS (25-150)	PFOS (25-150)	d3-NMeFOSAA (25-150)	d5-NEtFOSAA (25-150)
460-196154-1	INFLUENT-20191106	112	107	78	79
460-196154-2	CCT-20191106	110	96	70	67
460-196154-3	DECANT TANK-20191106	66	58	41	40
460-196154-4	DUP-1-20191106	117	107	83	86
LCS 320-339119/2-A	Lab Control Sample	113	103	89	83
LCSD 320-339119/3-A	Lab Control Sample Dup	108	101	86	89
MB 320-339119/1-A	Method Blank	112	100	86	92

Surrogate Legend

PFHxA = 13C2 PFHxA
PFHpA = 13C4 PFHpA
PFOA = 13C4 PFOA
PFNA = 13C5 PFNA
PFDA = 13C2 PFDA
PFUnA = 13C2 PFUnA
PFDaA = 13C2 PFDaA
PFTDA = 13C2 PFTeDA
PFHxS = 18O2 PFHxS
PFOS = 13C4 PFOS
d3-NMeFOSAA = d3-NMeFOSAA
d5-NEtFOSAA = d5-NEtFOSAA

QC Sample Results

Client: New York State D.E.C.
Project/Site: DEC - Fort Edward Landfill Site:558001

Job ID: 460-196154-1

Method: 8260C - Volatile Organic Compounds by GC/MS

Lab Sample ID: MB 460-655890/9

Matrix: Water

Analysis Batch: 655890

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB MB		RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
1,1,1-Trichloroethane	1.0	U	1.0	0.24	ug/L			11/16/19 12:32	1
1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.37	ug/L			11/16/19 12:32	1
1,1,2-Trichloro-1,2,2-trifluoroethane	1.0	U	1.0	0.31	ug/L			11/16/19 12:32	1
1,1,2-Trichloroethane	1.0	U	1.0	0.43	ug/L			11/16/19 12:32	1
1,1-Dichloroethane	1.0	U	1.0	0.26	ug/L			11/16/19 12:32	1
1,1-Dichloroethene	1.0	U	1.0	0.26	ug/L			11/16/19 12:32	1
1,2,4-Trichlorobenzene	1.0	U	1.0	0.37	ug/L			11/16/19 12:32	1
1,2-Dibromo-3-Chloropropane	1.0	U	1.0	0.38	ug/L			11/16/19 12:32	1
1,2-Dichlorobenzene	1.0	U	1.0	0.43	ug/L			11/16/19 12:32	1
1,2-Dichloroethane	1.0	U	1.0	0.43	ug/L			11/16/19 12:32	1
1,2-Dichloropropane	1.0	U	1.0	0.35	ug/L			11/16/19 12:32	1
1,3-Dichlorobenzene	1.0	U	1.0	0.34	ug/L			11/16/19 12:32	1
1,4-Dichlorobenzene	1.0	U	1.0	0.33	ug/L			11/16/19 12:32	1
2-Butanone (MEK)	5.0	U	5.0	1.9	ug/L			11/16/19 12:32	1
2-Hexanone	5.0	U	5.0	1.1	ug/L			11/16/19 12:32	1
4-Methyl-2-pentanone (MIBK)	5.0	U	5.0	1.3	ug/L			11/16/19 12:32	1
Acetone	5.0	U	5.0	4.4	ug/L			11/16/19 12:32	1
Benzene	1.0	U	1.0	0.20	ug/L			11/16/19 12:32	1
Bromoform	1.0	U	1.0	0.54	ug/L			11/16/19 12:32	1
Bromomethane	1.0	U	1.0	0.55	ug/L			11/16/19 12:32	1
Carbon disulfide	1.0	U	1.0	0.82	ug/L			11/16/19 12:32	1
Carbon tetrachloride	1.0	U	1.0	0.21	ug/L			11/16/19 12:32	1
Chlorobenzene	1.0	U	1.0	0.38	ug/L			11/16/19 12:32	1
Chlorodibromomethane	1.0	U	1.0	0.28	ug/L			11/16/19 12:32	1
Chloroethane	1.0	U	1.0	0.32	ug/L			11/16/19 12:32	1
Chloroform	1.0	U	1.0	0.33	ug/L			11/16/19 12:32	1
Chloromethane	1.0	U	1.0	0.40	ug/L			11/16/19 12:32	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.22	ug/L			11/16/19 12:32	1
cis-1,3-Dichloropropene	1.0	U	1.0	0.22	ug/L			11/16/19 12:32	1
Cyclohexane	1.0	U	1.0	0.32	ug/L			11/16/19 12:32	1
Dichlorobromomethane	1.0	U	1.0	0.34	ug/L			11/16/19 12:32	1
Dichlorodifluoromethane	1.0	U	1.0	0.31	ug/L			11/16/19 12:32	1
Ethylbenzene	1.0	U	1.0	0.30	ug/L			11/16/19 12:32	1
Ethylene Dibromide	1.0	U	1.0	0.50	ug/L			11/16/19 12:32	1
Isopropylbenzene	1.0	U	1.0	0.34	ug/L			11/16/19 12:32	1
Methyl acetate	5.0	U	5.0	0.79	ug/L			11/16/19 12:32	1
Methyl tert-butyl ether	1.0	U	1.0	0.47	ug/L			11/16/19 12:32	1
Methylcyclohexane	1.0	U	1.0	0.26	ug/L			11/16/19 12:32	1
Methylene Chloride	1.0	U	1.0	0.32	ug/L			11/16/19 12:32	1
Styrene	1.0	U	1.0	0.42	ug/L			11/16/19 12:32	1
Tetrachloroethene	1.0	U	1.0	0.25	ug/L			11/16/19 12:32	1
Toluene	1.0	U	1.0	0.38	ug/L			11/16/19 12:32	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.24	ug/L			11/16/19 12:32	1
trans-1,3-Dichloropropene	1.0	U	1.0	0.49	ug/L			11/16/19 12:32	1
Trichloroethene	1.0	U	1.0	0.31	ug/L			11/16/19 12:32	1
Trichlorofluoromethane	1.0	U	1.0	0.32	ug/L			11/16/19 12:32	1
Vinyl chloride	1.0	U	1.0	0.17	ug/L			11/16/19 12:32	1
Xylenes, Total	2.0	U	2.0	0.65	ug/L			11/16/19 12:32	1

Eurofins TestAmerica, Edison

QC Sample Results

Client: New York State D.E.C.
Project/Site: DEC - Fort Edward Landfill Site:558001

Job ID: 460-196154-1

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

Lab Sample ID: MB 460-655890/9

Matrix: Water

Analysis Batch: 655890

Client Sample ID: Method Blank

Prep Type: Total/NA

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	114		74 - 132		11/16/19 12:32	1
4-Bromofluorobenzene	106		77 - 124		11/16/19 12:32	1
Dibromofluoromethane (Surr)	120		72 - 131		11/16/19 12:32	1
Toluene-d8 (Surr)	102		80 - 120		11/16/19 12:32	1

Lab Sample ID: LCS 460-655890/4

Matrix: Water

Analysis Batch: 655890

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1,1-Trichloroethane	20.0	20.0		ug/L		100	75 - 125
1,1,2,2-Tetrachloroethane	20.0	15.4		ug/L		77	74 - 120
1,1,2-Trichloro-1,2,2-trifluoroethane	20.0	22.1		ug/L		111	59 - 150
1,1,2-Trichloroethane	20.0	17.2		ug/L		86	78 - 120
1,1-Dichloroethane	20.0	19.0		ug/L		95	77 - 123
1,1-Dichloroethene	20.0	21.4		ug/L		107	74 - 123
1,2,4-Trichlorobenzene	20.0	19.2		ug/L		96	80 - 124
1,2-Dibromo-3-Chloropropane	20.0	14.5		ug/L		72	55 - 134
1,2-Dichlorobenzene	20.0	18.8		ug/L		94	80 - 120
1,2-Dichloroethane	20.0	20.0		ug/L		100	76 - 121
1,2-Dichloropropane	20.0	19.0		ug/L		95	77 - 123
1,3-Dichlorobenzene	20.0	19.0		ug/L		95	80 - 120
1,4-Dichlorobenzene	20.0	19.1		ug/L		96	80 - 120
2-Butanone (MEK)	100	101		ug/L		101	64 - 120
2-Hexanone	100	94.9		ug/L		95	71 - 125
4-Methyl-2-pentanone (MIBK)	100	97.7		ug/L		98	78 - 124
Acetone	100	100		ug/L		100	39 - 150
Benzene	20.0	18.0		ug/L		90	77 - 121
Bromoform	20.0	16.6		ug/L		83	53 - 120
Bromomethane	20.0	43.0	*	ug/L		215	10 - 150
Carbon disulfide	20.0	20.7		ug/L		104	69 - 133
Carbon tetrachloride	20.0	20.6		ug/L		103	70 - 132
Chlorobenzene	20.0	19.2		ug/L		96	80 - 120
Chlorodibromomethane	20.0	17.9		ug/L		90	73 - 120
Chloroethane	20.0	32.9	*	ug/L		164	52 - 150
Chloroform	20.0	20.5		ug/L		102	80 - 120
Chloromethane	20.0	26.3		ug/L		131	56 - 131
cis-1,2-Dichloroethene	20.0	20.9		ug/L		104	80 - 120
cis-1,3-Dichloropropene	20.0	18.7		ug/L		93	77 - 120
Cyclohexane	20.0	19.7		ug/L		98	56 - 150
Dichlorobromomethane	20.0	20.1		ug/L		101	76 - 120
Dichlorodifluoromethane	20.0	27.2	*	ug/L		136	50 - 131
Ethylbenzene	20.0	17.7		ug/L		89	80 - 120
Ethylene Dibromide	20.0	17.5		ug/L		88	80 - 120
Isopropylbenzene	20.0	19.0		ug/L		95	80 - 123
Methyl acetate	40.0	41.0		ug/L		102	66 - 144
Methyl tert-butyl ether	20.0	19.0		ug/L		95	79 - 122
Methylcyclohexane	20.0	19.8		ug/L		99	61 - 145

Eurofins TestAmerica, Edison

QC Sample Results

Client: New York State D.E.C.
Project/Site: DEC - Fort Edward Landfill Site:558001

Job ID: 460-196154-1

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

Lab Sample ID: LCS 460-655890/4

Matrix: Water

Analysis Batch: 655890

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Methylene Chloride	20.0	20.4		ug/L		102	77 - 123
Styrene	20.0	18.5		ug/L		93	80 - 120
Tetrachloroethene	20.0	19.0		ug/L		95	78 - 122
Toluene	20.0	17.5		ug/L		88	80 - 120
trans-1,2-Dichloroethene	20.0	20.5		ug/L		102	79 - 120
trans-1,3-Dichloropropene	20.0	18.7		ug/L		94	76 - 120
Trichloroethene	20.0	19.0		ug/L		95	77 - 120
Trichlorofluoromethane	20.0	26.1		ug/L		130	71 - 143
Vinyl chloride	20.0	22.1		ug/L		110	62 - 138
Xylenes, Total	40.0	36.2		ug/L		91	80 - 120

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	107		74 - 132
4-Bromofluorobenzene	105		77 - 124
Dibromofluoromethane (Surr)	114		72 - 131
Toluene-d8 (Surr)	99		80 - 120

Lab Sample ID: LCSD 460-655890/5

Matrix: Water

Analysis Batch: 655890

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,1,1-Trichloroethane	20.0	21.3		ug/L		106	75 - 125	6	30
1,1,2,2-Tetrachloroethane	20.0	16.1		ug/L		81	74 - 120	4	30
1,1,2-Trichloro-1,2,2-trifluoroethane	20.0	23.2		ug/L		116	59 - 150	5	30
1,1,2-Trichloroethane	20.0	18.0		ug/L		90	78 - 120	5	30
1,1-Dichloroethane	20.0	19.9		ug/L		100	77 - 123	5	30
1,1-Dichloroethene	20.0	23.0		ug/L		115	74 - 123	7	30
1,2,4-Trichlorobenzene	20.0	20.8		ug/L		104	80 - 124	8	30
1,2-Dibromo-3-Chloropropane	20.0	15.2		ug/L		76	55 - 134	5	30
1,2-Dichlorobenzene	20.0	20.2		ug/L		101	80 - 120	7	30
1,2-Dichloroethane	20.0	21.6		ug/L		108	76 - 121	8	30
1,2-Dichloropropane	20.0	20.2		ug/L		101	77 - 123	6	30
1,3-Dichlorobenzene	20.0	20.3		ug/L		102	80 - 120	7	30
1,4-Dichlorobenzene	20.0	20.3		ug/L		101	80 - 120	6	30
2-Butanone (MEK)	100	109		ug/L		109	64 - 120	8	30
2-Hexanone	100	99.6		ug/L		100	71 - 125	5	30
4-Methyl-2-pentanone (MIBK)	100	105		ug/L		105	78 - 124	8	30
Acetone	100	107		ug/L		107	39 - 150	7	30
Benzene	20.0	18.9		ug/L		95	77 - 121	5	30
Bromoform	20.0	18.0		ug/L		90	53 - 120	8	30
Bromomethane	20.0	46.4	*	ug/L		232	10 - 150	8	30
Carbon disulfide	20.0	22.1		ug/L		111	69 - 133	7	30
Carbon tetrachloride	20.0	21.5		ug/L		108	70 - 132	5	30
Chlorobenzene	20.0	20.5		ug/L		102	80 - 120	6	30
Chlorodibromomethane	20.0	18.9		ug/L		95	73 - 120	5	30
Chloroethane	20.0	31.0	*	ug/L		155	52 - 150	6	30
Chloroform	20.0	22.3		ug/L		112	80 - 120	9	30

Eurofins TestAmerica, Edison

QC Sample Results

Client: New York State D.E.C.
Project/Site: DEC - Fort Edward Landfill Site:558001

Job ID: 460-196154-1

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

Lab Sample ID: LCSD 460-655890/5

Matrix: Water

Analysis Batch: 655890

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloromethane	20.0	25.2		ug/L		126	56 - 131	4	30
cis-1,2-Dichloroethene	20.0	22.1		ug/L		110	80 - 120	6	30
cis-1,3-Dichloropropene	20.0	20.0		ug/L		100	77 - 120	7	30
Cyclohexane	20.0	20.7		ug/L		103	56 - 150	5	30
Dichlorobromomethane	20.0	22.0		ug/L		110	76 - 120	9	30
Dichlorodifluoromethane	20.0	25.4		ug/L		127	50 - 131	7	30
Ethylbenzene	20.0	19.0		ug/L		95	80 - 120	7	30
Ethylene Dibromide	20.0	18.5		ug/L		92	80 - 120	5	30
Isopropylbenzene	20.0	19.7		ug/L		98	80 - 123	4	30
Methyl acetate	40.0	47.2		ug/L		118	66 - 144	14	30
Methyl tert-butyl ether	20.0	20.0		ug/L		100	79 - 122	5	30
Methylcyclohexane	20.0	21.0		ug/L		105	61 - 145	6	30
Methylene Chloride	20.0	22.2		ug/L		111	77 - 123	8	30
Styrene	20.0	19.8		ug/L		99	80 - 120	7	30
Tetrachloroethene	20.0	19.7		ug/L		99	78 - 122	4	30
Toluene	20.0	18.4		ug/L		92	80 - 120	5	30
trans-1,2-Dichloroethene	20.0	21.5		ug/L		107	79 - 120	5	30
trans-1,3-Dichloropropene	20.0	19.7		ug/L		98	76 - 120	5	30
Trichloroethene	20.0	20.2		ug/L		101	77 - 120	6	30
Trichlorofluoromethane	20.0	25.4		ug/L		127	71 - 143	3	30
Vinyl chloride	20.0	21.3		ug/L		107	62 - 138	3	30
Xylenes, Total	40.0	38.5		ug/L		96	80 - 120	6	30

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	116		74 - 132
4-Bromofluorobenzene	111		77 - 124
Dibromofluoromethane (Surr)	121		72 - 131
Toluene-d8 (Surr)	107		80 - 120

Lab Sample ID: MB 460-656186/8

Matrix: Water

Analysis Batch: 656186

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	1.0	U	1.0	0.24	ug/L			11/18/19 09:07	1
1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.37	ug/L			11/18/19 09:07	1
1,1,2-Trichloro-1,2,2-trifluoroethane	1.0	U	1.0	0.31	ug/L			11/18/19 09:07	1
1,1,2-Trichloroethane	1.0	U	1.0	0.43	ug/L			11/18/19 09:07	1
1,1-Dichloroethane	1.0	U	1.0	0.26	ug/L			11/18/19 09:07	1
1,1-Dichloroethene	1.0	U	1.0	0.26	ug/L			11/18/19 09:07	1
1,2,4-Trichlorobenzene	1.0	U	1.0	0.37	ug/L			11/18/19 09:07	1
1,2-Dibromo-3-Chloropropane	1.0	U	1.0	0.38	ug/L			11/18/19 09:07	1
1,2-Dichlorobenzene	1.0	U	1.0	0.43	ug/L			11/18/19 09:07	1
1,2-Dichloroethane	1.0	U	1.0	0.43	ug/L			11/18/19 09:07	1
1,2-Dichloropropane	1.0	U	1.0	0.35	ug/L			11/18/19 09:07	1
1,3-Dichlorobenzene	1.0	U	1.0	0.34	ug/L			11/18/19 09:07	1
1,4-Dichlorobenzene	1.0	U	1.0	0.33	ug/L			11/18/19 09:07	1
2-Butanone (MEK)	5.0	U	5.0	1.9	ug/L			11/18/19 09:07	1

Eurofins TestAmerica, Edison

QC Sample Results

Client: New York State D.E.C.
Project/Site: DEC - Fort Edward Landfill Site:558001

Job ID: 460-196154-1

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

Lab Sample ID: MB 460-656186/8

Matrix: Water

Analysis Batch: 656186

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2-Hexanone	5.0	U	5.0	1.1	ug/L			11/18/19 09:07	1
4-Methyl-2-pentanone (MIBK)	5.0	U	5.0	1.3	ug/L			11/18/19 09:07	1
Acetone	5.0	U	5.0	4.4	ug/L			11/18/19 09:07	1
Benzene	1.0	U	1.0	0.20	ug/L			11/18/19 09:07	1
Bromoform	1.0	U	1.0	0.54	ug/L			11/18/19 09:07	1
Bromomethane	1.0	U	1.0	0.55	ug/L			11/18/19 09:07	1
Carbon disulfide	1.0	U	1.0	0.82	ug/L			11/18/19 09:07	1
Carbon tetrachloride	1.0	U	1.0	0.21	ug/L			11/18/19 09:07	1
Chlorobenzene	1.0	U	1.0	0.38	ug/L			11/18/19 09:07	1
Chlorodibromomethane	1.0	U	1.0	0.28	ug/L			11/18/19 09:07	1
Chloroethane	1.0	U	1.0	0.32	ug/L			11/18/19 09:07	1
Chloroform	1.0	U	1.0	0.33	ug/L			11/18/19 09:07	1
Chloromethane	1.0	U	1.0	0.40	ug/L			11/18/19 09:07	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.22	ug/L			11/18/19 09:07	1
cis-1,3-Dichloropropene	1.0	U	1.0	0.22	ug/L			11/18/19 09:07	1
Cyclohexane	1.0	U	1.0	0.32	ug/L			11/18/19 09:07	1
Dichlorobromomethane	1.0	U	1.0	0.34	ug/L			11/18/19 09:07	1
Dichlorodifluoromethane	1.0	U	1.0	0.31	ug/L			11/18/19 09:07	1
Ethylbenzene	1.0	U	1.0	0.30	ug/L			11/18/19 09:07	1
Ethylene Dibromide	1.0	U	1.0	0.50	ug/L			11/18/19 09:07	1
Isopropylbenzene	1.0	U	1.0	0.34	ug/L			11/18/19 09:07	1
Methyl acetate	5.0	U	5.0	0.79	ug/L			11/18/19 09:07	1
Methyl tert-butyl ether	1.0	U	1.0	0.47	ug/L			11/18/19 09:07	1
Methylcyclohexane	1.0	U	1.0	0.26	ug/L			11/18/19 09:07	1
Methylene Chloride	1.0	U	1.0	0.32	ug/L			11/18/19 09:07	1
Styrene	1.0	U	1.0	0.42	ug/L			11/18/19 09:07	1
Tetrachloroethene	1.0	U	1.0	0.25	ug/L			11/18/19 09:07	1
Toluene	1.0	U	1.0	0.38	ug/L			11/18/19 09:07	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.24	ug/L			11/18/19 09:07	1
trans-1,3-Dichloropropene	1.0	U	1.0	0.49	ug/L			11/18/19 09:07	1
Trichloroethene	1.0	U	1.0	0.31	ug/L			11/18/19 09:07	1
Trichlorofluoromethane	1.0	U	1.0	0.32	ug/L			11/18/19 09:07	1
Vinyl chloride	1.0	U	1.0	0.17	ug/L			11/18/19 09:07	1
Xylenes, Total	2.0	U	2.0	0.65	ug/L			11/18/19 09:07	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	96		74 - 132		11/18/19 09:07	1
4-Bromofluorobenzene	95		77 - 124		11/18/19 09:07	1
Dibromofluoromethane (Surr)	92		72 - 131		11/18/19 09:07	1
Toluene-d8 (Surr)	102		80 - 120		11/18/19 09:07	1

Lab Sample ID: LCS 460-656186/4

Matrix: Water

Analysis Batch: 656186

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1,1-Trichloroethane	20.0	15.7		ug/L		78	75 - 125
1,1,2,2-Tetrachloroethane	20.0	19.8		ug/L		99	74 - 120

Eurofins TestAmerica, Edison

QC Sample Results

Client: New York State D.E.C.
Project/Site: DEC - Fort Edward Landfill Site:558001

Job ID: 460-196154-1

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

Lab Sample ID: LCS 460-656186/4

Matrix: Water

Analysis Batch: 656186

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1,2-Trichloro-1,2,2-trifluoroethane	20.0	18.5		ug/L		93	59 - 150
1,1,2-Trichloroethane	20.0	18.7		ug/L		93	78 - 120
1,1-Dichloroethane	20.0	18.2		ug/L		91	77 - 123
1,1-Dichloroethene	20.0	18.5		ug/L		92	74 - 123
1,2,4-Trichlorobenzene	20.0	18.0		ug/L		90	80 - 124
1,2-Dibromo-3-Chloropropane	20.0	20.5		ug/L		103	55 - 134
1,2-Dichlorobenzene	20.0	17.7		ug/L		89	80 - 120
1,2-Dichloroethane	20.0	17.0		ug/L		85	76 - 121
1,2-Dichloropropane	20.0	18.6		ug/L		93	77 - 123
1,3-Dichlorobenzene	20.0	16.9		ug/L		85	80 - 120
1,4-Dichlorobenzene	20.0	17.2		ug/L		86	80 - 120
2-Butanone (MEK)	100	75.6		ug/L		76	64 - 120
2-Hexanone	100	88.4		ug/L		88	71 - 125
4-Methyl-2-pentanone (MIBK)	100	87.5		ug/L		87	78 - 124
Acetone	100	88.4		ug/L		88	39 - 150
Benzene	20.0	19.4		ug/L		97	77 - 121
Bromoform	20.0	17.2		ug/L		86	53 - 120
Bromomethane	20.0	12.0		ug/L		60	10 - 150
Carbon disulfide	20.0	18.6		ug/L		93	69 - 133
Carbon tetrachloride	20.0	15.7		ug/L		78	70 - 132
Chlorobenzene	20.0	17.3		ug/L		86	80 - 120
Chlorodibromomethane	20.0	17.2		ug/L		86	73 - 120
Chloroethane	20.0	12.1		ug/L		61	52 - 150
Chloroform	20.0	15.9		ug/L		80	80 - 120
Chloromethane	20.0	14.7		ug/L		74	56 - 131
cis-1,2-Dichloroethene	20.0	16.8		ug/L		84	80 - 120
cis-1,3-Dichloropropene	20.0	18.5		ug/L		93	77 - 120
Cyclohexane	20.0	19.3		ug/L		97	56 - 150
Dichlorobromomethane	20.0	16.1		ug/L		80	76 - 120
Dichlorodifluoromethane	20.0	17.8		ug/L		89	50 - 131
Ethylbenzene	20.0	17.6		ug/L		88	80 - 120
Ethylene Dibromide	20.0	17.7		ug/L		89	80 - 120
Isopropylbenzene	20.0	17.8		ug/L		89	80 - 123
Methyl acetate	40.0	39.9		ug/L		100	66 - 144
Methyl tert-butyl ether	20.0	16.5		ug/L		83	79 - 122
Methylcyclohexane	20.0	19.6		ug/L		98	61 - 145
Methylene Chloride	20.0	17.5		ug/L		88	77 - 123
Styrene	20.0	17.5		ug/L		87	80 - 120
Tetrachloroethene	20.0	16.4		ug/L		82	78 - 122
Toluene	20.0	18.0		ug/L		90	80 - 120
trans-1,2-Dichloroethene	20.0	17.2		ug/L		86	79 - 120
trans-1,3-Dichloropropene	20.0	18.4		ug/L		92	76 - 120
Trichloroethene	20.0	16.7		ug/L		83	77 - 120
Trichlorofluoromethane	20.0	15.1		ug/L		76	71 - 143
Vinyl chloride	20.0	14.6		ug/L		73	62 - 138
Xylenes, Total	40.0	35.6		ug/L		89	80 - 120

Eurofins TestAmerica, Edison

QC Sample Results

Client: New York State D.E.C.
Project/Site: DEC - Fort Edward Landfill Site:558001

Job ID: 460-196154-1

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

Lab Sample ID: LCS 460-656186/4

Matrix: Water

Analysis Batch: 656186

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	95		74 - 132
4-Bromofluorobenzene	92		77 - 124
Dibromofluoromethane (Surr)	92		72 - 131
Toluene-d8 (Surr)	103		80 - 120

Lab Sample ID: LCSD 460-656186/5

Matrix: Water

Analysis Batch: 656186

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,1,1-Trichloroethane	20.0	17.8		ug/L		89	75 - 125	13	30
1,1,2,2-Tetrachloroethane	20.0	22.0		ug/L		110	74 - 120	10	30
1,1,2-Trichloro-1,2,2-trifluoroethane	20.0	21.2		ug/L		106	59 - 150	14	30
1,1,2-Trichloroethane	20.0	20.7		ug/L		104	78 - 120	11	30
1,1-Dichloroethane	20.0	20.6		ug/L		103	77 - 123	13	30
1,1-Dichloroethene	20.0	20.7		ug/L		104	74 - 123	11	30
1,2,4-Trichlorobenzene	20.0	19.9		ug/L		99	80 - 124	10	30
1,2-Dibromo-3-Chloropropane	20.0	20.9		ug/L		105	55 - 134	2	30
1,2-Dichlorobenzene	20.0	19.4		ug/L		97	80 - 120	9	30
1,2-Dichloroethane	20.0	19.3		ug/L		96	76 - 121	12	30
1,2-Dichloropropane	20.0	20.4		ug/L		102	77 - 123	9	30
1,3-Dichlorobenzene	20.0	19.1		ug/L		95	80 - 120	12	30
1,4-Dichlorobenzene	20.0	19.0		ug/L		95	80 - 120	9	30
2-Butanone (MEK)	100	86.5		ug/L		86	64 - 120	13	30
2-Hexanone	100	100		ug/L		100	71 - 125	13	30
4-Methyl-2-pentanone (MIBK)	100	98.4		ug/L		98	78 - 124	12	30
Acetone	100	109		ug/L		109	39 - 150	21	30
Benzene	20.0	22.2		ug/L		111	77 - 121	13	30
Bromoform	20.0	19.9		ug/L		100	53 - 120	15	30
Bromomethane	20.0	12.3		ug/L		62	10 - 150	3	30
Carbon disulfide	20.0	21.1		ug/L		106	69 - 133	13	30
Carbon tetrachloride	20.0	18.8		ug/L		94	70 - 132	18	30
Chlorobenzene	20.0	19.6		ug/L		98	80 - 120	13	30
Chlorodibromomethane	20.0	19.4		ug/L		97	73 - 120	12	30
Chloroethane	20.0	12.6		ug/L		63	52 - 150	4	30
Chloroform	20.0	18.5		ug/L		93	80 - 120	15	30
Chloromethane	20.0	15.2		ug/L		76	56 - 131	3	30
cis-1,2-Dichloroethene	20.0	19.1		ug/L		96	80 - 120	13	30
cis-1,3-Dichloropropene	20.0	20.8		ug/L		104	77 - 120	11	30
Cyclohexane	20.0	22.1		ug/L		111	56 - 150	13	30
Dichlorobromomethane	20.0	17.9		ug/L		90	76 - 120	11	30
Dichlorodifluoromethane	20.0	18.7		ug/L		94	50 - 131	5	30
Ethylbenzene	20.0	19.8		ug/L		99	80 - 120	12	30
Ethylene Dibromide	20.0	19.6		ug/L		98	80 - 120	10	30
Isopropylbenzene	20.0	19.7		ug/L		98	80 - 123	10	30
Methyl acetate	40.0	46.0		ug/L		115	66 - 144	14	30
Methyl tert-butyl ether	20.0	18.8		ug/L		94	79 - 122	13	30
Methylcyclohexane	20.0	22.1		ug/L		110	61 - 145	12	30

Eurofins TestAmerica, Edison

QC Sample Results

Client: New York State D.E.C.
Project/Site: DEC - Fort Edward Landfill Site:558001

Job ID: 460-196154-1

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

Lab Sample ID: LCSD 460-656186/5

Matrix: Water

Analysis Batch: 656186

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Methylene Chloride	20.0	20.1		ug/L		100	77 - 123	14	30
Styrene	20.0	19.6		ug/L		98	80 - 120	11	30
Tetrachloroethene	20.0	18.5		ug/L		92	78 - 122	12	30
Toluene	20.0	20.2		ug/L		101	80 - 120	12	30
trans-1,2-Dichloroethene	20.0	19.7		ug/L		98	79 - 120	14	30
trans-1,3-Dichloropropene	20.0	20.3		ug/L		101	76 - 120	10	30
Trichloroethene	20.0	18.9		ug/L		94	77 - 120	12	30
Trichlorofluoromethane	20.0	15.2		ug/L		76	71 - 143	1	30
Vinyl chloride	20.0	14.6		ug/L		73	62 - 138	1	30
Xylenes, Total	40.0	40.3		ug/L		101	80 - 120	12	30

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	93		74 - 132
4-Bromofluorobenzene	95		77 - 124
Dibromofluoromethane (Surr)	91		72 - 131
Toluene-d8 (Surr)	103		80 - 120

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Lab Sample ID: MB 460-654480/1-A

Matrix: Water

Analysis Batch: 654621

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 654480

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	0.40	U	0.40	0.12	ug/L		11/11/19 16:59	11/12/19 08:28	1
Aroclor 1221	0.40	U	0.40	0.12	ug/L		11/11/19 16:59	11/12/19 08:28	1
Aroclor 1232	0.40	U	0.40	0.12	ug/L		11/11/19 16:59	11/12/19 08:28	1
Aroclor 1242	0.40	U	0.40	0.12	ug/L		11/11/19 16:59	11/12/19 08:28	1
Aroclor 1248	0.40	U	0.40	0.12	ug/L		11/11/19 16:59	11/12/19 08:28	1
Aroclor 1254	0.40	U	0.40	0.11	ug/L		11/11/19 16:59	11/12/19 08:28	1
Aroclor 1260	0.40	U	0.40	0.11	ug/L		11/11/19 16:59	11/12/19 08:28	1
Aroclor-1262	0.40	U	0.40	0.11	ug/L		11/11/19 16:59	11/12/19 08:28	1
Aroclor 1268	0.40	U	0.40	0.11	ug/L		11/11/19 16:59	11/12/19 08:28	1
Polychlorinated biphenyls, Total	0.40	U	0.40	0.12	ug/L		11/11/19 16:59	11/12/19 08:28	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	95		10 - 150	11/11/19 16:59	11/12/19 08:28	1
DCB Decachlorobiphenyl	90		10 - 150	11/11/19 16:59	11/12/19 08:28	1

Lab Sample ID: LCS 460-654480/2-A

Matrix: Water

Analysis Batch: 654621

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 654480

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Aroclor 1016	4.00	4.18		ug/L		105	78 - 150
Aroclor 1016	4.00	4.22		ug/L		105	78 - 150
Aroclor 1260	4.00	4.95		ug/L		124	80 - 150
Aroclor 1260	4.00	4.79		ug/L		120	80 - 150

Eurofins TestAmerica, Edison

QC Sample Results

Client: New York State D.E.C.
Project/Site: DEC - Fort Edward Landfill Site:558001

Job ID: 460-196154-1

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography (Continued)

Lab Sample ID: LCS 460-654480/2-A

Matrix: Water

Analysis Batch: 654621

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 654480

Surrogate	LCS %Recovery	LCS Qualifier	Limits
DCB Decachlorobiphenyl	109		10 - 150
DCB Decachlorobiphenyl	104		10 - 150

Lab Sample ID: LCSD 460-654480/3-A

Matrix: Water

Analysis Batch: 654621

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 654480

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Aroclor 1016	4.00	3.44		ug/L		86	78 - 150	20	30
Aroclor 1016	4.00	3.42		ug/L		85	78 - 150	20	30
Aroclor 1260	4.00	4.06		ug/L		102	80 - 150	20	30
Aroclor 1260	4.00	4.01		ug/L		100	80 - 150	18	30

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
DCB Decachlorobiphenyl	95		10 - 150
DCB Decachlorobiphenyl	90		10 - 150

Method: 537 (modified) - Fluorinated Alkyl Substances

Lab Sample ID: MB 320-339119/1-A

Matrix: Water

Analysis Batch: 339604

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 339119

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorohexanoic acid (PFHxA)	2.00	U	2.00	0.58	ng/L		11/16/19 07:46	11/18/19 20:19	1
Perfluoroheptanoic acid (PFHpA)	2.00	U	2.00	0.25	ng/L		11/16/19 07:46	11/18/19 20:19	1
Perfluorooctanoic acid (PFOA)	2.00	U	2.00	0.85	ng/L		11/16/19 07:46	11/18/19 20:19	1
Perfluorononanoic acid (PFNA)	0.312	J	2.00	0.27	ng/L		11/16/19 07:46	11/18/19 20:19	1
Perfluorodecanoic acid (PFDA)	2.00	U	2.00	0.31	ng/L		11/16/19 07:46	11/18/19 20:19	1
Perfluoroundecanoic acid (PFUnA)	2.00	U	2.00	1.10	ng/L		11/16/19 07:46	11/18/19 20:19	1
Perfluorododecanoic acid (PFDoA)	2.00	U	2.00	0.55	ng/L		11/16/19 07:46	11/18/19 20:19	1
Perfluorotridecanoic acid (PFTriA)	2.00	U	2.00	1.30	ng/L		11/16/19 07:46	11/18/19 20:19	1
Perfluorotetradecanoic acid (PFTeA)	2.00	U	2.00	0.29	ng/L		11/16/19 07:46	11/18/19 20:19	1
Perfluorobutanesulfonic acid (PFBS)	2.00	U	2.00	0.20	ng/L		11/16/19 07:46	11/18/19 20:19	1
Perfluorohexanesulfonic acid (PFHxS)	0.328	J	2.00	0.17	ng/L		11/16/19 07:46	11/18/19 20:19	1
Perfluorooctanesulfonic acid (PFOS)	2.00	U	2.00	0.54	ng/L		11/16/19 07:46	11/18/19 20:19	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	20.0	U	20.0	1.90	ng/L		11/16/19 07:46	11/18/19 20:19	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	20.0	U	20.0	3.10	ng/L		11/16/19 07:46	11/18/19 20:19	1

Isotope Dilution	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
¹³ C2 PFHxA	105		25 - 150	11/16/19 07:46	11/18/19 20:19	1
¹³ C4 PFHpA	104		25 - 150	11/16/19 07:46	11/18/19 20:19	1
¹³ C4 PFOA	110		25 - 150	11/16/19 07:46	11/18/19 20:19	1
¹³ C5 PFNA	105		25 - 150	11/16/19 07:46	11/18/19 20:19	1
¹³ C2 PFDA	99		25 - 150	11/16/19 07:46	11/18/19 20:19	1
¹³ C2 PFUnA	100		25 - 150	11/16/19 07:46	11/18/19 20:19	1
¹³ C2 PFDoA	105		25 - 150	11/16/19 07:46	11/18/19 20:19	1

Eurofins TestAmerica, Edison

QC Sample Results

Client: New York State D.E.C.
Project/Site: DEC - Fort Edward Landfill Site:558001

Job ID: 460-196154-1

Method: 537 (modified) - Fluorinated Alkyl Substances (Continued)

Lab Sample ID: MB 320-339119/1-A

Matrix: Water

Analysis Batch: 339604

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 339119

Isotope Dilution	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C2 PFTeDA	108		25 - 150	11/16/19 07:46	11/18/19 20:19	1
18O2 PFHxS	112		25 - 150	11/16/19 07:46	11/18/19 20:19	1
13C4 PFOS	100		25 - 150	11/16/19 07:46	11/18/19 20:19	1
d3-NMeFOSAA	86		25 - 150	11/16/19 07:46	11/18/19 20:19	1
d5-NEtFOSAA	92		25 - 150	11/16/19 07:46	11/18/19 20:19	1

Lab Sample ID: LCS 320-339119/2-A

Matrix: Water

Analysis Batch: 339604

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 339119

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Perfluorohexanoic acid (PFHxA)	40.0	39.98		ng/L		100	73 - 133
Perfluoroheptanoic acid (PFHpA)	40.0	38.77		ng/L		97	72 - 132
Perfluorooctanoic acid (PFOA)	40.0	36.73		ng/L		92	70 - 130
Perfluorononanoic acid (PFNA)	40.0	41.02		ng/L		103	75 - 135
Perfluorodecanoic acid (PFDA)	40.0	41.39		ng/L		103	76 - 136
Perfluoroundecanoic acid (PFUnA)	40.0	38.85		ng/L		97	68 - 128
Perfluorododecanoic acid (PFDoA)	40.0	39.31		ng/L		98	71 - 131
Perfluorotridecanoic acid (PFTriA)	40.0	40.34		ng/L		101	71 - 131
Perfluorotetradecanoic acid (PFTeA)	40.0	36.72		ng/L		92	70 - 130
Perfluorobutanesulfonic acid (PFBS)	35.4	33.56		ng/L		95	67 - 127
Perfluorohexanesulfonic acid (PFHxS)	36.4	33.17		ng/L		91	59 - 119
Perfluorooctanesulfonic acid (PFOS)	37.1	36.60		ng/L		99	70 - 130

Isotope Dilution	LCS %Recovery	LCS Qualifier	Limits
13C2 PFHxA	107		25 - 150
13C4 PFHpA	108		25 - 150
13C4 PFOA	114		25 - 150
13C5 PFNA	107		25 - 150
13C2 PFDA	104		25 - 150
13C2 PFUnA	107		25 - 150
13C2 PFDoA	107		25 - 150
13C2 PFTeDA	113		25 - 150
18O2 PFHxS	113		25 - 150
13C4 PFOS	103		25 - 150
d3-NMeFOSAA	89		25 - 150
d5-NEtFOSAA	83		25 - 150

Lab Sample ID: LCSD 320-339119/3-A

Matrix: Water

Analysis Batch: 339604

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 339119

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	Limit
Perfluorohexanoic acid (PFHxA)	40.0	39.91		ng/L		100	73 - 133	0	30

Eurofins TestAmerica, Edison

QC Sample Results

Client: New York State D.E.C.
Project/Site: DEC - Fort Edward Landfill Site:558001

Job ID: 460-196154-1

Method: 537 (modified) - Fluorinated Alkyl Substances (Continued)

Lab Sample ID: LCSD 320-339119/3-A

Matrix: Water

Analysis Batch: 339604

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 339119

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Perfluoroheptanoic acid (PFHpA)	40.0	39.18		ng/L		98	72 - 132	1	30
Perfluorooctanoic acid (PFOA)	40.0	40.57		ng/L		101	70 - 130	10	30
Perfluorononanoic acid (PFNA)	40.0	40.30		ng/L		101	75 - 135	2	30
Perfluorodecanoic acid (PFDA)	40.0	43.80		ng/L		110	76 - 136	6	30
Perfluoroundecanoic acid (PFUnA)	40.0	39.61		ng/L		99	68 - 128	2	30
Perfluorododecanoic acid (PFDoA)	40.0	41.35		ng/L		103	71 - 131	5	30
Perfluorotridecanoic acid (PFTriA)	40.0	38.34		ng/L		96	71 - 131	5	30
Perfluorotetradecanoic acid (PFTeA)	40.0	37.14		ng/L		93	70 - 130	1	30
Perfluorobutanesulfonic acid (PFBS)	35.4	34.94		ng/L		99	67 - 127	4	30
Perfluorohexanesulfonic acid (PFHxS)	36.4	34.85		ng/L		96	59 - 119	5	30
Perfluorooctanesulfonic acid (PFOS)	37.1	37.78		ng/L		102	70 - 130	3	30

Isotope Dilution	LCSD %Recovery	LCSD Qualifier	Limits
13C2 PFHxA	103		25 - 150
13C4 PFHpA	108		25 - 150
13C4 PFOA	107		25 - 150
13C5 PFNA	106		25 - 150
13C2 PFDA	102		25 - 150
13C2 PFUnA	103		25 - 150
13C2 PFDoA	110		25 - 150
13C2 PFTeDA	115		25 - 150
18O2 PFHxS	108		25 - 150
13C4 PFOS	101		25 - 150
d3-NMeFOSAA	86		25 - 150
d5-NEtFOSAA	89		25 - 150

Method: 6010D - Metals (ICP)

Lab Sample ID: MB 460-655832/1-A

Matrix: Water

Analysis Batch: 655905

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 655832

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	10.0	U	10.0	1.1	ug/L		11/16/19 00:00	11/16/19 18:16	1
Aluminum	200	U	200	28.6	ug/L		11/16/19 00:00	11/16/19 18:16	1
Arsenic	15.0	U	15.0	2.7	ug/L		11/16/19 00:00	11/16/19 18:16	1
Barium	200	U	200	7.7	ug/L		11/16/19 00:00	11/16/19 18:16	1
Beryllium	2.0	U	2.0	0.23	ug/L		11/16/19 00:00	11/16/19 18:16	1
Calcium	5000	U	5000	222	ug/L		11/16/19 00:00	11/16/19 18:16	1
Cadmium	4.0	U	4.0	0.22	ug/L		11/16/19 00:00	11/16/19 18:16	1
Cobalt	50.0	U	50.0	1.7	ug/L		11/16/19 00:00	11/16/19 18:16	1
Chromium	10.0	U	10.0	1.3	ug/L		11/16/19 00:00	11/16/19 18:16	1
Copper	25.0	U	25.0	5.1	ug/L		11/16/19 00:00	11/16/19 18:16	1
Iron	150	U	150	34.2	ug/L		11/16/19 00:00	11/16/19 18:16	1

Eurofins TestAmerica, Edison

QC Sample Results

Client: New York State D.E.C.
Project/Site: DEC - Fort Edward Landfill Site:558001

Job ID: 460-196154-1

Method: 6010D - Metals (ICP) (Continued)

Lab Sample ID: MB 460-655832/1-A

Matrix: Water

Analysis Batch: 655905

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 655832

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Potassium	5000	U	5000	323	ug/L		11/16/19 00:00	11/16/19 18:16	1
Magnesium	5000	U	5000	177	ug/L		11/16/19 00:00	11/16/19 18:16	1
Manganese	15.0	U	15.0	0.99	ug/L		11/16/19 00:00	11/16/19 18:16	1
Sodium	5000	U	5000	460	ug/L		11/16/19 00:00	11/16/19 18:16	1
Nickel	40.0	U	40.0	1.7	ug/L		11/16/19 00:00	11/16/19 18:16	1
Lead	10.0	U	10.0	2.5	ug/L		11/16/19 00:00	11/16/19 18:16	1
Antimony	20.0	U	20.0	2.9	ug/L		11/16/19 00:00	11/16/19 18:16	1
Selenium	20.0	U	20.0	6.6	ug/L		11/16/19 00:00	11/16/19 18:16	1
Thallium	20.0	U	20.0	5.4	ug/L		11/16/19 00:00	11/16/19 18:16	1
Vanadium	50.0	U	50.0	2.5	ug/L		11/16/19 00:00	11/16/19 18:16	1
Zinc	30.0	U	30.0	3.6	ug/L		11/16/19 00:00	11/16/19 18:16	1

Lab Sample ID: LCS 460-655832/2-A

Matrix: Water

Analysis Batch: 655905

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 655832

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Silver	50.0	50.15		ug/L		100	80 - 120
Aluminum	2000	2129		ug/L		106	80 - 120
Arsenic	2000	2062		ug/L		103	80 - 120
Barium	2000	2222		ug/L		111	80 - 120
Beryllium	50.0	52.75		ug/L		106	80 - 120
Calcium	20000	21550		ug/L		108	80 - 120
Cadmium	50.0	53.39		ug/L		107	80 - 120
Cobalt	500	539.1		ug/L		108	80 - 120
Chromium	200	215.0		ug/L		108	80 - 120
Copper	250	254.9		ug/L		102	80 - 120
Iron	1000	1077		ug/L		108	80 - 120
Potassium	20000	22200		ug/L		111	80 - 120
Magnesium	20000	21380		ug/L		107	80 - 120
Manganese	500	543.1		ug/L		109	80 - 120
Sodium	20000	22220		ug/L		111	80 - 120
Nickel	500	537.8		ug/L		108	80 - 120
Lead	500	525.6		ug/L		105	80 - 120
Antimony	500	519.1		ug/L		104	80 - 120
Selenium	2000	2025		ug/L		101	80 - 120
Thallium	2000	2252		ug/L		113	80 - 120
Vanadium	500	526.0		ug/L		105	80 - 120
Zinc	500	547.9		ug/L		110	80 - 120

Method: 7470A - Mercury (CVAA)

Lab Sample ID: MB 460-656432/13-A

Matrix: Water

Analysis Batch: 656551

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 656432

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.20	U	0.20	0.12	ug/L		11/19/19 03:28	11/19/19 07:23	1

Eurofins TestAmerica, Edison

QC Sample Results

Client: New York State D.E.C.
Project/Site: DEC - Fort Edward Landfill Site:558001

Job ID: 460-196154-1

Method: 7470A - Mercury (CVAA) (Continued)

Lab Sample ID: LCS 460-656432/14-A
Matrix: Water
Analysis Batch: 656551

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 656432
%Rec.

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Mercury	1.00	0.970		ug/L		97	80 - 120

Lab Sample ID: MB 460-656870/1-A
Matrix: Water
Analysis Batch: 656937

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 656870

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.20	U	0.20	0.12	ug/L		11/20/19 11:53	11/20/19 12:53	1

Lab Sample ID: LCS 460-656870/2-A
Matrix: Water
Analysis Batch: 656937

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 656870
%Rec.

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Mercury	1.00	0.950		ug/L		95	80 - 120

QC Association Summary

Client: New York State D.E.C.
Project/Site: DEC - Fort Edward Landfill Site:558001

Job ID: 460-196154-1

GC/MS VOA

Analysis Batch: 655890

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-196154-5	TRIPBLANK-20191106	Total/NA	Water	8260C	
MB 460-655890/9	Method Blank	Total/NA	Water	8260C	
LCS 460-655890/4	Lab Control Sample	Total/NA	Water	8260C	
LCSD 460-655890/5	Lab Control Sample Dup	Total/NA	Water	8260C	

Analysis Batch: 656186

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-196154-1	INFLUENT-20191106	Total/NA	Water	8260C	
460-196154-2	CCT-20191106	Total/NA	Water	8260C	
460-196154-3	DECANT TANK-20191106	Total/NA	Water	8260C	
MB 460-656186/8	Method Blank	Total/NA	Water	8260C	
LCS 460-656186/4	Lab Control Sample	Total/NA	Water	8260C	
LCSD 460-656186/5	Lab Control Sample Dup	Total/NA	Water	8260C	

GC Semi VOA

Prep Batch: 654480

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-196154-1	INFLUENT-20191106	Total/NA	Water	3510C	
460-196154-2	CCT-20191106	Total/NA	Water	3510C	
460-196154-3	DECANT TANK-20191106	Total/NA	Water	3510C	
MB 460-654480/1-A	Method Blank	Total/NA	Water	3510C	
LCS 460-654480/2-A	Lab Control Sample	Total/NA	Water	3510C	
LCSD 460-654480/3-A	Lab Control Sample Dup	Total/NA	Water	3510C	

Analysis Batch: 654621

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-196154-1	INFLUENT-20191106	Total/NA	Water	8082A	654480
460-196154-2	CCT-20191106	Total/NA	Water	8082A	654480
460-196154-3	DECANT TANK-20191106	Total/NA	Water	8082A	654480
MB 460-654480/1-A	Method Blank	Total/NA	Water	8082A	654480
LCS 460-654480/2-A	Lab Control Sample	Total/NA	Water	8082A	654480
LCSD 460-654480/3-A	Lab Control Sample Dup	Total/NA	Water	8082A	654480

LCMS

Prep Batch: 339119

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-196154-1	INFLUENT-20191106	Total/NA	Water	3535	
460-196154-2	CCT-20191106	Total/NA	Water	3535	
460-196154-3	DECANT TANK-20191106	Total/NA	Water	3535	
460-196154-4	DUP-1-20191106	Total/NA	Water	3535	
MB 320-339119/1-A	Method Blank	Total/NA	Water	3535	
LCS 320-339119/2-A	Lab Control Sample	Total/NA	Water	3535	
LCSD 320-339119/3-A	Lab Control Sample Dup	Total/NA	Water	3535	

Analysis Batch: 339604

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-196154-1	INFLUENT-20191106	Total/NA	Water	537 (modified)	339119
460-196154-2	CCT-20191106	Total/NA	Water	537 (modified)	339119
460-196154-3	DECANT TANK-20191106	Total/NA	Water	537 (modified)	339119
460-196154-4	DUP-1-20191106	Total/NA	Water	537 (modified)	339119

Eurofins TestAmerica, Edison

QC Association Summary

Client: New York State D.E.C.
Project/Site: DEC - Fort Edward Landfill Site:558001

Job ID: 460-196154-1

LCMS (Continued)

Analysis Batch: 339604 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 320-339119/1-A	Method Blank	Total/NA	Water	537 (modified)	339119
LCS 320-339119/2-A	Lab Control Sample	Total/NA	Water	537 (modified)	339119
LCSD 320-339119/3-A	Lab Control Sample Dup	Total/NA	Water	537 (modified)	339119

Metals

Prep Batch: 655832

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-196154-1	INFLUENT-20191106	Total/NA	Water	3010A	
460-196154-2	CCT-20191106	Total/NA	Water	3010A	
460-196154-3	DECANT TANK-20191106	Total/NA	Water	3010A	
MB 460-655832/1-A	Method Blank	Total/NA	Water	3010A	
LCS 460-655832/2-A	Lab Control Sample	Total/NA	Water	3010A	

Analysis Batch: 655905

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-196154-1	INFLUENT-20191106	Total/NA	Water	6010D	655832
460-196154-2	CCT-20191106	Total/NA	Water	6010D	655832
460-196154-3	DECANT TANK-20191106	Total/NA	Water	6010D	655832
MB 460-655832/1-A	Method Blank	Total/NA	Water	6010D	655832
LCS 460-655832/2-A	Lab Control Sample	Total/NA	Water	6010D	655832

Prep Batch: 656432

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-196154-1	INFLUENT-20191106	Total/NA	Water	7470A	
460-196154-2	CCT-20191106	Total/NA	Water	7470A	
MB 460-656432/13-A	Method Blank	Total/NA	Water	7470A	
LCS 460-656432/14-A	Lab Control Sample	Total/NA	Water	7470A	

Analysis Batch: 656551

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-196154-1	INFLUENT-20191106	Total/NA	Water	7470A	656432
460-196154-2	CCT-20191106	Total/NA	Water	7470A	656432
MB 460-656432/13-A	Method Blank	Total/NA	Water	7470A	656432
LCS 460-656432/14-A	Lab Control Sample	Total/NA	Water	7470A	656432

Prep Batch: 656870

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-196154-3	DECANT TANK-20191106	Total/NA	Water	7470A	
MB 460-656870/1-A	Method Blank	Total/NA	Water	7470A	
LCS 460-656870/2-A	Lab Control Sample	Total/NA	Water	7470A	

Analysis Batch: 656937

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-196154-3	DECANT TANK-20191106	Total/NA	Water	7470A	656870
MB 460-656870/1-A	Method Blank	Total/NA	Water	7470A	656870
LCS 460-656870/2-A	Lab Control Sample	Total/NA	Water	7470A	656870

Lab Chronicle

Client: New York State D.E.C.
Project/Site: DEC - Fort Edward Landfill Site:558001

Job ID: 460-196154-1

Client Sample ID: INFLUENT-20191106

Lab Sample ID: 460-196154-1

Date Collected: 11/06/19 07:35

Matrix: Water

Date Received: 11/07/19 17:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	656186	11/18/19 11:31	CJM	TAL EDI
Total/NA	Prep	3510C			654480	11/11/19 17:05	ATF	TAL EDI
Total/NA	Analysis	8082A		1	654621	11/12/19 13:02	JHP	TAL EDI
Total/NA	Prep	3535			339119	11/16/19 07:46	MYV	TAL SAC
Total/NA	Analysis	537 (modified)		1	339604	11/18/19 22:37	JRM	TAL SAC
Total/NA	Prep	3010A			655832	11/16/19 00:00	GAE	TAL EDI
Total/NA	Analysis	6010D		1	655905	11/16/19 18:01	CDC	TAL EDI
Total/NA	Prep	7470A			656432	11/19/19 03:28	TJS	TAL EDI
Total/NA	Analysis	7470A		1	656551	11/19/19 07:57	TJS	TAL EDI

Client Sample ID: CCT-20191106

Lab Sample ID: 460-196154-2

Date Collected: 11/06/19 08:00

Matrix: Water

Date Received: 11/07/19 17:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	656186	11/18/19 11:07	CJM	TAL EDI
Total/NA	Prep	3510C			654480	11/11/19 17:05	ATF	TAL EDI
Total/NA	Analysis	8082A		2	654621	11/12/19 15:06	JHP	TAL EDI
Total/NA	Prep	3535			339119	11/16/19 07:46	MYV	TAL SAC
Total/NA	Analysis	537 (modified)		1	339604	11/18/19 22:45	JRM	TAL SAC
Total/NA	Prep	3010A			655832	11/16/19 00:00	GAE	TAL EDI
Total/NA	Analysis	6010D		1	655905	11/16/19 18:20	CDC	TAL EDI
Total/NA	Prep	7470A			656432	11/19/19 03:28	TJS	TAL EDI
Total/NA	Analysis	7470A		1	656551	11/19/19 07:59	TJS	TAL EDI

Client Sample ID: DECANT TANK-20191106

Lab Sample ID: 460-196154-3

Date Collected: 11/06/19 07:50

Matrix: Water

Date Received: 11/07/19 17:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	656186	11/18/19 10:43	CJM	TAL EDI
Total/NA	Prep	3510C			654480	11/11/19 17:05	ATF	TAL EDI
Total/NA	Analysis	8082A		10	654621	11/12/19 15:23	JHP	TAL EDI
Total/NA	Prep	3535			339119	11/16/19 07:46	MYV	TAL SAC
Total/NA	Analysis	537 (modified)		1	339604	11/18/19 22:53	JRM	TAL SAC
Total/NA	Prep	3010A			655832	11/16/19 00:00	GAE	TAL EDI
Total/NA	Analysis	6010D		1	655905	11/16/19 18:23	CDC	TAL EDI
Total/NA	Prep	7470A			656870	11/20/19 11:53	RBS	TAL EDI
Total/NA	Analysis	7470A		1	656937	11/20/19 13:15	RBS	TAL EDI

Lab Chronicle

Client: New York State D.E.C.
Project/Site: DEC - Fort Edward Landfill Site:558001

Job ID: 460-196154-1

Client Sample ID: DUP-1-20191106

Lab Sample ID: 460-196154-4

Date Collected: 11/06/19 00:00

Matrix: Water

Date Received: 11/07/19 17:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3535			339119	11/16/19 07:46	MYV	TAL SAC
Total/NA	Analysis	537 (modified)		1	339604	11/18/19 23:01	JRM	TAL SAC

Client Sample ID: TRIPBLANK-20191106

Lab Sample ID: 460-196154-5

Date Collected: 11/06/19 00:00

Matrix: Water

Date Received: 11/07/19 17:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	655890	11/16/19 12:55	MZS	TAL EDI

Laboratory References:

= Kelso WA, 1317 S. 13th Avenue, Kelso, WA 98626

TAL EDI = Eurofins TestAmerica, Edison, 777 New Durham Road, Edison, NJ 08817, TEL (732)549-3900

TAL SAC = Eurofins TestAmerica, Sacramento, 880 Riverside Parkway, West Sacramento, CA 95605, TEL (916)373-5600

Accreditation/Certification Summary

Client: New York State D.E.C.
Project/Site: DEC - Fort Edward Landfill Site:558001

Job ID: 460-196154-1

Laboratory: Eurofins TestAmerica, Edison

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	Identification Number	Expiration Date
New York	NELAP	11452	04-01-20
The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.			
Analysis Method	Prep Method	Matrix	Analyte
8082A	3510C	Water	Polychlorinated biphenyls, Total

Laboratory: Eurofins TestAmerica, Sacramento

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Alaska (UST)	State	17-020	01-20-21
ANAB	Dept. of Defense ELAP	L2468	12-22-19
ANAB	Dept. of Energy	L2468.01	01-20-21
ANAB	ISO/IEC 17025	L2468	01-20-21
Arizona	State	AZ0708	08-11-20
Arkansas DEQ	State	19-042-0	06-17-20
California	State	2897	01-31-20
Colorado	State	CA0004	08-31-20
Connecticut	State	PH-0691	06-30-21
Florida	NELAP	E87570	06-30-20
Georgia	State	4040	01-29-20
Hawaii	State	<cert No.>	01-29-20
Illinois	NELAP	200060	03-17-20
Kansas	NELAP	E-10375	10-31-20 *
Louisiana	NELAP	01944	06-30-20
Maine	State	2018009	04-14-20
Michigan	State	9947	01-29-20
Michigan	State Program	9947	01-31-20
Nevada	State	CA000442020-1	07-31-20
New Hampshire	NELAP	2997	04-18-20
New Jersey	NELAP	CA005	06-30-20
New York	NELAP	11666	04-01-20
Oregon	NELAP	4040	01-29-20
Pennsylvania	NELAP	68-01272	03-31-20
Texas	NELAP	T104704399-19-13	05-31-20
US Fish & Wildlife	US Federal Programs	58448	07-31-20
USDA	US Federal Programs	P330-18-00239	07-31-21
Utah	NELAP	CA000442019-01	02-29-20
Vermont	State	VT-4040	04-16-20
Virginia	NELAP	460278	03-14-20
Washington	State	C581	05-05-20
West Virginia (DW)	State	9930C	12-31-19
Wyoming	State Program	8TMS-L	01-28-19 *

* Accreditation/Certification renewal pending - accreditation/certification considered valid.

Eurofins TestAmerica, Edison

Method Summary

Client: New York State D.E.C.

Job ID: 460-196154-1

Project/Site: DEC - Fort Edward Landfill Site:558001

Method	Method Description	Protocol	Laboratory
8260C	Volatile Organic Compounds by GC/MS	SW846	TAL EDI
8082A	Polychlorinated Biphenyls (PCBs) by Gas Chromatography	SW846	TAL EDI
537 (modified)	Fluorinated Alkyl Substances	EPA	TAL SAC
6010D	Metals (ICP)	SW846	TAL EDI
7470A	Mercury (CVAA)	SW846	TAL EDI
Subcontract	TOPS_Post_Prep	None	
3010A	Preparation, Total Metals	SW846	TAL EDI
3510C	Liquid-Liquid Extraction (Separatory Funnel)	SW846	TAL EDI
3535	Solid-Phase Extraction (SPE)	SW846	TAL SAC
5030C	Purge and Trap	SW846	TAL EDI
7470A	Preparation, Mercury	SW846	TAL EDI

Protocol References:

EPA = US Environmental Protection Agency

None = None

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

= Kelso WA, 1317 S. 13th Avenue, Kelso, WA 98626

TAL EDI = Eurofins TestAmerica, Edison, 777 New Durham Road, Edison, NJ 08817, TEL (732)549-3900

TAL SAC = Eurofins TestAmerica, Sacramento, 880 Riverside Parkway, West Sacramento, CA 95605, TEL (916)373-5600

Sample Summary

Client: New York State D.E.C.

Job ID: 460-196154-1

Project/Site: DEC - Fort Edward Landfill Site:558001

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
460-196154-1	INFLUENT-20191106	Water	11/06/19 07:35	11/07/19 17:00	
460-196154-2	CCT-20191106	Water	11/06/19 08:00	11/07/19 17:00	
460-196154-3	DECANT TANK-20191106	Water	11/06/19 07:50	11/07/19 17:00	
460-196154-4	DUP-1-20191106	Water	11/06/19 00:00	11/07/19 17:00	
460-196154-5	TRIPBLANK-20191106	Water	11/06/19 00:00	11/07/19 17:00	

[illegible]

Job Number:

Number of Coolers:

IR Gun #

9

Cooler Temperatures

	CORRECTED		RAW	
	RAW	CORRECTED	RAW	CORRECTED
Cooler #1:	1.6	1.6	1.6	1.6
Cooler #2:	1.6	1.6	1.6	1.6
Cooler #3:	1.6	1.6	1.6	1.6
Cooler #4:	1.6	1.6	1.6	1.6
Cooler #5:	1.6	1.6	1.6	1.6
Cooler #6:	1.6	1.6	1.6	1.6
Cooler #7:	1.6	1.6	1.6	1.6
Cooler #8:	1.6	1.6	1.6	1.6
Cooler #9:	1.6	1.6	1.6	1.6

[illegible]

If pH adjustments are required record the information below:

Sample No(s). adjusted:

Preservative Name/Conc.:

Volume of Preservative used (ml):

Lot # of Preservative(s):

Expiration Date:

The appropriate Project Manager and Department Manager should be notified about the samples which were pH adjusted.

Samples for Metal analysis which are out of compliance must be acidified at least 24 hours prior to analysis.

EDS-WI-038, Rev 4.1
10/22/2019

Initials: _____

Date: 11/7/19

Chain of Custody Record

eurofins

Environmental Testing
 TestAmerica

#224

Client Information		Lab PM: Gilmore, Julie L		Carrier Tracking No(s):		COC No: 460-120340-77482.1	
Client Contact: Jasmine Mullins		E-Mail: julie.gilmore@testamericainc.com		Page: 1 of 1		Job #: 1	
Company: ARCADIS U.S. Inc		Address: 855 Route 146 Suite 210		City: Clifton Park		State, Zip: NY, 12065	
Phone: 518-402-9625(Tel)		Callout: 137562 Site: 558001		Project #: 46030964		Site: FORT EDWARD LANDFILL	
Email: jasmine.mullins@arcadis.com		PO #:		WO #:		Due Date Requested:	
Project Name: DEC - Fort Edward Landfill Site: 558001		TAT Requested (days):		STANDARD		Analysis Requested	
Sample Identification		Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=wash, B=soil, T=tissue, A=air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)
INFLUENT-20191106	11/6/19	0735	G	Water	N	N	8260C - Target Compound List for VOCs-OLM4.2
CCT-20191106	11/6/19	0800	G	Water	N	N	8010D, 7470A (TAT methods in Method)
DECANT TANK-20191106	11/6/19	0750	G	Water	N	N	8082A - PCBs
INFLUENT-MS-20191106	11/6/19	0735	G	Water	N	N	PFC, PFA - PFAS, Method 537 List (250 mL)
INFLUENT-MSD-20191106	11/6/19	0735	G	Water	N	N	
DUP-1-20191106	11/6/19	—	G	Water	N	N	
TRIP BLANK-20191106	11/6/19	—	G	Water	N	N	
				Water			
				Water			
				460-196154 Chain of Custody			
				S.			
Possible Hazard Identification				☒ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological			
Deliverable Requested: I, II, III, IV, Other (specify) CAT.B. NISDEC-EQUIS				☐ Return To Client ☒ Disposal By Lab		Archive For: Months	
Empty Kit Relinquished by:				Date:		Time:	
Relinquished by: Jasmine Mullins				Date/Time: 11/6/19 1035		Company: ARCADIS	
Relinquished by: Karl Zacher				Date/Time: 11-6-19 1700		Company: Eurofins	
Relinquished by:				Date/Time:		Company:	
Custody Seal No.: 1042275				Custody Seal Intact: Yes ☒ No ☐		Cooler Temperature(s) °C and Other Remarks: 8.5	

SIGNATURE
DATE 11-16-19
Custody Sea

eurofins

Environment Testing
TestAmerica

1042275

ORIGIN ID: SCHA (518) 438-8140
TIM KNOLLMEYER
TESTAMERICA LAB INC
25 KRAFT AVE
ALBANY, NY 12205
UNITED STATES US

SHIP DATE: 06NOV19
ACTWT: 36.45 LB
CAD: 0439821/CAFE3211
DIMS: 21x14x11 IN
BILL THIRD PARTY

TO SAMPLE RECEIVING
TESTAMERICA - W. SACRAMENTO
880 RIVERSIDE PKWY

WEST SACRAMENTO CA 95605
(916) 373-5600

REF: FORT ED PFAS



TRK# 1034 8839 9130
0201

THU - 07 NOV 10:30A
PRIORITY OVERNIGHT

XH BLUA

95605
CA-US SMF



1042275

eurofins
Environment Testing
TestAmerica

Red Rock

Login Sample Receipt Checklist

Client: New York State D.E.C.

Job Number: 460-196154-1

Login Number: 196154

List Number: 1

Creator: Jara, Kelly D

List Source: Eurofins TestAmerica, Edison

Question	Answer	Comment
Radioactivity wasn't checked or is $\leq$ background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is $<6\text{mm}$ (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Login Sample Receipt Checklist

Client: New York State D.E.C.

Job Number: 460-196154-1

Login Number: 196154

List Number: 2

Creator: Nihart, Victoria M

List Source: Eurofins TestAmerica, Sacramento

List Creation: 11/12/19 04:52 PM

Question	Answer	Comment
Radioactivity wasn't checked or is $\leq$ background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	1042278
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	0.5c
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is $<6\text{mm}$ (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

ANALYTICAL REPORT

Eurofins TestAmerica, Edison
777 New Durham Road
Edison, NJ 08817
Tel: (732)549-3900

Laboratory Job ID: 460-197135-1

Client Project/Site: DEC - Fort Edward Landfill Site:558001

For:

New York State D.E.C.
625 Broadway
11th Floor
Albany, New York 12233-3256

Attn: Mr. Payson Long



Authorized for release by:
1/13/2020 11:09:02 AM

Julie Gilmore, Project Manager I
(484)685-0865
julie.gilmore@testamericainc.com

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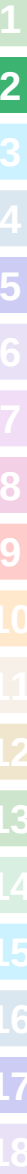
The test results in this report meet all 2003 NELAC and 2009 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

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Definitions/Glossary

Client: New York State D.E.C.
Project/Site: DEC - Fort Edward Landfill Site:558001

Job ID: 460-197135-1

Qualifiers

GC/MS VOA

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

GC Semi VOA

Qualifier	Qualifier Description
*	Surrogate is outside acceptance limits.
D	The reported value is from a dilution.
U	Analyzed for but not detected.

HPLC/IC

Qualifier	Qualifier Description
U	Analyzed for but not detected.

LCMS

Qualifier	Qualifier Description
B	The analyte was found in an associated blank, as well as in the sample.
J	Indicates an estimated value.
U	Analyzed for but not detected.

Metals

Qualifier	Qualifier Description
J	Sample result is greater than the MDL but below the CRDL
U	Indicates analyzed for but not detected.

General Chemistry

Qualifier	Qualifier Description
H	Sample was prepped or analyzed beyond the specified holding time
U	Indicates analyzed for but not detected.

Glossary

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

Eurofins TestAmerica, Edison

Definitions/Glossary

Client: New York State D.E.C.

Job ID: 460-197135-1

Project/Site: DEC - Fort Edward Landfill Site:558001

Glossary (Continued)

Abbreviation	These commonly used abbreviations may or may not be present in this report.
TEQ	Toxicity Equivalent Quotient (Dioxin)

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Case Narrative

Client: New York State D.E.C.
Project/Site: DEC - Fort Edward Landfill Site:558001

Job ID: 460-197135-1

Job ID: 460-197135-1

Laboratory: Eurofins TestAmerica, Edison

Narrative

CASE NARRATIVE

Client: New York State D.E.C.

Project: DEC - Fort Edward Landfill Site:558001

Report Number: 460-197135-1

This case narrative is in the form of an exception report, where only the anomalies related to this report, method specific performance and/or QA/QC issues are discussed. If there are no issues to report, this narrative will include a statement that documents that there are no relevant data issues.

It should be noted that samples with elevated Reporting Limits (RLs) as a result of a dilution may not be able to satisfy customer reporting limits in some cases. Such increases in the RLs are unavoidable but acceptable consequence of sample dilution that enables quantification of target analytes or interferences which exceed the calibration range of the instrument.

Calculations are performed before rounding to avoid round-off errors in calculated results.

All holding times were met and proper preservation noted for the methods performed on these samples, unless otherwise detailed in the individual sections below.

RECEIPT

The samples were received on 11/21/2019; the samples arrived in good condition, properly preserved and on ice. The temperature of the coolers at receipt was 2.3 C.

Note: All samples which require thermal preservation are considered acceptable if the arrival temperature is within 2C of the required temperature or method specified range. For samples with a specified temperature of 4C, samples with a temperature ranging from just above freezing temperature of water to 6C shall be acceptable. Samples that are hand delivered immediately following collection may not meet these criteria, however they will be deemed acceptable according to NELAC standards, if there is evidence that the chilling process has begun, such as arrival on ice, etc.

Chloromethane failed the recovery criteria high for LCS 460-657551/3. Methyl acetate failed the recovery criteria low for LCS 460-657667/5. Chloromethane failed the recovery criteria high for LCSD 460-657551/4. Methyl acetate failed the recovery criteria low for LCSD 460-657667/14. Refer to the QC report for details.

VOLATILE ORGANIC COMPOUNDS (GC-MS)

Sample Filter Sludge-20191120 (460-197135-4) was analyzed for Volatile organic compounds (GC-MS) in accordance with EPA SW-846 Method 8260C. The samples were prepared on 11/22/2019 and analyzed on 11/23/2019.

The laboratory control sample (LCS) and laboratory control sample duplicate (LCSD) for analytical batch 460-657667 recovered outside control limits for the following analyte: Methyl acetate. This analyte was not detected in the associated samples; therefore, the data have been reported.

The continuing calibration verification (CCV) associated with batch 460-657551 recovered above the upper control limit for Chloromethane and Vinyl chloride. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported.

The laboratory control sample (LCS) and laboratory control sample duplicate (LCSD) for analytical batch 460-657551 recovered outside control limits for the following analyte: Chloromethane. This analyte was biased high in the LCS/LCSD and was not detected in the associated samples; therefore, the data have been reported.

The continuing calibration verification (CCV) analyzed in batch 460-658233 was outside the method criteria for the following analyte: 1,1,2-Trichloro-1,2,2-trifluoroethane. A CCV standard at or below the reporting limit (RL) was analyzed with the affected samples and

Case Narrative

Client: New York State D.E.C.
Project/Site: DEC - Fort Edward Landfill Site:558001

Job ID: 460-197135-1

Job ID: 460-197135-1 (Continued)

Laboratory: Eurofins TestAmerica, Edison (Continued)

found to be acceptable. As indicated in the reference method, sample analysis may proceed; however, any detection for the affected analyte(s) is considered estimated.

The continuing calibration verification (CCV) analyzed in batch 460-658967 was outside the method criteria for the following analyte: 1,1,2,2-Tetrachloroethane. A CCV standard at or below the reporting limit (RL) was analyzed with the affected samples and found to be acceptable. As indicated in the reference method, sample analysis may proceed; however, any detection for the affected analyte is considered estimated.

No difficulties were encountered during the volatiles analysis.

All quality control parameters were within the acceptance limits.

VOLATILE ORGANIC COMPOUNDS (GC-MS)

Samples Influent-20191120 (460-197135-1), CCT-20191120 (460-197135-2), Decant Tank-20191120 (460-197135-5) and Trip Blank-20191120 (460-197135-6) were analyzed for Volatile organic compounds (GC-MS) in accordance with EPA SW-846 Methods 8260C. The samples were analyzed on 11/26/2019 and 11/29/2019.

Methylene Chloride failed the recovery criteria low for the MS of sample 460-197264-6 in batch 460-658233.

For the MSD of sample 460-197264-6 in batch 460-658233, Benzene failed the recovery criteria low. 2-Hexanone, 4-Methyl-2-pentanone (MIBK), Bromomethane and Chloromethane failed the recovery criteria high. Also, Several analytes exceeded the RPD limit.

Refer to the QC report for details.

The presence of the '4' qualifier in the data indicates analytes where the concentration in the unspiked sample exceeded four times the spiking amount.

Refer to the QC report for details.

No other difficulties were encountered during the volatiles analysis.

All other quality control parameters were within the acceptance limits.

POLYCHLORINATED BIPHENYLS

Sample Filter Sludge-20191120 (460-197135-4) was analyzed for polychlorinated biphenyls in accordance with EPA SW-846 Method 8082A. The samples were prepared on 11/22/2019 and analyzed on 11/25/2019.

The following sample was diluted to bring the concentration of target analytes within the calibration range: Filter Sludge-20191120 (460-197135-4) at 20.0 and 20.0. Elevated reporting limits (RLs) are provided.

The following sample was diluted due to abundance of target analytes: Filter Sludge-20191120 (460-197135-4). As such, surrogate recoveries are not reported, and elevated reporting limits (RLs) are provided.

DCB Decachlorobiphenyl failed the surrogate recovery criteria low for Filter Sludge-20191120 (460-197135-4). Refer to the QC report for details.

Sample Filter Sludge-20191120 (460-197135-4)[20X] required dilution prior to analysis. The reporting limits have been adjusted accordingly.

No other difficulties were encountered during the PCBs analysis.

All other quality control parameters were within the acceptance limits.

POLYCHLORINATED BIPHENYLS (PCBS)

Samples Influent-20191120 (460-197135-1), CCT-20191120 (460-197135-2) and Decant Tank-20191120 (460-197135-5) were analyzed

Case Narrative

Client: New York State D.E.C.
Project/Site: DEC - Fort Edward Landfill Site:558001

Job ID: 460-197135-1

Job ID: 460-197135-1 (Continued)

Laboratory: Eurofins TestAmerica, Edison (Continued)

for polychlorinated biphenyls (PCBs) in accordance with EPA SW-846 Method 8082A. The samples were prepared on 11/22/2019 and analyzed on 11/25/2019.

The following sample was diluted to bring the concentration of target analytes within the calibration range: Decant Tank-20191120 (460-197135-5) at 10.0 and 10.0. Elevated reporting limits (RLs) are provided.

Some peaks for Aroclor 1232 eluted outside the retention time window for the following samples: Influent-20191120 (460-197135-1), CCT-20191120 (460-197135-2) and Decant Tank-20191120 (460-197135-5). This retention time shift was taken into account when reviewing the sample(s) for target compounds.

Sample Decant Tank-20191120 (460-197135-5)[10X] required dilution prior to analysis. The reporting limits have been adjusted accordingly.

No difficulties were encountered during the PCBs analysis.

All quality control parameters were within the acceptance limits.

PERFLUORINATED HYDROCARBONS (PFC)

Sample Filter Sludge-20191120 (460-197135-4) was analyzed for Perfluorinated Hydrocarbons (PFC) in accordance with PFC. The samples were prepared on 12/03/2019 and analyzed on 12/06/2019.

No difficulties were encountered during the Perfluorinated Hydrocarbons (PFC) analysis.

All quality control parameters were within the acceptance limits.

PERFLUORINATED HYDROCARBONS (PFC)

Samples Influent-20191120 (460-197135-1), CCT-20191120 (460-197135-2), DUP-1-20191120 (460-197135-3) and Decant Tank-20191120 (460-197135-5) were analyzed for Perfluorinated Hydrocarbons (PFC) in accordance with PFC. The samples were prepared on 12/02/2019 and analyzed on 12/05/2019.

Perfluorohexanesulfonic acid (PFHxS) was detected in method blank MB 320-342557/1-A at a level that was above the method detection limit but below the reporting limit. The value should be considered an estimate, and has been flagged. If the associated sample reported a result above the MDL and/or RL, the result has been flagged. Refer to the QC report for details.

No other difficulties were encountered during the Perfluorinated Hydrocarbons (PFC) analysis.

All other quality control parameters were within the acceptance limits.

TOTAL METALS (ICP)

Sample Filter Sludge-20191120 (460-197135-4) was analyzed for Total Metals (ICP) in accordance with EPA SW-846 Methods 6010D. The samples were prepared on 12/03/2019 and 12/05/2019 and analyzed on 12/04/2019 and 12/05/2019.

Aluminum, Chromium and Iron failed the recovery criteria high for the MS of sample 460-197730-1 in batch 460-659963.

Refer to the QC report for details.

For the duplicate of sample 460-197639-1. Aluminum, Lead and Magnesium exceeded the RPD limit for the duplicate of sample 460-197730-1. Refer to the QC report for details.

Samples Filter Sludge-20191120 (460-197135-4)[20X] and Filter Sludge-20191120 (460-197135-4)[4X] required dilution prior to analysis. The reporting limits have been adjusted accordingly.

No other difficulties were encountered during the Total Metals (ICP) analysis.

All other quality control parameters were within the acceptance limits.

Case Narrative

Client: New York State D.E.C.
Project/Site: DEC - Fort Edward Landfill Site:558001

Job ID: 460-197135-1

Job ID: 460-197135-1 (Continued)

Laboratory: Eurofins TestAmerica, Edison (Continued)

METALS

Samples Influent-20191120 (460-197135-1), CCT-20191120 (460-197135-2) and Decant Tank-20191120 (460-197135-5) were analyzed for Metals in accordance with 6010D. The samples were prepared on 11/22/2019 and analyzed on 11/23/2019.

Sodium failed the recovery criteria high for the MS of sample 460-196540-1 in batch 460-657750.

Refer to the QC report for details.

For the duplicate of sample 460-196540-1. Refer to the QC report for details.

No other difficulties were encountered during the Metals analysis.

All other quality control parameters were within the acceptance limits.

TOTAL MERCURY

Samples Influent-20191120 (460-197135-1), CCT-20191120 (460-197135-2) and Decant Tank-20191120 (460-197135-5) were analyzed for total mercury in accordance with EPA SW-846 Methods 7470A. The samples were prepared and analyzed on 11/29/2019.

No difficulties were encountered during the Hg analysis.

All quality control parameters were within the acceptance limits.

TOTAL MERCURY

Sample Filter Sludge-20191120 (460-197135-4) was analyzed for total mercury in accordance with EPA SW-846 Method 7471B. The samples were prepared and analyzed on 11/26/2019.

No difficulties were encountered during the Hg analysis.

All quality control parameters were within the acceptance limits.

TOTAL DISSOLVED SOLIDS

Samples Influent-20191120 (460-197135-1), CCT-20191120 (460-197135-2) and Decant Tank-20191120 (460-197135-5) were analyzed for total dissolved solids in accordance with EPA Method 160.1. The samples were analyzed on 11/25/2019 and 12/03/2019.

The sample duplicate precision for the following sample associated with analytical batch 680-600099 was outside control limits: (680-177322-A-7 DU). The associated Laboratory Control Sample / Laboratory Control Sample Duplicate (LCS/LCSD) precision met acceptance criteria.

The following sample was analyzed outside of analytical holding time due to analyst scheduling error/large backlog Influent-20191120 (460-197135-1).

Result is reported from single weight. Samples were lost before constant weight could be assessed.

No difficulties were encountered during the TDS analysis.

All quality control parameters were within the acceptance limits.

TOTAL SUSPENDED SOLIDS

Samples Influent-20191120 (460-197135-1), CCT-20191120 (460-197135-2) and Decant Tank-20191120 (460-197135-5) were analyzed for total suspended solids in accordance with EPA Method 160.2. The samples were analyzed on 12/18/2019.

Due to the nature of the sample matrix, a sample volume less than 1L was utilized for this procedure and produced less than the 2.5mg dried residue specified by the SM 2540D reference method. The following sample was impacted: CCT-20191120 (460-197135-2).

Case Narrative

Client: New York State D.E.C.
Project/Site: DEC - Fort Edward Landfill Site:558001

Job ID: 460-197135-1

Job ID: 460-197135-1 (Continued)

Laboratory: Eurofins TestAmerica, Edison (Continued)

The following sample(s) was analyzed outside of analytical holding time due to analyst error. The samples were initial set up in hold. However due to the batch not being saved, the data was lost and had to be reanalyzed out of hold. Influent-20191120 (460-197135-1), CCT-20191120 (460-197135-2) and Decant Tank-20191120 (460-197135-5).

Due to the nature of the sample matrix, a sample volume less than 1L was utilized for this procedure and produced less than the 2.5mg dried residue specified by the SM 2540D reference method. Samples were difficult to filter. The following sample was impacted: CCT-20191120 (460-197135-2).

No difficulties were encountered during the TSS analysis.

All quality control parameters were within the acceptance limits.

ALKALINITY

Samples Influent-20191120 (460-197135-1) and CCT-20191120 (460-197135-2) were analyzed for alkalinity in accordance with SM 2320B. The samples were analyzed on 12/05/2019.

The following samples were analyzed outside of analytical holding time due to analyst error: Influent-20191120 (460-197135-1) and CCT-20191120 (460-197135-2).

No difficulties were encountered during the alkalinity analysis.

All quality control parameters were within the acceptance limits.

HARDNESS

Samples Influent-20191120 (460-197135-1) and CCT-20191120 (460-197135-2) were analyzed for hardness in accordance with SM 2340C. The samples were analyzed on 11/29/2019.

No difficulties were encountered during the hardness analysis.

All quality control parameters were within the acceptance limits.

ANIONS

Samples Influent-20191120 (460-197135-1), CCT-20191120 (460-197135-2) and Decant Tank-20191120 (460-197135-5) were analyzed for anions in accordance with EPA Method 300_ORGFM_28D Anions by Ion Chromatograph. The samples were analyzed on 12/02/2019 and 12/03/2019.

No difficulties were encountered during the anions analysis.

All quality control parameters were within the acceptance limits.

ANIONS

Samples Influent-20191120 (460-197135-1), CCT-20191120 (460-197135-2) and Decant Tank-20191120 (460-197135-5) were analyzed for anions in accordance with EPA Method 300_ORGFMS Anions by Ion Chromatograph. The samples were analyzed on 11/22/2019.

No difficulties were encountered during the anions analysis.

All quality control parameters were within the acceptance limits.

TOTAL ORGANIC CARBON

Samples Influent-20191120 (460-197135-1) and CCT-20191120 (460-197135-2) were analyzed for Total Organic Carbon in accordance with EPA SW-846 Method 9060A. The samples were analyzed on 11/26/2019 and 11/28/2019.

No difficulties were encountered during the TOC analysis.

All quality control parameters were within the acceptance limits.

Case Narrative

Client: New York State D.E.C.
Project/Site: DEC - Fort Edward Landfill Site:558001

Job ID: 460-197135-1

Job ID: 460-197135-1 (Continued)

Laboratory: Eurofins TestAmerica, Edison (Continued)

PERCENT SOLIDS/PERCENT MOISTURE

Sample Filter Sludge-20191120 (460-197135-4) was analyzed for percent solids/percent moisture in accordance with EPA Method CLPISM01.2 (Exhibit D) Modified. The samples were analyzed on 11/27/2019.

No difficulties were encountered during the %solids/moisture analysis.

All quality control parameters were within the acceptance limits.

ORGANIC PREP

Method 3535: The following samples contain a thin layer of orange sediment at the bottom of the bottle prior to extraction: Influent-20191120 (460-197135-1), Influent-20191120 (460-197135-1[MS]) and Influent-20191120 (460-197135-1[MSD])

Method 3535: The following samples contain a thin layer of orange floating particulates at the bottom of the bottle prior to extraction: CCT-20191120 (460-197135-2), DUP-1-20191120 (460-197135-3) and Decant Tank-20191120 (460-197135-5)

Method 3535: During the solid phase extraction process, the following samples have non-settable particulates which clogged the extraction column: Influent-20191120 (460-197135-1), Influent-20191120 (460-197135-1[MS]), Influent-20191120 (460-197135-1[MSD]), CCT-20191120 (460-197135-2), DUP-1-20191120 (460-197135-3) and Decant Tank-20191120 (460-197135-5).

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

SUBCONTRACT WORK

Methods Auto_TOPS_Post, Auto_TOPS_Pre, TOPS_Post_Prep, TOPS_PostPrep_S, TOPS_Pre_Prep, TOPS_PrePrep_S, Total_PFCA_Diff: These methods were subcontracted to ALS Laboratory Group. The subcontract laboratory certifications are different from that of the facility issuing the final report.

Method Heterotrophic Plate Count: This method was subcontracted to St. Peters Bender Laboratory. The subcontract laboratory certification is different from that of the facility issuing the final report.

Detection Summary

Client: New York State D.E.C.
Project/Site: DEC - Fort Edward Landfill Site:558001

Job ID: 460-197135-1

Client Sample ID: Influent-20191120

Lab Sample ID: 460-197135-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil	Fac	D	Method	Prep Type
1,4-Dichlorobenzene	0.36	J	1.0	0.33	ug/L	1			8260C	Total/NA
Chlorobenzene	0.80	J	1.0	0.38	ug/L	1			8260C	Total/NA
Chloroethane	0.51	J	1.0	0.32	ug/L	1			8260C	Total/NA
cis-1,2-Dichloroethene	3.2		1.0	0.22	ug/L	1			8260C	Total/NA
Vinyl chloride	5.3		1.0	0.17	ug/L	1			8260C	Total/NA
Aroclor 1232	4.9		0.40	0.12	ug/L	1			8082A	Total/NA
Polychlorinated biphenyls, Total	4.9		0.40	0.12	ug/L	1			8082A	Total/NA
Sulfate	19.6		1.00	0.40	mg/L	1			300.0-1993 R2.1	Total/NA
Chloride	65.1		0.50	0.20	mg/L	1			300.0-1993 R2.1	Total/NA
Nitrate as N	0.24		0.10	0.056	mg/L	1			300.0	Total/NA
Nitrate Nitrite as N	0.24		0.10	0.056	mg/L	1			300.0	Total/NA
Perfluorohexanoic acid (PFHxA)	21.5		1.80	0.52	ng/L	1			537 (modified)	Total/NA
Perfluoroheptanoic acid (PFHpA)	8.43		1.80	0.22	ng/L	1			537 (modified)	Total/NA
Perfluorooctanoic acid (PFOA)	20.1		1.80	0.76	ng/L	1			537 (modified)	Total/NA
Perfluorobutanesulfonic acid (PFBS)	1.33	J	1.80	0.18	ng/L	1			537 (modified)	Total/NA
Perfluorohexanesulfonic acid (PFHxS)	2.19	B	1.80	0.15	ng/L	1			537 (modified)	Total/NA
Perfluorooctanesulfonic acid (PFOS)	6.06		1.80	0.49	ng/L	1			537 (modified)	Total/NA
Iron	8480		150	34.2	ug/L	1			6010D	Total/NA
Manganese	1780		15.0	0.99	ug/L	1			6010D	Total/NA
Barium	45.8	J	200	7.7	ug/L	1			6010D	Total/NA
Calcium	78700		5000	222	ug/L	1			6010D	Total/NA
Cobalt	2.3	J	50.0	1.7	ug/L	1			6010D	Total/NA
Iron	8480		150	34.2	ug/L	1			6010D	Total/NA
Potassium	3990	J	5000	323	ug/L	1			6010D	Total/NA
Magnesium	19200		5000	177	ug/L	1			6010D	Total/NA
Manganese	1780		15.0	0.99	ug/L	1			6010D	Total/NA
Sodium	49300		5000	460	ug/L	1			6010D	Total/NA
Nickel	1.8	J	40.0	1.7	ug/L	1			6010D	Total/NA
Lead	2.7	J	10.0	2.5	ug/L	1			6010D	Total/NA
Zinc	21.0	J	30.0	3.6	ug/L	1			6010D	Total/NA
Total Dissolved Solids	424	H	20.0	20.0	mg/L	1			160.1-1971	Total/NA
Total Suspended Solids	16.0	H	5.0	5.0	mg/L	1			160.2 -1971	Total/NA
Alkalinity	317	H	5.0	5.0	mg/L	1			2320B-2011	Total/NA
Bicarbonate Alkalinity as CaCO3	316	H	5.0	5.0	mg/L	1			2320B-2011	Total/NA
Carbon Dioxide, Free	18.7	H	5.0	5.0	mg/L	1			2320B-2011	Total/NA
Bicarbonate ion as HCO3	386	H	6.1	6.1	mg/L	1			2320B-2011	Total/NA
Total Organic Carbon	8.1		1.0	0.50	mg/L	1			9060A	Total/NA
Total Organic Carbon - Quad	8.1		1.0	0.50	mg/L	1			9060A	Total/NA
Hardness as calcium carbonate	304		10.0	10.0	mg/L	1			SM 2340C	Total/NA

Client Sample ID: CCT-20191120

Lab Sample ID: 460-197135-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil	Fac	D	Method	Prep Type
Chlorobenzene	0.57	J	1.0	0.38	ug/L	1			8260C	Total/NA
Chlorodibromomethane	0.31	J	1.0	0.28	ug/L	1			8260C	Total/NA
Chloroethane	0.47	J	1.0	0.32	ug/L	1			8260C	Total/NA
Chloroform	2.7		1.0	0.33	ug/L	1			8260C	Total/NA
cis-1,2-Dichloroethene	6.0		1.0	0.22	ug/L	1			8260C	Total/NA
Dichlorobromomethane	1.0		1.0	0.34	ug/L	1			8260C	Total/NA
Vinyl chloride	3.9		1.0	0.17	ug/L	1			8260C	Total/NA
Aroclor 1232	5.3		0.40	0.12	ug/L	1			8082A	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins TestAmerica, Edison

Detection Summary

Client: New York State D.E.C.
Project/Site: DEC - Fort Edward Landfill Site:558001

Job ID: 460-197135-1

Client Sample ID: CCT-20191120 (Continued)

Lab Sample ID: 460-197135-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Polychlorinated biphenyls, Total	5.3		0.40	0.12	ug/L	1		8082A	Total/NA
Sulfate	19.8		1.00	0.40	mg/L	1		300.0-1993 R2.1	Total/NA
Chloride	79.3		0.50	0.20	mg/L	1		300.0-1993 R2.1	Total/NA
Nitrate as N	0.29		0.10	0.056	mg/L	1		300.0	Total/NA
Nitrate Nitrite as N	0.29		0.10	0.056	mg/L	1		300.0	Total/NA
Perfluorohexanoic acid (PFHxA)	28.7		1.81	0.52	ng/L	1		537 (modified)	Total/NA
Perfluoroheptanoic acid (PFHpA)	9.68		1.81	0.23	ng/L	1		537 (modified)	Total/NA
Perfluorooctanoic acid (PFOA)	35.3		1.81	0.77	ng/L	1		537 (modified)	Total/NA
Perfluorononanoic acid (PFNA)	0.25	J	1.81	0.24	ng/L	1		537 (modified)	Total/NA
Perfluorobutanesulfonic acid (PFBS)	1.48	J	1.81	0.18	ng/L	1		537 (modified)	Total/NA
Perfluorohexanesulfonic acid (PFHxS)	2.69	B	1.81	0.15	ng/L	1		537 (modified)	Total/NA
Perfluorooctanesulfonic acid (PFOS)	8.02		1.81	0.49	ng/L	1		537 (modified)	Total/NA
Iron	1920		150	34.2	ug/L	1		6010D	Total/NA
Aluminum	522		200	28.6	ug/L	1		6010D	Total/NA
Manganese	1620		15.0	0.99	ug/L	1		6010D	Total/NA
Barium	42.3	J	200	7.7	ug/L	1		6010D	Total/NA
Calcium	78500		5000	222	ug/L	1		6010D	Total/NA
Cobalt	2.5	J	50.0	1.7	ug/L	1		6010D	Total/NA
Iron	1920		150	34.2	ug/L	1		6010D	Total/NA
Potassium	4210	J	5000	323	ug/L	1		6010D	Total/NA
Magnesium	19400		5000	177	ug/L	1		6010D	Total/NA
Manganese	1620		15.0	0.99	ug/L	1		6010D	Total/NA
Sodium	59400		5000	460	ug/L	1		6010D	Total/NA
Nickel	17.9	J	40.0	1.7	ug/L	1		6010D	Total/NA
Zinc	27.6	J	30.0	3.6	ug/L	1		6010D	Total/NA
Total Dissolved Solids	518		20.0	20.0	mg/L	1		160.1-1971	Total/NA
Total Suspended Solids	5.9	H	3.4	3.4	mg/L	1		160.2 -1971	Total/NA
Alkalinity	304	H	5.0	5.0	mg/L	1		2320B-2011	Total/NA
Bicarbonate Alkalinity as CaCO3	303	H	5.0	5.0	mg/L	1		2320B-2011	Total/NA
Carbon Dioxide, Free	23.5	H	5.0	5.0	mg/L	1		2320B-2011	Total/NA
Bicarbonate ion as HCO3	370	H	6.1	6.1	mg/L	1		2320B-2011	Total/NA
Total Organic Carbon	5.6		1.0	0.50	mg/L	1		9060A	Total/NA
Total Organic Carbon - Quad	5.6		1.0	0.50	mg/L	1		9060A	Total/NA
Hardness as calcium carbonate	296		10.0	10.0	mg/L	1		SM 2340C	Total/NA

Client Sample ID: DUP-1-20191120

Lab Sample ID: 460-197135-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluorohexanoic acid (PFHxA)	30.2		1.82	0.53	ng/L	1		537 (modified)	Total/NA
Perfluoroheptanoic acid (PFHpA)	10.4		1.82	0.23	ng/L	1		537 (modified)	Total/NA
Perfluorooctanoic acid (PFOA)	33.9		1.82	0.77	ng/L	1		537 (modified)	Total/NA
Perfluorononanoic acid (PFNA)	0.38	J	1.82	0.25	ng/L	1		537 (modified)	Total/NA
Perfluorobutanesulfonic acid (PFBS)	1.50	J	1.82	0.18	ng/L	1		537 (modified)	Total/NA
Perfluorohexanesulfonic acid (PFHxS)	2.90	B	1.82	0.15	ng/L	1		537 (modified)	Total/NA
Perfluorooctanesulfonic acid (PFOS)	8.73		1.82	0.49	ng/L	1		537 (modified)	Total/NA
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	1.98	J	18.2	1.73	ng/L	1		537 (modified)	Total/NA

Client Sample ID: Filter Sludge-20191120

Lab Sample ID: 460-197135-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloroform	240		5.1	1.6	ug/Kg	1	☼	8260C	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins TestAmerica, Edison

Detection Summary

Client: New York State D.E.C.
Project/Site: DEC - Fort Edward Landfill Site:558001

Job ID: 460-197135-1

Client Sample ID: Filter Sludge-20191120 (Continued)

Lab Sample ID: 460-197135-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil	Fac	D	Method	Prep Type
Dichlorobromomethane	10		5.1	1.3	ug/Kg	1		*	8260C	Total/NA
Aroclor 1016	55000		7300	970	ug/Kg	20		*	8082A	Total/NA
Polychlorinated biphenyls, Total	55000		7300	1000	ug/Kg	20		*	8082A	Total/NA
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	2.61	J	10.0	1.85	ug/Kg	1		*	537 (modified)	Total/NA
Aluminum	77000		210	59.3	mg/Kg	4		*	6010D	Total/NA
Arsenic	54.6		15.8	6.1	mg/Kg	4		*	6010D	Total/NA
Barium	294		210	11.7	mg/Kg	4		*	6010D	Total/NA
Calcium	13900		5250	309	mg/Kg	4		*	6010D	Total/NA
Chromium	43.4		10.5	1.9	mg/Kg	4		*	6010D	Total/NA
Iron	460000		788	386	mg/Kg	20		*	6010D	Total/NA
Magnesium	487	J	5250	306	mg/Kg	4		*	6010D	Total/NA
Manganese	2170		15.8	1.8	mg/Kg	4		*	6010D	Total/NA
Sodium	445	J	5460	439	mg/Kg	4		*	6010D	Total/NA
Nickel	11.9	J	42.0	3.9	mg/Kg	4		*	6010D	Total/NA
Lead	42.1		10.5	2.7	mg/Kg	4		*	6010D	Total/NA
Vanadium	18.6	J	52.5	3.5	mg/Kg	4		*	6010D	Total/NA
Zinc	34.4		31.5	24.5	mg/Kg	4		*	6010D	Total/NA

Client Sample ID: Decant Tank-20191120

Lab Sample ID: 460-197135-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil	Fac	D	Method	Prep Type
4-Methyl-2-pentanone (MIBK)	2.0	J	5.0	1.3	ug/L	1			8260C	Total/NA
Acetone	6.8		5.0	4.4	ug/L	1			8260C	Total/NA
Chlorobenzene	0.50	J	1.0	0.38	ug/L	1			8260C	Total/NA
Chloroethane	0.44	J	1.0	0.32	ug/L	1			8260C	Total/NA
Chloroform	8.6		1.0	0.33	ug/L	1			8260C	Total/NA
cis-1,2-Dichloroethene	5.6		1.0	0.22	ug/L	1			8260C	Total/NA
Dichlorobromomethane	1.4		1.0	0.34	ug/L	1			8260C	Total/NA
Vinyl chloride	4.6		1.0	0.17	ug/L	1			8260C	Total/NA
Aroclor 1232	30		4.0	1.2	ug/L	10			8082A	Total/NA
Polychlorinated biphenyls, Total	30		4.0	1.2	ug/L	10			8082A	Total/NA
Sulfate	22.2		1.00	0.40	mg/L	1			300.0-1993 R2.1	Total/NA
Chloride	80.4		0.50	0.20	mg/L	1			300.0-1993 R2.1	Total/NA
Nitrate as N	0.28		0.10	0.056	mg/L	1			300.0	Total/NA
Nitrate Nitrite as N	0.28		0.10	0.056	mg/L	1			300.0	Total/NA
Perfluorohexanoic acid (PFHxA)	28.0		1.79	0.52	ng/L	1			537 (modified)	Total/NA
Perfluoroheptanoic acid (PFHpA)	10.0		1.79	0.22	ng/L	1			537 (modified)	Total/NA
Perfluorooctanoic acid (PFOA)	34.8		1.79	0.76	ng/L	1			537 (modified)	Total/NA
Perfluorobutanesulfonic acid (PFBS)	1.37	J	1.79	0.18	ng/L	1			537 (modified)	Total/NA
Perfluorohexanesulfonic acid (PFHxS)	2.53	B	1.79	0.15	ng/L	1			537 (modified)	Total/NA
Perfluorooctanesulfonic acid (PFOS)	7.46		1.79	0.48	ng/L	1			537 (modified)	Total/NA
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	4.27	J	17.9	1.70	ng/L	1			537 (modified)	Total/NA
Aluminum	4420		200	28.6	ug/L	1			6010D	Total/NA
Arsenic	6.3	J	15.0	2.7	ug/L	1			6010D	Total/NA
Barium	72.7	J	200	7.7	ug/L	1			6010D	Total/NA
Calcium	86900		5000	222	ug/L	1			6010D	Total/NA
Cobalt	2.6	J	50.0	1.7	ug/L	1			6010D	Total/NA
Chromium	5.5	J	10.0	1.3	ug/L	1			6010D	Total/NA
Iron	32100		150	34.2	ug/L	1			6010D	Total/NA
Potassium	4490	J	5000	323	ug/L	1			6010D	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins TestAmerica, Edison

Detection Summary

Client: New York State D.E.C.
Project/Site: DEC - Fort Edward Landfill Site:558001

Job ID: 460-197135-1

Client Sample ID: Decant Tank-20191120 (Continued)

Lab Sample ID: 460-197135-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Magnesium	20400		5000	177	ug/L	1		6010D	Total/NA
Manganese	3340		15.0	0.99	ug/L	1		6010D	Total/NA
Sodium	66300		5000	460	ug/L	1		6010D	Total/NA
Nickel	3.9	J	40.0	1.7	ug/L	1		6010D	Total/NA
Lead	4.9	J	10.0	2.5	ug/L	1		6010D	Total/NA
Thallium	6.6	J	20.0	5.4	ug/L	1		6010D	Total/NA
Zinc	23.4	J	30.0	3.6	ug/L	1		6010D	Total/NA
Total Dissolved Solids	212		20.0	20.0	mg/L	1		160.1-1971	Total/NA
Total Suspended Solids	94.0	H	20.0	20.0	mg/L	1		160.2 -1971	Total/NA

Client Sample ID: Trip Blank-20191120

Lab Sample ID: 460-197135-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloroform	0.39	J	1.0	0.33	ug/L	1		8260C	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins TestAmerica, Edison

Client Sample Results

Client: New York State D.E.C.
Project/Site: DEC - Fort Edward Landfill Site:558001

Job ID: 460-197135-1

Client Sample ID: Influent-20191120

Lab Sample ID: 460-197135-1

Date Collected: 11/20/19 09:00

Matrix: Water

Date Received: 11/21/19 09:30

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	1.0	U	1.0	0.24	ug/L			11/29/19 14:31	1
1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.37	ug/L			11/29/19 14:31	1
1,1,2-Trichloro-1,2,2-trifluoroethane	1.0	U	1.0	0.31	ug/L			11/29/19 14:31	1
1,1,2-Trichloroethane	1.0	U	1.0	0.43	ug/L			11/29/19 14:31	1
1,1-Dichloroethane	1.0	U	1.0	0.26	ug/L			11/29/19 14:31	1
1,1-Dichloroethene	1.0	U	1.0	0.26	ug/L			11/29/19 14:31	1
1,2,4-Trichlorobenzene	1.0	U	1.0	0.37	ug/L			11/29/19 14:31	1
1,2-Dibromo-3-Chloropropane	1.0	U	1.0	0.38	ug/L			11/29/19 14:31	1
1,2-Dichlorobenzene	1.0	U	1.0	0.43	ug/L			11/29/19 14:31	1
1,2-Dichloroethane	1.0	U	1.0	0.43	ug/L			11/29/19 14:31	1
1,2-Dichloropropane	1.0	U	1.0	0.35	ug/L			11/29/19 14:31	1
1,3-Dichlorobenzene	1.0	U	1.0	0.34	ug/L			11/29/19 14:31	1
1,4-Dichlorobenzene	0.36	J	1.0	0.33	ug/L			11/29/19 14:31	1
2-Butanone (MEK)	5.0	U	5.0	1.9	ug/L			11/29/19 14:31	1
2-Hexanone	5.0	U	5.0	1.1	ug/L			11/29/19 14:31	1
4-Methyl-2-pentanone (MIBK)	5.0	U	5.0	1.3	ug/L			11/29/19 14:31	1
Acetone	5.0	U	5.0	4.4	ug/L			11/29/19 14:31	1
Benzene	1.0	U	1.0	0.20	ug/L			11/29/19 14:31	1
Bromoform	1.0	U	1.0	0.54	ug/L			11/29/19 14:31	1
Bromomethane	1.0	U	1.0	0.55	ug/L			11/29/19 14:31	1
Carbon disulfide	1.0	U	1.0	0.82	ug/L			11/29/19 14:31	1
Carbon tetrachloride	1.0	U	1.0	0.21	ug/L			11/29/19 14:31	1
Chlorobenzene	0.80	J	1.0	0.38	ug/L			11/29/19 14:31	1
Chlorodibromomethane	1.0	U	1.0	0.28	ug/L			11/29/19 14:31	1
Chloroethane	0.51	J	1.0	0.32	ug/L			11/29/19 14:31	1
Chloroform	1.0	U	1.0	0.33	ug/L			11/29/19 14:31	1
Chloromethane	1.0	U	1.0	0.40	ug/L			11/29/19 14:31	1
cis-1,2-Dichloroethene	3.2		1.0	0.22	ug/L			11/29/19 14:31	1
cis-1,3-Dichloropropene	1.0	U	1.0	0.22	ug/L			11/29/19 14:31	1
Cyclohexane	1.0	U	1.0	0.32	ug/L			11/29/19 14:31	1
Dichlorobromomethane	1.0	U	1.0	0.34	ug/L			11/29/19 14:31	1
Dichlorodifluoromethane	1.0	U	1.0	0.31	ug/L			11/29/19 14:31	1
Ethylbenzene	1.0	U	1.0	0.30	ug/L			11/29/19 14:31	1
Ethylene Dibromide	1.0	U	1.0	0.50	ug/L			11/29/19 14:31	1
Isopropylbenzene	1.0	U	1.0	0.34	ug/L			11/29/19 14:31	1
Methyl acetate	5.0	U	5.0	0.79	ug/L			11/29/19 14:31	1
Methyl tert-butyl ether	1.0	U	1.0	0.47	ug/L			11/29/19 14:31	1
Methylcyclohexane	1.0	U	1.0	0.26	ug/L			11/29/19 14:31	1
Methylene Chloride	1.0	U	1.0	0.32	ug/L			11/29/19 14:31	1
Styrene	1.0	U	1.0	0.42	ug/L			11/29/19 14:31	1
Tetrachloroethene	1.0	U	1.0	0.25	ug/L			11/29/19 14:31	1
Toluene	1.0	U	1.0	0.38	ug/L			11/29/19 14:31	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.24	ug/L			11/29/19 14:31	1
trans-1,3-Dichloropropene	1.0	U	1.0	0.49	ug/L			11/29/19 14:31	1
Trichloroethene	1.0	U	1.0	0.31	ug/L			11/29/19 14:31	1
Trichlorofluoromethane	1.0	U	1.0	0.32	ug/L			11/29/19 14:31	1
Vinyl chloride	5.3		1.0	0.17	ug/L			11/29/19 14:31	1
Xylenes, Total	2.0	U	2.0	0.65	ug/L			11/29/19 14:31	1

Eurofins TestAmerica, Edison

Client Sample Results

Client: New York State D.E.C.
Project/Site: DEC - Fort Edward Landfill Site:558001

Job ID: 460-197135-1

Client Sample ID: Influent-20191120

Lab Sample ID: 460-197135-1

Date Collected: 11/20/19 09:00

Matrix: Water

Date Received: 11/21/19 09:30

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	94		74 - 132		11/29/19 14:31	1
4-Bromofluorobenzene	103		77 - 124		11/29/19 14:31	1
Dibromofluoromethane (Surr)	99		72 - 131		11/29/19 14:31	1
Toluene-d8 (Surr)	91		80 - 120		11/29/19 14:31	1

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	0.40	U	0.40	0.12	ug/L		11/22/19 16:45	11/25/19 14:10	1
Aroclor 1221	0.40	U	0.40	0.12	ug/L		11/22/19 16:45	11/25/19 14:10	1
Aroclor 1232	4.9		0.40	0.12	ug/L		11/22/19 16:45	11/25/19 14:10	1
Aroclor 1242	0.40	U	0.40	0.12	ug/L		11/22/19 16:45	11/25/19 14:10	1
Aroclor 1248	0.40	U	0.40	0.12	ug/L		11/22/19 16:45	11/25/19 14:10	1
Aroclor 1254	0.40	U	0.40	0.11	ug/L		11/22/19 16:45	11/25/19 14:10	1
Aroclor 1260	0.40	U	0.40	0.11	ug/L		11/22/19 16:45	11/25/19 14:10	1
Aroclor-1262	0.40	U	0.40	0.11	ug/L		11/22/19 16:45	11/25/19 14:10	1
Aroclor 1268	0.40	U	0.40	0.11	ug/L		11/22/19 16:45	11/25/19 14:10	1
Polychlorinated biphenyls, Total	4.9		0.40	0.12	ug/L		11/22/19 16:45	11/25/19 14:10	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	57		10 - 150	11/22/19 16:45	11/25/19 14:10	1
DCB Decachlorobiphenyl	59		10 - 150	11/22/19 16:45	11/25/19 14:10	1

Method: 300.0-1993 R2.1 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	19.6		1.00	0.40	mg/L			12/02/19 23:45	1
Chloride	65.1		0.50	0.20	mg/L			12/02/19 23:45	1

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate as N	0.24		0.10	0.056	mg/L			11/22/19 08:48	1
Nitrate Nitrite as N	0.24		0.10	0.056	mg/L			11/22/19 08:48	1

Method: 537 (modified) - Fluorinated Alkyl Substances

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorohexanoic acid (PFHxA)	21.5		1.80	0.52	ng/L		12/02/19 05:41	12/05/19 18:07	1
Perfluoroheptanoic acid (PFHpA)	8.43		1.80	0.22	ng/L		12/02/19 05:41	12/05/19 18:07	1
Perfluorooctanoic acid (PFOA)	20.1		1.80	0.76	ng/L		12/02/19 05:41	12/05/19 18:07	1
Perfluorononanoic acid (PFNA)	1.80	U	1.80	0.24	ng/L		12/02/19 05:41	12/05/19 18:07	1
Perfluorodecanoic acid (PFDA)	1.80	U	1.80	0.28	ng/L		12/02/19 05:41	12/05/19 18:07	1
Perfluoroundecanoic acid (PFUnA)	1.80	U	1.80	0.99	ng/L		12/02/19 05:41	12/05/19 18:07	1
Perfluorododecanoic acid (PFDoA)	1.80	U	1.80	0.49	ng/L		12/02/19 05:41	12/05/19 18:07	1
Perfluorotridecanoic acid (PFTriA)	1.80	U	1.80	1.17	ng/L		12/02/19 05:41	12/05/19 18:07	1
Perfluorotetradecanoic acid (PFTeA)	1.80	U	1.80	0.26	ng/L		12/02/19 05:41	12/05/19 18:07	1
Perfluorobutanesulfonic acid (PFBS)	1.33	J	1.80	0.18	ng/L		12/02/19 05:41	12/05/19 18:07	1
Perfluorohexanesulfonic acid (PFHxS)	2.19	B	1.80	0.15	ng/L		12/02/19 05:41	12/05/19 18:07	1
Perfluorooctanesulfonic acid (PFOS)	6.06		1.80	0.49	ng/L		12/02/19 05:41	12/05/19 18:07	1
N-ethylperfluorooctanesulfonamidoacetic acid (NETFOSAA)	18.0	U	18.0	1.71	ng/L		12/02/19 05:41	12/05/19 18:07	1

Eurofins TestAmerica, Edison

Client Sample Results

Client: New York State D.E.C.
Project/Site: DEC - Fort Edward Landfill Site:558001

Job ID: 460-197135-1

Client Sample ID: Influent-20191120

Lab Sample ID: 460-197135-1

Date Collected: 11/20/19 09:00

Matrix: Water

Date Received: 11/21/19 09:30

Method: 537 (modified) - Fluorinated Alkyl Substances (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	18.0	U	18.0	2.78	ng/L		12/02/19 05:41	12/05/19 18:07	1
Isotope Dilution	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
13C2 PFHxA	96		25 - 150				12/02/19 05:41	12/05/19 18:07	1
13C4 PFHpA	101		25 - 150				12/02/19 05:41	12/05/19 18:07	1
13C4 PFOA	100		25 - 150				12/02/19 05:41	12/05/19 18:07	1
13C5 PFNA	99		25 - 150				12/02/19 05:41	12/05/19 18:07	1
13C2 PFDA	96		25 - 150				12/02/19 05:41	12/05/19 18:07	1
13C2 PFUnA	91		25 - 150				12/02/19 05:41	12/05/19 18:07	1
13C2 PFDaA	87		25 - 150				12/02/19 05:41	12/05/19 18:07	1
13C2 PFTeDA	76		25 - 150				12/02/19 05:41	12/05/19 18:07	1
18O2 PFHxS	102		25 - 150				12/02/19 05:41	12/05/19 18:07	1
13C4 PFOS	100		25 - 150				12/02/19 05:41	12/05/19 18:07	1
d3-NMeFOSAA	87		25 - 150				12/02/19 05:41	12/05/19 18:07	1
d5-NEtFOSAA	89		25 - 150				12/02/19 05:41	12/05/19 18:07	1
13C3 PFBS	97		25 - 150				12/02/19 05:41	12/05/19 18:07	1

Method: 6010D - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	8480		150	34.2	ug/L		11/22/19 22:30	11/23/19 21:02	1
Silver	10.0	U	10.0	1.1	ug/L		11/22/19 22:30	11/23/19 21:02	1
Aluminum	200	U	200	28.6	ug/L		11/22/19 22:30	11/23/19 21:02	1
Manganese	1780		15.0	0.99	ug/L		11/22/19 22:30	11/23/19 21:02	1
Arsenic	15.0	U	15.0	2.7	ug/L		11/22/19 22:30	11/23/19 21:02	1
Barium	45.8	J	200	7.7	ug/L		11/22/19 22:30	11/23/19 21:02	1
Beryllium	2.0	U	2.0	0.23	ug/L		11/22/19 22:30	11/23/19 21:02	1
Calcium	78700		5000	222	ug/L		11/22/19 22:30	11/23/19 21:02	1
Cadmium	4.0	U	4.0	0.22	ug/L		11/22/19 22:30	11/23/19 21:02	1
Cobalt	2.3	J	50.0	1.7	ug/L		11/22/19 22:30	11/23/19 21:02	1
Chromium	10.0	U	10.0	1.3	ug/L		11/22/19 22:30	11/23/19 21:02	1
Copper	25.0	U	25.0	5.1	ug/L		11/22/19 22:30	11/23/19 21:02	1
Iron	8480		150	34.2	ug/L		11/22/19 22:30	11/23/19 21:02	1
Potassium	3990	J	5000	323	ug/L		11/22/19 22:30	11/23/19 21:02	1
Magnesium	19200		5000	177	ug/L		11/22/19 22:30	11/23/19 21:02	1
Manganese	1780		15.0	0.99	ug/L		11/22/19 22:30	11/23/19 21:02	1
Sodium	49300		5000	460	ug/L		11/22/19 22:30	11/23/19 21:02	1
Nickel	1.8	J	40.0	1.7	ug/L		11/22/19 22:30	11/23/19 21:02	1
Lead	2.7	J	10.0	2.5	ug/L		11/22/19 22:30	11/23/19 21:02	1
Antimony	20.0	U	20.0	2.9	ug/L		11/22/19 22:30	11/23/19 21:02	1
Selenium	20.0	U	20.0	6.6	ug/L		11/22/19 22:30	11/23/19 21:02	1
Thallium	20.0	U	20.0	5.4	ug/L		11/22/19 22:30	11/23/19 21:02	1
Vanadium	50.0	U	50.0	2.5	ug/L		11/22/19 22:30	11/23/19 21:02	1
Zinc	21.0	J	30.0	3.6	ug/L		11/22/19 22:30	11/23/19 21:02	1

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.20	U	0.20	0.12	ug/L		11/29/19 12:35	11/29/19 17:21	1

Eurofins TestAmerica, Edison

Client Sample Results

Client: New York State D.E.C.
Project/Site: DEC - Fort Edward Landfill Site:558001

Job ID: 460-197135-1

Client Sample ID: Influent-20191120

Lab Sample ID: 460-197135-1

Date Collected: 11/20/19 09:00

Matrix: Water

Date Received: 11/21/19 09:30

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Alkalinity	317	H	5.0	5.0	mg/L			12/05/19 18:48	1
Bicarbonate Alkalinity as CaCO3	316	H	5.0	5.0	mg/L			12/05/19 18:48	1
Carbonate Alkalinity as CaCO3	5.0	U H	5.0	5.0	mg/L			12/05/19 18:48	1
Hydroxide Alkalinity	5.0	U H	5.0	5.0	mg/L			12/05/19 18:48	1
Carbon Dioxide, Free	18.7	H	5.0	5.0	mg/L			12/05/19 18:48	1
Phenolphthalein Alkalinity	5.0	U H	5.0	5.0	mg/L			12/05/19 18:48	1
Bicarbonate ion as HCO3	386	H	6.1	6.1	mg/L			12/05/19 18:48	1
Total Organic Carbon	8.1		1.0	0.50	mg/L			11/26/19 19:52	1
Total Organic Carbon - Quad	8.1		1.0	0.50	mg/L			11/26/19 19:52	1
Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	424	H	20.0	20.0	mg/L			12/03/19 15:28	1
Total Suspended Solids	16.0	H	5.0	5.0	mg/L			12/18/19 11:38	1
Hardness as calcium carbonate	304		10.0	10.0	mg/L			11/29/19 15:01	1

Client Sample ID: CCT-20191120

Lab Sample ID: 460-197135-2

Date Collected: 11/20/19 09:30

Matrix: Water

Date Received: 11/21/19 09:30

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	1.0	U	1.0	0.24	ug/L			11/29/19 14:08	1
1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.37	ug/L			11/29/19 14:08	1
1,1,2-Trichloro-1,2,2-trifluoroethane	1.0	U	1.0	0.31	ug/L			11/29/19 14:08	1
1,1,2-Trichloroethane	1.0	U	1.0	0.43	ug/L			11/29/19 14:08	1
1,1-Dichloroethane	1.0	U	1.0	0.26	ug/L			11/29/19 14:08	1
1,1-Dichloroethene	1.0	U	1.0	0.26	ug/L			11/29/19 14:08	1
1,2,4-Trichlorobenzene	1.0	U	1.0	0.37	ug/L			11/29/19 14:08	1
1,2-Dibromo-3-Chloropropane	1.0	U	1.0	0.38	ug/L			11/29/19 14:08	1
1,2-Dichlorobenzene	1.0	U	1.0	0.43	ug/L			11/29/19 14:08	1
1,2-Dichloroethane	1.0	U	1.0	0.43	ug/L			11/29/19 14:08	1
1,2-Dichloropropane	1.0	U	1.0	0.35	ug/L			11/29/19 14:08	1
1,3-Dichlorobenzene	1.0	U	1.0	0.34	ug/L			11/29/19 14:08	1
1,4-Dichlorobenzene	1.0	U	1.0	0.33	ug/L			11/29/19 14:08	1
2-Butanone (MEK)	5.0	U	5.0	1.9	ug/L			11/29/19 14:08	1
2-Hexanone	5.0	U	5.0	1.1	ug/L			11/29/19 14:08	1
4-Methyl-2-pentanone (MIBK)	5.0	U	5.0	1.3	ug/L			11/29/19 14:08	1
Acetone	5.0	U	5.0	4.4	ug/L			11/29/19 14:08	1
Benzene	1.0	U	1.0	0.20	ug/L			11/29/19 14:08	1
Bromoform	1.0	U	1.0	0.54	ug/L			11/29/19 14:08	1
Bromomethane	1.0	U	1.0	0.55	ug/L			11/29/19 14:08	1
Carbon disulfide	1.0	U	1.0	0.82	ug/L			11/29/19 14:08	1
Carbon tetrachloride	1.0	U	1.0	0.21	ug/L			11/29/19 14:08	1
Chlorobenzene	0.57	J	1.0	0.38	ug/L			11/29/19 14:08	1
Chlorodibromomethane	0.31	J	1.0	0.28	ug/L			11/29/19 14:08	1
Chloroethane	0.47	J	1.0	0.32	ug/L			11/29/19 14:08	1
Chloroform	2.7		1.0	0.33	ug/L			11/29/19 14:08	1
Chloromethane	1.0	U	1.0	0.40	ug/L			11/29/19 14:08	1
cis-1,2-Dichloroethene	6.0		1.0	0.22	ug/L			11/29/19 14:08	1
cis-1,3-Dichloropropene	1.0	U	1.0	0.22	ug/L			11/29/19 14:08	1
Cyclohexane	1.0	U	1.0	0.32	ug/L			11/29/19 14:08	1

Eurofins TestAmerica, Edison

Client Sample Results

Client: New York State D.E.C.
Project/Site: DEC - Fort Edward Landfill Site:558001

Job ID: 460-197135-1

Client Sample ID: CCT-20191120

Lab Sample ID: 460-197135-2

Date Collected: 11/20/19 09:30

Matrix: Water

Date Received: 11/21/19 09:30

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dichlorobromomethane	1.0		1.0	0.34	ug/L			11/29/19 14:08	1
Dichlorodifluoromethane	1.0	U	1.0	0.31	ug/L			11/29/19 14:08	1
Ethylbenzene	1.0	U	1.0	0.30	ug/L			11/29/19 14:08	1
Ethylene Dibromide	1.0	U	1.0	0.50	ug/L			11/29/19 14:08	1
Isopropylbenzene	1.0	U	1.0	0.34	ug/L			11/29/19 14:08	1
Methyl acetate	5.0	U	5.0	0.79	ug/L			11/29/19 14:08	1
Methyl tert-butyl ether	1.0	U	1.0	0.47	ug/L			11/29/19 14:08	1
Methylcyclohexane	1.0	U	1.0	0.26	ug/L			11/29/19 14:08	1
Methylene Chloride	1.0	U	1.0	0.32	ug/L			11/29/19 14:08	1
Styrene	1.0	U	1.0	0.42	ug/L			11/29/19 14:08	1
Tetrachloroethene	1.0	U	1.0	0.25	ug/L			11/29/19 14:08	1
Toluene	1.0	U	1.0	0.38	ug/L			11/29/19 14:08	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.24	ug/L			11/29/19 14:08	1
trans-1,3-Dichloropropene	1.0	U	1.0	0.49	ug/L			11/29/19 14:08	1
Trichloroethene	1.0	U	1.0	0.31	ug/L			11/29/19 14:08	1
Trichlorofluoromethane	1.0	U	1.0	0.32	ug/L			11/29/19 14:08	1
Vinyl chloride	3.9		1.0	0.17	ug/L			11/29/19 14:08	1
Xylenes, Total	2.0	U	2.0	0.65	ug/L			11/29/19 14:08	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	92		74 - 132		11/29/19 14:08	1
4-Bromofluorobenzene	104		77 - 124		11/29/19 14:08	1
Dibromofluoromethane (Surr)	98		72 - 131		11/29/19 14:08	1
Toluene-d8 (Surr)	91		80 - 120		11/29/19 14:08	1

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	0.40	U	0.40	0.12	ug/L		11/22/19 16:45	11/25/19 14:27	1
Aroclor 1221	0.40	U	0.40	0.12	ug/L		11/22/19 16:45	11/25/19 14:27	1
Aroclor 1232	5.3		0.40	0.12	ug/L		11/22/19 16:45	11/25/19 14:27	1
Aroclor 1242	0.40	U	0.40	0.12	ug/L		11/22/19 16:45	11/25/19 14:27	1
Aroclor 1248	0.40	U	0.40	0.12	ug/L		11/22/19 16:45	11/25/19 14:27	1
Aroclor 1254	0.40	U	0.40	0.11	ug/L		11/22/19 16:45	11/25/19 14:27	1
Aroclor 1260	0.40	U	0.40	0.11	ug/L		11/22/19 16:45	11/25/19 14:27	1
Aroclor-1262	0.40	U	0.40	0.11	ug/L		11/22/19 16:45	11/25/19 14:27	1
Aroclor 1268	0.40	U	0.40	0.11	ug/L		11/22/19 16:45	11/25/19 14:27	1
Polychlorinated biphenyls, Total	5.3		0.40	0.12	ug/L		11/22/19 16:45	11/25/19 14:27	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	61		10 - 150	11/22/19 16:45	11/25/19 14:27	1
DCB Decachlorobiphenyl	69		10 - 150	11/22/19 16:45	11/25/19 14:27	1

Method: 300.0-1993 R2.1 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	19.8		1.00	0.40	mg/L			12/02/19 23:58	1
Chloride	79.3		0.50	0.20	mg/L			12/02/19 23:58	1

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate as N	0.29		0.10	0.056	mg/L			11/22/19 09:03	1
Nitrate Nitrite as N	0.29		0.10	0.056	mg/L			11/22/19 09:03	1

Eurofins TestAmerica, Edison

Client Sample Results

Client: New York State D.E.C.
Project/Site: DEC - Fort Edward Landfill Site:558001

Job ID: 460-197135-1

Client Sample ID: CCT-20191120

Lab Sample ID: 460-197135-2

Date Collected: 11/20/19 09:30

Matrix: Water

Date Received: 11/21/19 09:30

Method: 537 (modified) - Fluorinated Alkyl Substances

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorohexanoic acid (PFHxA)	28.7		1.81	0.52	ng/L		12/02/19 05:41	12/05/19 18:36	1
Perfluoroheptanoic acid (PFHpA)	9.68		1.81	0.23	ng/L		12/02/19 05:41	12/05/19 18:36	1
Perfluorooctanoic acid (PFOA)	35.3		1.81	0.77	ng/L		12/02/19 05:41	12/05/19 18:36	1
Perfluorononanoic acid (PFNA)	0.25	J	1.81	0.24	ng/L		12/02/19 05:41	12/05/19 18:36	1
Perfluorodecanoic acid (PFDA)	1.81	U	1.81	0.28	ng/L		12/02/19 05:41	12/05/19 18:36	1
Perfluoroundecanoic acid (PFUnA)	1.81	U	1.81	0.99	ng/L		12/02/19 05:41	12/05/19 18:36	1
Perfluorododecanoic acid (PFDoA)	1.81	U	1.81	0.50	ng/L		12/02/19 05:41	12/05/19 18:36	1
Perfluorotridecanoic acid (PFTriA)	1.81	U	1.81	1.17	ng/L		12/02/19 05:41	12/05/19 18:36	1
Perfluorotetradecanoic acid (PFTeA)	1.81	U	1.81	0.26	ng/L		12/02/19 05:41	12/05/19 18:36	1
Perfluorobutanesulfonic acid (PFBS)	1.48	J	1.81	0.18	ng/L		12/02/19 05:41	12/05/19 18:36	1
Perfluorohexanesulfonic acid (PFHxS)	2.69	B	1.81	0.15	ng/L		12/02/19 05:41	12/05/19 18:36	1
Perfluorooctanesulfonic acid (PFOS)	8.02		1.81	0.49	ng/L		12/02/19 05:41	12/05/19 18:36	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	18.1	U	18.1	1.72	ng/L		12/02/19 05:41	12/05/19 18:36	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	18.1	U	18.1	2.80	ng/L		12/02/19 05:41	12/05/19 18:36	1
Isotope Dilution	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
13C2 PFHxA	63		25 - 150				12/02/19 05:41	12/05/19 18:36	1
13C4 PFHpA	67		25 - 150				12/02/19 05:41	12/05/19 18:36	1
13C4 PFOA	62		25 - 150				12/02/19 05:41	12/05/19 18:36	1
13C5 PFNA	62		25 - 150				12/02/19 05:41	12/05/19 18:36	1
13C2 PFDA	57		25 - 150				12/02/19 05:41	12/05/19 18:36	1
13C2 PFUnA	51		25 - 150				12/02/19 05:41	12/05/19 18:36	1
13C2 PFDoA	47		25 - 150				12/02/19 05:41	12/05/19 18:36	1
13C2 PFTeDA	46		25 - 150				12/02/19 05:41	12/05/19 18:36	1
18O2 PFHxS	65		25 - 150				12/02/19 05:41	12/05/19 18:36	1
13C4 PFOS	59		25 - 150				12/02/19 05:41	12/05/19 18:36	1
d3-NMeFOSAA	48		25 - 150				12/02/19 05:41	12/05/19 18:36	1
d5-NEtFOSAA	50		25 - 150				12/02/19 05:41	12/05/19 18:36	1
13C3 PFBS	63		25 - 150				12/02/19 05:41	12/05/19 18:36	1

Method: 6010D - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	1920		150	34.2	ug/L		11/22/19 22:30	11/23/19 21:06	1
Silver	10.0	U	10.0	1.1	ug/L		11/22/19 22:30	11/23/19 21:06	1
Aluminum	522		200	28.6	ug/L		11/22/19 22:30	11/23/19 21:06	1
Manganese	1620		15.0	0.99	ug/L		11/22/19 22:30	11/23/19 21:06	1
Arsenic	15.0	U	15.0	2.7	ug/L		11/22/19 22:30	11/23/19 21:06	1
Barium	42.3	J	200	7.7	ug/L		11/22/19 22:30	11/23/19 21:06	1
Beryllium	2.0	U	2.0	0.23	ug/L		11/22/19 22:30	11/23/19 21:06	1
Calcium	78500		5000	222	ug/L		11/22/19 22:30	11/23/19 21:06	1
Cadmium	4.0	U	4.0	0.22	ug/L		11/22/19 22:30	11/23/19 21:06	1
Cobalt	2.5	J	50.0	1.7	ug/L		11/22/19 22:30	11/23/19 21:06	1
Chromium	10.0	U	10.0	1.3	ug/L		11/22/19 22:30	11/23/19 21:06	1
Copper	25.0	U	25.0	5.1	ug/L		11/22/19 22:30	11/23/19 21:06	1
Iron	1920		150	34.2	ug/L		11/22/19 22:30	11/23/19 21:06	1
Potassium	4210	J	5000	323	ug/L		11/22/19 22:30	11/23/19 21:06	1
Magnesium	19400		5000	177	ug/L		11/22/19 22:30	11/23/19 21:06	1

Eurofins TestAmerica, Edison

Client Sample Results

Client: New York State D.E.C.
Project/Site: DEC - Fort Edward Landfill Site:558001

Job ID: 460-197135-1

Client Sample ID: CCT-20191120

Lab Sample ID: 460-197135-2

Date Collected: 11/20/19 09:30

Matrix: Water

Date Received: 11/21/19 09:30

Method: 6010D - Metals (ICP) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese	1620		15.0	0.99	ug/L		11/22/19 22:30	11/23/19 21:06	1
Sodium	59400		5000	460	ug/L		11/22/19 22:30	11/23/19 21:06	1
Nickel	17.9	J	40.0	1.7	ug/L		11/22/19 22:30	11/23/19 21:06	1
Lead	10.0	U	10.0	2.5	ug/L		11/22/19 22:30	11/23/19 21:06	1
Antimony	20.0	U	20.0	2.9	ug/L		11/22/19 22:30	11/23/19 21:06	1
Selenium	20.0	U	20.0	6.6	ug/L		11/22/19 22:30	11/23/19 21:06	1
Thallium	20.0	U	20.0	5.4	ug/L		11/22/19 22:30	11/23/19 21:06	1
Vanadium	50.0	U	50.0	2.5	ug/L		11/22/19 22:30	11/23/19 21:06	1
Zinc	27.6	J	30.0	3.6	ug/L		11/22/19 22:30	11/23/19 21:06	1

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.20	U	0.20	0.12	ug/L		11/29/19 12:35	11/29/19 17:23	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Alkalinity	304	H	5.0	5.0	mg/L			12/05/19 18:56	1
Bicarbonate Alkalinity as CaCO3	303	H	5.0	5.0	mg/L			12/05/19 18:56	1
Carbonate Alkalinity as CaCO3	5.0	U H	5.0	5.0	mg/L			12/05/19 18:56	1
Hydroxide Alkalinity	5.0	U H	5.0	5.0	mg/L			12/05/19 18:56	1
Carbon Dioxide, Free	23.5	H	5.0	5.0	mg/L			12/05/19 18:56	1
Phenolphthalein Alkalinity	5.0	U H	5.0	5.0	mg/L			12/05/19 18:56	1
Bicarbonate ion as HCO3	370	H	6.1	6.1	mg/L			12/05/19 18:56	1
Total Organic Carbon	5.6		1.0	0.50	mg/L			11/28/19 02:17	1
Total Organic Carbon - Quad	5.6		1.0	0.50	mg/L			11/28/19 02:17	1
Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	518		20.0	20.0	mg/L			11/25/19 15:33	1
Total Suspended Solids	5.9	H	3.4	3.4	mg/L			12/18/19 11:38	1
Hardness as calcium carbonate	296		10.0	10.0	mg/L			11/29/19 15:01	1

Client Sample ID: DUP-1-20191120

Lab Sample ID: 460-197135-3

Date Collected: 11/20/19 00:00

Matrix: Water

Date Received: 11/21/19 09:30

Method: 537 (modified) - Fluorinated Alkyl Substances

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorohexanoic acid (PFHxA)	30.2		1.82	0.53	ng/L		12/02/19 05:41	12/05/19 18:46	1
Perfluoroheptanoic acid (PFHpA)	10.4		1.82	0.23	ng/L		12/02/19 05:41	12/05/19 18:46	1
Perfluorooctanoic acid (PFOA)	33.9		1.82	0.77	ng/L		12/02/19 05:41	12/05/19 18:46	1
Perfluorononanoic acid (PFNA)	0.38	J	1.82	0.25	ng/L		12/02/19 05:41	12/05/19 18:46	1
Perfluorodecanoic acid (PFDA)	1.82	U	1.82	0.28	ng/L		12/02/19 05:41	12/05/19 18:46	1
Perfluoroundecanoic acid (PFUnA)	1.82	U	1.82	1.0	ng/L		12/02/19 05:41	12/05/19 18:46	1
Perfluorododecanoic acid (PFDoA)	1.82	U	1.82	0.50	ng/L		12/02/19 05:41	12/05/19 18:46	1
Perfluorotridecanoic acid (PFTriA)	1.82	U	1.82	1.18	ng/L		12/02/19 05:41	12/05/19 18:46	1
Perfluorotetradecanoic acid (PFTeA)	1.82	U	1.82	0.26	ng/L		12/02/19 05:41	12/05/19 18:46	1
Perfluorobutanesulfonic acid (PFBS)	1.50	J	1.82	0.18	ng/L		12/02/19 05:41	12/05/19 18:46	1
Perfluorohexanesulfonic acid (PFHxS)	2.90	B	1.82	0.15	ng/L		12/02/19 05:41	12/05/19 18:46	1
Perfluorooctanesulfonic acid (PFOS)	8.73		1.82	0.49	ng/L		12/02/19 05:41	12/05/19 18:46	1

Eurofins TestAmerica, Edison

Client Sample Results

Client: New York State D.E.C.
Project/Site: DEC - Fort Edward Landfill Site:558001

Job ID: 460-197135-1

Client Sample ID: DUP-1-20191120

Lab Sample ID: 460-197135-3

Date Collected: 11/20/19 00:00

Matrix: Water

Date Received: 11/21/19 09:30

Method: 537 (modified) - Fluorinated Alkyl Substances (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	1.98	J	18.2	1.73	ng/L		12/02/19 05:41	12/05/19 18:46	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	18.2	U	18.2	2.82	ng/L		12/02/19 05:41	12/05/19 18:46	1
Isotope Dilution	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
13C2 PFHxA	86		25 - 150				12/02/19 05:41	12/05/19 18:46	1
13C4 PFHpA	94		25 - 150				12/02/19 05:41	12/05/19 18:46	1
13C4 PFOA	92		25 - 150				12/02/19 05:41	12/05/19 18:46	1
13C5 PFNA	86		25 - 150				12/02/19 05:41	12/05/19 18:46	1
13C2 PFDA	81		25 - 150				12/02/19 05:41	12/05/19 18:46	1
13C2 PFUnA	74		25 - 150				12/02/19 05:41	12/05/19 18:46	1
13C2 PFDoA	71		25 - 150				12/02/19 05:41	12/05/19 18:46	1
13C2 PFTeDA	64		25 - 150				12/02/19 05:41	12/05/19 18:46	1
18O2 PFHxS	93		25 - 150				12/02/19 05:41	12/05/19 18:46	1
13C4 PFOS	83		25 - 150				12/02/19 05:41	12/05/19 18:46	1
d3-NMeFOSAA	69		25 - 150				12/02/19 05:41	12/05/19 18:46	1
d5-NEtFOSAA	70		25 - 150				12/02/19 05:41	12/05/19 18:46	1
13C3 PFBS	86		25 - 150				12/02/19 05:41	12/05/19 18:46	1

Client Sample ID: Filter Sludge-20191120

Lab Sample ID: 460-197135-4

Date Collected: 11/20/19 09:50

Matrix: Solid

Date Received: 11/21/19 09:30

Percent Solids: 18.3

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	5.1	U	5.1	1.2	ug/Kg	☼	11/22/19 09:06	11/23/19 14:20	1
1,1,2,2-Tetrachloroethane	5.1	U	5.1	1.1	ug/Kg	☼	11/22/19 09:06	11/23/19 14:20	1
1,1,2-Trichloro-1,2,2-trifluoroethane	5.1	U	5.1	1.5	ug/Kg	☼	11/22/19 09:06	11/23/19 14:20	1
1,1,2-Trichloroethane	5.1	U	5.1	0.90	ug/Kg	☼	11/22/19 09:06	11/23/19 14:20	1
1,1-Dichloroethane	5.1	U	5.1	1.0	ug/Kg	☼	11/22/19 09:06	11/23/19 14:20	1
1,1-Dichloroethene	5.1	U	5.1	1.1	ug/Kg	☼	11/22/19 09:06	11/23/19 14:20	1
1,2,4-Trichlorobenzene	5.1	U	5.1	1.8	ug/Kg	☼	11/22/19 09:06	11/23/19 14:20	1
1,2-Dibromo-3-Chloropropane	5.1	U	5.1	2.3	ug/Kg	☼	11/22/19 09:06	11/23/19 14:20	1
1,2-Dichlorobenzene	5.1	U	5.1	0.73	ug/Kg	☼	11/22/19 09:06	11/23/19 14:20	1
1,2-Dichloroethane	5.1	U	5.1	1.5	ug/Kg	☼	11/22/19 09:06	11/23/19 14:20	1
1,2-Dichloropropane	5.1	U	5.1	2.1	ug/Kg	☼	11/22/19 09:06	11/23/19 14:20	1
1,3-Dichlorobenzene	5.1	U	5.1	0.81	ug/Kg	☼	11/22/19 09:06	11/23/19 14:20	1
1,4-Dichlorobenzene	5.1	U	5.1	1.1	ug/Kg	☼	11/22/19 09:06	11/23/19 14:20	1
2-Butanone (MEK)	25	U	25	14	ug/Kg	☼	11/22/19 09:06	11/23/19 14:20	1
2-Hexanone	25	U	25	8.7	ug/Kg	☼	11/22/19 09:06	11/23/19 14:20	1
4-Methyl-2-pentanone (MIBK)	25	U	25	7.9	ug/Kg	☼	11/22/19 09:06	11/23/19 14:20	1
Acetone	30	U	30	29	ug/Kg	☼	11/22/19 09:06	11/23/19 14:20	1
Benzene	5.1	U	5.1	1.3	ug/Kg	☼	11/22/19 09:06	11/23/19 14:20	1
Bromoform	5.1	U	5.1	2.2	ug/Kg	☼	11/22/19 09:06	11/23/19 14:20	1
Bromomethane	5.1	U	5.1	2.4	ug/Kg	☼	11/22/19 09:06	11/23/19 14:20	1
Carbon disulfide	5.1	U	5.1	1.3	ug/Kg	☼	11/22/19 09:06	11/23/19 14:20	1
Carbon tetrachloride	5.1	U	5.1	2.0	ug/Kg	☼	11/22/19 09:06	11/23/19 14:20	1
Chlorobenzene	5.1	U	5.1	0.90	ug/Kg	☼	11/22/19 09:06	11/23/19 14:20	1
Chlorodibromomethane	5.1	U	5.1	0.98	ug/Kg	☼	11/22/19 09:06	11/23/19 14:20	1
Chloroethane	5.1	U	5.1	2.6	ug/Kg	☼	11/22/19 09:06	11/23/19 14:20	1

Eurofins TestAmerica, Edison

Client Sample Results

Client: New York State D.E.C.
Project/Site: DEC - Fort Edward Landfill Site:558001

Job ID: 460-197135-1

Client Sample ID: Filter Sludge-20191120

Lab Sample ID: 460-197135-4

Date Collected: 11/20/19 09:50

Matrix: Solid

Date Received: 11/21/19 09:30

Percent Solids: 18.3

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloroform	240		5.1	1.6	ug/Kg	☼	11/22/19 09:06	11/23/19 14:20	1
Chloromethane	5.1	U	5.1	2.2	ug/Kg	☼	11/22/19 09:06	11/23/19 14:20	1
cis-1,2-Dichloroethene	5.1	U	5.1	0.77	ug/Kg	☼	11/22/19 09:06	11/23/19 14:20	1
cis-1,3-Dichloropropene	5.1	U	5.1	1.4	ug/Kg	☼	11/22/19 09:06	11/23/19 14:20	1
Cyclohexane	5.1	U	5.1	1.1	ug/Kg	☼	11/22/19 09:06	11/23/19 14:20	1
Dichlorobromomethane	10		5.1	1.3	ug/Kg	☼	11/22/19 09:06	11/23/19 14:20	1
Dichlorodifluoromethane	5.1	U	5.1	1.7	ug/Kg	☼	11/22/19 09:06	11/23/19 14:20	1
Ethylbenzene	5.1	U	5.1	1.0	ug/Kg	☼	11/22/19 09:06	11/23/19 14:20	1
Ethylene Dibromide	5.1	U	5.1	0.91	ug/Kg	☼	11/22/19 09:06	11/23/19 14:20	1
Isopropylbenzene	5.1	U	5.1	0.64	ug/Kg	☼	11/22/19 09:06	11/23/19 14:20	1
Methyl acetate	25	U *	25	22	ug/Kg	☼	11/22/19 09:06	11/23/19 14:20	1
Methyl tert-butyl ether	5.1	U	5.1	0.63	ug/Kg	☼	11/22/19 09:06	11/23/19 14:20	1
Methylcyclohexane	5.1	U	5.1	2.5	ug/Kg	☼	11/22/19 09:06	11/23/19 14:20	1
Methylene Chloride	5.1	U	5.1	2.4	ug/Kg	☼	11/22/19 09:06	11/23/19 14:20	1
Styrene	5.1	U	5.1	1.4	ug/Kg	☼	11/22/19 09:06	11/23/19 14:20	1
Tetrachloroethene	5.1	U	5.1	0.73	ug/Kg	☼	11/22/19 09:06	11/23/19 14:20	1
Toluene	5.1	U	5.1	1.2	ug/Kg	☼	11/22/19 09:06	11/23/19 14:20	1
trans-1,2-Dichloroethene	5.1	U	5.1	1.2	ug/Kg	☼	11/22/19 09:06	11/23/19 14:20	1
trans-1,3-Dichloropropene	5.1	U	5.1	1.3	ug/Kg	☼	11/22/19 09:06	11/23/19 14:20	1
Trichloroethene	5.1	U	5.1	0.73	ug/Kg	☼	11/22/19 09:06	11/23/19 14:20	1
Trichlorofluoromethane	5.1	U	5.1	2.1	ug/Kg	☼	11/22/19 09:06	11/23/19 14:20	1
Vinyl chloride	5.1	U	5.1	2.8	ug/Kg	☼	11/22/19 09:06	11/23/19 14:20	1
Xylenes, Total	10	U	10	0.88	ug/Kg	☼	11/22/19 09:06	11/23/19 14:20	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	92		78 - 135	11/22/19 09:06	11/23/19 14:20	1
4-Bromofluorobenzene	104		67 - 126	11/22/19 09:06	11/23/19 14:20	1
Dibromofluoromethane (Surr)	101		61 - 149	11/22/19 09:06	11/23/19 14:20	1
Toluene-d8 (Surr)	96		73 - 121	11/22/19 09:06	11/23/19 14:20	1

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	55000		7300	970	ug/Kg	☼	11/22/19 22:34	11/25/19 17:10	20
Aroclor 1221	7300	U	7300	970	ug/Kg	☼	11/22/19 22:34	11/25/19 17:10	20
Aroclor 1232	7300	U	7300	970	ug/Kg	☼	11/22/19 22:34	11/25/19 17:10	20
Aroclor 1242	7300	U	7300	970	ug/Kg	☼	11/22/19 22:34	11/25/19 17:10	20
Aroclor 1248	7300	U	7300	970	ug/Kg	☼	11/22/19 22:34	11/25/19 17:10	20
Aroclor 1254	7300	U	7300	1000	ug/Kg	☼	11/22/19 22:34	11/25/19 17:10	20
Aroclor 1260	7300	U	7300	1000	ug/Kg	☼	11/22/19 22:34	11/25/19 17:10	20
Aroclor-1262	7300	U	7300	1000	ug/Kg	☼	11/22/19 22:34	11/25/19 17:10	20
Aroclor 1268	7300	U	7300	1000	ug/Kg	☼	11/22/19 22:34	11/25/19 17:10	20
Polychlorinated biphenyls, Total	55000		7300	1000	ug/Kg	☼	11/22/19 22:34	11/25/19 17:10	20

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	0	* D	53 - 150	11/22/19 22:34	11/25/19 17:10	20
DCB Decachlorobiphenyl	0	* D	53 - 150	11/22/19 22:34	11/25/19 17:10	20

Method: 537 (modified) - Fluorinated Alkyl Substances

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorohexanoic acid (PFHxA)	1.00	U	1.00	0.21	ug/Kg	☼	12/03/19 16:58	12/06/19 08:29	1

Eurofins TestAmerica, Edison

Client Sample Results

Client: New York State D.E.C.
Project/Site: DEC - Fort Edward Landfill Site:558001

Job ID: 460-197135-1

Client Sample ID: Filter Sludge-20191120

Lab Sample ID: 460-197135-4

Date Collected: 11/20/19 09:50

Matrix: Solid

Date Received: 11/21/19 09:30

Percent Solids: 18.3

Method: 537 (modified) - Fluorinated Alkyl Substances (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluoroheptanoic acid (PFHpA)	1.00	U	1.00	0.15	ug/Kg	☼	12/03/19 16:58	12/06/19 08:29	1
Perfluorooctanoic acid (PFOA)	1.00	U	1.00	0.43	ug/Kg	☼	12/03/19 16:58	12/06/19 08:29	1
Perfluorononanoic acid (PFNA)	1.00	U	1.00	0.18	ug/Kg	☼	12/03/19 16:58	12/06/19 08:29	1
Perfluorodecanoic acid (PFDA)	1.00	U	1.00	0.11	ug/Kg	☼	12/03/19 16:58	12/06/19 08:29	1
Perfluoroundecanoic acid (PFUnA)	1.00	U	1.00	0.18	ug/Kg	☼	12/03/19 16:58	12/06/19 08:29	1
Perfluorododecanoic acid (PFDoA)	1.00	U	1.00	0.34	ug/Kg	☼	12/03/19 16:58	12/06/19 08:29	1
Perfluorotridecanoic acid (PFTriA)	1.00	U	1.00	0.26	ug/Kg	☼	12/03/19 16:58	12/06/19 08:29	1
Perfluorotetradecanoic acid (PFTeA)	1.00	U	1.00	0.27	ug/Kg	☼	12/03/19 16:58	12/06/19 08:29	1
Perfluorobutanesulfonic acid (PFBS)	1.00	U	1.00	0.13	ug/Kg	☼	12/03/19 16:58	12/06/19 08:29	1
Perfluorohexanesulfonic acid (PFHxS)	1.00	U	1.00	0.16	ug/Kg	☼	12/03/19 16:58	12/06/19 08:29	1
Perfluorooctanesulfonic acid (PFOS)	2.50	U	2.50	1.00	ug/Kg	☼	12/03/19 16:58	12/06/19 08:29	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	2.61	J	10.0	1.85	ug/Kg	☼	12/03/19 16:58	12/06/19 08:29	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	10.0	U	10.0	1.95	ug/Kg	☼	12/03/19 16:58	12/06/19 08:29	1

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C2 PFHxA	76		25 - 150	12/03/19 16:58	12/06/19 08:29	1
13C4 PFHpA	84		25 - 150	12/03/19 16:58	12/06/19 08:29	1
13C4 PFOA	71		25 - 150	12/03/19 16:58	12/06/19 08:29	1
13C5 PFNA	66		25 - 150	12/03/19 16:58	12/06/19 08:29	1
13C2 PFDA	78		25 - 150	12/03/19 16:58	12/06/19 08:29	1
13C2 PFUnA	72		25 - 150	12/03/19 16:58	12/06/19 08:29	1
13C2 PFDoA	73		25 - 150	12/03/19 16:58	12/06/19 08:29	1
13C2 PFTeDA	58		25 - 150	12/03/19 16:58	12/06/19 08:29	1
18O2 PFHxS	82		25 - 150	12/03/19 16:58	12/06/19 08:29	1
13C4 PFOS	78		25 - 150	12/03/19 16:58	12/06/19 08:29	1
d3-NMeFOSAA	71		25 - 150	12/03/19 16:58	12/06/19 08:29	1
d5-NEtFOSAA	75		25 - 150	12/03/19 16:58	12/06/19 08:29	1
13C3 PFBS	82		25 - 150	12/03/19 16:58	12/06/19 08:29	1

Method: 6010D - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	10.5	U	10.5	0.99	mg/Kg	☼	12/03/19 04:50	12/04/19 15:32	4
Aluminum	77000		210	59.3	mg/Kg	☼	12/03/19 04:50	12/04/19 15:32	4
Arsenic	54.6		15.8	6.1	mg/Kg	☼	12/03/19 04:50	12/04/19 15:32	4
Barium	294		210	11.7	mg/Kg	☼	12/03/19 04:50	12/04/19 15:32	4
Beryllium	2.1	U	2.1	0.47	mg/Kg	☼	12/03/19 04:50	12/04/19 15:32	4
Calcium	13900		5250	309	mg/Kg	☼	12/03/19 04:50	12/04/19 15:32	4
Cadmium	4.2	U	4.2	0.71	mg/Kg	☼	12/03/19 04:50	12/04/19 15:32	4
Cobalt	52.5	U	52.5	6.5	mg/Kg	☼	12/03/19 04:50	12/04/19 15:32	4
Chromium	43.4		10.5	1.9	mg/Kg	☼	12/03/19 04:50	12/04/19 15:32	4
Copper	27.3	U	27.3	14.5	mg/Kg	☼	12/05/19 04:48	12/05/19 15:36	4
Iron	460000		788	386	mg/Kg	☼	12/03/19 04:50	12/05/19 01:39	20
Potassium	5460	U	5460	340	mg/Kg	☼	12/05/19 04:48	12/05/19 15:36	4
Magnesium	487	J	5250	306	mg/Kg	☼	12/03/19 04:50	12/04/19 15:32	4
Manganese	2170		15.8	1.8	mg/Kg	☼	12/03/19 04:50	12/04/19 15:32	4
Sodium	445	J	5460	439	mg/Kg	☼	12/05/19 04:48	12/05/19 15:36	4
Nickel	11.9	J	42.0	3.9	mg/Kg	☼	12/03/19 04:50	12/04/19 15:32	4
Lead	42.1		10.5	2.7	mg/Kg	☼	12/03/19 04:50	12/04/19 15:32	4
Antimony	21.0	U	21.0	5.6	mg/Kg	☼	12/03/19 04:50	12/04/19 15:32	4

Eurofins TestAmerica, Edison

Client Sample Results

Client: New York State D.E.C.
Project/Site: DEC - Fort Edward Landfill Site:558001

Job ID: 460-197135-1

Client Sample ID: Filter Sludge-20191120

Date Collected: 11/20/19 09:50

Date Received: 11/21/19 09:30

Lab Sample ID: 460-197135-4

Matrix: Solid

Percent Solids: 18.3

Method: 6010D - Metals (ICP) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Selenium	21.0	U	21.0	12.5	mg/Kg	☼	12/03/19 04:50	12/04/19 15:32	4
Thallium	21.0	U	21.0	3.3	mg/Kg	☼	12/03/19 04:50	12/04/19 15:32	4
Vanadium	18.6	J	52.5	3.5	mg/Kg	☼	12/03/19 04:50	12/04/19 15:32	4
Zinc	34.4		31.5	24.5	mg/Kg	☼	12/03/19 04:50	12/04/19 15:32	4

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.091	U	0.091	0.054	mg/Kg	☼	11/26/19 04:54	11/26/19 09:36	1

General Chemistry

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	81.7		1.0	1.0	%			11/27/19 11:45	1
Percent Solids	18.3		1.0	1.0	%			11/27/19 11:45	1

Client Sample ID: Decant Tank-20191120

Date Collected: 11/20/19 10:10

Date Received: 11/21/19 09:30

Lab Sample ID: 460-197135-5

Matrix: Water

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	1.0	U	1.0	0.24	ug/L			11/29/19 13:44	1
1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.37	ug/L			11/29/19 13:44	1
1,1,2-Trichloro-1,2,2-trifluoroethane	1.0	U	1.0	0.31	ug/L			11/29/19 13:44	1
1,1,2-Trichloroethane	1.0	U	1.0	0.43	ug/L			11/29/19 13:44	1
1,1-Dichloroethane	1.0	U	1.0	0.26	ug/L			11/29/19 13:44	1
1,1-Dichloroethene	1.0	U	1.0	0.26	ug/L			11/29/19 13:44	1
1,2,4-Trichlorobenzene	1.0	U	1.0	0.37	ug/L			11/29/19 13:44	1
1,2-Dibromo-3-Chloropropane	1.0	U	1.0	0.38	ug/L			11/29/19 13:44	1
1,2-Dichlorobenzene	1.0	U	1.0	0.43	ug/L			11/29/19 13:44	1
1,2-Dichloroethane	1.0	U	1.0	0.43	ug/L			11/29/19 13:44	1
1,2-Dichloropropane	1.0	U	1.0	0.35	ug/L			11/29/19 13:44	1
1,3-Dichlorobenzene	1.0	U	1.0	0.34	ug/L			11/29/19 13:44	1
1,4-Dichlorobenzene	1.0	U	1.0	0.33	ug/L			11/29/19 13:44	1
2-Butanone (MEK)	5.0	U	5.0	1.9	ug/L			11/29/19 13:44	1
2-Hexanone	5.0	U	5.0	1.1	ug/L			11/29/19 13:44	1
4-Methyl-2-pentanone (MIBK)	2.0	J	5.0	1.3	ug/L			11/29/19 13:44	1
Acetone	6.8		5.0	4.4	ug/L			11/29/19 13:44	1
Benzene	1.0	U	1.0	0.20	ug/L			11/29/19 13:44	1
Bromoform	1.0	U	1.0	0.54	ug/L			11/29/19 13:44	1
Bromomethane	1.0	U	1.0	0.55	ug/L			11/29/19 13:44	1
Carbon disulfide	1.0	U	1.0	0.82	ug/L			11/29/19 13:44	1
Carbon tetrachloride	1.0	U	1.0	0.21	ug/L			11/29/19 13:44	1
Chlorobenzene	0.50	J	1.0	0.38	ug/L			11/29/19 13:44	1
Chlorodibromomethane	1.0	U	1.0	0.28	ug/L			11/29/19 13:44	1
Chloroethane	0.44	J	1.0	0.32	ug/L			11/29/19 13:44	1
Chloroform	8.6		1.0	0.33	ug/L			11/29/19 13:44	1
Chloromethane	1.0	U	1.0	0.40	ug/L			11/29/19 13:44	1
cis-1,2-Dichloroethene	5.6		1.0	0.22	ug/L			11/29/19 13:44	1
cis-1,3-Dichloropropene	1.0	U	1.0	0.22	ug/L			11/29/19 13:44	1
Cyclohexane	1.0	U	1.0	0.32	ug/L			11/29/19 13:44	1

Eurofins TestAmerica, Edison

Client Sample Results

Client: New York State D.E.C.
Project/Site: DEC - Fort Edward Landfill Site:558001

Job ID: 460-197135-1

Client Sample ID: Decant Tank-20191120

Lab Sample ID: 460-197135-5

Date Collected: 11/20/19 10:10

Matrix: Water

Date Received: 11/21/19 09:30

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dichlorobromomethane	1.4		1.0	0.34	ug/L			11/29/19 13:44	1
Dichlorodifluoromethane	1.0	U	1.0	0.31	ug/L			11/29/19 13:44	1
Ethylbenzene	1.0	U	1.0	0.30	ug/L			11/29/19 13:44	1
Ethylene Dibromide	1.0	U	1.0	0.50	ug/L			11/29/19 13:44	1
Isopropylbenzene	1.0	U	1.0	0.34	ug/L			11/29/19 13:44	1
Methyl acetate	5.0	U	5.0	0.79	ug/L			11/29/19 13:44	1
Methyl tert-butyl ether	1.0	U	1.0	0.47	ug/L			11/29/19 13:44	1
Methylcyclohexane	1.0	U	1.0	0.26	ug/L			11/29/19 13:44	1
Methylene Chloride	1.0	U	1.0	0.32	ug/L			11/29/19 13:44	1
Styrene	1.0	U	1.0	0.42	ug/L			11/29/19 13:44	1
Tetrachloroethene	1.0	U	1.0	0.25	ug/L			11/29/19 13:44	1
Toluene	1.0	U	1.0	0.38	ug/L			11/29/19 13:44	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.24	ug/L			11/29/19 13:44	1
trans-1,3-Dichloropropene	1.0	U	1.0	0.49	ug/L			11/29/19 13:44	1
Trichloroethene	1.0	U	1.0	0.31	ug/L			11/29/19 13:44	1
Trichlorofluoromethane	1.0	U	1.0	0.32	ug/L			11/29/19 13:44	1
Vinyl chloride	4.6		1.0	0.17	ug/L			11/29/19 13:44	1
Xylenes, Total	2.0	U	2.0	0.65	ug/L			11/29/19 13:44	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	87		74 - 132		11/29/19 13:44	1
4-Bromofluorobenzene	97		77 - 124		11/29/19 13:44	1
Dibromofluoromethane (Surr)	93		72 - 131		11/29/19 13:44	1
Toluene-d8 (Surr)	86		80 - 120		11/29/19 13:44	1

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	4.0	U	4.0	1.2	ug/L		11/22/19 16:45	11/25/19 15:19	10
Aroclor 1221	4.0	U	4.0	1.2	ug/L		11/22/19 16:45	11/25/19 15:19	10
Aroclor 1232	30		4.0	1.2	ug/L		11/22/19 16:45	11/25/19 15:19	10
Aroclor 1242	4.0	U	4.0	1.2	ug/L		11/22/19 16:45	11/25/19 15:19	10
Aroclor 1248	4.0	U	4.0	1.2	ug/L		11/22/19 16:45	11/25/19 15:19	10
Aroclor 1254	4.0	U	4.0	1.1	ug/L		11/22/19 16:45	11/25/19 15:19	10
Aroclor 1260	4.0	U	4.0	1.1	ug/L		11/22/19 16:45	11/25/19 15:19	10
Aroclor-1262	4.0	U	4.0	1.1	ug/L		11/22/19 16:45	11/25/19 15:19	10
Aroclor 1268	4.0	U	4.0	1.1	ug/L		11/22/19 16:45	11/25/19 15:19	10
Polychlorinated biphenyls, Total	30		4.0	1.2	ug/L		11/22/19 16:45	11/25/19 15:19	10

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	67		10 - 150	11/22/19 16:45	11/25/19 15:19	10
DCB Decachlorobiphenyl	80		10 - 150	11/22/19 16:45	11/25/19 15:19	10

Method: 300.0-1993 R2.1 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	22.2		1.00	0.40	mg/L			12/03/19 00:11	1
Chloride	80.4		0.50	0.20	mg/L			12/03/19 00:11	1

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate as N	0.28		0.10	0.056	mg/L			11/22/19 09:38	1
Nitrate Nitrite as N	0.28		0.10	0.056	mg/L			11/22/19 09:38	1

Eurofins TestAmerica, Edison

Client Sample Results

Client: New York State D.E.C.
Project/Site: DEC - Fort Edward Landfill Site:558001

Job ID: 460-197135-1

Client Sample ID: Decant Tank-20191120

Lab Sample ID: 460-197135-5

Date Collected: 11/20/19 10:10

Matrix: Water

Date Received: 11/21/19 09:30

Method: 537 (modified) - Fluorinated Alkyl Substances

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorohexanoic acid (PFHxA)	28.0		1.79	0.52	ng/L		12/02/19 05:41	12/05/19 18:56	1
Perfluoroheptanoic acid (PFHpA)	10.0		1.79	0.22	ng/L		12/02/19 05:41	12/05/19 18:56	1
Perfluorooctanoic acid (PFOA)	34.8		1.79	0.76	ng/L		12/02/19 05:41	12/05/19 18:56	1
Perfluorononanoic acid (PFNA)	1.79	U	1.79	0.24	ng/L		12/02/19 05:41	12/05/19 18:56	1
Perfluorodecanoic acid (PFDA)	1.79	U	1.79	0.28	ng/L		12/02/19 05:41	12/05/19 18:56	1
Perfluoroundecanoic acid (PFUnA)	1.79	U	1.79	0.98	ng/L		12/02/19 05:41	12/05/19 18:56	1
Perfluorododecanoic acid (PFDoA)	1.79	U	1.79	0.49	ng/L		12/02/19 05:41	12/05/19 18:56	1
Perfluorotridecanoic acid (PFTriA)	1.79	U	1.79	1.16	ng/L		12/02/19 05:41	12/05/19 18:56	1
Perfluorotetradecanoic acid (PFTeA)	1.79	U	1.79	0.26	ng/L		12/02/19 05:41	12/05/19 18:56	1
Perfluorobutanesulfonic acid (PFBS)	1.37	J	1.79	0.18	ng/L		12/02/19 05:41	12/05/19 18:56	1
Perfluorohexanesulfonic acid (PFHxS)	2.53	B	1.79	0.15	ng/L		12/02/19 05:41	12/05/19 18:56	1
Perfluorooctanesulfonic acid (PFOS)	7.46		1.79	0.48	ng/L		12/02/19 05:41	12/05/19 18:56	1
N-ethylperfluorooctanesulfonamide doacetic acid (NEtFOSAA)	4.27	J	17.9	1.70	ng/L		12/02/19 05:41	12/05/19 18:56	1
N-methylperfluorooctanesulfonamide doacetic acid (NMeFOSAA)	17.9	U	17.9	2.78	ng/L		12/02/19 05:41	12/05/19 18:56	1
Isotope Dilution	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
13C2 PFHxA	74		25 - 150				12/02/19 05:41	12/05/19 18:56	1
13C4 PFHpA	81		25 - 150				12/02/19 05:41	12/05/19 18:56	1
13C4 PFOA	77		25 - 150				12/02/19 05:41	12/05/19 18:56	1
13C5 PFNA	77		25 - 150				12/02/19 05:41	12/05/19 18:56	1
13C2 PFDA	73		25 - 150				12/02/19 05:41	12/05/19 18:56	1
13C2 PFUnA	67		25 - 150				12/02/19 05:41	12/05/19 18:56	1
13C2 PFDoA	61		25 - 150				12/02/19 05:41	12/05/19 18:56	1
13C2 PFTeDA	47		25 - 150				12/02/19 05:41	12/05/19 18:56	1
18O2 PFHxS	77		25 - 150				12/02/19 05:41	12/05/19 18:56	1
13C4 PFOS	73		25 - 150				12/02/19 05:41	12/05/19 18:56	1
d3-NMeFOSAA	66		25 - 150				12/02/19 05:41	12/05/19 18:56	1
d5-NEtFOSAA	66		25 - 150				12/02/19 05:41	12/05/19 18:56	1
13C3 PFBS	72		25 - 150				12/02/19 05:41	12/05/19 18:56	1

Method: 6010D - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	10.0	U	10.0	1.1	ug/L		11/22/19 22:30	11/23/19 21:10	1
Aluminum	4420		200	28.6	ug/L		11/22/19 22:30	11/23/19 21:10	1
Arsenic	6.3	J	15.0	2.7	ug/L		11/22/19 22:30	11/23/19 21:10	1
Barium	72.7	J	200	7.7	ug/L		11/22/19 22:30	11/23/19 21:10	1
Beryllium	2.0	U	2.0	0.23	ug/L		11/22/19 22:30	11/23/19 21:10	1
Calcium	86900		5000	222	ug/L		11/22/19 22:30	11/23/19 21:10	1
Cadmium	4.0	U	4.0	0.22	ug/L		11/22/19 22:30	11/23/19 21:10	1
Cobalt	2.6	J	50.0	1.7	ug/L		11/22/19 22:30	11/23/19 21:10	1
Chromium	5.5	J	10.0	1.3	ug/L		11/22/19 22:30	11/23/19 21:10	1
Copper	25.0	U	25.0	5.1	ug/L		11/22/19 22:30	11/23/19 21:10	1
Iron	32100		150	34.2	ug/L		11/22/19 22:30	11/23/19 21:10	1
Potassium	4490	J	5000	323	ug/L		11/22/19 22:30	11/23/19 21:10	1
Magnesium	20400		5000	177	ug/L		11/22/19 22:30	11/23/19 21:10	1
Manganese	3340		15.0	0.99	ug/L		11/22/19 22:30	11/23/19 21:10	1
Sodium	66300		5000	460	ug/L		11/22/19 22:30	11/23/19 21:10	1

Eurofins TestAmerica, Edison

Client Sample Results

Client: New York State D.E.C.
Project/Site: DEC - Fort Edward Landfill Site:558001

Job ID: 460-197135-1

Client Sample ID: Decant Tank-20191120

Lab Sample ID: 460-197135-5

Date Collected: 11/20/19 10:10

Matrix: Water

Date Received: 11/21/19 09:30

Method: 6010D - Metals (ICP) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nickel	3.9	J	40.0	1.7	ug/L		11/22/19 22:30	11/23/19 21:10	1
Lead	4.9	J	10.0	2.5	ug/L		11/22/19 22:30	11/23/19 21:10	1
Antimony	20.0	U	20.0	2.9	ug/L		11/22/19 22:30	11/23/19 21:10	1
Selenium	20.0	U	20.0	6.6	ug/L		11/22/19 22:30	11/23/19 21:10	1
Thallium	6.6	J	20.0	5.4	ug/L		11/22/19 22:30	11/23/19 21:10	1
Vanadium	50.0	U	50.0	2.5	ug/L		11/22/19 22:30	11/23/19 21:10	1
Zinc	23.4	J	30.0	3.6	ug/L		11/22/19 22:30	11/23/19 21:10	1

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.20	U	0.20	0.12	ug/L		11/29/19 12:35	11/29/19 17:25	1

General Chemistry

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	212		20.0	20.0	mg/L			11/25/19 15:33	1
Total Suspended Solids	94.0	H	20.0	20.0	mg/L			12/18/19 11:38	1

Client Sample ID: Trip Blank-20191120

Lab Sample ID: 460-197135-6

Date Collected: 11/20/19 00:00

Matrix: Water

Date Received: 11/21/19 09:30

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	1.0	U	1.0	0.24	ug/L			11/26/19 02:02	1
1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.37	ug/L			11/26/19 02:02	1
1,1,2-Trichloro-1,2,2-trifluoroethane	1.0	U	1.0	0.31	ug/L			11/26/19 02:02	1
1,1,2-Trichloroethane	1.0	U	1.0	0.43	ug/L			11/26/19 02:02	1
1,1-Dichloroethane	1.0	U	1.0	0.26	ug/L			11/26/19 02:02	1
1,1-Dichloroethene	1.0	U	1.0	0.26	ug/L			11/26/19 02:02	1
1,2,4-Trichlorobenzene	1.0	U	1.0	0.37	ug/L			11/26/19 02:02	1
1,2-Dibromo-3-Chloropropane	1.0	U	1.0	0.38	ug/L			11/26/19 02:02	1
1,2-Dichlorobenzene	1.0	U	1.0	0.43	ug/L			11/26/19 02:02	1
1,2-Dichloroethane	1.0	U	1.0	0.43	ug/L			11/26/19 02:02	1
1,2-Dichloropropane	1.0	U	1.0	0.35	ug/L			11/26/19 02:02	1
1,3-Dichlorobenzene	1.0	U	1.0	0.34	ug/L			11/26/19 02:02	1
1,4-Dichlorobenzene	1.0	U	1.0	0.33	ug/L			11/26/19 02:02	1
2-Butanone (MEK)	5.0	U	5.0	1.9	ug/L			11/26/19 02:02	1
2-Hexanone	5.0	U	5.0	1.1	ug/L			11/26/19 02:02	1
4-Methyl-2-pentanone (MIBK)	5.0	U	5.0	1.3	ug/L			11/26/19 02:02	1
Acetone	5.0	U	5.0	4.4	ug/L			11/26/19 02:02	1
Benzene	1.0	U	1.0	0.20	ug/L			11/26/19 02:02	1
Bromoform	1.0	U	1.0	0.54	ug/L			11/26/19 02:02	1
Bromomethane	1.0	U	1.0	0.55	ug/L			11/26/19 02:02	1
Carbon disulfide	1.0	U	1.0	0.82	ug/L			11/26/19 02:02	1
Carbon tetrachloride	1.0	U	1.0	0.21	ug/L			11/26/19 02:02	1
Chlorobenzene	1.0	U	1.0	0.38	ug/L			11/26/19 02:02	1
Chlorodibromomethane	1.0	U	1.0	0.28	ug/L			11/26/19 02:02	1
Chloroethane	1.0	U	1.0	0.32	ug/L			11/26/19 02:02	1
Chloroform	0.39	J	1.0	0.33	ug/L			11/26/19 02:02	1
Chloromethane	1.0	U	1.0	0.40	ug/L			11/26/19 02:02	1

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Client Sample Results

Client: New York State D.E.C.
Project/Site: DEC - Fort Edward Landfill Site:558001

Job ID: 460-197135-1

Client Sample ID: Trip Blank-20191120

Lab Sample ID: 460-197135-6

Date Collected: 11/20/19 00:00

Matrix: Water

Date Received: 11/21/19 09:30

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
cis-1,2-Dichloroethene	1.0	U	1.0	0.22	ug/L			11/26/19 02:02	1
cis-1,3-Dichloropropene	1.0	U	1.0	0.22	ug/L			11/26/19 02:02	1
Cyclohexane	1.0	U	1.0	0.32	ug/L			11/26/19 02:02	1
Dichlorobromomethane	1.0	U	1.0	0.34	ug/L			11/26/19 02:02	1
Dichlorodifluoromethane	1.0	U	1.0	0.31	ug/L			11/26/19 02:02	1
Ethylbenzene	1.0	U	1.0	0.30	ug/L			11/26/19 02:02	1
Ethylene Dibromide	1.0	U	1.0	0.50	ug/L			11/26/19 02:02	1
Isopropylbenzene	1.0	U	1.0	0.34	ug/L			11/26/19 02:02	1
Methyl acetate	5.0	U	5.0	0.79	ug/L			11/26/19 02:02	1
Methyl tert-butyl ether	1.0	U	1.0	0.47	ug/L			11/26/19 02:02	1
Methylcyclohexane	1.0	U	1.0	0.26	ug/L			11/26/19 02:02	1
Methylene Chloride	1.0	U	1.0	0.32	ug/L			11/26/19 02:02	1
Styrene	1.0	U	1.0	0.42	ug/L			11/26/19 02:02	1
Tetrachloroethene	1.0	U	1.0	0.25	ug/L			11/26/19 02:02	1
Toluene	1.0	U	1.0	0.38	ug/L			11/26/19 02:02	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.24	ug/L			11/26/19 02:02	1
trans-1,3-Dichloropropene	1.0	U	1.0	0.49	ug/L			11/26/19 02:02	1
Trichloroethene	1.0	U	1.0	0.31	ug/L			11/26/19 02:02	1
Trichlorofluoromethane	1.0	U	1.0	0.32	ug/L			11/26/19 02:02	1
Vinyl chloride	1.0	U	1.0	0.17	ug/L			11/26/19 02:02	1
Xylenes, Total	2.0	U	2.0	0.65	ug/L			11/26/19 02:02	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	95		74 - 132		11/26/19 02:02	1
4-Bromofluorobenzene	103		77 - 124		11/26/19 02:02	1
Dibromofluoromethane (Surr)	102		72 - 131		11/26/19 02:02	1
Toluene-d8 (Surr)	91		80 - 120		11/26/19 02:02	1

Surrogate Summary

Client: New York State D.E.C.
Project/Site: DEC - Fort Edward Landfill Site:558001

Job ID: 460-197135-1

Method: 8260C - Volatile Organic Compounds by GC/MS

Matrix: Solid

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)			
		DCA (78-135)	BFB (67-126)	DBFM (61-149)	TOL (73-121)
460-197135-4	Filter Sludge-20191120	92	104	101	96
LB3 460-657415/1-A	Method Blank	106	103	110	102
LCS 460-657551/3	Lab Control Sample	111	102	113	103
LCS 460-657667/5	Lab Control Sample	88	98	93	93
LCSD 460-657551/4	Lab Control Sample Dup	113	102	110	103
LCSD 460-657667/14	Lab Control Sample Dup	93	100	95	95
MB 460-657551/8	Method Blank	110	102	113	102
MB 460-657667/9	Method Blank	90	105	94	92

Surrogate Legend

DCA = 1,2-Dichloroethane-d4 (Surr)

BFB = 4-Bromofluorobenzene

DBFM = Dibromofluoromethane (Surr)

TOL = Toluene-d8 (Surr)

Method: 8260C - Volatile Organic Compounds by GC/MS

Matrix: Water

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)			
		DCA (74-132)	BFB (77-124)	DBFM (72-131)	TOL (80-120)
460-197135-1	Influent-20191120	94	103	99	91
460-197135-2	CCT-20191120	92	104	98	91
460-197135-5	Decant Tank-20191120	87	97	93	86
460-197135-6	Trip Blank-20191120	95	103	102	91
LCS 460-658233/5	Lab Control Sample	93	106	100	92
LCS 460-658967/4	Lab Control Sample	92	105	99	91
LCSD 460-658967/5	Lab Control Sample Dup	87	100	94	87
MB 460-658233/9	Method Blank	97	105	105	94
MB 460-658967/9	Method Blank	92	103	98	92

Surrogate Legend

DCA = 1,2-Dichloroethane-d4 (Surr)

BFB = 4-Bromofluorobenzene

DBFM = Dibromofluoromethane (Surr)

TOL = Toluene-d8 (Surr)

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Matrix: Solid

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)	
		DCBP1 (53-150)	DCBP2 (53-150)
460-197135-4	Filter Sludge-20191120	0 * D	0 * D
LCS 460-657644/2-A	Lab Control Sample	110	110
LCSD 460-657644/3-A	Lab Control Sample Dup	108	118
MB 460-657644/1-A	Method Blank	99	110

Surrogate Legend

DCBP = DCB Decachlorobiphenyl

Surrogate Summary

Client: New York State D.E.C.

Job ID: 460-197135-1

Project/Site: DEC - Fort Edward Landfill Site:558001

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Matrix: Water

Prep Type: Total/NA

Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	DCBP1 (10-150)	DCBP2 (10-150)
460-197135-1	Influent-20191120	57	59
460-197135-2	CCT-20191120	61	69
460-197135-5	Decant Tank-20191120	67	80
LCS 460-657568/2-A	Lab Control Sample	48	55
LCSD 460-657568/3-A	Lab Control Sample Dup	70	70
MB 460-657568/1-A	Method Blank	78	92

Surrogate Legend

DCBP = DCB Decachlorobiphenyl

Isotope Dilution Summary

Client: New York State D.E.C.
Project/Site: DEC - Fort Edward Landfill Site:558001

Job ID: 460-197135-1

Method: 537 (modified) - Fluorinated Alkyl Substances

Matrix: Solid

Prep Type: Total/NA

Percent Isotope Dilution Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	PFHxA (25-150)	PFHpA (25-150)	PFOA (25-150)	PFNA (25-150)	PFDA (25-150)	PFUnA (25-150)	PFDoA (25-150)	PFTDA (25-150)
460-197135-4	Filter Sludge-20191120	76	84	71	66	78	72	73	58
460-197135-4 MS	Filter Sludge-20191120	83	83	78	79	83	86	70	70
460-197135-4 MSD	Filter Sludge-20191120	78	79	74	75	80	72	62	57
LCS 320-342941/2-A	Lab Control Sample	97	103	90	88	95	90	84	91
MB 320-342941/1-A	Method Blank	101	105	99	93	98	94	92	94

Percent Isotope Dilution Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	PFHxS (25-150)	PFOS (25-150)	d3-NMeFOSAA (25-150)	d5-NEtFOSAA (25-150)	13C3-PFBS (25-150)
460-197135-4	Filter Sludge-20191120	82	78	71	75	82
460-197135-4 MS	Filter Sludge-20191120	84	88	86	88	89
460-197135-4 MSD	Filter Sludge-20191120	84	82	82	83	90
LCS 320-342941/2-A	Lab Control Sample	101	101	96	96	103
MB 320-342941/1-A	Method Blank	101	105	95	98	105

Surrogate Legend

PFHxA = 13C2 PFHxA
PFHpA = 13C4 PFHpA
PFOA = 13C4 PFOA
PFNA = 13C5 PFNA
PFDA = 13C2 PFDA
PFUnA = 13C2 PFUnA
PFDoA = 13C2 PFDoA
PFTDA = 13C2 PFTeDA
PFHxS = 18O2 PFHxS
PFOS = 13C4 PFOS
d3-NMeFOSAA = d3-NMeFOSAA
d5-NEtFOSAA = d5-NEtFOSAA
13C3-PFBS = 13C3 PFBS

Method: 537 (modified) - Fluorinated Alkyl Substances

Matrix: Water

Prep Type: Total/NA

Percent Isotope Dilution Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	PFHxA (25-150)	PFHpA (25-150)	PFOA (25-150)	PFNA (25-150)	PFDA (25-150)	PFUnA (25-150)	PFDoA (25-150)	PFTDA (25-150)
460-197135-1	Influent-20191120	96	101	100	99	96	91	87	76
460-197135-1 MS	Influent-20191120	96	105	101	99	97	91	89	76
460-197135-1 MSD	Influent-20191120	94	105	104	99	95	83	83	75
460-197135-2	CCT-20191120	63	67	62	62	57	51	47	46
460-197135-3	DUP-1-20191120	86	94	92	86	81	74	71	64
460-197135-5	Decant Tank-20191120	74	81	77	77	73	67	61	47
LCS 320-342557/2-A	Lab Control Sample	104	106	103	102	102	101	98	100
MB 320-342557/1-A	Method Blank	101	107	103	102	101	101	99	100

Percent Isotope Dilution Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	PFHxS (25-150)	PFOS (25-150)	d3-NMeFOSAA (25-150)	d5-NEtFOSAA (25-150)	13C3-PFBS (25-150)
460-197135-1	Influent-20191120	102	100	87	89	97
460-197135-1 MS	Influent-20191120	102	100	84	88	95
460-197135-1 MSD	Influent-20191120	103	98	83	83	98
460-197135-2	CCT-20191120	65	59	48	50	63

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Isotope Dilution Summary

Client: New York State D.E.C.

Job ID: 460-197135-1

Project/Site: DEC - Fort Edward Landfill Site:558001

Method: 537 (modified) - Fluorinated Alkyl Substances (Continued)

Matrix: Water

Prep Type: Total/NA

Percent Isotope Dilution Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	PFHxS (25-150)	PFOS (25-150)	d3-NMeFOSAA (25-150)	d5-NEtFOSAA (25-150)	13C3-PFBS (25-150)
460-197135-3	DUP-1-20191120	93	83	69	70	86
460-197135-5	Decant Tank-20191120	77	73	66	66	72
LCS 320-342557/2-A	Lab Control Sample	103	102	95	98	97
MB 320-342557/1-A	Method Blank	101	101	93	93	97

Surrogate Legend

PFHxA = 13C2 PFHxA
 PFHpA = 13C4 PFHpA
 PFOA = 13C4 PFOA
 PFNA = 13C5 PFNA
 PFDA = 13C2 PFDA
 PFUnA = 13C2 PFUnA
 PFDoA = 13C2 PFDoA
 PFTDA = 13C2 PFTeDA
 PFHxS = 18O2 PFHxS
 PFOS = 13C4 PFOS
 d3-NMeFOSAA = d3-NMeFOSAA
 d5-NEtFOSAA = d5-NEtFOSAA
 13C3-PFBS = 13C3 PFBS

QC Sample Results

Client: New York State D.E.C.
Project/Site: DEC - Fort Edward Landfill Site:558001

Job ID: 460-197135-1

Method: 8260C - Volatile Organic Compounds by GC/MS

Lab Sample ID: LB3 460-657415/1-A

Matrix: Solid

Analysis Batch: 657551

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 657415

Analyte	LB3		RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
1,1,1-Trichloroethane	1.0	U	1.0	0.23	ug/Kg		11/22/19 08:53	11/22/19 20:54	1
1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.21	ug/Kg		11/22/19 08:53	11/22/19 20:54	1
1,1,2-Trichloro-1,2,2-trifluoroethane	1.0	U	1.0	0.30	ug/Kg		11/22/19 08:53	11/22/19 20:54	1
1,1,2-Trichloroethane	1.0	U	1.0	0.18	ug/Kg		11/22/19 08:53	11/22/19 20:54	1
1,1-Dichloroethane	1.0	U	1.0	0.21	ug/Kg		11/22/19 08:53	11/22/19 20:54	1
1,1-Dichloroethene	1.0	U	1.0	0.23	ug/Kg		11/22/19 08:53	11/22/19 20:54	1
1,2,4-Trichlorobenzene	1.0	U	1.0	0.36	ug/Kg		11/22/19 08:53	11/22/19 20:54	1
1,2-Dibromo-3-Chloropropane	1.0	U	1.0	0.46	ug/Kg		11/22/19 08:53	11/22/19 20:54	1
1,2-Dichlorobenzene	1.0	U	1.0	0.14	ug/Kg		11/22/19 08:53	11/22/19 20:54	1
1,2-Dichloroethane	1.0	U	1.0	0.30	ug/Kg		11/22/19 08:53	11/22/19 20:54	1
1,2-Dichloropropane	1.0	U	1.0	0.42	ug/Kg		11/22/19 08:53	11/22/19 20:54	1
1,3-Dichlorobenzene	1.0	U	1.0	0.16	ug/Kg		11/22/19 08:53	11/22/19 20:54	1
1,4-Dichlorobenzene	1.0	U	1.0	0.23	ug/Kg		11/22/19 08:53	11/22/19 20:54	1
2-Butanone (MEK)	5.0	U	5.0	2.7	ug/Kg		11/22/19 08:53	11/22/19 20:54	1
2-Hexanone	5.0	U	5.0	1.7	ug/Kg		11/22/19 08:53	11/22/19 20:54	1
4-Methyl-2-pentanone (MIBK)	5.0	U	5.0	1.6	ug/Kg		11/22/19 08:53	11/22/19 20:54	1
Acetone	6.0	U	6.0	5.7	ug/Kg		11/22/19 08:53	11/22/19 20:54	1
Benzene	1.0	U	1.0	0.26	ug/Kg		11/22/19 08:53	11/22/19 20:54	1
Bromoform	1.0	U	1.0	0.43	ug/Kg		11/22/19 08:53	11/22/19 20:54	1
Bromomethane	1.0	U	1.0	0.47	ug/Kg		11/22/19 08:53	11/22/19 20:54	1
Carbon disulfide	1.0	U	1.0	0.27	ug/Kg		11/22/19 08:53	11/22/19 20:54	1
Carbon tetrachloride	1.0	U	1.0	0.39	ug/Kg		11/22/19 08:53	11/22/19 20:54	1
Chlorobenzene	1.0	U	1.0	0.18	ug/Kg		11/22/19 08:53	11/22/19 20:54	1
Chlorodibromomethane	1.0	U	1.0	0.19	ug/Kg		11/22/19 08:53	11/22/19 20:54	1
Chloroethane	1.0	U	1.0	0.52	ug/Kg		11/22/19 08:53	11/22/19 20:54	1
Chloroform	1.0	U	1.0	0.32	ug/Kg		11/22/19 08:53	11/22/19 20:54	1
Chloromethane	1.0	U	1.0	0.44	ug/Kg		11/22/19 08:53	11/22/19 20:54	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.15	ug/Kg		11/22/19 08:53	11/22/19 20:54	1
cis-1,3-Dichloropropene	1.0	U	1.0	0.27	ug/Kg		11/22/19 08:53	11/22/19 20:54	1
Cyclohexane	1.0	U	1.0	0.22	ug/Kg		11/22/19 08:53	11/22/19 20:54	1
Dichlorobromomethane	1.0	U	1.0	0.26	ug/Kg		11/22/19 08:53	11/22/19 20:54	1
Dichlorodifluoromethane	1.0	U	1.0	0.34	ug/Kg		11/22/19 08:53	11/22/19 20:54	1
Ethylbenzene	1.0	U	1.0	0.20	ug/Kg		11/22/19 08:53	11/22/19 20:54	1
Ethylene Dibromide	1.0	U	1.0	0.18	ug/Kg		11/22/19 08:53	11/22/19 20:54	1
Isopropylbenzene	1.0	U	1.0	0.13	ug/Kg		11/22/19 08:53	11/22/19 20:54	1
Methyl acetate	5.0	U	5.0	4.3	ug/Kg		11/22/19 08:53	11/22/19 20:54	1
Methyl tert-butyl ether	1.0	U	1.0	0.13	ug/Kg		11/22/19 08:53	11/22/19 20:54	1
Methylcyclohexane	1.0	U	1.0	0.50	ug/Kg		11/22/19 08:53	11/22/19 20:54	1
Methylene Chloride	1.0	U	1.0	0.46	ug/Kg		11/22/19 08:53	11/22/19 20:54	1
Styrene	1.0	U	1.0	0.28	ug/Kg		11/22/19 08:53	11/22/19 20:54	1
Tetrachloroethene	1.0	U	1.0	0.14	ug/Kg		11/22/19 08:53	11/22/19 20:54	1
Toluene	1.0	U	1.0	0.23	ug/Kg		11/22/19 08:53	11/22/19 20:54	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.25	ug/Kg		11/22/19 08:53	11/22/19 20:54	1
trans-1,3-Dichloropropene	1.0	U	1.0	0.27	ug/Kg		11/22/19 08:53	11/22/19 20:54	1
Trichloroethene	1.0	U	1.0	0.14	ug/Kg		11/22/19 08:53	11/22/19 20:54	1
Trichlorofluoromethane	1.0	U	1.0	0.41	ug/Kg		11/22/19 08:53	11/22/19 20:54	1
Vinyl chloride	1.0	U	1.0	0.55	ug/Kg		11/22/19 08:53	11/22/19 20:54	1
Xylenes, Total	2.0	U	2.0	0.17	ug/Kg		11/22/19 08:53	11/22/19 20:54	1

Eurofins TestAmerica, Edison

QC Sample Results

Client: New York State D.E.C.
Project/Site: DEC - Fort Edward Landfill Site:558001

Job ID: 460-197135-1

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

Lab Sample ID: LB3 460-657415/1-A

Matrix: Solid

Analysis Batch: 657551

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 657415

Surrogate	LB3 %Recovery	LB3 Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	106		78 - 135	11/22/19 08:53	11/22/19 20:54	1
4-Bromofluorobenzene	103		67 - 126	11/22/19 08:53	11/22/19 20:54	1
Dibromofluoromethane (Surr)	110		61 - 149	11/22/19 08:53	11/22/19 20:54	1
Toluene-d8 (Surr)	102		73 - 121	11/22/19 08:53	11/22/19 20:54	1

Lab Sample ID: MB 460-657551/8

Matrix: Solid

Analysis Batch: 657551

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	1.0	U	1.0	0.23	ug/Kg			11/22/19 20:21	1
1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.21	ug/Kg			11/22/19 20:21	1
1,1,2-Trichloro-1,2,2-trifluoroethane	1.0	U	1.0	0.30	ug/Kg			11/22/19 20:21	1
1,1,2-Trichloroethane	1.0	U	1.0	0.18	ug/Kg			11/22/19 20:21	1
1,1-Dichloroethane	1.0	U	1.0	0.21	ug/Kg			11/22/19 20:21	1
1,1-Dichloroethene	1.0	U	1.0	0.23	ug/Kg			11/22/19 20:21	1
1,2,4-Trichlorobenzene	1.0	U	1.0	0.36	ug/Kg			11/22/19 20:21	1
1,2-Dibromo-3-Chloropropane	1.0	U	1.0	0.46	ug/Kg			11/22/19 20:21	1
1,2-Dichlorobenzene	1.0	U	1.0	0.14	ug/Kg			11/22/19 20:21	1
1,2-Dichloroethane	1.0	U	1.0	0.30	ug/Kg			11/22/19 20:21	1
1,2-Dichloropropane	1.0	U	1.0	0.42	ug/Kg			11/22/19 20:21	1
1,3-Dichlorobenzene	1.0	U	1.0	0.16	ug/Kg			11/22/19 20:21	1
1,4-Dichlorobenzene	1.0	U	1.0	0.23	ug/Kg			11/22/19 20:21	1
2-Butanone (MEK)	5.0	U	5.0	2.7	ug/Kg			11/22/19 20:21	1
2-Hexanone	5.0	U	5.0	1.7	ug/Kg			11/22/19 20:21	1
4-Methyl-2-pentanone (MIBK)	5.0	U	5.0	1.6	ug/Kg			11/22/19 20:21	1
Acetone	6.0	U	6.0	5.7	ug/Kg			11/22/19 20:21	1
Benzene	1.0	U	1.0	0.26	ug/Kg			11/22/19 20:21	1
Bromoform	1.0	U	1.0	0.43	ug/Kg			11/22/19 20:21	1
Bromomethane	1.0	U	1.0	0.47	ug/Kg			11/22/19 20:21	1
Carbon disulfide	1.0	U	1.0	0.27	ug/Kg			11/22/19 20:21	1
Carbon tetrachloride	1.0	U	1.0	0.39	ug/Kg			11/22/19 20:21	1
Chlorobenzene	1.0	U	1.0	0.18	ug/Kg			11/22/19 20:21	1
Chlorodibromomethane	1.0	U	1.0	0.19	ug/Kg			11/22/19 20:21	1
Chloroethane	1.0	U	1.0	0.52	ug/Kg			11/22/19 20:21	1
Chloroform	1.0	U	1.0	0.32	ug/Kg			11/22/19 20:21	1
Chloromethane	1.0	U	1.0	0.44	ug/Kg			11/22/19 20:21	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.15	ug/Kg			11/22/19 20:21	1
cis-1,3-Dichloropropene	1.0	U	1.0	0.27	ug/Kg			11/22/19 20:21	1
Cyclohexane	1.0	U	1.0	0.22	ug/Kg			11/22/19 20:21	1
Dichlorobromomethane	1.0	U	1.0	0.26	ug/Kg			11/22/19 20:21	1
Dichlorodifluoromethane	1.0	U	1.0	0.34	ug/Kg			11/22/19 20:21	1
Ethylbenzene	1.0	U	1.0	0.20	ug/Kg			11/22/19 20:21	1
Ethylene Dibromide	1.0	U	1.0	0.18	ug/Kg			11/22/19 20:21	1
Isopropylbenzene	1.0	U	1.0	0.13	ug/Kg			11/22/19 20:21	1
Methyl acetate	5.0	U	5.0	4.3	ug/Kg			11/22/19 20:21	1
Methyl tert-butyl ether	1.0	U	1.0	0.13	ug/Kg			11/22/19 20:21	1
Methylcyclohexane	1.0	U	1.0	0.50	ug/Kg			11/22/19 20:21	1

Eurofins TestAmerica, Edison

QC Sample Results

Client: New York State D.E.C.
Project/Site: DEC - Fort Edward Landfill Site:558001

Job ID: 460-197135-1

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

Lab Sample ID: MB 460-657551/8

Matrix: Solid

Analysis Batch: 657551

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methylene Chloride	1.0	U	1.0	0.46	ug/Kg			11/22/19 20:21	1
Styrene	1.0	U	1.0	0.28	ug/Kg			11/22/19 20:21	1
Tetrachloroethene	1.0	U	1.0	0.14	ug/Kg			11/22/19 20:21	1
Toluene	1.0	U	1.0	0.23	ug/Kg			11/22/19 20:21	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.25	ug/Kg			11/22/19 20:21	1
trans-1,3-Dichloropropene	1.0	U	1.0	0.27	ug/Kg			11/22/19 20:21	1
Trichloroethene	1.0	U	1.0	0.14	ug/Kg			11/22/19 20:21	1
Trichlorofluoromethane	1.0	U	1.0	0.41	ug/Kg			11/22/19 20:21	1
Vinyl chloride	1.0	U	1.0	0.55	ug/Kg			11/22/19 20:21	1
Xylenes, Total	2.0	U	2.0	0.17	ug/Kg			11/22/19 20:21	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	110		78 - 135		11/22/19 20:21	1
4-Bromofluorobenzene	102		67 - 126		11/22/19 20:21	1
Dibromofluoromethane (Surr)	113		61 - 149		11/22/19 20:21	1
Toluene-d8 (Surr)	102		73 - 121		11/22/19 20:21	1

Lab Sample ID: LCS 460-657551/3

Matrix: Solid

Analysis Batch: 657551

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1,1-Trichloroethane	20.0	21.5		ug/Kg		107	80 - 125
1,1,2,2-Tetrachloroethane	20.0	18.2		ug/Kg		91	72 - 131
1,1,2-Trichloro-1,2,2-trifluoroethane	20.0	21.2		ug/Kg		106	78 - 132
1,1,2-Trichloroethane	20.0	20.1		ug/Kg		100	76 - 124
1,1-Dichloroethane	20.0	21.4		ug/Kg		107	80 - 124
1,1-Dichloroethene	20.0	21.7		ug/Kg		108	79 - 132
1,2,4-Trichlorobenzene	20.0	19.0		ug/Kg		95	74 - 124
1,2-Dibromo-3-Chloropropane	20.0	17.4		ug/Kg		87	65 - 129
1,2-Dichlorobenzene	20.0	18.8		ug/Kg		94	80 - 121
1,2-Dichloroethane	20.0	21.5		ug/Kg		107	68 - 120
1,2-Dichloropropane	20.0	21.1		ug/Kg		105	77 - 124
1,3-Dichlorobenzene	20.0	19.2		ug/Kg		96	79 - 124
1,4-Dichlorobenzene	20.0	18.5		ug/Kg		92	79 - 121
2-Butanone (MEK)	100	105		ug/Kg		105	61 - 140
2-Hexanone	100	99.5		ug/Kg		99	78 - 120
4-Methyl-2-pentanone (MIBK)	100	103		ug/Kg		103	80 - 120
Acetone	100	105		ug/Kg		105	75 - 120
Benzene	20.0	21.0		ug/Kg		105	75 - 127
Bromoform	20.0	18.3		ug/Kg		92	19 - 150
Bromomethane	20.0	24.4		ug/Kg		122	59 - 136
Carbon disulfide	20.0	22.1		ug/Kg		111	74 - 130
Carbon tetrachloride	20.0	21.4		ug/Kg		107	77 - 138
Chlorobenzene	20.0	19.1		ug/Kg		95	80 - 120
Chlorodibromomethane	20.0	18.7		ug/Kg		94	67 - 143
Chloroethane	20.0	22.7		ug/Kg		114	50 - 139
Chloroform	20.0	21.7		ug/Kg		108	80 - 122

Eurofins TestAmerica, Edison

QC Sample Results

Client: New York State D.E.C.
Project/Site: DEC - Fort Edward Landfill Site:558001

Job ID: 460-197135-1

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

Lab Sample ID: LCS 460-657551/3

Matrix: Solid

Analysis Batch: 657551

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloromethane	20.0	27.5	*	ug/Kg		138	66 - 128
cis-1,2-Dichloroethene	20.0	21.7		ug/Kg		109	80 - 123
cis-1,3-Dichloropropene	20.0	18.8		ug/Kg		94	75 - 124
Cyclohexane	20.0	21.9		ug/Kg		109	67 - 135
Dichlorobromomethane	20.0	20.3		ug/Kg		101	76 - 129
Dichlorodifluoromethane	20.0	18.5		ug/Kg		93	72 - 127
Ethylbenzene	20.0	20.5		ug/Kg		102	79 - 124
Ethylene Dibromide	20.0	19.0		ug/Kg		95	80 - 122
Isopropylbenzene	20.0	20.1		ug/Kg		101	80 - 125
Methyl acetate	40.0	37.0		ug/Kg		93	73 - 123
Methyl tert-butyl ether	20.0	22.3		ug/Kg		112	80 - 120
Methylcyclohexane	20.0	21.8		ug/Kg		109	71 - 137
Methylene Chloride	20.0	22.7		ug/Kg		113	79 - 128
Styrene	20.0	19.6		ug/Kg		98	78 - 123
Tetrachloroethene	20.0	19.4		ug/Kg		97	73 - 130
Toluene	20.0	19.6		ug/Kg		98	75 - 122
trans-1,2-Dichloroethene	20.0	22.3		ug/Kg		112	80 - 129
trans-1,3-Dichloropropene	20.0	18.6		ug/Kg		93	72 - 121
Trichloroethene	20.0	20.6		ug/Kg		103	79 - 122
Trichlorofluoromethane	20.0	22.0		ug/Kg		110	68 - 136
Vinyl chloride	20.0	26.0		ug/Kg		130	70 - 134
Xylenes, Total	40.0	40.4		ug/Kg		101	79 - 122

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	111		78 - 135
4-Bromofluorobenzene	102		67 - 126
Dibromofluoromethane (Surr)	113		61 - 149
Toluene-d8 (Surr)	103		73 - 121

Lab Sample ID: LCSD 460-657551/4

Matrix: Solid

Analysis Batch: 657551

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,1,1-Trichloroethane	20.0	21.8		ug/Kg		109	80 - 125	1	30
1,1,2,2-Tetrachloroethane	20.0	18.4		ug/Kg		92	72 - 131	1	30
1,1,2-Trichloro-1,2,2-trifluoroethane	20.0	22.1		ug/Kg		110	78 - 132	4	30
1,1,2-Trichloroethane	20.0	20.0		ug/Kg		100	76 - 124	0	30
1,1-Dichloroethane	20.0	21.9		ug/Kg		110	80 - 124	2	30
1,1-Dichloroethene	20.0	21.9		ug/Kg		109	79 - 132	1	30
1,2,4-Trichlorobenzene	20.0	18.5		ug/Kg		93	74 - 124	3	30
1,2-Dibromo-3-Chloropropane	20.0	17.5		ug/Kg		88	65 - 129	0	30
1,2-Dichlorobenzene	20.0	18.9		ug/Kg		94	80 - 121	0	30
1,2-Dichloroethane	20.0	21.4		ug/Kg		107	68 - 120	0	30
1,2-Dichloropropane	20.0	21.6		ug/Kg		108	77 - 124	2	30
1,3-Dichlorobenzene	20.0	19.3		ug/Kg		96	79 - 124	0	30
1,4-Dichlorobenzene	20.0	18.6		ug/Kg		93	79 - 121	1	30
2-Butanone (MEK)	100	101		ug/Kg		101	61 - 140	4	30

Eurofins TestAmerica, Edison

QC Sample Results

Client: New York State D.E.C.
Project/Site: DEC - Fort Edward Landfill Site:558001

Job ID: 460-197135-1

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

Lab Sample ID: LCSD 460-657551/4

Matrix: Solid

Analysis Batch: 657551

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
2-Hexanone	100	98.9		ug/Kg		99	78 - 120	1	30
4-Methyl-2-pentanone (MIBK)	100	104		ug/Kg		104	80 - 120	1	30
Acetone	100	87.1		ug/Kg		87	75 - 120	19	30
Benzene	20.0	20.7		ug/Kg		103	75 - 127	2	30
Bromoform	20.0	19.1		ug/Kg		95	19 - 150	4	30
Bromomethane	20.0	23.9		ug/Kg		119	59 - 136	2	30
Carbon disulfide	20.0	22.5		ug/Kg		113	74 - 130	2	30
Carbon tetrachloride	20.0	21.5		ug/Kg		108	77 - 138	1	30
Chlorobenzene	20.0	19.7		ug/Kg		98	80 - 120	3	30
Chlorodibromomethane	20.0	19.2		ug/Kg		96	67 - 143	2	30
Chloroethane	20.0	22.1		ug/Kg		110	50 - 139	3	30
Chloroform	20.0	21.8		ug/Kg		109	80 - 122	1	30
Chloromethane	20.0	26.7 *		ug/Kg		133	66 - 128	3	30
cis-1,2-Dichloroethene	20.0	21.2		ug/Kg		106	80 - 123	2	30
cis-1,3-Dichloropropene	20.0	19.3		ug/Kg		97	75 - 124	3	30
Cyclohexane	20.0	22.0		ug/Kg		110	67 - 135	1	30
Dichlorobromomethane	20.0	21.0		ug/Kg		105	76 - 129	4	30
Dichlorodifluoromethane	20.0	17.8		ug/Kg		89	72 - 127	4	30
Ethylbenzene	20.0	19.9		ug/Kg		99	79 - 124	3	30
Ethylene Dibromide	20.0	19.5		ug/Kg		97	80 - 122	2	30
Isopropylbenzene	20.0	20.0		ug/Kg		100	80 - 125	0	30
Methyl acetate	40.0	36.8		ug/Kg		92	73 - 123	1	30
Methyl tert-butyl ether	20.0	22.7		ug/Kg		114	80 - 120	2	30
Methylcyclohexane	20.0	22.2		ug/Kg		111	71 - 137	2	30
Methylene Chloride	20.0	22.5		ug/Kg		113	79 - 128	1	30
Styrene	20.0	19.7		ug/Kg		98	78 - 123	0	30
Tetrachloroethene	20.0	19.6		ug/Kg		98	73 - 130	1	30
Toluene	20.0	20.0		ug/Kg		100	75 - 122	2	30
trans-1,2-Dichloroethene	20.0	21.7		ug/Kg		108	80 - 129	3	30
trans-1,3-Dichloropropene	20.0	19.0		ug/Kg		95	72 - 121	2	30
Trichloroethene	20.0	20.5		ug/Kg		103	79 - 122	1	30
Trichlorofluoromethane	20.0	21.7		ug/Kg		108	68 - 136	1	30
Vinyl chloride	20.0	25.2		ug/Kg		126	70 - 134	3	30
Xylenes, Total	40.0	40.1		ug/Kg		100	79 - 122	1	30

Surrogate	LCSD %Recovery	LCSD Qualifier	LCSD Limits
1,2-Dichloroethane-d4 (Surr)	113		78 - 135
4-Bromofluorobenzene	102		67 - 126
Dibromofluoromethane (Surr)	110		61 - 149
Toluene-d8 (Surr)	103		73 - 121

Lab Sample ID: MB 460-657667/9

Matrix: Solid

Analysis Batch: 657667

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	1.0	U	1.0	0.23	ug/Kg			11/23/19 08:09	1
1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.21	ug/Kg			11/23/19 08:09	1

Eurofins TestAmerica, Edison

QC Sample Results

Client: New York State D.E.C.
Project/Site: DEC - Fort Edward Landfill Site:558001

Job ID: 460-197135-1

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

Lab Sample ID: MB 460-657667/9

Matrix: Solid

Analysis Batch: 657667

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,2-Trichloro-1,2,2-trifluoroethane	1.0	U	1.0	0.30	ug/Kg			11/23/19 08:09	1
1,1,2-Trichloroethane	1.0	U	1.0	0.18	ug/Kg			11/23/19 08:09	1
1,1-Dichloroethane	1.0	U	1.0	0.21	ug/Kg			11/23/19 08:09	1
1,1-Dichloroethene	1.0	U	1.0	0.23	ug/Kg			11/23/19 08:09	1
1,2,4-Trichlorobenzene	1.0	U	1.0	0.36	ug/Kg			11/23/19 08:09	1
1,2-Dibromo-3-Chloropropane	1.0	U	1.0	0.46	ug/Kg			11/23/19 08:09	1
1,2-Dichlorobenzene	1.0	U	1.0	0.14	ug/Kg			11/23/19 08:09	1
1,2-Dichloroethane	1.0	U	1.0	0.30	ug/Kg			11/23/19 08:09	1
1,2-Dichloropropane	1.0	U	1.0	0.42	ug/Kg			11/23/19 08:09	1
1,3-Dichlorobenzene	1.0	U	1.0	0.16	ug/Kg			11/23/19 08:09	1
1,4-Dichlorobenzene	1.0	U	1.0	0.23	ug/Kg			11/23/19 08:09	1
2-Butanone (MEK)	5.0	U	5.0	2.7	ug/Kg			11/23/19 08:09	1
2-Hexanone	5.0	U	5.0	1.7	ug/Kg			11/23/19 08:09	1
4-Methyl-2-pentanone (MIBK)	5.0	U	5.0	1.6	ug/Kg			11/23/19 08:09	1
Acetone	6.0	U	6.0	5.7	ug/Kg			11/23/19 08:09	1
Benzene	1.0	U	1.0	0.26	ug/Kg			11/23/19 08:09	1
Bromoform	1.0	U	1.0	0.43	ug/Kg			11/23/19 08:09	1
Bromomethane	1.0	U	1.0	0.47	ug/Kg			11/23/19 08:09	1
Carbon disulfide	1.0	U	1.0	0.27	ug/Kg			11/23/19 08:09	1
Carbon tetrachloride	1.0	U	1.0	0.39	ug/Kg			11/23/19 08:09	1
Chlorobenzene	1.0	U	1.0	0.18	ug/Kg			11/23/19 08:09	1
Chlorodibromomethane	1.0	U	1.0	0.19	ug/Kg			11/23/19 08:09	1
Chloroethane	1.0	U	1.0	0.52	ug/Kg			11/23/19 08:09	1
Chloroform	1.0	U	1.0	0.32	ug/Kg			11/23/19 08:09	1
Chloromethane	1.0	U	1.0	0.44	ug/Kg			11/23/19 08:09	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.15	ug/Kg			11/23/19 08:09	1
cis-1,3-Dichloropropene	1.0	U	1.0	0.27	ug/Kg			11/23/19 08:09	1
Cyclohexane	1.0	U	1.0	0.22	ug/Kg			11/23/19 08:09	1
Dichlorobromomethane	1.0	U	1.0	0.26	ug/Kg			11/23/19 08:09	1
Dichlorodifluoromethane	1.0	U	1.0	0.34	ug/Kg			11/23/19 08:09	1
Ethylbenzene	1.0	U	1.0	0.20	ug/Kg			11/23/19 08:09	1
Ethylene Dibromide	1.0	U	1.0	0.18	ug/Kg			11/23/19 08:09	1
Isopropylbenzene	1.0	U	1.0	0.13	ug/Kg			11/23/19 08:09	1
Methyl acetate	5.0	U	5.0	4.3	ug/Kg			11/23/19 08:09	1
Methyl tert-butyl ether	1.0	U	1.0	0.13	ug/Kg			11/23/19 08:09	1
Methylcyclohexane	1.0	U	1.0	0.50	ug/Kg			11/23/19 08:09	1
Methylene Chloride	1.0	U	1.0	0.46	ug/Kg			11/23/19 08:09	1
Styrene	1.0	U	1.0	0.28	ug/Kg			11/23/19 08:09	1
Tetrachloroethene	1.0	U	1.0	0.14	ug/Kg			11/23/19 08:09	1
Toluene	1.0	U	1.0	0.23	ug/Kg			11/23/19 08:09	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.25	ug/Kg			11/23/19 08:09	1
trans-1,3-Dichloropropene	1.0	U	1.0	0.27	ug/Kg			11/23/19 08:09	1
Trichloroethene	1.0	U	1.0	0.14	ug/Kg			11/23/19 08:09	1
Trichlorofluoromethane	1.0	U	1.0	0.41	ug/Kg			11/23/19 08:09	1
Vinyl chloride	1.0	U	1.0	0.55	ug/Kg			11/23/19 08:09	1
Xylenes, Total	2.0	U	2.0	0.17	ug/Kg			11/23/19 08:09	1

Eurofins TestAmerica, Edison

QC Sample Results

Client: New York State D.E.C.
Project/Site: DEC - Fort Edward Landfill Site:558001

Job ID: 460-197135-1

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

Lab Sample ID: MB 460-657667/9

Matrix: Solid

Analysis Batch: 657667

Client Sample ID: Method Blank

Prep Type: Total/NA

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	90		78 - 135		11/23/19 08:09	1
4-Bromofluorobenzene	105		67 - 126		11/23/19 08:09	1
Dibromofluoromethane (Surr)	94		61 - 149		11/23/19 08:09	1
Toluene-d8 (Surr)	92		73 - 121		11/23/19 08:09	1

Lab Sample ID: LCS 460-657667/5

Matrix: Solid

Analysis Batch: 657667

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1,1-Trichloroethane	20.0	21.1		ug/Kg		106	80 - 125
1,1,2,2-Tetrachloroethane	20.0	15.5		ug/Kg		77	72 - 131
1,1,2-Trichloro-1,2,2-trifluoroethane	20.0	20.3		ug/Kg		102	78 - 132
1,1,2-Trichloroethane	20.0	16.9		ug/Kg		84	76 - 124
1,1-Dichloroethane	20.0	17.8		ug/Kg		89	80 - 124
1,1-Dichloroethene	20.0	20.1		ug/Kg		101	79 - 132
1,2,4-Trichlorobenzene	20.0	19.8		ug/Kg		99	74 - 124
1,2-Dibromo-3-Chloropropane	20.0	17.4		ug/Kg		87	65 - 129
1,2-Dichlorobenzene	20.0	18.2		ug/Kg		91	80 - 121
1,2-Dichloroethane	20.0	16.9		ug/Kg		85	68 - 120
1,2-Dichloropropane	20.0	16.4		ug/Kg		82	77 - 124
1,3-Dichlorobenzene	20.0	18.7		ug/Kg		94	79 - 124
1,4-Dichlorobenzene	20.0	18.9		ug/Kg		94	79 - 121
2-Butanone (MEK)	100	93.6		ug/Kg		94	61 - 140
2-Hexanone	100	87.0		ug/Kg		87	78 - 120
4-Methyl-2-pentanone (MIBK)	100	96.6		ug/Kg		97	80 - 120
Acetone	100	110		ug/Kg		110	75 - 120
Benzene	20.0	19.1		ug/Kg		96	75 - 127
Bromoform	20.0	17.2		ug/Kg		86	19 - 150
Bromomethane	20.0	17.4		ug/Kg		87	59 - 136
Carbon disulfide	20.0	20.3		ug/Kg		102	74 - 130
Carbon tetrachloride	20.0	20.7		ug/Kg		104	77 - 138
Chlorobenzene	20.0	18.7		ug/Kg		94	80 - 120
Chlorodibromomethane	20.0	17.9		ug/Kg		89	67 - 143
Chloroethane	20.0	17.0		ug/Kg		85	50 - 139
Chloroform	20.0	18.2		ug/Kg		91	80 - 122
Chloromethane	20.0	17.3		ug/Kg		86	66 - 128
cis-1,2-Dichloroethene	20.0	18.7		ug/Kg		94	80 - 123
cis-1,3-Dichloropropene	20.0	17.4		ug/Kg		87	75 - 124
Cyclohexane	20.0	20.5		ug/Kg		103	67 - 135
Dichlorobromomethane	20.0	17.5		ug/Kg		87	76 - 129
Dichlorodifluoromethane	20.0	18.0		ug/Kg		90	72 - 127
Ethylbenzene	20.0	20.5		ug/Kg		102	79 - 124
Ethylene Dibromide	20.0	16.6		ug/Kg		83	80 - 122
Isopropylbenzene	20.0	21.0		ug/Kg		105	80 - 125
Methyl acetate	40.0	27.8	*	ug/Kg		69	73 - 123
Methyl tert-butyl ether	20.0	17.7		ug/Kg		89	80 - 120
Methylcyclohexane	20.0	20.6		ug/Kg		103	71 - 137

Eurofins TestAmerica, Edison

QC Sample Results

Client: New York State D.E.C.
Project/Site: DEC - Fort Edward Landfill Site:558001

Job ID: 460-197135-1

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

Lab Sample ID: LCS 460-657667/5

Matrix: Solid

Analysis Batch: 657667

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Methylene Chloride	20.0	18.4		ug/Kg		92	79 - 128
Styrene	20.0	18.7		ug/Kg		93	78 - 123
Tetrachloroethene	20.0	22.2		ug/Kg		111	73 - 130
Toluene	20.0	18.8		ug/Kg		94	75 - 122
trans-1,2-Dichloroethene	20.0	20.5		ug/Kg		102	80 - 129
trans-1,3-Dichloropropene	20.0	16.9		ug/Kg		85	72 - 121
Trichloroethene	20.0	18.6		ug/Kg		93	79 - 122
Trichlorofluoromethane	20.0	21.8		ug/Kg		109	68 - 136
Vinyl chloride	20.0	19.2		ug/Kg		96	70 - 134
Xylenes, Total	40.0	39.3		ug/Kg		98	79 - 122

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	88		78 - 135
4-Bromofluorobenzene	98		67 - 126
Dibromofluoromethane (Surr)	93		61 - 149
Toluene-d8 (Surr)	93		73 - 121

Lab Sample ID: LCSD 460-657667/14

Matrix: Solid

Analysis Batch: 657667

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,1,1-Trichloroethane	20.0	20.2		ug/Kg		101	80 - 125	4	30
1,1,2,2-Tetrachloroethane	20.0	16.2		ug/Kg		81	72 - 131	4	30
1,1,2-Trichloro-1,2,2-trifluoroethane	20.0	21.3		ug/Kg		107	78 - 132	5	30
1,1,2-Trichloroethane	20.0	16.2		ug/Kg		81	76 - 124	4	30
1,1-Dichloroethane	20.0	18.8		ug/Kg		94	80 - 124	6	30
1,1-Dichloroethene	20.0	20.2		ug/Kg		101	79 - 132	0	30
1,2,4-Trichlorobenzene	20.0	19.2		ug/Kg		96	74 - 124	3	30
1,2-Dibromo-3-Chloropropane	20.0	18.8		ug/Kg		94	65 - 129	8	30
1,2-Dichlorobenzene	20.0	19.3		ug/Kg		96	80 - 121	6	30
1,2-Dichloroethane	20.0	18.3		ug/Kg		91	68 - 120	8	30
1,2-Dichloropropane	20.0	16.3		ug/Kg		81	77 - 124	1	30
1,3-Dichlorobenzene	20.0	19.2		ug/Kg		96	79 - 124	3	30
1,4-Dichlorobenzene	20.0	18.6		ug/Kg		93	79 - 121	2	30
2-Butanone (MEK)	100	98.6		ug/Kg		99	61 - 140	5	30
2-Hexanone	100	88.3		ug/Kg		88	78 - 120	2	30
4-Methyl-2-pentanone (MIBK)	100	93.1		ug/Kg		93	80 - 120	4	30
Acetone	100	113		ug/Kg		113	75 - 120	3	30
Benzene	20.0	19.5		ug/Kg		98	75 - 127	2	30
Bromoform	20.0	17.7		ug/Kg		88	19 - 150	3	30
Bromomethane	20.0	20.1		ug/Kg		100	59 - 136	14	30
Carbon disulfide	20.0	19.1		ug/Kg		95	74 - 130	6	30
Carbon tetrachloride	20.0	20.6		ug/Kg		103	77 - 138	1	30
Chlorobenzene	20.0	19.1		ug/Kg		95	80 - 120	2	30
Chlorodibromomethane	20.0	19.0		ug/Kg		95	67 - 143	6	30
Chloroethane	20.0	17.6		ug/Kg		88	50 - 139	3	30
Chloroform	20.0	19.3		ug/Kg		96	80 - 122	5	30

Eurofins TestAmerica, Edison

QC Sample Results

Client: New York State D.E.C.
Project/Site: DEC - Fort Edward Landfill Site:558001

Job ID: 460-197135-1

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

Lab Sample ID: LCSD 460-657667/14

Matrix: Solid

Analysis Batch: 657667

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloromethane	20.0	18.4		ug/Kg		92	66 - 128	6	30
cis-1,2-Dichloroethene	20.0	18.3		ug/Kg		92	80 - 123	2	30
cis-1,3-Dichloropropene	20.0	17.4		ug/Kg		87	75 - 124	0	30
Cyclohexane	20.0	20.5		ug/Kg		102	67 - 135	0	30
Dichlorobromomethane	20.0	18.3		ug/Kg		91	76 - 129	4	30
Dichlorodifluoromethane	20.0	19.3		ug/Kg		96	72 - 127	7	30
Ethylbenzene	20.0	20.4		ug/Kg		102	79 - 124	1	30
Ethylene Dibromide	20.0	19.0		ug/Kg		95	80 - 122	14	30
Isopropylbenzene	20.0	20.7		ug/Kg		103	80 - 125	1	30
Methyl acetate	40.0	28.6 *		ug/Kg		71	73 - 123	3	30
Methyl tert-butyl ether	20.0	19.0		ug/Kg		95	80 - 120	7	30
Methylcyclohexane	20.0	20.1		ug/Kg		101	71 - 137	2	30
Methylene Chloride	20.0	19.4		ug/Kg		97	79 - 128	5	30
Styrene	20.0	18.8		ug/Kg		94	78 - 123	1	30
Tetrachloroethene	20.0	21.1		ug/Kg		106	73 - 130	5	30
Toluene	20.0	19.0		ug/Kg		95	75 - 122	1	30
trans-1,2-Dichloroethene	20.0	20.3		ug/Kg		102	80 - 129	1	30
trans-1,3-Dichloropropene	20.0	18.3		ug/Kg		92	72 - 121	8	30
Trichloroethene	20.0	19.1		ug/Kg		96	79 - 122	3	30
Trichlorofluoromethane	20.0	23.2		ug/Kg		116	68 - 136	6	30
Vinyl chloride	20.0	20.2		ug/Kg		101	70 - 134	5	30
Xylenes, Total	40.0	39.4		ug/Kg		99	79 - 122	0	30

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	93		78 - 135
4-Bromofluorobenzene	100		67 - 126
Dibromofluoromethane (Surr)	95		61 - 149
Toluene-d8 (Surr)	95		73 - 121

Lab Sample ID: MB 460-658233/9

Matrix: Water

Analysis Batch: 658233

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	1.0	U	1.0	0.24	ug/L			11/25/19 22:21	1
1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.37	ug/L			11/25/19 22:21	1
1,1,2-Trichloro-1,2,2-trifluoroethane	1.0	U	1.0	0.31	ug/L			11/25/19 22:21	1
1,1,2-Trichloroethane	1.0	U	1.0	0.43	ug/L			11/25/19 22:21	1
1,1-Dichloroethane	1.0	U	1.0	0.26	ug/L			11/25/19 22:21	1
1,1-Dichloroethene	1.0	U	1.0	0.26	ug/L			11/25/19 22:21	1
1,2,4-Trichlorobenzene	1.0	U	1.0	0.37	ug/L			11/25/19 22:21	1
1,2-Dibromo-3-Chloropropane	1.0	U	1.0	0.38	ug/L			11/25/19 22:21	1
1,2-Dichlorobenzene	1.0	U	1.0	0.43	ug/L			11/25/19 22:21	1
1,2-Dichloroethane	1.0	U	1.0	0.43	ug/L			11/25/19 22:21	1
1,2-Dichloropropane	1.0	U	1.0	0.35	ug/L			11/25/19 22:21	1
1,3-Dichlorobenzene	1.0	U	1.0	0.34	ug/L			11/25/19 22:21	1
1,4-Dichlorobenzene	1.0	U	1.0	0.33	ug/L			11/25/19 22:21	1
2-Butanone (MEK)	5.0	U	5.0	1.9	ug/L			11/25/19 22:21	1

Eurofins TestAmerica, Edison

QC Sample Results

Client: New York State D.E.C.
Project/Site: DEC - Fort Edward Landfill Site:558001

Job ID: 460-197135-1

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

Lab Sample ID: MB 460-658233/9

Matrix: Water

Analysis Batch: 658233

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2-Hexanone	5.0	U	5.0	1.1	ug/L			11/25/19 22:21	1
4-Methyl-2-pentanone (MIBK)	5.0	U	5.0	1.3	ug/L			11/25/19 22:21	1
Acetone	5.0	U	5.0	4.4	ug/L			11/25/19 22:21	1
Benzene	1.0	U	1.0	0.20	ug/L			11/25/19 22:21	1
Bromoform	1.0	U	1.0	0.54	ug/L			11/25/19 22:21	1
Bromomethane	1.0	U	1.0	0.55	ug/L			11/25/19 22:21	1
Carbon disulfide	1.0	U	1.0	0.82	ug/L			11/25/19 22:21	1
Carbon tetrachloride	1.0	U	1.0	0.21	ug/L			11/25/19 22:21	1
Chlorobenzene	1.0	U	1.0	0.38	ug/L			11/25/19 22:21	1
Chlorodibromomethane	1.0	U	1.0	0.28	ug/L			11/25/19 22:21	1
Chloroethane	1.0	U	1.0	0.32	ug/L			11/25/19 22:21	1
Chloroform	1.0	U	1.0	0.33	ug/L			11/25/19 22:21	1
Chloromethane	1.0	U	1.0	0.40	ug/L			11/25/19 22:21	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.22	ug/L			11/25/19 22:21	1
cis-1,3-Dichloropropene	1.0	U	1.0	0.22	ug/L			11/25/19 22:21	1
Cyclohexane	1.0	U	1.0	0.32	ug/L			11/25/19 22:21	1
Dichlorobromomethane	1.0	U	1.0	0.34	ug/L			11/25/19 22:21	1
Dichlorodifluoromethane	1.0	U	1.0	0.31	ug/L			11/25/19 22:21	1
Ethylbenzene	1.0	U	1.0	0.30	ug/L			11/25/19 22:21	1
Ethylene Dibromide	1.0	U	1.0	0.50	ug/L			11/25/19 22:21	1
Isopropylbenzene	1.0	U	1.0	0.34	ug/L			11/25/19 22:21	1
Methyl acetate	5.0	U	5.0	0.79	ug/L			11/25/19 22:21	1
Methyl tert-butyl ether	1.0	U	1.0	0.47	ug/L			11/25/19 22:21	1
Methylcyclohexane	1.0	U	1.0	0.26	ug/L			11/25/19 22:21	1
Methylene Chloride	1.0	U	1.0	0.32	ug/L			11/25/19 22:21	1
Styrene	1.0	U	1.0	0.42	ug/L			11/25/19 22:21	1
Tetrachloroethene	1.0	U	1.0	0.25	ug/L			11/25/19 22:21	1
Toluene	1.0	U	1.0	0.38	ug/L			11/25/19 22:21	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.24	ug/L			11/25/19 22:21	1
trans-1,3-Dichloropropene	1.0	U	1.0	0.49	ug/L			11/25/19 22:21	1
Trichloroethene	1.0	U	1.0	0.31	ug/L			11/25/19 22:21	1
Trichlorofluoromethane	1.0	U	1.0	0.32	ug/L			11/25/19 22:21	1
Vinyl chloride	1.0	U	1.0	0.17	ug/L			11/25/19 22:21	1
Xylenes, Total	2.0	U	2.0	0.65	ug/L			11/25/19 22:21	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	97		74 - 132		11/25/19 22:21	1
4-Bromofluorobenzene	105		77 - 124		11/25/19 22:21	1
Dibromofluoromethane (Surr)	105		72 - 131		11/25/19 22:21	1
Toluene-d8 (Surr)	94		80 - 120		11/25/19 22:21	1

Lab Sample ID: LCS 460-658233/5

Matrix: Water

Analysis Batch: 658233

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1,1-Trichloroethane	20.0	19.6		ug/L		98	75 - 125
1,1,2,2-Tetrachloroethane	20.0	18.4		ug/L		92	74 - 120

Eurofins TestAmerica, Edison

QC Sample Results

Client: New York State D.E.C.
Project/Site: DEC - Fort Edward Landfill Site:558001

Job ID: 460-197135-1

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

Lab Sample ID: LCS 460-658233/5

Matrix: Water

Analysis Batch: 658233

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1,2-Trichloro-1,2,2-trifluoroethane	20.0	14.7		ug/L		73	59 - 150
1,1,2-Trichloroethane	20.0	17.8		ug/L		89	78 - 120
1,1-Dichloroethane	20.0	18.0		ug/L		90	77 - 123
1,1-Dichloroethene	20.0	16.7		ug/L		83	74 - 123
1,2,4-Trichlorobenzene	20.0	18.6		ug/L		93	80 - 124
1,2-Dibromo-3-Chloropropane	20.0	14.9		ug/L		74	55 - 134
1,2-Dichlorobenzene	20.0	20.1		ug/L		101	80 - 120
1,2-Dichloroethane	20.0	18.4		ug/L		92	76 - 121
1,2-Dichloropropane	20.0	17.7		ug/L		89	77 - 123
1,3-Dichlorobenzene	20.0	20.5		ug/L		102	80 - 120
1,4-Dichlorobenzene	20.0	20.7		ug/L		104	80 - 120
2-Butanone (MEK)	100	98.8		ug/L		99	64 - 120
2-Hexanone	100	97.7		ug/L		98	71 - 125
4-Methyl-2-pentanone (MIBK)	100	102		ug/L		102	78 - 124
Acetone	100	69.5		ug/L		70	39 - 150
Benzene	20.0	17.9		ug/L		89	77 - 121
Bromoform	20.0	17.9		ug/L		89	53 - 120
Bromomethane	20.0	26.1		ug/L		130	10 - 150
Carbon disulfide	20.0	15.7		ug/L		79	69 - 133
Carbon tetrachloride	20.0	17.4		ug/L		87	70 - 132
Chlorobenzene	20.0	20.0		ug/L		100	80 - 120
Chlorodibromomethane	20.0	18.5		ug/L		92	73 - 120
Chloroethane	20.0	24.2		ug/L		121	52 - 150
Chloroform	20.0	19.7		ug/L		98	80 - 120
Chloromethane	20.0	23.7		ug/L		118	56 - 131
cis-1,2-Dichloroethene	20.0	19.2		ug/L		96	80 - 120
cis-1,3-Dichloropropene	20.0	18.2		ug/L		91	77 - 120
Cyclohexane	20.0	16.3		ug/L		82	56 - 150
Dichlorobromomethane	20.0	18.7		ug/L		93	76 - 120
Dichlorodifluoromethane	20.0	17.3		ug/L		87	50 - 131
Ethylbenzene	20.0	18.7		ug/L		93	80 - 120
Ethylene Dibromide	20.0	18.6		ug/L		93	80 - 120
Isopropylbenzene	20.0	20.1		ug/L		100	80 - 123
Methyl acetate	40.0	29.7		ug/L		74	66 - 144
Methyl tert-butyl ether	20.0	17.3		ug/L		87	79 - 122
Methylcyclohexane	20.0	16.3		ug/L		81	61 - 145
Methylene Chloride	20.0	16.7		ug/L		83	77 - 123
Styrene	20.0	19.6		ug/L		98	80 - 120
Tetrachloroethene	20.0	20.2		ug/L		101	78 - 122
Toluene	20.0	17.7		ug/L		88	80 - 120
trans-1,2-Dichloroethene	20.0	19.2		ug/L		96	79 - 120
trans-1,3-Dichloropropene	20.0	18.5		ug/L		93	76 - 120
Trichloroethene	20.0	18.3		ug/L		92	77 - 120
Trichlorofluoromethane	20.0	19.1		ug/L		96	71 - 143
Vinyl chloride	20.0	20.7		ug/L		104	62 - 138
Xylenes, Total	40.0	37.4		ug/L		93	80 - 120

Eurofins TestAmerica, Edison

QC Sample Results

Client: New York State D.E.C.
Project/Site: DEC - Fort Edward Landfill Site:558001

Job ID: 460-197135-1

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

Lab Sample ID: LCS 460-658233/5

Matrix: Water

Analysis Batch: 658233

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	93		74 - 132
4-Bromofluorobenzene	106		77 - 124
Dibromofluoromethane (Surr)	100		72 - 131
Toluene-d8 (Surr)	92		80 - 120

Lab Sample ID: MB 460-658967/9

Matrix: Water

Analysis Batch: 658967

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	1.0	U	1.0	0.24	ug/L			11/29/19 09:50	1
1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.37	ug/L			11/29/19 09:50	1
1,1,2-Trichloro-1,2,2-trifluoroethane	1.0	U	1.0	0.31	ug/L			11/29/19 09:50	1
1,1,2-Trichloroethane	1.0	U	1.0	0.43	ug/L			11/29/19 09:50	1
1,1-Dichloroethane	1.0	U	1.0	0.26	ug/L			11/29/19 09:50	1
1,1-Dichloroethene	1.0	U	1.0	0.26	ug/L			11/29/19 09:50	1
1,2,4-Trichlorobenzene	1.0	U	1.0	0.37	ug/L			11/29/19 09:50	1
1,2-Dibromo-3-Chloropropane	1.0	U	1.0	0.38	ug/L			11/29/19 09:50	1
1,2-Dichlorobenzene	1.0	U	1.0	0.43	ug/L			11/29/19 09:50	1
1,2-Dichloroethane	1.0	U	1.0	0.43	ug/L			11/29/19 09:50	1
1,2-Dichloropropane	1.0	U	1.0	0.35	ug/L			11/29/19 09:50	1
1,3-Dichlorobenzene	1.0	U	1.0	0.34	ug/L			11/29/19 09:50	1
1,4-Dichlorobenzene	1.0	U	1.0	0.33	ug/L			11/29/19 09:50	1
2-Butanone (MEK)	5.0	U	5.0	1.9	ug/L			11/29/19 09:50	1
2-Hexanone	5.0	U	5.0	1.1	ug/L			11/29/19 09:50	1
4-Methyl-2-pentanone (MIBK)	5.0	U	5.0	1.3	ug/L			11/29/19 09:50	1
Acetone	5.0	U	5.0	4.4	ug/L			11/29/19 09:50	1
Benzene	1.0	U	1.0	0.20	ug/L			11/29/19 09:50	1
Bromoform	1.0	U	1.0	0.54	ug/L			11/29/19 09:50	1
Bromomethane	1.0	U	1.0	0.55	ug/L			11/29/19 09:50	1
Carbon disulfide	1.0	U	1.0	0.82	ug/L			11/29/19 09:50	1
Carbon tetrachloride	1.0	U	1.0	0.21	ug/L			11/29/19 09:50	1
Chlorobenzene	1.0	U	1.0	0.38	ug/L			11/29/19 09:50	1
Chlorodibromomethane	1.0	U	1.0	0.28	ug/L			11/29/19 09:50	1
Chloroethane	1.0	U	1.0	0.32	ug/L			11/29/19 09:50	1
Chloroform	1.0	U	1.0	0.33	ug/L			11/29/19 09:50	1
Chloromethane	1.0	U	1.0	0.40	ug/L			11/29/19 09:50	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.22	ug/L			11/29/19 09:50	1
cis-1,3-Dichloropropene	1.0	U	1.0	0.22	ug/L			11/29/19 09:50	1
Cyclohexane	1.0	U	1.0	0.32	ug/L			11/29/19 09:50	1
Dichlorobromomethane	1.0	U	1.0	0.34	ug/L			11/29/19 09:50	1
Dichlorodifluoromethane	1.0	U	1.0	0.31	ug/L			11/29/19 09:50	1
Ethylbenzene	1.0	U	1.0	0.30	ug/L			11/29/19 09:50	1
Ethylene Dibromide	1.0	U	1.0	0.50	ug/L			11/29/19 09:50	1
Isopropylbenzene	1.0	U	1.0	0.34	ug/L			11/29/19 09:50	1
Methyl acetate	5.0	U	5.0	0.79	ug/L			11/29/19 09:50	1
Methyl tert-butyl ether	1.0	U	1.0	0.47	ug/L			11/29/19 09:50	1
Methylcyclohexane	1.0	U	1.0	0.26	ug/L			11/29/19 09:50	1

Eurofins TestAmerica, Edison

QC Sample Results

Client: New York State D.E.C.
Project/Site: DEC - Fort Edward Landfill Site:558001

Job ID: 460-197135-1

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

Lab Sample ID: MB 460-658967/9

Matrix: Water

Analysis Batch: 658967

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methylene Chloride	1.0	U	1.0	0.32	ug/L			11/29/19 09:50	1
Styrene	1.0	U	1.0	0.42	ug/L			11/29/19 09:50	1
Tetrachloroethene	1.0	U	1.0	0.25	ug/L			11/29/19 09:50	1
Toluene	1.0	U	1.0	0.38	ug/L			11/29/19 09:50	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.24	ug/L			11/29/19 09:50	1
trans-1,3-Dichloropropene	1.0	U	1.0	0.49	ug/L			11/29/19 09:50	1
Trichloroethene	1.0	U	1.0	0.31	ug/L			11/29/19 09:50	1
Trichlorofluoromethane	1.0	U	1.0	0.32	ug/L			11/29/19 09:50	1
Vinyl chloride	1.0	U	1.0	0.17	ug/L			11/29/19 09:50	1
Xylenes, Total	2.0	U	2.0	0.65	ug/L			11/29/19 09:50	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	92		74 - 132		11/29/19 09:50	1
4-Bromofluorobenzene	103		77 - 124		11/29/19 09:50	1
Dibromofluoromethane (Surr)	98		72 - 131		11/29/19 09:50	1
Toluene-d8 (Surr)	92		80 - 120		11/29/19 09:50	1

Lab Sample ID: LCS 460-658967/4

Matrix: Water

Analysis Batch: 658967

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1,1-Trichloroethane	20.0	21.1		ug/L		105	75 - 125
1,1,2,2-Tetrachloroethane	20.0	16.3		ug/L		82	74 - 120
1,1,2-Trichloro-1,2,2-trifluoroethane	20.0	21.9		ug/L		109	59 - 150
1,1,2-Trichloroethane	20.0	17.3		ug/L		86	78 - 120
1,1-Dichloroethane	20.0	18.0		ug/L		90	77 - 123
1,1-Dichloroethene	20.0	20.8		ug/L		104	74 - 123
1,2,4-Trichlorobenzene	20.0	18.4		ug/L		92	80 - 124
1,2-Dibromo-3-Chloropropane	20.0	13.3		ug/L		67	55 - 134
1,2-Dichlorobenzene	20.0	19.5		ug/L		97	80 - 120
1,2-Dichloroethane	20.0	18.5		ug/L		93	76 - 121
1,2-Dichloropropane	20.0	17.4		ug/L		87	77 - 123
1,3-Dichlorobenzene	20.0	20.2		ug/L		101	80 - 120
1,4-Dichlorobenzene	20.0	20.0		ug/L		100	80 - 120
2-Butanone (MEK)	100	96.9		ug/L		97	64 - 120
2-Hexanone	100	98.7		ug/L		99	71 - 125
4-Methyl-2-pentanone (MIBK)	100	102		ug/L		102	78 - 124
Acetone	100	85.3		ug/L		85	39 - 150
Benzene	20.0	18.1		ug/L		90	77 - 121
Bromoform	20.0	19.0		ug/L		95	53 - 120
Bromomethane	20.0	29.2		ug/L		146	10 - 150
Carbon disulfide	20.0	19.4		ug/L		97	69 - 133
Carbon tetrachloride	20.0	20.4		ug/L		102	70 - 132
Chlorobenzene	20.0	20.0		ug/L		100	80 - 120
Chlorodibromomethane	20.0	18.7		ug/L		94	73 - 120
Chloroethane	20.0	27.5		ug/L		137	52 - 150
Chloroform	20.0	20.5		ug/L		102	80 - 120

Eurofins TestAmerica, Edison

QC Sample Results

Client: New York State D.E.C.
Project/Site: DEC - Fort Edward Landfill Site:558001

Job ID: 460-197135-1

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

Lab Sample ID: LCS 460-658967/4

Matrix: Water

Analysis Batch: 658967

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloromethane	20.0	23.1		ug/L		115	56 - 131
cis-1,2-Dichloroethene	20.0	19.4		ug/L		97	80 - 120
cis-1,3-Dichloropropene	20.0	18.2		ug/L		91	77 - 120
Cyclohexane	20.0	18.9		ug/L		94	56 - 150
Dichlorobromomethane	20.0	19.1		ug/L		96	76 - 120
Dichlorodifluoromethane	20.0	24.0		ug/L		120	50 - 131
Ethylbenzene	20.0	19.3		ug/L		97	80 - 120
Ethylene Dibromide	20.0	18.0		ug/L		90	80 - 120
Isopropylbenzene	20.0	20.4		ug/L		102	80 - 123
Methyl acetate	40.0	41.0		ug/L		102	66 - 144
Methyl tert-butyl ether	20.0	16.8		ug/L		84	79 - 122
Methylcyclohexane	20.0	20.2		ug/L		101	61 - 145
Methylene Chloride	20.0	18.7		ug/L		93	77 - 123
Styrene	20.0	19.6		ug/L		98	80 - 120
Tetrachloroethene	20.0	21.3		ug/L		106	78 - 122
Toluene	20.0	18.2		ug/L		91	80 - 120
trans-1,2-Dichloroethene	20.0	20.3		ug/L		102	79 - 120
trans-1,3-Dichloropropene	20.0	18.2		ug/L		91	76 - 120
Trichloroethene	20.0	18.9		ug/L		95	77 - 120
Trichlorofluoromethane	20.0	25.0		ug/L		125	71 - 143
Vinyl chloride	20.0	18.9		ug/L		94	62 - 138
Xylenes, Total	40.0	37.9		ug/L		95	80 - 120

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	92		74 - 132
4-Bromofluorobenzene	105		77 - 124
Dibromofluoromethane (Surr)	99		72 - 131
Toluene-d8 (Surr)	91		80 - 120

Lab Sample ID: LCSD 460-658967/5

Matrix: Water

Analysis Batch: 658967

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,1,1-Trichloroethane	20.0	19.7		ug/L		98	75 - 125	7	30
1,1,1,2-Tetrachloroethane	20.0	15.4		ug/L		77	74 - 120	6	30
1,1,2-Trichloro-1,2,2-trifluoroethane	20.0	20.0		ug/L		100	59 - 150	9	30
1,1,2-Trichloroethane	20.0	15.8		ug/L		79	78 - 120	9	30
1,1-Dichloroethane	20.0	16.5		ug/L		82	77 - 123	9	30
1,1-Dichloroethene	20.0	19.8		ug/L		99	74 - 123	5	30
1,2,4-Trichlorobenzene	20.0	17.3		ug/L		86	80 - 124	7	30
1,2-Dibromo-3-Chloropropane	20.0	12.9		ug/L		64	55 - 134	3	30
1,2-Dichlorobenzene	20.0	18.7		ug/L		94	80 - 120	4	30
1,2-Dichloroethane	20.0	17.7		ug/L		88	76 - 121	5	30
1,2-Dichloropropane	20.0	16.2		ug/L		81	77 - 123	7	30
1,3-Dichlorobenzene	20.0	19.2		ug/L		96	80 - 120	5	30
1,4-Dichlorobenzene	20.0	19.1		ug/L		96	80 - 120	5	30
2-Butanone (MEK)	100	97.0		ug/L		97	64 - 120	0	30

Eurofins TestAmerica, Edison

QC Sample Results

Client: New York State D.E.C.
Project/Site: DEC - Fort Edward Landfill Site:558001

Job ID: 460-197135-1

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

Lab Sample ID: LCSD 460-658967/5

Matrix: Water

Analysis Batch: 658967

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
2-Hexanone	100	95.9		ug/L		96	71 - 125	3	30
4-Methyl-2-pentanone (MIBK)	100	99.1		ug/L		99	78 - 124	2	30
Acetone	100	84.6		ug/L		85	39 - 150	1	30
Benzene	20.0	17.2		ug/L		86	77 - 121	5	30
Bromoform	20.0	17.1		ug/L		86	53 - 120	11	30
Bromomethane	20.0	24.6		ug/L		123	10 - 150	17	30
Carbon disulfide	20.0	17.8		ug/L		89	69 - 133	8	30
Carbon tetrachloride	20.0	18.7		ug/L		94	70 - 132	9	30
Chlorobenzene	20.0	19.0		ug/L		95	80 - 120	5	30
Chlorodibromomethane	20.0	17.6		ug/L		88	73 - 120	6	30
Chloroethane	20.0	22.0		ug/L		110	52 - 150	22	30
Chloroform	20.0	19.3		ug/L		96	80 - 120	6	30
Chloromethane	20.0	17.6		ug/L		88	56 - 131	27	30
cis-1,2-Dichloroethene	20.0	18.0		ug/L		90	80 - 120	8	30
cis-1,3-Dichloropropene	20.0	16.9		ug/L		84	77 - 120	8	30
Cyclohexane	20.0	18.4		ug/L		92	56 - 150	3	30
Dichlorobromomethane	20.0	17.9		ug/L		89	76 - 120	7	30
Dichlorodifluoromethane	20.0	18.5		ug/L		93	50 - 131	26	30
Ethylbenzene	20.0	17.6		ug/L		88	80 - 120	9	30
Ethylene Dibromide	20.0	16.8		ug/L		84	80 - 120	7	30
Isopropylbenzene	20.0	19.2		ug/L		96	80 - 123	6	30
Methyl acetate	40.0	37.0		ug/L		92	66 - 144	10	30
Methyl tert-butyl ether	20.0	16.0		ug/L		80	79 - 122	5	30
Methylcyclohexane	20.0	19.4		ug/L		97	61 - 145	4	30
Methylene Chloride	20.0	17.2		ug/L		86	77 - 123	8	30
Styrene	20.0	18.2		ug/L		91	80 - 120	7	30
Tetrachloroethene	20.0	19.7		ug/L		99	78 - 122	7	30
Toluene	20.0	16.8		ug/L		84	80 - 120	8	30
trans-1,2-Dichloroethene	20.0	18.5		ug/L		92	79 - 120	10	30
trans-1,3-Dichloropropene	20.0	17.2		ug/L		86	76 - 120	5	30
Trichloroethene	20.0	17.2		ug/L		86	77 - 120	10	30
Trichlorofluoromethane	20.0	19.9		ug/L		99	71 - 143	23	30
Vinyl chloride	20.0	15.0		ug/L		75	62 - 138	23	30
Xylenes, Total	40.0	35.4		ug/L		89	80 - 120	7	30

Surrogate	LCSD %Recovery	LCSD Qualifier	LCSD Limits
1,2-Dichloroethane-d4 (Surr)	87		74 - 132
4-Bromofluorobenzene	100		77 - 124
Dibromofluoromethane (Surr)	94		72 - 131
Toluene-d8 (Surr)	87		80 - 120

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Lab Sample ID: MB 460-657568/1-A

Matrix: Water

Analysis Batch: 657696

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 657568

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	0.40	U	0.40	0.12	ug/L		11/22/19 16:45	11/23/19 12:51	1

Eurofins TestAmerica, Edison

QC Sample Results

Client: New York State D.E.C.
Project/Site: DEC - Fort Edward Landfill Site:558001

Job ID: 460-197135-1

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography (Continued)

Lab Sample ID: MB 460-657568/1-A

Matrix: Water

Analysis Batch: 657696

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 657568

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	0.40	U	0.40	0.12	ug/L		11/22/19 16:45	11/23/19 12:51	1
Aroclor 1221	0.40	U	0.40	0.12	ug/L		11/22/19 16:45	11/23/19 12:51	1
Aroclor 1221	0.40	U	0.40	0.12	ug/L		11/22/19 16:45	11/23/19 12:51	1
Aroclor 1232	0.40	U	0.40	0.12	ug/L		11/22/19 16:45	11/23/19 12:51	1
Aroclor 1232	0.40	U	0.40	0.12	ug/L		11/22/19 16:45	11/23/19 12:51	1
Aroclor 1242	0.40	U	0.40	0.12	ug/L		11/22/19 16:45	11/23/19 12:51	1
Aroclor 1242	0.40	U	0.40	0.12	ug/L		11/22/19 16:45	11/23/19 12:51	1
Aroclor 1248	0.40	U	0.40	0.12	ug/L		11/22/19 16:45	11/23/19 12:51	1
Aroclor 1248	0.40	U	0.40	0.12	ug/L		11/22/19 16:45	11/23/19 12:51	1
Aroclor 1254	0.40	U	0.40	0.11	ug/L		11/22/19 16:45	11/23/19 12:51	1
Aroclor 1254	0.40	U	0.40	0.11	ug/L		11/22/19 16:45	11/23/19 12:51	1
Aroclor 1260	0.40	U	0.40	0.11	ug/L		11/22/19 16:45	11/23/19 12:51	1
Aroclor 1260	0.40	U	0.40	0.11	ug/L		11/22/19 16:45	11/23/19 12:51	1
Aroclor-1262	0.40	U	0.40	0.11	ug/L		11/22/19 16:45	11/23/19 12:51	1
Aroclor-1262	0.40	U	0.40	0.11	ug/L		11/22/19 16:45	11/23/19 12:51	1
Aroclor 1268	0.40	U	0.40	0.11	ug/L		11/22/19 16:45	11/23/19 12:51	1
Aroclor 1268	0.40	U	0.40	0.11	ug/L		11/22/19 16:45	11/23/19 12:51	1
Polychlorinated biphenyls, Total	0.40	U	0.40	0.12	ug/L		11/22/19 16:45	11/23/19 12:51	1
Polychlorinated biphenyls, Total	0.40	U	0.40	0.12	ug/L		11/22/19 16:45	11/23/19 12:51	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	78		10 - 150	11/22/19 16:45	11/23/19 12:51	1
DCB Decachlorobiphenyl	92		10 - 150	11/22/19 16:45	11/23/19 12:51	1

Lab Sample ID: LCS 460-657568/2-A

Matrix: Water

Analysis Batch: 657696

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 657568

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Aroclor 1016	4.00	3.78		ug/L		94	78 - 150
Aroclor 1016	4.00	3.91		ug/L		98	78 - 150
Aroclor 1260	4.00	4.26		ug/L		106	80 - 150
Aroclor 1260	4.00	4.90		ug/L		122	80 - 150

Surrogate	LCS %Recovery	LCS Qualifier	Limits
DCB Decachlorobiphenyl	48		10 - 150
DCB Decachlorobiphenyl	55		10 - 150

Lab Sample ID: LCSD 460-657568/3-A

Matrix: Water

Analysis Batch: 657696

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 657568

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	Limits	RPD	RPD Limit
Aroclor 1016	4.00	4.10		ug/L		102	78 - 150	8	30
Aroclor 1016	4.00	4.28		ug/L		107	78 - 150	9	30
Aroclor 1260	4.00	4.89		ug/L		122	80 - 150	14	30
Aroclor 1260	4.00	5.56		ug/L		139	80 - 150	13	30

Eurofins TestAmerica, Edison

QC Sample Results

Client: New York State D.E.C.
Project/Site: DEC - Fort Edward Landfill Site:558001

Job ID: 460-197135-1

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography (Continued)

Lab Sample ID: LCSD 460-657568/3-A

Matrix: Water

Analysis Batch: 657696

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 657568

	LCSD	LCSD	
Surrogate	%Recovery	Qualifier	Limits
DCB Decachlorobiphenyl	70		10 - 150
DCB Decachlorobiphenyl	70		10 - 150

Lab Sample ID: MB 460-657644/1-A

Matrix: Solid

Analysis Batch: 657695

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 657644

Analyte	MB	MB								
	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil	Fac
Aroclor 1016	67	U	67	8.9	ug/Kg		11/22/19 22:34	11/23/19 14:10	1	
Aroclor 1016	67	U	67	8.9	ug/Kg		11/22/19 22:34	11/23/19 14:10	1	
Aroclor 1221	67	U	67	8.9	ug/Kg		11/22/19 22:34	11/23/19 14:10	1	
Aroclor 1221	67	U	67	8.9	ug/Kg		11/22/19 22:34	11/23/19 14:10	1	
Aroclor 1232	67	U	67	8.9	ug/Kg		11/22/19 22:34	11/23/19 14:10	1	
Aroclor 1232	67	U	67	8.9	ug/Kg		11/22/19 22:34	11/23/19 14:10	1	
Aroclor 1242	67	U	67	8.9	ug/Kg		11/22/19 22:34	11/23/19 14:10	1	
Aroclor 1242	67	U	67	8.9	ug/Kg		11/22/19 22:34	11/23/19 14:10	1	
Aroclor 1248	67	U	67	8.9	ug/Kg		11/22/19 22:34	11/23/19 14:10	1	
Aroclor 1248	67	U	67	8.9	ug/Kg		11/22/19 22:34	11/23/19 14:10	1	
Aroclor 1254	67	U	67	9.2	ug/Kg		11/22/19 22:34	11/23/19 14:10	1	
Aroclor 1254	67	U	67	9.2	ug/Kg		11/22/19 22:34	11/23/19 14:10	1	
Aroclor 1260	67	U	67	9.2	ug/Kg		11/22/19 22:34	11/23/19 14:10	1	
Aroclor 1260	67	U	67	9.2	ug/Kg		11/22/19 22:34	11/23/19 14:10	1	
Aroclor-1262	67	U	67	9.2	ug/Kg		11/22/19 22:34	11/23/19 14:10	1	
Aroclor-1262	67	U	67	9.2	ug/Kg		11/22/19 22:34	11/23/19 14:10	1	
Aroclor 1268	67	U	67	9.2	ug/Kg		11/22/19 22:34	11/23/19 14:10	1	
Aroclor 1268	67	U	67	9.2	ug/Kg		11/22/19 22:34	11/23/19 14:10	1	
Polychlorinated biphenyls, Total	67	U	67	9.2	ug/Kg		11/22/19 22:34	11/23/19 14:10	1	
Polychlorinated biphenyls, Total	67	U	67	9.2	ug/Kg		11/22/19 22:34	11/23/19 14:10	1	

	MB	MB								
Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil	Fac			
DCB Decachlorobiphenyl	99		53 - 150	11/22/19 22:34	11/23/19 14:10	1				
DCB Decachlorobiphenyl	110		53 - 150	11/22/19 22:34	11/23/19 14:10	1				

Lab Sample ID: LCS 460-657644/2-A

Matrix: Solid

Analysis Batch: 657695

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 657644

Analyte	Spike	LCS	LCS							
	Added	Result	Qualifier	Unit	D	%Rec	Limits			
Aroclor 1016	333	337		ug/Kg		101	76 - 146			
Aroclor 1260	333	381		ug/Kg		114	74 - 148			

	LCS	LCS	
Surrogate	%Recovery	Qualifier	Limits
DCB Decachlorobiphenyl	110		53 - 150
DCB Decachlorobiphenyl	110		53 - 150

QC Sample Results

Client: New York State D.E.C.
Project/Site: DEC - Fort Edward Landfill Site:558001

Job ID: 460-197135-1

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography (Continued)

Lab Sample ID: LCSD 460-657644/3-A

Matrix: Solid

Analysis Batch: 657695

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 657644

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Aroclor 1016	333	350		ug/Kg		105	76 - 146	NaN	30
Aroclor 1016	333	366		ug/Kg		110	76 - 146	3	30
Aroclor 1260	333	399		ug/Kg		120	74 - 148	NaN	30
Aroclor 1260	333	411		ug/Kg		123	74 - 148	0	30

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
DCB Decachlorobiphenyl	108		53 - 150
DCB Decachlorobiphenyl	118		53 - 150

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 460-657462/9

Matrix: Water

Analysis Batch: 657462

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate as N	0.10	U	0.10	0.056	mg/L			11/22/19 10:38	1
Nitrate Nitrite as N	0.10	U	0.10	0.056	mg/L			11/22/19 10:38	1

Lab Sample ID: LCS 460-657462/11

Matrix: Water

Analysis Batch: 657462

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Nitrate as N	1.25	1.347		mg/L		108	90 - 110

Lab Sample ID: LCSD 460-657462/26

Matrix: Water

Analysis Batch: 657462

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Nitrate as N	1.25	1.365		mg/L		109	90 - 110	1	15

Method: 300.0-1993 R2.1 - Anions, Ion Chromatography

Lab Sample ID: MB 680-598686/33

Matrix: Water

Analysis Batch: 598686

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	1.00	U	1.00	0.40	mg/L			12/02/19 18:10	1
Chloride	0.50	U	0.50	0.20	mg/L			12/02/19 18:10	1

Lab Sample ID: LCS 680-598686/34

Matrix: Water

Analysis Batch: 598686

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Sulfate	10.0	9.846		mg/L		98	90 - 110
Chloride	10.0	10.17		mg/L		102	90 - 110

Eurofins TestAmerica, Edison

QC Sample Results

Client: New York State D.E.C.
Project/Site: DEC - Fort Edward Landfill Site:558001

Job ID: 460-197135-1

Method: 300.0-1993 R2.1 - Anions, Ion Chromatography

Lab Sample ID: LCSD 680-598686/35

Matrix: Water

Analysis Batch: 598686

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Sulfate	10.0	10.19		mg/L		102	90 - 110	3	15
Chloride	10.0	10.23		mg/L		102	90 - 110	1	15

Method: 537 (modified) - Fluorinated Alkyl Substances

Lab Sample ID: MB 320-342557/1-A

Matrix: Water

Analysis Batch: 343113

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 342557

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorohexanoic acid (PFHxA)	2.00	U	2.00	0.58	ng/L		12/02/19 05:41	12/03/19 23:16	1
Perfluoroheptanoic acid (PFHpA)	2.00	U	2.00	0.25	ng/L		12/02/19 05:41	12/03/19 23:16	1
Perfluorooctanoic acid (PFOA)	2.00	U	2.00	0.85	ng/L		12/02/19 05:41	12/03/19 23:16	1
Perfluorononanoic acid (PFNA)	2.00	U	2.00	0.27	ng/L		12/02/19 05:41	12/03/19 23:16	1
Perfluorodecanoic acid (PFDA)	2.00	U	2.00	0.31	ng/L		12/02/19 05:41	12/03/19 23:16	1
Perfluoroundecanoic acid (PFUnA)	2.00	U	2.00	1.10	ng/L		12/02/19 05:41	12/03/19 23:16	1
Perfluorododecanoic acid (PFDoA)	2.00	U	2.00	0.55	ng/L		12/02/19 05:41	12/03/19 23:16	1
Perfluorotridecanoic acid (PFTriA)	2.00	U	2.00	1.30	ng/L		12/02/19 05:41	12/03/19 23:16	1
Perfluorotetradecanoic acid (PFTeA)	2.00	U	2.00	0.29	ng/L		12/02/19 05:41	12/03/19 23:16	1
Perfluorobutanesulfonic acid (PFBS)	2.00	U	2.00	0.20	ng/L		12/02/19 05:41	12/03/19 23:16	1
Perfluorohexanesulfonic acid (PFHxS)	0.329	J	2.00	0.17	ng/L		12/02/19 05:41	12/03/19 23:16	1
Perfluorooctanesulfonic acid (PFOS)	2.00	U	2.00	0.54	ng/L		12/02/19 05:41	12/03/19 23:16	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	20.0	U	20.0	1.90	ng/L		12/02/19 05:41	12/03/19 23:16	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	20.0	U	20.0	3.10	ng/L		12/02/19 05:41	12/03/19 23:16	1

Isotope Dilution	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C2 PFHxA	101		25 - 150	12/02/19 05:41	12/03/19 23:16	1
13C4 PFHpA	107		25 - 150	12/02/19 05:41	12/03/19 23:16	1
13C4 PFOA	103		25 - 150	12/02/19 05:41	12/03/19 23:16	1
13C5 PFNA	102		25 - 150	12/02/19 05:41	12/03/19 23:16	1
13C2 PFDA	101		25 - 150	12/02/19 05:41	12/03/19 23:16	1
13C2 PFUnA	101		25 - 150	12/02/19 05:41	12/03/19 23:16	1
13C2 PFDoA	99		25 - 150	12/02/19 05:41	12/03/19 23:16	1
13C2 PFTeA	100		25 - 150	12/02/19 05:41	12/03/19 23:16	1
18O2 PFHxS	101		25 - 150	12/02/19 05:41	12/03/19 23:16	1
13C4 PFOS	101		25 - 150	12/02/19 05:41	12/03/19 23:16	1
d3-NMeFOSAA	93		25 - 150	12/02/19 05:41	12/03/19 23:16	1
d5-NEtFOSAA	93		25 - 150	12/02/19 05:41	12/03/19 23:16	1
13C3 PFBS	97		25 - 150	12/02/19 05:41	12/03/19 23:16	1

Lab Sample ID: LCS 320-342557/2-A

Matrix: Water

Analysis Batch: 343113

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 342557

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Perfluorohexanoic acid (PFHxA)	40.0	37.81		ng/L		95	73 - 133
Perfluoroheptanoic acid (PFHpA)	40.0	36.31		ng/L		91	72 - 132
Perfluorooctanoic acid (PFOA)	40.0	38.19		ng/L		95	70 - 130

Eurofins TestAmerica, Edison

QC Sample Results

Client: New York State D.E.C.
Project/Site: DEC - Fort Edward Landfill Site:558001

Job ID: 460-197135-1

Method: 537 (modified) - Fluorinated Alkyl Substances (Continued)

Lab Sample ID: LCS 320-342557/2-A

Matrix: Water

Analysis Batch: 343113

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 342557

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Perfluorononanoic acid (PFNA)	40.0	39.76		ng/L		99	75 - 135
Perfluorodecanoic acid (PFDA)	40.0	39.28		ng/L		98	76 - 136
Perfluoroundecanoic acid (PFUnA)	40.0	35.50		ng/L		89	68 - 128
Perfluorododecanoic acid (PFDoA)	40.0	40.28		ng/L		101	71 - 131
Perfluorotridecanoic acid (PFTriA)	40.0	39.96		ng/L		100	71 - 131
Perfluorotetradecanoic acid (PFTeA)	40.0	35.48		ng/L		89	70 - 130
Perfluorobutanesulfonic acid (PFBS)	35.4	34.25		ng/L		97	67 - 127
Perfluorohexanesulfonic acid (PFHxS)	36.4	32.65		ng/L		90	59 - 119
Perfluorooctanesulfonic acid (PFOS)	37.1	33.59		ng/L		90	70 - 130

Isotope Dilution	LCS %Recovery	LCS Qualifier	Limits
13C2 PFHxA	104		25 - 150
13C4 PFHpA	106		25 - 150
13C4 PFOA	103		25 - 150
13C5 PFNA	102		25 - 150
13C2 PFDA	102		25 - 150
13C2 PFUnA	101		25 - 150
13C2 PFDoA	98		25 - 150
13C2 PFTeDA	100		25 - 150
18O2 PFHxS	103		25 - 150
13C4 PFOS	102		25 - 150
d3-NMeFOSAA	95		25 - 150
d5-NEtFOSAA	98		25 - 150
13C3 PFBS	97		25 - 150

Lab Sample ID: 460-197135-1 MS

Matrix: Water

Analysis Batch: 343395

Client Sample ID: Influent-20191120

Prep Type: Total/NA

Prep Batch: 342557

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Perfluorohexanoic acid (PFHxA)	21.5		36.6	58.01		ng/L		100	73 - 133
Perfluoroheptanoic acid (PFHpA)	8.43		36.6	41.88		ng/L		91	72 - 132
Perfluorooctanoic acid (PFOA)	20.1		36.6	53.32		ng/L		91	70 - 130
Perfluorononanoic acid (PFNA)	1.80	U	36.6	36.40		ng/L		99	75 - 135
Perfluorodecanoic acid (PFDA)	1.80	U	36.6	35.78		ng/L		98	76 - 136
Perfluoroundecanoic acid (PFUnA)	1.80	U	36.6	34.20		ng/L		93	68 - 128
Perfluorododecanoic acid (PFDoA)	1.80	U	36.6	36.91		ng/L		101	71 - 131
Perfluorotridecanoic acid (PFTriA)	1.80	U	36.6	34.28		ng/L		94	71 - 131
Perfluorotetradecanoic acid (PFTeA)	1.80	U	36.6	33.45		ng/L		91	70 - 130
Perfluorobutanesulfonic acid (PFBS)	1.33	J	32.4	32.59		ng/L		97	67 - 127

Eurofins TestAmerica, Edison

QC Sample Results

Client: New York State D.E.C.
Project/Site: DEC - Fort Edward Landfill Site:558001

Job ID: 460-197135-1

Method: 537 (modified) - Fluorinated Alkyl Substances (Continued)

Lab Sample ID: 460-197135-1 MS

Matrix: Water

Analysis Batch: 343395

Client Sample ID: Influent-20191120

Prep Type: Total/NA

Prep Batch: 342557

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Perfluorohexanesulfonic acid (PFHxS)	2.19	B	33.3	31.86		ng/L		89	59 - 119
Perfluorooctanesulfonic acid (PFOS)	6.06		34.0	38.58		ng/L		96	70 - 130
Isotope Dilution	MS %Recovery	MS Qualifier	Limits						
13C2 PFHxA	96		25 - 150						
13C4 PFHpA	105		25 - 150						
13C4 PFOA	101		25 - 150						
13C5 PFNA	99		25 - 150						
13C2 PFDA	97		25 - 150						
13C2 PFUnA	91		25 - 150						
13C2 PFDoA	89		25 - 150						
13C2 PFTeDA	76		25 - 150						
18O2 PFHxS	102		25 - 150						
13C4 PFOS	100		25 - 150						
d3-NMeFOSAA	84		25 - 150						
d5-NEtFOSAA	88		25 - 150						
13C3 PFBS	95		25 - 150						

Lab Sample ID: 460-197135-1 MSD

Matrix: Water

Analysis Batch: 343395

Client Sample ID: Influent-20191120

Prep Type: Total/NA

Prep Batch: 342557

Analyte	Sample	Sample	Spike	MSD	MSD	Unit	D	%Rec	%Rec.	RPD	RPD
	Result	Qualifier	Added	Result	Qualifier				Limits		
Perfluorohexanoic acid (PFHxA)	21.5		35.8	59.75		ng/L		107	73 - 133	3	30
Perfluoroheptanoic acid (PFHpA)	8.43		35.8	41.36		ng/L		92	72 - 132	1	30
Perfluorooctanoic acid (PFOA)	20.1		35.8	52.25		ng/L		90	70 - 130	2	30
Perfluorononanoic acid (PFNA)	1.80	U	35.8	36.31		ng/L		101	75 - 135	0	30
Perfluorodecanoic acid (PFDA)	1.80	U	35.8	35.50		ng/L		99	76 - 136	1	30
Perfluoroundecanoic acid (PFUnA)	1.80	U	35.8	34.64		ng/L		97	68 - 128	1	30
Perfluorododecanoic acid (PFDoA)	1.80	U	35.8	36.24		ng/L		101	71 - 131	2	30
Perfluorotridecanoic acid (PFTriA)	1.80	U	35.8	34.11		ng/L		95	71 - 131	0	30
Perfluorotetradecanoic acid (PFTeA)	1.80	U	35.8	32.92		ng/L		92	70 - 130	2	30
Perfluorobutanesulfonic acid (PFBS)	1.33	J	31.7	30.59		ng/L		92	67 - 127	6	30
Perfluorohexanesulfonic acid (PFHxS)	2.19	B	32.6	32.72		ng/L		94	59 - 119	3	30
Perfluorooctanesulfonic acid (PFOS)	6.06		33.2	38.24		ng/L		97	70 - 130	1	30
	MSD	MSD									
Isotope Dilution	%Recovery	Qualifier	Limits								
13C2 PFHxA	94		25 - 150								
13C4 PFHpA	105		25 - 150								
13C4 PFOA	104		25 - 150								
13C5 PFNA	99		25 - 150								
13C2 PFDA	95		25 - 150								

Eurofins TestAmerica, Edison

QC Sample Results

Client: New York State D.E.C.
Project/Site: DEC - Fort Edward Landfill Site:558001

Job ID: 460-197135-1

Method: 537 (modified) - Fluorinated Alkyl Substances (Continued)

Lab Sample ID: 460-197135-1 MSD

Matrix: Water

Analysis Batch: 343395

Client Sample ID: Influent-20191120

Prep Type: Total/NA

Prep Batch: 342557

Isotope Dilution	MSD		Limits
	%Recovery	Qualifier	
13C2 PFUnA	83		25 - 150
13C2 PFDoA	83		25 - 150
13C2 PFTeDA	75		25 - 150
18O2 PFHxS	103		25 - 150
13C4 PFOS	98		25 - 150
d3-NMeFOSAA	83		25 - 150
d5-NEtFOSAA	83		25 - 150
13C3 PFBS	98		25 - 150

Lab Sample ID: MB 320-342941/1-A

Matrix: Solid

Analysis Batch: 343667

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 342941

Analyte	MB		RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Perfluorohexanoic acid (PFHxA)	0.20	U	0.20	0.042	ug/Kg		12/03/19 16:58	12/06/19 08:10	1
Perfluoroheptanoic acid (PFHpA)	0.20	U	0.20	0.029	ug/Kg		12/03/19 16:58	12/06/19 08:10	1
Perfluorooctanoic acid (PFOA)	0.20	U	0.20	0.086	ug/Kg		12/03/19 16:58	12/06/19 08:10	1
Perfluorononanoic acid (PFNA)	0.20	U	0.20	0.036	ug/Kg		12/03/19 16:58	12/06/19 08:10	1
Perfluorodecanoic acid (PFDA)	0.20	U	0.20	0.022	ug/Kg		12/03/19 16:58	12/06/19 08:10	1
Perfluoroundecanoic acid (PFUnA)	0.20	U	0.20	0.036	ug/Kg		12/03/19 16:58	12/06/19 08:10	1
Perfluorododecanoic acid (PFDoA)	0.20	U	0.20	0.067	ug/Kg		12/03/19 16:58	12/06/19 08:10	1
Perfluorotridecanoic acid (PFTriA)	0.20	U	0.20	0.051	ug/Kg		12/03/19 16:58	12/06/19 08:10	1
Perfluorotetradecanoic acid (PFTeA)	0.20	U	0.20	0.054	ug/Kg		12/03/19 16:58	12/06/19 08:10	1
Perfluorobutanesulfonic acid (PFBS)	0.20	U	0.20	0.025	ug/Kg		12/03/19 16:58	12/06/19 08:10	1
Perfluorohexanesulfonic acid (PFHxS)	0.20	U	0.20	0.031	ug/Kg		12/03/19 16:58	12/06/19 08:10	1
Perfluorooctanesulfonic acid (PFOS)	0.50	U	0.50	0.20	ug/Kg		12/03/19 16:58	12/06/19 08:10	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	2.00	U	2.00	0.37	ug/Kg		12/03/19 16:58	12/06/19 08:10	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	2.00	U	2.00	0.39	ug/Kg		12/03/19 16:58	12/06/19 08:10	1

Isotope Dilution	MB		Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
13C2 PFHxA	101		25 - 150	12/03/19 16:58	12/06/19 08:10	1
13C4 PFHpA	105		25 - 150	12/03/19 16:58	12/06/19 08:10	1
13C4 PFOA	99		25 - 150	12/03/19 16:58	12/06/19 08:10	1
13C5 PFNA	93		25 - 150	12/03/19 16:58	12/06/19 08:10	1
13C2 PFDA	98		25 - 150	12/03/19 16:58	12/06/19 08:10	1
13C2 PFUnA	94		25 - 150	12/03/19 16:58	12/06/19 08:10	1
13C2 PFDoA	92		25 - 150	12/03/19 16:58	12/06/19 08:10	1
13C2 PFTeDA	94		25 - 150	12/03/19 16:58	12/06/19 08:10	1
18O2 PFHxS	101		25 - 150	12/03/19 16:58	12/06/19 08:10	1
13C4 PFOS	105		25 - 150	12/03/19 16:58	12/06/19 08:10	1
d3-NMeFOSAA	95		25 - 150	12/03/19 16:58	12/06/19 08:10	1
d5-NEtFOSAA	98		25 - 150	12/03/19 16:58	12/06/19 08:10	1
13C3 PFBS	105		25 - 150	12/03/19 16:58	12/06/19 08:10	1

Eurofins TestAmerica, Edison

QC Sample Results

Client: New York State D.E.C.
Project/Site: DEC - Fort Edward Landfill Site:558001

Job ID: 460-197135-1

Method: 537 (modified) - Fluorinated Alkyl Substances (Continued)

Lab Sample ID: LCS 320-342941/2-A

Matrix: Solid

Analysis Batch: 343667

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 342941

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Perfluorohexanoic acid (PFHxA)	2.00	1.827		ug/Kg		91	71 - 131
Perfluoroheptanoic acid (PFHpA)	2.00	1.856		ug/Kg		93	71 - 131
Perfluorooctanoic acid (PFOA)	2.00	2.077		ug/Kg		104	72 - 132
Perfluorononanoic acid (PFNA)	2.00	2.112		ug/Kg		106	73 - 133
Perfluorodecanoic acid (PFDA)	2.00	1.818		ug/Kg		91	72 - 132
Perfluoroundecanoic acid (PFUnA)	2.00	1.874		ug/Kg		94	66 - 126
Perfluorododecanoic acid (PFDoA)	2.00	2.178		ug/Kg		109	71 - 131
Perfluorotridecanoic acid (PFTriA)	2.00	1.899		ug/Kg		95	71 - 131
Perfluorotetradecanoic acid (PFTeA)	2.00	1.863		ug/Kg		93	67 - 127
Perfluorobutanesulfonic acid (PFBS)	1.77	1.718		ug/Kg		97	69 - 129
Perfluorohexanesulfonic acid (PFHxS)	1.82	1.755		ug/Kg		96	62 - 122
Perfluorooctanesulfonic acid (PFOS)	1.86	1.834		ug/Kg		99	68 - 141

Isotope Dilution	LCS %Recovery	LCS Qualifier	Limits
13C2 PFHxA	97		25 - 150
13C4 PFHpA	103		25 - 150
13C4 PFOA	90		25 - 150
13C5 PFNA	88		25 - 150
13C2 PFDA	95		25 - 150
13C2 PFUnA	90		25 - 150
13C2 PFDoA	84		25 - 150
13C2 PFTeA	91		25 - 150
18O2 PFHxS	101		25 - 150
13C4 PFOS	101		25 - 150
d3-NMeFOSAA	96		25 - 150
d5-NEtFOSAA	96		25 - 150
13C3 PFBS	103		25 - 150

Lab Sample ID: 460-197135-4 MS

Matrix: Solid

Analysis Batch: 343667

Client Sample ID: Filter Sludge-20191120

Prep Type: Total/NA

Prep Batch: 342941

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Perfluorohexanoic acid (PFHxA)	1.00	U	10.8	9.575		ug/Kg	☼	89	71 - 131
Perfluoroheptanoic acid (PFHpA)	1.00	U	10.8	9.764		ug/Kg	☼	90	71 - 131
Perfluorooctanoic acid (PFOA)	1.00	U	10.8	9.944		ug/Kg	☼	92	72 - 132
Perfluorononanoic acid (PFNA)	1.00	U	10.8	11.16		ug/Kg	☼	103	73 - 133
Perfluorodecanoic acid (PFDA)	1.00	U	10.8	10.35		ug/Kg	☼	96	72 - 132
Perfluoroundecanoic acid (PFUnA)	1.00	U	10.8	9.714		ug/Kg	☼	90	66 - 126
Perfluorododecanoic acid (PFDoA)	1.00	U	10.8	10.35		ug/Kg	☼	96	71 - 131
Perfluorotridecanoic acid (PFTriA)	1.00	U	10.8	10.14		ug/Kg	☼	94	71 - 131

Eurofins TestAmerica, Edison

QC Sample Results

Client: New York State D.E.C.
Project/Site: DEC - Fort Edward Landfill Site:558001

Job ID: 460-197135-1

Method: 537 (modified) - Fluorinated Alkyl Substances (Continued)

Lab Sample ID: 460-197135-4 MS

Matrix: Solid

Analysis Batch: 343667

Client Sample ID: Filter Sludge-20191120

Prep Type: Total/NA

Prep Batch: 342941

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Perfluorotetradecanoic acid (PFTeA)	1.00	U	10.8	9.273		ug/Kg	☼	86	67 - 127
Perfluorobutanesulfonic acid (PFBS)	1.00	U	9.54	8.921		ug/Kg	☼	94	69 - 129
Perfluorohexanesulfonic acid (PFHxS)	1.00	U	9.82	9.696		ug/Kg	☼	99	62 - 122
Perfluorooctanesulfonic acid (PFOS)	2.50	U	10.0	9.285		ug/Kg	☼	93	68 - 141
Isotope Dilution	MS %Recovery	MS Qualifier	Limits						
13C2 PFHxA	83		25 - 150						
13C4 PFHpA	83		25 - 150						
13C4 PFOA	78		25 - 150						
13C5 PFNA	79		25 - 150						
13C2 PFDA	83		25 - 150						
13C2 PFUnA	86		25 - 150						
13C2 PFDoA	70		25 - 150						
13C2 PFTeDA	70		25 - 150						
18O2 PFHxS	84		25 - 150						
13C4 PFOS	88		25 - 150						
d3-NMeFOSAA	86		25 - 150						
d5-NEtFOSAA	88		25 - 150						
13C3 PFBS	89		25 - 150						

Lab Sample ID: 460-197135-4 MSD

Matrix: Solid

Analysis Batch: 343667

Client Sample ID: Filter Sludge-20191120

Prep Type: Total/NA

Prep Batch: 342941

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	Limit
Perfluorohexanoic acid (PFHxA)	1.00	U	11.2	10.39		ug/Kg	☼	93	71 - 131	8	30
Perfluoroheptanoic acid (PFHpA)	1.00	U	11.2	10.22		ug/Kg	☼	91	71 - 131	5	30
Perfluorooctanoic acid (PFOA)	1.00	U	11.2	11.47		ug/Kg	☼	102	72 - 132	14	30
Perfluorononanoic acid (PFNA)	1.00	U	11.2	10.20		ug/Kg	☼	91	73 - 133	9	30
Perfluorodecanoic acid (PFDA)	1.00	U	11.2	10.53		ug/Kg	☼	94	72 - 132	2	30
Perfluoroundecanoic acid (PFUnA)	1.00	U	11.2	10.79		ug/Kg	☼	96	66 - 126	10	30
Perfluorododecanoic acid (PFDoA)	1.00	U	11.2	10.74		ug/Kg	☼	96	71 - 131	4	30
Perfluorotridecanoic acid (PFTriA)	1.00	U	11.2	10.78		ug/Kg	☼	96	71 - 131	6	30
Perfluorotetradecanoic acid (PFTeA)	1.00	U	11.2	10.63		ug/Kg	☼	95	67 - 127	14	30
Perfluorobutanesulfonic acid (PFBS)	1.00	U	9.91	8.621		ug/Kg	☼	87	69 - 129	3	30
Perfluorohexanesulfonic acid (PFHxS)	1.00	U	10.2	8.938		ug/Kg	☼	88	62 - 122	8	30
Perfluorooctanesulfonic acid (PFOS)	2.50	U	10.4	10.07		ug/Kg	☼	97	68 - 141	8	30
Isotope Dilution	MSD %Recovery	MSD Qualifier	Limits								
13C2 PFHxA	78		25 - 150								
13C4 PFHpA	79		25 - 150								

Eurofins TestAmerica, Edison

QC Sample Results

Client: New York State D.E.C.
Project/Site: DEC - Fort Edward Landfill Site:558001

Job ID: 460-197135-1

Method: 537 (modified) - Fluorinated Alkyl Substances (Continued)

Lab Sample ID: 460-197135-4 MSD

Matrix: Solid

Analysis Batch: 343667

Client Sample ID: Filter Sludge-20191120

Prep Type: Total/NA

Prep Batch: 342941

Isotope Dilution	MSD %Recovery	MSD Qualifier	Limits
13C4 PFOA	74		25 - 150
13C5 PFNA	75		25 - 150
13C2 PFDA	80		25 - 150
13C2 PFUnA	72		25 - 150
13C2 PFDoA	62		25 - 150
13C2 PFTeDA	57		25 - 150
18O2 PFHxS	84		25 - 150
13C4 PFOS	82		25 - 150
d3-NMeFOSAA	82		25 - 150
d5-NEtFOSAA	83		25 - 150
13C3 PFBS	90		25 - 150

Method: 6010D - Metals (ICP)

Lab Sample ID: MB 460-657646/1-A

Matrix: Water

Analysis Batch: 657750

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 657646

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	10.0	U	10.0	1.1	ug/L		11/22/19 22:30	11/23/19 20:02	1
Aluminum	200	U	200	28.6	ug/L		11/22/19 22:30	11/23/19 20:02	1
Arsenic	15.0	U	15.0	2.7	ug/L		11/22/19 22:30	11/23/19 20:02	1
Barium	200	U	200	7.7	ug/L		11/22/19 22:30	11/23/19 20:02	1
Beryllium	2.0	U	2.0	0.23	ug/L		11/22/19 22:30	11/23/19 20:02	1
Calcium	5000	U	5000	222	ug/L		11/22/19 22:30	11/23/19 20:02	1
Cadmium	4.0	U	4.0	0.22	ug/L		11/22/19 22:30	11/23/19 20:02	1
Cobalt	50.0	U	50.0	1.7	ug/L		11/22/19 22:30	11/23/19 20:02	1
Chromium	10.0	U	10.0	1.3	ug/L		11/22/19 22:30	11/23/19 20:02	1
Copper	25.0	U	25.0	5.1	ug/L		11/22/19 22:30	11/23/19 20:02	1
Iron	150	U	150	34.2	ug/L		11/22/19 22:30	11/23/19 20:02	1
Potassium	5000	U	5000	323	ug/L		11/22/19 22:30	11/23/19 20:02	1
Magnesium	5000	U	5000	177	ug/L		11/22/19 22:30	11/23/19 20:02	1
Manganese	15.0	U	15.0	0.99	ug/L		11/22/19 22:30	11/23/19 20:02	1
Sodium	5000	U	5000	460	ug/L		11/22/19 22:30	11/23/19 20:02	1
Nickel	40.0	U	40.0	1.7	ug/L		11/22/19 22:30	11/23/19 20:02	1
Lead	10.0	U	10.0	2.5	ug/L		11/22/19 22:30	11/23/19 20:02	1
Antimony	20.0	U	20.0	2.9	ug/L		11/22/19 22:30	11/23/19 20:02	1
Selenium	20.0	U	20.0	6.6	ug/L		11/22/19 22:30	11/23/19 20:02	1
Thallium	20.0	U	20.0	5.4	ug/L		11/22/19 22:30	11/23/19 20:02	1
Vanadium	50.0	U	50.0	2.5	ug/L		11/22/19 22:30	11/23/19 20:02	1
Zinc	30.0	U	30.0	3.6	ug/L		11/22/19 22:30	11/23/19 20:02	1

Lab Sample ID: LCS 460-657646/2-A

Matrix: Water

Analysis Batch: 657750

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 657646

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Silver	50.0	50.38		ug/L		101	80 - 120
Aluminum	2000	2070		ug/L		104	80 - 120

Eurofins TestAmerica, Edison

QC Sample Results

Client: New York State D.E.C.
Project/Site: DEC - Fort Edward Landfill Site:558001

Job ID: 460-197135-1

Method: 6010D - Metals (ICP) (Continued)

Lab Sample ID: LCS 460-657646/2-A

Matrix: Water

Analysis Batch: 657750

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 657646

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Arsenic	2000	2036		ug/L		102	80 - 120
Barium	2000	2220		ug/L		111	80 - 120
Beryllium	50.0	52.36		ug/L		105	80 - 120
Calcium	20000	20700		ug/L		104	80 - 120
Cadmium	50.0	54.10		ug/L		108	80 - 120
Cobalt	500	531.4		ug/L		106	80 - 120
Chromium	200	216.9		ug/L		108	80 - 120
Copper	250	255.1		ug/L		102	80 - 120
Iron	1000	1053		ug/L		105	80 - 120
Potassium	20000	21450		ug/L		107	80 - 120
Magnesium	20000	20600		ug/L		103	80 - 120
Manganese	500	538.2		ug/L		108	80 - 120
Sodium	20000	22100		ug/L		111	80 - 120
Nickel	500	535.1		ug/L		107	80 - 120
Lead	500	539.9		ug/L		108	80 - 120
Antimony	500	493.5		ug/L		99	80 - 120
Selenium	2000	2026		ug/L		101	80 - 120
Thallium	2000	2226		ug/L		111	80 - 120
Vanadium	500	519.5		ug/L		104	80 - 120
Zinc	500	541.7		ug/L		108	80 - 120

Lab Sample ID: MB 460-659636/1-A ^2

Matrix: Solid

Analysis Batch: 659963

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 659636

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	1.0	U	1.0	0.095	mg/Kg		12/03/19 04:50	12/04/19 15:08	2
Aluminum	20.0	U	20.0	5.7	mg/Kg		12/03/19 04:50	12/04/19 15:08	2
Arsenic	1.5	U	1.5	0.59	mg/Kg		12/03/19 04:50	12/04/19 15:08	2
Barium	20.0	U	20.0	1.1	mg/Kg		12/03/19 04:50	12/04/19 15:08	2
Beryllium	0.20	U	0.20	0.045	mg/Kg		12/03/19 04:50	12/04/19 15:08	2
Calcium	500	U	500	29.5	mg/Kg		12/03/19 04:50	12/04/19 15:08	2
Cadmium	0.40	U	0.40	0.068	mg/Kg		12/03/19 04:50	12/04/19 15:08	2
Cobalt	5.0	U	5.0	0.62	mg/Kg		12/03/19 04:50	12/04/19 15:08	2
Chromium	1.0	U	1.0	0.18	mg/Kg		12/03/19 04:50	12/04/19 15:08	2
Iron	15.0	U	15.0	7.4	mg/Kg		12/03/19 04:50	12/04/19 15:08	2
Magnesium	500	U	500	29.2	mg/Kg		12/03/19 04:50	12/04/19 15:08	2
Manganese	1.5	U	1.5	0.17	mg/Kg		12/03/19 04:50	12/04/19 15:08	2
Nickel	4.0	U	4.0	0.37	mg/Kg		12/03/19 04:50	12/04/19 15:08	2
Lead	1.0	U	1.0	0.26	mg/Kg		12/03/19 04:50	12/04/19 15:08	2
Antimony	2.0	U	2.0	0.53	mg/Kg		12/03/19 04:50	12/04/19 15:08	2
Selenium	2.0	U	2.0	1.2	mg/Kg		12/03/19 04:50	12/04/19 15:08	2
Thallium	2.0	U	2.0	0.32	mg/Kg		12/03/19 04:50	12/04/19 15:08	2
Vanadium	5.0	U	5.0	0.33	mg/Kg		12/03/19 04:50	12/04/19 15:08	2
Zinc	3.0	U	3.0	2.3	mg/Kg		12/03/19 04:50	12/04/19 15:08	2

Eurofins TestAmerica, Edison

QC Sample Results

Client: New York State D.E.C.
Project/Site: DEC - Fort Edward Landfill Site:558001

Job ID: 460-197135-1

Method: 6010D - Metals (ICP) (Continued)

Lab Sample ID: LCSSRM 460-659636/2-A ^4

Matrix: Solid

Analysis Batch: 659963

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 659636

Analyte	Spike Added	LCSSRM Result	LCSSRM Qualifier	Unit	D	%Rec	%Rec. Limits
Silver	40.3	38.06		mg/Kg		94.4	80.6 - 119.4
Aluminum	8460	6932		mg/Kg		81.9	50.4 - 150.1
Arsenic	95.5	91.62		mg/Kg		95.9	82.8 - 117.3
Barium	300	295.2		mg/Kg		98.4	82.3 - 117.7
Beryllium	103	92.00		mg/Kg		89.3	82.8 - 116.5
Calcium	4720	4546		mg/Kg		96.3	81.6 - 118.6
Cadmium	135	127.0		mg/Kg		94.0	83.0 - 117.8
Cobalt	43.2	41.20		mg/Kg		95.4	83.8 - 116.2
Chromium	147	142.3		mg/Kg		96.8	82.3 - 117.7
Iron	14400	13430		mg/Kg		93.3	61.3 - 138.9
Magnesium	2300	2124		mg/Kg		92.3	75.7 - 124.3
Manganese	677	661.2		mg/Kg		97.7	82.0 - 118.2
Nickel	59.8	58.80		mg/Kg		98.3	82.6 - 117.6
Lead	92.3	93.30		mg/Kg		101.1	83.1 - 117.0
Antimony	120	69.60		mg/Kg		58.0	4.8 - 195.0
Selenium	42.0	40.52		mg/Kg		96.5	79.5 - 120.5
Thallium	83.1	85.44		mg/Kg		102.8	81.0 - 119.0
Vanadium	96.9	91.68		mg/Kg		94.6	79.2 - 120.7
Zinc	369	359.0		mg/Kg		97.3	80.8 - 119.2

Lab Sample ID: MB 460-660086/1-A ^2

Matrix: Solid

Analysis Batch: 660175

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 660086

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Copper	2.5	U	2.5	1.3	mg/Kg		12/05/19 04:48	12/05/19 15:20	2
Potassium	500	U	500	31.1	mg/Kg		12/05/19 04:48	12/05/19 15:20	2
Sodium	500	U	500	40.2	mg/Kg		12/05/19 04:48	12/05/19 15:20	2

Eurofins TestAmerica, Edison

QC Sample Results

Client: New York State D.E.C.
Project/Site: DEC - Fort Edward Landfill Site:558001

Job ID: 460-197135-1

Method: 6010D - Metals (ICP) (Continued)

Lab Sample ID: LCSSRM 460-660086/2-A ^4

Matrix: Solid

Analysis Batch: 660175

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 660086

Analyte	Spike Added	LCSSRM Result	LCSSRM Qualifier	Unit	D	%Rec	%Rec. Limits
Copper	150	154.8		mg/Kg		103.2	84.0 - 116.0
Potassium	2030	1916		mg/Kg		94.4	70.0 - 130.0
Sodium	139	133.4	J	mg/Kg		96.0	71.9 - 127.3

Method: 7470A - Mercury (CVAA)

Lab Sample ID: MB 460-659055/1-A

Matrix: Water

Analysis Batch: 659142

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 659055

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.20	U	0.20	0.12	ug/L		11/29/19 12:35	11/29/19 17:07	1

Lab Sample ID: LCS 460-659055/2-A

Matrix: Water

Analysis Batch: 659142

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 659055

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	1.00	0.875		ug/L		88	80 - 120

Method: 7471B - Mercury (CVAA)

Lab Sample ID: MB 460-658315/1-A

Matrix: Solid

Analysis Batch: 658419

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 658315

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.017	U	0.017	0.010	mg/Kg		11/26/19 04:54	11/26/19 08:59	1

Lab Sample ID: LCSSRM 460-658315/2-A ^40

Matrix: Solid

Analysis Batch: 658419

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 658315

Analyte	Spike Added	LCSSRM Result	LCSSRM Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	18.4	19.02		mg/Kg		103.4	60.9 - 138.6

Method: 160.1-1971 - Solids, Total Dissolved (TDS)

Lab Sample ID: MB 680-597903/1

Matrix: Water

Analysis Batch: 597903

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	5.0	U	5.0	5.0	mg/L			11/25/19 15:32	1

Eurofins TestAmerica, Edison

QC Sample Results

Client: New York State D.E.C.
Project/Site: DEC - Fort Edward Landfill Site:558001

Job ID: 460-197135-1

Method: 160.1-1971 - Solids, Total Dissolved (TDS) (Continued)

Lab Sample ID: LCS 680-597903/2

Matrix: Water

Analysis Batch: 597903

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Dissolved Solids	38.0	42.00		mg/L		111	80 - 120

Lab Sample ID: LCSD 680-597903/3

Matrix: Water

Analysis Batch: 597903

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Total Dissolved Solids	38.0	42.00		mg/L		111	80 - 120	0	25

Lab Sample ID: MB 680-598932/1

Matrix: Water

Analysis Batch: 598932

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	5.0	U	5.0	5.0	mg/L			12/03/19 15:28	1

Lab Sample ID: LCS 680-598932/2

Matrix: Water

Analysis Batch: 598932

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Dissolved Solids	38.0	42.00		mg/L		111	80 - 120

Lab Sample ID: LCSD 680-598932/3

Matrix: Water

Analysis Batch: 598932

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Total Dissolved Solids	38.0	41.00		mg/L		108	80 - 120	2	25

Method: 160.2 -1971 - Solids, Total Suspended (TSS)

Lab Sample ID: MB 680-601120/1

Matrix: Water

Analysis Batch: 601120

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total Suspended Solids	1.0	U	1.0	1.0	mg/L			12/18/19 11:38	1

Lab Sample ID: LCS 680-601120/2

Matrix: Water

Analysis Batch: 601120

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Suspended Solids	50.0	49.50		mg/L		99	80 - 120

Eurofins TestAmerica, Edison

QC Sample Results

Client: New York State D.E.C.
Project/Site: DEC - Fort Edward Landfill Site:558001

Job ID: 460-197135-1

Method: 160.2 -1971 - Solids, Total Suspended (TSS) (Continued)

Lab Sample ID: LCSD 680-601120/3

Matrix: Water

Analysis Batch: 601120

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Total Suspended Solids	50.0	50.50		mg/L		101	80 - 120	2	25

Method: 2320B-2011 - Alkalinity, Total

Lab Sample ID: MB 680-599414/7

Matrix: Water

Analysis Batch: 599414

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Alkalinity	5.0	U	5.0	5.0	mg/L			12/05/19 16:34	1
Bicarbonate Alkalinity as CaCO3	5.0	U	5.0	5.0	mg/L			12/05/19 16:34	1
Carbonate Alkalinity as CaCO3	5.0	U	5.0	5.0	mg/L			12/05/19 16:34	1
Hydroxide Alkalinity	5.0	U	5.0	5.0	mg/L			12/05/19 16:34	1
Carbon Dioxide, Free	5.0	U	5.0	5.0	mg/L			12/05/19 16:34	1
Phenolphthalein Alkalinity	5.0	U	5.0	5.0	mg/L			12/05/19 16:34	1
Bicarbonate ion as HCO3	6.1	U	6.1	6.1	mg/L			12/05/19 16:34	1

Lab Sample ID: LCS 680-599414/8

Matrix: Water

Analysis Batch: 599414

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Alkalinity	250	247.6		mg/L		99	90 - 112

Lab Sample ID: LCSD 680-599414/34

Matrix: Water

Analysis Batch: 599414

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Alkalinity	250	243.7		mg/L		97	90 - 112	2	30

Method: 9060A - Organic Carbon, Total (TOC)

Lab Sample ID: MB 680-598380/3

Matrix: Water

Analysis Batch: 598380

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon	1.0	U	1.0	0.50	mg/L			11/26/19 16:32	1
Total Organic Carbon - Quad	1.0	U	1.0	0.50	mg/L			11/26/19 16:32	1

Lab Sample ID: LCS 680-598380/4

Matrix: Water

Analysis Batch: 598380

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Organic Carbon	20.0	20.09		mg/L		100	80 - 120
Total Organic Carbon - Quad	20.0	20.09		mg/L		100	80 - 120
TOC Result 1	20.0	19.95		mg/L		100	80 - 120
TOC Result 2	20.0	19.92		mg/L		100	80 - 120

Eurofins TestAmerica, Edison

QC Sample Results

Client: New York State D.E.C.
Project/Site: DEC - Fort Edward Landfill Site:558001

Job ID: 460-197135-1

Method: 9060A - Organic Carbon, Total (TOC) (Continued)

Lab Sample ID: LCS 680-598380/4

Matrix: Water

Analysis Batch: 598380

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
TOC Result 3	20.0	20.27		mg/L		101	80 - 120
TOC Result 4	20.0	20.21		mg/L		101	80 - 120

Lab Sample ID: LCSD 680-598380/5

Matrix: Water

Analysis Batch: 598380

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Total Organic Carbon	20.0	20.18		mg/L		101	80 - 120	0	25
Total Organic Carbon - Quad	20.0	20.18		mg/L		101	80 - 120	0	25
TOC Result 1	20.0	20.13		mg/L		101	80 - 120	1	25
TOC Result 2	20.0	19.98		mg/L		100	80 - 120	0	25
TOC Result 3	20.0	20.22		mg/L		101	80 - 120	0	25
TOC Result 4	20.0	20.39		mg/L		102	80 - 120	1	25

Lab Sample ID: 460-197135-1 MS

Matrix: Water

Analysis Batch: 598380

Client Sample ID: Influent-20191120

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Organic Carbon	8.1		20.0	30.41		mg/L		111	80 - 120
Total Organic Carbon - Quad	8.1		20.0	30.41		mg/L		111	80 - 120
TOC Result 1	8.6		20.0	30.74		mg/L		111	80 - 120
TOC Result 2	8.1		20.0	30.25		mg/L		111	80 - 120
TOC Result 3	7.9		20.0	30.40		mg/L		112	80 - 120
TOC Result 4	7.8		20.0	30.25		mg/L		112	80 - 120

Lab Sample ID: 460-197135-1 MSD

Matrix: Water

Analysis Batch: 598380

Client Sample ID: Influent-20191120

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Total Organic Carbon	8.1		20.0	29.85		mg/L		109	80 - 120	2	25
Total Organic Carbon - Quad	8.1		20.0	29.85		mg/L		109	80 - 120	2	25
TOC Result 1	8.6		20.0	29.91		mg/L		106	80 - 120	3	25
TOC Result 2	8.1		20.0	29.79		mg/L		108	80 - 120	2	25
TOC Result 3	7.9		20.0	29.98		mg/L		110	80 - 120	1	25
TOC Result 4	7.8		20.0	29.70		mg/L		110	80 - 120	2	25

Lab Sample ID: MB 680-598618/2

Matrix: Water

Analysis Batch: 598618

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon	1.0	U	1.0	0.50	mg/L			11/28/19 01:26	1
Total Organic Carbon - Quad	1.0	U	1.0	0.50	mg/L			11/28/19 01:26	1

Eurofins TestAmerica, Edison

QC Sample Results

Client: New York State D.E.C.
Project/Site: DEC - Fort Edward Landfill Site:558001

Job ID: 460-197135-1

Method: 9060A - Organic Carbon, Total (TOC) (Continued)

Lab Sample ID: LCS 680-598618/3

Matrix: Water

Analysis Batch: 598618

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Organic Carbon	20.0	20.02		mg/L		100	80 - 120
Total Organic Carbon - Quad	20.0	20.02		mg/L		100	80 - 120
TOC Result 1	20.0	19.88		mg/L		99	80 - 120
TOC Result 2	20.0	19.87		mg/L		99	80 - 120
TOC Result 3	20.0	20.33		mg/L		102	80 - 120
TOC Result 4	20.0	19.98		mg/L		100	80 - 120

Lab Sample ID: LCSD 680-598618/4

Matrix: Water

Analysis Batch: 598618

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Total Organic Carbon	20.0	19.91		mg/L		100	80 - 120	1	25
Total Organic Carbon - Quad	20.0	19.91		mg/L		100	80 - 120	1	25
TOC Result 1	20.0	19.86		mg/L		99	80 - 120	0	25
TOC Result 2	20.0	19.68		mg/L		98	80 - 120	1	25
TOC Result 3	20.0	20.08		mg/L		100	80 - 120	1	25
TOC Result 4	20.0	20.01		mg/L		100	80 - 120	0	25

Lab Sample ID: 460-197135-2 MS

Matrix: Water

Analysis Batch: 598618

Client Sample ID: CCT-20191120

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Organic Carbon	5.6		20.0	25.47		mg/L		99	80 - 120
Total Organic Carbon - Quad	5.6		20.0	25.47		mg/L		99	80 - 120
TOC Result 1	5.5		20.0	25.43		mg/L		99	80 - 120
TOC Result 2	5.5		20.0	25.46		mg/L		100	80 - 120
TOC Result 3	5.6		20.0	25.46		mg/L		99	80 - 120
TOC Result 4	5.6		20.0	25.52		mg/L		100	80 - 120

Lab Sample ID: 460-197135-2 MSD

Matrix: Water

Analysis Batch: 598618

Client Sample ID: CCT-20191120

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Total Organic Carbon	5.6		20.0	25.27		mg/L		98	80 - 120	1	25
Total Organic Carbon - Quad	5.6		20.0	25.27		mg/L		98	80 - 120	1	25
TOC Result 1	5.5		20.0	25.20		mg/L		98	80 - 120	1	25
TOC Result 2	5.5		20.0	25.16		mg/L		98	80 - 120	1	25
TOC Result 3	5.6		20.0	25.48		mg/L		99	80 - 120	0	25
TOC Result 4	5.6		20.0	25.22		mg/L		98	80 - 120	1	25

QC Sample Results

Client: New York State D.E.C.
Project/Site: DEC - Fort Edward Landfill Site:558001

Job ID: 460-197135-1

Method: SM 2340C - Hardness, Total (mg/l as CaCO3)

Lab Sample ID: MB 460-659069/1

Matrix: Water

Analysis Batch: 659069

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Hardness as calcium carbonate	5.0	U	5.0	5.0	mg/L			11/29/19 15:01	1

Lab Sample ID: LCSSRM 460-659069/2

Matrix: Water

Analysis Batch: 659069

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCSSRM Result	LCSSRM Qualifier	Unit	D	%Rec	%Rec. Limits
Hardness as calcium carbonate	246	250.0		mg/L		101.6	85.0 - 115. 0

QC Association Summary

Client: New York State D.E.C.
Project/Site: DEC - Fort Edward Landfill Site:558001

Job ID: 460-197135-1

GC/MS VOA

Prep Batch: 657415

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-197135-4	Filter Sludge-20191120	Total/NA	Solid	5035	657415
LB3 460-657415/1-A	Method Blank	Total/NA	Solid	5035	

Analysis Batch: 657551

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LB3 460-657415/1-A	Method Blank	Total/NA	Solid	8260C	657415
MB 460-657551/8	Method Blank	Total/NA	Solid	8260C	
LCS 460-657551/3	Lab Control Sample	Total/NA	Solid	8260C	
LCSD 460-657551/4	Lab Control Sample Dup	Total/NA	Solid	8260C	

Analysis Batch: 657667

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-197135-4	Filter Sludge-20191120	Total/NA	Solid	8260C	657415
MB 460-657667/9	Method Blank	Total/NA	Solid	8260C	
LCS 460-657667/5	Lab Control Sample	Total/NA	Solid	8260C	
LCSD 460-657667/14	Lab Control Sample Dup	Total/NA	Solid	8260C	

Analysis Batch: 658233

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-197135-6	Trip Blank-20191120	Total/NA	Water	8260C	658233
MB 460-658233/9	Method Blank	Total/NA	Water	8260C	
LCS 460-658233/5	Lab Control Sample	Total/NA	Water	8260C	

Analysis Batch: 658967

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-197135-1	Influent-20191120	Total/NA	Water	8260C	658967
460-197135-2	CCT-20191120	Total/NA	Water	8260C	
460-197135-5	Decant Tank-20191120	Total/NA	Water	8260C	
MB 460-658967/9	Method Blank	Total/NA	Water	8260C	
LCS 460-658967/4	Lab Control Sample	Total/NA	Water	8260C	
LCSD 460-658967/5	Lab Control Sample Dup	Total/NA	Water	8260C	

GC Semi VOA

Prep Batch: 657568

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-197135-1	Influent-20191120	Total/NA	Water	3510C	657568
460-197135-2	CCT-20191120	Total/NA	Water	3510C	
460-197135-5	Decant Tank-20191120	Total/NA	Water	3510C	
MB 460-657568/1-A	Method Blank	Total/NA	Water	3510C	
LCS 460-657568/2-A	Lab Control Sample	Total/NA	Water	3510C	
LCSD 460-657568/3-A	Lab Control Sample Dup	Total/NA	Water	3510C	

Prep Batch: 657644

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-197135-4	Filter Sludge-20191120	Total/NA	Solid	3546	657644
MB 460-657644/1-A	Method Blank	Total/NA	Solid	3546	
LCS 460-657644/2-A	Lab Control Sample	Total/NA	Solid	3546	
LCSD 460-657644/3-A	Lab Control Sample Dup	Total/NA	Solid	3546	

QC Association Summary

Client: New York State D.E.C.
Project/Site: DEC - Fort Edward Landfill Site:558001

Job ID: 460-197135-1

GC Semi VOA

Analysis Batch: 657695

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 460-657644/1-A	Method Blank	Total/NA	Solid	8082A	657644
LCS 460-657644/2-A	Lab Control Sample	Total/NA	Solid	8082A	657644
LCSD 460-657644/3-A	Lab Control Sample Dup	Total/NA	Solid	8082A	657644

Analysis Batch: 657696

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 460-657568/1-A	Method Blank	Total/NA	Water	8082A	657568
LCS 460-657568/2-A	Lab Control Sample	Total/NA	Water	8082A	657568
LCSD 460-657568/3-A	Lab Control Sample Dup	Total/NA	Water	8082A	657568

Analysis Batch: 657994

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-197135-1	Influent-20191120	Total/NA	Water	8082A	657568
460-197135-2	CCT-20191120	Total/NA	Water	8082A	657568
460-197135-4	Filter Sludge-20191120	Total/NA	Solid	8082A	657644
460-197135-5	Decant Tank-20191120	Total/NA	Water	8082A	657568

HPLC/IC

Analysis Batch: 598686

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-197135-1	Influent-20191120	Total/NA	Water	300.0-1993 R2.1	
460-197135-2	CCT-20191120	Total/NA	Water	300.0-1993 R2.1	
460-197135-5	Decant Tank-20191120	Total/NA	Water	300.0-1993 R2.1	
MB 680-598686/33	Method Blank	Total/NA	Water	300.0-1993 R2.1	
LCS 680-598686/34	Lab Control Sample	Total/NA	Water	300.0-1993 R2.1	
LCSD 680-598686/35	Lab Control Sample Dup	Total/NA	Water	300.0-1993 R2.1	

Analysis Batch: 657462

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-197135-1	Influent-20191120	Total/NA	Water	300.0	
460-197135-2	CCT-20191120	Total/NA	Water	300.0	
460-197135-5	Decant Tank-20191120	Total/NA	Water	300.0	
MB 460-657462/9	Method Blank	Total/NA	Water	300.0	
LCS 460-657462/11	Lab Control Sample	Total/NA	Water	300.0	
LCSD 460-657462/26	Lab Control Sample Dup	Total/NA	Water	300.0	

LCMS

Prep Batch: 342557

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-197135-1	Influent-20191120	Total/NA	Water	3535	
460-197135-2	CCT-20191120	Total/NA	Water	3535	
460-197135-3	DUP-1-20191120	Total/NA	Water	3535	
460-197135-5	Decant Tank-20191120	Total/NA	Water	3535	
MB 320-342557/1-A	Method Blank	Total/NA	Water	3535	
LCS 320-342557/2-A	Lab Control Sample	Total/NA	Water	3535	
460-197135-1 MS	Influent-20191120	Total/NA	Water	3535	
460-197135-1 MSD	Influent-20191120	Total/NA	Water	3535	

Eurofins TestAmerica, Edison

QC Association Summary

Client: New York State D.E.C.
Project/Site: DEC - Fort Edward Landfill Site:558001

Job ID: 460-197135-1

LCMS

Prep Batch: 342941

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-197135-4	Filter Sludge-20191120	Total/NA	Solid	SHAKE	
MB 320-342941/1-A	Method Blank	Total/NA	Solid	SHAKE	
LCS 320-342941/2-A	Lab Control Sample	Total/NA	Solid	SHAKE	
460-197135-4 MS	Filter Sludge-20191120	Total/NA	Solid	SHAKE	
460-197135-4 MSD	Filter Sludge-20191120	Total/NA	Solid	SHAKE	

Analysis Batch: 343113

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 320-342557/1-A	Method Blank	Total/NA	Water	537 (modified)	342557
LCS 320-342557/2-A	Lab Control Sample	Total/NA	Water	537 (modified)	342557

Analysis Batch: 343395

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-197135-1	Influent-20191120	Total/NA	Water	537 (modified)	342557
460-197135-2	CCT-20191120	Total/NA	Water	537 (modified)	342557
460-197135-3	DUP-1-20191120	Total/NA	Water	537 (modified)	342557
460-197135-5	Decant Tank-20191120	Total/NA	Water	537 (modified)	342557
460-197135-1 MS	Influent-20191120	Total/NA	Water	537 (modified)	342557
460-197135-1 MSD	Influent-20191120	Total/NA	Water	537 (modified)	342557

Analysis Batch: 343667

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-197135-4	Filter Sludge-20191120	Total/NA	Solid	537 (modified)	342941
MB 320-342941/1-A	Method Blank	Total/NA	Solid	537 (modified)	342941
LCS 320-342941/2-A	Lab Control Sample	Total/NA	Solid	537 (modified)	342941
460-197135-4 MS	Filter Sludge-20191120	Total/NA	Solid	537 (modified)	342941
460-197135-4 MSD	Filter Sludge-20191120	Total/NA	Solid	537 (modified)	342941

Metals

Prep Batch: 657646

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-197135-1	Influent-20191120	Total/NA	Water	3010A	
460-197135-2	CCT-20191120	Total/NA	Water	3010A	
460-197135-5	Decant Tank-20191120	Total/NA	Water	3010A	
MB 460-657646/1-A	Method Blank	Total/NA	Water	3010A	
LCS 460-657646/2-A	Lab Control Sample	Total/NA	Water	3010A	

Analysis Batch: 657750

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-197135-1	Influent-20191120	Total/NA	Water	6010D	657646
460-197135-2	CCT-20191120	Total/NA	Water	6010D	657646
460-197135-5	Decant Tank-20191120	Total/NA	Water	6010D	657646
MB 460-657646/1-A	Method Blank	Total/NA	Water	6010D	657646
LCS 460-657646/2-A	Lab Control Sample	Total/NA	Water	6010D	657646

Prep Batch: 658315

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-197135-4	Filter Sludge-20191120	Total/NA	Solid	7471B	
MB 460-658315/1-A	Method Blank	Total/NA	Solid	7471B	
LCSSRM 460-658315/2-A ^4	Lab Control Sample	Total/NA	Solid	7471B	

Eurofins TestAmerica, Edison

QC Association Summary

Client: New York State D.E.C.
Project/Site: DEC - Fort Edward Landfill Site:558001

Job ID: 460-197135-1

Metals

Analysis Batch: 658419

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-197135-4	Filter Sludge-20191120	Total/NA	Solid	7471B	658315
MB 460-658315/1-A	Method Blank	Total/NA	Solid	7471B	658315
LCSSRM 460-658315/2-A ^4	Lab Control Sample	Total/NA	Solid	7471B	658315

Prep Batch: 659055

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-197135-1	Influent-20191120	Total/NA	Water	7470A	
460-197135-2	CCT-20191120	Total/NA	Water	7470A	
460-197135-5	Decant Tank-20191120	Total/NA	Water	7470A	
MB 460-659055/1-A	Method Blank	Total/NA	Water	7470A	
LCS 460-659055/2-A	Lab Control Sample	Total/NA	Water	7470A	

Analysis Batch: 659142

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-197135-1	Influent-20191120	Total/NA	Water	7470A	659055
460-197135-2	CCT-20191120	Total/NA	Water	7470A	659055
460-197135-5	Decant Tank-20191120	Total/NA	Water	7470A	659055
MB 460-659055/1-A	Method Blank	Total/NA	Water	7470A	659055
LCS 460-659055/2-A	Lab Control Sample	Total/NA	Water	7470A	659055

Prep Batch: 659636

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-197135-4	Filter Sludge-20191120	Total/NA	Solid	3050B	
MB 460-659636/1-A ^2	Method Blank	Total/NA	Solid	3050B	
LCSSRM 460-659636/2-A ^4	Lab Control Sample	Total/NA	Solid	3050B	

Analysis Batch: 659963

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-197135-4	Filter Sludge-20191120	Total/NA	Solid	6010D	659636
MB 460-659636/1-A ^2	Method Blank	Total/NA	Solid	6010D	659636
LCSSRM 460-659636/2-A ^4	Lab Control Sample	Total/NA	Solid	6010D	659636

Analysis Batch: 660036

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-197135-4	Filter Sludge-20191120	Total/NA	Solid	6010D	659636

Prep Batch: 660086

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-197135-4	Filter Sludge-20191120	Total/NA	Solid	3050B	
MB 460-660086/1-A ^2	Method Blank	Total/NA	Solid	3050B	
LCSSRM 460-660086/2-A ^4	Lab Control Sample	Total/NA	Solid	3050B	

Analysis Batch: 660175

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-197135-4	Filter Sludge-20191120	Total/NA	Solid	6010D	660086
MB 460-660086/1-A ^2	Method Blank	Total/NA	Solid	6010D	660086
LCSSRM 460-660086/2-A ^4	Lab Control Sample	Total/NA	Solid	6010D	660086

QC Association Summary

Client: New York State D.E.C.
Project/Site: DEC - Fort Edward Landfill Site:558001

Job ID: 460-197135-1

General Chemistry

Analysis Batch: 597903

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-197135-2	CCT-20191120	Total/NA	Water	160.1-1971	
460-197135-5	Decant Tank-20191120	Total/NA	Water	160.1-1971	
MB 680-597903/1	Method Blank	Total/NA	Water	160.1-1971	
LCS 680-597903/2	Lab Control Sample	Total/NA	Water	160.1-1971	
LCSD 680-597903/3	Lab Control Sample Dup	Total/NA	Water	160.1-1971	

Analysis Batch: 598380

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-197135-1	Influent-20191120	Total/NA	Water	9060A	
MB 680-598380/3	Method Blank	Total/NA	Water	9060A	
LCS 680-598380/4	Lab Control Sample	Total/NA	Water	9060A	
LCSD 680-598380/5	Lab Control Sample Dup	Total/NA	Water	9060A	
460-197135-1 MS	Influent-20191120	Total/NA	Water	9060A	
460-197135-1 MSD	Influent-20191120	Total/NA	Water	9060A	

Analysis Batch: 598618

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-197135-2	CCT-20191120	Total/NA	Water	9060A	
MB 680-598618/2	Method Blank	Total/NA	Water	9060A	
LCS 680-598618/3	Lab Control Sample	Total/NA	Water	9060A	
LCSD 680-598618/4	Lab Control Sample Dup	Total/NA	Water	9060A	
460-197135-2 MS	CCT-20191120	Total/NA	Water	9060A	
460-197135-2 MSD	CCT-20191120	Total/NA	Water	9060A	

Analysis Batch: 598932

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-197135-1	Influent-20191120	Total/NA	Water	160.1-1971	
MB 680-598932/1	Method Blank	Total/NA	Water	160.1-1971	
LCS 680-598932/2	Lab Control Sample	Total/NA	Water	160.1-1971	
LCSD 680-598932/3	Lab Control Sample Dup	Total/NA	Water	160.1-1971	

Analysis Batch: 599414

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-197135-1	Influent-20191120	Total/NA	Water	2320B-2011	
460-197135-2	CCT-20191120	Total/NA	Water	2320B-2011	
MB 680-599414/7	Method Blank	Total/NA	Water	2320B-2011	
LCS 680-599414/8	Lab Control Sample	Total/NA	Water	2320B-2011	
LCSD 680-599414/34	Lab Control Sample Dup	Total/NA	Water	2320B-2011	

Analysis Batch: 601120

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-197135-1	Influent-20191120	Total/NA	Water	160.2 -1971	
460-197135-2	CCT-20191120	Total/NA	Water	160.2 -1971	
460-197135-5	Decant Tank-20191120	Total/NA	Water	160.2 -1971	
MB 680-601120/1	Method Blank	Total/NA	Water	160.2 -1971	
LCS 680-601120/2	Lab Control Sample	Total/NA	Water	160.2 -1971	
LCSD 680-601120/3	Lab Control Sample Dup	Total/NA	Water	160.2 -1971	

Analysis Batch: 658730

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-197135-4	Filter Sludge-20191120	Total/NA	Solid	Moisture	

Eurofins TestAmerica, Edison

QC Association Summary

Client: New York State D.E.C.

Job ID: 460-197135-1

Project/Site: DEC - Fort Edward Landfill Site:558001

General Chemistry

Analysis Batch: 659069

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-197135-1	Influent-20191120	Total/NA	Water	SM 2340C	
460-197135-2	CCT-20191120	Total/NA	Water	SM 2340C	
MB 460-659069/1	Method Blank	Total/NA	Water	SM 2340C	
LCSSRM 460-659069/2	Lab Control Sample	Total/NA	Water	SM 2340C	

Lab Chronicle

Client: New York State D.E.C.
Project/Site: DEC - Fort Edward Landfill Site:558001

Job ID: 460-197135-1

Client Sample ID: Influent-20191120

Lab Sample ID: 460-197135-1

Date Collected: 11/20/19 09:00

Matrix: Water

Date Received: 11/21/19 09:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	658967	11/29/19 14:31	CJM	TAL EDI
Total/NA	Prep	3510C			657568	11/22/19 16:45	ATF	TAL EDI
Total/NA	Analysis	8082A		1	657994	11/25/19 14:10	SXG	TAL EDI
Total/NA	Analysis	300.0		1	657462	11/22/19 08:48	VMI	TAL EDI
Total/NA	Analysis	300.0-1993 R2.1		1	598686	12/02/19 23:45	UI	TAL SAV
Total/NA	Prep	3535			342557	12/02/19 05:41	MTN	TAL SAC
Total/NA	Analysis	537 (modified)		1	343395	12/05/19 18:07	D1R	TAL SAC
Total/NA	Prep	3010A			657646	11/22/19 22:30	GAE	TAL EDI
Total/NA	Analysis	6010D		1	657750	11/23/19 21:02	CDC	TAL EDI
Total/NA	Prep	7470A			659055	11/29/19 12:35	RBS	TAL EDI
Total/NA	Analysis	7470A		1	659142	11/29/19 17:21	RBS	TAL EDI
Total/NA	Analysis	160.1-1971		1	598932	12/03/19 15:28	JAW	TAL SAV
Total/NA	Analysis	160.2 -1971		1	601120	12/18/19 11:38	SOG	TAL SAV
Total/NA	Analysis	2320B-2011		1	599414	12/05/19 18:48	JER	TAL SAV
Total/NA	Analysis	9060A		1	598380	11/26/19 19:52	RKJ	TAL SAV
Total/NA	Analysis	SM 2340C		1	659069	11/29/19 15:01	RAK	TAL EDI

Client Sample ID: CCT-20191120

Lab Sample ID: 460-197135-2

Date Collected: 11/20/19 09:30

Matrix: Water

Date Received: 11/21/19 09:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	658967	11/29/19 14:08	CJM	TAL EDI
Total/NA	Prep	3510C			657568	11/22/19 16:45	ATF	TAL EDI
Total/NA	Analysis	8082A		1	657994	11/25/19 14:27	SXG	TAL EDI
Total/NA	Analysis	300.0		1	657462	11/22/19 09:03	VMI	TAL EDI
Total/NA	Analysis	300.0-1993 R2.1		1	598686	12/02/19 23:58	UI	TAL SAV
Total/NA	Prep	3535			342557	12/02/19 05:41	MTN	TAL SAC
Total/NA	Analysis	537 (modified)		1	343395	12/05/19 18:36	D1R	TAL SAC
Total/NA	Prep	3010A			657646	11/22/19 22:30	GAE	TAL EDI
Total/NA	Analysis	6010D		1	657750	11/23/19 21:06	CDC	TAL EDI
Total/NA	Prep	7470A			659055	11/29/19 12:35	RBS	TAL EDI
Total/NA	Analysis	7470A		1	659142	11/29/19 17:23	RBS	TAL EDI
Total/NA	Analysis	160.1-1971		1	597903	11/25/19 15:33	JAW	TAL SAV
Total/NA	Analysis	160.2 -1971		1	601120	12/18/19 11:38	SOG	TAL SAV
Total/NA	Analysis	2320B-2011		1	599414	12/05/19 18:56	JER	TAL SAV
Total/NA	Analysis	9060A		1	598618	11/28/19 02:17	RKJ	TAL SAV
Total/NA	Analysis	SM 2340C		1	659069	11/29/19 15:01	RAK	TAL EDI

Lab Chronicle

Client: New York State D.E.C.
Project/Site: DEC - Fort Edward Landfill Site:558001

Job ID: 460-197135-1

Client Sample ID: DUP-1-20191120

Lab Sample ID: 460-197135-3

Date Collected: 11/20/19 00:00

Matrix: Water

Date Received: 11/21/19 09:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3535			342557	12/02/19 05:41	MTN	TAL SAC
Total/NA	Analysis	537 (modified)		1	343395	12/05/19 18:46	D1R	TAL SAC

Client Sample ID: Filter Sludge-20191120

Lab Sample ID: 460-197135-4

Date Collected: 11/20/19 09:50

Matrix: Solid

Date Received: 11/21/19 09:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	658730	11/27/19 11:45	MMC	TAL EDI

Client Sample ID: Filter Sludge-20191120

Lab Sample ID: 460-197135-4

Date Collected: 11/20/19 09:50

Matrix: Solid

Date Received: 11/21/19 09:30

Percent Solids: 18.3

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			657415	11/22/19 09:06	DBM	TAL EDI
Total/NA	Analysis	8260C		1	657667	11/23/19 14:20	AAT	TAL EDI
Total/NA	Prep	3546			657644	11/22/19 22:34	DMS	TAL EDI
Total/NA	Analysis	8082A		20	657994	11/25/19 17:10	SXG	TAL EDI
Total/NA	Prep	SHAKE			342941	12/03/19 16:58	BHT	TAL SAC
Total/NA	Analysis	537 (modified)		1	343667	12/06/19 08:29	MEO	TAL SAC
Total/NA	Prep	3050B			659636	12/03/19 04:50	GMC	TAL EDI
Total/NA	Analysis	6010D		4	659963	12/04/19 15:32	CDC	TAL EDI
Total/NA	Prep	3050B			659636	12/03/19 04:50	GMC	TAL EDI
Total/NA	Analysis	6010D		20	660036	12/05/19 01:39	CDC	TAL EDI
Total/NA	Prep	3050B			660086	12/05/19 04:48	GMC	TAL EDI
Total/NA	Analysis	6010D		4	660175	12/05/19 15:36	CDC	TAL EDI
Total/NA	Prep	7471B			658315	11/26/19 04:54	TJS	TAL EDI
Total/NA	Analysis	7471B		1	658419	11/26/19 09:36	TJS	TAL EDI

Client Sample ID: Decant Tank-20191120

Lab Sample ID: 460-197135-5

Date Collected: 11/20/19 10:10

Matrix: Water

Date Received: 11/21/19 09:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	658967	11/29/19 13:44	CJM	TAL EDI
Total/NA	Prep	3510C			657568	11/22/19 16:45	ATF	TAL EDI
Total/NA	Analysis	8082A		10	657994	11/25/19 15:19	SXG	TAL EDI
Total/NA	Analysis	300.0		1	657462	11/22/19 09:38	VMI	TAL EDI
Total/NA	Analysis	300.0-1993 R2.1		1	598686	12/03/19 00:11	UI	TAL SAV
Total/NA	Prep	3535			342557	12/02/19 05:41	MTN	TAL SAC
Total/NA	Analysis	537 (modified)		1	343395	12/05/19 18:56	D1R	TAL SAC
Total/NA	Prep	3010A			657646	11/22/19 22:30	GAE	TAL EDI
Total/NA	Analysis	6010D		1	657750	11/23/19 21:10	CDC	TAL EDI

Eurofins TestAmerica, Edison

Lab Chronicle

Client: New York State D.E.C.
Project/Site: DEC - Fort Edward Landfill Site:558001

Job ID: 460-197135-1

Client Sample ID: Decant Tank-20191120

Lab Sample ID: 460-197135-5

Date Collected: 11/20/19 10:10

Matrix: Water

Date Received: 11/21/19 09:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	7470A			659055	11/29/19 12:35	RBS	TAL EDI
Total/NA	Analysis	7470A		1	659142	11/29/19 17:25	RBS	TAL EDI
Total/NA	Analysis	160.1-1971		1	597903	11/25/19 15:33	JAW	TAL SAV
Total/NA	Analysis	160.2 -1971		1	601120	12/18/19 11:38	SOG	TAL SAV

Client Sample ID: Trip Blank-20191120

Lab Sample ID: 460-197135-6

Date Collected: 11/20/19 00:00

Matrix: Water

Date Received: 11/21/19 09:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	658233	11/26/19 02:02	AVM	TAL EDI

Laboratory References:

= Kelso WA, 1317 S. 13th Avenue, Kelso, WA 98626

St. Peters = St. Peters Bender Laboratory, 19 Warehouse Row, Albany, NY 12205

TAL EDI = Eurofins TestAmerica, Edison, 777 New Durham Road, Edison, NJ 08817, TEL (732)549-3900

TAL SAC = Eurofins TestAmerica, Sacramento, 880 Riverside Parkway, West Sacramento, CA 95605, TEL (916)373-5600

TAL SAV = Eurofins TestAmerica, Savannah, 5102 LaRoche Avenue, Savannah, GA 31404, TEL (912)354-7858

Accreditation/Certification Summary

Client: New York State D.E.C.
Project/Site: DEC - Fort Edward Landfill Site:558001

Job ID: 460-197135-1

Laboratory: Eurofins TestAmerica, Edison

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	Identification Number	Expiration Date
New York	NELAP	11452	04-01-20
The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.			
Analysis Method	Prep Method	Matrix	Analyte
8082A	3510C	Water	Polychlorinated biphenyls, Total
8082A	3546	Solid	Polychlorinated biphenyls, Total
Moisture		Solid	Percent Moisture
Moisture		Solid	Percent Solids

Laboratory: Eurofins TestAmerica, Sacramento

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Alaska (UST)	State	17-020	01-20-21
ANAB	Dept. of Defense ELAP	L2468	12-22-19
ANAB	Dept. of Energy	L2468.01	01-20-21
ANAB	ISO/IEC 17025	L2468	01-20-21
Arizona	State	AZ0708	08-11-20
Arkansas DEQ	State	19-042-0	06-17-20
California	State	2897	01-31-20
Colorado	State	CA0004	08-31-20
Connecticut	State	PH-0691	06-30-21
Florida	NELAP	E87570	06-30-20
Georgia	State	4040	01-29-20
Hawaii	State	<cert No.>	01-29-20
Illinois	NELAP	200060	03-17-20
Kansas	NELAP	E-10375	10-31-20 *
Louisiana	NELAP	01944	06-30-20
Maine	State	2018009	04-14-20
Michigan	State	9947	01-29-20
Michigan	State Program	9947	01-31-20
Nevada	State	CA000442020-1	07-31-20
New Hampshire	NELAP	2997	04-18-20
New Jersey	NELAP	CA005	06-30-20
New York	NELAP	11666	04-01-20
Oregon	NELAP	4040	01-29-20
Pennsylvania	NELAP	68-01272	03-31-20
Texas	NELAP	T104704399-19-13	05-31-20
US Fish & Wildlife	US Federal Programs	58448	07-31-20
USDA	US Federal Programs	P330-18-00239	07-31-21
Utah	NELAP	CA000442019-01	02-29-20
Vermont	State	VT-4040	04-16-20
Virginia	NELAP	460278	03-14-20
Washington	State	C581	05-05-20
West Virginia (DW)	State	9930C	12-31-19
Wyoming	State Program	8TMS-L	01-28-19 *

* Accreditation/Certification renewal pending - accreditation/certification considered valid.

Eurofins TestAmerica, Edison

Accreditation/Certification Summary

Client: New York State D.E.C.
Project/Site: DEC - Fort Edward Landfill Site:558001

Job ID: 460-197135-1

Laboratory: Eurofins TestAmerica, Savannah

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
	AFCEE	SAVLAB	
Alabama	State	41450	06-30-20
Alaska	State	GA00006	06-30-20
Alaska (UST)	State	17-016	09-30-20
ANAB	Dept. of Defense ELAP	L2463	09-22-22
ANAB	ISO/IEC 17025	L2463.01	09-22-22
Arizona	State	AZ0808	12-14-20
Arkansas DEQ	State	19-015-0	02-01-20
California	State	2939	06-30-20
Connecticut	State	PH-0161	03-31-21
Florida	NELAP	E87052	06-30-20
GA Dept. of Agriculture	State Program	N/A	06-12-20
Georgia	State	E87052	06-30-20
Georgia (DW)	State	803	06-30-20
Guam	State	19-007R	04-17-20
Hawaii	State	<cert No.>	06-30-20
Illinois	NELAP	004547	01-19-20
Indiana	State	C-GA-02	06-30-20
Iowa	State	353	06-30-21
Kansas	NELAP	E-10322	10-15-20
Kentucky (DW)	State	KY90084	12-31-19
Kentucky (UST)	State	<cert No.>	06-30-20
Louisiana	NELAP	02011	06-30-20
Maine	State	GA00006	09-26-20
Maryland	State	250	12-31-20
Massachusetts	State	M-GA006	06-30-20
Michigan	State	9925	06-30-20
Mississippi	State	<cert No.>	06-30-20
Nebraska	State	NE-OS-7-04	06-30-20
New Hampshire	NELAP	2096	05-29-20
New Jersey	NELAP	GA769	06-30-20
New Mexico	State	GA00006	06-30-20
New York	NELAP	10842	04-01-20
North Carolina (DW)	State	13701	07-31-20
Oklahoma	State	9984	08-31-20
Pennsylvania	NELAP	68-00474	06-30-20
Puerto Rico	State	GA00006	01-01-21
South Carolina	State	98001	06-30-20
Tennessee	State	02961	06-30-20
Texas	NELAP	T1047004185-19-14	11-30-20
Texas	TCEQ Water Supply	T104704185	06-30-20
US Fish & Wildlife	US Federal Programs	LE058448-0	07-31-20
USDA	US Federal Programs	P330-18-00313	10-29-21
Virginia	NELAP	10509	06-14-20
Washington	State	C805	06-10-20
West Virginia (DW)	State	9950C	12-31-19
West Virginia DEP	State	094	07-31-20
Wisconsin	State	999819810	08-31-20
Wyoming	State	8TMS-L	06-30-20 *

* Accreditation/Certification renewal pending - accreditation/certification considered valid.

Eurofins TestAmerica, Edison

Method Summary

Client: New York State D.E.C.

Job ID: 460-197135-1

Project/Site: DEC - Fort Edward Landfill Site:558001

Method	Method Description	Protocol	Laboratory
8260C	Volatile Organic Compounds by GC/MS	SW846	TAL EDI
8082A	Polychlorinated Biphenyls (PCBs) by Gas Chromatography	SW846	TAL EDI
300.0	Anions, Ion Chromatography	MCAWW	TAL EDI
300.0-1993 R2.1	Anions, Ion Chromatography	MCAWW	TAL SAV
537 (modified)	Fluorinated Alkyl Substances	EPA	TAL SAC
6010D	Metals (ICP)	SW846	TAL EDI
7470A	Mercury (CVAA)	SW846	TAL EDI
7471B	Mercury (CVAA)	SW846	TAL EDI
160.1-1971	Solids, Total Dissolved (TDS)	MCAWW	TAL SAV
160.2 -1971	Solids, Total Suspended (TSS)	MCAWW	TAL SAV
2320B-2011	Alkalinity, Total	SM	TAL SAV
9060A	Organic Carbon, Total (TOC)	SW846	TAL SAV
Moisture	Percent Moisture	EPA	TAL EDI
SM 2340C	Hardness, Total (mg/l as CaCO3)	SM	TAL EDI
Subcontract	TOPS_Post_Prep	None	
Subcontract	Total_PFCA_Diff	None	
Subcontract	Heterotrophic Plate Count	None	St. Peters
3010A	Preparation, Total Metals	SW846	TAL EDI
3050B	Preparation, Metals	SW846	TAL EDI
3510C	Liquid-Liquid Extraction (Separatory Funnel)	SW846	TAL EDI
3535	Solid-Phase Extraction (SPE)	SW846	TAL SAC
3546	Microwave Extraction	SW846	TAL EDI
5030C	Purge and Trap	SW846	TAL EDI
5035	Closed System Purge and Trap	SW846	TAL EDI
7470A	Preparation, Mercury	SW846	TAL EDI
7471B	Preparation, Mercury	SW846	TAL EDI
SHAKE	Shake Extraction with Ultrasonic Bath Extraction	SW846	TAL SAC

Protocol References:

EPA = US Environmental Protection Agency

MCAWW = "Methods For Chemical Analysis Of Water And Wastes", EPA-600/4-79-020, March 1983 And Subsequent Revisions.

None = None

SM = "Standard Methods For The Examination Of Water And Wastewater"

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

= Kelso WA, 1317 S. 13th Avenue, Kelso, WA 98626

St. Peters = St. Peters Bender Laboratory, 19 Warehouse Row, Albany, NY 12205

TAL EDI = Eurofins TestAmerica, Edison, 777 New Durham Road, Edison, NJ 08817, TEL (732)549-3900

TAL SAC = Eurofins TestAmerica, Sacramento, 880 Riverside Parkway, West Sacramento, CA 95605, TEL (916)373-5600

TAL SAV = Eurofins TestAmerica, Savannah, 5102 LaRoche Avenue, Savannah, GA 31404, TEL (912)354-7858

Sample Summary

Client: New York State D.E.C.

Job ID: 460-197135-1

Project/Site: DEC - Fort Edward Landfill Site:558001

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
460-197135-1	Influent-20191120	Water	11/20/19 09:00	11/21/19 09:30	
460-197135-2	CCT-20191120	Water	11/20/19 09:30	11/21/19 09:30	
460-197135-3	DUP-1-20191120	Water	11/20/19 00:00	11/21/19 09:30	
460-197135-4	Filter Sludge-20191120	Solid	11/20/19 09:50	11/21/19 09:30	
460-197135-5	Decant Tank-20191120	Water	11/20/19 10:10	11/21/19 09:30	
460-197135-6	Trip Blank-20191120	Water	11/20/19 00:00	11/21/19 09:30	

TestAmerica Buffalo

Printed On : 11/22/2019

Page 1 of 1

10 Hazelwood Drive
Amherst, NY 14228

Sample ID: AZ18217

Date Received: 11/20/2019

Time Received: 13:32

Date Finalized: 11/22/2019

PO Number:

Your Ref:

Customer: TestAmerica Buffalo

Owner: INFLUENT-20191120 Fort Edward Landfill

Sample Loc: INFLUENT-20191120

Sample Pt: INFLUENT-20191120

Collect Date: 11/20/2019

Collect Time: 09:00

Collected by:

Receipt Temp: 12 C on ice chilling

Water Source: DW

Potable: Yes

Chlorinated: No Field Residual Chlorine:

Grab/Comp:

Laboratory Report

Test	Result	MCL	Qualifiers	Units	Method Used	Analyst	Analysis Date
Heterotrophic Plate Count	147			CFU/mL	SM9215B	BJS/BS	11/20/2019

Qualifiers Key:

X Exceeds maximum contamination limit

T Temperature outside specifications

C(+/-) CCV outside acceptable limits

S(+/-) Lab control sample outside acceptance limits

(+ Result may be biased high / - Result may be biased low)

R Duplication outside acceptance limits

A Sample contained air bubble or headspace

Z Analysis is not state-certified

M(+/-) Matrix spike recovery outside acceptance limits

H Hold time exceeded

B Analyte detected in blank

G Incorrect bottle received

P Sample preserved at lab

Legend: < Less Than, > Greater Than

mg/L=PPM, ug/L=PPB

If no collection time was given, 00:00 is reported

MCL = Maximum Contaminant Level referenced from New York State Subpart 5-1 of the Public Drinking Water Standards and/or
National Primary/Secondary Drinking Water Standards.

Note 1: Per ELAP requirements, water analyzed for alkalinity, color, conductivity, nitrate, nitrite, sulfate, organics, UV absorbance, non-potable
bacteriological analyses, BOD/CBOD, solids and phosphorus are required to be on ice to indicate the chilling process has begun. Samples must be
between 0-6C and not frozen.

Comments:

Sample was NEGATIVE when screened for total residual chlorine in laboratory.

Bacteriological sample was set up on 11/20/19 at 14:45.

Test procedures for all analyses meet NELAC requirements unless noted.



John Wilson

Environmental Laboratory Supervisor and contact person

If you have questions, please call.

(518) 525-5480 / 5479

Reviewed by Betty Sherman

These results relate to samples as received.

New York State DOH E.L.A.P. # 10350

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TestAmerica Buffalo

Printed On : 11/22/2019

Page 1 of 1

10 Hazelwood Drive
Amherst, NY 14228

Sample ID: AZ18218

Date Received: 11/20/2019

Time Received: 13:32

Date Finalized: 11/22/2019

PO Number:

Your Ref: Fort Edward Landfill

Customer: TestAmerica Buffalo

Owner: CCT-20191120 Fort Edward Landfill

Sample Loc: CCT-20191120

Sample Pt: CCT-20191120

Collect Date: 11/20/2019

Collect Time: 09:30

Collected by:

Receipt Temp: 12 C on ice chilling

Water Source: DW

Potable: Yes

Chlorinated: No Field Residual Chlorine:

Grab/Comp: Grab

Laboratory Report

Test	Result	MCL	Qualifiers	Units	Method Used	Analyst	Analysis Date
Heterotrophic Plate Count	<1			CFU/mL	SM9215B	BJS/BS	11/20/2019

Qualifiers Key:

X Exceeds maximum contamination limit

T Temperature outside specifications

C(+/-) CCV outside acceptable limits

S(+/-) Lab control sample outside acceptance limits

(+ Result may be biased high / - Result may be biased low)

R Duplication outside acceptance limits

A Sample contained air bubble or headspace

Z Analysis is not state-certified

M(+/-) Matrix spike recovery outside acceptance limits

H Hold time exceeded

B Analyte detected in blank

G Incorrect bottle received

P Sample preserved at lab

Legend: < Less Than, > Greater Than

mg/L=PPM, ug/L=PPB

If no collection time was given, 00:00 is reported

MCL = Maximum Contaminant Level referenced from New York State Subpart 5-1 of the Public Drinking Water Standards and/or
National Primary/Secondary Drinking Water Standards.

Note 1: Per ELAP requirements, water analyzed for alkalinity, color, conductivity, nitrate, nitrite, sulfate, organics, UV absorbance, non-potable
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John Wilson

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ALS Environmental
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Kelso, WA 98626
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F : +1 360 636 1068
www.alsglobal.com

January 08, 2020

Analytical Report for Service Request No: K1910985

Julie Gilmore
Eurofins TestAmerica
1010 W. 9th Ave. Suite 50
King of Prussia, PA 19406

RE: DEC - Fort Edward Landfill Site:558001 / 46030964

Dear Julie,

Enclosed are the results of the sample(s) submitted to our laboratory November 21, 2019
For your reference, these analyses have been assigned our service request number **K1910985**.

Analyses were performed according to our laboratory's NELAP-approved quality assurance program. The test results meet requirements of the current NELAP standards, where applicable, and except as noted in the laboratory case narrative provided. For a specific list of NELAP-accredited analytes, refer to the certifications section at www.alsglobal.com. All results are intended to be considered in their entirety, and ALS Group USA Corp. dba ALS Environmental (ALS) is not responsible for use of less than the complete report. Results apply only to the items submitted to the laboratory for analysis and individual items (samples) analyzed, as listed in the report.

Please contact me if you have any questions. My extension is 3356. You may also contact me via email at Kurt.Clarkson@alsglobal.com.

Respectfully submitted,

ALS Group USA, Corp. dba ALS Environmental

Kurt Clarkson
Sr. Project Manager



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Acronyms

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TOPA of Per- and Polyfluoroalkyl Substances

PFAS by HPLC/MS/MS

Acronyms

ASTM	American Society for Testing and Materials
A2LA	American Association for Laboratory Accreditation
CARB	California Air Resources Board
CAS Number	Chemical Abstract Service registry Number
CFC	Chlorofluorocarbon
CFU	Colony-Forming Unit
DEC	Department of Environmental Conservation
DEQ	Department of Environmental Quality
DHS	Department of Health Services
DOE	Department of Ecology
DOH	Department of Health
EPA	U. S. Environmental Protection Agency
ELAP	Environmental Laboratory Accreditation Program
GC	Gas Chromatography
GC/MS	Gas Chromatography/Mass Spectrometry
LOD	Limit of Detection
LOQ	Limit of Quantitation
LUFT	Leaking Underground Fuel Tank
M	Modified
MCL	Maximum Contaminant Level is the highest permissible concentration of a substance allowed in drinking water as established by the USEPA.
MDL	Method Detection Limit
MPN	Most Probable Number
MRL	Method Reporting Limit
NA	Not Applicable
NC	Not Calculated
NCASI	National Council of the Paper Industry for Air and Stream Improvement
ND	Not Detected
NIOSH	National Institute for Occupational Safety and Health
PQL	Practical Quantitation Limit
RCRA	Resource Conservation and Recovery Act
SIM	Selected Ion Monitoring
TPH	Total Petroleum Hydrocarbons
tr	Trace level is the concentration of an analyte that is less than the PQL but greater than or equal to the MDL.

Inorganic Data Qualifiers

- * The result is an outlier. See case narrative.
- # The control limit criteria is not applicable. See case narrative.
- B The analyte was found in the associated method blank at a level that is significant relative to the sample result as defined by the DOD or NELAC standards.
- E The result is an estimate amount because the value exceeded the instrument calibration range.
- J The result is an estimated value.
- U The analyte was analyzed for, but was not detected ("Non-detect") at or above the MRL/MDL.
DOD-QSM 4.2 definition : Analyte was not detected and is reported as less than the LOD or as defined by the project. The detection limit is adjusted for dilution.
- i The MRL/MDL or LOQ/LOD is elevated due to a matrix interference.
- X See case narrative.
- Q See case narrative. One or more quality control criteria was outside the limits.
- H The holding time for this test is immediately following sample collection. The samples were analyzed as soon as possible after receipt by the laboratory.

Metals Data Qualifiers

- # The control limit criteria is not applicable. See case narrative.
- J The result is an estimated value.
- E The percent difference for the serial dilution was greater than 10%, indicating a possible matrix interference in the sample.
- M The duplicate injection precision was not met.
- N The Matrix Spike sample recovery is not within control limits. See case narrative.
- S The reported value was determined by the Method of Standard Additions (MSA).
- U The analyte was analyzed for, but was not detected ("Non-detect") at or above the MRL/MDL.
DOD-QSM 4.2 definition : Analyte was not detected and is reported as less than the LOD or as defined by the project. The detection limit is adjusted for dilution.
- W The post-digestion spike for furnace AA analysis is out of control limits, while sample absorbance is less than 50% of spike absorbance.
- i The MRL/MDL or LOQ/LOD is elevated due to a matrix interference.
- X See case narrative.
- + The correlation coefficient for the MSA is less than 0.995.
- Q See case narrative. One or more quality control criteria was outside the limits.

Organic Data Qualifiers

- * The result is an outlier. See case narrative.
- # The control limit criteria is not applicable. See case narrative.
- A A tentatively identified compound, a suspected aldol-condensation product.
- B The analyte was found in the associated method blank at a level that is significant relative to the sample result as defined by the DOD or NELAC standards.
- C The analyte was qualitatively confirmed using GC/MS techniques, pattern recognition, or by comparing to historical data.
- D The reported result is from a dilution.
- E The result is an estimated value.
- J The result is an estimated value.
- N The result is presumptive. The analyte was tentatively identified, but a confirmation analysis was not performed.
- P The GC or HPLC confirmation criteria was exceeded. The relative percent difference is greater than 40% between the two analytical results.
- U The analyte was analyzed for, but was not detected ("Non-detect") at or above the MRL/MDL.
DOD-QSM 4.2 definition : Analyte was not detected and is reported as less than the LOD or as defined by the project. The detection limit is adjusted for dilution.
- i The MRL/MDL or LOQ/LOD is elevated due to a chromatographic interference.
- X See case narrative.
- Q See case narrative. One or more quality control criteria was outside the limits.

Additional Petroleum Hydrocarbon Specific Qualifiers

- F The chromatographic fingerprint of the sample matches the elution pattern of the calibration standard.
- L The chromatographic fingerprint of the sample resembles a petroleum product, but the elution pattern indicates the presence of a greater amount of lighter molecular weight constituents than the calibration standard.
- H The chromatographic fingerprint of the sample resembles a petroleum product, but the elution pattern indicates the presence of a greater amount of heavier molecular weight constituents than the calibration standard.
- O The chromatographic fingerprint of the sample resembles an oil, but does not match the calibration standard.
- Y The chromatographic fingerprint of the sample resembles a petroleum product eluting in approximately the correct carbon range, but the elution pattern does not match the calibration standard.
- Z The chromatographic fingerprint does not resemble a petroleum product.

ALS Group USA Corp. dba ALS Environmental (ALS) - Kelso
State Certifications, Accreditations, and Licenses

Agency	Web Site	Number
Alaska DEH	http://dec.alaska.gov/eh/lab/cs/csapproval.htm	UST-040
Arizona DHS	http://www.azdhs.gov/lab/license/env.htm	AZ0339
Arkansas - DEQ	http://www.adeq.state.ar.us/techsvs/labcert.htm	88-0637
California DHS (ELAP)	http://www.cdph.ca.gov/certlic/labs/Pages/ELAP.aspx	2795
DOD ELAP	http://www.denix.osd.mil/edqw/Accreditation/AccreditedLabs.cfm	L16-58-R4
Florida DOH	http://www.doh.state.fl.us/lab/EnvLabCert/WaterCert.htm	E87412
Hawaii DOH	http://health.hawaii.gov/	-
ISO 17025	http://www.pjlabs.com/	L16-57
Louisiana DEQ	http://www.deq.louisiana.gov/page/la-lab-accreditation	03016
Maine DHS	http://www.maine.gov/dhhs/	WA01276
Minnesota DOH	http://www.health.state.mn.us/accreditation	053-999-457
Nevada DEP	http://ndep.nv.gov/bsdwlabservice.htm	WA01276
New Jersey DEP	http://www.nj.gov/dep/enforcement/oqa.html	WA005
New York - DOH	https://www.wadsworth.org/regulatory/elap	12060
North Carolina DEQ	https://deq.nc.gov/about/divisions/water-resources/water-resources-data/water-sciences-home-page/laboratory-certification-branch/non-field-lab-certification	605
Oklahoma DEQ	http://www.deq.state.ok.us/CSDnew/labcert.htm	9801
Oregon – DEQ (NELAP)	http://public.health.oregon.gov/LaboratoryServices/EnvironmentalLaboratoryAccreditation/Pages/index.aspx	WA100010
South Carolina DHEC	http://www.scdhec.gov/environment/EnvironmentalLabCertification/	61002
Texas CEQ	http://www.tceq.texas.gov/field/qa/env_lab_accreditation.html	T104704427
Washington DOE	http://www.ecy.wa.gov/programs/eap/labs/lab-accreditation.html	C544
Wyoming (EPA Region 8)	https://www.epa.gov/region8-waterops/epa-region-8-certified-drinking-water	-
Kelso Laboratory Website	www.alsglobal.com	NA

Analyses were performed according to our laboratory's NELAP-approved quality assurance program. A complete listing of specific NELAP-certified analytes, can be found in the certification section at www.ALSGlobal.com or at the accreditation bodies web site.

Please refer to the certification and/or accreditation body's web site if samples are submitted for compliance purposes. The states highlighted above, require the analysis be listed on the state certification if used for compliance purposes and if the method/analyte is offered by that state.



Case Narrative

ALS Environmental—Kelso Laboratory
1317 South 13th Avenue, Kelso, WA 98626
Phone (360)577-7222 Fax (360)636-1068
www.alsglobal.com



Client: Test America, Incorporated
Project: DEC - Fort Edward Landfill Site:558001
Sample Matrix: Water

Service Request: K1910985
Date Received: 11/21/2019

CASE NARRATIVE

All analyses were performed consistent with the quality assurance program of ALS Environmental. This report contains analytical results for samples for the Tier III level requested by the client.

Sample Receipt:

Four water samples were received for analysis at ALS Environmental on 11/21/2019. Any discrepancies upon initial sample inspection are annotated on the sample receipt and preservation form included within this report. The samples were stored at minimum in accordance with the analytical method requirements.

Organic LC:

Method ALS SOP, 12/20/2019: The recovery of one or more surrogates in field and QC samples was outside the control limits listed in the results summary. The limits are default values temporarily in use until sufficient data points are generated to calculate statistical control limits. Based on the method and historic data, the recoveries observed were in the range expected for this procedure. No further corrective action was taken.

Method ALS SOP, 12/20/2019: The control criteria was exceeded for one or more surrogates in Continuing Calibration Verification (CCV) KQ1918756-01. The recoveries of the associated native analytes were within control criteria, which indicated the analysis was in control. No further corrective action was appropriate.

Method PFC/537M, 12/10/2019: The upper control criterion was exceeded for Perfluoroheptane sulfonic acid (PFHpS) in Continuing Calibration Verification (CCV) KQ1918144-01. The field samples analyzed in this sequence did not contain the analyte in question. Since the apparent problem indicated a potential high bias, the data quality was not affected. No further corrective action was required.

Method PFC/537M, 12/10/2019: The control criteria was exceeded for one or more surrogates in Continuing Calibration Verification (CCV) KQ1918144-01. The recoveries of the associated native analytes were within control criteria, which indicated the analysis was in control. No further corrective action was appropriate.

Approved by

A handwritten signature in black ink, appearing to read "Kurt Clarkson".

Date

01/08/2020



Chain of Custody

ALS Environmental—Kelso Laboratory
1317 South 13th Avenue, Kelso, WA 98626
Phone (360)577-7222 Fax (360)636-1068
www.alsglobal.com

Eurofins TestAmerica, Edison

777 New Durham Road
Edison, NJ 08817
Phone: 732-549-3900 Fax: 732-549-3679

Chain of Custody Record

Albany
#224

K1910985
eurofins
Environment Testing
TestAmerica

Client Information		Sampler: <u>Jasmine Mullins</u>		Lab PM: <u>Gilmore, Julie L</u>		Carrier Tracking No(s):		COC No: <u>460-120948-77920.1</u>													
Client Contact: <u>Jasmine Mullins</u>		Phone: <u>646-245-4208</u>		E-Mail: <u>julie.gilmore@testamericainc.com</u>				Page: <u>Page 1 of 2</u>													
Company: <u>ARCADIS U.S. Inc</u>		Due Date Requested:		Analysis Requested				Job #:													
Address: <u>855 Route 146 Suite 210</u>		TAT Requested (days): <u>STANDARD</u>						Preservation Codes:													
City: <u>Clifton Park</u>		PO #: <u>Callout: 137562 Site: 558001</u>						A - HCL M - Hexane													
State, Zip: <u>NY, 12065</u>		WO #: <u>46030964</u>						B - NaOH N - None													
Phone: <u>518-402-9625(Tel)</u>		Project #: <u>46030964</u>						C - Zn Acetate O - AsNaO2													
Email: <u>jasmine.mullins@arcadis.com</u>		SSOW#: <u>FOOT EDWARD LANDFILL</u>						D - Nitric Acid P - Na2O4S													
Project Name: <u>DEC - Fort Edward Landfill Site: 558001</u>								E - NaHSO4 Q - Na2SO3													
Site: <u>FOOT EDWARD LANDFILL</u>								F - MeOH R - Na2S2O3													
								G - Amchlor S - H2SO4													
								H - Ascorbic Acid T - TSP Dodecahydrate													
								I - Ice U - Acetone													
								J - DI Water V - MCAA													
								K - EDTA W - pH 4-5													
								L - EDA Z - other (specify)													
								Other:													
								Total Number of containers													
								Special Instructions/Note:													
Sample Identification		Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=Water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	PF ₆ IDA - PFAS, Method 537 List	PF ₆ IDA - TOPS post-oxidation PFAS, Method 537 List	PF ₆ IDA - TOPS pre-oxidation PFAS, Method 537 List	8082A - PCBs	6018D, 7470A	8268C - TCL VOCs	300_ORGFM, 28D, 300_ORGFM	160.2 - TSS	180.1 - TDS	2340C, 6010D	SUBCONTRACT - Heterotrophic Plate Count	5910B - Organic Constituents, UV-Absorbing	2320B - Alkalinity	
INFLUENT-20191120		11/20/19	0900	G	Water	N	N	N	N	N	D	A	N	N	N	D	N	N	N	N	
INFLUENT-MS-20191120		11/20/19	0900	G	Water	N	Y	2	2	2	0	0	0	0	0	0	0	0	0	0	6
INFLUENT-MSD-20191120		11/20/19	0900	G	Water	N	Y	2	2	2	0	0	0	0	0	0	0	0	0	0	6
CCT-20191120		11/20/19	0930	G	Water	N	N	2	2	2	2	1	3	1	1	1	1	1	1	1	23
DUP-1-20191120		11/20/19	—	G	Water	N	N	2	2	2	0	0	0	0	0	0	0	0	0	0	6
FILTER SLUDGE-20191120		11/20/19	0950	G	SOLID	N	N	1	1	1	1	1	2	0	0	0	0	0	0	0	5
DECANT TANK-20191120		11/20/19	1010	G	Water	N	N	2	2	2	2	1	3	1	1	1	0	0	0	0	15
TRIP BLANK-20191120		11/20/19	—	G	Water	N	N	0	0	0	0	0	2	0	0	0	0	0	0	0	2
TRIP BLANK				G	Water	N	N	0	0	0	0	0	2	0	0	0	0	0	0	0	2
TRIP BLANK				G	Water	N	N	0	0	0	0	0	2	0	0	0	0	0	0	0	2
TRIP BLANK				G	Water	N	N	0	0	0	0	0	2	0	0	0	0	0	0	0	2
TRIP BLANK				G	Water	N	N	0	0	0	0	0	2	0	0	0	0	0	0	0	2
TRIP BLANK				G	Water	N	N	0	0	0	0	0	2	0	0	0	0	0	0	0	2
TRIP BLANK				G	Water	N	N	0	0	0	0	0	2	0	0	0	0	0	0	0	2
TRIP BLANK				G	Water	N	N	0	0	0	0	0	2	0	0	0	0	0	0	0	2
TRIP BLANK				G	Water	N	N	0	0	0	0	0	2	0	0	0	0	0	0	0	2
TRIP BLANK				G	Water	N	N	0	0	0	0	0	2	0	0	0	0	0	0	0	2
TRIP BLANK				G	Water	N	N	0	0	0	0	0	2	0	0	0	0	0	0	0	2
TRIP BLANK				G	Water	N	N	0	0	0	0	0	2	0	0	0	0	0	0	0	2
TRIP BLANK				G	Water	N	N	0	0	0	0	0	2	0	0	0	0	0	0	0	2
TRIP BLANK				G	Water	N	N	0	0	0	0	0	2	0	0	0	0	0	0	0	2
TRIP BLANK				G	Water	N	N	0	0	0	0	0	2	0	0	0	0	0	0	0	2
TRIP BLANK				G	Water	N	N	0	0	0	0	0	2	0	0	0	0	0	0	0	2
TRIP BLANK				G	Water	N	N	0	0	0	0	0	2	0	0	0	0	0	0	0	2
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TRIP BLANK				G	Water	N	N	0	0	0	0	0	2	0	0	0	0	0	0	0	2
TRIP BLANK				G	Water	N	N	0	0	0	0	0	2	0	0	0	0	0	0	0	2
TRIP BLANK				G	Water	N	N	0	0	0	0	0	2	0	0	0	0	0	0	0	2
TRIP BLANK				G	Water	N	N	0	0	0	0	0	2	0	0	0	0	0	0	0	2
TRIP BLANK				G	Water	N	N	0	0	0	0	0	2	0	0	0	0	0	0	0	2
TRIP BLANK				G	Water	N	N	0	0	0	0	0	2	0	0	0	0	0	0	0	2
TRIP BLANK				G	Water	N	N	0	0	0	0	0	2	0	0	0	0	0	0	0	2
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TRIP BLANK				G	Water	N	N	0	0	0	0	0	2	0	0	0	0	0	0	0	2
TRIP BLANK				G	Water	N	N	0	0	0	0	0	2	0	0	0	0	0	0	0	2
TRIP BLANK				G	Water	N	N	0	0	0	0	0	2	0	0	0	0	0	0	0	2
TRIP BLANK				G	Water	N	N	0	0	0	0	0	2	0	0	0	0	0	0	0	2
TRIP BLANK				G	Water	N	N	0	0	0	0	0	2	0	0	0	0	0	0	0	2
TRIP BLANK				G	Water	N	N	0	0	0	0	0	2	0	0	0	0	0	0	0	2
TRIP BLANK				G	Water	N	N	0	0	0	0	0	2	0	0	0	0	0	0	0	2
TRIP BLANK				G	Water	N	N	0	0	0	0	0	2	0	0	0	0	0	0	0	2
TRIP BLANK				G	Water	N	N	0	0	0	0	0	2	0	0	0	0	0	0	0	2
TRIP BLANK				G	Water	N	N	0	0	0	0	0	2	0	0	0	0	0	0	0	2
TRIP BLANK				G	Water	N	N	0	0	0	0	0	2	0	0	0	0	0	0	0	2
TRIP BLANK				G	Water	N	N	0	0	0	0	0	2	0	0	0	0	0	0	0	2
TRIP BLANK				G	Water	N	N	0	0	0	0	0	2	0	0	0	0	0	0	0	2
TRIP BLANK				G	Water	N	N	0	0	0	0	0	2	0	0	0	0	0	0	0	2
TRIP BLANK				G	Water	N	N	0	0	0	0	0	2	0	0	0	0	0	0	0	2
TRIP BLANK				G	Water	N	N	0	0	0	0	0	2	0	0	0	0	0	0	0	2
TRIP BLANK				G	Water	N	N	0	0	0	0	0	2	0	0	0	0	0	0	0	2
TRIP BLANK				G	Water	N	N	0	0	0	0	0	2	0	0	0	0	0	0	0	2
TRIP BLANK				G	Water	N	N	0	0	0	0	0	2	0	0	0	0	0	0	0	2
TRIP BLANK				G	Water	N	N	0	0	0	0	0	2	0	0	0	0	0	0	0	2
TRIP BLANK				G	Water	N	N	0	0	0	0	0	2	0	0	0	0	0	0	0	2
TRIP BLANK				G	Water	N	N	0	0	0	0	0	2	0	0	0	0	0	0	0	2
TRIP BLANK				G	Water	N	N	0	0	0	0	0	2	0	0	0	0	0	0	0	2
TRIP BLANK				G	Water	N	N	0	0	0	0	0	2	0	0	0	0	0	0	0	2
TRIP BLANK				G	Water	N	N	0	0	0	0	0	2	0	0	0	0	0	0	0	2
TRIP BLANK				G	Water	N	N	0	0	0	0	0	2	0	0	0	0	0	0	0	2
TRIP BLANK				G	Water	N	N	0	0	0	0	0	2	0	0	0	0	0	0	0	2
TRIP BLANK				G	Water	N	N	0	0	0	0	0	2	0	0	0	0	0	0	0	2
TRIP BLANK				G	Water	N	N	0	0	0	0	0	2	0	0	0	0	0	0	0	2
TRIP BLANK				G	Water	N	N	0	0	0	0	0	2	0	0	0	0	0	0	0	2
TRIP BLANK				G	Water	N	N	0	0	0	0	0	2	0	0	0	0	0	0	0	2
TRIP BLANK				G	Water	N	N	0	0	0	0	0	2	0	0	0	0	0	0	0	2
TRIP BLANK				G	Water	N	N	0	0	0	0	0	2	0	0	0	0	0	0	0	2
TRIP BLANK				G	Water	N															

Phone: 732-549-3900 Fax: 732-549-3679		Sampler: Jasmine Mullins		Lab PM: Gilmore, Julie L		Carrier Tracking No(s):		COC No: 460-120948-77920.2			
Client Information		Client Contact: Jasmine Mullins		Phone: 646-248-4208		E-Mail: julie.gilmore@festamericainc.com		Page: Page 2 of 2			
Company: ARCADIS U.S. Inc				Address: 855 Route 146 Suite 210				City: Clifton Park			
State, Zip: NY, 12065				Due Date Requested:				Analysis Requested			
Phone: 518-402-9625(Tel)				TAT Requested (days): STANDARD				Preservation Codes:			
Email: jasmine.mullins@arcadis.com				PO #: Callout: 137562 Site: 558001				A - HCL M - Hexane			
Project Name: DEC - Fort Edward Landfill Site: 558001				WO #:				B - NaOH N - None			
Site: FORT EDWARD LANDFILL				Project #: 46030964				C - Zn Acetate O - AsNaO2			
SSOW#:				Field Filtered Sample (Yes or No)				D - Nitric Acid P - Na2O4S			
Sample Identification				Sample Date				Sample Time			
Sample Type, (C=Comp, G=grab)				Matrix (W=water, S=solid, O=waste/soil, BT=tissue, A=air)				Perform MS/MSD (Yes or No)			
Preservation Code:				425.1 - Methylene Blue Active Substances (MBAS)				9060A - Organic Carbon, Total (TOC)			
				9060B - Organic Carbon, Total (TOC)				9060C - Organic Carbon, Total (TOC)			
				9060D - Organic Carbon, Total (TOC)				9060E - Organic Carbon, Total (TOC)			
				9060F - Organic Carbon, Total (TOC)				9060G - Organic Carbon, Total (TOC)			
				9060H - Organic Carbon, Total (TOC)				9060I - Organic Carbon, Total (TOC)			
				9060J - Organic Carbon, Total (TOC)				9060K - Organic Carbon, Total (TOC)			
				9060L - Organic Carbon, Total (TOC)				9060M - Organic Carbon, Total (TOC)			
				9060N - Organic Carbon, Total (TOC)				9060O - Organic Carbon, Total (TOC)			
				9060P - Organic Carbon, Total (TOC)				9060Q - Organic Carbon, Total (TOC)			
				9060R - Organic Carbon, Total (TOC)				9060S - Organic Carbon, Total (TOC)			
				9060T - Organic Carbon, Total (TOC)				9060U - Organic Carbon, Total (TOC)			
				9060V - Organic Carbon, Total (TOC)				9060W - Organic Carbon, Total (TOC)			
				9060X - Organic Carbon, Total (TOC)				9060Y - Organic Carbon, Total (TOC)			
				9060Z - Organic Carbon, Total (TOC)				9060AA - Organic Carbon, Total (TOC)			
				9060AB - Organic Carbon, Total (TOC)				9060AC - Organic Carbon, Total (TOC)			
				9060AD - Organic Carbon, Total (TOC)				9060AE - Organic Carbon, Total (TOC)			
				9060AF - Organic Carbon, Total (TOC)				9060AG - Organic Carbon, Total (TOC)			
				9060AH - Organic Carbon, Total (TOC)				9060AI - Organic Carbon, Total (TOC)			
				9060AJ - Organic Carbon, Total (TOC)				9060AK - Organic Carbon, Total (TOC)			
				9060AL - Organic Carbon, Total (TOC)				9060AM - Organic Carbon, Total (TOC)			
				9060AN - Organic Carbon, Total (TOC)				9060AO - Organic Carbon, Total (TOC)			
				9060AP - Organic Carbon, Total (TOC)				9060AQ - Organic Carbon, Total (TOC)			
				9060AR - Organic Carbon, Total (TOC)				9060AS - Organic Carbon, Total (TOC)			
				9060AT - Organic Carbon, Total (TOC)				9060AU - Organic Carbon, Total (TOC)			
				9060AV - Organic Carbon, Total (TOC)				9060AW - Organic Carbon, Total (TOC)			
				9060AX - Organic Carbon, Total (TOC)				9060AY - Organic Carbon, Total (TOC)			
				9060AZ - Organic Carbon, Total (TOC)				9060BA - Organic Carbon, Total (TOC)			
				9060BB - Organic Carbon, Total (TOC)				9060BC - Organic Carbon, Total (TOC)			
				9060BD - Organic Carbon, Total (TOC)				9060BE - Organic Carbon, Total (TOC)			
				9060BF - Organic Carbon, Total (TOC)				9060BG - Organic Carbon, Total (TOC)			
				9060BH - Organic Carbon, Total (TOC)				9060BI - Organic Carbon, Total (TOC)			
				9060BJ - Organic Carbon, Total (TOC)				9060BK - Organic Carbon, Total (TOC)			
				9060BL - Organic Carbon, Total (TOC)				9060BM - Organic Carbon, Total (TOC)			
				9060BN - Organic Carbon, Total (TOC)				9060BO - Organic Carbon, Total (TOC)			
				9060BP - Organic Carbon, Total (TOC)				9060BQ - Organic Carbon, Total (TOC)			
				9060BR - Organic Carbon, Total (TOC)				9060BS - Organic Carbon, Total (TOC)			
				9060BT - Organic Carbon, Total (TOC)				9060BU - Organic Carbon, Total (TOC)			
				9060BV - Organic Carbon, Total (TOC)				9060BW - Organic Carbon, Total (TOC)			
				9060BX - Organic Carbon, Total (TOC)				9060BY - Organic Carbon, Total (TOC)			
				9060BZ - Organic Carbon, Total (TOC)				9060CA - Organic Carbon, Total (TOC)			
				9060CB - Organic Carbon, Total (TOC)				9060CC - Organic Carbon, Total (TOC)			
				9060CD - Organic Carbon, Total (TOC)				9060CD			
				9060CE - Organic Carbon, Total (TOC)				9060CE			
				9060CF - Organic Carbon, Total (TOC)				9060CF			
				9060CG - Organic Carbon, Total (TOC)				9060CG			
				9060CH - Organic Carbon, Total (TOC)				9060CH			
				9060CI - Organic Carbon, Total (TOC)				9060CI			
				9060CJ - Organic Carbon, Total (TOC)				9060CJ			
				9060CK - Organic Carbon, Total (TOC)				9060CK			
				9060CL - Organic Carbon, Total (TOC)				9060CL			
				9060CM - Organic Carbon, Total (TOC)				9060CM			
				9060CN - Organic Carbon, Total (TOC)				9060CN			
				9060CO - Organic Carbon, Total (TOC)				9060CO			
				9060CP - Organic Carbon, Total (TOC)				9060CP			
				9060CQ - Organic Carbon, Total (TOC)				9060CQ			
				9060CR - Organic Carbon, Total (TOC)				9060CR			
				9060CS - Organic Carbon, Total (TOC)				9060CS			
				9060CT - Organic Carbon, Total (TOC)				9060CT			
				9060CU - Organic Carbon, Total (TOC)				9060CU			
				9060CV - Organic Carbon, Total (TOC)				9060CV			
				9060CW - Organic Carbon, Total (TOC)				9060CW			
				9060CX - Organic Carbon, Total (TOC)				9060CX			
				9060CY - Organic Carbon, Total (TOC)				9060CY			
				9060CZ - Organic Carbon, Total (TOC)				9060CZ			
				9060DA - Organic Carbon, Total (TOC)				9060DA			
				9060DB - Organic Carbon, Total (TOC)				9060DB			
				9060DC - Organic Carbon, Total (TOC)				9060DC			
				9060DD - Organic Carbon, Total (TOC)							

PC KC

Cooler Receipt and Preservation Form

Client Arcadis/Envotins Service Request K1910985Received: 11/21/19 Opened: 11/21/19 By: CG Unloaded: 11/21/19 By: CG

1. Samples were received via? USPS Fed Ex UPS DHL PDX Courier Hand Delivered
2. Samples were received in: (circle) Cooler Box Envelope Other NA
3. Were custody seals on coolers? NA Y N If yes, how many and where? 1 Front
- If present, were custody seals intact? Y N If present, were they signed and dated? Y N

Raw Cooler Temp	Corrected Cooler Temp	Raw Temp Blank	Corrected Temp Blank	Corr. Factor	Thermometer ID	Cooler/COC ID	Tracking Number	NA	Filed
<u>-0.1</u>	<u>0.0</u>	<u>/</u>	<u>/</u>	<u>+0.1</u>	<u>362</u>	<u>NA</u>	<u>1034 8839 9586</u>		

4. Packing material: Inserts Baggies Bubble Wrap Gel Packs Wet Ice Dry Ice Sleeves
5. Were custody papers properly filled out (ink, signed, etc.)? NA Y N
6. Were samples received in good condition (temperature, unbroken)? Indicate in the table below. NA Y N
- If applicable, tissue samples were received: Frozen Partially Thawed Thawed
7. Were all sample labels complete (i.e analysis, preservation, etc.)? NA Y N
8. Did all sample labels and tags agree with custody papers? Indicate major discrepancies in the table on page 2. NA Y N
9. Were appropriate bottles/containers and volumes received for the tests indicated? NA Y N
10. Were the pH-preserved bottles (see SMO GEN SOP) received at the appropriate pH? Indicate in the table below NA Y N
11. Were VOA vials received without headspace? Indicate in the table below. NA Y N
12. Was C12/Res negative? NA Y N

Sample ID on Bottle	Sample ID on COC	Identified by:

Sample ID	Bottle Count Bottle Type	Out of Temp	Head- space	Broke	pH	Reagent	Volume added	Reagent Lot Number	Initials	Time

Votes, Discrepancies, & Resolutions: Received PFAS bottles only. Did not receive any
samples labelled FILTER SLUDGE-20191120 or TRIP BLANK-20191120.



Total Oxidizable Precursor Assay (TOPA) of Per- and Polyfluoroalkyl Substances by LC/MS/MS

ALS Environmental—Kelso Laboratory
1317 South 13th Avenue, Kelso, WA 98626
Phone (360)577-7222 Fax (360)636-1068
www.alsglobal.com

Client: Test America, Incorporated
Project: DEC - Fort Edward Landfill Site:558001/46030964
Sample Matrix: Water
Sample Name: INFLUENT-20191120
Lab Code: K1910985-001

Service Request: K1910985
Date Collected: 11/20/19 09:00
Date Received: 11/21/19 09:40

Units: ng/L
Basis: NA

Total Oxidizable Precursor Assay (TOPA) of Per- and Polyfluoroalkyl Substances (PFAS) by LC/MS/MS

Analysis Method: ALS SOP
Prep Method: ALS SOP

Analyte Name	Result	MRL	Dil.	Date Analyzed	Date Extracted	Q
Perfluoroalkane Sulfonic Acids						
Perfluorobutane sulfonic acid (PFBS)	ND U	10	1	12/20/19 16:28	12/4/19	
Perfluoropentane sulfonic acid (PFPeS)	ND U	10	1	12/20/19 16:28	12/4/19	
Perfluorohexane sulfonic acid (PFHxS)	ND U	10	1	12/20/19 16:28	12/4/19	
Perfluoroheptane sulfonic acid (PFHpS)	ND U	10	1	12/20/19 16:28	12/4/19	
Perfluorooctane sulfonic acid (PFOS)	ND U	10	1	12/20/19 16:28	12/4/19	
Perfluorononane sulfonic acid (PFNS)	ND U	10	1	12/20/19 16:28	12/4/19	
Perfluorodecane sulfonic acid (PFDS)	ND U	10	1	12/20/19 16:28	12/4/19	
Perfluoroalkane Carboxylic Acids						
Perfluorobutanoic acid (PFBA)	ND U	50	1	12/20/19 16:28	12/4/19	
Perfluoropentanoic acid (PFPeA)	ND U	50	1	12/20/19 16:28	12/4/19	
Perfluorohexanoic acid (PFHxA)	ND U	50	1	12/20/19 16:28	12/4/19	
Perfluoroheptanoic acid (PFHpA)	10	10	1	12/20/19 16:28	12/4/19	
Perfluorooctanoic acid (PFOA)	24	10	1	12/20/19 16:28	12/4/19	
Perfluorononanoic acid (PFNA)	ND U	10	1	12/20/19 16:28	12/4/19	
Perfluorodecanoic acid (PFDA)	ND U	10	1	12/20/19 16:28	12/4/19	
Perfluoroundecanoic acid (PFUnDA)	ND U	10	1	12/20/19 16:28	12/4/19	
Perfluorododecanoic acid (PFDoDA)	ND U	10	1	12/20/19 16:28	12/4/19	
Perfluorotridecanoic acid (PFTTrDA)	ND U	10	1	12/20/19 16:28	12/4/19	
Perfluorotetradecanoic acid (PFTeDA)	ND U	10	1	12/20/19 16:28	12/4/19	
Perfluoroalkyl Sulfonamides						
Perfluorooctane sulfonamide (FOSA)	ND U	10	1	12/20/19 16:28	12/4/19	
N-Methyl perfluorooctane sulfonamide (MeFOSA)	ND U	10	1	12/20/19 16:28	12/4/19	
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	ND U	10	1	12/20/19 16:28	12/4/19	
N-Methyl perfluorooctane sulfonamidoethanol	ND U	10	1	12/20/19 16:28	12/4/19	
N-Ethyl perfluorooctane sulfonamidoethanol	ND U	10	1	12/20/19 16:28	12/4/19	
N-Methyl perfluorooctane sulfonamidoacetic acid	ND U	10	1	12/20/19 16:28	12/4/19	
N-Ethyl perfluorooctane sulfonamidoacetic acid	ND U	10	1	12/20/19 16:28	12/4/19	
(n:2) Fluorotelomer Sulfonic Acids						
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	ND U	10	1	12/20/19 16:28	12/4/19	
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	ND U	10	1	12/20/19 16:28	12/4/19	
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	ND U	10	1	12/20/19 16:28	12/4/19	
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	ND U	10	1	12/20/19 16:28	12/4/19	
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	ND U	10	1	12/20/19 16:28	12/4/19	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: Test America, Incorporated
Project: DEC - Fort Edward Landfill Site:558001/46030964
Sample Matrix: Water

Sample Name: INFLUENT-20191120
Lab Code: K1910985-001

Service Request: K1910985
Date Collected: 11/20/19 09:00
Date Received: 11/21/19 09:40

Units: ng/L
Basis: NA

Total Oxidizable Precursor Assay (TOPA) of Per- and Polyfluoroalkyl Substances (PFAS) by LC/MS/MS

Analysis Method: ALS SOP
Prep Method: ALS SOP

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
13C3-PFBS	54	70 - 130	12/20/19 16:28	*
18O2-PFHxS	59	70 - 130	12/20/19 16:28	*
13C4-PFOS	88	70 - 130	12/20/19 16:28	
13C4-PFBA	69	70 - 130	12/20/19 16:28	*
13C5-PFPeA	69	70 - 130	12/20/19 16:28	*
13C2-PFHxA	85	70 - 130	12/20/19 16:28	
13C4-PFHpA	71	70 - 130	12/20/19 16:28	
13C4-PFOA	75	70 - 130	12/20/19 16:28	
13C5-PFNA	73	70 - 130	12/20/19 16:28	
13C2-PFDA	66	70 - 130	12/20/19 16:28	*
13C2-PFUnDA	78	70 - 130	12/20/19 16:28	
13C2-PFDoDA	75	70 - 130	12/20/19 16:28	
13C2-PFTeDA	59	70 - 130	12/20/19 16:28	*
13C8-FOSA	81	70 - 130	12/20/19 16:28	
D3-MeFOSA	36	70 - 130	12/20/19 16:28	*
D5-EtFOSA	36	70 - 130	12/20/19 16:28	*
D7-MeFOSE	78	70 - 130	12/20/19 16:28	
D9-EtFOSE	68	70 - 130	12/20/19 16:28	*
D3-MeFOSAA	46	70 - 130	12/20/19 16:28	*
D5-EtFOSAA	53	70 - 130	12/20/19 16:28	*
13C2-4:2 FTS	84	70 - 130	12/20/19 16:28	
13C2-6:2 FTS	0	0 - 10	12/20/19 16:28	
13C2-8:2 FTS	93	70 - 130	12/20/19 16:28	
13C3-HFPO-DA	95	70 - 130	12/20/19 16:28	

Client: Test America, Incorporated
Project: DEC - Fort Edward Landfill Site:558001/46030964
Sample Matrix: Water
Sample Name: CCT-20191120
Lab Code: K1910985-002

Service Request: K1910985
Date Collected: 11/20/19 09:30
Date Received: 11/21/19 09:40

Units: ng/L
Basis: NA

Total Oxidizable Precursor Assay (TOPA) of Per- and Polyfluoroalkyl Substances (PFAS) by LC/MS/MS

Analysis Method: ALS SOP
Prep Method: ALS SOP

Analyte Name	Result	MRL	Dil.	Date Analyzed	Date Extracted	Q
Perfluoroalkane Sulfonic Acids						
Perfluorobutane sulfonic acid (PFBS)	ND U	10	1	12/20/19 16:39	12/4/19	
Perfluoropentane sulfonic acid (PFPeS)	ND U	10	1	12/20/19 16:39	12/4/19	
Perfluorohexane sulfonic acid (PFHxS)	ND U	10	1	12/20/19 16:39	12/4/19	
Perfluoroheptane sulfonic acid (PFHpS)	ND U	10	1	12/20/19 16:39	12/4/19	
Perfluorooctane sulfonic acid (PFOS)	ND U	10	1	12/20/19 16:39	12/4/19	
Perfluorononane sulfonic acid (PFNS)	ND U	10	1	12/20/19 16:39	12/4/19	
Perfluorodecane sulfonic acid (PFDS)	ND U	10	1	12/20/19 16:39	12/4/19	
Perfluoroalkane Carboxylic Acids						
Perfluorobutanoic acid (PFBA)	ND U	50	1	12/20/19 16:39	12/4/19	
Perfluoropentanoic acid (PFPeA)	ND U	50	1	12/20/19 16:39	12/4/19	
Perfluorohexanoic acid (PFHxA)	ND U	55	1	12/20/19 16:39	12/4/19	
Perfluoroheptanoic acid (PFHpA)	15	10	1	12/20/19 16:39	12/4/19	
Perfluorooctanoic acid (PFOA)	43	10	1	12/20/19 16:39	12/4/19	
Perfluorononanoic acid (PFNA)	ND U	10	1	12/20/19 16:39	12/4/19	
Perfluorodecanoic acid (PFDA)	ND U	10	1	12/20/19 16:39	12/4/19	
Perfluoroundecanoic acid (PFUnDA)	ND U	10	1	12/20/19 16:39	12/4/19	
Perfluorododecanoic acid (PFDoDA)	ND U	10	1	12/20/19 16:39	12/4/19	
Perfluorotridecanoic acid (PFTTrDA)	ND U	10	1	12/20/19 16:39	12/4/19	
Perfluorotetradecanoic acid (PFTeDA)	ND U	10	1	12/20/19 16:39	12/4/19	
Perfluoroalkyl Sulfonamides						
Perfluorooctane sulfonamide (FOSA)	ND U	10	1	12/20/19 16:39	12/4/19	
N-Methyl perfluorooctane sulfonamide (MeFOSA)	ND U	10	1	12/20/19 16:39	12/4/19	
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	ND U	10	1	12/20/19 16:39	12/4/19	
N-Methyl perfluorooctane sulfonamidoethanol	ND U	10	1	12/20/19 16:39	12/4/19	
N-Ethyl perfluorooctane sulfonamidoethanol	ND U	10	1	12/20/19 16:39	12/4/19	
N-Methyl perfluorooctane sulfonamidoacetic acid	ND U	10	1	12/20/19 16:39	12/4/19	
N-Ethyl perfluorooctane sulfonamidoacetic acid	ND U	10	1	12/20/19 16:39	12/4/19	
(n:2) Fluorotelomer Sulfonic Acids						
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	ND U	10	1	12/20/19 16:39	12/4/19	
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	ND U	10	1	12/20/19 16:39	12/4/19	
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	ND U	10	1	12/20/19 16:39	12/4/19	
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	ND U	10	1	12/20/19 16:39	12/4/19	
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	ND U	10	1	12/20/19 16:39	12/4/19	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: Test America, Incorporated
Project: DEC - Fort Edward Landfill Site:558001/46030964
Sample Matrix: Water

Sample Name: CCT-20191120
Lab Code: K1910985-002

Service Request: K1910985
Date Collected: 11/20/19 09:30
Date Received: 11/21/19 09:40

Units: ng/L
Basis: NA

Total Oxidizable Precursor Assay (TOPA) of Per- and Polyfluoroalkyl Substances (PFAS) by LC/MS/MS

Analysis Method: ALS SOP
Prep Method: ALS SOP

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
13C3-PFBS	44	70 - 130	12/20/19 16:39	*
18O2-PFHxS	68	70 - 130	12/20/19 16:39	*
13C4-PFOS	75	70 - 130	12/20/19 16:39	*
13C4-PFBA	68	70 - 130	12/20/19 16:39	*
13C5-PFPeA	58	70 - 130	12/20/19 16:39	*
13C2-PFHxA	67	70 - 130	12/20/19 16:39	*
13C4-PFHpA	64	70 - 130	12/20/19 16:39	*
13C4-PFOA	66	70 - 130	12/20/19 16:39	*
13C5-PFNA	61	70 - 130	12/20/19 16:39	*
13C2-PFDA	58	70 - 130	12/20/19 16:39	*
13C2-PFUnDA	76	70 - 130	12/20/19 16:39	*
13C2-PFDoDA	68	70 - 130	12/20/19 16:39	*
13C2-PFTeDA	48	70 - 130	12/20/19 16:39	*
13C8-FOSA	72	70 - 130	12/20/19 16:39	*
D3-MeFOSA	58	70 - 130	12/20/19 16:39	*
D5-EtFOSA	59	70 - 130	12/20/19 16:39	*
D7-MeFOSE	73	70 - 130	12/20/19 16:39	*
D9-EtFOSE	66	70 - 130	12/20/19 16:39	*
D3-MeFOSAA	35	70 - 130	12/20/19 16:39	*
D5-EtFOSAA	42	70 - 130	12/20/19 16:39	*
13C2-4:2 FTS	63	70 - 130	12/20/19 16:39	*
13C2-6:2 FTS	0	0 - 10	12/20/19 16:39	*
13C2-8:2 FTS	77	70 - 130	12/20/19 16:39	*
13C3-HFPO-DA	82	70 - 130	12/20/19 16:39	*

Analytical Report

Client: Test America, Incorporated
Project: DEC - Fort Edward Landfill Site:558001/46030964
Sample Matrix: Water
Sample Name: DUP-1-20191120
Lab Code: K1910985-003

Service Request: K1910985
Date Collected: 11/20/19
Date Received: 11/21/19 09:40

Units: ng/L
Basis: NA

Total Oxidizable Precursor Assay (TOPA) of Per- and Polyfluoroalkyl Substances (PFAS) by LC/MS/MS

Analysis Method: ALS SOP
Prep Method: ALS SOP

Analyte Name	Result	MRL	Dil.	Date Analyzed	Date Extracted	Q
Perfluoroalkane Sulfonic Acids						
Perfluorobutane sulfonic acid (PFBS)	ND U	10	1	12/20/19 16:49	12/4/19	
Perfluoropentane sulfonic acid (PFPeS)	ND U	10	1	12/20/19 16:49	12/4/19	
Perfluorohexane sulfonic acid (PFHxS)	ND U	10	1	12/20/19 16:49	12/4/19	
Perfluoroheptane sulfonic acid (PFHpS)	ND U	10	1	12/20/19 16:49	12/4/19	
Perfluorooctane sulfonic acid (PFOS)	10	10	1	12/20/19 16:49	12/4/19	
Perfluorononane sulfonic acid (PFNS)	ND U	10	1	12/20/19 16:49	12/4/19	
Perfluorodecane sulfonic acid (PFDS)	ND U	10	1	12/20/19 16:49	12/4/19	
Perfluoroalkane Carboxylic Acids						
Perfluorobutanoic acid (PFBA)	ND U	50	1	12/20/19 16:49	12/4/19	
Perfluoropentanoic acid (PFPeA)	ND U	50	1	12/20/19 16:49	12/4/19	
Perfluorohexanoic acid (PFHxA)	ND U	51	1	12/20/19 16:49	12/4/19	
Perfluoroheptanoic acid (PFHpA)	15	10	1	12/20/19 16:49	12/4/19	
Perfluorooctanoic acid (PFOA)	44	10	1	12/20/19 16:49	12/4/19	
Perfluorononanoic acid (PFNA)	ND U	10	1	12/20/19 16:49	12/4/19	
Perfluorodecanoic acid (PFDA)	ND U	10	1	12/20/19 16:49	12/4/19	
Perfluoroundecanoic acid (PFUnDA)	ND U	10	1	12/20/19 16:49	12/4/19	
Perfluorododecanoic acid (PFDoDA)	ND U	10	1	12/20/19 16:49	12/4/19	
Perfluorotridecanoic acid (PFTTrDA)	ND U	10	1	12/20/19 16:49	12/4/19	
Perfluorotetradecanoic acid (PFTeDA)	ND U	10	1	12/20/19 16:49	12/4/19	
Perfluoroalkyl Sulfonamides						
Perfluorooctane sulfonamide (FOSA)	ND U	10	1	12/20/19 16:49	12/4/19	
N-Methyl perfluorooctane sulfonamide (MeFOSA)	ND U	10	1	12/20/19 16:49	12/4/19	
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	ND U	10	1	12/20/19 16:49	12/4/19	
N-Methyl perfluorooctane sulfonamidoethanol	ND U	10	1	12/20/19 16:49	12/4/19	
N-Ethyl perfluorooctane sulfonamidoethanol	ND U	10	1	12/20/19 16:49	12/4/19	
N-Methyl perfluorooctane sulfonamidoacetic acid	ND U	10	1	12/20/19 16:49	12/4/19	
N-Ethyl perfluorooctane sulfonamidoacetic acid	ND U	10	1	12/20/19 16:49	12/4/19	
(n:2) Fluorotelomer Sulfonic Acids						
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	ND U	10	1	12/20/19 16:49	12/4/19	
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	ND U	10	1	12/20/19 16:49	12/4/19	
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	ND U	10	1	12/20/19 16:49	12/4/19	
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	ND U	10	1	12/20/19 16:49	12/4/19	
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	ND U	10	1	12/20/19 16:49	12/4/19	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: Test America, Incorporated
Project: DEC - Fort Edward Landfill Site:558001/46030964
Sample Matrix: Water

Sample Name: DUP-1-20191120
Lab Code: K1910985-003

Service Request: K1910985
Date Collected: 11/20/19
Date Received: 11/21/19 09:40

Units: ng/L
Basis: NA

Total Oxidizable Precursor Assay (TOPA) of Per- and Polyfluoroalkyl Substances (PFAS) by LC/MS/MS

Analysis Method: ALS SOP
Prep Method: ALS SOP

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
13C3-PFBS	51	70 - 130	12/20/19 16:49	*
18O2-PFHxS	86	70 - 130	12/20/19 16:49	
13C4-PFOS	79	70 - 130	12/20/19 16:49	
13C4-PFBA	74	70 - 130	12/20/19 16:49	
13C5-PFPeA	61	70 - 130	12/20/19 16:49	*
13C2-PFHxA	79	70 - 130	12/20/19 16:49	
13C4-PFHpA	80	70 - 130	12/20/19 16:49	
13C4-PFOA	71	70 - 130	12/20/19 16:49	
13C5-PFNA	63	70 - 130	12/20/19 16:49	*
13C2-PFDA	65	70 - 130	12/20/19 16:49	*
13C2-PFUnDA	80	70 - 130	12/20/19 16:49	
13C2-PFDoDA	66	70 - 130	12/20/19 16:49	*
13C2-PFTeDA	54	70 - 130	12/20/19 16:49	*
13C8-FOSA	70	70 - 130	12/20/19 16:49	
D3-MeFOSA	58	70 - 130	12/20/19 16:49	*
D5-EtFOSA	61	70 - 130	12/20/19 16:49	*
D7-MeFOSE	77	70 - 130	12/20/19 16:49	
D9-EtFOSE	68	70 - 130	12/20/19 16:49	*
D3-MeFOSAA	38	70 - 130	12/20/19 16:49	*
D5-EtFOSAA	46	70 - 130	12/20/19 16:49	*
13C2-4:2 FTS	74	70 - 130	12/20/19 16:49	
13C2-6:2 FTS	0	0 - 10	12/20/19 16:49	
13C2-8:2 FTS	79	70 - 130	12/20/19 16:49	
13C3-HFPO-DA	77	70 - 130	12/20/19 16:49	

Analytical Report

Client: Test America, Incorporated
Project: DEC - Fort Edward Landfill Site:558001/46030964
Sample Matrix: Water

Sample Name: DECANT TANK-20191120
Lab Code: K1910985-004

Service Request: K1910985
Date Collected: 11/20/19 10:10
Date Received: 11/21/19 09:40

Units: ng/L
Basis: NA

Total Oxidizable Precursor Assay (TOPA) of Per- and Polyfluoroalkyl Substances (PFAS) by LC/MS/MS

Analysis Method: ALS SOP
Prep Method: ALS SOP

Analyte Name	Result	MRL	Dil.	Date Analyzed	Date Extracted	Q
Perfluoroalkane Sulfonic Acids						
Perfluorobutane sulfonic acid (PFBS)	ND U	10	1	12/20/19 17:10	12/4/19	
Perfluoropentane sulfonic acid (PFPeS)	ND U	10	1	12/20/19 17:10	12/4/19	
Perfluorohexane sulfonic acid (PFHxS)	ND U	10	1	12/20/19 17:10	12/4/19	
Perfluoroheptane sulfonic acid (PFHpS)	ND U	10	1	12/20/19 17:10	12/4/19	
Perfluorooctane sulfonic acid (PFOS)	11	10	1	12/20/19 17:10	12/4/19	
Perfluorononane sulfonic acid (PFNS)	ND U	10	1	12/20/19 17:10	12/4/19	
Perfluorodecane sulfonic acid (PFDS)	ND U	10	1	12/20/19 17:10	12/4/19	
Perfluoroalkane Carboxylic Acids						
Perfluorobutanoic acid (PFBA)	ND U	50	1	12/20/19 17:10	12/4/19	
Perfluoropentanoic acid (PFPeA)	ND U	50	1	12/20/19 17:10	12/4/19	
Perfluorohexanoic acid (PFHxA)	ND U	52	1	12/20/19 17:10	12/4/19	
Perfluoroheptanoic acid (PFHpA)	13	10	1	12/20/19 17:10	12/4/19	
Perfluorooctanoic acid (PFOA)	51	10	1	12/20/19 17:10	12/4/19	
Perfluorononanoic acid (PFNA)	ND U	10	1	12/20/19 17:10	12/4/19	
Perfluorodecanoic acid (PFDA)	ND U	10	1	12/20/19 17:10	12/4/19	
Perfluoroundecanoic acid (PFUnDA)	ND U	10	1	12/20/19 17:10	12/4/19	
Perfluorododecanoic acid (PFDoDA)	ND U	10	1	12/20/19 17:10	12/4/19	
Perfluorotridecanoic acid (PFTTrDA)	ND U	10	1	12/20/19 17:10	12/4/19	
Perfluorotetradecanoic acid (PFTeDA)	ND U	10	1	12/20/19 17:10	12/4/19	
Perfluoroalkyl Sulfonamides						
Perfluorooctane sulfonamide (FOSA)	ND U	10	1	12/20/19 17:10	12/4/19	
N-Methyl perfluorooctane sulfonamide (MeFOSA)	ND U	10	1	12/20/19 17:10	12/4/19	
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	ND U	10	1	12/20/19 17:10	12/4/19	
N-Methyl perfluorooctane sulfonamidoethanol	ND U	10	1	12/20/19 17:10	12/4/19	
N-Ethyl perfluorooctane sulfonamidoethanol	ND U	10	1	12/20/19 17:10	12/4/19	
N-Methyl perfluorooctane sulfonamidoacetic acid	ND U	10	1	12/20/19 17:10	12/4/19	
N-Ethyl perfluorooctane sulfonamidoacetic acid	ND U	10	1	12/20/19 17:10	12/4/19	
(n:2) Fluorotelomer Sulfonic Acids						
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	ND U	10	1	12/20/19 17:10	12/4/19	
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	ND U	10	1	12/20/19 17:10	12/4/19	
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	ND U	10	1	12/20/19 17:10	12/4/19	
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	ND U	10	1	12/20/19 17:10	12/4/19	
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	ND U	10	1	12/20/19 17:10	12/4/19	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: Test America, Incorporated
Project: DEC - Fort Edward Landfill Site:558001/46030964
Sample Matrix: Water

Sample Name: DECANT TANK-20191120
Lab Code: K1910985-004

Service Request: K1910985
Date Collected: 11/20/19 10:10
Date Received: 11/21/19 09:40

Units: ng/L
Basis: NA

Total Oxidizable Precursor Assay (TOPA) of Per- and Polyfluoroalkyl Substances (PFAS) by LC/MS/MS

Analysis Method: ALS SOP
Prep Method: ALS SOP

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
13C3-PFBS	54	70 - 130	12/20/19 17:10	*
18O2-PFHxS	61	70 - 130	12/20/19 17:10	*
13C4-PFOS	94	70 - 130	12/20/19 17:10	
13C4-PFBA	73	70 - 130	12/20/19 17:10	
13C5-PFPeA	70	70 - 130	12/20/19 17:10	
13C2-PFHxA	84	70 - 130	12/20/19 17:10	
13C4-PFHpA	67	70 - 130	12/20/19 17:10	*
13C4-PFOA	76	70 - 130	12/20/19 17:10	
13C5-PFNA	66	70 - 130	12/20/19 17:10	*
13C2-PFDA	75	70 - 130	12/20/19 17:10	
13C2-PFUnDA	83	70 - 130	12/20/19 17:10	
13C2-PFDoDA	81	70 - 130	12/20/19 17:10	
13C2-PFTeDA	57	70 - 130	12/20/19 17:10	*
13C8-FOSA	86	70 - 130	12/20/19 17:10	
D3-MeFOSA	71	70 - 130	12/20/19 17:10	
D5-EtFOSA	76	70 - 130	12/20/19 17:10	
D7-MeFOSE	88	70 - 130	12/20/19 17:10	
D9-EtFOSE	78	70 - 130	12/20/19 17:10	
D3-MeFOSAA	47	70 - 130	12/20/19 17:10	*
D5-EtFOSAA	54	70 - 130	12/20/19 17:10	*
13C2-4:2 FTS	71	70 - 130	12/20/19 17:10	
13C2-6:2 FTS	0	0 - 10	12/20/19 17:10	
13C2-8:2 FTS	89	70 - 130	12/20/19 17:10	
13C3-HFPO-DA	98	70 - 130	12/20/19 17:10	

Analytical Report

Client: Test America, Incorporated
Project: DEC - Fort Edward Landfill Site:558001/46030964
Sample Matrix: Water
Sample Name: Method Blank
Lab Code: KQ1917868-02

Service Request: K1910985
Date Collected: NA
Date Received: NA
Units: ng/L
Basis: NA

Total Oxidizable Precursor Assay (TOPA) of Per- and Polyfluoroalkyl Substances (PFAS) by LC/MS/MS

Analysis Method: ALS SOP
Prep Method: ALS SOP

Analyte Name	Result	MRL	Dil.	Date Analyzed	Date Extracted	Q
Perfluoroalkane Sulfonic Acids						
Perfluorobutane sulfonic acid (PFBS)	ND U	10	1	12/20/19 16:18	12/4/19	
Perfluoropentane sulfonic acid (PFPeS)	ND U	10	1	12/20/19 16:18	12/4/19	
Perfluorohexane sulfonic acid (PFHxS)	ND U	10	1	12/20/19 16:18	12/4/19	
Perfluoroheptane sulfonic acid (PFHpS)	ND U	10	1	12/20/19 16:18	12/4/19	
Perfluorooctane sulfonic acid (PFOS)	ND U	10	1	12/20/19 16:18	12/4/19	
Perfluorononane sulfonic acid (PFNS)	ND U	10	1	12/20/19 16:18	12/4/19	
Perfluorodecane sulfonic acid (PFDS)	ND U	10	1	12/20/19 16:18	12/4/19	
Perfluoroalkane Carboxylic Acids						
Perfluorobutanoic acid (PFBA)	ND U	50	1	12/20/19 16:18	12/4/19	
Perfluoropentanoic acid (PFPeA)	ND U	50	1	12/20/19 16:18	12/4/19	
Perfluorohexanoic acid (PFHxA)	ND U	50	1	12/20/19 16:18	12/4/19	
Perfluoroheptanoic acid (PFHpA)	ND U	10	1	12/20/19 16:18	12/4/19	
Perfluorooctanoic acid (PFOA)	ND U	10	1	12/20/19 16:18	12/4/19	
Perfluorononanoic acid (PFNA)	ND U	10	1	12/20/19 16:18	12/4/19	
Perfluorodecanoic acid (PFDA)	ND U	10	1	12/20/19 16:18	12/4/19	
Perfluoroundecanoic acid (PFUnDA)	ND U	10	1	12/20/19 16:18	12/4/19	
Perfluorododecanoic acid (PFDoDA)	ND U	10	1	12/20/19 16:18	12/4/19	
Perfluorotridecanoic acid (PFTTrDA)	ND U	10	1	12/20/19 16:18	12/4/19	
Perfluorotetradecanoic acid (PFTeDA)	ND U	10	1	12/20/19 16:18	12/4/19	
Perfluoroalkyl Sulfonamides						
Perfluorooctane sulfonamide (FOSA)	ND U	10	1	12/20/19 16:18	12/4/19	
N-Methyl perfluorooctane sulfonamide (MeFOSA)	ND U	10	1	12/20/19 16:18	12/4/19	
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	ND U	10	1	12/20/19 16:18	12/4/19	
N-Methyl perfluorooctane sulfonamidoethanol	ND U	10	1	12/20/19 16:18	12/4/19	
N-Ethyl perfluorooctane sulfonamidoethanol	ND U	10	1	12/20/19 16:18	12/4/19	
N-Methyl perfluorooctane sulfonamidoacetic acid	ND U	10	1	12/20/19 16:18	12/4/19	
N-Ethyl perfluorooctane sulfonamidoacetic acid	ND U	10	1	12/20/19 16:18	12/4/19	
(n:2) Fluorotelomer Sulfonic Acids						
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	ND U	10	1	12/20/19 16:18	12/4/19	
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	ND U	10	1	12/20/19 16:18	12/4/19	
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	ND U	10	1	12/20/19 16:18	12/4/19	
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	ND U	10	1	12/20/19 16:18	12/4/19	
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	ND U	10	1	12/20/19 16:18	12/4/19	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: Test America, Incorporated
Project: DEC - Fort Edward Landfill Site:558001/46030964
Sample Matrix: Water

Sample Name: Method Blank
Lab Code: KQ1917868-02

Service Request: K1910985
Date Collected: NA
Date Received: NA

Units: ng/L
Basis: NA

Total Oxidizable Precursor Assay (TOPA) of Per- and Polyfluoroalkyl Substances (PFAS) by LC/MS/MS

Analysis Method: ALS SOP
Prep Method: ALS SOP

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
13C3-PFBS	58	70 - 130	12/20/19 16:18	*
18O2-PFHxS	54	70 - 130	12/20/19 16:18	*
13C4-PFOS	87	70 - 130	12/20/19 16:18	
13C4-PFBA	79	70 - 130	12/20/19 16:18	
13C5-PFPeA	87	70 - 130	12/20/19 16:18	
13C2-PFHxA	85	70 - 130	12/20/19 16:18	
13C4-PFHpA	63	70 - 130	12/20/19 16:18	*
13C4-PFOA	81	70 - 130	12/20/19 16:18	
13C5-PFNA	75	70 - 130	12/20/19 16:18	
13C2-PFDA	70	70 - 130	12/20/19 16:18	
13C2-PFUnDA	87	70 - 130	12/20/19 16:18	
13C2-PFDoDA	81	70 - 130	12/20/19 16:18	
13C2-PFTeDA	68	70 - 130	12/20/19 16:18	*
13C8-FOSA	93	70 - 130	12/20/19 16:18	
D3-MeFOSA	63	70 - 130	12/20/19 16:18	*
D5-EtFOSA	62	70 - 130	12/20/19 16:18	*
D7-MeFOSE	100	70 - 130	12/20/19 16:18	
D9-EtFOSE	88	70 - 130	12/20/19 16:18	
D3-MeFOSAA	53	70 - 130	12/20/19 16:18	*
D5-EtFOSAA	63	70 - 130	12/20/19 16:18	*
13C2-4:2 FTS	77	70 - 130	12/20/19 16:18	
13C2-6:2 FTS	0	0 - 10	12/20/19 16:18	
13C2-8:2 FTS	101	70 - 130	12/20/19 16:18	
13C3-HFPO-DA	113	70 - 130	12/20/19 16:18	

Client: Test America, Incorporated
Project: DEC - Fort Edward Landfill Site:558001/46030964
Sample Matrix: Water

Service Request: K1910985

SURROGATE RECOVERY SUMMARY

Total Oxidizable Precursor Assay (TOPA) of Per- and Polyfluoroalkyl Substances (PFAS) by LC/MS/MS

Analysis Method: ALS SOP

Extraction Method: ALS SOP

Surrogate	Control Limits	INFLUENT-20191120	CCT-20191120	DUP-1-20191120
		K1910985-001	K1910985-002	K1910985-003
13C3-PFBS	70-130	54*	44*	51*
18O2-PFHxS	70-130	59*	68*	86
13C4-PFOS	70-130	88	75	79
13C4-PFBA	70-130	69*	68*	74
13C5-PFPeA	70-130	69*	58*	61*
13C2-PFHxA	70-130	85	67*	79
13C4-PFHpA	70-130	71	64*	80
13C4-PFOA	70-130	75	66*	71
13C5-PFNA	70-130	73	61*	63*
13C2-PFDA	70-130	66*	58*	65*
13C2-PFUnDA	70-130	78	76	80
13C2-PFDoDA	70-130	75	68*	66*
13C2-PFTeDA	70-130	59*	48*	54*
13C8-FOSA	70-130	81	72	70
D3-MeFOSA	70-130	36*	58*	58*
D5-EtFOSA	70-130	36*	59*	61*
D7-MeFOSE	70-130	78	73	77
D9-EtFOSE	70-130	68*	66*	68*
D3-MeFOSAA	70-130	46*	35*	38*
D5-EtFOSAA	70-130	53*	42*	46*
13C2-4:2 FTS	70-130	84	63*	74
13C2-6:2 FTS	0-10	0	0	0
13C2-8:2 FTS	70-130	93	77	79
13C3-HFPO-DA	70-130	95	82	77

Results flagged with an asterisk (*) indicate values outside control criteria.

Results flagged with an pound (#) indicate the control criteria is not acceptable.

Client: Test America, Incorporated
Project: DEC - Fort Edward Landfill Site:558001/46030964
Sample Matrix: Water

Service Request: K1910985

SURROGATE RECOVERY SUMMARY

Total Oxidizable Precursor Assay (TOPA) of Per- and Polyfluoroalkyl Substances (PFAS) by LC/MS/MS

Analysis Method: ALS SOP

Extraction Method: ALS SOP

Surrogate	Control Limits	DECANT TANK-20191120	DUP-1-20191120	Method Blank
		K1910985-004	KQ1917868-01	KQ1917868-02
13C3-PFBS	70-130	54*	55*	58*
18O2-PFHxS	70-130	61*	88	54*
13C4-PFOS	70-130	94	85	87
13C4-PFBA	70-130	73	68*	79
13C5-PFPeA	70-130	70	80	87
13C2-PFHxA	70-130	84	76	85
13C4-PFHpA	70-130	67*	103	63*
13C4-PFOA	70-130	76	73	81
13C5-PFNA	70-130	66*	73	75
13C2-PFDA	70-130	75	72	70
13C2-PFUnDA	70-130	83	87	87
13C2-PFDoDA	70-130	81	75	81
13C2-PFTeDA	70-130	57*	61*	68*
13C8-FOSA	70-130	86	95	93
D3-MeFOSA	70-130	71	73	63*
D5-EtFOSA	70-130	76	78	62*
D7-MeFOSE	70-130	88	93	100
D9-EtFOSE	70-130	78	79	88
D3-MeFOSAA	70-130	47*	52*	53*
D5-EtFOSAA	70-130	54*	61*	63*
13C2-4:2 FTS	70-130	71	77	77
13C2-6:2 FTS	0-10	0	0	0
13C2-8:2 FTS	70-130	89	101	101
13C3-HFPO-DA	70-130	98	106	113

Results flagged with an asterisk (*) indicate values outside control criteria.

Results flagged with an pound (#) indicate the control criteria is not acceptable.

ALS Group USA, Corp.
dba ALS Environmental

QA/QC Report

Client: Test America, Incorporated
Project: DEC - Fort Edward Landfill Site:558001/46030964

Service Request:K1910985
Date Analyzed:12/20/19 15:05

Internal Standard Area and RT SUMMARY

Total Oxidizable Precursor Assay (TOPA) of Per- and Polyfluoroalkyl Substances (PFAS) by LC/MS/MS

File ID: J:\LCMS06\Data\191220_b2_TOPA\191220_016
Instrument ID: K-LCMS-06
Analysis Method: ALS SOP

Lab Code:KQ1918756-01
Analysis Lot:664113
Signal ID:1

	13C7-PFUnDA	
	Area	RT
Result ==>	3,584,609	5.091
Upper Limit ==>	7,169,218	6.09
Lower Limit ==>	1,792,305	4.09

Associated Analyses

Continuing Calibration Blank	KQ1918756-02	3823915	5.097
Method Blank	KQ1917868-02	2995293	5.099
INFLUENT-20191120	K1910985-001	3102691	5.094
CCT-20191120	K1910985-002	3335511	5.100
DUP-1-20191120	K1910985-003	3261630	5.099
DUP-1-20191120DUP	KQ1917868-01	3090808	5.100
DECANT TANK-20191120	K1910985-004	3115146	5.096

ALS Group USA, Corp.
dba ALS Environmental

QA/QC Report

Client: Test America, Incorporated
Project: DEC - Fort Edward Landfill Site:558001/46030964
Sample Matrix: Water

Service Request: K1910985
Date Collected: 11/20/19
Date Received: 11/21/19
Date Analyzed: 12/20/19

Replicate Sample Summary

Total Oxidizable Precursor Assay (TOPA) of Per- and Polyfluoroalkyl Substances (PFAS) by LC/MS/MS

Sample Name: DUP-1-20191120
Lab Code: K1910985-003

Units: ng/L
Basis: NA

Analyte Name	Analysis Method	MRL	Sample Result	Duplicate Sample KQ1917868-01	Average	RPD	RPD Limit
				Result			
Perfluorobutane sulfonic acid (PFBS)	ALS SOP	10	ND U	ND U	NC	NC	30
Perfluoropentane sulfonic acid (PFPeS)	ALS SOP	10	ND U	ND U	NC	NC	30
Perfluorohexane sulfonic acid (PFHxS)	ALS SOP	10	ND U	ND U	NC	NC	30
Perfluoroheptane sulfonic acid (PFHpS)	ALS SOP	10	ND U	ND U	NC	NC	30
Perfluorooctane sulfonic acid (PFOS)	ALS SOP	10	10	ND U	NC	NC	30
Perfluorononane sulfonic acid (PFNS)	ALS SOP	10	ND U	ND U	NC	NC	30
Perfluorodecane sulfonic acid (PFDS)	ALS SOP	10	ND U	ND U	NC	NC	30
Perfluorobutanoic acid (PFBA)	ALS SOP	50	ND U	ND U	NC	NC	30
Perfluoropentanoic acid (PFPeA)	ALS SOP	50	ND U	ND U	NC	NC	30
Perfluorohexanoic acid (PFHxA)	ALS SOP	52	ND Ui	ND Ui	NC	NC	30
Perfluoroheptanoic acid (PFHpA)	ALS SOP	10	15	10	12.5	36 #	30
Perfluorooctanoic acid (PFOA)	ALS SOP	10	44	47	45.0	7	30
Perfluorononanoic acid (PFNA)	ALS SOP	10	ND U	ND U	NC	NC	30
Perfluorodecanoic acid (PFDA)	ALS SOP	10	ND U	ND U	NC	NC	30
Perfluoroundecanoic acid (PFUnDA)	ALS SOP	10	ND U	ND U	NC	NC	30
Perfluorododecanoic acid (PFDoDA)	ALS SOP	10	ND U	ND U	NC	NC	30
Perfluorotridecanoic acid (PFTTrDA)	ALS SOP	10	ND U	ND U	NC	NC	30
Perfluorotetradecanoic acid (PFTeDA)	ALS SOP	10	ND U	ND U	NC	NC	30
Perfluorooctane sulfonamide (FOSA)	ALS SOP	10	ND U	ND U	NC	NC	30
N-Methyl perfluorooctane sulfonamide (MeFOSA)	ALS SOP	10	ND U	ND U	NC	NC	30
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	ALS SOP	10	ND U	ND U	NC	NC	30
N-Methyl perfluorooctane sulfonamidoethanol	ALS SOP	10	ND U	ND U	NC	NC	30
N-Ethyl perfluorooctane sulfonamidoethanol	ALS SOP	10	ND U	ND U	NC	NC	30
N-Methyl perfluorooctane sulfonamidoacetic acid	ALS SOP	10	ND U	ND U	NC	NC	30
N-Ethyl perfluorooctane sulfonamidoacetic acid	ALS SOP	10	ND U	ND U	NC	NC	30
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	ALS SOP	10	ND U	ND U	NC	NC	30
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	ALS SOP	10	ND U	ND U	NC	NC	30
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	ALS SOP	10	ND U	ND U	NC	NC	30
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	ALS SOP	10	ND U	ND U	NC	NC	30
Hexafluoropropylene Oxide Dimer Acid (HFPO -DA)	ALS SOP	10	ND U	ND U	NC	NC	30

Results flagged with an asterisk (*) indicate values outside control criteria.

Results flagged with a pound (#) indicate the control criteria is not applicable.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

ALS Group USA, Corp.

dba ALS Environmental

QA/QC Report

Client: Test America, Incorporated
Project: DEC - Fort Edward Landfill Site:558001/46030964
Sample Matrix: Water

Service Request: K1910985
Date Analyzed: 12/20/19 16:18
Date Extracted: 12/04/19

Method Blank Summary**Total Oxidizable Precursor Assay (TOPA) of Per- and Polyfluoroalkyl Substances (PFAS) by LC/MS/MS**

Sample Name: Method Blank
Lab Code: KQ1917868-02
Analysis Method: ALS SOP
Prep Method: ALS SOP

Instrument ID: K-LCMS-06
File ID: J:\LCMS06\Data\191220_b2_TOPA\191220_023
Analysis Lot: 664113
Extraction Lot: 349804

This Method Blank applies to the following analyses.

Sample Name	Lab Code	File ID	Date Analyzed
INFLUENT-20191120	K1910985-001	J:\LCMS06\Data\191220_b2_TOPA\191220_024	12/20/19 16:28
CCT-20191120	K1910985-002	J:\LCMS06\Data\191220_b2_TOPA\191220_025	12/20/19 16:39
DUP-1-20191120	K1910985-003	J:\LCMS06\Data\191220_b2_TOPA\191220_026	12/20/19 16:49
DUP-1-20191120DUP	KQ1917868-01	J:\LCMS06\Data\191220_b2_TOPA\191220_027	12/20/19 17:00
DECANT TANK-20191120	K1910985-004	J:\LCMS06\Data\191220_b2_TOPA\191220_028	12/20/19 17:10

Client: Test America, Incorporated
Project: DEC - Fort Edward Landfill Site:558001

Service Request: K1910985
Calibration Date: 12/2/2019

Initial Calibration Summary
Total Oxidizable Precursor Assay (TOPA) of Per- and Polyfluoroalkyl Substances (PFAS) by LC/MS/MS

Calibration ID: KC2000001
Instrument ID: K-LCMS-06

Signal ID: 1

#	Lab Code	Sample Name	File Location	Acquisition Date
01	KC2000001-01	0.05 PPB ICAL	191202_018	12/02/2019 17:39
02	KC2000001-02	0.10 PPB ICAL	191202_019	12/02/2019 17:50
03	KC2000001-03	0.50 PPB ICAL	191202_020	12/02/2019 18:00
04	KC2000001-04	1.0 PPB ICAL	191202_021	12/02/2019 18:11
05	KC2000001-05	5.0 PPB ICAL	191202_022	12/02/2019 18:21
06	KC2000001-06	10.0 PPB ICAL	191202_023	12/02/2019 18:31
07	KC2000001-07	15.0 PPB ICAL	191202_025	12/02/2019 18:52

Analyte

10:2 Fluorotelomer sulfonic acid (10:2 FTS)

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.0483	0.8227	02	0.0966	0.7965	03	0.4831	0.7097	04	0.9662	0.7291
05	4.8310	0.6924	06	9.6619	0.7432	07	14.4929	0.695			

13C2-4:2 FTS

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	5.0000	0.1058	02	5.0000	0.09775	03	5.0000	0.0894	04	5.0000	0.09601
05	5.0000	0.09832	06	5.0000	0.1054	07	5.0000	0.108			

13C2-6:2 FTS

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	5.0000	0.07675	02	5.0000	0.07679	03	5.0000	0.07711	04	5.0000	0.0764
05	5.0000	0.07489	06	5.0000	0.07982	07	5.0000	0.0777			

13C2-8:2 FTS

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	5.0000	0.05843	02	5.0000	0.06025	03	5.0000	0.06359	04	5.0000	0.06203
05	5.0000	0.05801	06	5.0000	0.05903	07	5.0000	0.0571			

13C2-PFDA

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	5.0000	0.7382	02	5.0000	0.7423	03	5.0000	0.7517	04	5.0000	0.7492
05	5.0000	0.6918	06	5.0000	0.7251	07	5.0000	0.6709			

13C2-PFDoDA

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	5.0000	0.9799	02	5.0000	1.01	03	5.0000	1.037	04	5.0000	1.04
05	5.0000	0.9896	06	5.0000	0.9989	07	5.0000	0.9064			

13C2-PFHxA

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	5.0000	1.138	02	5.0000	1.095	03	5.0000	1.037	04	5.0000	1.043
05	5.0000	1.01	06	5.0000	0.9342	07	5.0000	0.853			

13C2-PFTeDA

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	5.0000	0.8517	02	5.0000	0.8716	03	5.0000	0.866	04	5.0000	0.8942

Client: Test America, Incorporated
Project: DEC - Fort Edward Landfill Site:558001

Service Request: K1910985
Calibration Date: 12/2/2019

Initial Calibration Summary
Total Oxidizable Precursor Assay (TOPA) of Per- and Polyfluoroalkyl Substances (PFAS) by LC/MS/MS

Calibration ID: KC2000001
Instrument ID: K-LCMS-06

Signal ID: 1

Analyte

13C2-PFTeDA

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
05	5.0000	0.8704	06	5.0000	0.8661	07	5.0000	0.8302			

13C2-PFUnDA

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	5.0000	0.7321	02	5.0000	0.7374	03	5.0000	0.7359	04	5.0000	0.7951
05	5.0000	0.7357	06	5.0000	0.7446	07	5.0000	0.7709			

13C3-HFPO-DA

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	5.0000	0.2386	02	5.0000	0.2351	03	5.0000	0.2397	04	5.0000	0.2406
05	5.0000	0.2289	06	5.0000	0.2475	07	5.0000	0.237			

13C3-PFBS

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	5.0000	0.3332	02	5.0000	0.3437	03	5.0000	0.3426	04	5.0000	0.3486
05	5.0000	0.3318	06	5.0000	0.3384	07	5.0000	0.3159			

13C4-PFBA

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	5.0000	0.8195	02	5.0000	0.8392	03	5.0000	0.8635	04	5.0000	0.8606
05	5.0000	0.8359	06	5.0000	0.8559	07	5.0000	0.8238			

13C4-PFHpA

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	5.0000	1.009	02	5.0000	1.173	03	5.0000	1.187	04	5.0000	1.174
05	5.0000	1.099	06	5.0000	1.022	07	5.0000	0.9485			

13C4-PFOA

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	5.0000	1.161	02	5.0000	1.175	03	5.0000	1.197	04	5.0000	1.235
05	5.0000	1.156	06	5.0000	1.157	07	5.0000	1.052			

13C4-PFOS

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	5.0000	0.1649	02	5.0000	0.1806	03	5.0000	0.1738	04	5.0000	0.1891
05	5.0000	0.1817	06	5.0000	0.1706	07	5.0000	0.1703			

13C5-PFNA

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	5.0000	0.8587	02	5.0000	0.7878	03	5.0000	0.8472	04	5.0000	0.8087
05	5.0000	0.773	06	5.0000	0.7975	07	5.0000	0.6916			

13C5-PFPeA

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	5.0000	0.4438	02	5.0000	0.4567	03	5.0000	0.4618	04	5.0000	0.4687
05	5.0000	0.4489	06	5.0000	0.4575	07	5.0000	0.4344			

Client: Test America, Incorporated
Project: DEC - Fort Edward Landfill Site:558001

Service Request: K1910985
Calibration Date: 12/2/2019

Initial Calibration Summary
Total Oxidizable Precursor Assay (TOPA) of Per- and Polyfluoroalkyl Substances (PFAS) by LC/MS/MS

Calibration ID: KC2000001
Instrument ID: K-LCMS-06

Signal ID: 1

Analyte

13C8-FOSA

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	5.0000	0.3972	02	5.0000	0.4169	03	5.0000	0.435	04	5.0000	0.4394
05	5.0000	0.4219	06	5.0000	0.4249	07	5.0000	0.4058			

18O2-PFHxS

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	5.0000	0.1644	02	5.0000	0.1921	03	5.0000	0.1827	04	5.0000	0.1853
05	5.0000	0.1846	06	5.0000	0.1748	07	5.0000	0.1634			

4:2 Fluorotelomer sulfonic acid (4:2 FTS)

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.0469	0.8633	02	0.0937	0.8881	03	0.4686	0.9445	04	0.9372	0.8725
05	4.6861	0.7915	06	9.3722	0.7983	07	14.0583	0.7316			

6:2 Fluorotelomer sulfonic acid (6:2 FTS)

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.0476	1.696	02	0.0951	1.661	03	0.4756	1.528	04	0.9512	1.628
05	4.7558	1.632	06	9.5117	1.625	07	14.2676	1.561			

8:2 Fluorotelomer sulfonic acid (8:2 FTS)

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.0480	0.9093	02	0.0960	0.7763	03	0.4800	0.7343	04	0.9600	0.7846
05	4.8002	0.78	06	9.6004	0.7655	07	14.4007	0.7332			

D3-MeFOSA

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	5.0000	0.1029	02	5.0000	0.1052	03	5.0000	0.1129	04	5.0000	0.1184
05	5.0000	0.1094	06	5.0000	0.1093	07	5.0000	0.1057			

D3-MeFOSAA

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	5.0000	0.1467	02	5.0000	0.1541	03	5.0000	0.1608	04	5.0000	0.1545
05	5.0000	0.1579	06	5.0000	0.1629	07	5.0000	0.1478			

D5-EtFOSA

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	5.0000	0.1461	02	5.0000	0.1513	03	5.0000	0.1631	04	5.0000	0.1703
05	5.0000	0.1583	06	5.0000	0.1578	07	5.0000	0.1506			

D5-EtFOSAA

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	5.0000	0.1281	02	5.0000	0.1248	03	5.0000	0.1282	04	5.0000	0.1322
05	5.0000	0.1274	06	5.0000	0.1316	07	5.0000	0.1108			

D7-MeFOSE

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	5.0000	0.1258	02	5.0000	0.1272	03	5.0000	0.1273	04	5.0000	0.1395
05	5.0000	0.1328	06	5.0000	0.1357	07	5.0000	0.134			

Client: Test America, Incorporated
Project: DEC - Fort Edward Landfill Site:558001

Service Request: K1910985
Calibration Date: 12/2/2019

Initial Calibration Summary
Total Oxidizable Precursor Assay (TOPA) of Per- and Polyfluoroalkyl Substances (PFAS) by LC/MS/MS

Calibration ID: KC2000001
Instrument ID: K-LCMS-06

Signal ID: 1

Analyte

D9-EtFOSE

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	5.0000	0.1197	02	5.0000	0.1216	03	5.0000	0.1255	04	5.0000	0.1339
05	5.0000	0.1302	06	5.0000	0.1276	07	5.0000	0.1318			

Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.0500	1.049	02	0.1000	1.131	03	0.5000	1.11	04	1.0000	1.084
05	5.0000	1.077	06	10.0000	1.003	07	15.0000	1.058			

N-Ethyl perfluorooctane sulfonamide (EtFOSA)

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
02	0.1000	0.2224	03	0.5000	0.1869	04	1.0000	0.1894	05	5.0000	0.1926
06	10.0000	0.2009	07	15.0000	0.2006						

N-Ethyl perfluorooctane sulfonamidoacetic acid

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.0500	0.7448	02	0.1000	0.6421	03	0.5000	0.5963	04	1.0000	0.5953
05	5.0000	0.5303	06	10.0000	0.5331	07	15.0000	0.6145			

N-Ethyl perfluorooctane sulfonamidoethanol

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
02	0.1000	1.341	03	0.5000	1.346	04	1.0000	1.303	05	5.0000	1.27
06	10.0000	1.377	07	15.0000	1.276						

N-Methyl perfluorooctane sulfonamide (MeFOSA)

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
02	0.1000	1.552	03	0.5000	1.404	04	1.0000	1.425	05	5.0000	1.395
06	10.0000	1.42	07	15.0000	1.437						

N-Methyl perfluorooctane sulfonamidoacetic acid

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.0500	0.4767	02	0.1000	0.4615	03	0.5000	0.4869	04	1.0000	0.5711
05	5.0000	0.5671	06	10.0000	0.5656	07	15.0000	0.6394			

N-Methyl perfluorooctane sulfonamidoethanol

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
02	0.1000	1.374	03	0.5000	1.397	04	1.0000	1.345	05	5.0000	1.303
06	10.0000	1.317	07	15.0000	1.277						

Perfluorobutane sulfonic acid (PFBS)

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.0444	1.347	02	0.0887	1.246	03	0.4437	1.329	04	0.8874	1.257
05	4.4368	1.27	06	8.8737	1.289	07	13.3106	1.285			

Perfluorobutanoic acid (PFBA)

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.0500	1.026	02	0.1000	0.9575	03	0.5000	0.956	04	1.0000	0.9541
05	5.0000	0.9513	06	10.0000	1.011	07	15.0000	1.022			

Client: Test America, Incorporated
Project: DEC - Fort Edward Landfill Site:558001

Service Request: K1910985
Calibration Date: 12/2/2019

Initial Calibration Summary
Total Oxidizable Precursor Assay (TOPA) of Per- and Polyfluoroalkyl Substances (PFAS) by LC/MS/MS

Calibration ID: KC2000001
Instrument ID: K-LCMS-06

Signal ID: 1

Analyte

Perfluorodecane sulfonic acid (PFDS)

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.0482	1.081	02	0.0965	0.8433	03	0.4823	0.8738	04	0.9647	0.8373
05	4.8233	0.7761	06	9.6467	0.8657	07	14.4700	0.7972			

Perfluorodecanoic acid (PFDA)

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.0500	1.579	02	0.1000	1.214	03	0.5000	1.072	04	1.0000	1.003
05	5.0000	1.019	06	10.0000	1.041	07	15.0000	1.065			

Perfluorododecanoic acid (PFDoDA)

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.0500	0.9544	02	0.1000	0.7713	03	0.5000	0.6845	04	1.0000	0.6047
05	5.0000	0.6119	06	10.0000	0.6348	07	15.0000	0.624			

Perfluoroheptane sulfonic acid (PFHpS)

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.0477	1.3	02	0.0953	1.091	03	0.4767	1.165	04	0.9534	1.201
05	4.7672	1.104	06	9.5344	1.186	07	14.3016	1.177			

Perfluoroheptanoic acid (PFHpA)

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.0500	1.704	02	0.1000	1.117	03	0.5000	0.9726	04	1.0000	0.9752
05	5.0000	0.9131	06	10.0000	0.9736	07	15.0000	0.9825			

Perfluorohexane sulfonic acid (PFHxS)

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
02	0.0913	1.322	03	0.4565	1.448	04	0.9131	1.318	05	4.5654	1.229
06	9.1308	1.213	07	13.6961	1.294						

Perfluorohexanoic acid (PFHxA)

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.0500	2.218	02	0.1000	1.68	03	0.5000	1.35	04	1.0000	1.228
05	5.0000	1.244	06	10.0000	1.29	07	15.0000	1.335			

Perfluorononane sulfonic acid (PFNS)

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.0481	0.754	02	0.0962	0.6432	03	0.4808	0.6981	04	0.9616	0.6004
05	4.8079	0.609	06	9.6158	0.6662	07	14.4237	0.625			

Perfluorononanoic acid (PFNA)

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.0500	1.495	02	0.1000	1.562	03	0.5000	1.072	04	1.0000	1.085
05	5.0000	0.9692	06	10.0000	1.093	07	15.0000	1.022			

Perfluorooctane sulfonamide (FOSA)

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
02	0.1000	1.183	03	0.5000	1.149	04	1.0000	1.091	05	5.0000	1.104
06	10.0000	1.149	07	15.0000	1.157						

Client: Test America, Incorporated
Project: DEC - Fort Edward Landfill Site:558001

Service Request: K1910985
Calibration Date: 12/2/2019

Initial Calibration Summary
Total Oxidizable Precursor Assay (TOPA) of Per- and Polyfluoroalkyl Substances (PFAS) by LC/MS/MS

Calibration ID: KC2000001
Instrument ID: K-LCMS-06

Signal ID: 1

Analyte

Perfluorooctane sulfonic acid (PFOS)

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.0465	0.9922	02	0.0929	0.8503	03	0.4646	0.8826	04	0.9292	0.8154
05	4.6461	0.8306	06	9.2923	0.9144	07	13.9384	0.8897			

Perfluorooctanoic acid (PFOA)

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.0500	1.937	02	0.1000	1.51	03	0.5000	1.268	04	1.0000	1.207
05	5.0000	1.152	06	10.0000	1.194	07	15.0000	1.207			

Perfluoropentane sulfonic acid (PFPeS)

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.0470	0.4607	02	0.0941	0.5758	03	0.4705	0.5403	04	0.9409	0.5349
05	4.7046	0.529	06	9.4092	0.487	07	14.1138	0.5084			

Perfluoropentanoic acid (PFPeA)

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.0500	7.426	02	0.1000	4.761	03	0.5000	2.701	04	1.0000	2.414
05	5.0000	2.19	06	10.0000	2.211	07	15.0000	2.259			

Perfluorotetradecanoic acid (PFTeDA)

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.0500	1.956	02	0.1000	1.135	03	0.5000	0.6139	04	1.0000	0.5263
05	5.0000	0.4606	06	10.0000	0.4806	07	15.0000	0.4812			

Perfluorotridecanoic acid (PFTrDA)

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.0500	1.701	02	0.1000	1.344	03	0.5000	1.155	04	1.0000	1.077
05	5.0000	1.015	06	10.0000	1.079	07	15.0000	1.021			

Perfluoroundecanoic acid (PFUnDA)

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.0500	1.659	02	0.1000	1.148	03	0.5000	0.8979	04	1.0000	0.8551
05	5.0000	0.8247	06	10.0000	0.8415	07	15.0000	0.874			

Client: Test America, Incorporated
Project: DEC - Fort Edward Landfill Site:558001

Service Request: K1910985
Calibration Date: 12/2/2019

Initial Calibration Summary
Total Oxidizable Precursor Assay (TOPA) of Per- and Polyfluoroalkyl Substances (PFAS) by LC/MS/MS

Calibration ID: KC2000001
Instrument ID: K-LCMS-06

Signal ID: 1

Analyte Name	Compound Type	Calibration Evaluation				Calibration Evaluation	
		Fit Type	Eval	Eval Result	Control Criteria	Average RRF	Minimum RRF
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	TRG	Average RF	% RSD	6.8	≤20	0.7412	
13C2-4:2 FTS	SURR	Average RF	% RSD	6.6	≤20	0.1001	
13C2-6:2 FTS	SURR	Average RF	% RSD	1.9	≤20	0.07707	
13C2-8:2 FTS	SURR	Average RF	% RSD	3.9	≤20	0.05978	
13C2-PFDA	SURR	Average RF	% RSD	4.3	≤20	0.7242	
13C2-PFDoDA	SURR	Average RF	% RSD	4.5	≤20	0.9944	
13C2-PFHxA	SURR	Average RF	% RSD	9.5	≤20	1.016	
13C2-PFTeDA	SURR	Average RF	% RSD	2.3	≤20	0.8643	
13C2-PFUnDA	SURR	Average RF	% RSD	3.2	≤20	0.7502	
13C3-HFPO-DA	SURR	Average RF	% RSD	2.4	≤20	0.2382	
13C3-PFBS	SURR	Average RF	% RSD	3.2	≤20	0.3363	
13C4-PFBA	SURR	Average RF	% RSD	2.1	≤20	0.8426	
13C4-PFHpA	SURR	Average RF	% RSD	8.8	≤20	1.088	
13C4-PFOA	SURR	Average RF	% RSD	4.8	≤20	1.162	
13C4-PFOS	SURR	Average RF	% RSD	4.7	≤20	0.1759	
13C5-PFNA	SURR	Average RF	% RSD	6.9	≤20	0.7949	
13C5-PFPeA	SURR	Average RF	% RSD	2.6	≤20	0.4531	
13C8-FOSA	SURR	Average RF	% RSD	3.6	≤20	0.4201	
18O2-PFHxS	SURR	Average RF	% RSD	6.2	≤20	0.1782	
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	TRG	Average RF	% RSD	8.5	≤20	0.8414	
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	TRG	Average RF	% RSD	3.5	≤20	1.619	
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	TRG	Average RF	% RSD	7.6	≤20	0.7833	
D3-MeFOSA	SURR	Average RF	% RSD	4.8	≤20	0.1091	
D3-MeFOSAA	SURR	Average RF	% RSD	4.0	≤20	0.155	
D5-EtFOSA	SURR	Average RF	% RSD	5.2	≤20	0.1568	
D5-EtFOSAA	SURR	Average RF	% RSD	5.7	≤20	0.1262	
D7-MeFOSE	SURR	Average RF	% RSD	3.9	≤20	0.1318	
D9-EtFOSE	SURR	Average RF	% RSD	4.1	≤20	0.1272	
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	TRG	Average RF	% RSD	3.9	≤20	1.073	
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	TRG	Average RF	% RSD	6.5	≤20	0.1988	
N-Ethyl perfluorooctane sulfonamidoacetic acid	TRG	Average RF	% RSD	12.0	≤20	0.608	

Client: Test America, Incorporated
Project: DEC - Fort Edward Landfill Site:558001

Service Request: K1910985
Calibration Date: 12/2/2019

Initial Calibration Summary
Total Oxidizable Precursor Assay (TOPA) of Per- and Polyfluoroalkyl Substances (PFAS) by LC/MS/MS

Calibration ID: KC2000001
Instrument ID: K-LCMS-06

Signal ID: 1

Analyte Name	Compound Type	Calibration Evaluation				Calibration Evaluation	
		Fit Type	Eval	Eval Result	Control Criteria	Average RRF	Minimum RRF
N-Ethyl perfluorooctane sulfonamidoethanol	TRG	Average RF	% RSD	3.2	≤20	1.319	
N-Methyl perfluorooctane sulfonamide (MeFOSA)	TRG	Average RF	% RSD	4.0	≤20	1.439	
N-Methyl perfluorooctane sulfonamidoacetic acid	TRG	Linear	R2	0.9959	≥0.99	0.5383	
N-Methyl perfluorooctane sulfonamidoethanol	TRG	Average RF	% RSD	3.4	≤20	1.335	
Perfluorobutane sulfonic acid (PFBS)	TRG	Average RF	% RSD	2.9	≤20	1.289	
Perfluorobutanoic acid (PFBA)	TRG	Average RF	% RSD	3.6	≤20	0.9825	
Perfluorodecane sulfonic acid (PFDS)	TRG	Average RF	% RSD	11.6	≤20	0.8678	
Perfluorodecanoic acid (PFDA)	TRG	Linear	R2	0.9995	≥0.99	1.142	
Perfluorododecanoic acid (PFDoDA)	TRG	Linear	R2	0.9997	≥0.99	0.6979	
Perfluoroheptane sulfonic acid (PFHpS)	TRG	Average RF	% RSD	5.9	≤20	1.175	
Perfluoroheptanoic acid (PFHpA)	TRG	Linear	R2	0.9991	≥0.99	1.091	
Perfluorohexane sulfonic acid (PFHxS)	TRG	Average RF	% RSD	6.5	≤20	1.304	
Perfluorohexanoic acid (PFHxA)	TRG	Linear	R2	0.9990	≥0.99	1.478	
Perfluorononane sulfonic acid (PFNS)	TRG	Average RF	% RSD	8.3	≤20	0.6566	
Perfluorononanoic acid (PFNA)	TRG	Linear	R2	0.9980	≥0.99	1.185	
Perfluorooctane sulfonamide (FOSA)	TRG	Average RF	% RSD	3.0	≤20	1.139	
Perfluorooctane sulfonic acid (PFOS)	TRG	Average RF	% RSD	6.8	≤20	0.8822	
Perfluorooctanoic acid (PFOA)	TRG	Linear	R2	0.9997	≥0.99	1.354	
Perfluoropentane sulfonic acid (PFPeS)	TRG	Average RF	% RSD	7.3	≤20	0.5194	
Perfluoropentanoic acid (PFPeA)	TRG	Linear	R2	0.9997	≥0.99	3.423	
Perfluorotetradecanoic acid (PFTeDA)	TRG	Linear	R2	0.9994	≥0.99	0.8077	
Perfluorotridecanoic acid (PFTrDA)	TRG	Linear	R2	0.9992	≥0.99	1.199	
Perfluoroundecanoic acid (PFUnDA)	TRG	Linear	R2	0.9993	≥0.99	1.014	

Client: Test America, Incorporated
Project: DEC - Fort Edward Landfill Site:558001

Service Request: K1910985
Calibration Date: 12/2/2019

Initial Calibration Verification Summary **Total Oxidizable Precursor Assay (TOPA) of Per- and Polyfluoroalkyl Substances (PFAS) by LC/MS/MS**

Calibration ID: KC2000001
Instrument ID: K-LCMS-06

Signal ID: 1

#	Lab Code	Sample Name	File Location	Acquisition Date
08	KC2000001-08	1.0 PPB ICV 10:2 FTS	191202_027	12/02/2019 19:13
09	KC2000001-09	1.0 PPB ICV NO10:2 FTS	191202_029	12/02/2019 19:34

Analyte Name	Expected	Result	Average RF	SSV RF	% D	Criteria	Curve Fit
Perfluorobutane sulfonic acid (PFBS)	0.887	0.870	1.289E0	1.264E0	-1.958	±30	Average RF
Perfluoropentane sulfonic acid (PFPeS)	0.941	0.934	5.194E-1	5.155E-1	-0.764	±30	Average RF
Perfluorohexane sulfonic acid (PFHxS)	0.913	0.877	1.304E0	1.253E0	-3.907	±30	Average RF
Perfluoroheptane sulfonic acid (PFHpS)	0.953	1.08	1.175E0	1.331E0	13.32	±30	Average RF
Perfluorooctane sulfonic acid (PFOS)	0.929	0.892	8.822E-1	8.466E-1	-4.038	±30	Average RF
Perfluorononane sulfonic acid (PFNS)	0.962	0.997	6.566E-1	6.804E-1	3.63	±30	Average RF
Perfluorodecane sulfonic acid (PFDS)	0.965	0.975	8.678E-1	8.774E-1	1.10	±30	Average RF
Perfluorobutanoic acid (PFBA)	1.00	0.990	9.825E-1	9.726E-1	-1.016	±30	Average RF
Perfluoropentanoic acid (PFPeA)	1.00	0.991	3.423E0	2.441E0	-0.857	±30	Linear
Perfluorohexanoic acid (PFHxA)	1.00	0.928	1.478E0	1.242E0	-7.152	±30	Linear
Perfluoroheptanoic acid (PFHpA)	1.00	0.970	1.091E0	9.618E-1	-2.995	±30	Linear
Perfluorooctanoic acid (PFOA)	1.00	0.948	1.354E0	1.162E0	-5.214	±30	Linear
Perfluorononanoic acid (PFNA)	1.00	0.883	1.185E0	9.45E-1	-11.695	±30	Linear
Perfluorodecanoic acid (PFDA)	1.00	0.990	1.142E0	1.055E0	-1.034	±30	Linear
Perfluoroundecanoic acid (PFUnDA)	1.00	1.03	1.014E0	9.064E-1	2.56	±30	Linear
Perfluorododecanoic acid (PFDoDA)	1.00	0.925	6.979E-1	5.923E-1	-7.498	±30	Linear
Perfluorotridecanoic acid (PFTTrDA)	1.00	1.02	1.199E0	1.091E0	1.88	±30	Linear
Perfluorotetradecanoic acid (PFTeDA)	1.00	0.940	8.077E-1	5.127E-1	-5.989	±30	Linear
Perfluorooctane sulfonamide (FOSA)	1.00	0.998	1.139E0	1.136E0	-0.215	±30	Average RF
N-Methyl perfluorooctane sulfonamide (MeFOSA)	1.00	0.944	1.439E0	1.359E0	-5.561	±30	Average RF
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	1.00	0.958	1.988E-1	1.904E-1	-4.201	±30	Average RF
N-Methyl perfluorooctane sulfonamidoethanol	1.00	0.978	1.335E0	1.306E0	-2.212	±30	Average RF
N-Ethyl perfluorooctane sulfonamidoethanol	1.00	0.960	1.319E0	1.266E0	-4.039	±30	Average RF
N-Methyl perfluorooctane sulfonamidoacetic acid	1.00	1.23	5.383E-1	7.283E-1	23.15	±30	Linear
N-Ethyl perfluorooctane sulfonamidoacetic acid	1.00	0.980	6.08E-1	5.959E-1	-1.989	±30	Average RF
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	0.937	0.815	8.414E-1	7.319E-1	-13.013	±30	Average RF
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	0.951	1.08	1.619E0	1.831E0	13.10	±30	Average RF
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	0.960	1.06	7.833E-1	8.686E-1	10.89	±30	Average RF
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	0.966	0.949	7.412E-1	7.276E-1	-1.830	±30	Average RF
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	1.00	0.826	1.073E0	8.865E-1	-17.390	±30	Average RF

Client: Test America, Incorporated
Project: DEC - Fort Edward Landfill Site:558001

Service Request: K1910985
Calibration Date: 12/2/2019

Initial Calibration Verification Summary
Total Oxidizable Precursor Assay (TOPA) of Per- and Polyfluoroalkyl Substances (PFAS) by LC/MS/MS

Calibration ID: KC2000001
Instrument ID: K-LCMS-06

Signal ID: 1

Analyte Name	Expected	Result	Average RF	SSV RF	% D	Criteria	Curve Fit
13C3-PFBS	5.00	4.80	3.363E-1	3.231E-1	-3.936	±30	Average RF
18O2-PFHxS	5.00	4.29	1.782E-1	1.527E-1	-14.286	±30	Average RF
13C4-PFOS	5.00	4.79	1.759E-1	1.684E-1	-4.260	±30	Average RF
13C4-PFBA	5.00	4.63	8.426E-1	7.801E-1	-7.423	±30	Average RF
13C5-PFPeA	5.00	4.69	4.531E-1	4.253E-1	-6.146	±30	Average RF
13C2-PFHxA	5.00	4.67	1.016E0	9.484E-1	-6.637	±30	Average RF
13C4-PFHpA	5.00	4.35	1.088E0	9.468E-1	-12.942	±30	Average RF
13C4-PFOA	5.00	5.04	1.162E0	1.172E0	0.854	±30	Average RF
13C5-PFNA	5.00	4.87	7.949E-1	7.741E-1	-2.617	±30	Average RF
13C2-PFDA	5.00	5.10	7.242E-1	7.383E-1	1.94	±30	Average RF
13C2-PFUnDA	5.00	4.83	7.502E-1	7.242E-1	-3.474	±30	Average RF
13C2-PFDoDA	5.00	4.88	9.944E-1	9.701E-1	-2.437	±30	Average RF
13C2-PFTeDA	5.00	4.76	8.643E-1	8.224E-1	-4.845	±30	Average RF
13C8-FOSA	5.00	4.60	4.201E-1	3.863E-1	-8.054	±30	Average RF
D3-MeFOSA	5.00	4.65	1.091E-1	1.016E-1	-6.900	±30	Average RF
D5-EtFOSA	5.00	4.49	1.568E-1	1.408E-1	-10.186	±30	Average RF
D7-MeFOSE	5.00	4.78	1.318E-1	1.259E-1	-4.476	±30	Average RF
D9-EtFOSE	5.00	4.92	1.272E-1	1.251E-1	-1.603	±30	Average RF
D3-MeFOSAA	5.00	4.68	1.55E-1	1.449E-1	-6.497	±30	Average RF
D5-EtFOSAA	5.00	5.01	1.262E-1	1.264E-1	0.210	±30	Average RF
13C2-4:2 FTS	5.00	5.24	1.001E-1	1.049E-1	4.76	±30	Average RF
13C2-6:2 FTS	5.00	4.91	7.707E-2	7.575E-2	-1.700	±30	Average RF
13C2-8:2 FTS	5.00	3.92	5.978E-2	4.69E-2	-21.542	±30	Average RF
13C2-8:2 FTS	5.00	4.54	5.978E-2	5.426E-2	-9.227	±30	Average RF
13C3-HFPO-DA	5.00	5.12	2.382E-1	2.441E-1	2.46	±30	Average RF

Client: Test America, Incorporated
Project: DEC - Fort Edward Landfill Site:558001/46030964

Service Request: K1910985
Date Analyzed: 12/20/19 15:05

Continuing Calibration Verification (CCV) Summary
Total Oxidizable Precursor Assay (TOPA) of Per- and Polyfluoroalkyl Substances (PFAS) by LC/MS/MS

Analysis Method: ALS SOP

File ID: J:\LCMS06\Data\191220_b2_TOPA\191220_016

Signal ID: 1

Calibration Date: 12/2/2019

Calibration ID: KC2000001

Analysis Lot: 664113

Units: ng/mL

Analyte Name	Expected	Result	Average RF	CCV RF	Rec.	% Drift	Criteria	Curve Fit
Perfluorobutane sulfonic acid (PFBS)	0.887	0.853	1.2891	1.2385	96.1	NA	±30	Average RF
Perfluoropentane sulfonic acid (PFPeS)	0.941	0.736	0.5194	0.406	78.2	NA	±30	Average RF
Perfluorohexane sulfonic acid (PFHxS)	0.913	0.973	1.3038	1.389	107	NA	±30	Average RF
Perfluoroheptane sulfonic acid (PFHpS)	0.953	1.18	1.1748	1.4511	124	NA	±30	Average RF
Perfluorooctane sulfonic acid (PFOS)	0.929	0.935	0.8822	0.888	101	NA	±30	Average RF
Perfluorononane sulfonic acid (PFNS)	0.962	0.758	0.6566	0.5176	78.8	NA	±30	Average RF
Perfluorodecane sulfonic acid (PFDS)	0.965	0.791	0.8678	0.7117	82.0	NA	±30	Average RF
Perfluorobutanoic acid (PFBA)	1.00	0.999	0.9825	0.9817	99.9	NA	±30	Average RF
Perfluoropentanoic acid (PFPeA)	1.00	0.988	3.4231	2.434	98.8	-1.2	±30	Linear
Perfluorohexanoic acid (PFHxA)	1.00	0.870	1.4779	1.1662	87.0	-13.0	±30	Linear
Perfluoroheptanoic acid (PFHpA)	1.00	0.891	1.0911	0.8854	89.1	-10.9	±30	Linear
Perfluorooctanoic acid (PFOA)	1.00	0.966	1.3536	1.1836	96.6	-3.4	±30	Linear
Perfluorononanoic acid (PFNA)	1.00	0.915	1.1854	0.9777	91.5	-8.5	±30	Linear
Perfluorodecanoic acid (PFDA)	1.00	0.956	1.1418	1.0191	95.6	-4.4	±30	Linear
Perfluoroundecanoic acid (PFUnDA)	1.00	0.932	1.0143	0.8268	93.2	-6.8	±30	Linear
Perfluorododecanoic acid (PFDoDA)	1.00	1.05	0.6979	0.6727	105	5.4	±30	Linear
Perfluorotridecanoic acid (PFTrDA)	1.00	0.863	1.199	0.929	86.3	-13.7	±30	Linear
Perfluorotetradecanoic acid (PFTeDA)	1.00	0.959	0.8077	0.5218	95.9	-4.1	±30	Linear
Perfluorooctane sulfonamide (FOSA)	1.00	0.876	1.1388	0.9977	87.6	NA	±30	Average RF
N-Methyl perfluorooctane sulfonamide (MeFOSA)	1.00	0.986	1.4387	1.4178	98.6	NA	±30	Average RF
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	1.00	0.923	0.1988	0.1835	92.3	NA	±30	Average RF
N-Methyl perfluorooctane sulfonamidoethanol	1.00	0.909	1.3355	1.2145	90.9	NA	±30	Average RF
N-Ethyl perfluorooctane sulfonamidoethanol	1.00	1.07	1.319	1.4091	107	NA	±30	Average RF
N-Methyl perfluorooctane sulfonamidoacetic acid	1.00	0.916	0.5383	0.5381	91.6	-8.4	±30	Linear
N-Ethyl perfluorooctane sulfonamidoacetic acid	1.00	0.743	0.608	0.452	74.3	NA	±30	Average RF
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	0.937	0.897	0.8414	0.8056	95.7	NA	±30	Average RF
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	0.951	1.08	1.6187	1.8325	113	NA	±30	Average RF
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	0.960	0.905	0.7833	0.7382	94.2	NA	±30	Average RF

Client: Test America, Incorporated
Project: DEC - Fort Edward Landfill Site:558001/46030964

Service Request: K1910985
Date Analyzed: 12/20/19 15:05

Continuing Calibration Verification (CCV) Summary
Total Oxidizable Precursor Assay (TOPA) of Per- and Polyfluoroalkyl Substances (PFAS) by LC/MS/MS

Analysis Method: ALS SOP

File ID: J:\LCMS06\Data\191220_b2_TOPA\191220_016

Signal ID: 1

Calibration Date: 12/2/2019

Calibration ID: KC2000001

Analysis Lot: 664113

Units: ng/mL

10:2 Fluorotelomer sulfonic acid (10:2 FTS)	0.966	0.803	0.7412	0.616	83.1	NA	±30	Average RF
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	1.00	0.703	1.0731	0.7543	70.3	NA	±30	Average RF

Analyte Name	Expected	Result	Average RF	CCV RF	Rec.	% Drift	Criteria	Curve Fit
13C3-PFBS	5.00	4.55	0.3363	0.3058	90.9	NA	±30	Average RF
18O2-PFHxS	5.00	3.70	0.1782	0.132	74.1	NA	±30	Average RF
13C4-PFOS	5.00	5.25	0.1759	0.1845	105	NA	±30	Average RF
13C4-PFBA	5.00	4.59	0.8426	0.7732	91.8	NA	±30	Average RF
13C5-PFPeA	5.00	4.52	0.4531	0.4099	90.5	NA	±30	Average RF
13C2-PFHxA	5.00	4.52	1.0158	0.9183	90.4	NA	±30	Average RF
13C4-PFHpA	5.00	3.71	1.0876	0.807	74.2	NA	±30	Average RF
13C4-PFOA	5.00	4.30	1.1618	0.9993	86.0	NA	±30	Average RF
13C5-PFNA	5.00	4.64	0.7949	0.7369	92.7	NA	±30	Average RF
13C2-PFDA	5.00	4.07	0.7242	0.59	81.5	NA	±30	Average RF
13C2-PFUnDA	5.00	5.01	0.7502	0.7523	100	NA	±30	Average RF
13C2-PFDoDA	5.00	3.65	0.9944	0.7254	73.0	NA	±30	Average RF
13C2-PFTeDA	5.00	3.67	0.8643	0.6351	73.5	NA	±30	Average RF
13C8-FOSA	5.00	5.04	0.4201	0.4231	101	NA	±30	Average RF
D3-MeFOSA	5.00	5.12	0.1091	0.1117	102	NA	±30	Average RF
D5-EtFOSA	5.00	5.39	0.1568	0.169	108	NA	±30	Average RF
D7-MeFOSE	5.00	5.49	0.1318	0.1446	110	NA	±30	Average RF
D9-EtFOSE	5.00	5.14	0.1272	0.1306	103	NA	±30	Average RF
D3-MeFOSAA	5.00	2.97	0.155	0.0921	59.4*	NA	±30	Average RF
D5-EtFOSAA	5.00	3.35	0.1262	0.0845	66.9*	NA	±30	Average RF
13C2-4:2 FTS	5.00	4.97	0.1001	0.0995	99.5	NA	±30	Average RF
13C2-6:2 FTS	5.00	5.42	0.0771	0.0836	108	NA	±30	Average RF
13C2-8:2 FTS	5.00	4.88	0.0598	0.0584	97.7	NA	±30	Average RF
13C3-HFPO-DA	5.00	5.63	0.2382	0.2683	113	NA	±30	Average RF

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QA/QC Report

Client: Test America, Incorporated
Project: DEC - Fort Edward Landfill Site:558001/46030964

Service Request:K1910985

Analysis Run Log

Total Oxidizable Precursor Assay (TOPA) of Per- and Polyfluoroalkyl Substances (PFAS) by LC/MS/MS

Analysis Method: ALS SOP

Analysis Lot:664113

Instrument ID:K-LCMS-06

Raw Data File	Sample Name	Lab Code	Date Analyzed	Time Analyzed	Q
J:\LCMS06	Continuing Calibration Verification	KQ1918756-01	12/20/2019	15:05	
\Data\191220_b2_TOPA\191220_016					
J:\LCMS06	Continuing Calibration Blank	KQ1918756-02	12/20/2019	15:15	
\Data\191220_b2_TOPA\191220_017					
J:\LCMS06	Method Blank	KQ1917868-02	12/20/2019	16:18	
\Data\191220_b2_TOPA\191220_023					
J:\LCMS06	INFLUENT-20191120	K1910985-001	12/20/2019	16:28	
\Data\191220_b2_TOPA\191220_024					
J:\LCMS06	CCT-20191120	K1910985-002	12/20/2019	16:39	
\Data\191220_b2_TOPA\191220_025					
J:\LCMS06	DUP-1-20191120	K1910985-003	12/20/2019	16:49	
\Data\191220_b2_TOPA\191220_026					
J:\LCMS06	DUP-1-20191120 DUP	KQ1917868-01	12/20/2019	17:00	
\Data\191220_b2_TOPA\191220_027					
J:\LCMS06	DECANT TANK-20191120	K1910985-004	12/20/2019	17:10	
\Data\191220_b2_TOPA\191220_028					
J:\LCMS06	ZZZZZZZ	ZZZZZZZ	12/20/2019	17:31	
\Data\191220_b2_TOPA\191220_030					

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Prep Summary Report

Client: Test America, Incorporated
Project: DEC - Fort Edward Landfill Site:558001/46030964
Sample Matrix: Water

Service Request:K1910985

Total Oxidizable Precursor Assay (TOPA) of Per- and Polyfluoroalkyl Substances (PFAS) by LC/MS/MS

Prep Method: ALS SOP

Extraction Lot: 349804

Analytical Method: ALS SOP

Extraction Date: 12/04/19 09:58

Sample Name	Lab Code	Date Collected	Date Received	Sample Amount	Final Amount	Percent Solids
INFLUENT-20191120	K1910985-001	11/20/19	11/21/19	30 mL	2 mL	
CCT-20191120	K1910985-002	11/20/19	11/21/19	30 mL	2 mL	
DUP-1-20191120	K1910985-003	11/20/19	11/21/19	30 mL	2 mL	
DECANT TANK-20191120	K1910985-004	11/20/19	11/21/19	30 mL	2 mL	
Duplicate	KQ1917868-01DUP	11/20/19	11/21/19	30 mL	2 mL	
Method Blank	KQ1917868-02MB	NA	NA	30 mL	2 mL	



PFAS by HPLC/MS/MS

ALS Environmental—Kelso Laboratory
1317 South 13th Avenue, Kelso, WA 98626
Phone (360)577-7222 Fax (360)636-1068
www.alsglobal.com

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Analytical Report

Client: Test America, Incorporated
Project: DEC - Fort Edward Landfill Site:558001/46030964
Sample Matrix: Water

Sample Name: INFLUENT-20191120
Lab Code: K1910985-001

Service Request: K1910985
Date Collected: 11/20/19 09:00
Date Received: 11/21/19 09:40

Units: ng/L
Basis: NA

Per- and Polyfluoroalkyl Substances (PFAS) by LC/MS/MS

Analysis Method: PFC/537M
Prep Method: EPA 3535A

Analyte Name	Result	MRL	Dil.	Date Analyzed	Date Extracted	Q
Perfluoroalkane Sulfonic Acids						
Perfluorobutane sulfonic acid (PFBS)	ND U	8.4	1	12/10/19 07:02	12/4/19	
Perfluorohexane sulfonic acid (PFHxS)	ND U	8.4	1	12/10/19 07:02	12/4/19	
Perfluoroheptane sulfonic acid (PFHpS)	ND U	8.4	1	12/10/19 07:02	12/4/19	*
Perfluorooctane sulfonic acid (PFOS)	ND U	8.4	1	12/10/19 07:02	12/4/19	
Perfluorodecane sulfonic acid (PFDS)	ND U	8.4	1	12/10/19 07:02	12/4/19	
Perfluoroalkane Carboxylic Acids						
Perfluorobutanoic acid (PFBA)	ND U	8.4	1	12/10/19 07:02	12/4/19	
Perfluoropentanoic acid (PFPeA)	14	8.4	1	12/10/19 07:02	12/4/19	
Perfluorohexanoic acid (PFHxA)	ND U	17	1	12/10/19 07:02	12/4/19	
Perfluoroheptanoic acid (PFHpA)	ND U	8.4	1	12/10/19 07:02	12/4/19	
Perfluorooctanoic acid (PFOA)	17	3.4	1	12/10/19 07:02	12/4/19	
Perfluorononanoic acid (PFNA)	ND U	8.4	1	12/10/19 07:02	12/4/19	
Perfluorodecanoic acid (PFDA)	ND U	8.4	1	12/10/19 07:02	12/4/19	
Perfluoroundecanoic acid (PFUnDA)	ND U	8.4	1	12/10/19 07:02	12/4/19	
Perfluorododecanoic acid (PFDoDA)	ND U	8.4	1	12/10/19 07:02	12/4/19	
Perfluorotridecanoic acid (PFTTrDA)	ND U	8.4	1	12/10/19 07:02	12/4/19	
Perfluorotetradecanoic acid (PFTeDA)	ND U	8.4	1	12/10/19 07:02	12/4/19	
Perfluoroalkyl Sulfonamides						
Perfluorooctane sulfonamide (FOSA)	ND U	8.4	1	12/10/19 07:02	12/4/19	
N-Methyl perfluorooctane sulfonamide (MeFOSA)	ND U	8.4	1	12/10/19 07:02	12/4/19	
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	ND U	8.4	1	12/10/19 07:02	12/4/19	
N-Methyl perfluorooctane sulfonamidoethanol	ND U	8.4	1	12/10/19 07:02	12/4/19	
N-Ethyl perfluorooctane sulfonamidoethanol	ND U	8.4	1	12/10/19 07:02	12/4/19	
(n:2) Fluorotelomer Sulfonic Acids						
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	ND U	8.4	1	12/10/19 07:02	12/4/19	
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	ND U	8.4	1	12/10/19 07:02	12/4/19	

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Analytical Report

Client: Test America, Incorporated
Project: DEC - Fort Edward Landfill Site:558001/46030964
Sample Matrix: Water

Service Request: K1910985
Date Collected: 11/20/19 09:00
Date Received: 11/21/19 09:40

Sample Name: INFLUENT-20191120
Lab Code: K1910985-001

Units: ng/L
Basis: NA

Per- and Polyfluoroalkyl Substances (PFAS) by LC/MS/MS

Analysis Method: PFC/537M
Prep Method: EPA 3535A

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
13C3-PFBS	54	20 - 109	12/10/19 07:02	
18O2-PFHxS	78	26 - 122	12/10/19 07:02	
13C4-PFOS	89	25 - 121	12/10/19 07:02	
13C4-PFBA	91	27 - 124	12/10/19 07:02	
13C5-PFPeA	73	27 - 138	12/10/19 07:02	
13C2-PFHxA	84	28 - 132	12/10/19 07:02	
13C4-PFHpA	73	19 - 139	12/10/19 07:02	
13C4-PFOA	92	22 - 130	12/10/19 07:02	
13C5-PFNA	88	20 - 127	12/10/19 07:02	
13C2-PFDA	75	24 - 125	12/10/19 07:02	
13C2-PFUnDA	87	22 - 125	12/10/19 07:02	
13C2-PFDoDA	69	19 - 122	12/10/19 07:02	
13C2-PFTeDA	58	13 - 124	12/10/19 07:02	
13C8-FOSA	63	18 - 109	12/10/19 07:02	
D3-MeFOSA	65	15 - 153	12/10/19 07:02	
D5-EtFOSA	63	25 - 107	12/10/19 07:02	
D7-MeFOSE	79	24 - 112	12/10/19 07:02	
D9-EtFOSE	77	19 - 109	12/10/19 07:02	
13C2-6:2 FTS	133	10 - 226	12/10/19 07:02	
13C2-8:2 FTS	84	10 - 202	12/10/19 07:02	

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Analytical Report

Client: Test America, Incorporated
Project: DEC - Fort Edward Landfill Site:558001/46030964
Sample Matrix: Water

Sample Name: CCT-20191120
Lab Code: K1910985-002

Service Request: K1910985
Date Collected: 11/20/19 09:30
Date Received: 11/21/19 09:40

Units: ng/L
Basis: NA

Per- and Polyfluoroalkyl Substances (PFAS) by LC/MS/MS

Analysis Method: PFC/537M
Prep Method: EPA 3535A

Analyte Name	Result	MRL	Dil.	Date Analyzed	Date Extracted	Q
Perfluoroalkane Sulfonic Acids						
Perfluorobutane sulfonic acid (PFBS)	ND U	8.4	1	12/10/19 07:34	12/4/19	
Perfluorohexane sulfonic acid (PFHxS)	ND U	8.4	1	12/10/19 07:34	12/4/19	
Perfluoroheptane sulfonic acid (PFHpS)	ND U	8.4	1	12/10/19 07:34	12/4/19	*
Perfluorooctane sulfonic acid (PFOS)	ND U	8.4	1	12/10/19 07:34	12/4/19	
Perfluorodecane sulfonic acid (PFDS)	ND U	8.4	1	12/10/19 07:34	12/4/19	
Perfluoroalkane Carboxylic Acids						
Perfluorobutanoic acid (PFBA)	9.5	8.4	1	12/10/19 07:34	12/4/19	
Perfluoropentanoic acid (PFPeA)	20	8.4	1	12/10/19 07:34	12/4/19	
Perfluorohexanoic acid (PFHxA)	21	17	1	12/10/19 07:34	12/4/19	
Perfluoroheptanoic acid (PFHpA)	12	8.4	1	12/10/19 07:34	12/4/19	
Perfluorooctanoic acid (PFOA)	32	3.4	1	12/10/19 07:34	12/4/19	
Perfluorononanoic acid (PFNA)	ND U	8.4	1	12/10/19 07:34	12/4/19	
Perfluorodecanoic acid (PFDA)	ND U	8.4	1	12/10/19 07:34	12/4/19	
Perfluoroundecanoic acid (PFUnDA)	ND U	8.4	1	12/10/19 07:34	12/4/19	
Perfluorododecanoic acid (PFDoDA)	ND U	8.4	1	12/10/19 07:34	12/4/19	
Perfluorotridecanoic acid (PFTTrDA)	ND U	8.4	1	12/10/19 07:34	12/4/19	
Perfluorotetradecanoic acid (PFTeDA)	ND U	8.4	1	12/10/19 07:34	12/4/19	
Perfluoroalkyl Sulfonamides						
Perfluorooctane sulfonamide (FOSA)	ND U	8.4	1	12/10/19 07:34	12/4/19	
N-Methyl perfluorooctane sulfonamide (MeFOSA)	ND U	8.4	1	12/10/19 07:34	12/4/19	
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	ND U	8.4	1	12/10/19 07:34	12/4/19	
N-Methyl perfluorooctane sulfonamidoethanol	ND U	8.4	1	12/10/19 07:34	12/4/19	
N-Ethyl perfluorooctane sulfonamidoethanol	ND U	8.4	1	12/10/19 07:34	12/4/19	
(n:2) Fluorotelomer Sulfonic Acids						
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	ND U	8.4	1	12/10/19 07:34	12/4/19	
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	ND U	8.4	1	12/10/19 07:34	12/4/19	

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Analytical Report

Client: Test America, Incorporated
Project: DEC - Fort Edward Landfill Site:558001/46030964
Sample Matrix: Water

Sample Name: CCT-20191120
Lab Code: K1910985-002

Service Request: K1910985
Date Collected: 11/20/19 09:30
Date Received: 11/21/19 09:40

Units: ng/L
Basis: NA

Per- and Polyfluoroalkyl Substances (PFAS) by LC/MS/MS

Analysis Method: PFC/537M
Prep Method: EPA 3535A

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
13C3-PFBS	41	20 - 109	12/10/19 07:34	
18O2-PFHxS	70	26 - 122	12/10/19 07:34	
13C4-PFOS	71	25 - 121	12/10/19 07:34	
13C4-PFBA	85	27 - 124	12/10/19 07:34	
13C5-PFPeA	57	27 - 138	12/10/19 07:34	
13C2-PFHxA	70	28 - 132	12/10/19 07:34	
13C4-PFHpA	59	19 - 139	12/10/19 07:34	
13C4-PFOA	80	22 - 130	12/10/19 07:34	
13C5-PFNA	78	20 - 127	12/10/19 07:34	
13C2-PFDA	65	24 - 125	12/10/19 07:34	
13C2-PFUnDA	73	22 - 125	12/10/19 07:34	
13C2-PFDoDA	58	19 - 122	12/10/19 07:34	
13C2-PFTeDA	52	13 - 124	12/10/19 07:34	
13C8-FOSA	48	18 - 109	12/10/19 07:34	
D3-MeFOSA	55	15 - 153	12/10/19 07:34	
D5-EtFOSA	53	25 - 107	12/10/19 07:34	
D7-MeFOSE	58	24 - 112	12/10/19 07:34	
D9-EtFOSE	62	19 - 109	12/10/19 07:34	
13C2-6:2 FTS	144	10 - 226	12/10/19 07:34	
13C2-8:2 FTS	72	10 - 202	12/10/19 07:34	

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Analytical Report

Client: Test America, Incorporated
Project: DEC - Fort Edward Landfill Site:558001/46030964
Sample Matrix: Water
Sample Name: DUP-1-20191120
Lab Code: K1910985-003

Service Request: K1910985
Date Collected: 11/20/19
Date Received: 11/21/19 09:40
Units: ng/L
Basis: NA

Per- and Polyfluoroalkyl Substances (PFAS) by LC/MS/MS

Analysis Method: PFC/537M
Prep Method: EPA 3535A

Analyte Name	Result	MRL	Dil.	Date Analyzed	Date Extracted	Q
Perfluoroalkane Sulfonic Acids						
Perfluorobutane sulfonic acid (PFBS)	ND U	8.4	1	12/10/19 07:44	12/4/19	
Perfluorohexane sulfonic acid (PFHxS)	ND U	8.4	1	12/10/19 07:44	12/4/19	
Perfluoroheptane sulfonic acid (PFHpS)	ND U	8.4	1	12/10/19 07:44	12/4/19	*
Perfluorooctane sulfonic acid (PFOS)	ND U	8.4	1	12/10/19 07:44	12/4/19	
Perfluorodecane sulfonic acid (PFDS)	ND U	8.4	1	12/10/19 07:44	12/4/19	
Perfluoroalkane Carboxylic Acids						
Perfluorobutanoic acid (PFBA)	8.8	8.4	1	12/10/19 07:44	12/4/19	
Perfluoropentanoic acid (PFPeA)	17	8.4	1	12/10/19 07:44	12/4/19	
Perfluorohexanoic acid (PFHxA)	20	17	1	12/10/19 07:44	12/4/19	
Perfluoroheptanoic acid (PFHpA)	11	8.4	1	12/10/19 07:44	12/4/19	
Perfluorooctanoic acid (PFOA)	30	3.4	1	12/10/19 07:44	12/4/19	
Perfluorononanoic acid (PFNA)	ND U	8.4	1	12/10/19 07:44	12/4/19	
Perfluorodecanoic acid (PFDA)	ND U	8.4	1	12/10/19 07:44	12/4/19	
Perfluoroundecanoic acid (PFUnDA)	ND U	8.4	1	12/10/19 07:44	12/4/19	
Perfluorododecanoic acid (PFDoDA)	ND U	8.4	1	12/10/19 07:44	12/4/19	
Perfluorotridecanoic acid (PFTrDA)	ND U	8.4	1	12/10/19 07:44	12/4/19	
Perfluorotetradecanoic acid (PFTeDA)	ND U	8.4	1	12/10/19 07:44	12/4/19	
Perfluoroalkyl Sulfonamides						
Perfluorooctane sulfonamide (FOSA)	ND U	8.4	1	12/10/19 07:44	12/4/19	
N-Methyl perfluorooctane sulfonamide (MeFOSA)	ND U	8.4	1	12/10/19 07:44	12/4/19	
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	ND U	8.4	1	12/10/19 07:44	12/4/19	
N-Methyl perfluorooctane sulfonamidoethanol	ND U	8.4	1	12/10/19 07:44	12/4/19	
N-Ethyl perfluorooctane sulfonamidoethanol	ND U	8.4	1	12/10/19 07:44	12/4/19	
(n:2) Fluorotelomer Sulfonic Acids						
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	ND U	8.4	1	12/10/19 07:44	12/4/19	
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	ND U	8.4	1	12/10/19 07:44	12/4/19	

ALS Group USA, Corp.
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Analytical Report

Client: Test America, Incorporated
Project: DEC - Fort Edward Landfill Site:558001/46030964
Sample Matrix: Water

Sample Name: DUP-1-20191120
Lab Code: K1910985-003

Service Request: K1910985
Date Collected: 11/20/19
Date Received: 11/21/19 09:40

Units: ng/L
Basis: NA

Per- and Polyfluoroalkyl Substances (PFAS) by LC/MS/MS

Analysis Method: PFC/537M
Prep Method: EPA 3535A

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
13C3-PFBS	39	20 - 109	12/10/19 07:44	
18O2-PFHxS	64	26 - 122	12/10/19 07:44	
13C4-PFOS	76	25 - 121	12/10/19 07:44	
13C4-PFBA	85	27 - 124	12/10/19 07:44	
13C5-PFPeA	55	27 - 138	12/10/19 07:44	
13C2-PFHxA	74	28 - 132	12/10/19 07:44	
13C4-PFHpA	55	19 - 139	12/10/19 07:44	
13C4-PFOA	80	22 - 130	12/10/19 07:44	
13C5-PFNA	71	20 - 127	12/10/19 07:44	
13C2-PFDA	64	24 - 125	12/10/19 07:44	
13C2-PFUnDA	73	22 - 125	12/10/19 07:44	
13C2-PFDoDA	58	19 - 122	12/10/19 07:44	
13C2-PFTeDA	53	13 - 124	12/10/19 07:44	
13C8-FOSA	47	18 - 109	12/10/19 07:44	
D3-MeFOSA	53	15 - 153	12/10/19 07:44	
D5-EtFOSA	54	25 - 107	12/10/19 07:44	
D7-MeFOSE	66	24 - 112	12/10/19 07:44	
D9-EtFOSE	66	19 - 109	12/10/19 07:44	
13C2-6:2 FTS	131	10 - 226	12/10/19 07:44	
13C2-8:2 FTS	76	10 - 202	12/10/19 07:44	

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Analytical Report

Client: Test America, Incorporated
Project: DEC - Fort Edward Landfill Site:558001/46030964
Sample Matrix: Water

Sample Name: DECANT TANK-20191120
Lab Code: K1910985-004

Service Request: K1910985
Date Collected: 11/20/19 10:10
Date Received: 11/21/19 09:40

Units: ng/L
Basis: NA

Per- and Polyfluoroalkyl Substances (PFAS) by LC/MS/MS

Analysis Method: PFC/537M
Prep Method: EPA 3535A

Analyte Name	Result	MRL	Dil.	Date Analyzed	Date Extracted	Q
Perfluoroalkane Sulfonic Acids						
Perfluorobutane sulfonic acid (PFBS)	ND U	8.4	1	12/10/19 07:54	12/4/19	
Perfluorohexane sulfonic acid (PFHxS)	ND U	8.4	1	12/10/19 07:54	12/4/19	
Perfluoroheptane sulfonic acid (PFHpS)	ND U	8.4	1	12/10/19 07:54	12/4/19	*
Perfluorooctane sulfonic acid (PFOS)	ND U	8.4	1	12/10/19 07:54	12/4/19	
Perfluorodecane sulfonic acid (PFDS)	ND U	8.4	1	12/10/19 07:54	12/4/19	
Perfluoroalkane Carboxylic Acids						
Perfluorobutanoic acid (PFBA)	9.0	8.4	1	12/10/19 07:54	12/4/19	
Perfluoropentanoic acid (PFPeA)	18	8.4	1	12/10/19 07:54	12/4/19	
Perfluorohexanoic acid (PFHxA)	22	17	1	12/10/19 07:54	12/4/19	
Perfluoroheptanoic acid (PFHpA)	10	8.4	1	12/10/19 07:54	12/4/19	
Perfluorooctanoic acid (PFOA)	36	3.4	1	12/10/19 07:54	12/4/19	
Perfluorononanoic acid (PFNA)	ND U	8.4	1	12/10/19 07:54	12/4/19	
Perfluorodecanoic acid (PFDA)	ND U	8.4	1	12/10/19 07:54	12/4/19	
Perfluoroundecanoic acid (PFUnDA)	ND U	8.4	1	12/10/19 07:54	12/4/19	
Perfluorododecanoic acid (PFDoDA)	ND U	8.4	1	12/10/19 07:54	12/4/19	
Perfluorotridecanoic acid (PFTrDA)	ND U	8.4	1	12/10/19 07:54	12/4/19	
Perfluorotetradecanoic acid (PFTeDA)	ND U	8.4	1	12/10/19 07:54	12/4/19	
Perfluoroalkyl Sulfonamides						
Perfluorooctane sulfonamide (FOSA)	ND U	8.4	1	12/10/19 07:54	12/4/19	
N-Methyl perfluorooctane sulfonamide (MeFOSA)	ND U	8.4	1	12/10/19 07:54	12/4/19	
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	ND U	8.4	1	12/10/19 07:54	12/4/19	
N-Methyl perfluorooctane sulfonamidoethanol	ND U	8.4	1	12/10/19 07:54	12/4/19	
N-Ethyl perfluorooctane sulfonamidoethanol	ND U	8.4	1	12/10/19 07:54	12/4/19	
(n:2) Fluorotelomer Sulfonic Acids						
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	ND U	8.4	1	12/10/19 07:54	12/4/19	
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	ND U	8.4	1	12/10/19 07:54	12/4/19	

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Analytical Report

Client: Test America, Incorporated
Project: DEC - Fort Edward Landfill Site:558001/46030964
Sample Matrix: Water

Sample Name: DECANT TANK-20191120
Lab Code: K1910985-004

Service Request: K1910985
Date Collected: 11/20/19 10:10
Date Received: 11/21/19 09:40

Units: ng/L
Basis: NA

Per- and Polyfluoroalkyl Substances (PFAS) by LC/MS/MS

Analysis Method: PFC/537M
Prep Method: EPA 3535A

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
13C3-PFBS	41	20 - 109	12/10/19 07:54	
18O2-PFHxS	60	26 - 122	12/10/19 07:54	
13C4-PFOS	73	25 - 121	12/10/19 07:54	
13C4-PFBA	79	27 - 124	12/10/19 07:54	
13C5-PFPeA	56	27 - 138	12/10/19 07:54	
13C2-PFHxA	73	28 - 132	12/10/19 07:54	
13C4-PFHpA	57	19 - 139	12/10/19 07:54	
13C4-PFOA	73	22 - 130	12/10/19 07:54	
13C5-PFNA	73	20 - 127	12/10/19 07:54	
13C2-PFDA	59	24 - 125	12/10/19 07:54	
13C2-PFUnDA	67	22 - 125	12/10/19 07:54	
13C2-PFDoDA	53	19 - 122	12/10/19 07:54	
13C2-PFTeDA	43	13 - 124	12/10/19 07:54	
13C8-FOSA	44	18 - 109	12/10/19 07:54	
D3-MeFOSA	46	15 - 153	12/10/19 07:54	
D5-EtFOSA	47	25 - 107	12/10/19 07:54	
D7-MeFOSE	60	24 - 112	12/10/19 07:54	
D9-EtFOSE	54	19 - 109	12/10/19 07:54	
13C2-6:2 FTS	133	10 - 226	12/10/19 07:54	
13C2-8:2 FTS	82	10 - 202	12/10/19 07:54	

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Analytical Report

Client: Test America, Incorporated
Project: DEC - Fort Edward Landfill Site:558001/46030964
Sample Matrix: Water

Sample Name: Method Blank
Lab Code: KQ1917876-06

Service Request: K1910985
Date Collected: NA
Date Received: NA

Units: ng/L
Basis: NA

Per- and Polyfluoroalkyl Substances (PFAS) by LC/MS/MS

Analysis Method: PFC/537M
Prep Method: EPA 3535A

Analyte Name	Result	MRL	Dil.	Date Analyzed	Date Extracted	Q
Perfluoroalkane Sulfonic Acids						
Perfluorobutane sulfonic acid (PFBS)	ND U	5.0	1	12/10/19 06:51	12/4/19	
Perfluorohexane sulfonic acid (PFHxS)	ND U	5.0	1	12/10/19 06:51	12/4/19	
Perfluoroheptane sulfonic acid (PFHpS)	ND U	5.0	1	12/10/19 06:51	12/4/19	
Perfluorooctane sulfonic acid (PFOS)	ND U	5.0	1	12/10/19 06:51	12/4/19	
Perfluorodecane sulfonic acid (PFDS)	ND U	5.0	1	12/10/19 06:51	12/4/19	
Perfluoroalkane Carboxylic Acids						
Perfluorobutanoic acid (PFBA)	ND U	5.0	1	12/10/19 06:51	12/4/19	
Perfluoropentanoic acid (PFPeA)	ND U	5.0	1	12/10/19 06:51	12/4/19	
Perfluorohexanoic acid (PFHxA)	ND U	10	1	12/10/19 06:51	12/4/19	
Perfluoroheptanoic acid (PFHpA)	ND U	5.0	1	12/10/19 06:51	12/4/19	
Perfluorooctanoic acid (PFOA)	ND U	2.0	1	12/10/19 06:51	12/4/19	
Perfluorononanoic acid (PFNA)	ND U	5.0	1	12/10/19 06:51	12/4/19	
Perfluorodecanoic acid (PFDA)	ND U	5.0	1	12/10/19 06:51	12/4/19	
Perfluoroundecanoic acid (PFUnDA)	ND U	5.0	1	12/10/19 06:51	12/4/19	
Perfluorododecanoic acid (PFDoDA)	ND U	5.0	1	12/10/19 06:51	12/4/19	
Perfluorotridecanoic acid (PFTrDA)	ND U	5.0	1	12/10/19 06:51	12/4/19	
Perfluorotetradecanoic acid (PFTeDA)	ND U	5.0	1	12/10/19 06:51	12/4/19	
Perfluoroalkyl Sulfonamides						
Perfluorooctane sulfonamide (FOSA)	ND U	5.0	1	12/10/19 06:51	12/4/19	
N-Methyl perfluorooctane sulfonamide (MeFOSA)	ND U	5.0	1	12/10/19 06:51	12/4/19	
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	ND U	5.0	1	12/10/19 06:51	12/4/19	
N-Methyl perfluorooctane sulfonamidoethanol	ND U	5.0	1	12/10/19 06:51	12/4/19	
N-Ethyl perfluorooctane sulfonamidoethanol	ND U	5.0	1	12/10/19 06:51	12/4/19	
(n:2) Fluorotelomer Sulfonic Acids						
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	ND U	5.0	1	12/10/19 06:51	12/4/19	
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	ND U	5.0	1	12/10/19 06:51	12/4/19	

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Analytical Report

Client: Test America, Incorporated
Project: DEC - Fort Edward Landfill Site:558001/46030964
Sample Matrix: Water

Sample Name: Method Blank
Lab Code: KQ1917876-06

Service Request: K1910985
Date Collected: NA
Date Received: NA

Units: ng/L
Basis: NA

Per- and Polyfluoroalkyl Substances (PFAS) by LC/MS/MS

Analysis Method: PFC/537M
Prep Method: EPA 3535A

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
13C3-PFBS	53	20 - 109	12/10/19 06:51	
18O2-PFHxS	71	26 - 122	12/10/19 06:51	
13C4-PFOS	87	25 - 121	12/10/19 06:51	
13C4-PFBA	79	27 - 124	12/10/19 06:51	
13C5-PFPeA	76	27 - 138	12/10/19 06:51	
13C2-PFHxA	85	28 - 132	12/10/19 06:51	
13C4-PFHpA	72	19 - 139	12/10/19 06:51	
13C4-PFOA	80	22 - 130	12/10/19 06:51	
13C5-PFNA	76	20 - 127	12/10/19 06:51	
13C2-PFDA	72	24 - 125	12/10/19 06:51	
13C2-PFUnDA	78	22 - 125	12/10/19 06:51	
13C2-PFDoDA	66	19 - 122	12/10/19 06:51	
13C2-PFTeDA	64	13 - 124	12/10/19 06:51	
13C8-FOSA	66	18 - 109	12/10/19 06:51	
D3-MeFOSA	82	15 - 153	12/10/19 06:51	
D5-EtFOSA	85	25 - 107	12/10/19 06:51	
D7-MeFOSE	90	24 - 112	12/10/19 06:51	
D9-EtFOSE	90	19 - 109	12/10/19 06:51	
13C2-6:2 FTS	89	10 - 226	12/10/19 06:51	
13C2-8:2 FTS	86	10 - 202	12/10/19 06:51	

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QA/QC Report

Client: Test America, Incorporated
Project: DEC - Fort Edward Landfill Site:558001/46030964
Sample Matrix: Water

Service Request: K1910985

SURROGATE RECOVERY SUMMARY
Per- and Polyfluoroalkyl Substances (PFAS) by LC/MS/MS

Analysis Method: PFC/537M
Extraction Method: EPA 3535A

Surrogate	Control Limits	INFLUENT-20191120	CCT-20191120	DUP-1-20191120
		K1910985-001	K1910985-002	K1910985-003
13C3-PFBS	20-109	54	41	39
18O2-PFHxS	26-122	78	70	64
13C4-PFOS	25-121	89	71	76
13C4-PFBA	27-124	91	85	85
13C5-PFPeA	27-138	73	57	55
13C2-PFHxA	28-132	84	70	74
13C4-PFHpA	19-139	73	59	55
13C4-PFOA	22-130	92	80	80
13C5-PFNA	20-127	88	78	71
13C2-PFDA	24-125	75	65	64
13C2-PFUnDA	22-125	87	73	73
13C2-PFDoDA	19-122	69	58	58
13C2-PFTeDA	13-124	58	52	53
13C8-FOSA	18-109	63	48	47
D3-MeFOSA	15-153	65	55	53
D5-EtFOSA	25-107	63	53	54
D7-MeFOSE	24-112	79	58	66
D9-EtFOSE	19-109	77	62	66
13C2-6:2 FTS	10-226	133	144	131
13C2-8:2 FTS	10-202	84	72	76

Results flagged with an asterisk (*) indicate values outside control criteria.
Results flagged with an pound (#) indicate the control criteria is not acceptable.

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QA/QC Report

Client: Test America, Incorporated
Project: DEC - Fort Edward Landfill Site:558001/46030964
Sample Matrix: Water

Service Request: K1910985

SURROGATE RECOVERY SUMMARY
Per- and Polyfluoroalkyl Substances (PFAS) by LC/MS/MS

Analysis Method: PFC/537M
Extraction Method: EPA 3535A

Surrogate	Control Limits	DECANT TANK-20191120	Method Blank	Lab Control Sample
		K1910985-004	KQ1917876-06	KQ1917876-05
13C3-PFBS	20-109	41	53	48
18O2-PFHxS	26-122	60	71	75
13C4-PFOS	25-121	73	87	85
13C4-PFBA	27-124	79	79	77
13C5-PFPeA	27-138	56	76	71
13C2-PFHxA	28-132	73	85	80
13C4-PFHpA	19-139	57	72	73
13C4-PFOA	22-130	73	80	77
13C5-PFNA	20-127	73	76	71
13C2-PFDA	24-125	59	72	71
13C2-PFUnDA	22-125	67	78	79
13C2-PFDoDA	19-122	53	66	71
13C2-PFTeDA	13-124	43	64	58
13C8-FOSA	18-109	44	66	68
D3-MeFOSA	15-153	46	82	74
D5-EtFOSA	25-107	47	85	80
D7-MeFOSE	24-112	60	90	86
D9-EtFOSE	19-109	54	90	81
13C2-6:2 FTS	10-226	133	89	79
13C2-8:2 FTS	10-202	82	86	77

Results flagged with an asterisk (*) indicate values outside control criteria.
Results flagged with an pound (#) indicate the control criteria is not acceptable.

Client: Test America, Incorporated
Project: DEC - Fort Edward Landfill Site:558001/46030964
Sample Matrix: Water

Service Request: K1910985

SURROGATE RECOVERY SUMMARY

Per- and Polyfluoroalkyl Substances (PFAS) by LC/MS/MS

Analysis Method: PFC/537M

Extraction Method: EPA 3535A

Surrogate	Control Limits	INFLUENT-20191120	INFLUENT-20191120
		KQ1917876-01	KQ1917876-02
13C3-PFBS	20-109	58	55
18O2-PFHxS	26-122	76	82
13C4-PFOS	25-121	80	79
13C4-PFBA	27-124	94	90
13C5-PFPeA	27-138	80	75
13C2-PFHxA	28-132	93	81
13C4-PFHpA	19-139	82	83
13C4-PFOA	22-130	89	83
13C5-PFNA	20-127	78	72
13C2-PFDA	24-125	71	68
13C2-PFUnDA	22-125	76	81
13C2-PFDoDA	19-122	62	64
13C2-PFTeDA	13-124	57	54
13C8-FOSA	18-109	66	65
D3-MeFOSA	15-153	79	72
D5-EtFOSA	25-107	81	73
D7-MeFOSE	24-112	90	83
D9-EtFOSE	19-109	90	80
13C2-6:2 FTS	10-226	148	128
13C2-8:2 FTS	10-202	94	91

Results flagged with an asterisk (*) indicate values outside control criteria.

Results flagged with an pound (#) indicate the control criteria is not acceptable.

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QA/QC Report

Client: Test America, Incorporated
Project: DEC - Fort Edward Landfill Site:558001/46030964

Service Request:K1910985
Date Analyzed:12/10/19 06:20

Internal Standard Area and RT SUMMARY
Per- and Polyfluoroalkyl Substances (PFAS) by LC/MS/MS

File ID: J:\LCMS06\Data\191209_b5\191209_093
Instrument ID: K-LCMS-06
Analysis Method: PFC/537M

Lab Code:KQ1918144-01
Analysis Lot:662637
Signal ID:1

13C7-PFUnDA		
	Area	RT
Result ==>	3,132,483	5.096
Upper Limit ==>	6,264,966	6.10
Lower Limit ==>	1,566,242	4.10

Associated Analyses

Continuing Calibration Blank	KQ1918144-02	3009783	5.103
Lab Control Sample	KQ1917876-05	4647390	5.095
Method Blank	KQ1917876-06	4613615	5.094
INFLUENT-20191120	K1910985-001	4381215	5.090
INFLUENT-20191120MS	KQ1917876-01	4051433	5.093
INFLUENT-20191120DMS	KQ1917876-02	4261299	5.099
CCT-20191120	K1910985-002	4555861	5.101
DUP-1-20191120	K1910985-003	4396161	5.092
DECANT TANK-20191120	K1910985-004	4290518	5.093

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QA/QC Report

Client: Test America, Incorporated
Project: DEC - Fort Edward Landfill Site:558001/46030964
Sample Matrix: Water

Service Request: K1910985
Date Collected: 11/20/19
Date Received: 11/21/19
Date Analyzed: 12/10/19
Date Extracted: 12/4/19

Duplicate Matrix Spike Summary
Per- and Polyfluoroalkyl Substances (PFAS) by LC/MS/MS

Sample Name: INFLUENT-20191120 **Units:** ng/L
Lab Code: K1910985-001 **Basis:** NA
Analysis Method: PFC/537M
Prep Method: EPA 3535A

Analyte Name	Sample Result	Matrix Spike KQ1917876-01			Duplicate Matrix Spike KQ1917876-02			% Rec Limits	RPD	RPD Limit
		Result	Spike Amount	% Rec	Result	Spike Amount	% Rec			
Perfluorobutane sulfonic acid (PFBS)	ND U	46.0	47.6	96	44.9	47.6	94	61-140	2	30
Perfluorohexane sulfonic acid (PFHxS)	ND U	51.4	49.0	105	50.8	49.0	104	69-144	1	30
Perfluoroheptane sulfonic acid (PFHpS)	ND U	56.9	51.2	111	48.2	51.2	94	62-178	17	30
Perfluorooctane sulfonic acid (PFOS)	ND U	58.3	49.9	117	55.0	49.9	110	71-139	6	30
Perfluorodecane sulfonic acid (PFDS)	ND U	39.7	51.8	77	38.8	51.8	75	69-146	2	30
Perfluorobutanoic acid (PFBA)	ND U	59.4	53.7	111	57.9	53.7	108	51-157	3	30
Perfluoropentanoic acid (PFPeA)	14	61.5	53.7	88	63.2	53.7	91	67-127	3	30
Perfluorohexanoic acid (PFHxA)	ND U	60.1	53.7	112	56.5	53.7	105	71-138	6	30
Perfluoroheptanoic acid (PFHpA)	ND U	53.8	53.7	100	53.1	53.7	99	72-133	1	30
Perfluorooctanoic acid (PFOA)	17	67.0	53.7	93	66.1	53.7	92	74-146	1	30
Perfluorononanoic acid (PFNA)	ND U	50.1	53.7	93	48.2	53.7	90	69-148	4	30
Perfluorodecanoic acid (PFDA)	ND U	51.3	53.7	96	51.0	53.7	95	73-136	<1	30
Perfluoroundecanoic acid (PFUnDA)	ND U	49.9	53.7	93	45.6	53.7	85	76-134	9	30
Perfluorododecanoic acid (PFDoDA)	ND U	49.5	53.7	92	46.6	53.7	87	71-138	6	30
Perfluorotridecanoic acid (PFTTrDA)	ND U	52.0	53.7	97	54.2	53.7	101	65-140	4	30
Perfluorotetradecanoic acid (PFTeDA)	ND U	45.7	53.7	85	47.5	53.7	88	63-139	4	30
Perfluorooctane sulfonamide (FOSA)	ND U	51.7	53.7	96	48.3	53.7	90	64-135	7	30
N-Methyl perfluorooctane sulfonamide (MeFOSA)	ND U	52.1	53.7	97	52.2	53.7	97	52-138	<1	30
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	ND U	47.2	53.7	88	46.4	53.7	86	61-151	2	30
N-Methyl perfluorooctane sulfonamidoethanol	ND U	42.9	53.7	80	43.2	53.7	80	63-141	<1	30
N-Ethyl perfluorooctane sulfonamidoethanol	ND U	45.4	53.7	85	48.1	53.7	90	69-135	6	30
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	ND U	47.2	51.1	92	46.1	51.1	90	71-142	2	30
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	ND U	47.9	51.5	93	46.6	51.5	90	69-137	3	30

Results flagged with an asterisk (*) indicate values outside control criteria.

Results flagged with a pound (#) indicate the control criteria is not applicable.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

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QA/QC Report

Client: Test America, Incorporated
Project: DEC - Fort Edward Landfill Site:558001/46030964
Sample Matrix: Water

Service Request: K1910985
Date Analyzed: 12/10/19
Date Extracted: 12/04/19

Lab Control Sample Summary
Per- and Polyfluoroalkyl Substances (PFAS) by LC/MS/MS

Analysis Method: PFC/537M
Prep Method: EPA 3535A

Units: ng/L
Basis: NA
Analysis Lot: 662637

Lab Control Sample
KQ1917876-05

Analyte Name	Result	Spike Amount	% Rec	% Rec Limits
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	31.5	30.4	104	71-142
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	31.9	30.7	104	69-137
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	31.3	32.0	98	61-151
N-Ethyl perfluorooctane sulfonamidoethanol	33.6	32.0	105	69-135
N-Methyl perfluorooctane sulfonamide (MeFOSA)	35.3	32.0	110	52-138
N-Methyl perfluorooctane sulfonamidoethanol	27.8	32.0	87	63-141
Perfluorobutane sulfonic acid (PFBS)	28.1	28.4	99	61-140
Perfluorobutanoic acid (PFBA)	32.1	32.0	100	51-157
Perfluorodecane sulfonic acid (PFDS)	22.4	30.9	72	69-146
Perfluorodecanoic acid (PFDA)	30.8	32.0	96	73-136
Perfluorododecanoic acid (PFDoDA)	24.9	32.0	78	71-138
Perfluoroheptane sulfonic acid (PFHpS)	32.4	30.5	106	62-178
Perfluoroheptanoic acid (PFHpA)	28.2	32.0	88	72-133
Perfluorohexane sulfonic acid (PFHxS)	27.1	29.2	93	69-144
Perfluorohexanoic acid (PFHxA)	27.9	32.0	87	71-138
Perfluorononanoic acid (PFNA)	28.7	32.0	90	69-148
Perfluorooctane sulfonamide (FOSA)	30.6	32.0	96	64-135
Perfluorooctane sulfonic acid (PFOS)	27.6	29.7	93	71-139
Perfluorooctanoic acid (PFOA)	28.0	32.0	88	74-146
Perfluoropentanoic acid (PFPeA)	31.4	32.0	98	67-127
Perfluorotetradecanoic acid (PFTeDA)	30.4	32.0	95	63-139
Perfluorotridecanoic acid (PFTrDA)	33.1	32.0	103	65-140
Perfluoroundecanoic acid (PFUnDA)	27.0	32.0	84	76-134

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QA/QC Report

Client: Test America, Incorporated
Project: DEC - Fort Edward Landfill Site:558001/46030964
Sample Matrix: Water

Service Request: K1910985
Date Analyzed: 12/10/19 06:51
Date Extracted: 12/04/19

Method Blank Summary
Per- and Polyfluoroalkyl Substances (PFAS) by LC/MS/MS

Sample Name: Method Blank
Lab Code: KQ1917876-06
Analysis Method: PFC/537M
Prep Method: EPA 3535A

Instrument ID: K-LCMS-06
File ID: J:\LCMS06\Data\191209_b5\191209_096
Analysis Lot: 662637
Extraction Lot: 349810

This Method Blank applies to the following analyses.

Sample Name	Lab Code	File ID	Date Analyzed
Lab Control Sample	KQ1917876-05	J:\LCMS06\Data\191209_b5\191209_095	12/10/19 06:41
INFLUENT-20191120	K1910985-001	J:\LCMS06\Data\191209_b5\191209_097	12/10/19 07:02
INFLUENT-20191120MS	KQ1917876-01	J:\LCMS06\Data\191209_b5\191209_098	12/10/19 07:13
INFLUENT-20191120DMS	KQ1917876-02	J:\LCMS06\Data\191209_b5\191209_099	12/10/19 07:23
CCT-20191120	K1910985-002	J:\LCMS06\Data\191209_b5\191209_100	12/10/19 07:34
DUP-1-20191120	K1910985-003	J:\LCMS06\Data\191209_b5\191209_101	12/10/19 07:44
DECANT TANK-20191120	K1910985-004	J:\LCMS06\Data\191209_b5\191209_102	12/10/19 07:54

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QA/QC Report

Client: Test America, Incorporated
Project: DEC - Fort Edward Landfill Site:558001/46030964
Sample Matrix: Water

Service Request: K1910985
Date Analyzed: 12/10/19 06:41
Date Extracted: 12/04/19

Lab Control Sample Summary
Per- and Polyfluoroalkyl Substances (PFAS) by LC/MS/MS

Sample Name: Lab Control Sample **Instrument ID:** K-LCMS-06
Lab Code: KQ1917876-05 **File ID:** J:\LCMS06\Data\191209_b5\191209_095
Analysis Method: PFC/537M **Analysis Lot:** 662637
Prep Method: EPA 3535A **Extraction Lot:** 349810

This Lab Control Sample applies to the following analyses.

Sample Name	Lab Code	File ID	Date Analyzed
Method Blank	KQ1917876-06	J:\LCMS06\Data\191209_b5\191209_096	12/10/19 06:51
INFLUENT-20191120	K1910985-001	J:\LCMS06\Data\191209_b5\191209_097	12/10/19 07:02
INFLUENT-20191120MS	KQ1917876-01	J:\LCMS06\Data\191209_b5\191209_098	12/10/19 07:13
INFLUENT-20191120DMS	KQ1917876-02	J:\LCMS06\Data\191209_b5\191209_099	12/10/19 07:23
CCT-20191120	K1910985-002	J:\LCMS06\Data\191209_b5\191209_100	12/10/19 07:34
DUP-1-20191120	K1910985-003	J:\LCMS06\Data\191209_b5\191209_101	12/10/19 07:44
DECANT TANK-20191120	K1910985-004	J:\LCMS06\Data\191209_b5\191209_102	12/10/19 07:54

Client: Test America, Incorporated
Project: DEC - Fort Edward Landfill Site:558001

Service Request: K1910985
Calibration Date: 12/2/2019

Initial Calibration Summary
Per- and Polyfluoroalkyl Substances (PFAS) by LC/MS/MS

Calibration ID: KC1900518
Instrument ID: K-LCMS-06

Signal ID: 1

#	Lab Code	Sample Name	File Location	Acquisition Date
01	KC1900518-01	0.05 PPB ICAL	191202_018	12/02/2019 17:39
02	KC1900518-02	0.10 PPB ICAL	191202_019	12/02/2019 17:50
03	KC1900518-03	0.50 PPB ICAL	191202_020	12/02/2019 18:00
04	KC1900518-04	1.0 PPB ICAL	191202_021	12/02/2019 18:11
05	KC1900518-05	5.0 PPB ICAL	191202_022	12/02/2019 18:21
06	KC1900518-06	10.0 PPB ICAL	191202_023	12/02/2019 18:31
07	KC1900518-07	15.0 PPB ICAL	191202_025	12/02/2019 18:52

Analyte

13C2-6:2 FTS

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	5.0000	0.07675	02	5.0000	0.07679	03	5.0000	0.07711	04	5.0000	0.0764
05	5.0000	0.07489	06	5.0000	0.07982	07	5.0000	0.0777			

13C2-8:2 FTS

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	5.0000	0.05843	02	5.0000	0.06025	03	5.0000	0.06359	04	5.0000	0.06203
05	5.0000	0.05801	06	5.0000	0.05903	07	5.0000	0.0571			

13C2-PFDA

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	5.0000	0.7382	02	5.0000	0.7423	03	5.0000	0.7517	04	5.0000	0.7492
05	5.0000	0.6918	06	5.0000	0.7251	07	5.0000	0.6709			

13C2-PFDoDA

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	5.0000	0.9799	02	5.0000	1.01	03	5.0000	1.037	04	5.0000	1.04
05	5.0000	0.9896	06	5.0000	0.9989	07	5.0000	0.9064			

13C2-PFHxA

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	5.0000	1.138	02	5.0000	1.095	03	5.0000	1.037	04	5.0000	1.043
05	5.0000	1.01	06	5.0000	0.9342	07	5.0000	0.853			

13C2-PFTeDA

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	5.0000	0.8517	02	5.0000	0.8716	03	5.0000	0.866	04	5.0000	0.8942
05	5.0000	0.8704	06	5.0000	0.8661	07	5.0000	0.8302			

13C2-PFUnDA

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	5.0000	0.7321	02	5.0000	0.7374	03	5.0000	0.7359	04	5.0000	0.7951
05	5.0000	0.7357	06	5.0000	0.7446	07	5.0000	0.7709			

13C3-PFBS

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	5.0000	0.3332	02	5.0000	0.3437	03	5.0000	0.3426	04	5.0000	0.3486

Client: Test America, Incorporated
Project: DEC - Fort Edward Landfill Site:558001

Service Request: K1910985
Calibration Date: 12/2/2019

Initial Calibration Summary
Per- and Polyfluoroalkyl Substances (PFAS) by LC/MS/MS

Calibration ID: KC1900518
Instrument ID: K-LCMS-06

Signal ID: 1

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13C3-PFBS

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
05	5.0000	0.3318	06	5.0000	0.3384	07	5.0000	0.3159			

13C4-PFBA

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	5.0000	0.8195	02	5.0000	0.8392	03	5.0000	0.8635	04	5.0000	0.8606
05	5.0000	0.8359	06	5.0000	0.8559	07	5.0000	0.8238			

13C4-PFHpA

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	5.0000	1.009	02	5.0000	1.173	03	5.0000	1.187	04	5.0000	1.174
05	5.0000	1.099	06	5.0000	1.022	07	5.0000	0.9485			

13C4-PFOA

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	5.0000	1.161	02	5.0000	1.175	03	5.0000	1.197	04	5.0000	1.235
05	5.0000	1.156	06	5.0000	1.157	07	5.0000	1.052			

13C4-PFOS

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	5.0000	0.1649	02	5.0000	0.1806	03	5.0000	0.1738	04	5.0000	0.1891
05	5.0000	0.1817	06	5.0000	0.1706	07	5.0000	0.1703			

13C5-PFNA

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	5.0000	0.8587	02	5.0000	0.7878	03	5.0000	0.8472	04	5.0000	0.8087
05	5.0000	0.773	06	5.0000	0.7975	07	5.0000	0.6916			

13C5-PFPeA

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	5.0000	0.4438	02	5.0000	0.4567	03	5.0000	0.4618	04	5.0000	0.4687
05	5.0000	0.4489	06	5.0000	0.4575	07	5.0000	0.4344			

13C8-FOSA

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	5.0000	0.3972	02	5.0000	0.4169	03	5.0000	0.435	04	5.0000	0.4394
05	5.0000	0.4219	06	5.0000	0.4249	07	5.0000	0.4058			

18O2-PFHxS

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	5.0000	0.1644	02	5.0000	0.1921	03	5.0000	0.1827	04	5.0000	0.1853
05	5.0000	0.1846	06	5.0000	0.1748	07	5.0000	0.1634			

6:2 Fluorotelomer sulfonic acid (6:2 FTS)

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.0476	1.291	02	0.0951	1.303	03	0.4756	1.26	04	0.9512	1.322
05	4.7558	1.264	06	9.5117	1.202	07	14.2676	1.148			

Client: Test America, Incorporated
Project: DEC - Fort Edward Landfill Site:558001

Service Request: K1910985
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Per- and Polyfluoroalkyl Substances (PFAS) by LC/MS/MS

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8:2 Fluorotelomer sulfonic acid (8:2 FTS)

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.0480	0.9093	02	0.0960	0.7763	03	0.4800	0.7343	04	0.9600	0.7846
05	4.8002	0.78	06	9.6004	0.7655	07	14.4007	0.7332			

D3-MeFOSA

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	5.0000	0.1029	02	5.0000	0.1052	03	5.0000	0.1129	04	5.0000	0.1184
05	5.0000	0.1094	06	5.0000	0.1093	07	5.0000	0.1057			

D5-EtFOSA

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	5.0000	0.1461	02	5.0000	0.1513	03	5.0000	0.1631	04	5.0000	0.1703
05	5.0000	0.1583	06	5.0000	0.1578	07	5.0000	0.1506			

D7-MeFOSE

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	5.0000	0.1258	02	5.0000	0.1272	03	5.0000	0.1273	04	5.0000	0.1395
05	5.0000	0.1328	06	5.0000	0.1357	07	5.0000	0.134			

D9-EtFOSE

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	5.0000	0.1197	02	5.0000	0.1216	03	5.0000	0.1255	04	5.0000	0.1339
05	5.0000	0.1302	06	5.0000	0.1276	07	5.0000	0.1318			

N-Ethyl perfluorooctane sulfonamide (EtFOSA)

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
02	0.1000	0.2224	03	0.5000	0.1869	04	1.0000	0.1894	05	5.0000	0.1926
06	10.0000	0.2009	07	15.0000	0.2006						

N-Ethyl perfluorooctane sulfonamidoethanol

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
02	0.1000	1.341	03	0.5000	1.346	04	1.0000	1.303	05	5.0000	1.27
06	10.0000	1.377	07	15.0000	1.276						

N-Methyl perfluorooctane sulfonamide (MeFOSA)

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
02	0.1000	1.552	03	0.5000	1.404	04	1.0000	1.425	05	5.0000	1.395
06	10.0000	1.42	07	15.0000	1.437						

N-Methyl perfluorooctane sulfonamidoethanol

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
02	0.1000	1.374	03	0.5000	1.397	04	1.0000	1.345	05	5.0000	1.303
06	10.0000	1.317	07	15.0000	1.277						

Perfluorobutane sulfonic acid (PFBS)

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.0444	0.6394	02	0.0887	0.5765	03	0.4437	0.6164	04	0.8874	0.5841
05	4.4368	0.605	06	8.8737	0.6073	07	13.3106	0.6051			

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Project: DEC - Fort Edward Landfill Site:558001

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Calibration ID: KC1900518
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Perfluorobutanoic acid (PFBA)

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.0500	1.026	02	0.1000	0.9575	03	0.5000	0.956	04	1.0000	0.9541
05	5.0000	0.9513	06	10.0000	1.011	07	15.0000	1.022			

Perfluorodecane sulfonic acid (PFDS)

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
02	0.0965	0.6689	03	0.4823	0.7137	04	0.9647	0.6696	05	4.8233	0.6583
06	9.6467	0.7104	07	14.4700	0.6569						

Perfluorodecanoic acid (PFDA)

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.0500	1.579	02	0.1000	1.214	03	0.5000	1.072	04	1.0000	1.003
05	5.0000	1.019	06	10.0000	1.041	07	15.0000	1.065			

Perfluorododecanoic acid (PFDoDA)

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.0500	0.9544	02	0.1000	0.7713	03	0.5000	0.6845	04	1.0000	0.6047
05	5.0000	0.6119	06	10.0000	0.6348	07	15.0000	0.624			

Perfluoroheptane sulfonic acid (PFHps)

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.0477	1.3	02	0.0953	1.091	03	0.4767	1.165	04	0.9534	1.201
05	4.7672	1.104	06	9.5344	1.186	07	14.3016	1.177			

Perfluoroheptanoic acid (PFHpA)

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.0500	1.704	02	0.1000	1.117	03	0.5000	0.9726	04	1.0000	0.9752
05	5.0000	0.9131	06	10.0000	0.9736	07	15.0000	0.9825			

Perfluorohexane sulfonic acid (PFHxS)

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
02	0.0913	1.057	03	0.4565	0.9298	04	0.9131	0.8828	05	4.5654	0.8285
06	9.1308	0.8888	07	13.6961	0.8419						

Perfluorohexanoic acid (PFHxA)

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.0500	2.218	02	0.1000	1.68	03	0.5000	1.35	04	1.0000	1.228
05	5.0000	1.244	06	10.0000	1.29	07	15.0000	1.335			

Perfluorononanoic acid (PFNA)

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.0500	1.495	02	0.1000	1.562	03	0.5000	1.072	04	1.0000	1.085
05	5.0000	0.9692	06	10.0000	1.093	07	15.0000	1.022			

Perfluorooctane sulfonamide (FOSA)

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
02	0.1000	1.183	03	0.5000	1.149	04	1.0000	1.091	05	5.0000	1.104
06	10.0000	1.149	07	15.0000	1.157						

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Initial Calibration Summary
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Calibration ID: KC1900518
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Perfluorooctane sulfonic acid (PFOS)

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.0465	0.9922	02	0.0929	0.8503	03	0.4646	0.8826	04	0.9292	0.8154
05	4.6461	0.8306	06	9.2923	0.9144	07	13.9384	0.8897			

Perfluorooctanoic acid (PFOA)

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.0500	1.937	02	0.1000	1.51	03	0.5000	1.268	04	1.0000	1.207
05	5.0000	1.152	06	10.0000	1.194	07	15.0000	1.207			

Perfluoropentanoic acid (PFPeA)

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.0500	7.426	02	0.1000	4.761	03	0.5000	2.701	04	1.0000	2.414
05	5.0000	2.19	06	10.0000	2.211	07	15.0000	2.259			

Perfluorotetradecanoic acid (PFTeDA)

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.0500	1.956	02	0.1000	1.135	03	0.5000	0.6139	04	1.0000	0.5263
05	5.0000	0.4606	06	10.0000	0.4806	07	15.0000	0.4812			

Perfluorotridecanoic acid (PFTrDA)

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.0500	1.701	02	0.1000	1.344	03	0.5000	1.155	04	1.0000	1.077
05	5.0000	1.015	06	10.0000	1.079	07	15.0000	1.021			

Perfluoroundecanoic acid (PFUnDA)

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.0500	1.659	02	0.1000	1.148	03	0.5000	0.8979	04	1.0000	0.8551
05	5.0000	0.8247	06	10.0000	0.8415	07	15.0000	0.874			

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Initial Calibration Summary
Per- and Polyfluoroalkyl Substances (PFAS) by LC/MS/MS

Calibration ID: KC1900518
Instrument ID: K-LCMS-06

Signal ID: 1

Analyte Name	Compound Type	Calibration Evaluation				Calibration Evaluation	
		Fit Type	Eval	Eval Result	Control Criteria	Average RRF	Minimum RRF
13C2-6:2 FTS	SURR	Average RF	% RSD	1.9	≤20	0.07707	
13C2-8:2 FTS	SURR	Average RF	% RSD	3.9	≤20	0.05978	
13C2-PFDA	SURR	Average RF	% RSD	4.3	≤20	0.7242	
13C2-PFDoDA	SURR	Average RF	% RSD	4.5	≤20	0.9944	
13C2-PFHxA	SURR	Average RF	% RSD	9.5	≤20	1.016	
13C2-PFTeDA	SURR	Average RF	% RSD	2.3	≤20	0.8643	
13C2-PFUnDA	SURR	Average RF	% RSD	3.2	≤20	0.7502	
13C3-PFBS	SURR	Average RF	% RSD	3.2	≤20	0.3363	
13C4-PFBA	SURR	Average RF	% RSD	2.1	≤20	0.8426	
13C4-PFHpA	SURR	Average RF	% RSD	8.8	≤20	1.088	
13C4-PFOA	SURR	Average RF	% RSD	4.8	≤20	1.162	
13C4-PFOS	SURR	Average RF	% RSD	4.7	≤20	0.1759	
13C5-PFNA	SURR	Average RF	% RSD	6.9	≤20	0.7949	
13C5-PFPeA	SURR	Average RF	% RSD	2.6	≤20	0.4531	
13C8-FOSA	SURR	Average RF	% RSD	3.6	≤20	0.4201	
18O2-PFHxS	SURR	Average RF	% RSD	6.2	≤20	0.1782	
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	TRG	Average RF	% RSD	4.9	≤20	1.256	
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	TRG	Average RF	% RSD	7.6	≤20	0.7833	
D3-MeFOSA	SURR	Average RF	% RSD	4.8	≤20	0.1091	
D5-EtFOSA	SURR	Average RF	% RSD	5.2	≤20	0.1568	
D7-MeFOSE	SURR	Average RF	% RSD	3.9	≤20	0.1318	
D9-EtFOSE	SURR	Average RF	% RSD	4.1	≤20	0.1272	
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	TRG	Average RF	% RSD	6.5	≤20	0.1988	
N-Ethyl perfluorooctane sulfonamidoethanol	TRG	Average RF	% RSD	3.2	≤20	1.319	
N-Methyl perfluorooctane sulfonamide (MeFOSA)	TRG	Average RF	% RSD	4.0	≤20	1.439	
N-Methyl perfluorooctane sulfonamidoethanol	TRG	Average RF	% RSD	3.4	≤20	1.335	
Perfluorobutane sulfonic acid (PFBS)	TRG	Average RF	% RSD	3.4	≤20	0.6048	
Perfluorobutanoic acid (PFBA)	TRG	Average RF	% RSD	3.6	≤20	0.9825	
Perfluorodecane sulfonic acid (PFDS)	TRG	Average RF	% RSD	3.8	≤20	0.6797	
Perfluorodecanoic acid (PFDA)	TRG	Linear	R2	0.9995	≥0.99	1.142	
Perfluorododecanoic acid (PFDoDA)	TRG	Linear	R2	0.9997	≥0.99	0.6979	

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Initial Calibration Summary
Per- and Polyfluoroalkyl Substances (PFAS) by LC/MS/MS

Calibration ID: KC1900518
Instrument ID: K-LCMS-06

Signal ID: 1

Analyte Name	Compound Type	Calibration Evaluation				Calibration Evaluation	
		Fit Type	Eval	Eval Result	Control Criteria	Average RRF	Minimum RRF
Perfluoroheptane sulfonic acid (PFHpS)	TRG	Average RF	% RSD	5.9	≤20	1.175	
Perfluoroheptanoic acid (PFHpA)	TRG	Linear	R2	0.9991	≥0.99	1.091	
Perfluorohexane sulfonic acid (PFHxS)	TRG	Average RF	% RSD	9.2	≤20	0.9048	
Perfluorohexanoic acid (PFHxA)	TRG	Linear	R2	0.9990	≥0.99	1.478	
Perfluorononanoic acid (PFNA)	TRG	Linear	R2	0.9980	≥0.99	1.185	
Perfluorooctane sulfonamide (FOSA)	TRG	Average RF	% RSD	3.0	≤20	1.139	
Perfluorooctane sulfonic acid (PFOS)	TRG	Average RF	% RSD	6.8	≤20	0.8822	
Perfluorooctanoic acid (PFOA)	TRG	Linear	R2	0.9997	≥0.99	1.354	
Perfluoropentanoic acid (PFPeA)	TRG	Linear	R2	0.9997	≥0.99	3.423	
Perfluorotetradecanoic acid (PFTeDA)	TRG	Linear	R2	0.9994	≥0.99	0.8077	
Perfluorotridecanoic acid (PFTrDA)	TRG	Linear	R2	0.9992	≥0.99	1.199	
Perfluoroundecanoic acid (PFUnDA)	TRG	Linear	R2	0.9993	≥0.99	1.014	

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Initial Calibration Verification Summary Per- and Polyfluoroalkyl Substances (PFAS) by LC/MS/MS

Calibration ID: KC1900518
Instrument ID: K-LCMS-06

Signal ID: 1

#	Lab Code	Sample Name	File Location	Acquisition Date
08	KC1900518-08	1.0 PPB ICV 10:2 FTS	191202_027	12/02/2019 19:13
09	KC1900518-09	1.0 PPB ICV NO10:2 FTS	191202_029	12/02/2019 19:34

Analyte Name	Expected	Result	Average RF	SSV RF	% D	Criteria	Curve Fit
Perfluorobutane sulfonic acid (PFBS)	0.887	0.897	6.048E-1	6.112E-1	1.06	±30	Average RF
Perfluorohexane sulfonic acid (PFHxS)	0.913	0.971	9.048E-1	9.618E-1	6.31	±30	Average RF
Perfluoroheptane sulfonic acid (PFHpS)	0.953	1.08	1.175E0	1.331E0	13.32	±30	Average RF
Perfluorooctane sulfonic acid (PFOS)	0.929	0.892	8.822E-1	8.466E-1	-4.038	±30	Average RF
Perfluorodecane sulfonic acid (PFDS)	0.965	1.06	6.797E-1	7.491E-1	10.22	±30	Average RF
Perfluorobutanoic acid (PFBA)	1.00	0.990	9.825E-1	9.726E-1	-1.016	±30	Average RF
Perfluoropentanoic acid (PFPeA)	1.00	0.991	3.423E0	2.441E0	-0.857	±30	Linear
Perfluorohexanoic acid (PFHxA)	1.00	0.928	1.478E0	1.242E0	-7.152	±30	Linear
Perfluoroheptanoic acid (PFHpA)	1.00	0.970	1.091E0	9.618E-1	-2.995	±30	Linear
Perfluorooctanoic acid (PFOA)	1.00	0.948	1.354E0	1.162E0	-5.214	±30	Linear
Perfluorononanoic acid (PFNA)	1.00	0.883	1.185E0	9.45E-1	-11.695	±30	Linear
Perfluorodecanoic acid (PFDA)	1.00	0.990	1.142E0	1.055E0	-1.034	±30	Linear
Perfluoroundecanoic acid (PFUnDA)	1.00	1.03	1.014E0	9.064E-1	2.56	±30	Linear
Perfluorododecanoic acid (PFDoDA)	1.00	0.925	6.979E-1	5.923E-1	-7.498	±30	Linear
Perfluorotridecanoic acid (PFTTrDA)	1.00	1.02	1.199E0	1.091E0	1.88	±30	Linear
Perfluorotetradecanoic acid (PFTeDA)	1.00	0.940	8.077E-1	5.127E-1	-5.989	±30	Linear
Perfluorooctane sulfonamide (FOSA)	1.00	0.998	1.139E0	1.136E0	-0.215	±30	Average RF
N-Methyl perfluorooctane sulfonamide (MeFOSA)	1.00	0.944	1.439E0	1.359E0	-5.561	±30	Average RF
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	1.00	0.958	1.988E-1	1.904E-1	-4.201	±30	Average RF
N-Methyl perfluorooctane sulfonamidoethanol	1.00	0.978	1.335E0	1.306E0	-2.212	±30	Average RF
N-Ethyl perfluorooctane sulfonamidoethanol	1.00	0.960	1.319E0	1.266E0	-4.039	±30	Average RF
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	0.951	0.993	1.256E0	1.311E0	4.44	±30	Average RF
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	0.960	1.06	7.833E-1	8.686E-1	10.89	±30	Average RF

Analyte Name	Expected	Result	Average RF	SSV RF	% D	Criteria	Curve Fit
13C3-PFBS	5.00	4.80	3.363E-1	3.231E-1	-3.936	±30	Average RF
18O2-PFHxS	5.00	4.29	1.782E-1	1.527E-1	-14.286	±30	Average RF
13C4-PFOS	5.00	4.79	1.759E-1	1.684E-1	-4.260	±30	Average RF
13C4-PFBA	5.00	4.63	8.426E-1	7.801E-1	-7.423	±30	Average RF
13C5-PFPeA	5.00	4.69	4.531E-1	4.253E-1	-6.146	±30	Average RF

Client: Test America, Incorporated
Project: DEC - Fort Edward Landfill Site:558001

Service Request: K1910985
Calibration Date: 12/2/2019

Initial Calibration Verification Summary
Per- and Polyfluoroalkyl Substances (PFAS) by LC/MS/MS

Calibration ID: KC1900518
Instrument ID: K-LCMS-06

Signal ID: 1

Analyte Name	Expected	Result	Average RF	SSV RF	% D	Criteria	Curve Fit
13C2-PFHxA	5.00	4.67	1.016E0	9.484E-1	-6.637	±30	Average RF
13C4-PFHpA	5.00	4.35	1.088E0	9.468E-1	-12.942	±30	Average RF
13C4-PFOA	5.00	5.04	1.162E0	1.172E0	0.854	±30	Average RF
13C5-PFNA	5.00	4.87	7.949E-1	7.741E-1	-2.617	±30	Average RF
13C2-PFDA	5.00	5.10	7.242E-1	7.383E-1	1.94	±30	Average RF
13C2-PFUnDA	5.00	4.83	7.502E-1	7.242E-1	-3.474	±30	Average RF
13C2-PFDoDA	5.00	4.88	9.944E-1	9.701E-1	-2.437	±30	Average RF
13C2-PFTeDA	5.00	4.76	8.643E-1	8.224E-1	-4.845	±30	Average RF
13C8-FOSA	5.00	4.60	4.201E-1	3.863E-1	-8.054	±30	Average RF
D3-MeFOSA	5.00	4.65	1.091E-1	1.016E-1	-6.900	±30	Average RF
D5-EtFOSA	5.00	4.49	1.568E-1	1.408E-1	-10.186	±30	Average RF
D7-MeFOSE	5.00	4.78	1.318E-1	1.259E-1	-4.476	±30	Average RF
D9-EtFOSE	5.00	4.92	1.272E-1	1.251E-1	-1.603	±30	Average RF
13C2-6:2 FTS	5.00	4.91	7.707E-2	7.575E-2	-1.700	±30	Average RF
13C2-8:2 FTS	5.00	3.92	5.978E-2	4.69E-2	-21.542	±30	Average RF
13C2-8:2 FTS	5.00	4.54	5.978E-2	5.426E-2	-9.227	±30	Average RF

Client: Test America, Incorporated
Project: DEC - Fort Edward Landfill Site:558001/46030964

Service Request: K1910985
Date Analyzed: 12/10/19 06:20

Continuing Calibration Verification (CCV) Summary
Per- and Polyfluoroalkyl Substances (PFAS) by LC/MS/MS

Analysis Method: PFC/537M

File ID: J:\LCMS06\Data\191209_b5\191209_093

Signal ID: 1

Calibration Date: 12/2/2019

Calibration ID: KC1900518

Analysis Lot: 662637

Units: ng/mL

Analyte Name	Expected	Result	Average RF	CCV RF	Rec.	% Drift	Criteria	Curve Fit
Perfluorobutane sulfonic acid (PFBS)	0.887	0.826	0.6048	0.5629	93.1	NA	±30	Average RF
Perfluorohexane sulfonic acid (PFHxS)	0.913	0.933	0.9048	0.9243	102	NA	±30	Average RF
Perfluoroheptane sulfonic acid (PFHpS)	0.953	1.34	1.1748	1.6534	141*	NA	±30	Average RF
Perfluorooctane sulfonic acid (PFOS)	0.929	0.808	0.8822	0.7669	86.9	NA	±30	Average RF
Perfluorodecane sulfonic acid (PFDS)	0.965	0.745	0.6797	0.5252	77.3	NA	±30	Average RF
Perfluorobutanoic acid (PFBA)	1.00	1.04	0.9825	1.0178	104	NA	±30	Average RF
Perfluoropentanoic acid (PFPeA)	1.00	1.03	3.4231	2.5284	103	3.1	±30	Linear
Perfluorohexanoic acid (PFHxA)	1.00	0.967	1.4779	1.292	96.7	-3.3	±30	Linear
Perfluoroheptanoic acid (PFHpA)	1.00	1.03	1.0911	1.0179	103	2.8	±30	Linear
Perfluorooctanoic acid (PFOA)	1.00	0.903	1.3536	1.1084	90.3	-9.7	±30	Linear
Perfluorononanoic acid (PFNA)	1.00	0.957	1.1854	1.0212	95.7	-4.3	±30	Linear
Perfluorodecanoic acid (PFDA)	1.00	0.978	1.1418	1.0423	97.8	-2.2	±30	Linear
Perfluoroundecanoic acid (PFUnDA)	1.00	0.914	1.0143	0.8114	91.4	-8.6	±30	Linear
Perfluorododecanoic acid (PFDoDA)	1.00	0.925	0.6979	0.5925	92.5	-7.5	±30	Linear
Perfluorotridecanoic acid (PFTTrDA)	1.00	1.01	1.199	1.0852	101	1.4	±30	Linear
Perfluorotetradecanoic acid (PFTeDA)	1.00	0.930	0.8077	0.5077	93.0	-7.1	±30	Linear
Perfluorooctane sulfonamide (FOSA)	1.00	0.924	1.1388	1.0523	92.4	NA	±30	Average RF
N-Methyl perfluorooctane sulfonamide (MeFOSA)	1.00	0.994	1.4387	1.4303	99.4	NA	±30	Average RF
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	1.00	1.03	0.1988	0.2045	103	NA	±30	Average RF
N-Methyl perfluorooctane sulfonamidoethanol	1.00	0.854	1.3355	1.141	85.4	NA	±30	Average RF
N-Ethyl perfluorooctane sulfonamidoethanol	1.00	0.889	1.319	1.1727	88.9	NA	±30	Average RF
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	0.951	1.00	1.2556	1.323	105	NA	±30	Average RF
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	0.960	0.966	0.7833	0.788	101	NA	±30	Average RF

Analyte Name	Expected	Result	Average RF	CCV RF	Rec.	% Drift	Criteria	Curve Fit
13C3-PFBS	5.00	4.70	0.3363	0.3164	94.1	NA	±30	Average RF
18O2-PFHxS	5.00	3.21	0.1782	0.1144	64.2*	NA	±30	Average RF
13C4-PFOS	5.00	5.37	0.1759	0.1888	107	NA	±30	Average RF
13C4-PFBA	5.00	4.74	0.8426	0.7982	94.7	NA	±30	Average RF
13C5-PFPeA	5.00	4.24	0.4531	0.384	84.7	NA	±30	Average RF

Client: Test America, Incorporated
Project: DEC - Fort Edward Landfill Site:558001/46030964

Service Request: K1910985
Date Analyzed: 12/10/19 06:20

Continuing Calibration Verification (CCV) Summary
Per- and Polyfluoroalkyl Substances (PFAS) by LC/MS/MS

Analysis Method: PFC/537M
File ID: J:\LCMS06\Data\191209_b5\191209_093
Signal ID: 1

Calibration Date: 12/2/2019
Calibration ID: KC1900518
Analysis Lot: 662637
Units: ng/mL

13C2-PFHxA	5.00	3.86	1.0158	0.7846	77.2	NA	±30	Average RF
13C4-PFHpA	5.00	3.23	1.0876	0.7026	64.6*	NA	±30	Average RF
13C4-PFOA	5.00	4.58	1.1618	1.0635	91.5	NA	±30	Average RF
13C5-PFNA	5.00	4.32	0.7949	0.6861	86.3	NA	±30	Average RF
13C2-PFDA	5.00	4.58	0.7242	0.6639	91.7	NA	±30	Average RF
13C2-PFUnDA	5.00	5.20	0.7502	0.7809	104	NA	±30	Average RF
13C2-PFDoDA	5.00	4.20	0.9944	0.8347	83.9	NA	±30	Average RF
13C2-PFTeDA	5.00	4.03	0.8643	0.6968	80.6	NA	±30	Average RF
13C8-FOSA	5.00	4.63	0.4201	0.389	92.6	NA	±30	Average RF
D3-MeFOSA	5.00	5.17	0.1091	0.1128	103	NA	±30	Average RF
D5-EtFOSA	5.00	4.87	0.1568	0.1527	97.4	NA	±30	Average RF
D7-MeFOSE	5.00	5.69	0.1318	0.1499	114	NA	±30	Average RF
D9-EtFOSE	5.00	5.90	0.1272	0.15	118	NA	±30	Average RF
13C2-6:2 FTS	5.00	4.59	0.0771	0.0707	91.8	NA	±30	Average RF
13C2-8:2 FTS	5.00	4.88	0.0598	0.0584	97.6	NA	±30	Average RF

ALS Group USA, Corp.

dba ALS Environmental

QA/QC Report

Client: Test America, Incorporated
Project: DEC - Fort Edward Landfill Site:558001/46030964

Service Request:K1910985

Analysis Run Log
Per- and Polyfluoroalkyl Substances (PFAS) by LC/MS/MS

Analysis Method: PFC/537M**Analysis Lot:**662637**Instrument ID:**K-LCMS-06

Raw Data File	Sample Name	Lab Code	Date Analyzed	Time Analyzed	Q
J:\LCMS06\Data\191209_b5\191209_093	Continuing Calibration Verification	KQ1918144-01	12/10/2019	06:20	
J:\LCMS06\Data\191209_b5\191209_094	Continuing Calibration Blank	KQ1918144-02	12/10/2019	06:31	
J:\LCMS06\Data\191209_b5\191209_095	Lab Control Sample	KQ1917876-05	12/10/2019	06:41	
J:\LCMS06\Data\191209_b5\191209_096	Method Blank	KQ1917876-06	12/10/2019	06:51	
J:\LCMS06\Data\191209_b5\191209_097	INFLUENT-20191120	K1910985-001	12/10/2019	07:02	
J:\LCMS06\Data\191209_b5\191209_098	INFLUENT-20191120 MS	KQ1917876-01	12/10/2019	07:13	
J:\LCMS06\Data\191209_b5\191209_099	INFLUENT-20191120 DMS	KQ1917876-02	12/10/2019	07:23	
J:\LCMS06\Data\191209_b5\191209_100	CCT-20191120	K1910985-002	12/10/2019	07:34	
J:\LCMS06\Data\191209_b5\191209_101	DUP-1-20191120	K1910985-003	12/10/2019	07:44	
J:\LCMS06\Data\191209_b5\191209_102	DECANT TANK-20191120	K1910985-004	12/10/2019	07:54	
J:\LCMS06\Data\191209_b5\191209_103	ZZZZZZZ	ZZZZZZZ	12/10/2019	08:05	
J:\LCMS06\Data\191209_b5\191209_104	ZZZZZZZ	ZZZZZZZ	12/10/2019	08:15	
J:\LCMS06\Data\191209_b5\191209_105	ZZZZZZZ	ZZZZZZZ	12/10/2019	08:26	
J:\LCMS06\Data\191209_b5\191209_106	ZZZZZZZ	ZZZZZZZ	12/10/2019	08:36	
J:\LCMS06\Data\191209_b5\191209_107	ZZZZZZZ	ZZZZZZZ	12/10/2019	08:47	
J:\LCMS06\Data\191209_b5\191209_108	ZZZZZZZ	ZZZZZZZ	12/10/2019	08:57	
J:\LCMS06\Data\191209_b5\191209_109	ZZZZZZZ	ZZZZZZZ	12/10/2019	09:08	
J:\LCMS06\Data\191209_b5\191209_110	ZZZZZZZ	ZZZZZZZ	12/10/2019	09:18	
J:\LCMS06\Data\191209_b5\191209_111	ZZZZZZZ	ZZZZZZZ	12/10/2019	09:29	
J:\LCMS06\Data\191209_b5\191209_112	ZZZZZZZ	ZZZZZZZ	12/10/2019	09:39	
J:\LCMS06\Data\191209_b5\191209_113	ZZZZZZZ	ZZZZZZZ	12/10/2019	09:50	
J:\LCMS06\Data\191209_b5\191209_114	ZZZZZZZ	ZZZZZZZ	12/10/2019	10:00	
J:\LCMS06\Data\191209_b5\191209_115	ZZZZZZZ	ZZZZZZZ	12/10/2019	10:10	
J:\LCMS06\Data\191209_b5\191209_116	ZZZZZZZ	ZZZZZZZ	12/10/2019	10:21	
J:\LCMS06\Data\191209_b5\191209_117	ZZZZZZZ	ZZZZZZZ	12/10/2019	10:31	
J:\LCMS06\Data\191209_b5\191209_118	ZZZZZZZ	ZZZZZZZ	12/10/2019	10:42	

ALS Group USA, Corp.

dba ALS Environmental

Prep Summary Report

Client: Test America, Incorporated
Project: DEC - Fort Edward Landfill Site:558001/46030964
Sample Matrix: Water

Service Request:K1910985

Per- and Polyfluoroalkyl Substances (PFAS) by LC/MS/MS

Prep Method: EPA 3535A
Analytical Method: PFC/537M

Extraction Lot: 349810
Extraction Date: 12/04/19 11:29

Sample Name	Lab Code	Date Collected	Date Received	Sample Amount	Final Amount	Percent Solids
INFLUENT-20191120	K1910985-001	11/20/19	11/21/19	149.0000 mL	8 mL	
CCT-20191120	K1910985-002	11/20/19	11/21/19	149.0000 mL	8 mL	
DUP-1-20191120	K1910985-003	11/20/19	11/21/19	149.0000 mL	8 mL	
DECANT TANK-20191120	K1910985-004	11/20/19	11/21/19	149.0000 mL	8 mL	
Matrix Spike	KQ1917876-01MS	11/20/19	11/21/19	149.0000 mL	8 mL	
Duplicate Matrix Spike	KQ1917876-02DMS	11/20/19	11/21/19	149.0000 mL	8 mL	
Lab Control Sample	KQ1917876-05LCS	NA	NA	250 mL	8 mL	
Method Blank	KQ1917876-06MB	NA	NA	250 mL	8 mL	

Chain of Custody Record

#224

Environment Testing
TestAmerica

Client Information		Sampler	Lab Ref:	Carrier Tracking No(s):		COC No:
Client Contact:	Jasmine Mullins	Phone:	646-248-4208	E-Mail:	julie.gilmore@testamerica.com	460-120948-77920-1
Company:	ARCADIS U.S. Inc	Due Date Requested:				Page 1 of 2
Address:	855 Route 146 Suite 210	TAT Requested (days):	STANDARD			Job #: 197135
City:	Clifton Park					
State, Zip:	NY, 12065					
Phone:	518-402-9625 (Tel)	PO #:				
Email:	jasmine.mullins@arcadis.com	Callout: 137562 Site: 558001				
Project Name:	DEC - Fort Edward Landfill Site: 558001	WO #:				
Site:	Fort Edward Landfill	SSOW#:				
Sample Identification		Sample Date	Sample Time	Sample Type (G=grab, B=grab, A=grab)	Matrix (Water, Soil, Sediment, Air, etc.)	Field Filtered Sample (Yes or No)
INFLUENT-20191120	11/20/19	0900	G	Water		Yes
INFLUENT-MS-20191120	11/20/19	0900	G	Water		Yes
INFLUENT-MSD-20191120	11/20/19	0900	G	Water		Yes
CCF-20191120	11/20/19	0930	G	Water		Yes
DUP-4-20191120	11/20/19	—	G	Water		Yes
FILTER SUDGE-20191120	11/20/19	0950	G	Water		Yes
DECANT TANK-20191120	11/20/19	1010	G	Water		Yes
TARP BLANK-20191120	11/20/19	—	G	Water		Yes
Possible Hazard Identification						
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological						
Deliverable Requested: I, II, III, IV, Other (Specify)		CAT B / NYSDC EQUITS				
Empty Kit Relinquished by:		Date:	Time:			
Relinquished by:		Date/Time:	Company:			
Relinquished by:		Date/Time:	Company:			
Custody Seal Intact:		Custody Seal No.:				
A Yes A No						
Special Instructions/Note:						
Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)						
☐ Return To Client ☒ Disposal By Lab ☐ Archive For Months						
Special Instructions/OC Requirements:						
Method of Shipment:						
Received By:		Date/Time:	Company:			
Received By:		Date/Time:	Company:			
Received By:		Date/Time:	Company:			
Cooler Temperature(s) °C and Other Remarks:						
2.0/2.3 °C 19#1						

460-197135 Chain of Custody

1/13/2020

Job Number:

97135

Number of Coolers:

IR Gun #

Cooler Temperatures

If pH adjustments are required record the information below:

Sample No(s). adjusted:

Preservative Name/Conc.:

Volume of Preservative used (ml):

Lot # of Preservative(s):

Expiration Date:

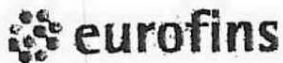
The appropriate Project Manager and Department Manager should be notified about the samples which were pH adjusted.

Samples for Metal analysis which are out of compliance must be acidified at least 24 hours prior to analysis.

Chain of Custody Record



Client Information (Sub Contract Lab)		Sampler:		Lab PM:		Carrier Tracking No(s):		COC No:	
Client Contact:		Phone:		Gilmore, Julie L		State of Origin:		460-56751.1	
Shipping/Receiving		E-Mail:		julie.gilmore@testamericainc.com		Page:		Page 1 of 1	
Company:		Address:		Accreditations Required (See note):		Job #:		460-197135-1	
TestAmerica Laboratories, Inc.		5102 LaRoche Avenue,		NELAP - New York		Preservation Codes:		A - HCL B - NaOH C - Zn Acetate D - Nitric Acid E - NaHSO4 F - MeOH G - Amchlor H - Ascorbic Acid I - Ice J - DI Water K - EDTA L - EDA Other:	
City:		Savannah		Due Date Requested:		Analysis Requested		M - Hexane N - None O - AsNaO2 P - Na2O4S Q - Na2SO3 R - Na2SO4 S - H2SO4 T - TSP Dodecahydrate U - Acetone V - MCAA W - pH 4-5 Z - other (specify)	
State, Zip:		GA, 31404		TAT Requested (days):		9060A Organic Carbon, Total (TOC) Perform MS/MSD (Yes or No)		300_ORGFM_28D/ Sulfate & Chloride 2320B/ Alkalinity	
Phone:		912-354-7858(Tel) 912-352-0165(Fax)		PO #:		160.1/ TDS 160.2/ TSS		Total Number of containers	
Email:				WO #:		Field Filtered Sample (Yes or No)		☒ 8 ☒ 8 ☒ 2	
Project Name:		DEC - Fort Edward Landfill Site-558001		Project #:		Sample Date		Special Instructions/Note:	
Site:				46030964		Sample Time			
				SSOW#:		Sample Type (C=comp, G=grab)			
						Matrix (Water, Solid, Over-sat, A/A)			
						Preservation Code:			
						Sample Date			
						Sample Time			
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Environment Testing
TestAmerica

Sacramento
Sample Receiving Notes



460-197135 Field Sheet

Job: _____

Tracking #: 1039 8839 9575

SO (PO) / FO / SAT / 2-Day / Ground / UPS / CDO / Courier
GSO / OnTrac / Goldstreak / USPS / Other _____

Use this form to record Sample Custody Seal, Cooler Custody Seal, Temperature & corrected Temperature & other observations.
File in the job folder with the COC.

Notes: temp blank was used
and had temp of 0.0 cor -0.2.
sample temperature was
used at 11/21/19

Therm. ID: M65 Corr. Factor: (+/-) 0.2 °C

Ice ☒ Wet ☒ Gel _____ Other _____

Cooler Custody Seal: 1042377

Cooler ID: _____

Temp Observed: 1.9 °C Corrected: 1.7 °C

From: Temp Blank ☒ Sample ☒

Opening/Processing The Shipment 11/21/19

	Yes	No	NA
Cooler compromised/tampered with?	☐	☒	☐
Cooler Temperature is acceptable?	☒	☐	☐
CoC is complete w/o discrepancies?	☒	☐	☐
Samples received within holding time?	☒	☐	☐

Initials: 57 Date: 11/21/19

Unpacking/Labeling The Samples

	Yes	No	NA
Samples compromised/tampered with?	☐	☒	☐
Sample containers have legible labels?	☒	☐	☐
Sample custody seal?	☐	☒	☐
Containers are not broken or leaking?	☒	☐	☐
Sample date/times are provided?	☒	☐	☐
Appropriate containers are used?	☒	☐	☐
Sample bottles are completely filled?	☒	☐	☐
Sample preservatives verified?	☐	☐	☒
Samples w/o discrepancies?	☒	☐	☐
Zero headspace?*	☐	☐	☒
Alkalinity has no headspace?	☐	☐	☒
Perchlorate has headspace? (Methods 314, 331, 6850)	☐	☐	☒
Multiphasic samples are not present?	☒	☐	☐

Non-conformance

	Yes	No	NA
NCM Filed?	☐	☐	☒

Initials: JG Date: 11/23/19

*Containers requiring zero headspace have no headspace, or bubble < 6 mm (1/4")

W13-A

1042377

Environment Testing
TestAmerica

eurofins

Custody Sea

DATE 11-2-19
SIGNATURE *[Signature]*

FROM: INNI
EUR: 880
ORIGIN ID: SCHA (518) 438-8140
TIM KNOLLMEYER
TESTAMERICA LAB INC
25 KRAFT AVE
ALBANY, NY 12205
UNITED STATES US

SHIP DATE: 20NOV19
ACTWGT: 36.20 LB
CAD: 0439821/CAFE3211
DIMS: 21x14x11 IN
BILL THIRD PARTY

TO
1
2
SAMPLE RECEIVING
TESTAMERICA - W. SACRAMENTO
880 RIVERSIDE PKWY

A
WEST SACRAMENTO CA 95605
(916) 373-5600
REF: ERM HHOSICK FALLS /ARCADIS FORT ED



TRK# 1034 8839 9575
0201

THU - 21 NOV 10:30A
PRIORITY OVERNIGHT

XH BLUA

95605
CA-US SMF



Part # 155149-434 RIT EXP 09/19

1042377

Environment Testing
TestAmerica

eurofins

Login Sample Receipt Checklist

Client: New York State D.E.C.

Job Number: 460-197135-1

Login Number: 197135

List Source: Eurofins TestAmerica, Edison

List Number: 1

Creator: DiGuardia, Joseph L

Question	Answer	Comment
Radioactivity wasn't checked or is $\leq$ background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is $<6\text{mm}$ (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Login Sample Receipt Checklist

Client: New York State D.E.C.

Job Number: 460-197135-1

Login Number: 197135

List Number: 3

Creator: Thompson, Sarah W

List Source: Eurofins TestAmerica, Sacramento

List Creation: 11/23/19 01:14 PM

Question	Answer	Comment
Radioactivity wasn't checked or is $\leq$ background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	1042377
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	obs 1.9 corr 1.7c
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	False	Received project as a subcontract.
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is $<6\text{mm}$ (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Login Sample Receipt Checklist

Client: New York State D.E.C.

Job Number: 460-197135-1

Login Number: 197135

List Number: 2

Creator: Sims, Robert D

List Source: Eurofins TestAmerica, Savannah

List Creation: 11/23/19 11:13 AM

Question	Answer	Comment
Radioactivity wasn't checked or is $\leq$ background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	N/A	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is $<6\text{mm}$ (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: Test America, Incorporated
Project: DEC - Fort Edward Landfill Site:558001/46030964
Sample Matrix: Water

Service Request: K1910888
Date Collected: 11/06/19 07:35
Date Received: 11/19/19 10:40

Sample Name: INFLUENT-20191106 (460-196154-1)
Lab Code: K1910888-001

Units: ng/L
Basis: NA

Total Oxidizable Precursor Assay (TOPA) of Per- and Polyfluoroalkyl Substances (PFAS) by LC/MS/MS

Analysis Method: ALS SOP
Prep Method: ALS SOP

Analyte Name	Result	MRL	Dil.	Date Analyzed	Date Extracted	Q
Perfluoroalkane Sulfonic Acids						
Perfluorobutane sulfonic acid (PFBS)	ND U	10	1	12/18/19 14:34	11/20/19	
Perfluoropentane sulfonic acid (PFPeS)	ND U	10	1	12/18/19 14:34	11/20/19	
Perfluorohexane sulfonic acid (PFHxS)	ND U	10	1	12/18/19 14:34	11/20/19	
Perfluoroheptane sulfonic acid (PFHpS)	ND U	10	1	12/18/19 14:34	11/20/19	
Perfluorooctane sulfonic acid (PFOS)	ND U	10	1	12/18/19 14:34	11/20/19	
Perfluorononane sulfonic acid (PFNS)	ND U	10	1	12/18/19 14:34	11/20/19	
Perfluorodecane sulfonic acid (PFDS)	ND U	10	1	12/18/19 14:34	11/20/19	
Perfluoroalkane Carboxylic Acids						
Perfluorobutanoic acid (PFBA)	22	10	1	12/18/19 14:34	11/20/19	
Perfluoropentanoic acid (PFPeA)	39 B	10	1	12/18/19 14:34	11/20/19	
Perfluorohexanoic acid (PFHxA)	40 B	10	1	12/18/19 14:34	11/20/19	
Perfluoroheptanoic acid (PFHpA)	ND U	10	1	12/18/19 14:34	11/20/19	
Perfluorooctanoic acid (PFOA)	29	10	1	12/18/19 14:34	11/20/19	
Perfluorononanoic acid (PFNA)	ND U	10	1	12/18/19 14:34	11/20/19	
Perfluorodecanoic acid (PFDA)	ND U	10	1	12/18/19 14:34	11/20/19	
Perfluoroundecanoic acid (PFUnDA)	ND U	10	1	12/18/19 14:34	11/20/19	
Perfluorododecanoic acid (PFDoDA)	ND U	10	1	12/18/19 14:34	11/20/19	
Perfluorotridecanoic acid (PFTTrDA)	ND U	10	1	12/18/19 14:34	11/20/19	
Perfluorotetradecanoic acid (PFTeDA)	ND U	10	1	12/18/19 14:34	11/20/19	
Perfluoroalkyl Sulfonamides						
Perfluorooctane sulfonamide (FOSA)	ND U	10	1	12/18/19 14:34	11/20/19	
N-Methyl perfluorooctane sulfonamide (MeFOSA)	ND U	10	1	12/18/19 14:34	11/20/19	
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	ND U	10	1	12/18/19 14:34	11/20/19	
N-Methyl perfluorooctane sulfonamidoethanol	ND U	10	1	12/18/19 14:34	11/20/19	
N-Ethyl perfluorooctane sulfonamidoethanol	ND U	10	1	12/18/19 14:34	11/20/19	
N-Methyl perfluorooctane sulfonamidoacetic acid	ND U	10	1	12/18/19 14:34	11/20/19	
N-Ethyl perfluorooctane sulfonamidoacetic acid	ND U	10	1	12/18/19 14:34	11/20/19	
(n:2) Fluorotelomer Sulfonic Acids						
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	ND U	10	1	12/18/19 14:34	11/20/19	
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	ND U	10	1	12/18/19 14:34	11/20/19	
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	ND U	10	1	12/18/19 14:34	11/20/19	
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	ND U	10	1	12/18/19 14:34	11/20/19	
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	ND U	10	1	12/18/19 14:34	11/20/19	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: Test America, Incorporated
Project: DEC - Fort Edward Landfill Site:558001/46030964
Sample Matrix: Water

Service Request: K1910888
Date Collected: 11/06/19 07:35
Date Received: 11/19/19 10:40

Sample Name: INFLUENT-20191106 (460-196154-1)
Lab Code: K1910888-001

Units: ng/L
Basis: NA

Total Oxidizable Precursor Assay (TOPA) of Per- and Polyfluoroalkyl Substances (PFAS) by LC/MS/MS

Analysis Method: ALS SOP
Prep Method: ALS SOP

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
13C3-PFBS	47	70 - 130	12/18/19 14:34	*
18O2-PFHxS	65	70 - 130	12/18/19 14:34	*
13C4-PFOS	73	70 - 130	12/18/19 14:34	
13C4-PFBA	68	70 - 130	12/18/19 14:34	*
13C5-PFPeA	56	70 - 130	12/18/19 14:34	*
13C2-PFHxA	65	70 - 130	12/18/19 14:34	*
13C4-PFHpA	61	70 - 130	12/18/19 14:34	*
13C4-PFOA	71	70 - 130	12/18/19 14:34	
13C5-PFNA	65	70 - 130	12/18/19 14:34	*
13C2-PFDA	67	70 - 130	12/18/19 14:34	*
13C2-PFUnDA	83	70 - 130	12/18/19 14:34	
13C2-PFDoDA	70	70 - 130	12/18/19 14:34	
13C2-PFTeDA	55	70 - 130	12/18/19 14:34	*
13C8-FOSA	49	70 - 130	12/18/19 14:34	*
D3-MeFOSA	36	70 - 130	12/18/19 14:34	*
D5-EtFOSA	38	70 - 130	12/18/19 14:34	*
D7-MeFOSE	57	70 - 130	12/18/19 14:34	*
D9-EtFOSE	56	70 - 130	12/18/19 14:34	*
D3-MeFOSAA	51	70 - 130	12/18/19 14:34	*
D5-EtFOSAA	59	70 - 130	12/18/19 14:34	*
13C2-4:2 FTS	81	70 - 130	12/18/19 14:34	
13C2-6:2 FTS	0	0 - 10	12/18/19 14:34	
13C2-8:2 FTS	96	70 - 130	12/18/19 14:34	
13C3-HFPO-DA	68	70 - 130	12/18/19 14:34	*

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: Test America, Incorporated
Project: DEC - Fort Edward Landfill Site:558001/46030964
Sample Matrix: Water

Service Request: K1910888
Date Collected: 11/06/19 08:00
Date Received: 11/19/19 10:40

Sample Name: CCT-20191106 (460-196154-2)
Lab Code: K1910888-002

Units: ng/L
Basis: NA

Total Oxidizable Precursor Assay (TOPA) of Per- and Polyfluoroalkyl Substances (PFAS) by LC/MS/MS

Analysis Method: ALS SOP
Prep Method: ALS SOP

Analyte Name	Result	MRL	Dil.	Date Analyzed	Date Extracted	Q
Perfluoroalkane Sulfonic Acids						
Perfluorobutane sulfonic acid (PFBS)	ND U	10	1	12/18/19 14:45	11/20/19	
Perfluoropentane sulfonic acid (PFPeS)	ND U	10	1	12/18/19 14:45	11/20/19	
Perfluorohexane sulfonic acid (PFHxS)	ND U	10	1	12/18/19 14:45	11/20/19	
Perfluoroheptane sulfonic acid (PFHpS)	ND U	10	1	12/18/19 14:45	11/20/19	
Perfluorooctane sulfonic acid (PFOS)	12	10	1	12/18/19 14:45	11/20/19	
Perfluorononane sulfonic acid (PFNS)	ND U	10	1	12/18/19 14:45	11/20/19	
Perfluorodecane sulfonic acid (PFDS)	ND U	10	1	12/18/19 14:45	11/20/19	
Perfluoroalkane Carboxylic Acids						
Perfluorobutanoic acid (PFBA)	27	10	1	12/18/19 14:45	11/20/19	
Perfluoropentanoic acid (PFPeA)	42 B	10	1	12/18/19 14:45	11/20/19	
Perfluorohexanoic acid (PFHxA)	49 B	10	1	12/18/19 14:45	11/20/19	
Perfluoroheptanoic acid (PFHpA)	14	10	1	12/18/19 14:45	11/20/19	
Perfluorooctanoic acid (PFOA)	51	10	1	12/18/19 14:45	11/20/19	
Perfluorononanoic acid (PFNA)	ND U	10	1	12/18/19 14:45	11/20/19	
Perfluorodecanoic acid (PFDA)	ND U	10	1	12/18/19 14:45	11/20/19	
Perfluoroundecanoic acid (PFUnDA)	ND U	10	1	12/18/19 14:45	11/20/19	
Perfluorododecanoic acid (PFDoDA)	ND U	10	1	12/18/19 14:45	11/20/19	
Perfluorotridecanoic acid (PFTTrDA)	ND U	10	1	12/18/19 14:45	11/20/19	
Perfluorotetradecanoic acid (PFTeDA)	ND U	10	1	12/18/19 14:45	11/20/19	
Perfluoroalkyl Sulfonamides						
Perfluorooctane sulfonamide (FOSA)	ND U	10	1	12/18/19 14:45	11/20/19	
N-Methyl perfluorooctane sulfonamide (MeFOSA)	ND U	10	1	12/18/19 14:45	11/20/19	
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	ND U	10	1	12/18/19 14:45	11/20/19	
N-Methyl perfluorooctane sulfonamidoethanol	ND U	10	1	12/18/19 14:45	11/20/19	
N-Ethyl perfluorooctane sulfonamidoethanol	ND U	10	1	12/18/19 14:45	11/20/19	
N-Methyl perfluorooctane sulfonamidoacetic acid	ND U	10	1	12/18/19 14:45	11/20/19	
N-Ethyl perfluorooctane sulfonamidoacetic acid	ND U	10	1	12/18/19 14:45	11/20/19	
(n:2) Fluorotelomer Sulfonic Acids						
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	ND U	10	1	12/18/19 14:45	11/20/19	
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	ND U	10	1	12/18/19 14:45	11/20/19	
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	ND U	10	1	12/18/19 14:45	11/20/19	
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	ND U	10	1	12/18/19 14:45	11/20/19	
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	ND U	10	1	12/18/19 14:45	11/20/19	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: Test America, Incorporated
Project: DEC - Fort Edward Landfill Site:558001/46030964
Sample Matrix: Water

Service Request: K1910888
Date Collected: 11/06/19 08:00
Date Received: 11/19/19 10:40

Sample Name: CCT-20191106 (460-196154-2)
Lab Code: K1910888-002

Units: ng/L
Basis: NA

Total Oxidizable Precursor Assay (TOPA) of Per- and Polyfluoroalkyl Substances (PFAS) by LC/MS/MS

Analysis Method: ALS SOP
Prep Method: ALS SOP

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
13C3-PFBS	39	70 - 130	12/18/19 14:45	*
18O2-PFHxS	50	70 - 130	12/18/19 14:45	*
13C4-PFOS	56	70 - 130	12/18/19 14:45	*
13C4-PFBA	55	70 - 130	12/18/19 14:45	*
13C5-PFPeA	53	70 - 130	12/18/19 14:45	*
13C2-PFHxA	64	70 - 130	12/18/19 14:45	*
13C4-PFHpA	50	70 - 130	12/18/19 14:45	*
13C4-PFOA	56	70 - 130	12/18/19 14:45	*
13C5-PFNA	50	70 - 130	12/18/19 14:45	*
13C2-PFDA	60	70 - 130	12/18/19 14:45	*
13C2-PFUnDA	68	70 - 130	12/18/19 14:45	*
13C2-PFDoDA	63	70 - 130	12/18/19 14:45	*
13C2-PFTeDA	48	70 - 130	12/18/19 14:45	*
13C8-FOSA	44	70 - 130	12/18/19 14:45	*
D3-MeFOSA	34	70 - 130	12/18/19 14:45	*
D5-EtFOSA	35	70 - 130	12/18/19 14:45	*
D7-MeFOSE	48	70 - 130	12/18/19 14:45	*
D9-EtFOSE	53	70 - 130	12/18/19 14:45	*
D3-MeFOSAA	49	70 - 130	12/18/19 14:45	*
D5-EtFOSAA	51	70 - 130	12/18/19 14:45	*
13C2-4:2 FTS	72	70 - 130	12/18/19 14:45	
13C2-6:2 FTS	0	0 - 10	12/18/19 14:45	
13C2-8:2 FTS	79	70 - 130	12/18/19 14:45	
13C3-HFPO-DA	60	70 - 130	12/18/19 14:45	*

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: Test America, Incorporated
Project: DEC - Fort Edward Landfill Site:558001/46030964
Sample Matrix: Water

Service Request: K1910888
Date Collected: 11/06/19 07:50
Date Received: 11/19/19 10:40

Sample Name: DECANT TANK-20191106 (460-196154-3)
Lab Code: K1910888-003

Units: ng/L
Basis: NA

Total Oxidizable Precursor Assay (TOPA) of Per- and Polyfluoroalkyl Substances (PFAS) by LC/MS/MS

Analysis Method: ALS SOP
Prep Method: ALS SOP

Analyte Name	Result	MRL	Dil.	Date Analyzed	Date Extracted	Q
Perfluoroalkane Sulfonic Acids						
Perfluorobutane sulfonic acid (PFBS)	ND U	10	1	12/18/19 15:06	11/20/19	
Perfluoropentane sulfonic acid (PFPeS)	ND U	10	1	12/18/19 15:06	11/20/19	
Perfluorohexane sulfonic acid (PFHxS)	ND U	10	1	12/18/19 15:06	11/20/19	
Perfluoroheptane sulfonic acid (PFHpS)	ND U	10	1	12/18/19 15:06	11/20/19	
Perfluorooctane sulfonic acid (PFOS)	11	10	1	12/18/19 15:06	11/20/19	
Perfluorononane sulfonic acid (PFNS)	ND U	10	1	12/18/19 15:06	11/20/19	
Perfluorodecane sulfonic acid (PFDS)	ND U	10	1	12/18/19 15:06	11/20/19	
Perfluoroalkane Carboxylic Acids						
Perfluorobutanoic acid (PFBA)	24	10	1	12/18/19 15:06	11/20/19	
Perfluoropentanoic acid (PFPeA)	39 B	10	1	12/18/19 15:06	11/20/19	
Perfluorohexanoic acid (PFHxA)	44 B	10	1	12/18/19 15:06	11/20/19	
Perfluoroheptanoic acid (PFHpA)	16	10	1	12/18/19 15:06	11/20/19	
Perfluorooctanoic acid (PFOA)	53	10	1	12/18/19 15:06	11/20/19	
Perfluorononanoic acid (PFNA)	ND U	10	1	12/18/19 15:06	11/20/19	
Perfluorodecanoic acid (PFDA)	ND U	10	1	12/18/19 15:06	11/20/19	
Perfluoroundecanoic acid (PFUnDA)	ND U	10	1	12/18/19 15:06	11/20/19	
Perfluorododecanoic acid (PFDoDA)	ND U	10	1	12/18/19 15:06	11/20/19	
Perfluorotridecanoic acid (PFTTrDA)	ND U	10	1	12/18/19 15:06	11/20/19	
Perfluorotetradecanoic acid (PFTeDA)	ND U	10	1	12/18/19 15:06	11/20/19	
Perfluoroalkyl Sulfonamides						
Perfluorooctane sulfonamide (FOSA)	ND U	10	1	12/18/19 15:06	11/20/19	
N-Methyl perfluorooctane sulfonamide (MeFOSA)	ND U	10	1	12/18/19 15:06	11/20/19	
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	ND U	10	1	12/18/19 15:06	11/20/19	
N-Methyl perfluorooctane sulfonamidoethanol	ND U	10	1	12/18/19 15:06	11/20/19	
N-Ethyl perfluorooctane sulfonamidoethanol	ND U	10	1	12/18/19 15:06	11/20/19	
N-Methyl perfluorooctane sulfonamidoacetic acid	ND U	10	1	12/18/19 15:06	11/20/19	
N-Ethyl perfluorooctane sulfonamidoacetic acid	ND U	10	1	12/18/19 15:06	11/20/19	
(n:2) Fluorotelomer Sulfonic Acids						
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	ND U	10	1	12/18/19 15:06	11/20/19	
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	17	10	1	12/18/19 15:06	11/20/19	
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	ND U	10	1	12/18/19 15:06	11/20/19	
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	ND U	10	1	12/18/19 15:06	11/20/19	
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	ND U	10	1	12/18/19 15:06	11/20/19	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: Test America, Incorporated
Project: DEC - Fort Edward Landfill Site:558001/46030964
Sample Matrix: Water

Service Request: K1910888
Date Collected: 11/06/19 07:50
Date Received: 11/19/19 10:40

Sample Name: DECANT TANK-20191106 (460-196154-3)
Lab Code: K1910888-003

Units: ng/L
Basis: NA

Total Oxidizable Precursor Assay (TOPA) of Per- and Polyfluoroalkyl Substances (PFAS) by LC/MS/MS

Analysis Method: ALS SOP
Prep Method: ALS SOP

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
13C3-PFBS	42	70 - 130	12/18/19 15:06	*
18O2-PFHxS	60	70 - 130	12/18/19 15:06	*
13C4-PFOS	73	70 - 130	12/18/19 15:06	
13C4-PFBA	62	70 - 130	12/18/19 15:06	*
13C5-PFPeA	55	70 - 130	12/18/19 15:06	*
13C2-PFHxA	62	70 - 130	12/18/19 15:06	*
13C4-PFHpA	55	70 - 130	12/18/19 15:06	*
13C4-PFOA	65	70 - 130	12/18/19 15:06	*
13C5-PFNA	64	70 - 130	12/18/19 15:06	*
13C2-PFDA	72	70 - 130	12/18/19 15:06	
13C2-PFUnDA	75	70 - 130	12/18/19 15:06	
13C2-PFDoDA	74	70 - 130	12/18/19 15:06	
13C2-PFTeDA	57	70 - 130	12/18/19 15:06	*
13C8-FOSA	52	70 - 130	12/18/19 15:06	*
D3-MeFOSA	38	70 - 130	12/18/19 15:06	*
D5-EtFOSA	38	70 - 130	12/18/19 15:06	*
D7-MeFOSE	56	70 - 130	12/18/19 15:06	*
D9-EtFOSE	60	70 - 130	12/18/19 15:06	*
D3-MeFOSAA	51	70 - 130	12/18/19 15:06	*
D5-EtFOSAA	53	70 - 130	12/18/19 15:06	*
13C2-4:2 FTS	77	70 - 130	12/18/19 15:06	
13C2-6:2 FTS	1	0 - 10	12/18/19 15:06	
13C2-8:2 FTS	92	70 - 130	12/18/19 15:06	
13C3-HFPO-DA	70	70 - 130	12/18/19 15:06	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: Test America, Incorporated
Project: DEC - Fort Edward Landfill Site:558001/46030964
Sample Matrix: Water

Service Request: K1910888
Date Collected: 11/06/19
Date Received: 11/19/19 10:40

Sample Name: DUP-1-20191106 (460-196154-4)
Lab Code: K1910888-004

Units: ng/L
Basis: NA

Total Oxidizable Precursor Assay (TOPA) of Per- and Polyfluoroalkyl Substances (PFAS) by LC/MS/MS

Analysis Method: ALS SOP
Prep Method: ALS SOP

Analyte Name	Result	MRL	Dil.	Date Analyzed	Date Extracted	Q
Perfluoroalkane Sulfonic Acids						
Perfluorobutane sulfonic acid (PFBS)	ND U	10	1	12/18/19 15:16	11/20/19	
Perfluoropentane sulfonic acid (PFPeS)	ND U	10	1	12/18/19 15:16	11/20/19	
Perfluorohexane sulfonic acid (PFHxS)	ND U	10	1	12/18/19 15:16	11/20/19	
Perfluoroheptane sulfonic acid (PFHpS)	ND U	10	1	12/18/19 15:16	11/20/19	
Perfluorooctane sulfonic acid (PFOS)	ND U	10	1	12/18/19 15:16	11/20/19	
Perfluorononane sulfonic acid (PFNS)	ND U	10	1	12/18/19 15:16	11/20/19	
Perfluorodecane sulfonic acid (PFDS)	ND U	10	1	12/18/19 15:16	11/20/19	
Perfluoroalkane Carboxylic Acids						
Perfluorobutanoic acid (PFBA)	25	10	1	12/18/19 15:16	11/20/19	
Perfluoropentanoic acid (PFPeA)	38 B	10	1	12/18/19 15:16	11/20/19	
Perfluorohexanoic acid (PFHxA)	47 B	10	1	12/18/19 15:16	11/20/19	
Perfluoroheptanoic acid (PFHpA)	12	10	1	12/18/19 15:16	11/20/19	
Perfluorooctanoic acid (PFOA)	49	10	1	12/18/19 15:16	11/20/19	
Perfluorononanoic acid (PFNA)	ND U	10	1	12/18/19 15:16	11/20/19	
Perfluorodecanoic acid (PFDA)	ND U	10	1	12/18/19 15:16	11/20/19	
Perfluoroundecanoic acid (PFUnDA)	ND U	10	1	12/18/19 15:16	11/20/19	
Perfluorododecanoic acid (PFDoDA)	ND U	10	1	12/18/19 15:16	11/20/19	
Perfluorotridecanoic acid (PFTrDA)	ND U	10	1	12/18/19 15:16	11/20/19	
Perfluorotetradecanoic acid (PFTeDA)	ND U	10	1	12/18/19 15:16	11/20/19	
Perfluoroalkyl Sulfonamides						
Perfluorooctane sulfonamide (FOSA)	ND U	10	1	12/18/19 15:16	11/20/19	
N-Methyl perfluorooctane sulfonamide (MeFOSA)	ND U	10	1	12/18/19 15:16	11/20/19	
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	ND U	10	1	12/18/19 15:16	11/20/19	
N-Methyl perfluorooctane sulfonamidoethanol	ND U	10	1	12/18/19 15:16	11/20/19	
N-Ethyl perfluorooctane sulfonamidoethanol	ND U	10	1	12/18/19 15:16	11/20/19	
N-Methyl perfluorooctane sulfonamidoacetic acid	ND U	10	1	12/18/19 15:16	11/20/19	
N-Ethyl perfluorooctane sulfonamidoacetic acid	ND U	10	1	12/18/19 15:16	11/20/19	
(n:2) Fluorotelomer Sulfonic Acids						
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	ND U	10	1	12/18/19 15:16	11/20/19	
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	ND U	10	1	12/18/19 15:16	11/20/19	
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	ND U	10	1	12/18/19 15:16	11/20/19	
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	ND U	10	1	12/18/19 15:16	11/20/19	
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	ND U	10	1	12/18/19 15:16	11/20/19	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: Test America, Incorporated
Project: DEC - Fort Edward Landfill Site:558001/46030964
Sample Matrix: Water

Service Request: K1910888
Date Collected: 11/06/19
Date Received: 11/19/19 10:40

Sample Name: DUP-1-20191106 (460-196154-4)
Lab Code: K1910888-004

Units: ng/L
Basis: NA

Total Oxidizable Precursor Assay (TOPA) of Per- and Polyfluoroalkyl Substances (PFAS) by LC/MS/MS

Analysis Method: ALS SOP
Prep Method: ALS SOP

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
13C3-PFBS	47	70 - 130	12/18/19 15:16	*
18O2-PFHxS	55	70 - 130	12/18/19 15:16	*
13C4-PFOS	64	70 - 130	12/18/19 15:16	*
13C4-PFBA	58	70 - 130	12/18/19 15:16	*
13C5-PFPeA	55	70 - 130	12/18/19 15:16	*
13C2-PFHxA	65	70 - 130	12/18/19 15:16	*
13C4-PFHpA	65	70 - 130	12/18/19 15:16	*
13C4-PFOA	58	70 - 130	12/18/19 15:16	*
13C5-PFNA	52	70 - 130	12/18/19 15:16	*
13C2-PFDA	61	70 - 130	12/18/19 15:16	*
13C2-PFUnDA	67	70 - 130	12/18/19 15:16	*
13C2-PFDoDA	57	70 - 130	12/18/19 15:16	*
13C2-PFTeDA	52	70 - 130	12/18/19 15:16	*
13C8-FOSA	47	70 - 130	12/18/19 15:16	*
D3-MeFOSA	37	70 - 130	12/18/19 15:16	*
D5-EtFOSA	40	70 - 130	12/18/19 15:16	*
D7-MeFOSE	57	70 - 130	12/18/19 15:16	*
D9-EtFOSE	58	70 - 130	12/18/19 15:16	*
D3-MeFOSAA	50	70 - 130	12/18/19 15:16	*
D5-EtFOSAA	56	70 - 130	12/18/19 15:16	*
13C2-4:2 FTS	88	70 - 130	12/18/19 15:16	
13C2-6:2 FTS	0	0 - 10	12/18/19 15:16	
13C2-8:2 FTS	80	70 - 130	12/18/19 15:16	
13C3-HFPO-DA	60	70 - 130	12/18/19 15:16	*

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: Test America, Incorporated
Project: DEC - Fort Edward Landfill Site:558001/46030964
Sample Matrix: Water

Sample Name: Method Blank
Lab Code: KQ1917177-04

Service Request: K1910888
Date Collected: NA
Date Received: NA

Units: ng/L
Basis: NA

Total Oxidizable Precursor Assay (TOPA) of Per- and Polyfluoroalkyl Substances (PFAS) by LC/MS/MS

Analysis Method: ALS SOP
Prep Method: ALS SOP

Analyte Name	Result	MRL	Dil.	Date Analyzed	Date Extracted	Q
Perfluoroalkane Sulfonic Acids						
Perfluorobutane sulfonic acid (PFBS)	ND U	10	1	12/18/19 14:24	11/20/19	
Perfluoropentane sulfonic acid (PFPeS)	ND U	10	1	12/18/19 14:24	11/20/19	
Perfluorohexane sulfonic acid (PFHxS)	ND U	10	1	12/18/19 14:24	11/20/19	
Perfluoroheptane sulfonic acid (PFHpS)	ND U	10	1	12/18/19 14:24	11/20/19	
Perfluorooctane sulfonic acid (PFOS)	ND U	10	1	12/18/19 14:24	11/20/19	
Perfluorononane sulfonic acid (PFNS)	ND U	10	1	12/18/19 14:24	11/20/19	
Perfluorodecane sulfonic acid (PFDS)	ND U	10	1	12/18/19 14:24	11/20/19	
Perfluoroalkane Carboxylic Acids						
Perfluorobutanoic acid (PFBA)	ND U	10	1	12/18/19 14:24	11/20/19	
Perfluoropentanoic acid (PFPeA)	13	10	1	12/18/19 14:24	11/20/19	
Perfluorohexanoic acid (PFHxA)	13	10	1	12/18/19 14:24	11/20/19	
Perfluoroheptanoic acid (PFHpA)	ND U	10	1	12/18/19 14:24	11/20/19	
Perfluorooctanoic acid (PFOA)	ND U	10	1	12/18/19 14:24	11/20/19	
Perfluorononanoic acid (PFNA)	ND U	10	1	12/18/19 14:24	11/20/19	
Perfluorodecanoic acid (PFDA)	ND U	10	1	12/18/19 14:24	11/20/19	
Perfluoroundecanoic acid (PFUnDA)	ND U	10	1	12/18/19 14:24	11/20/19	
Perfluorododecanoic acid (PFDoDA)	ND U	10	1	12/18/19 14:24	11/20/19	
Perfluorotridecanoic acid (PFTTrDA)	ND U	10	1	12/18/19 14:24	11/20/19	
Perfluorotetradecanoic acid (PFTeDA)	ND U	10	1	12/18/19 14:24	11/20/19	
Perfluoroalkyl Sulfonamides						
Perfluorooctane sulfonamide (FOSA)	ND U	10	1	12/18/19 14:24	11/20/19	
N-Methyl perfluorooctane sulfonamide (MeFOSA)	ND U	10	1	12/18/19 14:24	11/20/19	
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	ND U	10	1	12/18/19 14:24	11/20/19	
N-Methyl perfluorooctane sulfonamidoethanol	ND U	10	1	12/18/19 14:24	11/20/19	
N-Ethyl perfluorooctane sulfonamidoethanol	ND U	10	1	12/18/19 14:24	11/20/19	
N-Methyl perfluorooctane sulfonamidoacetic acid	ND U	10	1	12/18/19 14:24	11/20/19	
N-Ethyl perfluorooctane sulfonamidoacetic acid	ND U	10	1	12/18/19 14:24	11/20/19	
(n:2) Fluorotelomer Sulfonic Acids						
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	ND U	10	1	12/18/19 14:24	11/20/19	
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	ND U	10	1	12/18/19 14:24	11/20/19	
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	ND U	10	1	12/18/19 14:24	11/20/19	
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	ND U	10	1	12/18/19 14:24	11/20/19	
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	ND U	10	1	12/18/19 14:24	11/20/19	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: Test America, Incorporated
Project: DEC - Fort Edward Landfill Site:558001/46030964
Sample Matrix: Water

Service Request: K1910888
Date Collected: NA
Date Received: NA

Sample Name: Method Blank
Lab Code: KQ1917177-04

Units: ng/L
Basis: NA

Total Oxidizable Precursor Assay (TOPA) of Per- and Polyfluoroalkyl Substances (PFAS) by LC/MS/MS

Analysis Method: ALS SOP
Prep Method: ALS SOP

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
13C3-PFBS	54	70 - 130	12/18/19 14:24	*
18O2-PFHxS	59	70 - 130	12/18/19 14:24	*
13C4-PFOS	78	70 - 130	12/18/19 14:24	
13C4-PFBA	73	70 - 130	12/18/19 14:24	
13C5-PFPeA	60	70 - 130	12/18/19 14:24	*
13C2-PFHxA	62	70 - 130	12/18/19 14:24	*
13C4-PFHpA	36	70 - 130	12/18/19 14:24	*
13C4-PFOA	75	70 - 130	12/18/19 14:24	
13C5-PFNA	72	70 - 130	12/18/19 14:24	
13C2-PFDA	72	70 - 130	12/18/19 14:24	
13C2-PFUnDA	81	70 - 130	12/18/19 14:24	
13C2-PFDoDA	77	70 - 130	12/18/19 14:24	
13C2-PFTeDA	54	70 - 130	12/18/19 14:24	*
13C8-FOSA	53	70 - 130	12/18/19 14:24	*
D3-MeFOSA	37	70 - 130	12/18/19 14:24	*
D5-EtFOSA	42	70 - 130	12/18/19 14:24	*
D7-MeFOSE	62	70 - 130	12/18/19 14:24	*
D9-EtFOSE	69	70 - 130	12/18/19 14:24	*
D3-MeFOSAA	55	70 - 130	12/18/19 14:24	*
D5-EtFOSAA	61	70 - 130	12/18/19 14:24	*
13C2-4:2 FTS	80	70 - 130	12/18/19 14:24	
13C2-6:2 FTS	0	0 - 10	12/18/19 14:24	
13C2-8:2 FTS	82	70 - 130	12/18/19 14:24	
13C3-HFPO-DA	70	70 - 130	12/18/19 14:24	

ALS Group USA, Corp.
dba ALS Environmental

QA/QC Report

Client: Test America, Incorporated
Project: DEC - Fort Edward Landfill Site:558001/46030964
Sample Matrix: Water

Service Request: K1910888

SURROGATE RECOVERY SUMMARY

Total Oxidizable Precursor Assay (TOPA) of Per- and Polyfluoroalkyl Substances (PFAS) by LC/MS/MS

Analysis Method: ALS SOP

Extraction Method: ALS SOP

Surrogate	Control Limits	INFLUENT-20191106 (460-196154-1)	CCT-20191106 (460-196154-2)	DECANT TANK-20191106 (460-196154-3)
		K1910888-001	K1910888-002	K1910888-003
13C3-PFBS	70-130	47*	39*	42*
18O2-PFHxS	70-130	65*	50*	60*
13C4-PFOS	70-130	73	56*	73
13C4-PFBA	70-130	68*	55*	62*
13C5-PFPeA	70-130	56*	53*	55*
13C2-PFHxA	70-130	65*	64*	62*
13C4-PFHpA	70-130	61*	50*	55*
13C4-PFOA	70-130	71	56*	65*
13C5-PFNA	70-130	65*	50*	64*
13C2-PFDA	70-130	67*	60*	72
13C2-PFUnDA	70-130	83	68*	75
13C2-PFDoDA	70-130	70	63*	74
13C2-PFTeDA	70-130	55*	48*	57*
13C8-FOSA	70-130	49*	44*	52*
D3-MeFOSA	70-130	36*	34*	38*
D5-EtFOSA	70-130	38*	35*	38*
D7-MeFOSE	70-130	57*	48*	56*
D9-EtFOSE	70-130	56*	53*	60*
D3-MeFOSAA	70-130	51*	49*	51*
D5-EtFOSAA	70-130	59*	51*	53*
13C2-4:2 FTS	70-130	81	72	77
13C2-6:2 FTS	0-10	0	0	1
13C2-8:2 FTS	70-130	96	79	92
13C3-HFPO-DA	70-130	68*	60*	70

Results flagged with an asterisk (*) indicate values outside control criteria.

Results flagged with an pound (#) indicate the control criteria is not acceptable.

ALS Group USA, Corp.
dba ALS Environmental

QA/QC Report

Client: Test America, Incorporated
Project: DEC - Fort Edward Landfill Site:558001/46030964
Sample Matrix: Water

Service Request: K1910888

SURROGATE RECOVERY SUMMARY

Total Oxidizable Precursor Assay (TOPA) of Per- and Polyfluoroalkyl Substances (PFAS) by LC/MS/MS

Analysis Method: ALS SOP

Extraction Method: ALS SOP

Surrogate	Control Limits	DUP-1-20191106 (460-196154-4) K1910888-004	CCT-20191106 (460-196154-2) KQ1917177-05	Method Blank KQ1917177-04
13C3-PFBS	70-130	47*	49*	54*
18O2-PFHxS	70-130	55*	57*	59*
13C4-PFOS	70-130	64*	75	78
13C4-PFBA	70-130	58*	67*	73
13C5-PFPeA	70-130	55*	57*	60*
13C2-PFHxA	70-130	65*	71	62*
13C4-PFHpA	70-130	65*	63*	36*
13C4-PFOA	70-130	58*	66*	75
13C5-PFNA	70-130	52*	58*	72
13C2-PFDA	70-130	61*	66*	72
13C2-PFUnDA	70-130	67*	79	81
13C2-PFDoDA	70-130	57*	73	77
13C2-PFTeDA	70-130	52*	61*	54*
13C8-FOSA	70-130	47*	52*	53*
D3-MeFOSA	70-130	37*	45*	37*
D5-EtFOSA	70-130	40*	46*	42*
D7-MeFOSE	70-130	57*	63*	62*
D9-EtFOSE	70-130	58*	64*	69*
D3-MeFOSAA	70-130	50*	52*	55*
D5-EtFOSAA	70-130	56*	58*	61*
13C2-4:2 FTS	70-130	88	92	80
13C2-6:2 FTS	0-10	0	0	0
13C2-8:2 FTS	70-130	80	99	82
13C3-HFPO-DA	70-130	60*	62*	70

Results flagged with an asterisk (*) indicate values outside control criteria.

Results flagged with an pound (#) indicate the control criteria is not acceptable.

ALS Group USA, Corp.
dba ALS Environmental

QA/QC Report

Client: Test America, Incorporated
Project: DEC - Fort Edward Landfill Site:558001/46030964

Service Request:K1910888
Date Analyzed:12/18/19 13:11

Internal Standard Area and RT SUMMARY

Total Oxidizable Precursor Assay (TOPA) of Per- and Polyfluoroalkyl Substances (PFAS) by LC/MS/MS

File ID: J:\LCMS06\Data\191218_TOPA_b1\191218_007
Instrument ID: K-LCMS-06
Analysis Method: ALS SOP

Lab Code:KQ1918640-01
Analysis Lot:663854
Signal ID:1

	13C7-PFUnDA	
	Area	RT
Result ==>	4,094,433	5.108
Upper Limit ==>	8,188,866	6.11
Lower Limit ==>	2,047,217	4.11

Associated Analyses

Continuing Calibration Blank	KQ1918640-02	4516188	5.107
Method Blank	KQ1917177-04	4337010	5.102
INFLUENT-20191106 (460-196154-1)	K1910888-001	4098265	5.100
CCT-20191106 (460-196154-2)	K1910888-002	4617264	5.105
CCT-20191106 (460-196154-2)DUP	KQ1917177-05	4364478	5.098
DECANT TANK-20191106 (460-196154-3)	K1910888-003	4256613	5.103
DUP-1-20191106 (460-196154-4)	K1910888-004	4500933	5.098

ALS Group USA, Corp.

dba ALS Environmental

QA/QC Report

Client: Test America, Incorporated
Project: DEC - Fort Edward Landfill Site:558001/46030964
Sample Matrix: Water

Service Request: K1910888

Date Collected: 11/06/19

Date Received: 11/19/19

Date Analyzed: 12/18/19

Replicate Sample Summary

Total Oxidizable Precursor Assay (TOPA) of Per- and Polyfluoroalkyl Substances (PFAS) by LC/MS/MS

Sample Name: CCT-20191106 (460-196154-2)

Units: ng/L

Lab Code: K1910888-002

Basis: NA

Analyte Name	Analysis Method	MRL	Sample Result	Duplicate Sample	Average	RPD	RPD Limit
				KQ1917177-05 Result			
Perfluorobutane sulfonic acid (PFBS)	ALS SOP	10	ND U	ND U	NC	NC	30
Perfluoropentane sulfonic acid (PFPeS)	ALS SOP	10	ND U	ND U	NC	NC	30
Perfluorohexane sulfonic acid (PFHxS)	ALS SOP	10	ND U	ND U	NC	NC	30
Perfluoroheptane sulfonic acid (PFHpS)	ALS SOP	10	ND U	ND U	NC	NC	30
Perfluorooctane sulfonic acid (PFOS)	ALS SOP	10	12	ND U	NC	NC	30
Perfluorononane sulfonic acid (PFNS)	ALS SOP	10	ND U	ND U	NC	NC	30
Perfluorodecane sulfonic acid (PFDS)	ALS SOP	10	ND U	ND U	NC	NC	30
Perfluorobutanoic acid (PFBA)	ALS SOP	10	27	27	27.2	2	30
Perfluoropentanoic acid (PFPeA)	ALS SOP	10	42 B	38	40.0	11	30
Perfluorohexanoic acid (PFHxA)	ALS SOP	10	49 B	47	47.9	3	30
Perfluoroheptanoic acid (PFHpA)	ALS SOP	10	14	15	14.7	3	30
Perfluorooctanoic acid (PFOA)	ALS SOP	10	51	48	49.6	6	30
Perfluorononanoic acid (PFNA)	ALS SOP	10	ND U	ND U	NC	NC	30
Perfluorodecanoic acid (PFDA)	ALS SOP	10	ND U	ND U	NC	NC	30
Perfluoroundecanoic acid (PFUnDA)	ALS SOP	10	ND U	ND U	NC	NC	30
Perfluorododecanoic acid (PFDoDA)	ALS SOP	10	ND U	ND U	NC	NC	30
Perfluorotridecanoic acid (PFTrDA)	ALS SOP	10	ND U	ND U	NC	NC	30
Perfluorotetradecanoic acid (PFTeDA)	ALS SOP	10	ND U	ND U	NC	NC	30
Perfluorooctane sulfonamide (FOSA)	ALS SOP	10	ND U	ND U	NC	NC	30
N-Methyl perfluorooctane sulfonamide (MeFOSA)	ALS SOP	10	ND U	ND U	NC	NC	30
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	ALS SOP	10	ND U	ND U	NC	NC	30
N-Methyl perfluorooctane sulfonamidoethanol	ALS SOP	10	ND U	ND U	NC	NC	30
N-Ethyl perfluorooctane sulfonamidoethanol	ALS SOP	10	ND U	ND U	NC	NC	30
N-Methyl perfluorooctane sulfonamidoacetic acid	ALS SOP	10	ND U	ND U	NC	NC	30
N-Ethyl perfluorooctane sulfonamidoacetic acid	ALS SOP	10	ND U	ND U	NC	NC	30
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	ALS SOP	10	ND U	ND U	NC	NC	30
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	ALS SOP	10	ND U	ND U	NC	NC	30
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	ALS SOP	10	ND U	ND U	NC	NC	30
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	ALS SOP	10	ND U	ND U	NC	NC	30
Hexafluoropropylene Oxide Dimer Acid (HFPO -DA)	ALS SOP	10	ND U	ND U	NC	NC	30

Results flagged with an asterisk (*) indicate values outside control criteria.

Results flagged with a pound (#) indicate the control criteria is not applicable.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

ALS Group USA, Corp.

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QA/QC Report

Client: Test America, Incorporated
Project: DEC - Fort Edward Landfill Site:558001/46030964
Sample Matrix: Water

Service Request: K1910888
Date Analyzed: 12/18/19 14:24
Date Extracted: 11/20/19

Method Blank Summary**Total Oxidizable Precursor Assay (TOPA) of Per- and Polyfluoroalkyl Substances (PFAS) by LC/MS/MS**

Sample Name: Method Blank **Instrument ID:** K-LCMS-06
Lab Code: KQ1917177-04 **File ID:** J:\LCMS06\Data\191218_TOPA_b1\191218_014
Analysis Method: ALS SOP **Analysis Lot:** 663854
Prep Method: ALS SOP **Extraction Lot:** 349070

This Method Blank applies to the following analyses.

Sample Name	Lab Code	File ID	Date Analyzed
INFLUENT-20191106 (460-196154-1)	K1910888-001	J:\LCMS06\Data\191218_TOPA_b1\191218_015	12/18/19 14:34
CCT-20191106 (460-196154-2)	K1910888-002	J:\LCMS06\Data\191218_TOPA_b1\191218_016	12/18/19 14:45
CCT-20191106 (460-196154-2)DUP	KQ1917177-05	J:\LCMS06\Data\191218_TOPA_b1\191218_017	12/18/19 14:55
DECANT TANK-20191106 (460-196154-3)	K1910888-003	J:\LCMS06\Data\191218_TOPA_b1\191218_018	12/18/19 15:06
DUP-1-20191106 (460-196154-4)	K1910888-004	J:\LCMS06\Data\191218_TOPA_b1\191218_019	12/18/19 15:16

ALS Group USA, Corp.
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QA/QC Report

Client: Test America, Incorporated
Project: DEC - Fort Edward Landfill Site:558001

Service Request: K1910888
Calibration Date: 12/02/2019

Initial Calibration Summary
Total Oxidizable Precursor Assay (TOPA) of Per- and Polyfluoroalkyl Substances (PFAS) by LC/MS/MS

Calibration ID: KC2000001
Instrument ID: K-LCMS-06

Signal ID: 1

#	Lab Code	Sample Name	File Location	Acquisition Date
01	KC2000001-01	0.05 PPB ICAL	191202_018	12/02/2019 17:39
02	KC2000001-02	0.10 PPB ICAL	191202_019	12/02/2019 17:50
03	KC2000001-03	0.50 PPB ICAL	191202_020	12/02/2019 18:00
04	KC2000001-04	1.0 PPB ICAL	191202_021	12/02/2019 18:11
05	KC2000001-05	5.0 PPB ICAL	191202_022	12/02/2019 18:21
06	KC2000001-06	10.0 PPB ICAL	191202_023	12/02/2019 18:31
07	KC2000001-07	15.0 PPB ICAL	191202_025	12/02/2019 18:52

Analyte

10:2 Fluorotelomer sulfonic acid (10:2 FTS)

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.0483	0.8227	02	0.0966	0.7965	03	0.4831	0.7097	04	0.9662	0.7291
05	4.8310	0.6924	06	9.6619	0.7432	07	14.4929	0.695			

13C2-4:2 FTS

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	5.0000	0.1058	02	5.0000	0.09775	03	5.0000	0.0894	04	5.0000	0.09601
05	5.0000	0.09832	06	5.0000	0.1054	07	5.0000	0.108			

13C2-6:2 FTS

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	5.0000	0.07675	02	5.0000	0.07679	03	5.0000	0.07711	04	5.0000	0.0764
05	5.0000	0.07489	06	5.0000	0.07982	07	5.0000	0.0777			

13C2-8:2 FTS

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	5.0000	0.05843	02	5.0000	0.06025	03	5.0000	0.06359	04	5.0000	0.06203
05	5.0000	0.05801	06	5.0000	0.05903	07	5.0000	0.0571			

13C2-PFDA

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	5.0000	0.7382	02	5.0000	0.7423	03	5.0000	0.7517	04	5.0000	0.7492
05	5.0000	0.6918	06	5.0000	0.7251	07	5.0000	0.6709			

13C2-PFDoDA

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	5.0000	0.9799	02	5.0000	1.01	03	5.0000	1.037	04	5.0000	1.04
05	5.0000	0.9896	06	5.0000	0.9989	07	5.0000	0.9064			

13C2-PFHxA

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	5.0000	1.138	02	5.0000	1.095	03	5.0000	1.037	04	5.0000	1.043
05	5.0000	1.01	06	5.0000	0.9342	07	5.0000	0.853			

13C2-PFTeDA

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	5.0000	0.8517	02	5.0000	0.8716	03	5.0000	0.866	04	5.0000	0.8942

ALS Group USA, Corp.
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QA/QC Report

Client: Test America, Incorporated
Project: DEC - Fort Edward Landfill Site:558001

Service Request: K1910888
Calibration Date: 12/02/2019

Initial Calibration Summary
Total Oxidizable Precursor Assay (TOPA) of Per- and Polyfluoroalkyl Substances (PFAS) by LC/MS/MS

Calibration ID: KC2000001
Instrument ID: K-LCMS-06

Signal ID: 1

Analyte

13C2-PFTeDA

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
05	5.0000	0.8704	06	5.0000	0.8661	07	5.0000	0.8302			

13C2-PFUnDA

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	5.0000	0.7321	02	5.0000	0.7374	03	5.0000	0.7359	04	5.0000	0.7951
05	5.0000	0.7357	06	5.0000	0.7446	07	5.0000	0.7709			

13C3-HFPO-DA

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	5.0000	0.2386	02	5.0000	0.2351	03	5.0000	0.2397	04	5.0000	0.2406
05	5.0000	0.2289	06	5.0000	0.2475	07	5.0000	0.237			

13C3-PFBS

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	5.0000	0.3332	02	5.0000	0.3437	03	5.0000	0.3426	04	5.0000	0.3486
05	5.0000	0.3318	06	5.0000	0.3384	07	5.0000	0.3159			

13C4-PFBA

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	5.0000	0.8195	02	5.0000	0.8392	03	5.0000	0.8635	04	5.0000	0.8606
05	5.0000	0.8359	06	5.0000	0.8559	07	5.0000	0.8238			

13C4-PFHpA

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	5.0000	1.009	02	5.0000	1.173	03	5.0000	1.187	04	5.0000	1.174
05	5.0000	1.099	06	5.0000	1.022	07	5.0000	0.9485			

13C4-PFOA

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	5.0000	1.161	02	5.0000	1.175	03	5.0000	1.197	04	5.0000	1.235
05	5.0000	1.156	06	5.0000	1.157	07	5.0000	1.052			

13C4-PFOS

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	5.0000	0.1649	02	5.0000	0.1806	03	5.0000	0.1738	04	5.0000	0.1891
05	5.0000	0.1817	06	5.0000	0.1706	07	5.0000	0.1703			

13C5-PFNA

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	5.0000	0.8587	02	5.0000	0.7878	03	5.0000	0.8472	04	5.0000	0.8087
05	5.0000	0.773	06	5.0000	0.7975	07	5.0000	0.6916			

13C5-PFPeA

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	5.0000	0.4438	02	5.0000	0.4567	03	5.0000	0.4618	04	5.0000	0.4687
05	5.0000	0.4489	06	5.0000	0.4575	07	5.0000	0.4344			

ALS Group USA, Corp.
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QA/QC Report

Client: Test America, Incorporated
Project: DEC - Fort Edward Landfill Site:558001

Service Request: K1910888
Calibration Date: 12/02/2019

Initial Calibration Summary

Total Oxidizable Precursor Assay (TOPA) of Per- and Polyfluoroalkyl Substances (PFAS) by LC/MS/MS

Calibration ID: KC2000001

Signal ID: 1

Instrument ID: K-LCMS-06

Analyte

13C8-FOSA											
#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	5.0000	0.3972	02	5.0000	0.4169	03	5.0000	0.435	04	5.0000	0.4394
05	5.0000	0.4219	06	5.0000	0.4249	07	5.0000	0.4058			
18O2-PFHxS											
#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	5.0000	0.1644	02	5.0000	0.1921	03	5.0000	0.1827	04	5.0000	0.1853
05	5.0000	0.1846	06	5.0000	0.1748	07	5.0000	0.1634			
4:2 Fluorotelomer sulfonic acid (4:2 FTS)											
#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.0469	0.8633	02	0.0937	0.8881	03	0.4686	0.9445	04	0.9372	0.8725
05	4.6861	0.7915	06	9.3722	0.7983	07	14.0583	0.7316			
6:2 Fluorotelomer sulfonic acid (6:2 FTS)											
#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.0476	1.696	02	0.0951	1.661	03	0.4756	1.528	04	0.9512	1.628
05	4.7558	1.632	06	9.5117	1.625	07	14.2676	1.561			
8:2 Fluorotelomer sulfonic acid (8:2 FTS)											
#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.0480	0.9093	02	0.0960	0.7763	03	0.4800	0.7343	04	0.9600	0.7846
05	4.8002	0.78	06	9.6004	0.7655	07	14.4007	0.7332			
D3-MeFOSA											
#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	5.0000	0.1029	02	5.0000	0.1052	03	5.0000	0.1129	04	5.0000	0.1184
05	5.0000	0.1094	06	5.0000	0.1093	07	5.0000	0.1057			
D3-MeFOSAA											
#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	5.0000	0.1467	02	5.0000	0.1541	03	5.0000	0.1608	04	5.0000	0.1545
05	5.0000	0.1579	06	5.0000	0.1629	07	5.0000	0.1478			
D5-EtFOSA											
#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	5.0000	0.1461	02	5.0000	0.1513	03	5.0000	0.1631	04	5.0000	0.1703
05	5.0000	0.1583	06	5.0000	0.1578	07	5.0000	0.1506			
D5-EtFOSAA											
#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	5.0000	0.1281	02	5.0000	0.1248	03	5.0000	0.1282	04	5.0000	0.1322
05	5.0000	0.1274	06	5.0000	0.1316	07	5.0000	0.1108			
D7-MeFOSE											
#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	5.0000	0.1258	02	5.0000	0.1272	03	5.0000	0.1273	04	5.0000	0.1395
05	5.0000	0.1328	06	5.0000	0.1357	07	5.0000	0.134			

ALS Group USA, Corp.
dba ALS Environmental

QA/QC Report

Client: Test America, Incorporated
Project: DEC - Fort Edward Landfill Site:558001

Service Request: K1910888
Calibration Date: 12/02/2019

Initial Calibration Summary

Total Oxidizable Precursor Assay (TOPA) of Per- and Polyfluoroalkyl Substances (PFAS) by LC/MS/MS

Calibration ID: KC2000001
Instrument ID: K-LCMS-06

Signal ID: 1

Analyte

D9-EtFOSE											
#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	5.0000	0.1197	02	5.0000	0.1216	03	5.0000	0.1255	04	5.0000	0.1339
05	5.0000	0.1302	06	5.0000	0.1276	07	5.0000	0.1318			
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)											
#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.0500	1.049	02	0.1000	1.131	03	0.5000	1.11	04	1.0000	1.084
05	5.0000	1.077	06	10.0000	1.003	07	15.0000	1.058			
N-Ethyl perfluorooctane sulfonamide (EtFOSA)											
#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
02	0.1000	0.2224	03	0.5000	0.1869	04	1.0000	0.1894	05	5.0000	0.1926
06	10.0000	0.2009	07	15.0000	0.2006						
N-Ethyl perfluorooctane sulfonamidoacetic acid											
#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.0500	0.7448	02	0.1000	0.6421	03	0.5000	0.5963	04	1.0000	0.5953
05	5.0000	0.5303	06	10.0000	0.5331	07	15.0000	0.6145			
N-Ethyl perfluorooctane sulfonamidoethanol											
#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
02	0.1000	1.341	03	0.5000	1.346	04	1.0000	1.303	05	5.0000	1.27
06	10.0000	1.377	07	15.0000	1.276						
N-Methyl perfluorooctane sulfonamide (MeFOSA)											
#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
02	0.1000	1.552	03	0.5000	1.404	04	1.0000	1.425	05	5.0000	1.395
06	10.0000	1.42	07	15.0000	1.437						
N-Methyl perfluorooctane sulfonamidoacetic acid											
#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.0500	0.4767	02	0.1000	0.4615	03	0.5000	0.4869	04	1.0000	0.5711
05	5.0000	0.5671	06	10.0000	0.5656	07	15.0000	0.6394			
N-Methyl perfluorooctane sulfonamidoethanol											
#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
02	0.1000	1.374	03	0.5000	1.397	04	1.0000	1.345	05	5.0000	1.303
06	10.0000	1.317	07	15.0000	1.277						
Perfluorobutane sulfonic acid (PFBS)											
#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.0444	1.347	02	0.0887	1.246	03	0.4437	1.329	04	0.8874	1.257
05	4.4368	1.27	06	8.8737	1.289	07	13.3106	1.285			
Perfluorobutanoic acid (PFBA)											
#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.0500	1.026	02	0.1000	0.9575	03	0.5000	0.956	04	1.0000	0.9541
05	5.0000	0.9513	06	10.0000	1.011	07	15.0000	1.022			

ALS Group USA, Corp.
dba ALS Environmental

QA/QC Report

Client: Test America, Incorporated
Project: DEC - Fort Edward Landfill Site:558001

Service Request: K1910888
Calibration Date: 12/02/2019

Initial Calibration Summary

Total Oxidizable Precursor Assay (TOPA) of Per- and Polyfluoroalkyl Substances (PFAS) by LC/MS/MS

Calibration ID: KC2000001
Instrument ID: K-LCMS-06

Signal ID: 1

Analyte

Perfluorodecane sulfonic acid (PFDS)

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.0482	1.081	02	0.0965	0.8433	03	0.4823	0.8738	04	0.9647	0.8373
05	4.8233	0.7761	06	9.6467	0.8657	07	14.4700	0.7972			

Perfluorodecanoic acid (PFDA)

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.0500	1.579	02	0.1000	1.214	03	0.5000	1.072	04	1.0000	1.003
05	5.0000	1.019	06	10.0000	1.041	07	15.0000	1.065			

Perfluorododecanoic acid (PFDoDA)

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.0500	0.9544	02	0.1000	0.7713	03	0.5000	0.6845	04	1.0000	0.6047
05	5.0000	0.6119	06	10.0000	0.6348	07	15.0000	0.624			

Perfluoroheptane sulfonic acid (PFHpS)

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.0477	1.3	02	0.0953	1.091	03	0.4767	1.165	04	0.9534	1.201
05	4.7672	1.104	06	9.5344	1.186	07	14.3016	1.177			

Perfluoroheptanoic acid (PFHpA)

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.0500	1.704	02	0.1000	1.117	03	0.5000	0.9726	04	1.0000	0.9752
05	5.0000	0.9131	06	10.0000	0.9736	07	15.0000	0.9825			

Perfluorohexane sulfonic acid (PFHxS)

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
02	0.0913	1.322	03	0.4565	1.448	04	0.9131	1.318	05	4.5654	1.229
06	9.1308	1.213	07	13.6961	1.294						

Perfluorohexanoic acid (PFHxA)

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.0500	2.218	02	0.1000	1.68	03	0.5000	1.35	04	1.0000	1.228
05	5.0000	1.244	06	10.0000	1.29	07	15.0000	1.335			

Perfluorononane sulfonic acid (PFNS)

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.0481	0.754	02	0.0962	0.6432	03	0.4808	0.6981	04	0.9616	0.6004
05	4.8079	0.609	06	9.6158	0.6662	07	14.4237	0.625			

Perfluorononanoic acid (PFNA)

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.0500	1.495	02	0.1000	1.562	03	0.5000	1.072	04	1.0000	1.085
05	5.0000	0.9692	06	10.0000	1.093	07	15.0000	1.022			

Perfluorooctane sulfonamide (FOSA)

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
02	0.1000	1.183	03	0.5000	1.149	04	1.0000	1.091	05	5.0000	1.104
06	10.0000	1.149	07	15.0000	1.157						

ALS Group USA, Corp.
dba ALS Environmental

QA/QC Report

Client: Test America, Incorporated
Project: DEC - Fort Edward Landfill Site:558001

Service Request: K1910888
Calibration Date: 12/02/2019

Initial Calibration Summary

Total Oxidizable Precursor Assay (TOPA) of Per- and Polyfluoroalkyl Substances (PFAS) by LC/MS/MS

Calibration ID: KC2000001

Signal ID: 1

Instrument ID: K-LCMS-06

Analyte

Perfluorooctane sulfonic acid (PFOS)

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.0465	0.9922	02	0.0929	0.8503	03	0.4646	0.8826	04	0.9292	0.8154
05	4.6461	0.8306	06	9.2923	0.9144	07	13.9384	0.8897			

Perfluorooctanoic acid (PFOA)

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.0500	1.937	02	0.1000	1.51	03	0.5000	1.268	04	1.0000	1.207
05	5.0000	1.152	06	10.0000	1.194	07	15.0000	1.207			

Perfluoropentane sulfonic acid (PFPeS)

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.0470	0.4607	02	0.0941	0.5758	03	0.4705	0.5403	04	0.9409	0.5349
05	4.7046	0.529	06	9.4092	0.487	07	14.1138	0.5084			

Perfluoropentanoic acid (PFPeA)

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.0500	7.426	02	0.1000	4.761	03	0.5000	2.701	04	1.0000	2.414
05	5.0000	2.19	06	10.0000	2.211	07	15.0000	2.259			

Perfluorotetradecanoic acid (PFTeDA)

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.0500	1.956	02	0.1000	1.135	03	0.5000	0.6139	04	1.0000	0.5263
05	5.0000	0.4606	06	10.0000	0.4806	07	15.0000	0.4812			

Perfluorotridecanoic acid (PFTrDA)

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.0500	1.701	02	0.1000	1.344	03	0.5000	1.155	04	1.0000	1.077
05	5.0000	1.015	06	10.0000	1.079	07	15.0000	1.021			

Perfluoroundecanoic acid (PFUnDA)

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.0500	1.659	02	0.1000	1.148	03	0.5000	0.8979	04	1.0000	0.8551
05	5.0000	0.8247	06	10.0000	0.8415	07	15.0000	0.874			

ALS Group USA, Corp.
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QA/QC Report

Client: Test America, Incorporated
Project: DEC - Fort Edward Landfill Site:558001

Service Request: K1910888
Calibration Date: 12/02/2019

Initial Calibration Summary

Total Oxidizable Precursor Assay (TOPA) of Per- and Polyfluoroalkyl Substances (PFAS) by LC/MS/MS

Calibration ID: KC2000001

Signal ID: 1

Instrument ID: K-LCMS-06

Analyte Name	Compound Type	Calibration Evaluation				Calibration Evaluation	
		Fit Type	Eval	Eval Result	Control Criteria	Average RRF	Minimum RRF
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	TRG	Average RF	% RSD	6.8	≤20	0.7412	
13C2-4:2 FTS	SURR	Average RF	% RSD	6.6	≤20	0.1001	
13C2-6:2 FTS	SURR	Average RF	% RSD	1.9	≤20	0.07707	
13C2-8:2 FTS	SURR	Average RF	% RSD	3.9	≤20	0.05978	
13C2-PFDA	SURR	Average RF	% RSD	4.3	≤20	0.7242	
13C2-PFDoDA	SURR	Average RF	% RSD	4.5	≤20	0.9944	
13C2-PFHxA	SURR	Average RF	% RSD	9.5	≤20	1.016	
13C2-PFTeDA	SURR	Average RF	% RSD	2.3	≤20	0.8643	
13C2-PFUnDA	SURR	Average RF	% RSD	3.2	≤20	0.7502	
13C3-HFPO-DA	SURR	Average RF	% RSD	2.4	≤20	0.2382	
13C3-PFBS	SURR	Average RF	% RSD	3.2	≤20	0.3363	
13C4-PFBA	SURR	Average RF	% RSD	2.1	≤20	0.8426	
13C4-PFHpA	SURR	Average RF	% RSD	8.8	≤20	1.088	
13C4-PFOA	SURR	Average RF	% RSD	4.8	≤20	1.162	
13C4-PFOS	SURR	Average RF	% RSD	4.7	≤20	0.1759	
13C5-PFNA	SURR	Average RF	% RSD	6.9	≤20	0.7949	
13C5-PFPeA	SURR	Average RF	% RSD	2.6	≤20	0.4531	
13C8-FOSA	SURR	Average RF	% RSD	3.6	≤20	0.4201	
18O2-PFHxS	SURR	Average RF	% RSD	6.2	≤20	0.1782	
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	TRG	Average RF	% RSD	8.5	≤20	0.8414	
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	TRG	Average RF	% RSD	3.5	≤20	1.619	
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	TRG	Average RF	% RSD	7.6	≤20	0.7833	
D3-MeFOSA	SURR	Average RF	% RSD	4.8	≤20	0.1091	
D3-MeFOSAA	SURR	Average RF	% RSD	4.0	≤20	0.155	
D5-EtFOSA	SURR	Average RF	% RSD	5.2	≤20	0.1568	
D5-EtFOSAA	SURR	Average RF	% RSD	5.7	≤20	0.1262	
D7-MeFOSE	SURR	Average RF	% RSD	3.9	≤20	0.1318	
D9-EtFOSE	SURR	Average RF	% RSD	4.1	≤20	0.1272	
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	TRG	Average RF	% RSD	3.9	≤20	1.073	
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	TRG	Average RF	% RSD	6.5	≤20	0.1988	
N-Ethyl perfluorooctane sulfonamidoacetic acid	TRG	Average RF	% RSD	12.0	≤20	0.608	

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QA/QC Report

Client: Test America, Incorporated
Project: DEC - Fort Edward Landfill Site:558001

Service Request: K1910888
Calibration Date: 12/02/2019

Initial Calibration Summary
Total Oxidizable Precursor Assay (TOPA) of Per- and Polyfluoroalkyl Substances (PFAS) by LC/MS/MS

Calibration ID: KC2000001

Signal ID: 1

Instrument ID: K-LCMS-06

Analyte Name	Compound Type	Calibration Evaluation				Calibration Evaluation	
		Fit Type	Eval	Eval Result	Control Criteria	Average RRF	Minimum RRF
N-Ethyl perfluorooctane sulfonamidoethanol	TRG	Average RF	% RSD	3.2	≤20	1.319	
N-Methyl perfluorooctane sulfonamide (MeFOSA)	TRG	Average RF	% RSD	4.0	≤20	1.439	
N-Methyl perfluorooctane sulfonamidoacetic acid	TRG	Linear	R2	0.9959	≥0.99	0.5383	
N-Methyl perfluorooctane sulfonamidoethanol	TRG	Average RF	% RSD	3.4	≤20	1.335	
Perfluorobutane sulfonic acid (PFBS)	TRG	Average RF	% RSD	2.9	≤20	1.289	
Perfluorobutanoic acid (PFBA)	TRG	Average RF	% RSD	3.6	≤20	0.9825	
Perfluorodecane sulfonic acid (PFDS)	TRG	Average RF	% RSD	11.6	≤20	0.8678	
Perfluorodecanoic acid (PFDA)	TRG	Linear	R2	0.9995	≥0.99	1.142	
Perfluorododecanoic acid (PFDoDA)	TRG	Linear	R2	0.9997	≥0.99	0.6979	
Perfluoroheptane sulfonic acid (PFHpS)	TRG	Average RF	% RSD	5.9	≤20	1.175	
Perfluoroheptanoic acid (PFHpA)	TRG	Linear	R2	0.9991	≥0.99	1.091	
Perfluorohexane sulfonic acid (PFHxS)	TRG	Average RF	% RSD	6.5	≤20	1.304	
Perfluorohexanoic acid (PFHxA)	TRG	Linear	R2	0.9990	≥0.99	1.478	
Perfluorononane sulfonic acid (PFNS)	TRG	Average RF	% RSD	8.3	≤20	0.6566	
Perfluorononanoic acid (PFNA)	TRG	Linear	R2	0.9980	≥0.99	1.185	
Perfluorooctane sulfonamide (FOSA)	TRG	Average RF	% RSD	3.0	≤20	1.139	
Perfluorooctane sulfonic acid (PFOS)	TRG	Average RF	% RSD	6.8	≤20	0.8822	
Perfluorooctanoic acid (PFOA)	TRG	Linear	R2	0.9997	≥0.99	1.354	
Perfluoropentane sulfonic acid (PFPeS)	TRG	Average RF	% RSD	7.3	≤20	0.5194	
Perfluoropentanoic acid (PFPeA)	TRG	Linear	R2	0.9997	≥0.99	3.423	
Perfluorotetradecanoic acid (PFTeDA)	TRG	Linear	R2	0.9994	≥0.99	0.8077	
Perfluorotridecanoic acid (PFTrDA)	TRG	Linear	R2	0.9992	≥0.99	1.199	
Perfluoroundecanoic acid (PFUnDA)	TRG	Linear	R2	0.9993	≥0.99	1.014	

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QA/QC Report

Client: Test America, Incorporated
Project: DEC - Fort Edward Landfill Site:558001

Service Request: K1910888
Calibration Date: 12/02/2019

Initial Calibration Verification Summary
Total Oxidizable Precursor Assay (TOPA) of Per- and Polyfluoroalkyl Substances (PFAS) by LC/MS/MS

Calibration ID: KC2000001
Instrument ID: K-LCMS-06

Signal ID: 1

#	Lab Code	Sample Name	File Location	Acquisition Date
08	KC2000001-08	1.0 PPB ICV 10:2 FTS	191202_027	12/02/2019 19:13
09	KC2000001-09	1.0 PPB ICV NO10:2 FTS	191202_029	12/02/2019 19:34

Analyte Name	Expected	Result	Average RF	SSV RF	% D	Criteria	Curve Fit
Perfluorobutane sulfonic acid (PFBS)	0.887	0.870	1.289E0	1.264E0	-1.958	±30	Average RF
Perfluoropentane sulfonic acid (PFPeS)	0.941	0.934	5.194E-1	5.155E-1	-0.764	±30	Average RF
Perfluorohexane sulfonic acid (PFHxS)	0.913	0.877	1.304E0	1.253E0	-3.907	±30	Average RF
Perfluoroheptane sulfonic acid (PFHpS)	0.953	1.08	1.175E0	1.331E0	13.32	±30	Average RF
Perfluorooctane sulfonic acid (PFOS)	0.929	0.892	8.822E-1	8.466E-1	-4.038	±30	Average RF
Perfluorononane sulfonic acid (PFNS)	0.962	0.997	6.566E-1	6.804E-1	3.63	±30	Average RF
Perfluorodecane sulfonic acid (PFDS)	0.965	0.975	8.678E-1	8.774E-1	1.10	±30	Average RF
Perfluorobutanoic acid (PFBA)	1.00	0.990	9.825E-1	9.726E-1	-1.016	±30	Average RF
Perfluoropentanoic acid (PFPeA)	1.00	0.991	3.423E0	2.441E0	-0.857	±30	Linear
Perfluorohexanoic acid (PFHxA)	1.00	0.928	1.478E0	1.242E0	-7.152	±30	Linear
Perfluoroheptanoic acid (PFHpA)	1.00	0.970	1.091E0	9.618E-1	-2.995	±30	Linear
Perfluorooctanoic acid (PFOA)	1.00	0.948	1.354E0	1.162E0	-5.214	±30	Linear
Perfluorononanoic acid (PFNA)	1.00	0.883	1.185E0	9.45E-1	-11.695	±30	Linear
Perfluorodecanoic acid (PFDA)	1.00	0.990	1.142E0	1.055E0	-1.034	±30	Linear
Perfluoroundecanoic acid (PFUnDA)	1.00	1.03	1.014E0	9.064E-1	2.56	±30	Linear
Perfluorododecanoic acid (PFDoDA)	1.00	0.925	6.979E-1	5.923E-1	-7.498	±30	Linear
Perfluorotridecanoic acid (PFTrDA)	1.00	1.02	1.199E0	1.091E0	1.88	±30	Linear
Perfluorotetradecanoic acid (PFTeDA)	1.00	0.940	8.077E-1	5.127E-1	-5.989	±30	Linear
Perfluorooctane sulfonamide (FOSA)	1.00	0.998	1.139E0	1.136E0	-0.215	±30	Average RF
N-Methyl perfluorooctane sulfonamide (MeFOSA)	1.00	0.944	1.439E0	1.359E0	-5.561	±30	Average RF
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	1.00	0.958	1.988E-1	1.904E-1	-4.201	±30	Average RF
N-Methyl perfluorooctane sulfonamidoethanol	1.00	0.978	1.335E0	1.306E0	-2.212	±30	Average RF
N-Ethyl perfluorooctane sulfonamidoethanol	1.00	0.960	1.319E0	1.266E0	-4.039	±30	Average RF
N-Methyl perfluorooctane sulfonamidoacetic acid	1.00	1.23	5.383E-1	7.283E-1	23.15	±30	Linear
N-Ethyl perfluorooctane sulfonamidoacetic acid	1.00	0.980	6.08E-1	5.959E-1	-1.989	±30	Average RF
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	0.937	0.815	8.414E-1	7.319E-1	-13.013	±30	Average RF
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	0.951	1.08	1.619E0	1.831E0	13.10	±30	Average RF
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	0.960	1.06	7.833E-1	8.686E-1	10.89	±30	Average RF
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	0.966	0.949	7.412E-1	7.276E-1	-1.830	±30	Average RF
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	1.00	0.826	1.073E0	8.865E-1	-17.390	±30	Average RF

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QA/QC Report

Client: Test America, Incorporated
Project: DEC - Fort Edward Landfill Site:558001

Service Request: K1910888
Calibration Date: 12/02/2019

Initial Calibration Verification Summary
Total Oxidizable Precursor Assay (TOPA) of Per- and Polyfluoroalkyl Substances (PFAS) by LC/MS/MS

Calibration ID: KC2000001
Instrument ID: K-LCMS-06

Signal ID: 1

Analyte Name	Expected	Result	Average RF	SSV RF	% D	Criteria	Curve Fit
13C3-PFBS	5.00	4.80	3.363E-1	3.231E-1	-3.936	±30	Average RF
18O2-PFHxS	5.00	4.29	1.782E-1	1.527E-1	-14.286	±30	Average RF
13C4-PFOS	5.00	4.79	1.759E-1	1.684E-1	-4.260	±30	Average RF
13C4-PFBA	5.00	4.63	8.426E-1	7.801E-1	-7.423	±30	Average RF
13C5-PFPeA	5.00	4.69	4.531E-1	4.253E-1	-6.146	±30	Average RF
13C2-PFHxA	5.00	4.67	1.016E0	9.484E-1	-6.637	±30	Average RF
13C4-PFHpA	5.00	4.35	1.088E0	9.468E-1	-12.942	±30	Average RF
13C4-PFOA	5.00	5.04	1.162E0	1.172E0	0.854	±30	Average RF
13C5-PFNA	5.00	4.87	7.949E-1	7.741E-1	-2.617	±30	Average RF
13C2-PFDA	5.00	5.10	7.242E-1	7.383E-1	1.94	±30	Average RF
13C2-PFUnDA	5.00	4.83	7.502E-1	7.242E-1	-3.474	±30	Average RF
13C2-PFDoDA	5.00	4.88	9.944E-1	9.701E-1	-2.437	±30	Average RF
13C2-PFTeDA	5.00	4.76	8.643E-1	8.224E-1	-4.845	±30	Average RF
13C8-FOSA	5.00	4.60	4.201E-1	3.863E-1	-8.054	±30	Average RF
D3-MeFOSA	5.00	4.65	1.091E-1	1.016E-1	-6.900	±30	Average RF
D5-EtFOSA	5.00	4.49	1.568E-1	1.408E-1	-10.186	±30	Average RF
D7-MeFOSE	5.00	4.78	1.318E-1	1.259E-1	-4.476	±30	Average RF
D9-EtFOSE	5.00	4.92	1.272E-1	1.251E-1	-1.603	±30	Average RF
D3-MeFOSAA	5.00	4.68	1.55E-1	1.449E-1	-6.497	±30	Average RF
D5-EtFOSAA	5.00	5.01	1.262E-1	1.264E-1	0.210	±30	Average RF
13C2-4:2 FTS	5.00	5.24	1.001E-1	1.049E-1	4.76	±30	Average RF
13C2-6:2 FTS	5.00	4.91	7.707E-2	7.575E-2	-1.700	±30	Average RF
13C2-8:2 FTS	5.00	3.92	5.978E-2	4.69E-2	-21.542	±30	Average RF
13C2-8:2 FTS	5.00	4.54	5.978E-2	5.426E-2	-9.227	±30	Average RF
13C3-HFPO-DA	5.00	5.12	2.382E-1	2.441E-1	2.46	±30	Average RF

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QA/QC Report

Client: Test America, Incorporated
Project: DEC - Fort Edward Landfill Site:558001/46030964

Service Request: K1910888
Date Analyzed: 12/18/19 13:11

Continuing Calibration Verification (CCV) Summary
Total Oxidizable Precursor Assay (TOPA) of Per- and Polyfluoroalkyl Substances (PFAS) by LC/MS/MS

Analysis Method: ALS SOP
File ID: J:\LCMS06\Data\191218_TOPA_b1\191218_007
Signal ID: 1

Calibration Date: 12/02/2019
Calibration ID: KC2000001
Analysis Lot: 663854
Units: ng/mL

Analyte Name	Expected	Result	Average RF	CCV RF	Rec.	% Drift	Criteria	Curve Fit
Perfluorobutane sulfonic acid (PFBS)	0.887	0.792	1.2891	1.1506	89.3	NA	±30	Average RF
Perfluoropentane sulfonic acid (PFPeS)	0.941	0.855	0.5194	0.4718	90.8	NA	±30	Average RF
Perfluorohexane sulfonic acid (PFHxS)	0.913	0.824	1.3038	1.1763	90.2	NA	±30	Average RF
Perfluoroheptane sulfonic acid (PFHpS)	0.953	1.01	1.1748	1.2492	106	NA	±30	Average RF
Perfluorooctane sulfonic acid (PFOS)	0.929	0.866	0.8822	0.8226	93.2	NA	±30	Average RF
Perfluorononane sulfonic acid (PFNS)	0.962	0.844	0.6566	0.5762	87.7	NA	±30	Average RF
Perfluorodecane sulfonic acid (PFDS)	0.965	0.944	0.8678	0.8487	97.8	NA	±30	Average RF
Perfluorobutanoic acid (PFBA)	1.00	1.00	0.9825	0.9831	100	NA	±30	Average RF
Perfluoropentanoic acid (PFPeA)	1.00	1.03	3.4231	2.5152	103	2.5	±30	Linear
Perfluorohexanoic acid (PFHxA)	1.00	0.906	1.4779	1.2137	90.6	-9.4	±30	Linear
Perfluoroheptanoic acid (PFHpA)	1.00	0.964	1.0911	0.9555	96.4	-3.7	±30	Linear
Perfluorooctanoic acid (PFOA)	1.00	0.914	1.3536	1.1221	91.4	-8.6	±30	Linear
Perfluorononanoic acid (PFNA)	1.00	0.894	1.1854	0.9559	89.4	-10.6	±30	Linear
Perfluorodecanoic acid (PFDA)	1.00	0.934	1.1418	0.996	93.4	-6.6	±30	Linear
Perfluoroundecanoic acid (PFUnDA)	1.00	0.903	1.0143	0.8025	90.3	-9.7	±30	Linear
Perfluorododecanoic acid (PFDoDA)	1.00	0.853	0.6979	0.5471	85.3	-14.7	±30	Linear
Perfluorotridecanoic acid (PFTrDA)	1.00	0.945	1.199	1.0142	94.5	-5.5	±30	Linear
Perfluorotetradecanoic acid (PFTeDA)	1.00	0.968	0.8077	0.5258	96.8	-3.2	±30	Linear
Perfluorooctane sulfonamide (FOSA)	1.00	0.925	1.1388	1.0528	92.5	NA	±30	Average RF
N-Methyl perfluorooctane sulfonamide (MeFOSA)	1.00	1.03	1.4387	1.48	103	NA	±30	Average RF
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	1.00	0.934	0.1988	0.1856	93.4	NA	±30	Average RF
N-Methyl perfluorooctane sulfonamidoethanol	1.00	0.835	1.3355	1.1145	83.5	NA	±30	Average RF
N-Ethyl perfluorooctane sulfonamidoethanol	1.00	0.783	1.319	1.0321	78.3	NA	±30	Average RF
N-Methyl perfluorooctane sulfonamidoacetic acid	1.00	1.08	0.5383	0.637	108	8.0	±30	Linear
N-Ethyl perfluorooctane sulfonamidoacetic acid	1.00	0.934	0.608	0.5676	93.4	NA	±30	Average RF
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	0.937	0.920	0.8414	0.8257	98.1	NA	±30	Average RF
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	0.951	0.949	1.6187	1.6151	99.8	NA	±30	Average RF
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	0.960	1.01	0.7833	0.822	105	NA	±30	Average RF

ALS Group USA, Corp.
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QA/QC Report

Client: Test America, Incorporated
Project: DEC - Fort Edward Landfill Site:558001/46030964

Service Request: K1910888
Date Analyzed: 12/18/19 13:11

Continuing Calibration Verification (CCV) Summary
Total Oxidizable Precursor Assay (TOPA) of Per- and Polyfluoroalkyl Substances (PFAS) by LC/MS/MS

Analysis Method: ALS SOP
File ID: J:\LCMS06\Data\191218_TOPA_b1\191218_007
Signal ID: 1

Calibration Date: 12/02/2019
Calibration ID: KC2000001
Analysis Lot: 663854
Units: ng/mL

10:2 Fluorotelomer sulfonic acid (10:2 FTS)	0.966	0.967	0.7412	0.7418	100	NA	±30	Average RF
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	1.00	0.802	1.0731	0.8603	80.2	NA	±30	Average RF

Analyte Name	Expected	Result	Average RF	CCV RF	Rec.	% Drift	Criteria	Curve Fit
13C3-PFBS	5.00	4.67	0.3363	0.3141	93.4	NA	±30	Average RF
18O2-PFHxS	5.00	4.07	0.1782	0.1452	81.5	NA	±30	Average RF
13C4-PFOS	5.00	4.25	0.1759	0.1496	85.1	NA	±30	Average RF
13C4-PFBA	5.00	4.28	0.8426	0.7209	85.6	NA	±30	Average RF
13C5-PFPeA	5.00	4.12	0.4531	0.3737	82.5	NA	±30	Average RF
13C2-PFHxA	5.00	4.03	1.0158	0.819	80.6	NA	±30	Average RF
13C4-PFHpA	5.00	3.84	1.0876	0.8347	76.7	NA	±30	Average RF
13C4-PFOA	5.00	4.31	1.1618	1.002	86.2	NA	±30	Average RF
13C5-PFNA	5.00	4.27	0.7949	0.6784	85.3	NA	±30	Average RF
13C2-PFDA	5.00	4.53	0.7242	0.6566	90.7	NA	±30	Average RF
13C2-PFUnDA	5.00	5.09	0.7502	0.7634	102	NA	±30	Average RF
13C2-PFDoDA	5.00	4.51	0.9944	0.8963	90.1	NA	±30	Average RF
13C2-PFTeDA	5.00	4.02	0.8643	0.6945	80.3	NA	±30	Average RF
13C8-FOSA	5.00	3.99	0.4201	0.3351	79.8	NA	±30	Average RF
D3-MeFOSA	5.00	3.98	0.1091	0.087	79.7	NA	±30	Average RF
D5-EtFOSA	5.00	4.10	0.1568	0.1287	82.1	NA	±30	Average RF
D7-MeFOSE	5.00	4.90	0.1318	0.1292	98.0	NA	±30	Average RF
D9-EtFOSE	5.00	5.59	0.1272	0.1421	112	NA	±30	Average RF
D3-MeFOSAA	5.00	4.20	0.155	0.1302	84.0	NA	±30	Average RF
D5-EtFOSAA	5.00	4.29	0.1262	0.1083	85.8	NA	±30	Average RF
13C2-4:2 FTS	5.00	4.81	0.1001	0.0963	96.2	NA	±30	Average RF
13C2-6:2 FTS	5.00	3.90	0.0771	0.0601	78.0	NA	±30	Average RF
13C2-8:2 FTS	5.00	4.04	0.0598	0.0483	80.8	NA	±30	Average RF
13C3-HFPO-DA	5.00	4.81	0.2382	0.229	96.1	NA	±30	Average RF

ALS Group USA, Corp.
dba ALS Environmental

QA/QC Report

Client: Test America, Incorporated
Project: DEC - Fort Edward Landfill Site:558001/46030964

Service Request:K1910888

Analysis Run Log

Total Oxidizable Precursor Assay (TOPA) of Per- and Polyfluoroalkyl Substances (PFAS) by LC/MS/MS

Analysis Method: ALS SOP

Analysis Lot:663854

Instrument ID:K-LCMS-06

Raw Data File	Sample Name	Lab Code	Date Analyzed	Time Analyzed	Q
J:\LCMS06\Data\191218_TOPA_b1\191218_007	Continuing Calibration Verification	KQ1918640-01	12/18/2019	13:11	
J:\LCMS06\Data\191218_TOPA_b1\191218_008	Continuing Calibration Blank	KQ1918640-02	12/18/2019	13:21	
J:\LCMS06\Data\191218_TOPA_b1\191218_014	Method Blank	KQ1917177-04	12/18/2019	14:24	
J:\LCMS06\Data\191218_TOPA_b1\191218_015	INFLUENT-20191106 (460-196154-1)	K1910888-001	12/18/2019	14:34	
J:\LCMS06\Data\191218_TOPA_b1\191218_016	CCT-20191106 (460-196154-2)	K1910888-002	12/18/2019	14:45	
J:\LCMS06\Data\191218_TOPA_b1\191218_017	CCT-20191106 (460-196154-2) DUP	KQ1917177-05	12/18/2019	14:55	
J:\LCMS06\Data\191218_TOPA_b1\191218_018	DECANT TANK-20191106 (460-196154-3)	K1910888-003	12/18/2019	15:06	
J:\LCMS06\Data\191218_TOPA_b1\191218_019	DUP-1-20191106 (460-196154-4)	K1910888-004	12/18/2019	15:16	

ALS Group USA, Corp.
dba ALS Environmental

Prep Summary Report

Client: Test America, Incorporated
Project: DEC - Fort Edward Landfill Site:558001/46030964
Sample Matrix: Water

Service Request:K1910888

Total Oxidizable Precursor Assay (TOPA) of Per- and Polyfluoroalkyl Substances (PFAS) by LC/MS/MS

Prep Method: ALS SOP

Extraction Lot: 349070

Analytical Method: ALS SOP

Extraction Date: 11/20/19 20:21

Sample Name	Lab Code	Date Collected	Date Received	Sample Amount	Final Amount	Percent Solids
INFLUENT-20191106 (460-196154-1)	K1910888-001	11/6/19	11/19/19	30 mL	2 mL	
CCT-20191106 (460-196154-2)	K1910888-002	11/6/19	11/19/19	30 mL	2 mL	
DECANT TANK-20191106 (460-196154-3)	K1910888-003	11/6/19	11/19/19	30 mL	2 mL	
DUP-1-20191106 (460-196154-4)	K1910888-004	11/6/19	11/19/19	30 mL	2 mL	
Method Blank	KQ1917177-04MB	NA	NA	30 mL	2 mL	
Duplicate	KQ1917177-05DUP	11/6/19	11/19/19	30 mL	2 mL	



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February 26, 2020

Analytical Report for Service Request No: K2000460

Julie Gilmore
Eurofins TestAmerica
1010 W. 9th Ave. Suite 50
King of Prussia, PA 19406

RE: DEC - Fort Edward Landfill Site:558001 / 46030964

Dear Julie,

Enclosed are the results of the sample(s) submitted to our laboratory January 17, 2020
For your reference, these analyses have been assigned our service request number **K2000460**.

Analyses were performed according to our laboratory's NELAP-approved quality assurance program. The test results meet requirements of the current NELAP standards, where applicable, and except as noted in the laboratory case narrative provided. For a specific list of NELAP-accredited analytes, refer to the certifications section at www.alsglobal.com. All results are intended to be considered in their entirety, and ALS Group USA Corp. dba ALS Environmental (ALS) is not responsible for use of less than the complete report. Results apply only to the items submitted to the laboratory for analysis and individual items (samples) analyzed, as listed in the report.

Please contact me if you have any questions. My extension is 3356. You may also contact me via email at Kurt.Clarkson@alsglobal.com.

Respectfully submitted,

ALS Group USA, Corp. dba ALS Environmental

Kurt Clarkson Sr.
Project Manager



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Total Solids

PFAS by HPLC/MS/MS

Total Oxidizable Precursor Assay(TOPA) of Per- and PolyfluoroalkylSubstances by LC/MS/MS

Acronyms

ASTM	American Society for Testing and Materials
A2LA	American Association for Laboratory Accreditation
CARB	California Air Resources Board
CAS Number	Chemical Abstract Service registry Number
CFC	Chlorofluorocarbon
CFU	Colony-Forming Unit
DEC	Department of Environmental Conservation
DEQ	Department of Environmental Quality
DHS	Department of Health Services
DOE	Department of Ecology
DOH	Department of Health
EPA	U. S. Environmental Protection Agency
ELAP	Environmental Laboratory Accreditation Program
GC	Gas Chromatography
GC/MS	Gas Chromatography/Mass Spectrometry
LOD	Limit of Detection
LOQ	Limit of Quantitation
LUFT	Leaking Underground Fuel Tank
M	Modified
MCL	Maximum Contaminant Level is the highest permissible concentration of a substance allowed in drinking water as established by the USEPA.
MDL	Method Detection Limit
MPN	Most Probable Number
MRL	Method Reporting Limit
NA	Not Applicable
NC	Not Calculated
NCASI	National Council of the Paper Industry for Air and Stream Improvement
ND	Not Detected
NIOSH	National Institute for Occupational Safety and Health
PQL	Practical Quantitation Limit
RCRA	Resource Conservation and Recovery Act
SIM	Selected Ion Monitoring
TPH	Total Petroleum Hydrocarbons
tr	Trace level is the concentration of an analyte that is less than the PQL but greater than or equal to the MDL.

Inorganic Data Qualifiers

- * The result is an outlier. See case narrative.
- # The control limit criteria is not applicable. See case narrative.
- B The analyte was found in the associated method blank at a level that is significant relative to the sample result as defined by the DOD or NELAC standards.
- E The result is an estimate amount because the value exceeded the instrument calibration range.
- J The result is an estimated value.
- U The analyte was analyzed for, but was not detected ("Non-detect") at or above the MRL/MDL.
DOD-QSM 4.2 definition : Analyte was not detected and is reported as less than the LOD or as defined by the project. The detection limit is adjusted for dilution.
- i The MRL/MDL or LOQ/LOD is elevated due to a matrix interference.
- X See case narrative.
- Q See case narrative. One or more quality control criteria was outside the limits.
- H The holding time for this test is immediately following sample collection. The samples were analyzed as soon as possible after receipt by the laboratory.

Metals Data Qualifiers

- # The control limit criteria is not applicable. See case narrative.
- J The result is an estimated value.
- E The percent difference for the serial dilution was greater than 10%, indicating a possible matrix interference in the sample.
- M The duplicate injection precision was not met.
- N The Matrix Spike sample recovery is not within control limits. See case narrative.
- S The reported value was determined by the Method of Standard Additions (MSA).
- U The analyte was analyzed for, but was not detected ("Non-detect") at or above the MRL/MDL.
DOD-QSM 4.2 definition : Analyte was not detected and is reported as less than the LOD or as defined by the project. The detection limit is adjusted for dilution.
- W The post-digestion spike for furnace AA analysis is out of control limits, while sample absorbance is less than 50% of spike absorbance.
- i The MRL/MDL or LOQ/LOD is elevated due to a matrix interference.
- X See case narrative.
- + The correlation coefficient for the MSA is less than 0.995.
- Q See case narrative. One or more quality control criteria was outside the limits.

Organic Data Qualifiers

- * The result is an outlier. See case narrative.
- # The control limit criteria is not applicable. See case narrative.
- A A tentatively identified compound, a suspected aldol-condensation product.
- B The analyte was found in the associated method blank at a level that is significant relative to the sample result as defined by the DOD or NELAC standards.
- C The analyte was qualitatively confirmed using GC/MS techniques, pattern recognition, or by comparing to historical data.
- D The reported result is from a dilution.
- E The result is an estimated value.
- J The result is an estimated value.
- N The result is presumptive. The analyte was tentatively identified, but a confirmation analysis was not performed.
- P The GC or HPLC confirmation criteria was exceeded. The relative percent difference is greater than 40% between the two analytical results.
- U The analyte was analyzed for, but was not detected ("Non-detect") at or above the MRL/MDL.
DOD-QSM 4.2 definition : Analyte was not detected and is reported as less than the LOD or as defined by the project. The detection limit is adjusted for dilution.
- i The MRL/MDL or LOQ/LOD is elevated due to a chromatographic interference.
- X See case narrative.
- Q See case narrative. One or more quality control criteria was outside the limits.

Additional Petroleum Hydrocarbon Specific Qualifiers

- F The chromatographic fingerprint of the sample matches the elution pattern of the calibration standard.
- L The chromatographic fingerprint of the sample resembles a petroleum product, but the elution pattern indicates the presence of a greater amount of lighter molecular weight constituents than the calibration standard.
- H The chromatographic fingerprint of the sample resembles a petroleum product, but the elution pattern indicates the presence of a greater amount of heavier molecular weight constituents than the calibration standard.
- O The chromatographic fingerprint of the sample resembles an oil, but does not match the calibration standard.
- Y The chromatographic fingerprint of the sample resembles a petroleum product eluting in approximately the correct carbon range, but the elution pattern does not match the calibration standard.
- Z The chromatographic fingerprint does not resemble a petroleum product.

ALS Group USA Corp. dba ALS Environmental (ALS) - Kelso
State Certifications, Accreditations, and Licenses

Agency	Web Site	Number
Alaska DEH	http://dec.alaska.gov/eh/lab/cs/csapproval.htm	UST-040
Arizona DHS	http://www.azdhs.gov/lab/license/env.htm	AZ0339
Arkansas - DEQ	http://www.adeq.state.ar.us/techsvs/labcert.htm	88-0637
California DHS (ELAP)	http://www.cdph.ca.gov/certlic/labs/Pages/ELAP.aspx	2795
DOD ELAP	http://www.denix.osd.mil/edqw/Accreditation/AccreditedLabs.cfm	L16-58-R4
Florida DOH	http://www.doh.state.fl.us/lab/EnvLabCert/WaterCert.htm	E87412
Hawaii DOH	http://health.hawaii.gov/	-
ISO 17025	http://www.pjllabs.com/	L16-57
Louisiana DEQ	http://www.deq.louisiana.gov/page/la-lab-accreditation	03016
Maine DHS	http://www.maine.gov/dhhs/	WA01276
Minnesota DOH	http://www.health.state.mn.us/accreditation	053-999-457
Nevada DEP	http://ndep.nv.gov/bsdwlabservice.htm	WA01276
New Jersey DEP	http://www.nj.gov/dep/enforcement/oqa.html	WA005
New York - DOH	https://www.wadsworth.org/regulatory/elap	12060
North Carolina DEQ	https://deq.nc.gov/about/divisions/water-resources/water-resources-data/water-sciences-home-page/laboratory-certification-branch/non-field-lab-certification	605
Oklahoma DEQ	http://www.deq.state.ok.us/CSDnew/labcert.htm	9801
Oregon – DEQ (NELAP)	http://public.health.oregon.gov/LaboratoryServices/EnvironmentalLaboratoryAccreditation/Pages/index.aspx	WA100010
South Carolina DHEC	http://www.scdhec.gov/environment/EnvironmentalLabCertification/	61002
Texas CEQ	http://www.tceq.texas.gov/field/qa/env_lab_accreditation.html	T104704427
Washington DOE	http://www.ecy.wa.gov/programs/eap/labs/lab-accreditation.html	C544
Wyoming (EPA Region 8)	https://www.epa.gov/region8-waterops/epa-region-8-certified-drinking-water	-
Kelso Laboratory Website	www.alsglobal.com	NA

Analyses were performed according to our laboratory's NELAP-approved quality assurance program. A complete listing of specific NELAP-certified analytes, can be found in the certification section at www.ALSGlobal.com or at the accreditation bodies web site.

Please refer to the certification and/or accreditation body's web site if samples are submitted for compliance purposes. The states highlighted above, require the analysis be listed on the state certification if used for compliance purposes and if the method/analyte is offered by that state.



Case Narrative

ALS Environmental—Kelso Laboratory
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Phone (360)577-7222 Fax (360)636-1068
www.alsglobal.com

Client: Test America, Incorporated
Project: DEC - Fort Edward Landfill Site:558001
Sample Matrix: Soil

Service Request: K2000460
Date Received: 01/17/2020

CASE NARRATIVE

All analyses were performed consistent with the quality assurance program of ALS Environmental. This report contains analytical results for samples for the Tier level III requested by the client.

Sample Receipt:

One soil sample was received for analysis at ALS Environmental on 01/17/2020. Any discrepancies upon initial sample inspection are annotated on the sample receipt and preservation form included within this report. The sample was stored at minimum in accordance with the analytical method requirements.

Organic LC:

Method ALS SOP, 02/21/2020: Sample FILTER SLUDGE-20191120 was received past the preparation holding time. Additionally, the extract of the solid sample required re-oxidation/re-extraction outside the oxidation holding time due to poor surrogate recoveries attributable to an apparent extract concentration error. The data was flagged to indicate the holding time violation.

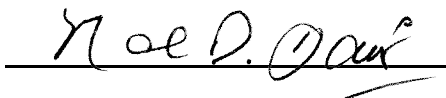
Method ALS SOP, 02/21/2020: The Method Blank KQ2002399-02 contained low levels of Perfluoropentanoic acid (PFPeA) and Perfluorohexanoic acid (PFHxA) above the project-specific Method Reporting Limit (MRL). These blank results are attributable to products from oxidation of the oxidation efficiency surrogate 13C2-6:2 FTS. This isotopically-labeled surrogate is added prior to oxidation to monitor the oxidation efficiency of each sample. When oxidized, 13C2-6:2 FTS converts to (unlabeled) shorter-chain perfluoroalkyl carboxylic acids such as PFBA, PFPeA, and PFHxA. In accordance with ALS QA/QC policy, all sample results less than twenty times the level found in the Method Blank were flagged as estimated. No further corrective action was appropriate.

Method ALS SOP, 02/21/2020: The recoveries of several surrogates in sample FILTER SLUDGE-20191120, the associated sample duplicate analysis, and Method Blank KQ2002399-02 were outside the control limits listed in the results summary. The limits are default values temporarily in use until sufficient data points are generated to calculate statistical control limits. Based on the method and historic data, the recoveries observed were in the range expected for this procedure. No further corrective action was taken.

Method PFC/537M, 02/04/2020: Sample FILTER SLUDGE-20191120 was received past the preparation holding time. The data was flagged to indicate the holding time violation.

Method PFC/537M, 02/04/2020: The control criteria was exceeded for one or more surrogates in Continuing Calibration Verifications (CCV) KQ2001573-01. The recoveries of the associated native analytes were within control criteria, which indicated the analysis was in control. No further corrective action was appropriate.

Approved by



Date

02/26/2020



Chain of Custody

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777 New Durham Road
Edison, NJ 08817
Phone: 732-549-3900 Fax: 732-549-3679

Chain of Custody Record

#224

eurotins

Environment Testing
TestAmerica

K 2000460

Phone: 732-549-3900 Fax: 732-549-3679		Sample #: Jasmine Mullins Lab PM: Gilmore, Julie L.		Carrier Tracking No(s):		COC No: 460-120948-77920.1																							
Client Information		TAT Requested (days): STANDARD				Page: Page 1 of 2																							
Client Contact: Jasmine Mullins		Phone: 646-248-4208		E-Mail: julie.gilmore@testamericainc.com		Job #:																							
Company: ARCADIS U.S. Inc.		Due Date Requested:		SHORT HOLD		Preservation Codes:																							
Address: 855 Route 146 Suite 210		PO #:				A - HCL M - Hexane																							
City: Clifton Park		Callout: 137562 Site: 558001				B - NaOH N - None																							
State, Zip: NY, 12065		WO #:				C - Zn Acetate O - AsNaO2																							
Phone: 518-402-9625(Tel)		Project #: 46030964				D - Nitric Acid P - Na2O4S																							
Email: jasmine.mullins@arcadis.com		SSOW#:				Q - Na2SO3																							
Project Name: DEC - Fort Edward Landfill Site: 558001						R - Na2S2O3																							
Site: FORT EDWARD LANDFILL						S - H2SO4																							
						T - TSP Dodecahydrate																							
						U - Acetone																							
						V - MeCAA																							
						W - pH 4-5																							
						Z - other (specify)																							
						Other:																							
						Total Number of containers:																							
						Special Instructions/Note:																							
Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=oils/sludges, BT=tissue, ANAL)	Field Filled Sample (Yes or No)	PFC_IDA - PFAS, Method 537 List	PFC_JDA - TOPS post-oxidation PFAS, Method 537 List	PFC_IDA - TOPS pre-oxidation PFAS, Method 537 List	8082A - PCBs	6010D, 7476A	8280C - TCL VOCs	300_ORGFN_2BD, 300_ORGFNS	160.2 - TSS	160.1 - TDS	2240C, 6010D	SUBCONTRACT - Heterotrophic Plate Count	6010B - Organic Constituents, UV-Absorbing	2200B - Alkalinity	Total Number of containers										
INFLUENT-20191120	11/20/19	0900	G	Water	N	N	N	N	N	D	A	N	N	N	D	N	N	N	23	1									
INFLUENT-MS-20191120	11/20/19	0900	G	Water	N	Y	2	2	2	0	0	0	0	0	0	0	0	0	6	MS									
INFLUENT-MSD-20191120	11/20/19	0900	G	Water	N	Y	2	2	2	0	0	0	0	0	0	0	0	0	6	MSD									
CCT-20191120	11/20/19	0930	G	Water	M	N	2	2	2	2	1	3	1	1	1	1	1	1	23										
DUP-1-20191120	11/20/19	—	G	Water	M	N	2	2	2	0	0	0	0	0	0	0	0	0	6										
FILTER SLUDGE-20191120	11/20/19	0950	G	SOLID	M	M	1	1	1	1	2	0	0	0	0	0	0	0	5	PFAS & TOX ASSAY									
DECANT TANK-20191120	11/20/19	1010	G	Water	N	N	2	2	2	2	1	3	1	1	1	0	0	0	15										
TRIP BLANK-20191120	11/20/19	—	G	Water	N	N	0	0	0	0	0	2	0	0	0	0	0	0	2	TRIP BLANK									
				Water																									
				Water																									
				Water																									
Possible Hazard Identification ☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☒ Unknown ☐ Radiological					Sample Disposal (A fee may be assessed if samples are retained longer than 1 month) ☐ Return To Client ☒ Disposal By Lab ☐ Archive For _____ Months																								
Deliverable Requested: I, II, III, IV, Other (specify) CAT. B / NYSDCE EQUITS					Special Instructions/QC Requirements:																								
Empty Kit Relinquished by: [Signature]					Date/Time: 11/20/19 1245					Company: ARCADIS					Received by: [Signature]					Date/Time: 11-20-19 1245					Company: EVERS TA				
Relinquished by: Tim Knollmeyer					Date/Time: 11-20-19 1700					Company: EVERS TA					Received by: Angela Miller					Date/Time: 11/21/19 9:30					Company: Arcadis				
Relinquished by:																													
Custody Seals Intact: Δ Yes Δ No					Custody Seal No.: NOCS					Cooler Temperature(s) °C and Other Remarks: 2.0/2.3 °C IR#11																			

160 107135 C-15-10-1

Ver: 01/16/2019

REC'D 140 BY

1-10-20 1500

Rec: KRAMER ALS K/LSD 1-17-2020 0950

Page 9 of 63

1-16-20 0900

100
100 100

PC KC

Cooler Receipt and Preservation Form

Client ALS Simi Valley / Eurofin Service Request K20 00460
 Received: 1/17/2020 Opened: 1/17/2020 By: RM Unloaded: 1/17/2020 OK

1. Samples were received via? USPS Fed Ex UPS DHL PDX Courier Hand Delivered
 2. Samples were received in: (circle) Cooler Box Envelope Other NA
 3. Were custody seals on coolers? NA Y N If yes, how many and where? _____
 If present, were custody seals intact? Y N If present, were they signed and dated? Y N

Raw Cooler Temp	Corrected Cooler Temp	Raw Temp Blank	Corrected Temp Blank	Corr. Factor	Thermometer ID	Cooler/COC ID	Tracking Number	NA	NA	Filed
-0.3	-0.2	N/A	N/A	+0.1	399	460-120948	1028 3393 9964			
						7720-1				

4. Packing material: Inserts Baggies Bubble Wrap Gel Packs Wet Ice Dry Ice Sleeves _____
 5. Were custody papers properly filled out (ink, signed, etc.)? NA Y N
 6. Were samples received in good condition (temperature, unbroken)? Indicate in the table below. NA Y N
 If applicable, tissue samples were received: Frozen Partially Thawed Thawed
 7. Were all sample labels complete (i.e analysis, preservation, etc.)? NA Y N
 8. Did all sample labels and tags agree with custody papers? Indicate major discrepancies in the table on page 2. NA Y N
 9. Were appropriate bottles/containers and volumes received for the tests indicated? NA Y N
 10. Were the pH-preserved bottles (see SMO GEN SOP) received at the appropriate pH? Indicate in the table below NA Y N
 11. Were VOA vials received without headspace? Indicate in the table below. NA Y N
 12. Was C12/Res negative? NA Y N

Sample ID on Bottle	Sample ID on COC	Identified by:

Sample ID	Bottle Count	Bottle Type	Out of Temp	Head-space	Broke	pH	Reagent	Volume added	Reagent Lot Number	Initials	Time

Notes, Discrepancies, & Resolutions: Rec'd Samples past Hold - Rec'd
1 4oz jar for PFAS soils -

SHORT HOLD TIME



Total Solids

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ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: Test America, Incorporated
Project: DEC - Fort Edward Landfill Site:558001/46030964
Sample Matrix: Soil
Analysis Method: 160.3 Modified
Prep Method: None

Service Request: K2000460
Date Collected: 11/20/19
Date Received: 01/17/20
Units: Percent
Basis: As Received

Solids, Total

Sample Name	Lab Code	Result	MRL	Dil.	Date Analyzed	Q
FILTER SLUDGE-20191120	K2000460-001	17.6	-	1	01/17/20 13:20	

ALS Group USA, Corp.
dba ALS Environmental

QA/QC Report

Client: Test America, Incorporated
Project DEC - Fort Edward Landfill Site:558001/46030964
Sample Matrix: Soil
Analysis Method: 160.3 Modified
Prep Method: None

Service Request:K2000460
Date Collected:11/20/19
Date Received:01/17/20

Units:Percent
Basis:As Received

Replicate Sample Summary
Inorganic Parameters

Sample Name:	Lab Code:	MRL	Sample Result	Duplicate Result	Average	RPD	RPD Limit	Date Analyzed
FILTER SLUDGE-20191120	K2000460-001DUP1	-	17.6	19.8	18.7	12	20	01/17/20
FILTER SLUDGE-20191120	K2000460-001DUP2	-	17.6	19.5	21.0	14	20	01/20/20

Results flagged with an asterisk (*) indicate values outside control criteria.

Results flagged with a pound (#) indicate the control criteria is not applicable.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.



PFAS by HPLC/MS/MS

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ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: Test America, Incorporated
Project: DEC - Fort Edward Landfill Site:558001/46030964
Sample Matrix: Soil

Service Request: K2000460
Date Collected: 11/20/19 09:50
Date Received: 01/17/20 09:50

Sample Name: FILTER SLUDGE-20191120
Lab Code: K2000460-001

Units: ng/g
Basis: Dry

Per- and Polyfluoroalkyl Substances (PFAS) by LC/MS/MS

Analysis Method: PFC/537M
Prep Method: ALS SOP

Analyte Name	Result	MRL	Dil.	Date Analyzed	Date Extracted	Q
Perfluoroalkane Sulfonic Acids						
Perfluorobutane sulfonic acid (PFBS)	ND U	3.4	1	02/04/20 10:39	1/31/20	*
Perfluoropentane sulfonic acid (PFPeS)	ND U	3.4	1	02/04/20 10:39	1/31/20	*
Perfluorohexane sulfonic acid (PFHxS)	ND U	3.4	1	02/04/20 10:39	1/31/20	*
Perfluoroheptane sulfonic acid (PFHpS)	ND U	3.4	1	02/04/20 10:39	1/31/20	*
Perfluorooctane sulfonic acid (PFOS)	ND U	3.4	1	02/04/20 10:39	1/31/20	*
Perfluorononane sulfonic acid (PFNS)	ND U	3.4	1	02/04/20 10:39	1/31/20	*
Perfluorodecane sulfonic acid (PFDS)	ND U	3.4	1	02/04/20 10:39	1/31/20	*
Perfluoroalkane Carboxylic Acids						
Perfluorobutanoic acid (PFBA)	ND U	3.4	1	02/04/20 10:39	1/31/20	*
Perfluoropentanoic acid (PFPeA)	ND U	3.4	1	02/04/20 10:39	1/31/20	*
Perfluorohexanoic acid (PFHxA)	ND U	3.4	1	02/04/20 10:39	1/31/20	*
Perfluoroheptanoic acid (PFHpA)	ND U	3.4	1	02/04/20 10:39	1/31/20	*
Perfluorooctanoic acid (PFOA)	ND U	3.4	1	02/04/20 10:39	1/31/20	*
Perfluorononanoic acid (PFNA)	ND U	3.4	1	02/04/20 10:39	1/31/20	*
Perfluorodecanoic acid (PFDA)	ND U	3.4	1	02/04/20 10:39	1/31/20	*
Perfluoroundecanoic acid (PFUnDA)	ND U	3.4	1	02/04/20 10:39	1/31/20	*
Perfluorododecanoic acid (PFDoDA)	ND U	3.4	1	02/04/20 10:39	1/31/20	*
Perfluorotridecanoic acid (PFTTrDA)	ND U	3.4	1	02/04/20 10:39	1/31/20	*
Perfluorotetradecanoic acid (PFTeDA)	ND U	3.4	1	02/04/20 10:39	1/31/20	*
Perfluoroalkyl Sulfonamides						
Perfluorooctane sulfonamide (FOSA)	ND U	3.4	1	02/04/20 10:39	1/31/20	*
N-Methyl perfluorooctane sulfonamide (MeFOSA)	ND U	3.4	1	02/04/20 10:39	1/31/20	*
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	ND U	3.4	1	02/04/20 10:39	1/31/20	*
N-Methyl perfluorooctane sulfonamidoethanol	ND U	3.4	1	02/04/20 10:39	1/31/20	*
N-Ethyl perfluorooctane sulfonamidoethanol	ND U	3.4	1	02/04/20 10:39	1/31/20	*
N-Methyl perfluorooctane sulfonamidoacetic acid	ND U	3.4	1	02/04/20 10:39	1/31/20	*
N-Ethyl perfluorooctane sulfonamidoacetic acid	ND U	3.4	1	02/04/20 10:39	1/31/20	*
(n:2) Fluorotelomer Sulfonic Acids						
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	ND U	3.4	1	02/04/20 10:39	1/31/20	*
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	ND U	3.4	1	02/04/20 10:39	1/31/20	*
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	ND U	3.4	1	02/04/20 10:39	1/31/20	*
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	ND U	3.4	1	02/04/20 10:39	1/31/20	*
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	ND U	3.4	1	02/04/20 10:39	1/31/20	*

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: Test America, Incorporated
Project: DEC - Fort Edward Landfill Site:558001/46030964
Sample Matrix: Soil

Service Request: K2000460
Date Collected: 11/20/19 09:50
Date Received: 01/17/20 09:50

Sample Name: FILTER SLUDGE-20191120
Lab Code: K2000460-001

Units: ng/g
Basis: Dry

Per- and Polyfluoroalkyl Substances (PFAS) by LC/MS/MS

Analysis Method: PFC/537M
Prep Method: ALS SOP

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
13C3-PFBS	50	33 - 109	02/04/20 10:39	
18O2-PFHxS	74	36 - 120	02/04/20 10:39	
13C4-PFOS	78	32 - 130	02/04/20 10:39	
13C4-PFBA	52	34 - 116	02/04/20 10:39	
13C5-PFPeA	52	39 - 133	02/04/20 10:39	
13C2-PFHxA	61	32 - 136	02/04/20 10:39	
13C4-PFHpA	61	36 - 133	02/04/20 10:39	
13C4-PFOA	79	31 - 134	02/04/20 10:39	
13C5-PFNA	59	27 - 133	02/04/20 10:39	
13C2-PFDA	79	30 - 137	02/04/20 10:39	
13C2-PFUnDA	88	32 - 146	02/04/20 10:39	
13C2-PFDoDA	76	36 - 136	02/04/20 10:39	
13C2-PFTeDA	78	39 - 138	02/04/20 10:39	
13C8-FOSA	66	40 - 132	02/04/20 10:39	
D3-MeFOSA	62	51 - 132	02/04/20 10:39	
D5-EtFOSA	66	49 - 123	02/04/20 10:39	
D7-MeFOSE	65	53 - 125	02/04/20 10:39	
D9-EtFOSE	73	45 - 121	02/04/20 10:39	
D3-MeFOSAA	56	20 - 154	02/04/20 10:39	
D5-EtFOSAA	57	29 - 153	02/04/20 10:39	
13C2-4:2 FTS	80	18 - 127	02/04/20 10:39	
13C2-6:2 FTS	66	30 - 140	02/04/20 10:39	
13C2-8:2 FTS	80	9 - 171	02/04/20 10:39	
13C3-HFPO-DA	59	33 - 130	02/04/20 10:39	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: Test America, Incorporated
Project: DEC - Fort Edward Landfill Site:558001/46030964
Sample Matrix: Soil

Service Request: K2000460
Date Collected: NA
Date Received: NA

Sample Name: Method Blank
Lab Code: KQ2001171-06

Units: ng/g
Basis: Dry

Per- and Polyfluoroalkyl Substances (PFAS) by LC/MS/MS

Analysis Method: PFC/537M
Prep Method: ALS SOP

Analyte Name	Result	MRL	Dil.	Date Analyzed	Date Extracted	Q
Perfluoroalkane Sulfonic Acids						
Perfluorobutane sulfonic acid (PFBS)	ND U	1.0	1	02/04/20 10:28	1/31/20	
Perfluoropentane sulfonic acid (PFPeS)	ND U	1.0	1	02/04/20 10:28	1/31/20	
Perfluorohexane sulfonic acid (PFHxS)	ND U	1.0	1	02/04/20 10:28	1/31/20	
Perfluoroheptane sulfonic acid (PFHpS)	ND U	1.0	1	02/04/20 10:28	1/31/20	
Perfluorooctane sulfonic acid (PFOS)	ND U	1.0	1	02/04/20 10:28	1/31/20	
Perfluorononane sulfonic acid (PFNS)	ND U	1.0	1	02/04/20 10:28	1/31/20	
Perfluorodecane sulfonic acid (PFDS)	ND U	1.0	1	02/04/20 10:28	1/31/20	
Perfluoroalkane Carboxylic Acids						
Perfluorobutanoic acid (PFBA)	ND U	1.0	1	02/04/20 10:28	1/31/20	
Perfluoropentanoic acid (PFPeA)	ND U	1.0	1	02/04/20 10:28	1/31/20	
Perfluorohexanoic acid (PFHxA)	ND U	1.0	1	02/04/20 10:28	1/31/20	
Perfluoroheptanoic acid (PFHpA)	ND U	1.0	1	02/04/20 10:28	1/31/20	
Perfluorooctanoic acid (PFOA)	ND U	1.0	1	02/04/20 10:28	1/31/20	
Perfluorononanoic acid (PFNA)	ND U	1.0	1	02/04/20 10:28	1/31/20	
Perfluorodecanoic acid (PFDA)	ND U	1.0	1	02/04/20 10:28	1/31/20	
Perfluoroundecanoic acid (PFUnDA)	ND U	1.0	1	02/04/20 10:28	1/31/20	
Perfluorododecanoic acid (PFDoDA)	ND U	1.0	1	02/04/20 10:28	1/31/20	
Perfluorotridecanoic acid (PFTTrDA)	ND U	1.0	1	02/04/20 10:28	1/31/20	
Perfluorotetradecanoic acid (PFTeDA)	ND U	1.0	1	02/04/20 10:28	1/31/20	
Perfluoroalkyl Sulfonamides						
Perfluorooctane sulfonamide (FOSA)	ND U	1.0	1	02/04/20 10:28	1/31/20	
N-Methyl perfluorooctane sulfonamide (MeFOSA)	ND U	1.0	1	02/04/20 10:28	1/31/20	
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	ND U	1.0	1	02/04/20 10:28	1/31/20	
N-Methyl perfluorooctane sulfonamidoethanol	ND U	1.0	1	02/04/20 10:28	1/31/20	
N-Ethyl perfluorooctane sulfonamidoethanol	ND U	1.0	1	02/04/20 10:28	1/31/20	
N-Methyl perfluorooctane sulfonamidoacetic acid	ND U	1.0	1	02/04/20 10:28	1/31/20	
N-Ethyl perfluorooctane sulfonamidoacetic acid	ND U	1.0	1	02/04/20 10:28	1/31/20	
(n:2) Fluorotelomer Sulfonic Acids						
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	ND U	1.0	1	02/04/20 10:28	1/31/20	
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	ND U	1.0	1	02/04/20 10:28	1/31/20	
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	ND U	1.0	1	02/04/20 10:28	1/31/20	
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	ND U	1.0	1	02/04/20 10:28	1/31/20	
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	ND U	1.0	1	02/04/20 10:28	1/31/20	

ALS Group USA, Corp.
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Analytical Report

Client: Test America, Incorporated
Project: DEC - Fort Edward Landfill Site:558001/46030964
Sample Matrix: Soil

Service Request: K2000460
Date Collected: NA
Date Received: NA

Sample Name: Method Blank
Lab Code: KQ2001171-06

Units: ng/g
Basis: Dry

Per- and Polyfluoroalkyl Substances (PFAS) by LC/MS/MS

Analysis Method: PFC/537M
Prep Method: ALS SOP

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
13C3-PFBS	52	33 - 109	02/04/20 10:28	
18O2-PFHxS	78	36 - 120	02/04/20 10:28	
13C4-PFOS	81	32 - 130	02/04/20 10:28	
13C4-PFBA	56	34 - 116	02/04/20 10:28	
13C5-PFPeA	58	39 - 133	02/04/20 10:28	
13C2-PFHxA	66	32 - 136	02/04/20 10:28	
13C4-PFHpA	75	36 - 133	02/04/20 10:28	
13C4-PFOA	86	31 - 134	02/04/20 10:28	
13C5-PFNA	85	27 - 133	02/04/20 10:28	
13C2-PFDA	85	30 - 137	02/04/20 10:28	
13C2-PFUnDA	96	32 - 146	02/04/20 10:28	
13C2-PFDoDA	81	36 - 136	02/04/20 10:28	
13C2-PFTeDA	85	39 - 138	02/04/20 10:28	
13C8-FOSA	66	40 - 132	02/04/20 10:28	
D3-MeFOSA	65	51 - 132	02/04/20 10:28	
D5-EtFOSA	71	49 - 123	02/04/20 10:28	
D7-MeFOSE	70	53 - 125	02/04/20 10:28	
D9-EtFOSE	79	45 - 121	02/04/20 10:28	
D3-MeFOSAA	86	20 - 154	02/04/20 10:28	
D5-EtFOSAA	90	29 - 153	02/04/20 10:28	
13C2-4:2 FTS	91	18 - 127	02/04/20 10:28	
13C2-6:2 FTS	80	30 - 140	02/04/20 10:28	
13C2-8:2 FTS	96	9 - 171	02/04/20 10:28	
13C3-HFPO-DA	67	33 - 130	02/04/20 10:28	

ALS Group USA, Corp.
dba ALS Environmental

QA/QC Report

Client: Test America, Incorporated
Project: DEC - Fort Edward Landfill Site:558001/46030964
Sample Matrix: Soil

Service Request: K2000460

SURROGATE RECOVERY SUMMARY
Per- and Polyfluoroalkyl Substances (PFAS) by LC/MS/MS

Analysis Method: PFC/537M

Extraction Method: ALS SOP

Surrogate	Control Limits	FILTER SLUDGE- 20191120 K2000460-001	Method Blank KQ2001171-06	Lab Control Sample KQ2001171-05
13C3-PFBS	33-109	50	52	50
18O2-PFHxS	36-120	74	78	89
13C4-PFOS	32-130	78	81	84
13C4-PFBA	34-116	52	56	57
13C5-PFPeA	39-133	52	58	57
13C2-PFHxA	32-136	61	66	65
13C4-PFHpA	36-133	61	75	83
13C4-PFOA	31-134	79	86	89
13C5-PFNA	27-133	59	85	85
13C2-PFDA	30-137	79	85	88
13C2-PFUnDA	32-146	88	96	96
13C2-PFDoDA	36-136	76	81	82
13C2-PFTeDA	39-138	78	85	78
13C8-FOSA	40-132	66	66	69
D3-MeFOSA	51-132	62	65	63
D5-EtFOSA	49-123	66	71	66
D7-MeFOSE	53-125	65	70	71
D9-EtFOSE	45-121	73	79	75
D3-MeFOSAA	20-154	56	86	88
D5-EtFOSAA	29-153	57	90	89
13C2-4:2 FTS	18-127	80	91	88
13C2-6:2 FTS	30-140	66	80	78
13C2-8:2 FTS	9-171	80	96	93
13C3-HFPO-DA	33-130	59	67	67

Results flagged with an asterisk (*) indicate values outside control criteria.

Results flagged with an pound (#) indicate the control criteria is not acceptable.

ALS Group USA, Corp.
dba ALS Environmental

QA/QC Report

Client: Test America, Incorporated
Project: DEC - Fort Edward Landfill Site:558001/46030964
Sample Matrix: Soil

Service Request: K2000460

SURROGATE RECOVERY SUMMARY
Per- and Polyfluoroalkyl Substances (PFAS) by LC/MS/MS

Analysis Method: PFC/537M
Extraction Method: ALS SOP

Surrogate	Control Limits	FILTER SLUDGE- 20191120 KQ2001171-03	FILTER SLUDGE- 20191120 KQ2001171-04
13C3-PFBS	33-109	49	51
18O2-PFHxS	36-120	86	79
13C4-PFOS	32-130	87	85
13C4-PFBA	34-116	54	53
13C5-PFPeA	39-133	51	53
13C2-PFHxA	32-136	60	61
13C4-PFHpA	36-133	67	70
13C4-PFOA	31-134	78	79
13C5-PFNA	27-133	69	69
13C2-PFDA	30-137	76	76
13C2-PFUnDA	32-146	87	86
13C2-PFDoDA	36-136	75	75
13C2-PFTeDA	39-138	72	73
13C8-FOSA	40-132	63	65
D3-MeFOSA	51-132	60	58
D5-EtFOSA	49-123	66	64
D7-MeFOSE	53-125	67	66
D9-EtFOSE	45-121	73	75
D3-MeFOSAA	20-154	54	50
D5-EtFOSAA	29-153	54	54
13C2-4:2 FTS	18-127	83	83
13C2-6:2 FTS	30-140	66	69
13C2-8:2 FTS	9-171	85	82
13C3-HFPO-DA	33-130	63	65

Results flagged with an asterisk (*) indicate values outside control criteria.

Results flagged with an pound (#) indicate the control criteria is not acceptable.

ALS Group USA, Corp.
dba ALS Environmental

QA/QC Report

Client: Test America, Incorporated
Project: DEC - Fort Edward Landfill Site:558001/46030964

Service Request:K2000460
Date Analyzed:02/04/20 09:57

Internal Standard Area and RT SUMMARY
Per- and Polyfluoroalkyl Substances (PFAS) by LC/MS/MS

File ID: J:\LCMS06\Data\200203_b6\200203_113
Instrument ID: K-LCMS-06
Analysis Method: PFC/537M

Lab Code:KQ2001573-01
Analysis Lot:668811
Signal ID:1

	13C7-PFUnDA	
	Area	RT
Result ==>	3,592,057	5.119
Upper Limit ==>	7,184,114	6.12
Lower Limit ==>	1,796,029	4.12

Associated Analyses

Continuing Calibration Blank	KQ2001573-02	4296314	5.118
Lab Control Sample	KQ2001171-05	4393092	5.112
Method Blank	KQ2001171-06	4242278	5.112
FILTER SLUDGE-20191120	K2000460-001	4297155	5.113
FILTER SLUDGE-20191120MS	KQ2001171-03	4151169	5.108
FILTER SLUDGE-20191120DMS	KQ2001171-04	3929728	5.108

ALS Group USA, Corp.
dba ALS Environmental

QA/QC Report

Client: Test America, Incorporated
Project: DEC - Fort Edward Landfill Site:558001/46030964
Sample Matrix: Soil

Service Request: K2000460
Date Collected: 11/20/19
Date Received: 01/17/20
Date Analyzed: 02/4/20
Date Extracted: 01/31/20

Duplicate Matrix Spike Summary
Per- and Polyfluoroalkyl Substances (PFAS) by LC/MS/MS

Sample Name: FILTER SLUDGE-20191120 **Units:** ng/g
Lab Code: K2000460-001 **Basis:** Dry
Analysis Method: PFC/537M
Prep Method: ALS SOP

Analyte Name	Sample Result	Matrix Spike KQ2001171-03			Duplicate Matrix Spike KQ2001171-04			% Rec Limits	RPD	RPD Limit
		Result	Spike Amount	% Rec	Result	Spike Amount	% Rec			
Perfluorobutane sulfonic acid (PFBS)	ND U	28.1	24.1	117	32.6	26.7	122	48-148	15	50
Perfluoropentane sulfonic acid (PFPeS)	ND U	36.9	25.6	144	40.8	28.3	144	81-165	10	50
Perfluorohexane sulfonic acid (PFHxS)	ND U	22.8	24.8	92	31.2	27.5	114	75-142	31	50
Perfluoroheptane sulfonic acid (PFHpS)	ND U	25.5	25.9	98	33.8	28.7	118	69-173	28	50
Perfluorooctane sulfonic acid (PFOS)	ND U	24.0	25.2	95	29.6	28.0	106	72-141	21	50
Perfluorononane sulfonic acid (PFNS)	ND U	25.7	26.1	98	29.8	28.9	103	64-152	15	50
Perfluorodecane sulfonic acid (PFDS)	ND U	24.9	26.2	95	32.0	29.0	110	83-152	25	50
Perfluorobutanoic acid (PFBA)	ND U	29.3	27.2	108	34.8	30.1	116	29-179	17	50
Perfluoropentanoic acid (PFPeA)	ND U	30.2	27.2	111	34.9	30.1	116	64-131	14	50
Perfluorohexanoic acid (PFHxA)	ND U	29.5	27.2	109	35.3	30.1	117	68-148	18	50
Perfluoroheptanoic acid (PFHpA)	ND U	30.7	27.2	113	33.3	30.1	111	73-136	8	50
Perfluorooctanoic acid (PFOA)	ND U	23.2	27.2	85	27.8	30.1	92	77-151	18	50
Perfluorononanoic acid (PFNA)	ND U	24.0	27.2	88	28.9	30.1	96	63-160	18	50
Perfluorodecanoic acid (PFDA)	ND U	24.9	27.2	92	30.9	30.1	103	73-142	22	50
Perfluoroundecanoic acid (PFUnDA)	ND U	26.0	27.2	96	31.3	30.1	104	69-147	18	50
Perfluorododecanoic acid (PFDoDA)	ND U	27.4	27.2	101	30.4	30.1	101	69-150	11	50
Perfluorotridecanoic acid (PFTrDA)	ND U	28.2	27.2	104	32.6	30.1	108	63-134	15	50
Perfluorotetradecanoic acid (PFTeDA)	ND U	28.5	27.2	105	31.5	30.1	105	70-143	10	50
Perfluorooctane sulfonamide (FOSA)	ND U	33.2	27.2	122	38.9	30.1	129	63-138	16	50
N-Methyl perfluorooctane sulfonamide (MeFOSA)	ND U	34.6	27.2	127	42.2	30.1	140 *	75-136	20	50
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	ND U	33.8	27.2	125	40.8	30.1	136	72-142	19	50
N-Methyl perfluorooctane sulfonamidoethanol	ND U	33.6	27.2	124	39.7	30.1	132	62-141	17	50
N-Ethyl perfluorooctane sulfonamidoethanol	ND U	32.5	27.2	120	36.5	30.1	121	70-137	12	50
N-Methyl perfluorooctane sulfonamidoacetic acid	ND U	27.6	27.2	102	34.3	30.1	114	69-162	21	50
N-Ethyl perfluorooctane sulfonamidoacetic acid	ND U	39.2	27.2	144	38.7	30.1	129	57-159	1	50
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	ND U	32.2	25.5	127	36.0	28.2	128	10-182	11	50

Results flagged with an asterisk (*) indicate values outside control criteria.

Results flagged with a pound (#) indicate the control criteria is not applicable.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

ALS Group USA, Corp.
dba ALS Environmental

QA/QC Report

Client: Test America, Incorporated
Project: DEC - Fort Edward Landfill Site:558001/46030964
Sample Matrix: Soil

Service Request: K2000460
Date Collected: 11/20/19
Date Received: 01/17/20
Date Analyzed: 02/4/20
Date Extracted: 01/31/20

Duplicate Matrix Spike Summary
Per- and Polyfluoroalkyl Substances (PFAS) by LC/MS/MS

Sample Name: FILTER SLUDGE-20191120 **Units:** ng/g
Lab Code: K2000460-001 **Basis:** Dry
Analysis Method: PFC/537M
Prep Method: ALS SOP

Analyte Name	Sample Result	Matrix Spike KQ2001171-03			Duplicate Matrix Spike KQ2001171-04			% Rec Limits	RPD	RPD Limit
		Result	Spike Amount	% Rec	Result	Spike Amount	% Rec			
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	ND U	29.3	25.8	114	36.2	28.6	126	69-147	21	50
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	ND U	25.2	26.1	97	29.2	28.9	101	66-141	15	50
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	ND U	25.2	26.2	96	30.1	29.1	103	66-152	18	50
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	ND U	26.3	27.2	97	30.3	30.1	101	62-138	14	50

Results flagged with an asterisk (*) indicate values outside control criteria.

Results flagged with a pound (#) indicate the control criteria is not applicable.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

ALS Group USA, Corp.
dba ALS Environmental

QA/QC Report

Client: Test America, Incorporated
Project: DEC - Fort Edward Landfill Site:558001/46030964
Sample Matrix: Soil

Service Request: K2000460
Date Analyzed: 02/04/20
Date Extracted: 01/31/20

Lab Control Sample Summary
Per- and Polyfluoroalkyl Substances (PFAS) by LC/MS/MS

Analysis Method: PFC/537M
Prep Method: ALS SOP

Units: ng/g
Basis: Dry
Analysis Lot: 668811

Lab Control Sample
KQ2001171-05

Analyte Name	Result	Spike Amount	% Rec	% Rec Limits
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	7.36	7.73	95	66-152
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	9.41	7.50	126	10-182
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	8.53	7.61	112	69-147
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	7.20	7.68	94	66-141
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	7.89	8.00	99	62-138
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	9.96	8.00	125	72-142
N-Ethyl perfluorooctane sulfonamidoacetic acid	8.79	8.00	110	57-159
N-Ethyl perfluorooctane sulfonamidoethanol	9.74	8.00	122	70-137
N-Methyl perfluorooctane sulfonamide (MeFOSA)	9.94	8.00	124	75-136
N-Methyl perfluorooctane sulfonamidoacetic acid	9.20	8.00	115	69-162
N-Methyl perfluorooctane sulfonamidoethanol	9.61	8.00	120	62-141
Perfluorobutane sulfonic acid (PFBS)	8.04	7.10	113	48-148
Perfluorobutanoic acid (PFBA)	8.57	8.00	107	29-179
Perfluorodecane sulfonic acid (PFDS)	8.22	7.72	106	83-152
Perfluorodecanoic acid (PFDA)	7.45	8.00	93	73-142
Perfluorododecanoic acid (PFDoDA)	7.82	8.00	98	69-150
Perfluoroheptane sulfonic acid (PFHpS)	8.36	7.63	110	69-173
Perfluoroheptanoic acid (PFHpA)	8.48	8.00	106	73-136
Perfluorohexane sulfonic acid (PFHxS)	6.72	7.30	92	75-142
Perfluorohexanoic acid (PFHxA)	8.74	8.00	109	68-148
Perfluorononane sulfonic acid (PFNS)	8.32	7.69	108	64-152
Perfluorononanoic acid (PFNA)	7.65	8.00	96	63-160
Perfluorooctane sulfonamide (FOSA)	9.38	8.00	117	63-138
Perfluorooctane sulfonic acid (PFOS)	7.36	7.43	99	72-141
Perfluorooctanoic acid (PFOA)	7.01	8.00	88	77-151
Perfluoropentane sulfonic acid (PFPeS)	12.1	7.53	160	81-165
Perfluoropentanoic acid (PFPeA)	8.83	8.00	110	64-131
Perfluorotetradecanoic acid (PFTeDA)	8.09	8.00	101	70-143
Perfluorotridecanoic acid (PFTrDA)	8.05	8.00	101	63-134
Perfluoroundecanoic acid (PFUnDA)	7.97	8.00	100	69-147

ALS Group USA, Corp.

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QA/QC Report

Client: Test America, Incorporated
Project: DEC - Fort Edward Landfill Site:558001/46030964
Sample Matrix: Soil

Service Request: K2000460
Date Analyzed: 02/04/20 10:28
Date Extracted: 01/31/20

Method Blank Summary**Per- and Polyfluoroalkyl Substances (PFAS) by LC/MS/MS**

Sample Name: Method Blank **Instrument ID:** K-LCMS-06
Lab Code: KQ2001171-06 **File ID:** J:\LCMS06\Data\200203_b6\200203_116
Analysis Method: PFC/537M **Analysis Lot:** 668811
Prep Method: ALS SOP **Extraction Lot:** 352744

This Method Blank applies to the following analyses.

Sample Name	Lab Code	File ID	Date Analyzed
Lab Control Sample	KQ2001171-05	J:\LCMS06\Data\200203_b6\200203_115	02/04/20 10:18
FILTER SLUDGE-20191120	K2000460-001	J:\LCMS06\Data\200203_b6\200203_117	02/04/20 10:39
FILTER SLUDGE-20191120MS	KQ2001171-03	J:\LCMS06\Data\200203_b6\200203_118	02/04/20 10:49
FILTER SLUDGE-20191120DMS	KQ2001171-04	J:\LCMS06\Data\200203_b6\200203_119	02/04/20 11:00

ALS Group USA, Corp.
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QA/QC Report

Client: Test America, Incorporated
Project: DEC - Fort Edward Landfill Site:558001/46030964
Sample Matrix: Soil

Service Request: K2000460
Date Analyzed: 02/04/20 10:18
Date Extracted: 01/31/20

Lab Control Sample Summary
Per- and Polyfluoroalkyl Substances (PFAS) by LC/MS/MS

Sample Name: Lab Control Sample
Lab Code: KQ2001171-05
Analysis Method: PFC/537M
Prep Method: ALS SOP

Instrument ID: K-LCMS-06
File ID: J:\LCMS06\Data\200203_b6\200203_115
Analysis Lot: 668811
Extraction Lot: 352744

This Lab Control Sample applies to the following analyses.

Sample Name	Lab Code	File ID	Date Analyzed
Method Blank	KQ2001171-06	J:\LCMS06\Data\200203_b6\200203_116	02/04/20 10:28
FILTER SLUDGE-20191120	K2000460-001	J:\LCMS06\Data\200203_b6\200203_117	02/04/20 10:39
FILTER SLUDGE-20191120MS	KQ2001171-03	J:\LCMS06\Data\200203_b6\200203_118	02/04/20 10:49
FILTER SLUDGE-20191120DMS	KQ2001171-04	J:\LCMS06\Data\200203_b6\200203_119	02/04/20 11:00

ALS Group USA, Corp.
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QA/QC Report

Client: Test America, Incorporated
Project: DEC - Fort Edward Landfill Site:558001

Service Request: K2000460
Calibration Date: 12/27/2019

Initial Calibration Summary
Per- and Polyfluoroalkyl Substances (PFAS) by LC/MS/MS

Calibration ID: KC1900567
Instrument ID: K-LCMS-06

Signal ID: 1

#	Lab Code	Sample Name	File Location	Acquisition Date
01	KC1900567-01	0.05 PPB ICAL	191227_008	12/27/2019 10:19
02	KC1900567-02	0.10 PPB ICAL	191227_009	12/27/2019 10:30
03	KC1900567-03	0.50 PPB ICAL	191227_010	12/27/2019 10:40
04	KC1900567-04	1.0 PPB ICAL	191227_011	12/27/2019 10:50
05	KC1900567-05	5.0 PPB ICAL	191227_012	12/27/2019 11:01
06	KC1900567-06	10.0 PPB ICAL	191227_013	12/27/2019 11:11
07	KC1900567-07	15.0 PPB ICAL	191227_015	12/27/2019 11:33

Analyte

10:2 Fluorotelomer sulfonic acid (10:2 FTS)

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.0483	0.9746	02	0.0966	0.7953	03	0.4831	0.7759	04	0.9662	0.7545
05	4.8310	0.7516	06	9.6619	0.7361	07	14.4929	0.7221			

13C2-4:2 FTS

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	5.0000	0.08319	02	5.0000	0.08437	03	5.0000	0.0954	04	5.0000	0.0904
05	5.0000	0.09928	06	5.0000	0.09805	07	5.0000	0.104			

13C2-6:2 FTS

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	5.0000	0.06767	02	5.0000	0.06364	03	5.0000	0.07007	04	5.0000	0.06761
05	5.0000	0.07632	06	5.0000	0.07691	07	5.0000	0.07562			

13C2-8:2 FTS

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	5.0000	0.05062	02	5.0000	0.04933	03	5.0000	0.05155	04	5.0000	0.05149
05	5.0000	0.05574	06	5.0000	0.05833	07	5.0000	0.05391			

13C2-PFDA

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	5.0000	0.6912	02	5.0000	0.6811	03	5.0000	0.6785	04	5.0000	0.6812
05	5.0000	0.7135	06	5.0000	0.6934	07	5.0000	0.6603			

13C2-PFDoDA

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	5.0000	0.9703	02	5.0000	0.9764	03	5.0000	0.9657	04	5.0000	0.9131
05	5.0000	1.039	06	5.0000	1.018	07	5.0000	0.9474			

13C2-PFHxA

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	5.0000	1.025	02	5.0000	1.066	03	5.0000	1.024	04	5.0000	1.007
05	5.0000	1.094	06	5.0000	1.106	07	5.0000	1.053			

13C2-PFTeDA

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	5.0000	0.8093	02	5.0000	0.7816	03	5.0000	0.7776	04	5.0000	0.7543

ALS Group USA, Corp.
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QA/QC Report

Client: Test America, Incorporated
Project: DEC - Fort Edward Landfill Site:558001

Service Request: K2000460
Calibration Date: 12/27/2019

Initial Calibration Summary
Per- and Polyfluoroalkyl Substances (PFAS) by LC/MS/MS

Calibration ID: KC1900567
Instrument ID: K-LCMS-06

Signal ID: 1

Analyte

13C2-PFTeDA

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
05	5.0000	0.8703	06	5.0000	0.8816	07	5.0000	0.8793			

13C2-PFUnDA

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	5.0000	0.7731	02	5.0000	0.7469	03	5.0000	0.7556	04	5.0000	0.7188
05	5.0000	0.7476	06	5.0000	0.7255	07	5.0000	0.7255			

13C3-HFPO-DA

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	5.0000	0.3828	02	5.0000	0.3994	03	5.0000	0.4288	04	5.0000	0.4145
05	5.0000	0.4245	06	5.0000	0.4245	07	5.0000	0.4188			

13C3-PFBS

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	5.0000	0.3581	02	5.0000	0.3438	03	5.0000	0.3481	04	5.0000	0.3458
05	5.0000	0.3871	06	5.0000	0.3775	07	5.0000	0.3589			

13C4-PFBA

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	5.0000	0.9929	02	5.0000	1.001	03	5.0000	1.027	04	5.0000	0.9806
05	5.0000	1.092	06	5.0000	1.1	07	5.0000	1.061			

13C4-PFHpA

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	5.0000	1.025	02	5.0000	0.9737	03	5.0000	0.9604	04	5.0000	0.9044
05	5.0000	1.14	06	5.0000	1.131	07	5.0000	0.9678			

13C4-PFOA

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	5.0000	1.078	02	5.0000	1.061	03	5.0000	1.109	04	5.0000	1.071
05	5.0000	1.146	06	5.0000	1.131	07	5.0000	1.029			

13C4-PFOS

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	5.0000	0.181	02	5.0000	0.1788	03	5.0000	0.1821	04	5.0000	0.1781
05	5.0000	0.1922	06	5.0000	0.1906	07	5.0000	0.1744			

13C5-PFNA

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	5.0000	0.7846	02	5.0000	0.8022	03	5.0000	0.7356	04	5.0000	0.7618
05	5.0000	0.8847	06	5.0000	0.8927	07	5.0000	0.8003			

13C5-PFPeA

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	5.0000	0.4902	02	5.0000	0.4997	03	5.0000	0.4998	04	5.0000	0.4796
05	5.0000	0.5327	06	5.0000	0.5341	07	5.0000	0.501			

ALS Group USA, Corp.
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QA/QC Report

Client: Test America, Incorporated
Project: DEC - Fort Edward Landfill Site:558001

Service Request: K2000460
Calibration Date: 12/27/2019

Initial Calibration Summary
Per- and Polyfluoroalkyl Substances (PFAS) by LC/MS/MS

Calibration ID: KC1900567
Instrument ID: K-LCMS-06

Signal ID: 1

Analyte

13C8-FOSA											
#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	5.0000	0.4533	02	5.0000	0.4391	03	5.0000	0.4578	04	5.0000	0.4487
05	5.0000	0.4769	06	5.0000	0.5019	07	5.0000	0.4809			
18O2-PFHxS											
#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	5.0000	0.1698	02	5.0000	0.1545	03	5.0000	0.1566	04	5.0000	0.145
05	5.0000	0.1919	06	5.0000	0.1874	07	5.0000	0.1538			
4:2 Fluorotelomer sulfonic acid (4:2 FTS)											
#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
02	0.0937	0.797	03	0.4686	0.9108	04	0.9372	0.8828	05	4.6861	0.7879
06	9.3722	0.8035	07	14.0583	0.7824						
6:2 Fluorotelomer sulfonic acid (6:2 FTS)											
#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.0476	1.21	02	0.0951	1.383	03	0.4756	1.353	04	0.9512	1.255
05	4.7558	1.179	06	9.5117	1.199	07	14.2676	1.115			
8:2 Fluorotelomer sulfonic acid (8:2 FTS)											
#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.0480	0.9383	02	0.0960	0.9569	03	0.4800	0.8679	04	0.9600	0.8319
05	4.8002	0.821	06	9.6004	0.7934	07	14.4007	0.7782			
D3-MeFOSA											
#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	5.0000	0.1169	02	5.0000	0.1267	03	5.0000	0.1324	04	5.0000	0.1298
05	5.0000	0.1421	06	5.0000	0.1383	07	5.0000	0.1317			
D3-MeFOSAA											
#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	5.0000	0.1335	02	5.0000	0.1284	03	5.0000	0.1248	04	5.0000	0.1293
05	5.0000	0.1456	06	5.0000	0.1478	07	5.0000	0.1428			
D5-EtFOSA											
#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	5.0000	0.1765	02	5.0000	0.1781	03	5.0000	0.1822	04	5.0000	0.1895
05	5.0000	0.1926	06	5.0000	0.195	07	5.0000	0.1847			
D5-EtFOSAA											
#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	5.0000	0.1094	02	5.0000	0.1084	03	5.0000	0.1039	04	5.0000	0.1094
05	5.0000	0.1296	06	5.0000	0.1248	07	5.0000	0.1119			
D7-MeFOSE											
#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	5.0000	0.1422	02	5.0000	0.1456	03	5.0000	0.1445	04	5.0000	0.1458
05	5.0000	0.152	06	5.0000	0.1578	07	5.0000	0.164			

Client: Test America, Incorporated
Project: DEC - Fort Edward Landfill Site:558001

Service Request: K2000460
Calibration Date: 12/27/2019

Initial Calibration Summary
Per- and Polyfluoroalkyl Substances (PFAS) by LC/MS/MS

Calibration ID: KC1900567
Instrument ID: K-LCMS-06

Signal ID: 1

Analyte

D9-EtFOSE											
#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	5.0000	0.1524	02	5.0000	0.1579	03	5.0000	0.1542	04	5.0000	0.1608
05	5.0000	0.1717	06	5.0000	0.1799	07	5.0000	0.1718			
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)											
#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.0500	0.995	02	0.1000	0.8744	03	0.5000	0.8251	04	1.0000	0.7795
05	5.0000	0.8764	06	10.0000	0.943	07	15.0000	0.9428			
N-Ethyl perfluorooctane sulfonamide (EtFOSA)											
#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
02	0.1000	0.1623	03	0.5000	0.2089	04	1.0000	0.1889	05	5.0000	0.1961
06	10.0000	0.1968	07	15.0000	0.1996						
N-Ethyl perfluorooctane sulfonamidoacetic acid											
#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.0500	0.2594	02	0.1000	0.4609	03	0.5000	0.5478	04	1.0000	0.5646
05	5.0000	0.5547	06	10.0000	0.5773						
N-Ethyl perfluorooctane sulfonamidoethanol											
#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
02	0.1000	1.138	03	0.5000	1.232	04	1.0000	1.171	05	5.0000	1.157
06	10.0000	1.185	07	15.0000	1.212						
N-Methyl perfluorooctane sulfonamide (MeFOSA)											
#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
02	0.1000	1.457	03	0.5000	1.43	04	1.0000	1.415	05	5.0000	1.353
06	10.0000	1.47	07	15.0000	1.465						
N-Methyl perfluorooctane sulfonamidoacetic acid											
#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.0500	0.5695	02	0.1000	0.4311	03	0.5000	0.7026	04	1.0000	0.5569
05	5.0000	0.6002	06	10.0000	0.6169						
N-Methyl perfluorooctane sulfonamidoethanol											
#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
02	0.1000	1.289	03	0.5000	1.341	04	1.0000	1.325	05	5.0000	1.351
06	10.0000	1.371	07	15.0000	1.26						
Perfluorobutane sulfonic acid (PFBS)											
#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.0444	1.281	02	0.0887	1.229	03	0.4437	1.268	04	0.8874	1.235
05	4.4368	1.185	06	8.8737	1.261	07	13.3106	1.266			
Perfluorobutanoic acid (PFBA)											
#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.0500	1.106	02	0.1000	1.005	03	0.5000	0.984	04	1.0000	0.9739
05	5.0000	0.9947	06	10.0000	1.035	07	15.0000	1.049			

ALS Group USA, Corp.
dba ALS Environmental

QA/QC Report

Client: Test America, Incorporated
Project: DEC - Fort Edward Landfill Site:558001

Service Request: K2000460
Calibration Date: 12/27/2019

Initial Calibration Summary
Per- and Polyfluoroalkyl Substances (PFAS) by LC/MS/MS

Calibration ID: KC1900567
Instrument ID: K-LCMS-06

Signal ID: 1

Analyte

Perfluorodecane sulfonic acid (PFDS)

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.0482	0.8345	02	0.0965	0.6672	03	0.4823	0.7853	04	0.9647	0.8215
05	4.8233	0.8287	06	9.6467	0.8623	07	14.4700	0.8566			

Perfluorodecanoic acid (PFDA)

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.0500	1.324	02	0.1000	1.164	03	0.5000	1.076	04	1.0000	1.056
05	5.0000	1.052	06	10.0000	1.07	07	15.0000	1.112			

Perfluorododecanoic acid (PFDoDA)

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.0500	0.8942	02	0.1000	0.6047	03	0.5000	0.6148	04	1.0000	0.5852
05	5.0000	0.6016	06	10.0000	0.6265	07	15.0000	0.6233			

Perfluoroheptane sulfonic acid (PFHpS)

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.0477	1.334	02	0.0953	1.418	03	0.4767	1.435	04	0.9534	1.458
05	4.7672	1.19	06	9.5344	1.241	07	14.3016	1.403			

Perfluoroheptanoic acid (PFHpA)

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.0500	1.212	02	0.1000	1.105	03	0.5000	0.9647	04	1.0000	0.9654
05	5.0000	0.9753	06	10.0000	0.9761	07	15.0000	0.9478			

Perfluorohexane sulfonic acid (PFHxS)

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
02	0.0913	1.161	03	0.4565	1.409	04	0.9131	1.385	05	4.5654	1.25
06	9.1308	1.34	07	13.6961	1.423						

Perfluorohexanoic acid (PFHxA)

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.0500	1.56	02	0.1000	1.173	03	0.5000	1.213	04	1.0000	1.178
05	5.0000	1.171	06	10.0000	1.251	07	15.0000	1.27			

Perfluorononane sulfonic acid (PFNS)

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.0481	0.5591	02	0.0962	0.5596	03	0.4808	0.5735	04	0.9616	0.6182
05	4.8079	0.5994	06	9.6158	0.6116	07	14.4237	0.6338			

Perfluorononanoic acid (PFNA)

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.0500	1.205	02	0.1000	1.248	03	0.5000	1.109	04	1.0000	0.9453
05	5.0000	0.9597	06	10.0000	1.032	07	15.0000	1.067			

Perfluorooctane sulfonamide (FOSA)

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
02	0.1000	1.215	03	0.5000	1.1	04	1.0000	1.114	05	5.0000	1.108
06	10.0000	1.115	07	15.0000	1.121						

Client: Test America, Incorporated
Project: DEC - Fort Edward Landfill Site:558001

Service Request: K2000460
Calibration Date: 12/27/2019

Initial Calibration Summary
Per- and Polyfluoroalkyl Substances (PFAS) by LC/MS/MS

Calibration ID: KC1900567
Instrument ID: K-LCMS-06

Signal ID: 1

Analyte

Perfluorooctane sulfonic acid (PFOS)

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.0465	0.9919	02	0.0929	0.9464	03	0.4646	0.8673	04	0.9292	0.8282
05	4.6461	0.8303	06	9.2923	0.8731	07	13.9384	0.8953			

Perfluorooctanoic acid (PFOA)

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.0500	1.83	02	0.1000	1.508	03	0.5000	1.32	04	1.0000	1.275
05	5.0000	1.281	06	10.0000	1.328	07	15.0000	1.355			

Perfluoropentane sulfonic acid (PFPeS)

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.0470	0.4922	02	0.0941	0.5057	03	0.4705	0.5059	04	0.9409	0.455
05	4.7046	0.4751	06	9.4092	0.5153	07	14.1138	0.5233			

Perfluoropentanoic acid (PFPeA)

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.0500	6.999	02	0.1000	4.043	03	0.5000	2.654	04	1.0000	2.347
05	5.0000	2.174	06	10.0000	2.231	07	15.0000	2.274			

Perfluorotetradecanoic acid (PFTeDA)

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.0500	1.905	02	0.1000	1.118	03	0.5000	0.6527	04	1.0000	0.5837
05	5.0000	0.4977	06	10.0000	0.5148	07	15.0000	0.5132			

Perfluorotridecanoic acid (PFTrDA)

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.0500	1.529	02	0.1000	1.322	03	0.5000	1.144	04	1.0000	1.131
05	5.0000	1.1	06	10.0000	1.12	07	15.0000	1.043			

Perfluoroundecanoic acid (PFUnDA)

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.0500	1.284	02	0.1000	1.007	03	0.5000	0.8334	04	1.0000	0.8435
05	5.0000	0.8497	06	10.0000	0.8786	07	15.0000	0.872			

Client: Test America, Incorporated
Project: DEC - Fort Edward Landfill Site:558001

Service Request: K2000460
Calibration Date: 12/27/2019

Initial Calibration Summary
Per- and Polyfluoroalkyl Substances (PFAS) by LC/MS/MS

Calibration ID: KC1900567
Instrument ID: K-LCMS-06

Signal ID: 1

Analyte Name	Compound Type	Calibration Evaluation				Calibration Evaluation	
		Fit Type	Eval	Eval Result	Control Criteria	Average RRF	Minimum RRF
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	TRG	Average RF	% RSD	10.9	≤20	0.7871	
13C2-4:2 FTS	SURR	Average RF	% RSD	8.4	≤20	0.09352	
13C2-6:2 FTS	SURR	Average RF	% RSD	7.3	≤20	0.07112	
13C2-8:2 FTS	SURR	Average RF	% RSD	6.0	≤20	0.053	
13C2-PFDA	SURR	Average RF	% RSD	2.4	≤20	0.6856	
13C2-PFDoDA	SURR	Average RF	% RSD	4.3	≤20	0.9757	
13C2-PFHxA	SURR	Average RF	% RSD	3.6	≤20	1.053	
13C2-PFTeDA	SURR	Average RF	% RSD	6.6	≤20	0.822	
13C2-PFUnDA	SURR	Average RF	% RSD	2.6	≤20	0.7419	
13C3-HFPO-DA	SURR	Average RF	% RSD	4.0	≤20	0.4133	
13C3-PFBS	SURR	Average RF	% RSD	4.6	≤20	0.3599	
13C4-PFBA	SURR	Average RF	% RSD	4.7	≤20	1.037	
13C4-PFHpA	SURR	Average RF	% RSD	8.8	≤20	1.015	
13C4-PFOA	SURR	Average RF	% RSD	3.8	≤20	1.089	
13C4-PFOS	SURR	Average RF	% RSD	3.6	≤20	0.1825	
13C5-PFNA	SURR	Average RF	% RSD	7.3	≤20	0.8088	
13C5-PFPeA	SURR	Average RF	% RSD	4.1	≤20	0.5053	
13C8-FOSA	SURR	Average RF	% RSD	4.7	≤20	0.4655	
18O2-PFHxS	SURR	Average RF	% RSD	10.9	≤20	0.1656	
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	TRG	Average RF	% RSD	6.6	≤20	0.8274	
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	TRG	Average RF	% RSD	7.7	≤20	1.242	
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	TRG	Average RF	% RSD	8.1	≤20	0.8554	
D3-MeFOSA	SURR	Average RF	% RSD	6.2	≤20	0.1311	
D3-MeFOSAA	SURR	Average RF	% RSD	6.8	≤20	0.136	
D5-EtFOSA	SURR	Average RF	% RSD	3.8	≤20	0.1855	
D5-EtFOSAA	SURR	Average RF	% RSD	8.3	≤20	0.1139	
D7-MeFOSE	SURR	Average RF	% RSD	5.4	≤20	0.1503	
D9-EtFOSE	SURR	Average RF	% RSD	6.3	≤20	0.1641	
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	TRG	Average RF	% RSD	8.4	≤20	0.8909	
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	TRG	Average RF	% RSD	8.3	≤20	0.1921	
N-Ethyl perfluorooctane sulfonamidoacetic acid	TRG	Linear	R2	0.9986	≥0.99	0.4941	

Client: Test America, Incorporated
Project: DEC - Fort Edward Landfill Site:558001

Service Request: K2000460
Calibration Date: 12/27/2019

Initial Calibration Summary
Per- and Polyfluoroalkyl Substances (PFAS) by LC/MS/MS

Calibration ID: KC1900567
Instrument ID: K-LCMS-06

Signal ID: 1

Analyte Name	Compound Type	Calibration Evaluation				Calibration Evaluation	
		Fit Type	Eval	Eval Result	Control Criteria	Average RRF	Minimum RRF
N-Ethyl perfluorooctane sulfonamidoethanol	TRG	Average RF	% RSD	3.0	≤20	1.182	
N-Methyl perfluorooctane sulfonamide (MeFOSA)	TRG	Average RF	% RSD	3.1	≤20	1.432	
N-Methyl perfluorooctane sulfonamidoacetic acid	TRG	Linear	R2	0.9982	≥0.99	0.5795	
N-Methyl perfluorooctane sulfonamidoethanol	TRG	Average RF	% RSD	3.1	≤20	1.323	
Perfluorobutane sulfonic acid (PFBS)	TRG	Average RF	% RSD	2.6	≤20	1.246	
Perfluorobutanoic acid (PFBA)	TRG	Average RF	% RSD	4.5	≤20	1.021	
Perfluorodecane sulfonic acid (PFDS)	TRG	Average RF	% RSD	8.3	≤20	0.808	
Perfluorodecanoic acid (PFDA)	TRG	Linear	R2	0.9993	≥0.99	1.122	
Perfluorododecanoic acid (PFDoDA)	TRG	Linear	R2	0.9995	≥0.99	0.65	
Perfluoroheptane sulfonic acid (PFHpS)	TRG	Average RF	% RSD	7.6	≤20	1.354	
Perfluoroheptanoic acid (PFHpA)	TRG	Linear	R2	0.9997	≥0.99	1.021	
Perfluorohexane sulfonic acid (PFHxS)	TRG	Average RF	% RSD	7.7	≤20	1.328	
Perfluorohexanoic acid (PFHxA)	TRG	Linear	R2	0.9936	≥0.99	1.26	
Perfluorononane sulfonic acid (PFNS)	TRG	Average RF	% RSD	5.0	≤20	0.5936	
Perfluorononanoic acid (PFNA)	TRG	Linear	R2	0.9936	≥0.99	1.081	
Perfluorooctane sulfonamide (FOSA)	TRG	Average RF	% RSD	3.8	≤20	1.129	
Perfluorooctane sulfonic acid (PFOS)	TRG	Average RF	% RSD	6.8	≤20	0.8903	
Perfluorooctanoic acid (PFOA)	TRG	Linear	R2	0.9994	≥0.99	1.414	
Perfluoropentane sulfonic acid (PFPeS)	TRG	Average RF	% RSD	4.8	≤20	0.4961	
Perfluoropentanoic acid (PFPeA)	TRG	Linear	R2	0.9994	≥0.99	3.246	
Perfluorotetradecanoic acid (PFTeDA)	TRG	Linear	R2	0.9945	≥0.99	0.8264	
Perfluorotridecanoic acid (PFTrDA)	TRG	Linear	R2	0.9993	≥0.99	1.198	
Perfluoroundecanoic acid (PFUnDA)	TRG	Linear	R2	0.9978	≥0.99	0.9383	

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QA/QC Report

Client: Test America, Incorporated
Project: DEC - Fort Edward Landfill Site:558001

Service Request: K2000460
Calibration Date: 12/27/2019

Initial Calibration Verification Summary
Per- and Polyfluoroalkyl Substances (PFAS) by LC/MS/MS

Calibration ID: KC1900567
Instrument ID: K-LCMS-06

Signal ID: 1

#	Lab Code	Sample Name	File Location	Acquisition Date
08	KC1900567-08	1.0 PPB ICV 10:2 FTS	191227_017	12/27/2019 11:54
09	KC1900567-09	1.0 PPB ICV NO10:2 FTS	191227_019	12/27/2019 12:15

Analyte Name	Expected	Result	Average RF	SSV RF	% D	Criteria	Curve Fit
Perfluorobutane sulfonic acid (PFBS)	0.887	0.896	1.246E0	1.259E0	1.02	±30	Average RF
Perfluoropentane sulfonic acid (PFPeS)	0.941	1.01	4.961E-1	5.327E-1	7.38	±30	Average RF
Perfluorohexane sulfonic acid (PFHxS)	0.913	0.925	1.328E0	1.346E0	1.34	±30	Average RF
Perfluoroheptane sulfonic acid (PFHpS)	0.953	0.888	1.354E0	1.262E0	-6.827	±30	Average RF
Perfluorooctane sulfonic acid (PFOS)	0.929	0.934	8.903E-1	8.946E-1	0.475	±30	Average RF
Perfluorononane sulfonic acid (PFNS)	0.962	1.10	5.936E-1	6.82E-1	14.89	±30	Average RF
Perfluorodecane sulfonic acid (PFDS)	0.965	1.11	8.08E-1	9.302E-1	15.12	±30	Average RF
Perfluorobutanoic acid (PFBA)	1.00	0.959	1.021E0	9.789E-1	-4.136	±30	Average RF
Perfluoropentanoic acid (PFPeA)	1.00	0.964	3.246E0	2.353E0	-3.637	±30	Linear
Perfluorohexanoic acid (PFHxA)	1.00	1.02	1.26E0	1.233E0	2.33	±30	Linear
Perfluoroheptanoic acid (PFHpA)	1.00	0.949	1.021E0	9.234E-1	-5.084	±30	Linear
Perfluorooctanoic acid (PFOA)	1.00	0.956	1.414E0	1.288E0	-4.393	±30	Linear
Perfluorononanoic acid (PFNA)	1.00	0.935	1.081E0	9.7E-1	-6.522	±30	Linear
Perfluorodecanoic acid (PFDA)	1.00	0.986	1.122E0	1.061E0	-1.405	±30	Linear
Perfluoroundecanoic acid (PFUnDA)	1.00	1.02	9.383E-1	8.794E-1	2.42	±30	Linear
Perfluorododecanoic acid (PFDoDA)	1.00	1.08	6.5E-1	6.76E-1	8.24	±30	Linear
Perfluorotridecanoic acid (PFTrDA)	1.00	0.978	1.198E0	1.091E0	-2.248	±30	Linear
Perfluorotetradecanoic acid (PFTeDA)	1.00	0.983	8.264E-1	5.592E-1	-1.681	±30	Linear
Perfluorooctane sulfonamide (FOSA)	1.00	0.980	1.129E0	1.106E0	-1.990	±30	Average RF
N-Methyl perfluorooctane sulfonamide (MeFOSA)	1.00	1.01	1.432E0	1.442E0	0.743	±30	Average RF
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	1.00	0.998	1.921E-1	1.917E-1	-0.187	±30	Average RF
N-Methyl perfluorooctane sulfonamidoethanol	1.00	0.950	1.323E0	1.257E0	-4.961	±30	Average RF
N-Ethyl perfluorooctane sulfonamidoethanol	1.00	1.04	1.182E0	1.233E0	4.32	±30	Average RF
N-Methyl perfluorooctane sulfonamidoacetic acid	1.00	1.08	5.795E-1	6.553E-1	8.08	±30	Linear
N-Ethyl perfluorooctane sulfonamidoacetic acid	1.00	1.26	4.941E-1	7.127E-1	25.94	±30	Linear
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	0.937	1.06	8.274E-1	9.332E-1	12.79	±30	Average RF
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	0.951	1.02	1.242E0	1.327E0	6.81	±30	Average RF
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	0.960	0.949	8.554E-1	8.455E-1	-1.159	±30	Average RF
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	0.966	0.807	7.871E-1	6.578E-1	-16.429	±30	Average RF
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	0.966	0.871	7.871E-1	7.093E-1	-9.884	±30	Average RF
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	1.00	0.946	8.909E-1	8.428E-1	-5.393	±30	Average RF

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QA/QC Report

Client: Test America, Incorporated
Project: DEC - Fort Edward Landfill Site:558001

Service Request: K2000460
Calibration Date: 12/27/2019

Initial Calibration Verification Summary
Per- and Polyfluoroalkyl Substances (PFAS) by LC/MS/MS

Calibration ID: KC1900567
Instrument ID: K-LCMS-06

Signal ID: 1

Analyte Name	Expected	Result	Average RF	SSV RF	% D	Criteria	Curve Fit
13C3-PFBS	5.00	4.80	3.599E-1	3.453E-1	-4.057	±30	Average RF
18O2-PFHxS	5.00	5.38	1.656E-1	1.782E-1	7.61	±30	Average RF
13C4-PFOS	5.00	4.54	1.825E-1	1.658E-1	-9.145	±30	Average RF
13C4-PFBA	5.00	4.62	1.037E0	9.585E-1	-7.538	±30	Average RF
13C5-PFPeA	5.00	4.71	5.053E-1	4.761E-1	-5.778	±30	Average RF
13C2-PFHxA	5.00	4.55	1.053E0	9.586E-1	-9.008	±30	Average RF
13C4-PFHpA	5.00	5.48	1.015E0	1.111E0	9.51	±30	Average RF
13C4-PFOA	5.00	5.00	1.089E0	1.089E0	-0.052	±30	Average RF
13C5-PFNA	5.00	4.92	8.088E-1	7.957E-1	-1.621	±30	Average RF
13C2-PFDA	5.00	5.03	6.856E-1	6.894E-1	0.551	±30	Average RF
13C2-PFUnDA	5.00	4.78	7.419E-1	7.088E-1	-4.457	±30	Average RF
13C2-PFDoDA	5.00	4.66	9.757E-1	9.093E-1	-6.809	±30	Average RF
13C2-PFTeDA	5.00	4.91	8.22E-1	8.069E-1	-1.833	±30	Average RF
13C8-FOSA	5.00	4.76	4.655E-1	4.428E-1	-4.884	±30	Average RF
D3-MeFOSA	5.00	4.41	1.311E-1	1.156E-1	-11.870	±30	Average RF
D5-EtFOSA	5.00	4.50	1.855E-1	1.67E-1	-9.965	±30	Average RF
D7-MeFOSE	5.00	4.84	1.503E-1	1.454E-1	-3.246	±30	Average RF
D9-EtFOSE	5.00	4.71	1.641E-1	1.545E-1	-5.866	±30	Average RF
D3-MeFOSAA	5.00	4.70	1.36E-1	1.278E-1	-6.045	±30	Average RF
D5-EtFOSAA	5.00	4.80	1.139E-1	1.093E-1	-4.015	±30	Average RF
13C2-4:2 FTS	5.00	3.97	9.352E-2	7.421E-2	-20.645	±30	Average RF
13C2-6:2 FTS	5.00	4.98	7.112E-2	7.088E-2	-0.342	±30	Average RF
13C2-8:2 FTS	5.00	4.79	5.3E-2	5.077E-2	-4.199	±30	Average RF
13C2-8:2 FTS	5.00	4.95	5.3E-2	5.242E-2	-1.094	±30	Average RF
13C3-HFPO-DA	5.00	4.64	4.133E-1	3.834E-1	-7.247	±30	Average RF

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QA/QC Report

Client: Test America, Incorporated
Project: DEC - Fort Edward Landfill Site:558001/46030964

Service Request: K2000460
Date Analyzed: 02/04/20 09:57

Continuing Calibration Verification (CCV) Summary
Per- and Polyfluoroalkyl Substances (PFAS) by LC/MS/MS

Analysis Method: PFC/537M
File ID: J:\LCMS06\Data\200203_b6\200203_113
Signal ID: 1

Calibration Date: 12/27/2019
Calibration ID: KC1900567
Analysis Lot: 668811
Units: ng/mL

Analyte Name	Expected	Result	Average RF	CCV RF	Rec.	% Drift	Criteria	Curve Fit
Perfluorobutane sulfonic acid (PFBS)	0.887	0.871	1.2463	1.2228	98.1	NA	±30	Average RF
Perfluoropentane sulfonic acid (PFPeS)	0.941	1.01	0.4961	0.5328	107	NA	±30	Average RF
Perfluorohexane sulfonic acid (PFHxS)	0.913	0.982	1.3281	1.4278	108	NA	±30	Average RF
Perfluoroheptane sulfonic acid (PFHpS)	0.953	1.11	1.354	1.58	117	NA	±30	Average RF
Perfluorooctane sulfonic acid (PFOS)	0.929	0.880	0.8903	0.843	94.7	NA	±30	Average RF
Perfluorononane sulfonic acid (PFNS)	0.962	1.03	0.5936	0.6333	107	NA	±30	Average RF
Perfluorodecane sulfonic acid (PFDS)	0.965	1.11	0.808	0.9311	115	NA	±30	Average RF
Perfluorobutanoic acid (PFBA)	1.00	1.07	1.0212	1.0947	107	NA	±30	Average RF
Perfluoropentanoic acid (PFPeA)	1.00	1.08	3.2461	2.6207	108	8.4	±30	Linear
Perfluorohexanoic acid (PFHxA)	1.00	1.16	1.2595	1.3969	116	16.1	±30	Linear
Perfluoroheptanoic acid (PFHpA)	1.00	1.08	1.0209	1.0454	108	7.6	±30	Linear
Perfluorooctanoic acid (PFOA)	1.00	0.853	1.4138	1.1516	85.3	-14.7	±30	Linear
Perfluorononanoic acid (PFNA)	1.00	0.845	1.0809	0.8777	84.5	-15.5	±30	Linear
Perfluorodecanoic acid (PFDA)	1.00	0.975	1.1222	1.0493	97.5	-2.5	±30	Linear
Perfluoroundecanoic acid (PFUnDA)	1.00	1.01	0.9383	0.8688	101	1.2	±30	Linear
Perfluorododecanoic acid (PFDoDA)	1.00	0.955	0.65	0.5972	95.5	-4.5	±30	Linear
Perfluorotridecanoic acid (PFTrDA)	1.00	1.01	1.1984	1.1266	101	1.0	±30	Linear
Perfluorotetradecanoic acid (PFTeDA)	1.00	1.00	0.8264	0.5688	100	0.3	±30	Linear
Perfluorooctane sulfonamide (FOSA)	1.00	1.10	1.1287	1.2438	110	NA	±30	Average RF
N-Methyl perfluorooctane sulfonamide (MeFOSA)	1.00	1.18	1.4317	1.6896	118	NA	±30	Average RF
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	1.00	1.10	0.1921	0.212	110	NA	±30	Average RF
N-Methyl perfluorooctane sulfonamidoethanol	1.00	1.20	1.3226	1.5883	120	NA	±30	Average RF
N-Ethyl perfluorooctane sulfonamidoethanol	1.00	1.11	1.1824	1.3157	111	NA	±30	Average RF
N-Methyl perfluorooctane sulfonamidoacetic acid	1.00	0.999	0.5795	0.6055	99.9	-0.1	±30	Linear
N-Ethyl perfluorooctane sulfonamidoacetic acid	1.00	0.947	0.4941	0.5319	94.7	-5.4	±30	Linear
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	0.937	1.07	0.8274	0.9402	114	NA	±30	Average RF
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	0.951	1.05	1.242	1.3741	111	NA	±30	Average RF
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	0.960	0.965	0.8554	0.8595	100	NA	±30	Average RF

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QA/QC Report

Client: Test America, Incorporated
Project: DEC - Fort Edward Landfill Site:558001/46030964

Service Request: K2000460
Date Analyzed: 02/04/20 09:57

Continuing Calibration Verification (CCV) Summary
Per- and Polyfluoroalkyl Substances (PFAS) by LC/MS/MS

Analysis Method: PFC/537M
File ID: J:\LCMS06\Data\200203_b6\200203_113
Signal ID: 1

Calibration Date: 12/27/2019
Calibration ID: KC1900567
Analysis Lot: 668811
Units: ng/mL

10:2 Fluorotelomer sulfonic acid (10:2 FTS)	0.966	1.02	0.7871	0.833	106	NA	±30	Average RF
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	1.00	1.16	0.8909	1.0334	116	NA	±30	Average RF

Analyte Name	Expected	Result	Average RF	CCV RF	Rec.	% Drift	Criteria	Curve Fit
13C3-PFBS	5.00	4.51	0.3599	0.3245	90.2	NA	±30	Average RF
18O2-PFHxS	5.00	4.34	0.1656	0.1436	86.7	NA	±30	Average RF
13C4-PFOS	5.00	4.74	0.1825	0.173	94.8	NA	±30	Average RF
13C4-PFBA	5.00	3.58	1.0366	0.7424	71.6	NA	±30	Average RF
13C5-PFPeA	5.00	3.64	0.5053	0.3674	72.7	NA	±30	Average RF
13C2-PFHxA	5.00	4.31	1.0534	0.9072	86.1	NA	±30	Average RF
13C4-PFHpA	5.00	3.67	1.0146	0.7443	73.4	NA	±30	Average RF
13C4-PFOA	5.00	4.97	1.0893	1.0829	99.4	NA	±30	Average RF
13C5-PFNA	5.00	4.86	0.8088	0.787	97.3	NA	±30	Average RF
13C2-PFDA	5.00	5.05	0.6856	0.6922	101	NA	±30	Average RF
13C2-PFUnDA	5.00	5.35	0.7419	0.7943	107	NA	±30	Average RF
13C2-PFDODA	5.00	5.06	0.9757	0.9872	101	NA	±30	Average RF
13C2-PFTeDA	5.00	4.88	0.822	0.8017	97.5	NA	±30	Average RF
13C8-FOSA	5.00	4.04	0.4655	0.3758	80.7	NA	±30	Average RF
D3-MeFOSA	5.00	3.81	0.1311	0.0999	76.2	NA	±30	Average RF
D5-EtFOSA	5.00	4.08	0.1855	0.1513	81.6	NA	±30	Average RF
D7-MeFOSE	5.00	3.92	0.1503	0.1178	78.4	NA	±30	Average RF
D9-EtFOSE	5.00	4.33	0.1641	0.1421	86.6	NA	±30	Average RF
D3-MeFOSAA	5.00	5.22	0.136	0.142	104	NA	±30	Average RF
D5-EtFOSAA	5.00	5.58	0.1139	0.127	112	NA	±30	Average RF
13C2-4:2 FTS	5.00	4.88	0.0935	0.0912	97.5	NA	±30	Average RF
13C2-6:2 FTS	5.00	4.58	0.0711	0.0651	91.6	NA	±30	Average RF
13C2-8:2 FTS	5.00	5.11	0.053	0.0541	102	NA	±30	Average RF
13C3-HFPO-DA	5.00	3.47	0.4133	0.2871	69.5*	NA	±30	Average RF

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QA/QC Report

Client: Test America, Incorporated

Service Request: K2000460

Project: DEC - Fort Edward Landfill Site:558001/46030964

Analysis Run Log

Per- and Polyfluoroalkyl Substances (PFAS) by LC/MS/MS

Analysis Method: PFC/537M

Analysis Lot: 668811

Instrument ID: K-LCMS-06

Raw Data File	Sample Name	Lab Code	Date Analyzed	Time Analyzed	Q
J:\LCMS06\Data\200203_b6\200203_113	Continuing Calibration Verification	KQ2001573-01	2/4/2020	09:57	
J:\LCMS06\Data\200203_b6\200203_114	Continuing Calibration Blank	KQ2001573-02	2/4/2020	10:07	
J:\LCMS06\Data\200203_b6\200203_115	Lab Control Sample	KQ2001171-05	2/4/2020	10:18	
J:\LCMS06\Data\200203_b6\200203_116	Method Blank	KQ2001171-06	2/4/2020	10:28	
J:\LCMS06\Data\200203_b6\200203_117	FILTER SLUDGE-20191120	K2000460-001	2/4/2020	10:39	
J:\LCMS06\Data\200203_b6\200203_118	FILTER SLUDGE-20191120 MS	KQ2001171-03	2/4/2020	10:49	
J:\LCMS06\Data\200203_b6\200203_119	FILTER SLUDGE-20191120 DMS	KQ2001171-04	2/4/2020	11:00	
J:\LCMS06\Data\200203_b6\200203_120	ZZZZZZZ	ZZZZZZZ	2/4/2020	11:10	
J:\LCMS06\Data\200203_b6\200203_121	ZZZZZZZ	ZZZZZZZ	2/4/2020	11:21	
J:\LCMS06\Data\200203_b6\200203_122	ZZZZZZZ	ZZZZZZZ	2/4/2020	11:31	
J:\LCMS06\Data\200203_b6\200203_123	ZZZZZZZ	ZZZZZZZ	2/4/2020	11:41	
J:\LCMS06\Data\200203_b6\200203_124	ZZZZZZZ	ZZZZZZZ	2/4/2020	11:52	
J:\LCMS06\Data\200203_b6\200203_125	ZZZZZZZ	ZZZZZZZ	2/4/2020	12:02	
J:\LCMS06\Data\200203_b6\200203_126	ZZZZZZZ	ZZZZZZZ	2/4/2020	12:13	
J:\LCMS06\Data\200203_b6\200203_127	ZZZZZZZ	ZZZZZZZ	2/4/2020	12:23	
J:\LCMS06\Data\200203_b6\200203_128	ZZZZZZZ	ZZZZZZZ	2/4/2020	12:34	
J:\LCMS06\Data\200203_b6\200203_129	ZZZZZZZ	ZZZZZZZ	2/4/2020	12:44	
J:\LCMS06\Data\200203_b6\200203_130	ZZZZZZZ	ZZZZZZZ	2/4/2020	12:55	
J:\LCMS06\Data\200203_b6\200203_131	ZZZZZZZ	ZZZZZZZ	2/4/2020	13:05	
J:\LCMS06\Data\200203_b6\200203_132	ZZZZZZZ	ZZZZZZZ	2/4/2020	13:16	
J:\LCMS06\Data\200203_b6\200203_133	ZZZZZZZ	ZZZZZZZ	2/4/2020	13:26	

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Prep Summary Report

Client: Test America, Incorporated
Project: DEC - Fort Edward Landfill Site:558001/46030964
Sample Matrix: Soil

Service Request:K2000460

Per- and Polyfluoroalkyl Substances (PFAS) by LC/MS/MS

Prep Method: ALS SOP
Analytical Method: PFC/537M

Extraction Lot: 352744
Extraction Date: 01/31/20 10:06

Sample Name	Lab Code	Date Collected	Date Received	Sample Amount	Final Amount	Percent Solids
FILTER SLUDGE-20191120	K2000460-001	11/20/19	1/17/20	1.326 g	8 mL	22.4
Matrix Spike	KQ2001171-03MS	11/20/19	1/17/20	1.315 g	8 mL	22.4
Duplicate Matrix Spike	KQ2001171-04DMS	11/20/19	1/17/20	1.187 g	8 mL	22.4
Lab Control Sample	KQ2001171-05LCS	NA	NA	1 g	8 mL	
Method Blank	KQ2001171-06MB	NA	NA	1 g	8 mL	



Total Oxidizable Precursor Assay (TOPA) of Per- and Polyfluoroalkyl Substances by LC/MS/MS

ALS Environmental—Kelso Laboratory
1317 South 13th Avenue, Kelso, WA 98626
Phone (360)577-7222 Fax (360)636-1068
www.alsglobal.com

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: Test America, Incorporated
Project: DEC - Fort Edward Landfill Site:558001/46030964
Sample Matrix: Soil

Service Request: K2000460
Date Collected: 11/20/19 09:50
Date Received: 01/17/20 09:50

Sample Name: FILTER SLUDGE-20191120
Lab Code: K2000460-001

Units: ng/g
Basis: Dry

Total Oxidizable Precursor Assay (TOPA) of Per- and Polyfluoroalkyl Substances (PFAS) by LC/MS/MS

Analysis Method: ALS SOP
Prep Method: ALS SOP

Analyte Name	Result	MRL	Dil.	Date Analyzed	Date Extracted	Q
Perfluoroalkane Sulfonic Acids						
Perfluorobutane sulfonic acid (PFBS)	ND U	4.2	1	02/21/20 05:36	1/21/20	*
Perfluoropentane sulfonic acid (PFPeS)	ND U	4.2	1	02/21/20 05:36	1/21/20	*
Perfluorohexane sulfonic acid (PFHxS)	ND U	4.2	1	02/21/20 05:36	1/21/20	*
Perfluoroheptane sulfonic acid (PFHpS)	ND U	4.2	1	02/21/20 05:36	1/21/20	*
Perfluorooctane sulfonic acid (PFOS)	ND U	4.2	1	02/21/20 05:36	1/21/20	*
Perfluorononane sulfonic acid (PFNS)	ND U	4.2	1	02/21/20 05:36	1/21/20	*
Perfluorodecane sulfonic acid (PFDS)	ND U	4.2	1	02/21/20 05:36	1/21/20	*
Perfluoroalkane Carboxylic Acids						
Perfluorobutanoic acid (PFBA)	4.3	4.2	1	02/21/20 05:36	1/21/20	*
Perfluoropentanoic acid (PFPeA)	9.1 B	4.2	1	02/21/20 05:36	1/21/20	*
Perfluorohexanoic acid (PFHxA)	5.2 B	4.2	1	02/21/20 05:36	1/21/20	*
Perfluoroheptanoic acid (PFHpA)	ND U	4.2	1	02/21/20 05:36	1/21/20	*
Perfluorooctanoic acid (PFOA)	ND U	4.2	1	02/21/20 05:36	1/21/20	*
Perfluorononanoic acid (PFNA)	ND U	4.2	1	02/21/20 05:36	1/21/20	*
Perfluorodecanoic acid (PFDA)	ND U	4.2	1	02/21/20 05:36	1/21/20	*
Perfluoroundecanoic acid (PFUnDA)	ND U	4.2	1	02/21/20 05:36	1/21/20	*
Perfluorododecanoic acid (PFDoDA)	ND U	4.2	1	02/21/20 05:36	1/21/20	*
Perfluorotridecanoic acid (PFTTrDA)	ND U	4.2	1	02/21/20 05:36	1/21/20	*
Perfluorotetradecanoic acid (PFTeDA)	ND U	4.2	1	02/21/20 05:36	1/21/20	*
Perfluoroalkyl Sulfonamides						
Perfluorooctane sulfonamide (FOSA)	ND U	4.2	1	02/21/20 05:36	1/21/20	*
N-Methyl perfluorooctane sulfonamide (MeFOSA)	ND U	4.2	1	02/21/20 05:36	1/21/20	*
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	ND U	4.2	1	02/21/20 05:36	1/21/20	*
N-Methyl perfluorooctane sulfonamidoethanol	ND U	4.2	1	02/21/20 05:36	1/21/20	*
N-Ethyl perfluorooctane sulfonamidoethanol	ND U	4.2	1	02/21/20 05:36	1/21/20	*
N-Methyl perfluorooctane sulfonamidoacetic acid	ND U	4.2	1	02/21/20 05:36	1/21/20	*
N-Ethyl perfluorooctane sulfonamidoacetic acid	ND U	4.2	1	02/21/20 05:36	1/21/20	*
(n:2) Fluorotelomer Sulfonic Acids						
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	ND U	4.2	1	02/21/20 05:36	1/21/20	*
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	ND U	4.2	1	02/21/20 05:36	1/21/20	*
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	ND U	4.2	1	02/21/20 05:36	1/21/20	*
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	ND U	4.2	1	02/21/20 05:36	1/21/20	*
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	ND U	4.2	1	02/21/20 05:36	1/21/20	*

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: Test America, Incorporated
Project: DEC - Fort Edward Landfill Site:558001/46030964
Sample Matrix: Soil

Service Request: K2000460
Date Collected: 11/20/19 09:50
Date Received: 01/17/20 09:50

Sample Name: FILTER SLUDGE-20191120
Lab Code: K2000460-001

Units: ng/g
Basis: Dry

Total Oxidizable Precursor Assay (TOPA) of Per- and Polyfluoroalkyl Substances (PFAS) by LC/MS/MS

Analysis Method: ALS SOP
Prep Method: ALS SOP

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
13C3-PFBS	34	70 - 130	02/21/20 05:36	*
18O2-PFHxS	46	70 - 130	02/21/20 05:36	*
13C4-PFOS	60	70 - 130	02/21/20 05:36	*
13C4-PFBA	45	70 - 130	02/21/20 05:36	*
13C5-PFPeA	38	70 - 130	02/21/20 05:36	*
13C2-PFHxA	36	70 - 130	02/21/20 05:36	*
13C4-PFHpA	19	70 - 130	02/21/20 05:36	*
13C4-PFOA	59	70 - 130	02/21/20 05:36	*
13C5-PFNA	66	70 - 130	02/21/20 05:36	*
13C2-PFDA	64	70 - 130	02/21/20 05:36	*
13C2-PFUnDA	77	70 - 130	02/21/20 05:36	
13C2-PFDoDA	89	70 - 130	02/21/20 05:36	
13C2-PFTeDA	56	70 - 130	02/21/20 05:36	*
13C8-FOSA	38	70 - 130	02/21/20 05:36	*
D3-MeFOSA	28	70 - 130	02/21/20 05:36	*
D5-EtFOSA	28	70 - 130	02/21/20 05:36	*
D7-MeFOSE	47	70 - 130	02/21/20 05:36	*
D9-EtFOSE	37	70 - 130	02/21/20 05:36	*
D3-MeFOSAA	58	70 - 130	02/21/20 05:36	*
D5-EtFOSAA	72	70 - 130	02/21/20 05:36	
13C2-4:2 FTS	47	70 - 130	02/21/20 05:36	*
13C2-6:2 FTS	2	0 - 10	02/21/20 05:36	
13C2-8:2 FTS	122	70 - 130	02/21/20 05:36	
13C3-HFPO-DA	35	70 - 130	02/21/20 05:36	*

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: Test America, Incorporated
Project: DEC - Fort Edward Landfill Site:558001/46030964
Sample Matrix: Soil

Sample Name: Method Blank
Lab Code: KQ2002399-02

Service Request: K2000460
Date Collected: NA
Date Received: NA

Units: ng/g
Basis: Dry

Total Oxidizable Precursor Assay (TOPA) of Per- and Polyfluoroalkyl Substances (PFAS) by LC/MS/MS

Analysis Method: ALS SOP
Prep Method: ALS SOP

Analyte Name	Result	MRL	Dil.	Date Analyzed	Date Extracted	Q
Perfluoroalkane Sulfonic Acids						
Perfluorobutane sulfonic acid (PFBS)	ND U	1.0	1	02/21/20 03:59	1/21/20	
Perfluoropentane sulfonic acid (PFPeS)	ND U	1.0	1	02/21/20 03:59	1/21/20	
Perfluorohexane sulfonic acid (PFHxS)	ND U	1.0	1	02/21/20 03:59	1/21/20	
Perfluoroheptane sulfonic acid (PFHpS)	ND U	1.0	1	02/21/20 03:59	1/21/20	
Perfluorooctane sulfonic acid (PFOS)	ND U	1.0	1	02/21/20 03:59	1/21/20	
Perfluorononane sulfonic acid (PFNS)	ND U	1.0	1	02/21/20 03:59	1/21/20	
Perfluorodecane sulfonic acid (PFDS)	ND U	1.0	1	02/21/20 03:59	1/21/20	
Perfluoroalkane Carboxylic Acids						
Perfluorobutanoic acid (PFBA)	ND U	1.0	1	02/21/20 03:59	1/21/20	
Perfluoropentanoic acid (PFPeA)	2.1	1.0	1	02/21/20 03:59	1/21/20	
Perfluorohexanoic acid (PFHxA)	1.2	1.0	1	02/21/20 03:59	1/21/20	
Perfluoroheptanoic acid (PFHpA)	ND U	1.0	1	02/21/20 03:59	1/21/20	
Perfluorooctanoic acid (PFOA)	ND U	1.0	1	02/21/20 03:59	1/21/20	
Perfluorononanoic acid (PFNA)	ND U	1.0	1	02/21/20 03:59	1/21/20	
Perfluorodecanoic acid (PFDA)	ND U	1.0	1	02/21/20 03:59	1/21/20	
Perfluoroundecanoic acid (PFUnDA)	ND U	1.0	1	02/21/20 03:59	1/21/20	
Perfluorododecanoic acid (PFDoDA)	ND U	1.0	1	02/21/20 03:59	1/21/20	
Perfluorotridecanoic acid (PFTTrDA)	ND U	1.0	1	02/21/20 03:59	1/21/20	
Perfluorotetradecanoic acid (PFTeDA)	ND U	1.0	1	02/21/20 03:59	1/21/20	
Perfluoroalkyl Sulfonamides						
Perfluorooctane sulfonamide (FOSA)	ND U	1.0	1	02/21/20 03:59	1/21/20	
N-Methyl perfluorooctane sulfonamide (MeFOSA)	ND U	1.0	1	02/21/20 03:59	1/21/20	
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	ND U	1.0	1	02/21/20 03:59	1/21/20	
N-Methyl perfluorooctane sulfonamidoethanol	ND U	1.0	1	02/21/20 03:59	1/21/20	
N-Ethyl perfluorooctane sulfonamidoethanol	ND U	1.0	1	02/21/20 03:59	1/21/20	
N-Methyl perfluorooctane sulfonamidoacetic acid	ND U	1.0	1	02/21/20 03:59	1/21/20	
N-Ethyl perfluorooctane sulfonamidoacetic acid	ND U	1.0	1	02/21/20 03:59	1/21/20	
(n:2) Fluorotelomer Sulfonic Acids						
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	ND U	1.0	1	02/21/20 03:59	1/21/20	
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	ND U	1.0	1	02/21/20 03:59	1/21/20	
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	ND U	1.0	1	02/21/20 03:59	1/21/20	
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	ND U	1.0	1	02/21/20 03:59	1/21/20	
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	ND U	1.0	1	02/21/20 03:59	1/21/20	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: Test America, Incorporated
Project: DEC - Fort Edward Landfill Site:558001/46030964
Sample Matrix: Soil

Sample Name: Method Blank
Lab Code: KQ2002399-02

Service Request: K2000460
Date Collected: NA
Date Received: NA

Units: ng/g
Basis: Dry

Total Oxidizable Precursor Assay (TOPA) of Per- and Polyfluoroalkyl Substances (PFAS) by LC/MS/MS

Analysis Method: ALS SOP
Prep Method: ALS SOP

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
13C3-PFBS	56	70 - 130	02/21/20 03:59	*
18O2-PFHxS	98	70 - 130	02/21/20 03:59	
13C4-PFOS	103	70 - 130	02/21/20 03:59	
13C4-PFBA	83	70 - 130	02/21/20 03:59	
13C5-PFPeA	66	70 - 130	02/21/20 03:59	*
13C2-PFHxA	75	70 - 130	02/21/20 03:59	
13C4-PFHpA	42	70 - 130	02/21/20 03:59	*
13C4-PFOA	97	70 - 130	02/21/20 03:59	
13C5-PFNA	94	70 - 130	02/21/20 03:59	
13C2-PFDA	95	70 - 130	02/21/20 03:59	
13C2-PFUnDA	92	70 - 130	02/21/20 03:59	
13C2-PFDoDA	97	70 - 130	02/21/20 03:59	
13C2-PFTeDA	72	70 - 130	02/21/20 03:59	
13C8-FOSA	66	70 - 130	02/21/20 03:59	*
D3-MeFOSA	49	70 - 130	02/21/20 03:59	*
D5-EtFOSA	50	70 - 130	02/21/20 03:59	*
D7-MeFOSE	70	70 - 130	02/21/20 03:59	
D9-EtFOSE	65	70 - 130	02/21/20 03:59	*
D3-MeFOSAA	75	70 - 130	02/21/20 03:59	
D5-EtFOSAA	74	70 - 130	02/21/20 03:59	
13C2-4:2 FTS	90	70 - 130	02/21/20 03:59	
13C2-6:2 FTS	2	0 - 10	02/21/20 03:59	
13C2-8:2 FTS	91	70 - 130	02/21/20 03:59	
13C3-HFPO-DA	59	70 - 130	02/21/20 03:59	*

ALS Group USA, Corp.
dba ALS Environmental

QA/QC Report

Client: Test America, Incorporated
Project: DEC - Fort Edward Landfill Site:558001/46030964
Sample Matrix: Soil

Service Request: K2000460

SURROGATE RECOVERY SUMMARY

Total Oxidizable Precursor Assay (TOPA) of Per- and Polyfluoroalkyl Substances (PFAS) by LC/MS/MS

Analysis Method: ALS SOP

Extraction Method: ALS SOP

Surrogate	Control Limits	FILTER SLUDGE- 20191120 K2000460-001	FILTER SLUDGE- 20191120 KQ2002399-01	Method Blank KQ2002399-02
13C3-PFBS	70-130	34*	41*	56*
18O2-PFHxS	70-130	46*	70	98
13C4-PFOS	70-130	60*	80	103
13C4-PFBA	70-130	45*	63*	83
13C5-PFPeA	70-130	38*	54*	66*
13C2-PFHxA	70-130	36*	62*	75
13C4-PFHpA	70-130	19*	36*	42*
13C4-PFOA	70-130	59*	80	97
13C5-PFNA	70-130	66*	84	94
13C2-PFDA	70-130	64*	81	95
13C2-PFUnDA	70-130	77	85	92
13C2-PFDoDA	70-130	89	91	97
13C2-PFTeDA	70-130	56*	64*	72
13C8-FOSA	70-130	38*	54*	66*
D3-MeFOSA	70-130	28*	39*	49*
D5-EtFOSA	70-130	28*	40*	50*
D7-MeFOSE	70-130	47*	56*	70
D9-EtFOSE	70-130	37*	50*	65*
D3-MeFOSAA	70-130	58*	63*	75
D5-EtFOSAA	70-130	72	64*	74
13C2-4:2 FTS	70-130	47*	73	90
13C2-6:2 FTS	0-10	2	3	2
13C2-8:2 FTS	70-130	122	90	91
13C3-HFPO-DA	70-130	35*	54*	59*

Results flagged with an asterisk (*) indicate values outside control criteria.

Results flagged with an pound (#) indicate the control criteria is not acceptable.

ALS Group USA, Corp.
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QA/QC Report

Client: Test America, Incorporated
Project: DEC - Fort Edward Landfill Site:558001/46030964

Service Request:K2000460
Date Analyzed:02/21/20 03:27

Internal Standard Area and RT SUMMARY

Total Oxidizable Precursor Assay (TOPA) of Per- and Polyfluoroalkyl Substances (PFAS) by LC/MS/MS

File ID: J:\LCMS06\Data\200220_b2_TOPA\200220_052
Instrument ID: K-LCMS-06
Analysis Method: ALS SOP

Lab Code:KQ2002527-01
Analysis Lot:670906
Signal ID:1

	13C7-PFUnDA	
	Area	RT
Result ==>	3,860,023	5.101
Upper Limit ==>	7,720,046	6.10
Lower Limit ==>	1,930,012	4.10

Associated Analyses

Continuing Calibration Blank	KQ2002527-02	4158013	5.097
Method Blank	KQ2002399-02	3916367	5.104
FILTER SLUDGE-20191120	K2000460-001	7470762	5.094
FILTER SLUDGE-20191120DUP	KQ2002399-01	5029944	5.099

ALS Group USA, Corp.

dba ALS Environmental

QA/QC Report

Client: Test America, Incorporated
Project: DEC - Fort Edward Landfill Site:558001/46030964
Sample Matrix: Soil

Service Request: K2000460

Date Collected: 11/20/19

Date Received: 01/17/20

Date Analyzed: 02/21/20

Replicate Sample Summary

Total Oxidizable Precursor Assay (TOPA) of Per- and Polyfluoroalkyl Substances (PFAS) by LC/MS/MS

Sample Name: FILTER SLUDGE-20191120

Units: ng/g

Lab Code: K2000460-001

Basis: Dry

Analyte Name	Analysis Method	MRL	Sample Result	Duplicate Sample KQ2002399-01	Average	RPD	RPD Limit
				Result			
Perfluorobutane sulfonic acid (PFBS)	ALS SOP	4.3	ND U	ND U	NC	NC	50
Perfluoropentane sulfonic acid (PFPeS)	ALS SOP	4.3	ND U	ND U	NC	NC	50
Perfluorohexane sulfonic acid (PFHxS)	ALS SOP	4.3	ND U	ND U	NC	NC	50
Perfluoroheptane sulfonic acid (PFHpS)	ALS SOP	4.3	ND U	ND U	NC	NC	50
Perfluorooctane sulfonic acid (PFOS)	ALS SOP	4.3	ND U	ND U	NC	NC	50
Perfluorononane sulfonic acid (PFNS)	ALS SOP	4.3	ND U	ND U	NC	NC	50
Perfluorodecane sulfonic acid (PFDS)	ALS SOP	4.3	ND U	ND U	NC	NC	50
Perfluorobutanoic acid (PFBA)	ALS SOP	4.3	4.3	ND U	NC	NC	50
Perfluoropentanoic acid (PFPeA)	ALS SOP	4.3	9.1 B	9.1	9.12	<1	50
Perfluorohexanoic acid (PFHxA)	ALS SOP	4.3	5.2 B	6.6	5.88	24	50
Perfluoroheptanoic acid (PFHpA)	ALS SOP	4.3	ND U	ND U	NC	NC	50
Perfluorooctanoic acid (PFOA)	ALS SOP	4.3	ND U	ND U	NC	NC	50
Perfluorononanoic acid (PFNA)	ALS SOP	4.3	ND U	ND U	NC	NC	50
Perfluorodecanoic acid (PFDA)	ALS SOP	4.3	ND U	ND U	NC	NC	50
Perfluoroundecanoic acid (PFUnDA)	ALS SOP	4.3	ND U	ND U	NC	NC	50
Perfluorododecanoic acid (PFDoDA)	ALS SOP	4.3	ND U	ND U	NC	NC	50
Perfluorotridecanoic acid (PFTrDA)	ALS SOP	4.3	ND U	ND U	NC	NC	50
Perfluorotetradecanoic acid (PFTeDA)	ALS SOP	4.3	ND U	ND U	NC	NC	50
Perfluorooctane sulfonamide (FOSA)	ALS SOP	4.3	ND U	ND U	NC	NC	50
N-Methyl perfluorooctane sulfonamide (MeFOSA)	ALS SOP	4.3	ND U	ND U	NC	NC	50
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	ALS SOP	4.3	ND U	ND U	NC	NC	50
N-Methyl perfluorooctane sulfonamidoethanol	ALS SOP	4.3	ND U	ND U	NC	NC	50
N-Ethyl perfluorooctane sulfonamidoethanol	ALS SOP	4.3	ND U	ND U	NC	NC	50
N-Methyl perfluorooctane sulfonamidoacetic acid	ALS SOP	4.3	ND U	ND U	NC	NC	50
N-Ethyl perfluorooctane sulfonamidoacetic acid	ALS SOP	4.3	ND U	ND U	NC	NC	50
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	ALS SOP	4.3	ND U	ND U	NC	NC	50
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	ALS SOP	4.3	ND U	ND U	NC	NC	50
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	ALS SOP	4.3	ND U	ND U	NC	NC	50
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	ALS SOP	4.3	ND U	ND U	NC	NC	50
Hexafluoropropylene Oxide Dimer Acid (HFPO -DA)	ALS SOP	4.3	ND U	ND U	NC	NC	50

Results flagged with an asterisk (*) indicate values outside control criteria.

Results flagged with a pound (#) indicate the control criteria is not applicable.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

ALS Group USA, Corp.

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QA/QC Report

Client: Test America, Incorporated
Project: DEC - Fort Edward Landfill Site:558001/46030964
Sample Matrix: Soil

Service Request: K2000460
Date Analyzed: 02/21/20 03:59
Date Extracted: 01/21/20

Method Blank Summary**Total Oxidizable Precursor Assay (TOPA) of Per- and Polyfluoroalkyl Substances (PFAS) by LC/MS/MS**

Sample Name: Method Blank **Instrument ID:** K-LCMS-06
Lab Code: KQ2002399-02 **File ID:** J:\LCMS06\Data\200220_b2_TOPA\200220_055
Analysis Method: ALS SOP **Analysis Lot:** 670906
Prep Method: ALS SOP **Extraction Lot:** 354037

This Method Blank applies to the following analyses.

Sample Name	Lab Code	File ID	Date Analyzed
FILTER SLUDGE-20191120	K2000460-001	J:\LCMS06\Data\200220_b2_TOPA\200220_064	02/21/20 05:36
FILTER SLUDGE-20191120DUP	KQ2002399-01	J:\LCMS06\Data\200220_b2_TOPA\200220_065	02/21/20 05:47

ALS Group USA, Corp.
dba ALS Environmental

QA/QC Report

Client: Test America, Incorporated
Project: DEC - Fort Edward Landfill Site:558001

Service Request: K2000460
Calibration Date: 2/19/2020

Initial Calibration Summary
Total Oxidizable Precursor Assay (TOPA) of Per- and Polyfluoroalkyl Substances (PFAS) by LC/MS/MS

Calibration ID: KC2000094
Instrument ID: K-LCMS-06

Signal ID: 1

#	Lab Code	Sample Name	File Location	Acquisition Date
01	KC2000094-01	0.05 PPB ICAL	200219_014	02/19/2020 15:59
02	KC2000094-02	0.10 PPB ICAL	200219_015	02/19/2020 16:10
03	KC2000094-03	0.50 PPB ICAL	200219_016	02/19/2020 16:20
04	KC2000094-04	1.0 PPB ICAL	200219_017	02/19/2020 16:31
05	KC2000094-05	5.0 PPB ICAL	200219_018	02/19/2020 16:42
06	KC2000094-06	10.0 PPB ICAL	200219_019	02/19/2020 16:53
07	KC2000094-07	15.0 PPB ICAL	200219_021	02/19/2020 17:14

Analyte

10:2 Fluorotelomer sulfonic acid (10:2 FTS)

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.0483	0.5626	02	0.0966	0.6037	03	0.4831	0.6167	04	0.9662	0.5768
05	4.8310	0.5948	06	9.6619	0.6042	07	14.4929	0.523			

13C2-4:2 FTS

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	5.0000	0.09662	02	5.0000	0.124	03	5.0000	0.08863	04	5.0000	0.09817
05	5.0000	0.1006	06	5.0000	0.09469	07	5.0000	0.1178			

13C2-6:2 FTS

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	5.0000	0.07931	02	5.0000	0.1037	03	5.0000	0.07445	04	5.0000	0.07486
05	5.0000	0.07279	06	5.0000	0.08277	07	5.0000	0.08012			

13C2-8:2 FTS

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	5.0000	0.0601	02	5.0000	0.07738	03	5.0000	0.05532	04	5.0000	0.05771
05	5.0000	0.05544	06	5.0000	0.05445	07	5.0000	0.0593			

13C2-PFDA

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	5.0000	0.7174	02	5.0000	0.8832	03	5.0000	0.6673	04	5.0000	0.6759
05	5.0000	0.6398	06	5.0000	0.6747	07	5.0000	0.6457			

13C2-PFDoDA

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	5.0000	0.9241	02	5.0000	1.172	03	5.0000	0.8883	04	5.0000	0.9155
05	5.0000	0.9018	06	5.0000	0.9461	07	5.0000	0.9612			

13C2-PFHxA

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	5.0000	1.246	02	5.0000	1.535	03	5.0000	1.144	04	5.0000	1.227
05	5.0000	1.213	06	5.0000	1.129	07	5.0000	1.223			

13C2-PFTeDA

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	5.0000	0.7268	02	5.0000	0.9531	03	5.0000	0.7124	04	5.0000	0.7266

ALS Group USA, Corp.
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QA/QC Report

Client: Test America, Incorporated
Project: DEC - Fort Edward Landfill Site:558001

Service Request: K2000460
Calibration Date: 2/19/2020

Initial Calibration Summary

Total Oxidizable Precursor Assay (TOPA) of Per- and Polyfluoroalkyl Substances (PFAS) by LC/MS/MS

Calibration ID: KC2000094

Signal ID: 1

Instrument ID: K-LCMS-06

Analyte

13C2-PFTeDA

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
05	5.0000	0.704	06	5.0000	0.7582	07	5.0000	0.7785			

13C2-PFUnDA

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	5.0000	0.7839	02	5.0000	1.026	03	5.0000	0.7554	04	5.0000	0.8111
05	5.0000	0.7742	06	5.0000	0.8253	07	5.0000	0.8105			

13C3-HFPO-DA

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	5.0000	0.3005	02	5.0000	0.3791	03	5.0000	0.3025	04	5.0000	0.3071
05	5.0000	0.2998	06	5.0000	0.3556	07	5.0000	0.3406			

13C3-PFBS

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	5.0000	0.3189	02	5.0000	0.4005	03	5.0000	0.3083	04	5.0000	0.3209
05	5.0000	0.3108	06	5.0000	0.3299	07	5.0000	0.3306			

13C4-PFBA

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	5.0000	0.8578	02	5.0000	1.07	03	5.0000	0.8252	04	5.0000	0.839
05	5.0000	0.8428	06	5.0000	0.9129	07	5.0000	0.9286			

13C4-PFHpA

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	5.0000	0.7525	02	5.0000	0.9736	03	5.0000	0.7796	04	5.0000	0.7499
05	5.0000	0.7576	06	5.0000	0.8682	07	5.0000	0.7825			

13C4-PFOA

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	5.0000	1.149	02	5.0000	1.499	03	5.0000	1.162	04	5.0000	1.154
05	5.0000	1.123	06	5.0000	1.205	07	5.0000	1.112			

13C4-PFOS

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	5.0000	0.1559	02	5.0000	0.2054	03	5.0000	0.1562	04	5.0000	0.1617
05	5.0000	0.1629	06	5.0000	0.1864	07	5.0000	0.1684			

13C5-PFNA

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	5.0000	0.7309	02	5.0000	0.9168	03	5.0000	0.7222	04	5.0000	0.7158
05	5.0000	0.7232	06	5.0000	0.7883	07	5.0000	0.7134			

13C5-PFPeA

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	5.0000	0.4592	02	5.0000	0.5688	03	5.0000	0.4394	04	5.0000	0.4504
05	5.0000	0.4473	06	5.0000	0.4672	07	5.0000	0.4734			

ALS Group USA, Corp.
dba ALS Environmental

QA/QC Report

Client: Test America, Incorporated
Project: DEC - Fort Edward Landfill Site:558001

Service Request: K2000460
Calibration Date: 2/19/2020

Initial Calibration Summary

Total Oxidizable Precursor Assay (TOPA) of Per- and Polyfluoroalkyl Substances (PFAS) by LC/MS/MS

Calibration ID: KC2000094

Signal ID: 1

Instrument ID: K-LCMS-06

Analyte

13C8-FOSA											
#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	5.0000	0.332	02	5.0000	0.4268	03	5.0000	0.3394	04	5.0000	0.3402
05	5.0000	0.3359	06	5.0000	0.3413	07	5.0000	0.349			
18O2-PFHxS											
#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	5.0000	0.1322	02	5.0000	0.16	03	5.0000	0.1246	04	5.0000	0.1295
05	5.0000	0.1362	06	5.0000	0.1664	07	5.0000	0.1411			
4:2 Fluorotelomer sulfonic acid (4:2 FTS)											
#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.0469	0.8502	02	0.0937	0.9475	03	0.4686	0.9279	04	0.9372	0.9902
05	4.6861	0.8908	06	9.3722	0.9229	07	14.0583	0.8031			
6:2 Fluorotelomer sulfonic acid (6:2 FTS)											
#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
02	0.0951	1.155	03	0.4756	1.212	04	0.9512	1.201	05	4.7558	1.164
06	9.5117	1.23	07	14.2676	1.015						
8:2 Fluorotelomer sulfonic acid (8:2 FTS)											
#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.0480	0.8622	02	0.0960	0.7006	03	0.4800	0.8308	04	0.9600	0.8349
05	4.8002	0.814	06	9.6004	0.8534	07	14.4007	0.7164			
D3-MeFOSA											
#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	5.0000	0.1445	02	5.0000	0.1788	03	5.0000	0.1327	04	5.0000	0.1427
05	5.0000	0.1383	06	5.0000	0.1477	07	5.0000	0.1594			
D3-MeFOSAA											
#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	5.0000	0.1382	02	5.0000	0.1751	03	5.0000	0.1312	04	5.0000	0.139
05	5.0000	0.1416	06	5.0000	0.1578	07	5.0000	0.1478			
D5-EtFOSA											
#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	5.0000	0.1825	02	5.0000	0.2295	03	5.0000	0.1735	04	5.0000	0.1779
05	5.0000	0.1775	06	5.0000	0.1894	07	5.0000	0.1948			
D5-EtFOSAA											
#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	5.0000	0.1197	02	5.0000	0.1557	03	5.0000	0.1111	04	5.0000	0.1262
05	5.0000	0.1141	06	5.0000	0.1294	07	5.0000	0.1249			
D7-MeFOSE											
#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	5.0000	0.1649	02	5.0000	0.2049	03	5.0000	0.1565	04	5.0000	0.162
05	5.0000	0.1599	06	5.0000	0.1766	07	5.0000	0.176			

ALS Group USA, Corp.
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QA/QC Report

Client: Test America, Incorporated
Project: DEC - Fort Edward Landfill Site:558001

Service Request: K2000460
Calibration Date: 2/19/2020

Initial Calibration Summary

Total Oxidizable Precursor Assay (TOPA) of Per- and Polyfluoroalkyl Substances (PFAS) by LC/MS/MS

Calibration ID: KC2000094

Signal ID: 1

Instrument ID: K-LCMS-06

Analyte

D9-EtFOSE											
#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	5.0000	0.2067	02	5.0000	0.2614	03	5.0000	0.1926	04	5.0000	0.2077
05	5.0000	0.2042	06	5.0000	0.2206	07	5.0000	0.2245			
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)											
#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.0500	1.034	02	0.1000	1.024	03	0.5000	1.047	04	1.0000	0.9196
05	5.0000	0.9868	06	10.0000	0.871	07	15.0000	0.8803			
N-Ethyl perfluorooctane sulfonamide (EtFOSA)											
#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.0500	0.2003	02	0.1000	0.1886	03	0.5000	0.2046	04	1.0000	0.2073
05	5.0000	0.2087	06	10.0000	0.2096	07	15.0000	0.2027			
N-Ethyl perfluorooctane sulfonamidoacetic acid											
#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
02	0.1000	0.6442	03	0.5000	0.5876	04	1.0000	0.5931	05	5.0000	0.6747
06	10.0000	0.5993	07	15.0000	0.6015						
N-Ethyl perfluorooctane sulfonamidoethanol											
#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.0500	0.7765	02	0.1000	0.8587	03	0.5000	0.8524	04	1.0000	0.8155
05	5.0000	0.8374	06	10.0000	0.8289	07	15.0000	0.8127			
N-Methyl perfluorooctane sulfonamide (MeFOSA)											
#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.0500	1.643	02	0.1000	1.624	03	0.5000	1.745	04	1.0000	1.642
05	5.0000	1.675	06	10.0000	1.686	07	15.0000	1.556			
N-Methyl perfluorooctane sulfonamidoacetic acid											
#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
02	0.1000	0.6778	03	0.5000	0.7627	04	1.0000	0.7915	05	5.0000	0.696
06	10.0000	0.6509	07	15.0000	0.6807						
N-Methyl perfluorooctane sulfonamidoethanol											
#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.0500	1.517	02	0.1000	1.478	03	0.5000	1.561	04	1.0000	1.46
05	5.0000	1.492	06	10.0000	1.458	07	15.0000	1.441			
Perfluorobutane sulfonic acid (PFBS)											
#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.0444	1.148	02	0.0887	0.9373	03	0.4437	0.9972	04	0.8874	0.9258
05	4.4368	0.9654	06	8.8737	0.9639	07	13.3106	0.9263			
Perfluorobutanoic acid (PFBA)											
#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.0500	1.018	02	0.1000	0.9445	03	0.5000	0.9616	04	1.0000	0.9392
05	5.0000	0.9907	06	10.0000	0.9807	07	15.0000	0.9653			

ALS Group USA, Corp.
dba ALS Environmental

QA/QC Report

Client: Test America, Incorporated
Project: DEC - Fort Edward Landfill Site:558001

Service Request: K2000460
Calibration Date: 2/19/2020

Initial Calibration Summary

Total Oxidizable Precursor Assay (TOPA) of Per- and Polyfluoroalkyl Substances (PFAS) by LC/MS/MS

Calibration ID: KC2000094
Instrument ID: K-LCMS-06

Signal ID: 1

Analyte

Perfluorodecane sulfonic acid (PFDS)

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
02	0.0965	0.5297	03	0.4823	0.8164	04	0.9647	0.7539	05	4.8233	0.7299
06	9.6467	0.6737	07	14.4700	0.7413						

Perfluorodecanoic acid (PFDA)

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.0500	1.069	02	0.1000	0.9317	03	0.5000	0.9496	04	1.0000	0.9555
05	5.0000	0.9833	06	10.0000	0.9669	07	15.0000	0.9658			

Perfluorododecanoic acid (PFDoDA)

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.0500	0.5307	02	0.1000	0.556	03	0.5000	0.6761	04	1.0000	0.5733
05	5.0000	0.6276	06	10.0000	0.5821	07	15.0000	0.5703			

Perfluoroheptane sulfonic acid (PFHpS)

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.0477	1.442	02	0.0953	1.601	03	0.4767	1.624	04	0.9534	1.564
05	4.7672	1.532	06	9.5344	1.24	07	14.3016	1.463			

Perfluoroheptanoic acid (PFHpA)

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.0500	1.301	02	0.1000	1.151	03	0.5000	1.117	04	1.0000	1.027
05	5.0000	1.073	06	10.0000	1.086	07	15.0000	1.048			

Perfluorohexane sulfonic acid (PFHxS)

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.0457	0.9749	02	0.0913	1.307	03	0.4565	1.285	04	0.9131	1.144
05	4.5654	1.148	06	9.1308	1.055	07	13.6961	1.113			

Perfluorohexanoic acid (PFHxA)

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.0500	1.099	02	0.1000	0.8043	03	0.5000	0.7643	04	1.0000	0.7757
05	5.0000	0.8146	06	10.0000	0.7997	07	15.0000	0.7964			

Perfluorononane sulfonic acid (PFNS)

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.0481	0.5641	02	0.0962	0.5764	03	0.4808	0.6061	04	0.9616	0.5599
05	4.8079	0.589	06	9.6158	0.5484	07	14.4237	0.5854			

Perfluorononanoic acid (PFNA)

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.0500	0.9484	02	0.1000	0.7682	03	0.5000	0.7833	04	1.0000	0.6846
05	5.0000	0.7835	06	10.0000	0.7699	07	15.0000	0.7974			

Perfluorooctane sulfonamide (FOSA)

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.0500	1.452	02	0.1000	1.342	03	0.5000	1.285	04	1.0000	1.336
05	5.0000	1.398	06	10.0000	1.397	07	15.0000	1.389			

Client: Test America, Incorporated
Project: DEC - Fort Edward Landfill Site:558001

Service Request: K2000460
Calibration Date: 2/19/2020

Initial Calibration Summary

Total Oxidizable Precursor Assay (TOPA) of Per- and Polyfluoroalkyl Substances (PFAS) by LC/MS/MS

Calibration ID: KC2000094

Signal ID: 1

Instrument ID: K-LCMS-06

Analyte

Perfluorooctane sulfonic acid (PFOS)

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.0465	0.6896	02	0.0929	0.6495	03	0.4646	0.7444	04	0.9292	0.7249
05	4.6461	0.7045	06	9.2923	0.679	07	13.9384	0.7038			

Perfluorooctanoic acid (PFOA)

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.0500	1.053	02	0.1000	0.8653	03	0.5000	0.8481	04	1.0000	0.8373
05	5.0000	0.8347	06	10.0000	0.8309	07	15.0000	0.8469			

Perfluoropentane sulfonic acid (PFPeS)

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
02	0.0941	0.4591	03	0.4705	0.5137	04	0.9409	0.4125	05	4.7046	0.4497
06	9.4092	0.3878	07	14.1138	0.3962						

Perfluoropentanoic acid (PFPeA)

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.0500	3.431	02	0.1000	2.823	03	0.5000	2.442	04	1.0000	2.285
05	5.0000	2.299	06	10.0000	2.359	07	15.0000	2.282			

Perfluorotetradecanoic acid (PFTeDA)

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.0500	1.431	02	0.1000	1.022	03	0.5000	0.4994	04	1.0000	0.4524
05	5.0000	0.4234	06	10.0000	0.3946	07	15.0000	0.3925			

Perfluorotridecanoic acid (PFTrDA)

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.0500	1.009	02	0.1000	0.8394	03	0.5000	0.8517	04	1.0000	0.8043
05	5.0000	0.8522	06	10.0000	0.8411	07	15.0000	0.8287			

Perfluoroundecanoic acid (PFUnDA)

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.0500	1.001	02	0.1000	0.8911	03	0.5000	0.8032	04	1.0000	0.7365
05	5.0000	0.7363	06	10.0000	0.7551	07	15.0000	0.7543			

Client: Test America, Incorporated
Project: DEC - Fort Edward Landfill Site:558001

Service Request: K2000460
Calibration Date: 2/19/2020

Initial Calibration Summary

Total Oxidizable Precursor Assay (TOPA) of Per- and Polyfluoroalkyl Substances (PFAS) by LC/MS/MS

Calibration ID: KC2000094

Signal ID: 1

Instrument ID: K-LCMS-06

Analyte Name	Compound Type	Calibration Evaluation				Calibration Evaluation	
		Fit Type	Eval	Eval Result	Control Criteria	Average RRF	Minimum RRF
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	TRG	Average RF	% RSD	5.5	≤20	0.5831	
13C2-4:2 FTS	SURR	Average RF	% RSD	12.6	≤20	0.1029	
13C2-6:2 FTS	SURR	Average RF	% RSD	13.0	≤20	0.08114	
13C2-8:2 FTS	SURR	Average RF	% RSD	13.3	≤20	0.05996	
13C2-PFDA	SURR	Average RF	% RSD	12.0	≤20	0.7006	
13C2-PFDoDA	SURR	Average RF	% RSD	10.1	≤20	0.9584	
13C2-PFHxA	SURR	Average RF	% RSD	10.9	≤20	1.245	
13C2-PFTeDA	SURR	Average RF	% RSD	11.3	≤20	0.7656	
13C2-PFUnDA	SURR	Average RF	% RSD	11.0	≤20	0.8266	
13C3-HFPO-DA	SURR	Average RF	% RSD	9.8	≤20	0.3264	
13C3-PFBS	SURR	Average RF	% RSD	9.5	≤20	0.3314	
13C4-PFBA	SURR	Average RF	% RSD	9.6	≤20	0.8966	
13C4-PFHpA	SURR	Average RF	% RSD	10.3	≤20	0.8091	
13C4-PFOA	SURR	Average RF	% RSD	11.2	≤20	1.2	
13C4-PFOS	SURR	Average RF	% RSD	10.8	≤20	0.171	
13C5-PFNA	SURR	Average RF	% RSD	9.8	≤20	0.7586	
13C5-PFPeA	SURR	Average RF	% RSD	9.4	≤20	0.4722	
13C8-FOSA	SURR	Average RF	% RSD	9.5	≤20	0.3521	
18O2-PFHxS	SURR	Average RF	% RSD	11.2	≤20	0.1415	
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	TRG	Average RF	% RSD	6.9	≤20	0.9047	
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	TRG	Average RF	% RSD	6.7	≤20	1.163	
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	TRG	Average RF	% RSD	8.2	≤20	0.8018	
D3-MeFOSA	SURR	Average RF	% RSD	10.4	≤20	0.1492	
D3-MeFOSAA	SURR	Average RF	% RSD	10.1	≤20	0.1472	
D5-EtFOSA	SURR	Average RF	% RSD	10.1	≤20	0.1893	
D5-EtFOSAA	SURR	Average RF	% RSD	11.7	≤20	0.1259	
D7-MeFOSE	SURR	Average RF	% RSD	9.7	≤20	0.1716	
D9-EtFOSE	SURR	Average RF	% RSD	10.3	≤20	0.2168	
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	TRG	Average RF	% RSD	7.7	≤20	0.9661	
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	TRG	Average RF	% RSD	3.5	≤20	0.2031	
N-Ethyl perfluorooctane sulfonamidoacetic acid	TRG	Average RF	% RSD	5.6	≤20	0.6167	

Client: Test America, Incorporated
Project: DEC - Fort Edward Landfill Site:558001

Service Request: K2000460
Calibration Date: 2/19/2020

Initial Calibration Summary

Total Oxidizable Precursor Assay (TOPA) of Per- and Polyfluoroalkyl Substances (PFAS) by LC/MS/MS

Calibration ID: KC2000094

Signal ID: 1

Instrument ID: K-LCMS-06

Analyte Name	Compound Type	Calibration Evaluation				Calibration Evaluation	
		Fit Type	Eval	Eval Result	Control Criteria	Average RRF	Minimum RRF
N-Ethyl perfluorooctane sulfonamidoethanol	TRG	Average RF	% RSD	3.4	≤20	0.826	
N-Methyl perfluorooctane sulfonamide (MeFOSA)	TRG	Average RF	% RSD	3.5	≤20	1.653	
N-Methyl perfluorooctane sulfonamidoacetic acid	TRG	Average RF	% RSD	7.7	≤20	0.7099	
N-Methyl perfluorooctane sulfonamidoethanol	TRG	Average RF	% RSD	2.8	≤20	1.487	
Perfluorobutane sulfonic acid (PFBS)	TRG	Average RF	% RSD	8.0	≤20	0.9806	
Perfluorobutanoic acid (PFBA)	TRG	Average RF	% RSD	2.8	≤20	0.9714	
Perfluorodecane sulfonic acid (PFDS)	TRG	Average RF	% RSD	13.9	≤20	0.7075	
Perfluorodecanoic acid (PFDA)	TRG	Average RF	% RSD	4.6	≤20	0.9746	
Perfluorododecanoic acid (PFDoDA)	TRG	Linear	R2	0.9984	≥0.99	0.588	
Perfluoroheptane sulfonic acid (PFHpS)	TRG	Average RF	% RSD	8.8	≤20	1.495	
Perfluoroheptanoic acid (PFHpA)	TRG	Linear	R2	0.9997	≥0.99	1.115	
Perfluorohexane sulfonic acid (PFHxS)	TRG	Average RF	% RSD	10.3	≤20	1.147	
Perfluorohexanoic acid (PFHxA)	TRG	Linear	R2	0.9998	≥0.99	0.8363	
Perfluorononane sulfonic acid (PFNS)	TRG	Average RF	% RSD	3.4	≤20	0.5756	
Perfluorononanoic acid (PFNA)	TRG	Linear	R2	0.9991	≥0.99	0.7907	
Perfluorooctane sulfonamide (FOSA)	TRG	Average RF	% RSD	4.0	≤20	1.371	
Perfluorooctane sulfonic acid (PFOS)	TRG	Average RF	% RSD	4.4	≤20	0.6994	
Perfluorooctanoic acid (PFOA)	TRG	Linear	R2	0.9999	≥0.99	0.8737	
Perfluoropentane sulfonic acid (PFPeS)	TRG	Average RF	% RSD	10.9	≤20	0.4365	
Perfluoropentanoic acid (PFPeA)	TRG	Linear	R2	0.9997	≥0.99	2.56	
Perfluorotetradecanoic acid (PFTeDA)	TRG	Linear	R2	0.9993	≥0.99	0.6594	
Perfluorotridecanoic acid (PFTrDA)	TRG	Linear	R2	0.9998	≥0.99	0.8609	
Perfluoroundecanoic acid (PFUnDA)	TRG	Linear	R2	0.9998	≥0.99	0.8111	

Client: Test America, Incorporated
Project: DEC - Fort Edward Landfill Site:558001

Service Request: K2000460
Calibration Date: 2/19/2020

Initial Calibration Verification Summary

Total Oxidizable Precursor Assay (TOPA) of Per- and Polyfluoroalkyl Substances (PFAS) by LC/MS/MS

Calibration ID: KC2000094
Instrument ID: K-LCMS-06

Signal ID: 1

#	Lab Code	Sample Name	File Location	Acquisition Date
08	KC2000094-08	1.0 PPB ICV	200219_023	02/19/2020 17:36

Analyte Name	Expected	Result	Average RF	SSV RF	% D	Criteria	Curve Fit
Perfluorobutane sulfonic acid (PFBS)	0.887	0.810	9.806E-1	8.946E-1	-8.763	±30	Average RF
Perfluoropentane sulfonic acid (PFPeS)	0.941	1.05	4.365E-1	4.867E-1	11.49	±30	Average RF
Perfluorohexane sulfonic acid (PFHxS)	0.913	0.822	1.147E0	1.032E0	-9.983	±30	Average RF
Perfluoroheptane sulfonic acid (PFHpS)	0.953	0.912	1.495E0	1.429E0	-4.390	±30	Average RF
Perfluorooctane sulfonic acid (PFOS)	0.929	0.905	6.994E-1	6.814E-1	-2.576	±30	Average RF
Perfluorononane sulfonic acid (PFNS)	0.962	0.980	5.756E-1	5.868E-1	1.94	±30	Average RF
Perfluorodecane sulfonic acid (PFDS)	0.965	1.07	7.075E-1	7.834E-1	10.73	±30	Average RF
Perfluorobutanoic acid (PFBA)	1.00	0.920	9.714E-1	8.935E-1	-8.018	±30	Average RF
Perfluoropentanoic acid (PFPeA)	1.00	0.945	2.56E0	2.23E0	-5.496	±30	Linear
Perfluorohexanoic acid (PFHxA)	1.00	0.928	8.363E-1	7.468E-1	-7.240	±30	Linear
Perfluoroheptanoic acid (PFHpA)	1.00	0.982	1.115E0	1.055E0	-1.753	±30	Linear
Perfluorooctanoic acid (PFOA)	1.00	0.900	8.737E-1	7.618E-1	-10.019	±30	Linear
Perfluorononanoic acid (PFNA)	1.00	0.975	7.907E-1	7.646E-1	-2.510	±30	Linear
Perfluorodecanoic acid (PFDA)	1.00	0.917	9.746E-1	8.938E-1	-8.288	±30	Average RF
Perfluoroundecanoic acid (PFUnDA)	1.00	0.940	8.111E-1	7.177E-1	-6.004	±30	Linear
Perfluorododecanoic acid (PFDoDA)	1.00	0.988	5.88E-1	5.784E-1	-1.176	±30	Linear
Perfluorotridecanoic acid (PFTTrDA)	1.00	0.977	8.609E-1	8.214E-1	-2.279	±30	Linear
Perfluorotetradecanoic acid (PFTTeDA)	1.00	0.946	6.594E-1	4.277E-1	-5.372	±30	Linear
Perfluorooctane sulfonamide (FOSA)	1.00	0.917	1.371E0	1.257E0	-8.330	±30	Average RF
N-Methyl perfluorooctane sulfonamide (MeFOSA)	1.00	0.910	1.653E0	1.504E0	-9.022	±30	Average RF
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	1.00	0.989	2.031E-1	2.008E-1	-1.120	±30	Average RF
N-Methyl perfluorooctane sulfonamidoethanol	1.00	0.943	1.487E0	1.401E0	-5.748	±30	Average RF
N-Ethyl perfluorooctane sulfonamidoethanol	1.00	0.979	8.26E-1	8.089E-1	-2.068	±30	Average RF
N-Methyl perfluorooctane sulfonamidoacetic acid	1.00	1.09	7.099E-1	7.71E-1	8.60	±30	Average RF
N-Ethyl perfluorooctane sulfonamidoacetic acid	1.00	1.01	6.167E-1	6.217E-1	0.802	±30	Average RF
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	0.937	0.878	9.047E-1	8.479E-1	-6.273	±30	Average RF
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	0.951	0.930	1.163E0	1.137E0	-2.214	±30	Average RF
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	0.960	1.00	8.018E-1	8.368E-1	4.37	±30	Average RF
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	0.966	0.921	5.831E-1	5.56E-1	-4.650	±30	Average RF
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	1.00	0.971	9.661E-1	9.377E-1	-2.936	±30	Average RF

ALS Group USA, Corp.
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QA/QC Report

Client: Test America, Incorporated
Project: DEC - Fort Edward Landfill Site:558001

Service Request: K2000460
Calibration Date: 2/19/2020

Initial Calibration Verification Summary
Total Oxidizable Precursor Assay (TOPA) of Per- and Polyfluoroalkyl Substances (PFAS) by LC/MS/MS

Calibration ID: KC2000094
Instrument ID: K-LCMS-06

Signal ID: 1

Analyte Name	Expected	Result	Average RF	SSV RF	% D	Criteria	Curve Fit
13C3-PFBS	5.00	5.04	3.314E-1	3.342E-1	0.852	±30	Average RF
18O2-PFHxS	5.00	4.87	1.415E-1	1.377E-1	-2.675	±30	Average RF
13C4-PFOS	5.00	4.95	1.71E-1	1.692E-1	-1.044	±30	Average RF
13C4-PFBA	5.00	4.91	8.966E-1	8.81E-1	-1.747	±30	Average RF
13C5-PFPeA	5.00	4.94	4.722E-1	4.667E-1	-1.168	±30	Average RF
13C2-PFHxA	5.00	4.76	1.245E0	1.186E0	-4.751	±30	Average RF
13C4-PFHpA	5.00	5.01	8.091E-1	8.108E-1	0.204	±30	Average RF
13C4-PFOA	5.00	5.07	1.2E0	1.217E0	1.39	±30	Average RF
13C5-PFNA	5.00	4.92	7.586E-1	7.465E-1	-1.597	±30	Average RF
13C2-PFDA	5.00	5.27	7.006E-1	7.391E-1	5.49	±30	Average RF
13C2-PFUnDA	5.00	4.96	8.266E-1	8.205E-1	-0.738	±30	Average RF
13C2-PFDoDA	5.00	5.09	9.584E-1	9.749E-1	1.73	±30	Average RF
13C2-PFTeDA	5.00	4.98	7.656E-1	7.633E-1	-0.305	±30	Average RF
13C8-FOSA	5.00	4.98	3.521E-1	3.51E-1	-0.301	±30	Average RF
D3-MeFOSA	5.00	4.76	1.492E-1	1.42E-1	-4.822	±30	Average RF
D5-EtFOSA	5.00	4.80	1.893E-1	1.817E-1	-4.002	±30	Average RF
D7-MeFOSE	5.00	4.83	1.716E-1	1.656E-1	-3.465	±30	Average RF
D9-EtFOSE	5.00	4.89	2.168E-1	2.12E-1	-2.216	±30	Average RF
D3-MeFOSAA	5.00	4.88	1.472E-1	1.436E-1	-2.456	±30	Average RF
D5-EtFOSAA	5.00	4.87	1.259E-1	1.227E-1	-2.557	±30	Average RF
13C2-4:2 FTS	5.00	4.48	1.029E-1	9.224E-2	-10.382	±30	Average RF
13C2-6:2 FTS	5.00	4.73	8.114E-2	7.679E-2	-5.358	±30	Average RF
13C2-8:2 FTS	5.00	4.91	5.996E-2	5.883E-2	-1.873	±30	Average RF
13C3-HFPO-DA	5.00	4.94	3.264E-1	3.222E-1	-1.286	±30	Average RF

Client: Test America, Incorporated
Project: DEC - Fort Edward Landfill Site:558001/46030964

Service Request: K2000460
Date Analyzed: 02/21/20 03:27

Continuing Calibration Verification (CCV) Summary
Total Oxidizable Precursor Assay (TOPA) of Per- and Polyfluoroalkyl Substances (PFAS) by LC/MS/MS

Analysis Method: ALS SOP
File ID: J:\LCMS06\Data\200220_b2_TOPA\200220_052
Signal ID: 1

Calibration Date: 2/19/2020
Calibration ID: KC2000094
Analysis Lot: 670906
Units: ng/mL

Analyte Name	Expected	Result	Average RF	CCV RF	Rec.	% Drift	Criteria	Curve Fit
Perfluorobutane sulfonic acid (PFBS)	0.887	0.902	0.9806	0.9971	102	NA	±30	Average RF
Perfluoropentane sulfonic acid (PFPeS)	0.941	0.799	0.4365	0.3706	84.9	NA	±30	Average RF
Perfluorohexane sulfonic acid (PFHxS)	0.913	0.936	1.1467	1.176	103	NA	±30	Average RF
Perfluoroheptane sulfonic acid (PFHpS)	0.953	1.15	1.4951	1.8067	121	NA	±30	Average RF
Perfluorooctane sulfonic acid (PFOS)	0.929	0.972	0.6994	0.7316	105	NA	±30	Average RF
Perfluorononane sulfonic acid (PFNS)	0.962	0.877	0.5756	0.5251	91.2	NA	±30	Average RF
Perfluorodecane sulfonic acid (PFDS)	0.965	1.11	0.7075	0.8113	115	NA	±30	Average RF
Perfluorobutanoic acid (PFBA)	1.00	1.04	0.9714	1.0144	104	NA	±30	Average RF
Perfluoropentanoic acid (PFPeA)	1.00	1.03	2.5601	2.4291	103	3.1	±30	Linear
Perfluorohexanoic acid (PFHxA)	1.00	1.05	0.8363	0.846	105	5.2	±30	Linear
Perfluoroheptanoic acid (PFHpA)	1.00	1.04	1.115	1.1112	104	3.5	±30	Linear
Perfluorooctanoic acid (PFOA)	1.00	1.01	0.8737	0.851	101	0.6	±30	Linear
Perfluorononanoic acid (PFNA)	1.00	1.05	0.7907	0.8219	105	4.8	±30	Linear
Perfluorodecanoic acid (PFDA)	1.00	1.01	0.9746	0.9867	101	NA	±30	Average RF
Perfluoroundecanoic acid (PFUnDA)	1.00	0.965	0.8111	0.7365	96.5	-3.5	±30	Linear
Perfluorododecanoic acid (PFDoDA)	1.00	1.06	0.588	0.618	106	5.6	±30	Linear
Perfluorotridecanoic acid (PFTrDA)	1.00	1.15	0.8609	0.9665	115	15.1	±30	Linear
Perfluorotetradecanoic acid (PFTeDA)	1.00	0.974	0.6594	0.4387	97.4	-2.6	±30	Linear
Perfluorooctane sulfonamide (FOSA)	1.00	1.04	1.3714	1.4309	104	NA	±30	Average RF
N-Methyl perfluorooctane sulfonamide (MeFOSA)	1.00	1.03	1.6531	1.7041	103	NA	±30	Average RF
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	1.00	1.09	0.2031	0.2209	109	NA	±30	Average RF
N-Methyl perfluorooctane sulfonamidoethanol	1.00	1.06	1.4867	1.5731	106	NA	±30	Average RF
N-Ethyl perfluorooctane sulfonamidoethanol	1.00	1.15	0.826	0.9482	115	NA	±30	Average RF
N-Methyl perfluorooctane sulfonamidoacetic acid	1.00	0.969	0.7099	0.688	96.9	NA	±30	Average RF
N-Ethyl perfluorooctane sulfonamidoacetic acid	1.00	0.983	0.6167	0.6062	98.3	NA	±30	Average RF
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	0.937	1.14	0.9047	1.1047	122	NA	±30	Average RF
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	0.951	1.01	1.1628	1.2323	106	NA	±30	Average RF
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	0.960	1.13	0.8018	0.9404	117	NA	±30	Average RF

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QA/QC Report

Client: Test America, Incorporated
Project: DEC - Fort Edward Landfill Site:558001/46030964

Service Request: K2000460
Date Analyzed: 02/21/20 03:27

Continuing Calibration Verification (CCV) Summary
Total Oxidizable Precursor Assay (TOPA) of Per- and Polyfluoroalkyl Substances (PFAS) by LC/MS/MS

Analysis Method: ALS SOP
File ID: J:\LCMS06\Data\200220_b2_TOPA\200220_052
Signal ID: 1

Calibration Date: 2/19/2020
Calibration ID: KC2000094
Analysis Lot: 670906
Units: ng/mL

10:2 Fluorotelomer sulfonic acid (10:2 FTS)	0.966	1.16	0.5831	0.6974	120	NA	±30	Average RF
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	1.00	0.932	0.9661	0.8999	93.2	NA	±30	Average RF

Analyte Name	Expected	Result	Average RF	CCV RF	Rec.	% Drift	Criteria	Curve Fit
13C3-PFBS	5.00	4.58	0.3314	0.3036	91.6	NA	±30	Average RF
18O2-PFHxS	5.00	4.02	0.1415	0.1138	80.5	NA	±30	Average RF
13C4-PFOS	5.00	4.97	0.171	0.1701	99.5	NA	±30	Average RF
13C4-PFBA	5.00	4.14	0.8966	0.7429	82.9	NA	±30	Average RF
13C5-PFPeA	5.00	4.18	0.4722	0.3947	83.6	NA	±30	Average RF
13C2-PFHxA	5.00	4.22	1.2453	1.0521	84.5	NA	±30	Average RF
13C4-PFHpA	5.00	3.90	0.8091	0.6311	78.0	NA	±30	Average RF
13C4-PFOA	5.00	4.35	1.2004	1.0453	87.1	NA	±30	Average RF
13C5-PFNA	5.00	4.29	0.7586	0.6503	85.7	NA	±30	Average RF
13C2-PFDA	5.00	4.21	0.7006	0.5899	84.2	NA	±30	Average RF
13C2-PFUnDA	5.00	4.65	0.8266	0.769	93.0	NA	±30	Average RF
13C2-PFDoDA	5.00	4.81	0.9584	0.9229	96.3	NA	±30	Average RF
13C2-PFTeDA	5.00	4.67	0.7656	0.7157	93.5	NA	±30	Average RF
13C8-FOSA	5.00	4.15	0.3521	0.2919	82.9	NA	±30	Average RF
D3-MeFOSA	5.00	4.40	0.1492	0.1313	88.1	NA	±30	Average RF
D5-EtFOSA	5.00	4.35	0.1893	0.1646	87.0	NA	±30	Average RF
D7-MeFOSE	5.00	4.39	0.1716	0.1505	87.7	NA	±30	Average RF
D9-EtFOSE	5.00	4.37	0.2168	0.1896	87.4	NA	±30	Average RF
D3-MeFOSAA	5.00	4.68	0.1472	0.1379	93.7	NA	±30	Average RF
D5-EtFOSAA	5.00	5.33	0.1259	0.1341	107	NA	±30	Average RF
13C2-4:2 FTS	5.00	4.05	0.1029	0.0834	81.1	NA	±30	Average RF
13C2-6:2 FTS	5.00	4.23	0.0811	0.0687	84.7	NA	±30	Average RF
13C2-8:2 FTS	5.00	4.60	0.06	0.0552	92.0	NA	±30	Average RF
13C3-HFPO-DA	5.00	4.14	0.3264	0.2703	82.8	NA	±30	Average RF

ALS Group USA, Corp.

dba ALS Environmental

QA/QC Report

Client: Test America, Incorporated

Service Request: K2000460

Project: DEC - Fort Edward Landfill Site:558001/46030964

Analysis Run Log

Total Oxidizable Precursor Assay (TOPA) of Per- and Polyfluoroalkyl Substances (PFAS) by LC/MS/MS

Analysis Method: ALS SOP

Analysis Lot: 670906

Instrument ID: K-LCMS-06

Raw Data File	Sample Name	Lab Code	Date Analyzed	Time Analyzed	Q
J:\LCMS06	Continuing Calibration Verification	KQ2002527-01	2/21/2020	03:27	
\Data\200220_b2_TOPA\200220_052					
J:\LCMS06	Continuing Calibration Blank	KQ2002527-02	2/21/2020	03:38	
\Data\200220_b2_TOPA\200220_053					
J:\LCMS06	ZZZZZZZ	ZZZZZZZ	2/21/2020	03:48	
\Data\200220_b2_TOPA\200220_054					
J:\LCMS06	Method Blank	KQ2002399-02	2/21/2020	03:59	
\Data\200220_b2_TOPA\200220_055					
J:\LCMS06	ZZZZZZZ	ZZZZZZZ	2/21/2020	05:03	
\Data\200220_b2_TOPA\200220_061					
J:\LCMS06	ZZZZZZZ	ZZZZZZZ	2/21/2020	05:14	
\Data\200220_b2_TOPA\200220_062					
J:\LCMS06	ZZZZZZZ	ZZZZZZZ	2/21/2020	05:25	
\Data\200220_b2_TOPA\200220_063					
J:\LCMS06	FILTER SLUDGE-20191120	K2000460-001	2/21/2020	05:36	
\Data\200220_b2_TOPA\200220_064					
J:\LCMS06	FILTER SLUDGE-20191120 DUP	KQ2002399-01	2/21/2020	05:47	
\Data\200220_b2_TOPA\200220_065					

ALS Group USA, Corp.
dba ALS Environmental

Prep Summary Report

Client: Test America, Incorporated
Project: DEC - Fort Edward Landfill Site:558001/46030964
Sample Matrix: Soil

Service Request:K2000460

Total Oxidizable Precursor Assay (TOPA) of Per- and Polyfluoroalkyl Substances (PFAS) by LC/MS/MS

Prep Method: ALS SOP
Analytical Method: ALS SOP

Extraction Lot: 354037
Extraction Date: 01/21/20 08:00

Sample Name	Lab Code	Date Collected	Date Received	Sample Amount	Final Amount	Percent Solids
FILTER SLUDGE-20191120	K2000460-001	11/20/19	1/17/20	1.0640 g	8 mL	22.4
Duplicate	KQ2002399-01DUP	11/20/19	1/17/20	1.0460 g	8 mL	22.4
Method Blank	KQ2002399-02MB	NA	NA	1 g	8 mL	

TestAmerica Buffalo

**10 Hazelwood Drive
Amherst ,NY 14228**

Printed On : 11/22/2019 Page 1 of 1

Sample ID: **AZ18217**
Date Received: 11/20/2019
Time Received: 13:32
Date Finalized: 11/22/2019
PO Number:
Your Ref:

Customer: TestAmerica Buffalo
Owner: INFLUENT-20191120 Fort Edward Landfill
Sample Loc: INFLUENT-20191120
Sample Pt: INFLUENT-20191120

Collect Date: 11/20/2019
Collect Time: 09:00
Collected by:
Receipt Temp: 12 C on ice chilling

Water Source: DW
Chlorinated: No **Field Residual Chlorine:**

Potable: Yes
Grab/Comp:

L a b o r a t o r y R e p o r t

Test	Result	MCL	Qualifiers	Units	Method Used	Analyst	Analysis Date
Heterotrophic Plate Count	147			CFU/mL	SM9215B	BJS/BS	11/20/2019

Qualifiers Key:

X	Exceeds maximum contamination limit	R	Duplication outside acceptance limits	H	Hold time exceeded
T	Temperature outside specifications	A	Sample contained air bubble or headspace	B	Analyte detected in blank
C(+/-)	CCV outside acceptable limits	Z	Analysis is not state-certified	G	Incorrect bottle received
S(+/-)	Lab control sample outside acceptance limits	M(+/-)	Matrix spike recovery outside acceptance limits	P	Sample preserved at lab
(+ Result may be biased high / - Result may be biased low)					

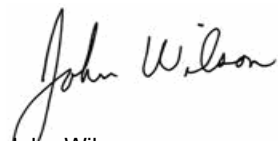
Legend: < Less Than, > Greater Than mg/L=PPM, ug/L=PPB If no collection time was given, 00:00 is reported
MCL = Maximum Contaminant Level referenced from New York State Subpart 5-1 of the Public Drinking Water Standards and/or National Primary/Secondary Drinking Water Standards.

Note 1: Per ELAP requirements, water analyzed for alkalinity, color, conductivity, nitrate, nitrite, sulfate, organics, UV absorbance, non-potable bacteriological analyses, BOD/CBOD, solids and phosphorus are required to be on ice to indicate the chilling process has begun. Samples must be between 0-6C and not frozen.

Comments:

Sample was NEGATIVE when screened for total residual chlorine in laboratory.
Bacteriological sample was set up on 11/20/19 at 14:45.

Test procedures for all analyses meet NELAC requirements unless noted.



John Wilson
Environmental Laboratory Supervisor and contact person
If you have questions, please call.
(518) 525-5480 / 5479

Reviewed by Betty Sherman
These results relate to samples as received.

New York State DOH E.L.A.P. # 10350

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TestAmerica Buffalo

**10 Hazelwood Drive
Amherst ,NY 14228**

Printed On : 11/22/2019 Page 1 of 1

Sample ID: **AZ18218**
Date Received: 11/20/2019
Time Received: 13:32
Date Finalized: 11/22/2019
PO Number:
Your Ref: Fort Edward Landfill

Customer: TestAmerica Buffalo
Owner: CCT-20191120 Fort Edward Landfill
Sample Loc: CCT-20191120
Sample Pt: CCT-20191120

Collect Date: 11/20/2019
Collect Time: 09:30
Collected by:
Receipt Temp: 12 C on ice chilling

Water Source: DW
Chlorinated: No **Field Residual Chlorine:**

Potable: Yes
Grab/Comp: Grab

L a b o r a t o r y R e p o r t

Test	Result	MCL	Qualifiers	Units	Method Used	Analyst	Analysis Date
Heterotrophic Plate Count	<1			CFU/mL	SM9215B	BJS/BS	11/20/2019

Qualifiers Key:

X	Exceeds maximum contamination limit	R	Duplication outside acceptance limits	H	Hold time exceeded
T	Temperature outside specifications	A	Sample contained air bubble or headspace	B	Analyte detected in blank
C(+/-)	CCV outside acceptable limits	Z	Analysis is not state-certified	G	Incorrect bottle received
S(+/-)	Lab control sample outside acceptance limits	M(+/-)	Matrix spike recovery outside acceptance limits	P	Sample preserved at lab
(+ Result may be biased high / - Result may be biased low)					

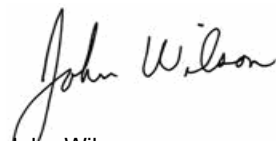
Legend: < Less Than, > Greater Than mg/L=PPM, ug/L=PPB If no collection time was given, 00:00 is reported
MCL = Maximum Contaminant Level referenced from New York State Subpart 5-1 of the Public Drinking Water Standards and/or National Primary/Secondary Drinking Water Standards.

Note 1: Per ELAP requirements, water analyzed for alkalinity, color, conductivity, nitrate, nitrite, sulfate, organics, UV absorbance, non-potable bacteriological analyses, BOD/CBOD, solids and phosphorus are required to be on ice to indicate the chilling process has begun. Samples must be between 0-6C and not frozen.

Comments:

Sample was NEGATIVE when screened for total residual chlorine in laboratory.
Bacteriological sample was set up on 11/20/19 at 14:45.

Test procedures for all analyses meet NELAC requirements unless noted.



John Wilson
Environmental Laboratory Supervisor and contact person
If you have questions, please call.
(518) 525-5480 / 5479

Reviewed by Betty Sherman
These results relate to samples as received.

New York State DOH E.L.A.P. # 10350

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APPENDIX B

Data Usability Summary Report



Data Validation Services

120 Cobble Creek Road P. O. Box 208

North Creek, NY 12853

Phone (518) 251-4429

harry@frontiernet.net

April 8, 2020

Jasmine Mullins
ARCADIS CE, Inc.
855 Route 146 Suite 210
Clifton Park, NY 12065

RE: Fort Edward Landfill Site – Phase 1 Aqueous and Sludge Samples
Validation of the Analytical Laboratory Data
Data Usability Summary Report (DUSR)
Eurofins TestAmerica SDG Nos. 460-196154 and 460-197135
ALS SDG Nos. K1910888 and K1910985

Dear Ms. Mullins:

Review has been completed for the data packages generated by Eurofins TestAmerica and ALS that pertain to samples collected 11/06/19 and 11/20/19 at the Fort Edward Landfill Phase 1 site. Aqueous samples from three locations were collected in both events and processed for TCL volatiles, TCL Aroclor PCBs, TAL metals, fourteen per- and poly fluorinated alkyl substances (PFAS), and thirty pre-and post oxidation PFAS by the Total Oxidizable Precursor Assay (TOPA). A filter sludge sample was also processed for TCL volatiles, TCL Aroclor PCBs, TAL metals, and fourteen PFAS. The aqueous samples collected 11/20/19 were also processed for sulfate, nitrate, chloride, TSS, and TDS. Two of the samples from that event were also processed for TOC, alkalinity, MBAS, hardness, plate count, and UV organics. A field duplicate from each event was also processed for all of the PFAS analyses. Trip blanks were processed for TCL volatiles. The analytical methodologies are those of the USEPA SW846, standard methods, a modified USEPA method 537, and an ALS SOP for TOPA.

The data packages submitted by the laboratory contain full deliverables for validation, and this usability report is generated from review of the QC summary form information, with full review of sample raw data and limited review of associated QC raw data. The reported QC summary forms and sample raw data have been reviewed for application of validation qualifiers, with guidance from the USEPA national and regional validation documents, and in consideration for the specific requirements of the analytical methodology. The following items were reviewed:

- * Data Completeness
- * Case Narrative
- * Custody Documentation
- * Holding Times
- * Surrogate, Isotopic Dilution, and Internal Standard Recoveries
- * Method/Preparation/Trip Blanks
- * Matrix Spike Recoveries/Duplicate Correlations (Metals and PFAS Only)
- * Blind Field Duplicate Correlations
- * Laboratory Control Samples (LCSs)

- * Instrumental Tunes
- * Initial and Continuing Calibration Standards
- * Serial Dilution Evaluation
- * Method Compliance
- * Sample Result Verification

Those items listed above which show deficiencies are discussed within the text of this narrative. All of the other items were determined to be acceptable for the DUSR level review, as discussed in NYS DER-10 Appendix B Section 2.0 (c). Documentation of the outlying parameters cited in this report can be found in the laboratory data package.

In summary, most results for the samples are usable either as reported or with minor edit or qualification. The exceptions are as follows:

- Results for one of the TOPA analytes are rejected in all of the samples, and
- Results for another of the TOPA analytes are rejected in the samples from the 11/20/19 event
- Holding times were grossly exceeded for the TSS analyses and the TDS analysis of one sample due to laboratory error. This resulted in results of borderline usability for those affected parameters.

Data completeness, representativeness, reproducibility, sensitivity, and comparability are acceptable. Matrix accuracy and precision evaluations are limited in that matrix spikes were processed only for the PFAS and TOC analyses.

The filter sludge sample was processed at dilution for many of the analyses due to matrix interferences.

The laboratory modifications to the USEPA method 537 are significant, including acceptance ranges, consistent in many respects to the advances in the available monitoring compounds. Validation actions are based on the laboratory procedures, in consideration that the laboratory undergoes NYS DOH certifications and NYS SOP review.

Client sample identifications are attached to this text. Also included in this report are the client EDDs with recommended qualifiers/edits applied in red.

Blind Field Duplicate

The field duplicate evaluations in both events were performed for the PFAS analyses at the CCT location. Correlations are within validation guidelines.

Volatile Analyses by EPA 8260C

Holding times were met, and surrogate and internal standard recoveries are complaint. Blanks show no contamination affecting sample reported results.

Calibration standards showed responses within validation guidelines, with the following exceptions, results for which are qualified as estimated in the indicated associated samples:

- 1,1,2,2-Tetrachloroethane in the aqueous samples collected 11/20/19
- Bromomethane and chloroethane in CCT-2019-1106 and INFLUENT-20191106

No project matrix spikes were performed, and therefore the effect of the matrix on analyte recovery has not been determined. LCS recoveries are compliant.

TCL Aroclor PCBs by EPA 8082A

Surrogate and internal standard recoveries are compliant, and blanks show no contamination. Calibration standards are compliant. No project matrix spikes were performed, and therefore the effect of the matrix on analyte recovery has not been determined. LCS recoveries are compliant.

The result for Aroclor 1232 in Decant Tank-20191120 is qualified as estimated due to an elevated dual column quantitative correlation.

TAL Metals Analyses by EPA 6010D, 6020, 7470, and 7471B

Matrix spike and ICP serial dilution evaluations were not processed, and therefore the effect of matrix on the sample results has not been ascertained. LCS recoveries are compliant.

Instrument processing is compliant, and blanks show no contamination affecting sample reported results.

PFAS by Modified EPA Method 537 and TOPA

PFAS compounds are identified by their common acronyms in this report. The EDDs reference both the technical names and the acronyms.

6:2-FTS does not survive the oxidation process, as shown by the failure of the corresponding isotopic dilution standard of this analyte. Therefore, the results for this compound from the TOPA analysis have been rejected, and are not usable. That includes the lone reported TOPA detection of this compound, as the quantitative value is derived from a calculation using a very low (1% recovery) response from its associated isotopic dilution standard and is therefore artificially elevated.

The isotopic dilution analog of FOSA also failed to recover in the samples collected 11/20/19 and the associated QC. Therefore, the results for FOSA in those samples are rejected and not usable.

Because the isotopic dilution standard analog of 6:2-FTS oxidizes to form some of the target analytes, the samples and method blanks processed by TOPA contain PFBA, PFPeA, and/or PFHxS that are a product of the TOPA oxidation process. The laboratory reported elevated reporting limits for those analytes that were detected in the samples, using either 50 ng/L or the detected concentrations in the samples, whichever are greater. Constituency of those components in the samples is unknown below those concentrations.

No LCSs were processed with the TOPA analyses, and therefore that control evaluation has not been performed.

The laboratory utilized a set acceptance range of 70% to 130% for the isotopic dilution standards in the TOPA analysis, while establishing laboratory-specific ranges. Numerous recoveries of those standards in the samples fall outside the 70% to 130% range. They are consistent with the recoveries observed in the method blanks, and therefore matrix effects cannot be assumed. Additionally, there are no corresponding isotopic dilution standard analogs for all of the target compounds, so the specific behavior of the target analytes in the oxidation process is not completely documented. Variances between the spiked concentrations of the isotopic dilution standards and the target analyte concentrations may also imply a variance in the level of oxidation. No qualification is made for the isotopic dilution standard recovery outliers, but the end users of the data should consider that there may be a bias to some or all of the target analyte results.

Pre-oxidation matrix spikes of Influent-20191106 and Influent-20191120 show recoveries and correlations within validation guidelines.

The TOPA laboratory duplicates of CCT-20191106 and DUP-1-20191120 show good correlations.

The method 537 detections of PFNA in the samples collected 11/06/19 and processed by Eurofins are considered external contamination due to presence in the associated method blanks, and have been edited to reflect non-detection.

Calibration standards show recoveries within validation action guidelines.

Ion ratios, which are useful in determining the integrity of reported detections, were not provided or evaluated in the ALS raw data.

Chloride, Nitrate, Sulfate, TDS, TSS, Alkalinity, and TOC

Review was conducted for method compliance, holding times, transcription, calculations, standard and blank acceptability, accuracy and precision, etc., as applicable.

Due to laboratory backlog or analyst error, numerous analyses were conducted beyond the allowable holding time. The analyses for TSS were conducted at 28 days from collection, well beyond the holding time of 7 days. The results for the samples, all of which had detections, have been qualified as estimated, with a possible severe bias to the results. The analysis of TDS in Influent-20191102 was conducted at 14 days from collection, beyond the 7 day holding time. That (detected) result has also been qualified as estimated, with a possible significant bias. The results for the alkalinity analyses in Influent-20191120 and CCT-20191120 have also been qualified as estimated due to analysis 2 days beyond the allowable 14 day holding time.

The matrix spikes for TOC performed on Influent-20191120 and CCT-20191120 show recoveries and correlations within laboratory acceptance ranges.

Blanks show no contamination affecting sample reported results.

Please do not hesitate to contact me if questions or comments arise during your review of this report.

Very truly yours,



Judy Harry

Attachments: Validation Data Qualifier Definitions
 Sample Identifications
 Qualified Laboratory EQuIS EDDs

VALIDATION DATA QUALIFIER DEFINITIONS

U	The analyte was analyzed for, but was not detected above the level of the associated reported quantitation limit.
J	The analyte was positively identified; the associated numerical value is an approximate concentration of the analyte in the sample.
J-	The analyte was positively identified; the associated numerical value is an estimated quantity that may be biased low.
J+	The analyte was positively identified; the associated numerical value is an estimated quantity that may be biased high.
UJ	The analyte was analyzed for, but was not detected. The associated reported quantitation limit is approximate and may be inaccurate or imprecise.
NJ	The detection is tentative in identification and estimated in value. Although there is presumptive evidence of the analyte, the result should be used with caution as a potential false positive and/or elevated quantitative value.
R	The data are unusable. The sample results are rejected due to serious deficiencies in meeting Quality Control limits. The analyte may or may not be present.
EMPC	The results do not meet all criteria for a confirmed identification. The quantitative value represents the Estimated Maximum Possible Concentration of the analyte in the sample.

Sample Summaries

Sample Summary

Client: New York State D.E.C.

Job ID: 460-196154-1

Project/Site: DEC - Fort Edward Landfill Site:558001

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
460-196154-1	INFLUENT-20191106	Water	11/06/19 07:35	11/07/19 17:00	
460-196154-2	CCT-20191106	Water	11/06/19 08:00	11/07/19 17:00	
460-196154-3	DECANT TANK-20191106	Water	11/06/19 07:50	11/07/19 17:00	
460-196154-4	DUP-1-20191106	Water	11/06/19 00:00	11/07/19 17:00	
460-196154-5	TRIPBLANK-20191106	Water	11/06/19 00:00	11/07/19 17:00	

Sample Summary

Client: New York State D.E.C.

Job ID: 460-197135-1

Project/Site: DEC - Fort Edward Landfill Site:558001

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
460-197135-1	Influent-20191120	Water	11/20/19 09:00	11/21/19 09:30	
460-197135-2	CCT-20191120	Water	11/20/19 09:30	11/21/19 09:30	
460-197135-3	DUP-1-20191120	Water	11/20/19 00:00	11/21/19 09:30	
460-197135-4	Filter Sludge-20191120	Solid	11/20/19 09:50	11/21/19 09:30	
460-197135-5	Decant Tank-20191120	Water	11/20/19 10:10	11/21/19 09:30	
460-197135-6	Trip Blank-20191120	Water	11/20/19 00:00	11/21/19 09:30	

APPENDIX C

SPDES Equivalency Permit Proposed Modifications



To request effluent criteria for direct discharges of remediation wastewaters, please provide the following:

1. Discharge rate (i.e. treatment system design capacity);
75 gpm (0.1 MGD)
2. A brief description with flow diagram for the proposed treatment system;
Attached. Updated Process & Instrumentation Diagram (P&ID) included.
3. A description of the receiving stream, including an accurate USGS map showing the stream and discharge location. When available, provide latitude and longitude of discharge point; **A figure has been included.**

The receiving stream is the Glens Falls Feeder Canal. Please see the attached map showing the discharge location and the latitude and longitude of the discharge point.

4. Available wastewater monitoring data in tabular format prepared using tables 6 - 10 (links provided below); please include all the parameters detected in the aqueous phase even if the source is sludge dewatering.
Attached. Clarifier Catch Tank effluent monitoring data from March 2017 through December 2019 has been included.
5. The proposed first day of discharge (for pump test discharges please do not encourage pump tests during summer low flow periods);
Operating since September 1998. No change in proposed start.
6. Proposed duration of discharge;
Ten (10) years. An additional ten (10) years at minimum.
7. State whether it is a potentially responsible party, federal superfund, state superfund, or Brownfields site;
State-funded State Superfund site. No change.
8. The name and telephone number of the responsible DER project manager to contact if we have questions ;
Payson Long, 2-9813 No change.
9. The DER Site number;
558001 No change.
10. The DER contact/address where compliance monitoring data is to be sent;
Payson Long, 625 Broadway, 12th Floor, Albany, NY 12233-7017 No change.
11. For discharges that will have iron in excess of 0.3 mg/l:
 - a. provide monitoring data for iron from both filtered and unfiltered samples.
Filtered samples for iron were not collected during the March 2017 and December 2019 monitoring period. All iron samples collected were unfiltered.

- b. If the discharge is to groundwater please provide monitoring data for iron from both filtered and unfiltered samples from monitoring wells not influenced by site contamination.
 - c. If the discharge is to a relatively small stream compared to the discharge, please provide monitoring data for iron from both filtered and unfiltered samples from and upstream point of the receiving water.
12. For any requests for extensions, the DER project manager should review the site monitoring data AND verify compliance with the limits when he/she requests extension. The DOW may request site monitoring data to process the request for extension.

Treatment System

The existing remedy on-site consists of a landfill cap, a leachate collection system, and a leachate treatment system. The leachate collection system consists of two separate components: a subsurface collection trench and three leachate extraction wells. The remedial system, which discharges treated water to the Glens Falls Feeder Canal to the northeast of the site, consists of:

- A groundwater/leachate collection trench and three extraction wells for plume control,
- A holding tank,
- Three constructed wetland treatment cells consisting of phragmites plants and infiltration filtering,
- An effluent collection “polishing” pond, and final distribution to the Glens Falls Feeder canal

As part of the implementation of a Remedial System Optimization for the site, the treatment building is currently being upgraded for the installation of a lamella-plate clarifier to treat the leachate prior to distribution and further treatment with upgraded constructed wetland treatment cells and the existing final polishing pond.

The Remedial System Optimization (RSO) was implemented and operational as of March 2017. As part of the RSO, the treatment system was upgraded to include chemical addition of oxidant, coagulant, and flocculant prior to and within the Inclined Plate Clarifier (IPC). In addition, the piping of the constructed wetland treatment cells (CWTS) were modified to operate in series instead of in parallel to increase residence time and filtration prior to discharge to the polishing pond.

APPLICATION FOR SPDES PERMIT EQUIVALENT REQUIREMENTS

1. Conventional Monitoring Information - Table 1

The following monitoring information must be included.

Conventional Monitoring Information based on Clarifier Catch Tank effluent data.

Parameter	Raw Wastewater or Monitoring Well				Projected or Actual Treated Wastewater (if available)		
	Units	Min	Max	Avg	Min	Max	Avg
Flow	GPD				7,200 GPD	44,640 GPD	36,000 GPD
pH	S.U.				6.8	7.1	7.0
BOD5	mg/l	2	155	24			
TSS	mg/l				<4	~~47.2~~ 48	~~13~~ 15
TDS	mg/l				~~212~~ 280	~~493~~ 1,600	~~353~~ 475.9
TKN	mg/l						
Ammonia	mg/l	0.03	142	21.86			

2. Sampling Information - Priority Pollutants, Toxic Pollutants, and Hazardous Substances

i. Do you know or have reason to believe that any of the pollutants listed in Tables 6, 7, or 8 of the instructions are present in the discharge from this outfall?

☒

☐

Yes - If yes, monitoring data must be included in table 2 (next pg)

No - Go to Item ii. below.

ii. Do you know or have reason to believe that any of the pollutants listed in Table 9 or Table 10 of the instructions, or any other toxic, harmful, or injurious chemical substances not listed in Tables 6-10, are present in the discharge from this outfall?

☐
☒
☐

Yes - Source or reason for presence in discharge attached

Yes - Quantitative or qualitative data attached

No

Monitoring Information for Priority Pollutants, Toxic Pollutants, and Hazardous Substances based on Clarifier Catch Tank effluent data.

2. Monitoring Information for Priority Pollutants, Toxic Pollutants, and Hazardous Substances - Table 2

CAS #	Parameter	Raw Wastewater or Monitoring Well				Projected or Actual Treated Wastewater (if available)		
		Units	Min	Max	Avg	Min	Max	Avg
71-55-6	1,1,1-Trichloroethane	ug/l				<0.82	<M0.82	<0.82
79-34-5	1,1,2,2-tetrachloroethane	ug/l				<0.21	<0.21	<0.21
79-00-5	1,1,2-trichloroethane	ug/l				<0.23	<0.23	<0.23
76-13-1	1,1,1-trichlorotrifluoroethane (freon113)	ug/l				(<0.31)	(<0.31)	(<0.31)
75-34-3	1,1-dichloroethane	ug/l				(<0.38)	(<0.38)	(<0.38)
75-35-4	1,1-dichloroethylene	ug/l				(<0.29)	(<0.29)	(<0.29)
120-82-1	1,2,4-trichlorobenzene	ug/l				(<0.41)	(<0.41)	(<0.41)
96-12-8	1,2-dibromo-3-chloropropane	ug/l				(<0.39)	(<0.39)	(<0.39)
106-93-4	1,2-dibromoethane	ug/l				(<0.73)	(<0.73)	(<0.73)
95-50-1	1,2-dichlorobenzene	ug/l				<0.79	<0.79	<0.79
107-06-2	1,2-dichloroethane	ug/l				<0.21	~~<0.21~~ 8.3	<0.21
78-87-5	1,2-dichloropropene	ug/l				<0.72	<0.72	<0.72
541-73-1	1,3-dichlorobenzene	ug/l				<0.78	<0.78	<0.78
10061-01-5	1,3-dichloropropene (cis)	ug/l				<036	<036	<036
10061-02-6	1,3-dichloropropene (trans)	ug/l				<037	~~<037~~ 0.75	<037
106-46-7	1,4-dichlorobenzene	ug/l				<0.84	~~<0.84~~ 0.76	<0.84
78-93-3	Butanone (MEK)	ug/l				<1.3	~~<1.3~~ 12	<1.3
591-78-6	2-hexanone (MBK)	ug/l				<1.2	<1.2	<1.2
67-64-1	Acetone	ug/l				<3.0	~~<6.7~~ 100	<3.3
71-43-2	Benzene	ug/l				<0.41	~~<0.41~~ 0.74	<0.41

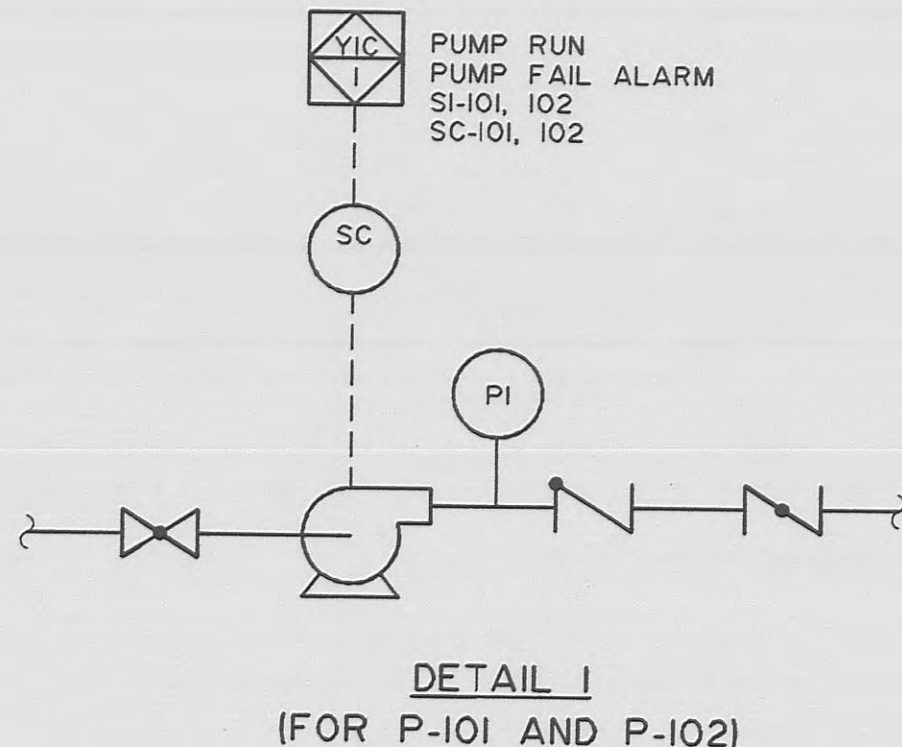
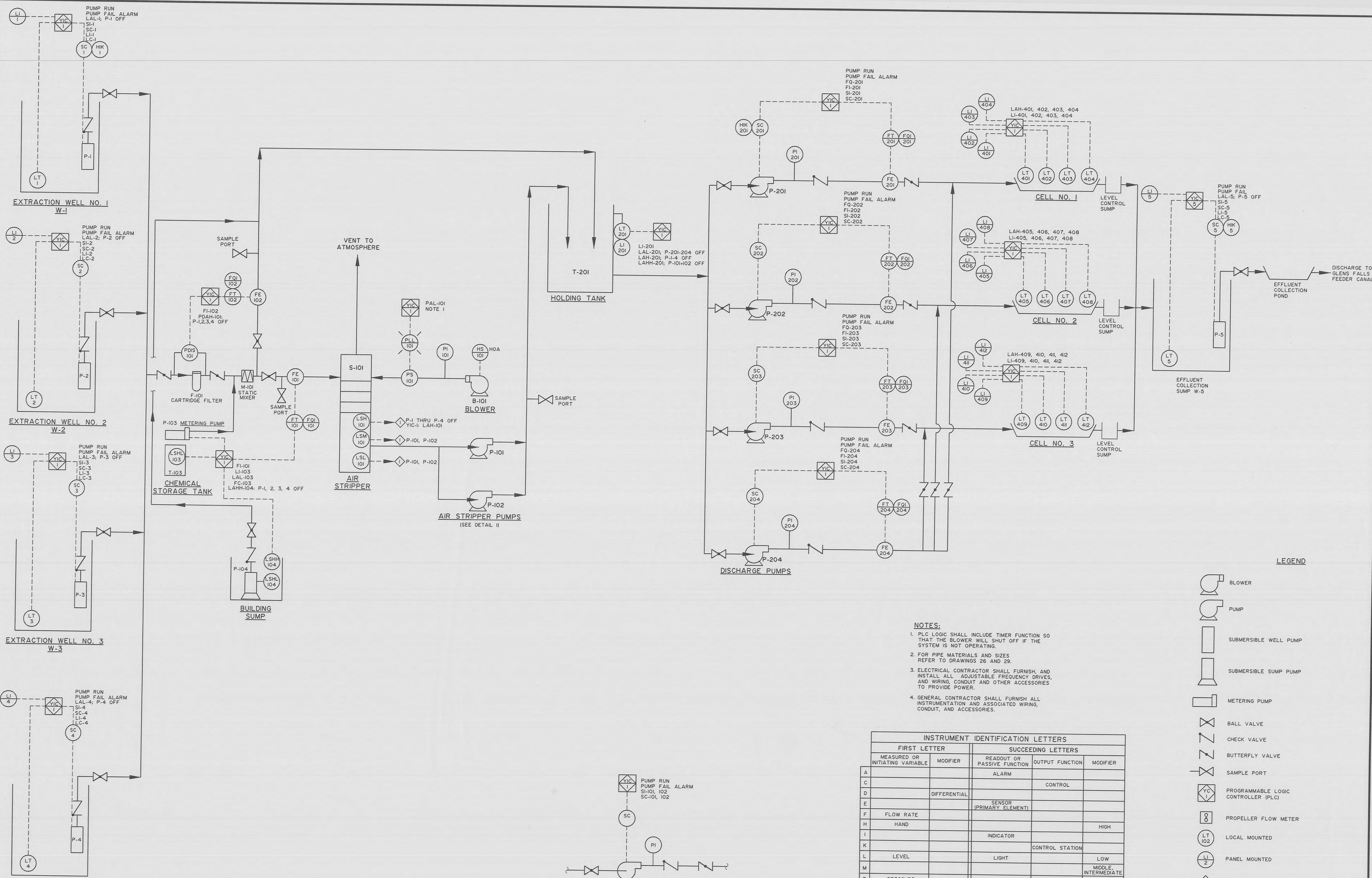
CAS #	Parameter	Raw Wastewater or Monitoring Well				Projected or Actual Treated Wastewater (if available)		
		Units	Min	Max	Avg.	Min	Max	Avg.
75-27-4	Bromodichloromethane	ug/l				<0.39	~~<0.39~~ 21	~~<0.39~~ 1.1
75-25-2	Bromoform	ug/l				<0.26	<0.26	<0.26
74-83-9	Bromomethane	ug/l				<0.69	<0.69	<0.69
75-15-0	Carbon disulfide	ug/l				<0.19	~~210~~ 2.5	<19.14
56-23-5	Carbon tetrachloride	ug/l				<0.27	~~<0.27~~ 1.1	<0.27
108-90-7	Chlorobenzene	ug/l				<0.75	~~<0.75~~ 1.3	<0.75
75-00-3	chloroethane	ug/l				<0.32	~~<0.32~~ 0.56	<0.32
67-66-3	Chloroform	ug/l				<0.34	~~0.97~~ 2.7	<0.38
74-87-3	Chloromethane	ug/l				<0.35	<0.35	<0.35
156-59-2	Cis-1,2-dichloroethylene	ug/l				<0.81	~~<0.81~~ 25	~~<0.81~~ 3.7
110-82-7	Cyclohexane	ug/l				<0.18	<0.18	<0.18
124-48-1	Dibromochloromethane	ug/l				<0.32	~~<0.32~~ 2.4	<0.32
75-71-8	Dichlorodifluoromethane	ug/l				<0.68	~~<0.68~~ 0.87	<0.68
100-41-4	ethylbenzene	ug/l				<0.74	~~<0.74~~ 12	<0.74
98-82-8	isopropylbenzene	ug/l				<0.79	~~<0.79~~ 0.45	<0.79
1330-20-7	m-,p-,o-xylene	ug/l				<0.66	~~<0.66~~ 9.1	<0.66
179601-23-1	m/p-xylenes	ug/l				<0.66	~~<0.66~~ 6.7	~~<0.66~~ 0.3
79-20-9	Methyl acetate	ug/l				<0.50	<0.50	<0.50
108-10-1	Methyl isobutyl ketone (MIBK)	ug/l				<2.1	~~<2.1~~ 5.9	<2.1
108-87-2	Methylcyclohexane	ug/l				<0.16	<0.16	<0.16

CAS #	Parameter	Raw Wastewater or Monitoring Well				Projected or Actual Treated Wastewater (if available)		
		Units	Min	Max	Avg.	Min	Max	Avg.
75-09-2	Methylene chloride	ug/l				<0.44	<0.44	<0.44
1634-04-1	Methyltertbutyl ether	ug/l				<0.16	~~<0.16~~ 0.12	<0.16
95-47-6	o-xylene	ug/l				<0.76	~~<0.76~~ 2.4	<0.76
100-42-5	Styrene	ug/l				<0.73	~~<0.73~~ 0.29	<0.73
127-18-4	Tetrachloroethylene	ug/l				<0.36	~~<0.36~~ 14	<0.36
108-88-3	Toluene	ug/l				<0.51	~~1.6~~ 0.85	<0.58
156-60-5	Trans-1,2-dichloroethylene	ug/l				<0.90	~~<0.90~~ 0.46	<0.90
79-01-6	Trichloro ethylene	ug/l				<0.46	~~<0.46~~ 0.45	<0.46
75-69-4	trichlorofluoromethane	ug/l				<0.88	<0.88	<0.88
75-01-4	Vinyl chloride	ug/l				<0.90	~~<0.90~~ 37	~~<0.90~~ 3.9
108-95-2	phenol	ug/l						
7429-90-5	Aluminum, total	mg/l				<0.05	2.37	0.534
7440-36-0	antimony	mg/l				(<0.0068)	~~(<0.0068)~~ 0.051	(<0.0068)
7440-38-2	Arsenic	mg/l				<0.0056	~~<0.0056~~ 0.0071	<0.0056
7440-39-3	Barium	mg/l				<0.05	0.081	0.023
7440-41-7	Beryllium	mg/l				<0.0003	<0.00032	<0.000303
7440-43-9	Cadmium	mg/l				<0.00033	<0.0005	<0.00043
7440-70-2	Calcium	mg/l				63	100	85
7440-47-3	chromium	mg/l				<0.00087	~~0.002~~ 0.0015	<0.0011
7440-48-4	cobalt	mg/l				<0.05	0.0028	<0.05

CAS #	Parameter	Raw Wastewater or Monitoring Well				Projected or Actual Treated Wastewater (if available)		
		Units	Min	Max	Avg.	Min	Max	Avg.
7440-50-8	Copper	mg/l				<0.0015	~~0.0085~~ 0.19	~~<0.0032~~ 0.017
7439-92-1	lead	mg/l				<0.003	~~<0.003~~ 0.0029	<0.003
7439-97-6	mercury	mg/l				<0.00012	<0.003	<0.003
7440-02-0	Nickel	mg/l				<0.0013	~~0.0046~~ 0.051	<0.0023
7782-49-2	Selenium	mg/l				<0.0087	<0.0087	<0.0087
7440-22-4	Silver	mg/l				<0.0017	<0.0017	<0.0017
7440-28-0	Thallium	mg/l				(<0.01)	(<0.01)	(<0.01)
7440-66-6	Zinc	mg/l				~~0.0017~~ <0.02	~~0.037~~ 0.49	~~0.0174~~ 0.057
12674-11-2	PCB-1016	mg/l				<0.000036	~~<0.000036~~ 0.021	~~<0.000036~~ 0.00214
11104-28-2	PCB-1221	mg/l				<0.000036	~~<0.000036~~ 0.00092	~~<0.000036~~ 0.0001
11141-16-5	PCB-1232	mg/l				<0.000036	~~<0.000036~~ 0.037	~~<0.000036~~ 0.00195
53469-21-9	PCB-1242	mg/l				<0.000036	~~<0.000036~~ 0.02	~~<0.000036~~ 0.00061
12672-29-6	PCB-1248	mg/l				<0.000036	<0.000036	<0.000036
11097-69-1	PCB-1254	mg/l				<0.00003	~~<0.00003~~ 0.0008	<0.00003
11096	PCB-1260	mg/l				<0.00003	<0.00003	<0.00003
TOTPHEN	Phenols	mg/l				<0.005	0.016	0.0063
TDS	Total dissolved solids	mg/l				~~212~~ <4.0	~~493~~ 48	~~353~~ 15
TSS	Total suspended solids	mg/l				~~<4~~ 280	~~47.2~~ 1,600	~~13~~ 475.9
123-91-1	1,4-Dioxane	ug/L				<50	37	<50
7439-89-6	Iron	mg/L				0.58	13	6.01

[illegible]

[illegible]



- NOTES:
- PLC LOGIC SHALL INCLUDE TIMER FUNCTION SO THAT THE BLOWER WILL SHUT OFF IF THE SYSTEM IS NOT OPERATING.
 - FOR PIPE MATERIALS AND SIZES REFER TO DRAWINGS 26 AND 29.
 - ELECTRICAL CONTRACTOR SHALL FURNISH, AND INSTALL ALL ADJUSTABLE FREQUENCY DRIVES, AND WIRING CONDUIT AND OTHER ACCESSORIES TO PROVIDE POWER.
 - GENERAL CONTRACTOR SHALL FURNISH ALL INSTRUMENTATION AND ASSOCIATED WIRING, CONDUIT, AND ACCESSORIES.

INSTRUMENT IDENTIFICATION LETTERS				
FIRST LETTER	SUCCEEDING LETTERS			
MEASURED OR INITIATING VARIABLE	MODIFIER	READOUT OR PASSIVE FUNCTION	OUTPUT FUNCTION	MODIFIER
A		ALARM		
C			CONTROL	
D	DIFFERENTIAL			
E		SENSOR (PRIMARY ELEMENT)		
F	FLOW RATE			
H	HAND			HIGH
I		INDICATOR		
K			CONTROL STATION	
L	LEVEL	LIGHT		LOW
M				MIDDLE, INTERMEDIATE
P	PRESSURE			
Q	QUANTITY	INTEGRATE, TOTALIZE		
S	SPEED, FREQUENCY		SWITCH	
T			TRANSMIT	
Y	EVENT, STATE, OR PRESENCE			

- LEGEND
- BLOWER
 - PUMP
 - SUBMERSIBLE WELL PUMP
 - SUBMERSIBLE SUMP PUMP
 - METERING PUMP
 - BALL VALVE
 - CHECK VALVE
 - BUTTERFLY VALVE
 - SAMPLE PORT
 - PROGRAMMABLE LOGIC CONTROLLER (PLC)
 - PROPELLER FLOW METER
 - LOCAL MOUNTED
 - PANEL MOUNTED
 - INTERLOCK
 - MECHANICAL CONNECTION
 - ELECTRICAL SIGNAL

RECORD DRAWING

IT IS A VIOLATION OF SECTION 7209, SUBDIVISION 2, OF THE NEW YORK STATE EDUCATION LAW FOR ANY PERSON, OTHER THAN WHOSE SEAL APPEARS ON THIS DRAWING, TO ALTER IN ANY WAY AN ITEM ON THIS DRAWING. IF AN ITEM IS ALTERED, THE ALTERING ENGINEER SHALL AFFIX TO THE ITEM HIS SEAL AND THE NOTATION "ALTERED BY:" FOLLOWED BY HIS SIGNATURE AND THE DATE OF SUCH ALTERATION, AND A SPECIFIC DESCRIPTION OF THE ALTERATION.

NO.	DATE	DESCRIPTION	NO.	DATE	DESCRIPTION
0	3/1/97	ISSUED FOR BID (INCLUDING ADDENDA)			
REVISIONS					

DESIGNED BY: C.W.P.
DRAWN BY: P.A.L.
CHECKED BY: J.L.
PROJ. MGR. C.E.D.

URS URS Consultants, Inc.
CONSULTING ENGINEERS
BUFFALO NEW YORK
JOB No. 35394

REMEDIAL ACTION
FORT EDWARD LANDFILL
NYSDEC SITE 5-58-001
TOWN OF FORT EDWARD
WASHINGTON COUNTY NEW YORK

PREPARED FOR:
NEW YORK STATE DEPARTMENT
OF ENVIRONMENTAL CONSERVATION
DIVISION OF
ENVIRONMENTAL REMEDIATION

PROCESS AND
INSTRUMENTATION DIAGRAM
Scale: NONE Date: MARCH 97 DWG. NO. 28

DRAFT

SEALS



Department of
Environmental
Conservation

FORT EDWARD LANDFILL
LEAVY HOLLOW ROAD
FORT EDWARD, NEW YORK

NYSDEC SITE 558001

REMEDIAL SYSTEM OPTIMIZATION

[illegible]

NO.	DATE	ISSUED FOR	BY

COPYRIGHT: ARCADIS CE, INC.
2018

DATE: JANUARY 2018

PROJECT NO.: 00266434.0000

FILE NAME: I-03 - 2019

DESIGNED BY: T. CARIGNAN

DRAWN BY: S. HAUSMANN

CHECKED BY:

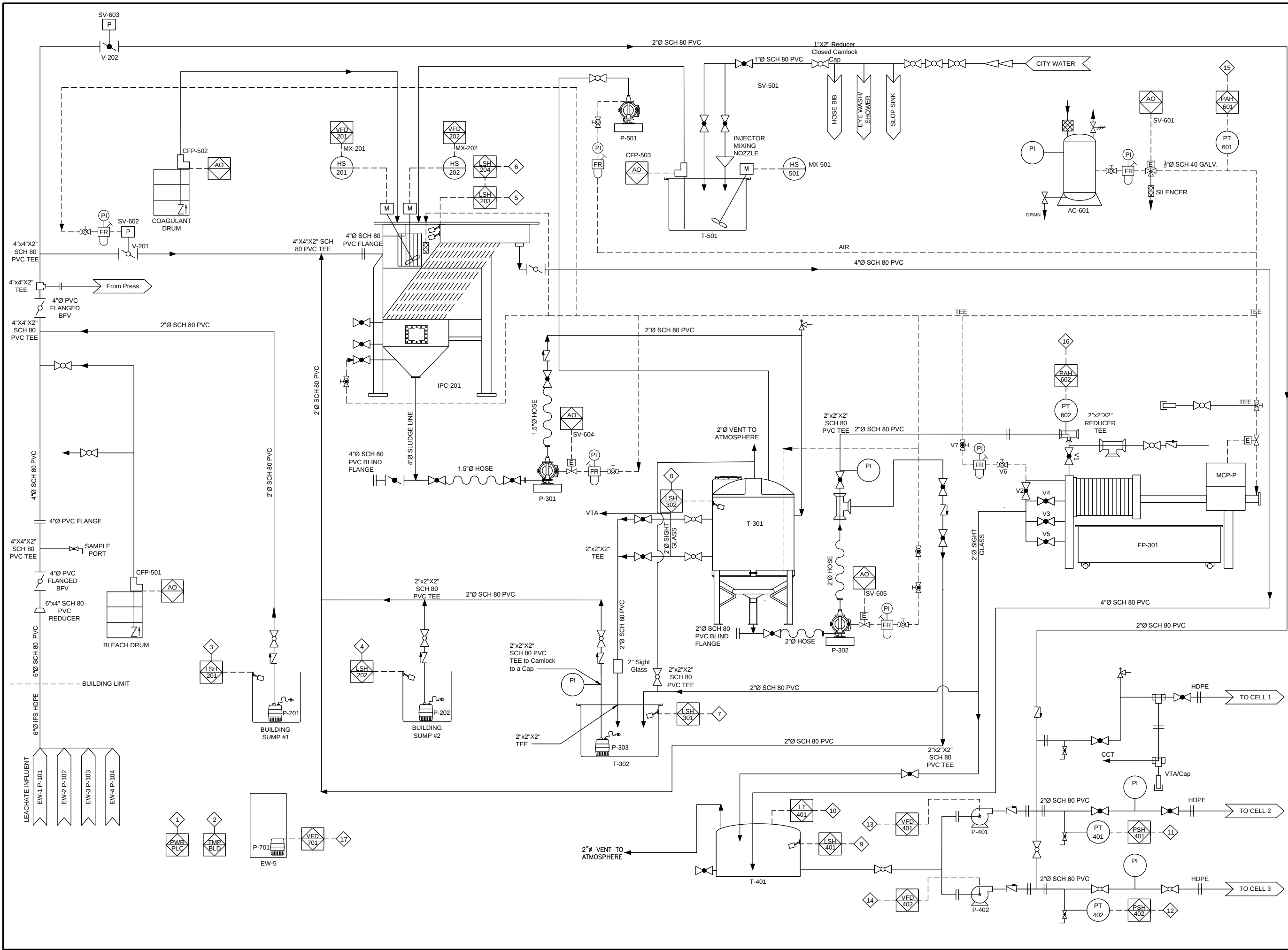
SHEET TITLE

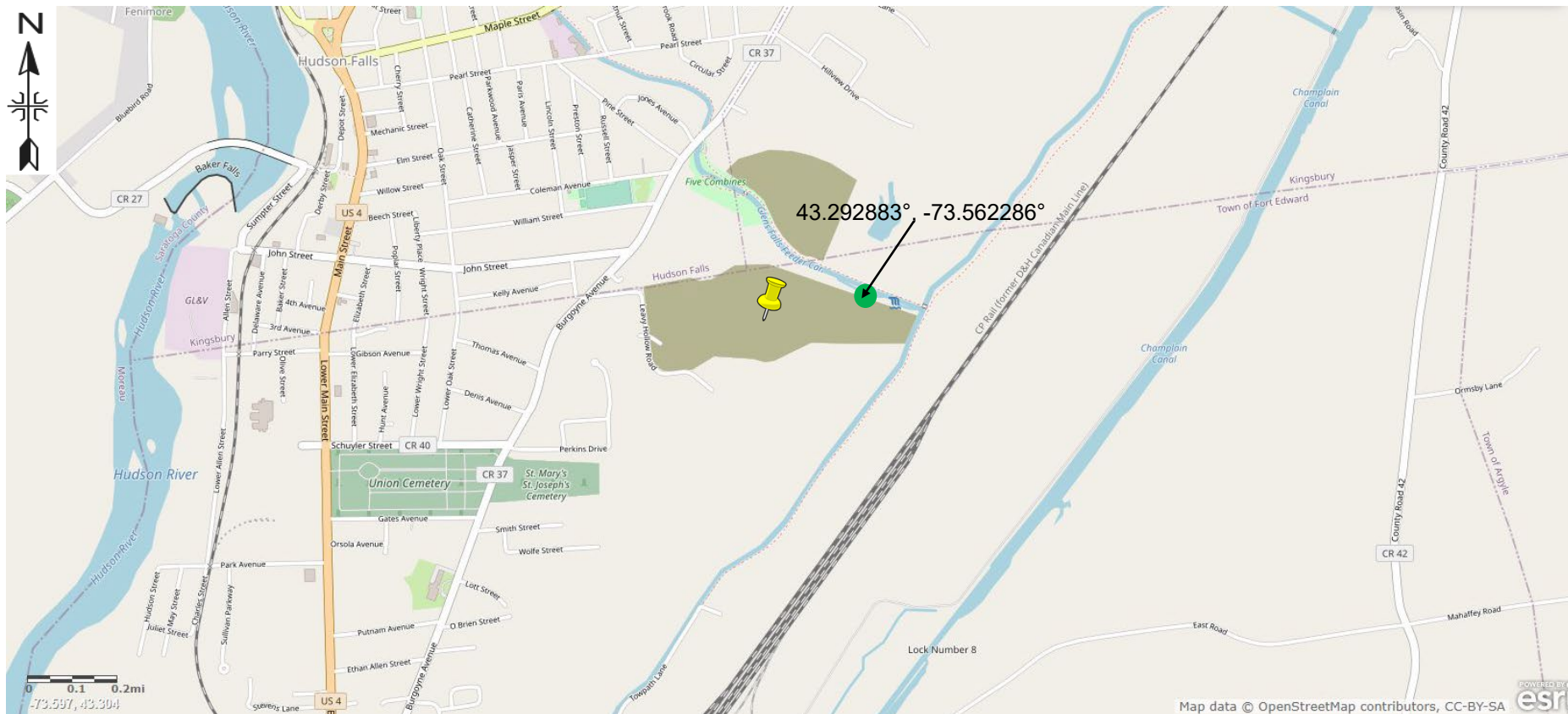
PIPING AND INSTRUMENTATION DIAGRAM

NOT TO SCALE

1-03

SHEET 3 OF 9





Source: Map showing Hudson Falls, New York. USGS, <https://maps.waterdata.usgs.gov/mapper/?state=ny>.

Legend



Site



Discharge Location

FORT EDWARD LANDFILL, FORT EDWARD, NY
NYSDEC SITE 558001

USGS Map

TABLE 1 - EFFLUENT MONITORING DATA
FORT EDWARD LANDFILL

			Method	8260B	8260B	8260B	8260B	8260B
			CAS	71-55-6	79-34-5	79-00-5	76-13-1	75-34-3
			Unit	ug/l	ug/l	ug/l	ug/l	ug/l
			NYSDEC Class GA Criteria	5	5	1	5	5
Sample Name	Date Collected	Lab Report No	Lab Sample No	1,1,1-Trichloroethane	1,1,2,2-Tetrachloroethane	1,1,2-Trichloroethane	1,1,2-Trichlorotrifluoroethane (freon 113)	1,1-Dichloroethane
EFFLUENT	11/09/11	480-12580-1	480-12580-1SITE	<0.82	<0.21	<0.23	<0.31	<0.38
EFFLUENT	12/14/11	480-14094-1	480-14094-1SITE	<0.82	<0.21	<0.23	<0.31	<0.38
EFFLUENT	01/11/12	480-14945-1	480-14945-1SITE	<0.82	<0.21	<0.23	<0.31	<0.38
Effluent	02/08/12	480-15971-1	480-15971-1SITE	<0.82	<0.21	<0.23	<0.31	<0.38
EFFLUENT	03/07/12	480-17017-1	480-17017-1SITE	<0.82	<0.21	<0.23	<0.31	<0.38
EFFLUENT	04/18/12	480-18825-1	480-18825-1SITE	<0.82	<0.21	<0.23	<0.31	<0.38
EFFLUENT	05/16/12	480-20174-1	480-20174-1SITE	<0.82	<0.21	<0.23	<0.31	<0.38
EFFLUENT	06/27/12	480-21943-1	480-21943-1SITE	<0.82	<0.21	<0.23	<0.31	<0.38
EFFLUENT	07/11/12	480-22507-1	480-22507-1SITE	<0.82	<0.21	<0.23	<0.31	<0.38
EFFLUENT	07/11/12	480-22507-1	480-22507-1SITE	<0.82	<0.21	<0.23	<0.31	<0.38
EFFLUENT	08/22/12	480-24317-1	480-24317-1SITE	<0.82	<0.21	<0.23	<0.31	<0.38
EFFLUENT	09/19/12	480-25345-1	480-25345-1SITE	<0.82	<0.21	<0.23	<0.31	<0.38
EFFLUENT	10/18/12	480-26941-1	480-26941-1SITE	<0.82	<0.21	<0.23	<0.31	<0.38
EFFLUENT	10/18/12	480-26941-1	480-26941-1SITE	<0.82	<0.21	<0.23	<0.31	<0.38
EFFLUENT	12/12/12	480-30087-1	480-30087-1SITE	<0.82	<0.21	<0.23	<0.31	<0.38
EFFLUENT	01/09/13	480-31355-1	480-31355-1SITE	<0.82	<0.21	<0.23	<0.31	<0.38
Effluent	40716	110622087	110622087-001A	NA	NA	NA	NA	<5.0
System Effluent	40729	110706065	110706065-007C	NA	NA	NA	NA	<5
Effluent	40744	110720067	110720067-005A	NA	NA	NA	NA	<5.0

TABLE 1 - EFFLUENT MONITORING DATA
FORT EDWARD LANDFILL

			Method	8260B	8260B	8260B	8260B
			CAS	75-35-4	120-82-1	96-12-8	106-93-4
			Unit	ug/l	ug/l	ug/l	ug/l
			NYSDEC Class GA Criteria	5	5	0.04	0.0006
Sample Name	Date Collected	Lab Report No	Lab Sample No	1,1-Dichloroethylene	1,2,4-Trichlorobenzene	1,2-Dibromo-3-chloropropane	1,2-Dibromoethane (EDB) (ethylene dibromide)
EFFLUENT	11/09/11	480-12580-1	480-12580-1SITE	<0.29	<0.41	(<0.39)	(<0.73)
EFFLUENT	12/14/11	480-14094-1	480-14094-1SITE	<0.29	<0.41	(<0.39)	(<0.73)
EFFLUENT	01/11/12	480-14945-1	480-14945-1SITE	<0.29	<0.41	(<0.39)	(<0.73)
Effluent	02/08/12	480-15971-1	480-15971-1SITE	<0.29	<0.41	(<0.39)	(<0.73)
EFFLUENT	03/07/12	480-17017-1	480-17017-1SITE	<0.29	<0.41	(<0.39)	(<0.73)
EFFLUENT	04/18/12	480-18825-1	480-18825-1SITE	<0.29	<0.41	(<0.39)	(<0.73)
EFFLUENT	05/16/12	480-20174-1	480-20174-1SITE	<0.29	<0.41	(<0.39)	(<0.73)
EFFLUENT	06/27/12	480-21943-1	480-21943-1SITE	<0.29	<0.41	(<0.39)	(<0.73)
EFFLUENT	07/11/12	480-22507-1	480-22507-1SITE	<0.29	<0.41	(<0.39)	(<0.73)
EFFLUENT	07/11/12	480-22507-1	480-22507-1SITE	<0.29	<0.41	(<0.39)	(<0.73)
EFFLUENT	08/22/12	480-24317-1	480-24317-1SITE	<0.29	<0.41	(<0.39)	(<0.73)
EFFLUENT	09/19/12	480-25345-1	480-25345-1SITE	<0.29	<0.41	(<0.39)	(<0.73)
EFFLUENT	10/18/12	480-26941-1	480-26941-1SITE	<0.29	<0.41	(<0.39)	(<0.73)
EFFLUENT	10/18/12	480-26941-1	480-26941-1SITE	<0.29	<0.41	(<0.39)	(<0.73)
EFFLUENT	12/12/12	480-30087-1	480-30087-1SITE	<0.29	<0.41	(<0.39)	(<0.73)
EFFLUENT	01/09/13	480-31355-1	480-31355-1SITE	<0.29	<0.41	(<0.39)	(<0.73)
Effluent	40716	110622087	110622087-001A	NA	NA	NA	NA
System Effluent	40729	110706065	110706065-007C	NA	NA	NA	NA
Effluent	40744	110720067	110720067-005A	NA	NA	NA	NA

TABLE 1 - EFFLUENT MONITORING DATA
FORT EDWARD LANDFILL

			Method	8260B	8260B	8260B	8260B	8260B
			CAS	95-50-1	107-06-2	78-87-5	541-73-1	10061-01-5
			Unit	ug/l	ug/l	ug/l	ug/l	ug/l
			NYSDEC Class GA Criteria	3	0.6	1	3	0.4
Sample Name	Date Collected	Lab Report No	Lab Sample No	1,2-Dichlorobenzene	1,2-Dichloroethane	1,2-Dichloropropane	1,3-Dichlorobenzene	1,3-Dichloropropene (cis)
EFFLUENT	11/09/11	480-12580-1	480-12580-1SITE	<0.79	<0.21	<0.72	<0.78	<0.36
EFFLUENT	12/14/11	480-14094-1	480-14094-1SITE	<0.79	<0.21	<0.72	<0.78	<0.36
EFFLUENT	01/11/12	480-14945-1	480-14945-1SITE	<0.79	<0.21	<0.72	<0.78	<0.36
Effluent	02/08/12	480-15971-1	480-15971-1SITE	<0.79	<0.21	<0.72	<0.78	<0.36
EFFLUENT	03/07/12	480-17017-1	480-17017-1SITE	<0.79	<0.21	<0.72	<0.78	<0.36
EFFLUENT	04/18/12	480-18825-1	480-18825-1SITE	<0.79	<0.21	<0.72	<0.78	<0.36
EFFLUENT	05/16/12	480-20174-1	480-20174-1SITE	<0.79	<0.21	<0.72	<0.78	<0.36
EFFLUENT	06/27/12	480-21943-1	480-21943-1SITE	<0.79	<0.21	<0.72	<0.78	<0.36
EFFLUENT	07/11/12	480-22507-1	480-22507-1SITE	<0.79	<0.21	<0.72	<0.78	<0.36
EFFLUENT	07/11/12	480-22507-1	480-22507-1SITE	<0.79	<0.21	<0.72	<0.78	<0.36
EFFLUENT	08/22/12	480-24317-1	480-24317-1SITE	<0.79	<0.21	<0.72	<0.78	<0.36
EFFLUENT	09/19/12	480-25345-1	480-25345-1SITE	<0.79	<0.21	<0.72	<0.78	<0.36
EFFLUENT	10/18/12	480-26941-1	480-26941-1SITE	<0.79	<0.21	<0.72	<0.78	<0.36
EFFLUENT	10/18/12	480-26941-1	480-26941-1SITE	<0.79	<0.21	<0.72	<0.78	<0.36
EFFLUENT	12/12/12	480-30087-1	480-30087-1SITE	<0.79	<0.21	<0.72	<0.78	<0.36
EFFLUENT	01/09/13	480-31355-1	480-31355-1SITE	<0.79	<0.21	<0.72	<0.78	<0.36
Effluent	40716	110622087	110622087-001A	NA	NA	NA	NA	NA
System Effluent	40729	110706065	110706065-007C	NA	NA	NA	NA	NA
Effluent	40744	110720067	110720067-005A	NA	NA	NA	NA	NA

TABLE 1 - EFFLUENT MONITORING DATA
FORT EDWARD LANDFILL

			Method	8260B	8260B	8260B	8260B	8260B	8260B
			CAS	10061-02-6	106-46-7	78-93-3	591-78-6	67-64-1	71-43-2
			Unit	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l
			NYSDEC Class GA Criteria	0.4	3	50	50	50	1
Sample Name	Date Collected	Lab Report No	Lab Sample No	1,3-Dichloropropene (trans)	1,4-Dichlorobenzene	2-Butanone (MEK)	2-Hexanone (Methyl butyl ketone/MBK)	Acetone	Benzene
EFFLUENT	11/09/11	480-12580-1	480-12580-1SITE	<0.37	<0.84	<1.3	<1.2	5.5	<0.41
EFFLUENT	12/14/11	480-14094-1	480-14094-1SITE	<0.37	<0.84	<1.3	<1.2	<3	<0.41
EFFLUENT	01/11/12	480-14945-1	480-14945-1SITE	<0.37	<0.84	<1.3	<1.2	6.7	<0.41
Effluent	02/08/12	480-15971-1	480-15971-1SITE	<0.37	<0.84	<1.3	<1.2	<3	<0.41
EFFLUENT	03/07/12	480-17017-1	480-17017-1SITE	<0.37	<0.84	<1.3	<1.2	<3	<0.41
EFFLUENT	04/18/12	480-18825-1	480-18825-1SITE	<0.37	<0.84	<1.3	<1.2	<3	<0.41
EFFLUENT	05/16/12	480-20174-1	480-20174-1SITE	<0.37	<0.84	<1.3	<1.2	3.2	<0.41
EFFLUENT	06/27/12	480-21943-1	480-21943-1SITE	<0.37	<0.84	<1.3	<1.2	<3	<0.41
EFFLUENT	07/11/12	480-22507-1	480-22507-1SITE	<0.37	<0.84	<1.3	<1.2	3.4	<0.41
EFFLUENT	07/11/12	480-22507-1	480-22507-1SITE	<0.37	<0.84	<1.3	<1.2	3.4	<0.41
EFFLUENT	08/22/12	480-24317-1	480-24317-1SITE	<0.37	<0.84	<1.3	<1.2	3.8	<0.41
EFFLUENT	09/19/12	480-25345-1	480-25345-1SITE	<0.37	<0.84	<1.3	<1.2	<3	<0.41
EFFLUENT	10/18/12	480-26941-1	480-26941-1SITE	<0.37	<0.84	<1.3	<1.2	<3	<0.41
EFFLUENT	10/18/12	480-26941-1	480-26941-1SITE	<0.37	<0.84	<1.3	<1.2	<3	<0.41
EFFLUENT	12/12/12	480-30087-1	480-30087-1SITE	<0.37	<0.84	<1.3	<1.2	<3	<0.41
EFFLUENT	01/09/13	480-31355-1	480-31355-1SITE	<0.37	<0.84	<1.3	<1.2	<3	<0.41
Effluent	40716	110622087	110622087-001A	NA	NA	NA	NA	NA	(<5)
System Effluent	40729	110706065	110706065-007C	NA	NA	NA	NA	NA	(<5)
Effluent	40744	110720067	110720067-005A	NA	NA	NA	NA	NA	(<5)

TABLE 1 - EFFLUENT MONITORING DATA
FORT EDWARD LANDFILL

			Method	8260B	8260B	8260B	8260B	8260B	8260B	8260B
			CAS	75-27-4	75-25-2	74-83-9	75-15-0	56-23-5	108-90-7	75-00-3
			Unit	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l
			NYSDEC Class GA Criteria	50	50	5	60	5	5	5
Sample Name	Date Collected	Lab Report No	Lab Sample No	Bromodichloromethane	Bromoform	Bromomethane	Carbon disulfide	Carbon tetrachloride	Chlorobenzene	Chloroethane
EFFLUENT	11/09/11	480-12580-1	480-12580-1SITE	<0.39	<0.26	<0.69	<0.19	<0.27	<0.75	<0.32
EFFLUENT	12/14/11	480-14094-1	480-14094-1SITE	<0.39	<0.26	<0.69		<0.27	<0.75	<0.32
EFFLUENT	01/11/12	480-14945-1	480-14945-1SITE	<0.39	<0.26	<0.69	55	<0.27	<0.75	<0.32
Effluent	02/08/12	480-15971-1	480-15971-1SITE	<0.39	<0.26	<0.69		<0.27	<0.75	<0.32
EFFLUENT	03/07/12	480-17017-1	480-17017-1SITE	<0.39	<0.26	<0.69	7	<0.27	<0.75	<0.32
EFFLUENT	04/18/12	480-18825-1	480-18825-1SITE	<0.39	<0.26	<0.69	<0.19	<0.27	<0.75	<0.32
EFFLUENT	05/16/12	480-20174-1	480-20174-1SITE	<0.39	<0.26	<0.69	<0.19	<0.27	<0.75	<0.32
EFFLUENT	06/27/12	480-21943-1	480-21943-1SITE	<0.39	<0.26	<0.69	<0.19	<0.27	<0.75	<0.32
EFFLUENT	07/11/12	480-22507-1	480-22507-1SITE	<0.39	<0.26	<0.69	<0.19	<0.27	<0.75	<0.32
EFFLUENT	07/11/12	480-22507-1	480-22507-1SITE	<0.39	<0.26	<0.69	<0.19	<0.27	<0.75	<0.32
EFFLUENT	08/22/12	480-24317-1	480-24317-1SITE	<0.39	<0.26	<0.69	<0.19	<0.27	<0.75	<0.32
EFFLUENT	09/19/12	480-25345-1	480-25345-1SITE	<0.39	<0.26	<0.69	<0.19	<0.27	<0.75	<0.32
EFFLUENT	10/18/12	480-26941-1	480-26941-1SITE	<0.39	<0.26	<0.69	<0.19	<0.27	<0.75	<0.32
EFFLUENT	10/18/12	480-26941-1	480-26941-1SITE	<0.39	<0.26	<0.69	<0.19	<0.27	<0.75	<0.32
EFFLUENT	12/12/12	480-30087-1	480-30087-1SITE	<0.39	<0.26	<0.69	<0.19	<0.27	<0.75	<0.32
EFFLUENT	01/09/13	480-31355-1	480-31355-1SITE	<0.39	<0.26	<0.69	<0.19	<0.27	<0.75	<0.32
Effluent	40716	110622087	110622087-001A	<5.0	NA	NA	NA	NA	<5.0	<10
System Effluent	40729	110706065	110706065-007C	<5	NA	NA	NA	NA	<5	<10
Effluent	40744	110720067	110720067-005A	<5.0	NA	NA	NA	NA	<5.0	<10

TABLE 1 - EFFLUENT MONITORING DATA
FORT EDWARD LANDFILL

			Method	8260B	8260B	8260B	8260B	8260B	8260B	8260B
			CAS	67-66-3	74-87-3	156-59-2	110-82-7	124-48-1	75-71-8	100-41-4
			Unit	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l
			NYSDEC Class GA Criteria	7	5	5	NS	50	5	5
Sample Name	Date Collected	Lab Report No	Lab Sample No	Chloroform	Chloromethane	cis-1,2-Dichloroethylene	Cyclohexane	Dibromochloromethane	Dichlorodifluoromethane	Ethylbenzene
EFFLUENT	11/09/11	480-12580-1	480-12580-1SITE	<0.34	<0.35	<0.81	<0.18	<0.32	<0.68	<0.74
EFFLUENT	12/14/11	480-14094-1	480-14094-1SITE	<0.34	<0.35	<0.81	<0.18	<0.32	<0.68	<0.74
EFFLUENT	01/11/12	480-14945-1	480-14945-1SITE	<0.34	<0.35	<0.81	<0.18	<0.32	<0.68	<0.74
Effluent	02/08/12	480-15971-1	480-15971-1SITE	<0.34	<0.35	<0.81	<0.18	<0.32	<0.68	<0.74
EFFLUENT	03/07/12	480-17017-1	480-17017-1SITE	<0.34	<0.35	<0.81	<0.18	<0.32	<0.68	<0.74
EFFLUENT	04/18/12	480-18825-1	480-18825-1SITE	<0.34	<0.35	<0.81	<0.18	<0.32	<0.68	<0.74
EFFLUENT	05/16/12	480-20174-1	480-20174-1SITE	<0.34	<0.35	<0.81	<0.18	<0.32	<0.68	<0.74
EFFLUENT	06/27/12	480-21943-1	480-21943-1SITE	<0.34	<0.35	<0.81	<0.18	<0.32	<0.68	<0.74
EFFLUENT	07/11/12	480-22507-1	480-22507-1SITE	<0.34	<0.35	<0.81	<0.18	<0.32	<0.68	<0.74
EFFLUENT	07/11/12	480-22507-1	480-22507-1SITE	<0.34	<0.35	<0.81	<0.18	<0.32	<0.68	<0.74
EFFLUENT	08/22/12	480-24317-1	480-24317-1SITE	0.97	<0.35	<0.81	<0.18	<0.32	<0.68	<0.74
EFFLUENT	09/19/12	480-25345-1	480-25345-1SITE	<0.34	<0.35	<0.81	<0.18	<0.32	<0.68	<0.74
EFFLUENT	10/18/12	480-26941-1	480-26941-1SITE	<0.34	<0.35	<0.81	<0.18	<0.32	<0.68	<0.74
EFFLUENT	10/18/12	480-26941-1	480-26941-1SITE	<0.34	<0.35	<0.81	<0.18	<0.32	<0.68	<0.74
EFFLUENT	12/12/12	480-30087-1	480-30087-1SITE	<0.34	<0.35	<0.81	<0.18	<0.32	<0.68	<0.74
EFFLUENT	01/09/13	480-31355-1	480-31355-1SITE	<0.34	<0.35	<0.81	<0.18	<0.32	<0.68	<0.74
Effluent	40716	110622087	110622087-001A	<5.0	NA	<5.0	NA	NA	NA	<5.0
System Effluent	40729	110706065	110706065-007C	<5	NA	<5	NA	NA	NA	<5
Effluent	40744	110720067	110720067-005A	<5.0	NA	<5.0	NA	NA	NA	<5.0

TABLE 1 - EFFLUENT MONITORING DATA
FORT EDWARD LANDFILL

			Method	8260B	8260B	8260B	8260B	8260B	8260B
			CAS	98-82-8	1330-20-7	179601-23-1	79-20-9	108-10-1	108-87-2
			Unit	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l
			NYSDEC Class GA Criteria	5	5	5	NS	NS	NS
Sample Name	Date Collected	Lab Report No	Lab Sample No	Isopropylbenzene	m-,p-,o-Xylene	m/p-Xylenes	METHYL ACETATE	Methyl isobutyl ketone (MIBK)	Methylcyclohexane
EFFLUENT	11/09/11	480-12580-1	480-12580-1SITE	<0.79	<0.66	<0.66	<0.5	<2.1	<0.16
EFFLUENT	12/14/11	480-14094-1	480-14094-1SITE	<0.79	<0.66	<0.66	<0.5	<2.1	<0.16
EFFLUENT	01/11/12	480-14945-1	480-14945-1SITE	<0.79	<0.66	<0.66	<0.5	<2.1	<0.16
Effluent	02/08/12	480-15971-1	480-15971-1SITE	<0.79	<0.66	<0.66	<0.5	<2.1	<0.16
EFFLUENT	03/07/12	480-17017-1	480-17017-1SITE	<0.79	<0.66	<0.66	<0.5	<2.1	<0.16
EFFLUENT	04/18/12	480-18825-1	480-18825-1SITE	<0.79	<0.66	<0.66	<0.5	<2.1	<0.16
EFFLUENT	05/16/12	480-20174-1	480-20174-1SITE	<0.79	<0.66	<0.66	<0.5	<2.1	<0.16
EFFLUENT	06/27/12	480-21943-1	480-21943-1SITE	<0.79	<0.66	<0.66	<0.5	<2.1	<0.16
EFFLUENT	07/11/12	480-22507-1	480-22507-1SITE	<0.79	<0.66	<0.66	<0.5	<2.1	<0.16
EFFLUENT	07/11/12	480-22507-1	480-22507-1SITE	<0.79	<0.66	<0.66	<0.5	<2.1	<0.16
EFFLUENT	08/22/12	480-24317-1	480-24317-1SITE	<0.79	<0.66	<0.66	<0.5	<2.1	<0.16
EFFLUENT	09/19/12	480-25345-1	480-25345-1SITE	<0.79	<0.66	<0.66	<0.5	<2.1	<0.16
EFFLUENT	10/18/12	480-26941-1	480-26941-1SITE	<0.79	<0.66	<0.66	<0.5	<2.1	<0.16
EFFLUENT	10/18/12	480-26941-1	480-26941-1SITE	<0.79	<0.66	<0.66	<0.5	<2.1	<0.16
EFFLUENT	12/12/12	480-30087-1	480-30087-1SITE	<0.79	<0.66	<0.66	<0.5	<2.1	<0.16
EFFLUENT	01/09/13	480-31355-1	480-31355-1SITE	<0.79	<0.66	<0.66	<0.5	<2.1	<0.16
Effluent	40716	110622087	110622087-001A	NA	NA	<5.0	NA	NA	NA
System Effluent	40729	110706065	110706065-007C	NA	NA	<5	NA	NA	NA
Effluent	40744	110720067	110720067-005A	NA	NA	<5.0	NA	NA	NA

TABLE 1 - EFFLUENT MONITORING DATA
FORT EDWARD LANDFILL

			Method	8260B	8260B	8260B	8260B	8260B	8260B
			CAS	75-09-2	1634-04-4	95-47-6	100-42-5	127-18-4	108-88-3
			Unit	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l
			NYSDEC Class GA Criteria	5	10	5	5	5	5
Sample Name	Date Collected	Lab Report No	Lab Sample No	Methylene chloride (Dichloromethane)	Methyltertbutyl ether	o-Xylene	Styrene	Tetrachloroethylene	Toluene
EFFLUENT	11/09/11	480-12580-1	480-12580-1SITE	<0.44	<0.16	<0.76	<0.73	<0.36	<0.51
EFFLUENT	12/14/11	480-14094-1	480-14094-1SITE	<0.44	<0.16	<0.76	<0.73	<0.36	<0.51
EFFLUENT	01/11/12	480-14945-1	480-14945-1SITE	<0.44	<0.16	<0.76	<0.73	<0.36	1.6
Effluent	02/08/12	480-15971-1	480-15971-1SITE	<0.44	<0.16	<0.76	<0.73	<0.36	<0.51
EFFLUENT	03/07/12	480-17017-1	480-17017-1SITE	<0.44	<0.16	<0.76	<0.73	<0.36	<0.51
EFFLUENT	04/18/12	480-18825-1	480-18825-1SITE	<0.44	<0.16	<0.76	<0.73	<0.36	<0.51
EFFLUENT	05/16/12	480-20174-1	480-20174-1SITE	<0.44	<0.16	<0.76	<0.73	<0.36	<0.51
EFFLUENT	06/27/12	480-21943-1	480-21943-1SITE	<0.44	<0.16	<0.76	<0.73	<0.36	<0.51
EFFLUENT	07/11/12	480-22507-1	480-22507-1SITE	<0.44	<0.16	<0.76	<0.73	<0.36	<0.51
EFFLUENT	07/11/12	480-22507-1	480-22507-1SITE	<0.44	<0.16	<0.76	<0.73	<0.36	<0.51
EFFLUENT	08/22/12	480-24317-1	480-24317-1SITE	<0.44	<0.16	<0.76	<0.73	<0.36	<0.51
EFFLUENT	09/19/12	480-25345-1	480-25345-1SITE	<0.44	<0.16	<0.76	<0.73	<0.36	<0.51
EFFLUENT	10/18/12	480-26941-1	480-26941-1SITE	<0.44	<0.16	<0.76	<0.73	<0.36	<0.51
EFFLUENT	10/18/12	480-26941-1	480-26941-1SITE	<0.44	<0.16	<0.76	<0.73	<0.36	<0.51
EFFLUENT	12/12/12	480-30087-1	480-30087-1SITE	<0.44	<0.16	<0.76	<0.73	<0.36	<0.51
EFFLUENT	01/09/13	480-31355-1	480-31355-1SITE	<0.44	<0.16	<0.76	<0.73	<0.36	<0.51
Effluent	40716	110622087	110622087-001A	<5.0	NA	NA	NA	NA	<5.0
System Effluent	40729	110706065	110706065-007C	<5	NA	NA	NA	NA	<5
Effluent	40744	110720067	110720067-005A	11	NA	NA	NA	NA	<5.0

TABLE 1 - EFFLUENT MONITORING DATA
FORT EDWARD LANDFILL

			Method	8260B	8260B	8260B	8260B	8270C	Metals	Metals	Metals
			CAS	156-60-5	79-01-6	75-69-4	75-01-4	108-95-2	7429-90-5	7440-36-0	7440-38-2
			Unit	ug/l	ug/l	ug/l	ug/l	ug/l	mg/l	mg/l	mg/l
			NYSDEC Class GA Criteria	5	5	5	2	1	NS	0.003	0.025
Sample Name	Date Collected	Lab Report No	Lab Sample No	trans-1,2-Dichloroethylene	Trichloroethylene	Trichlorofluoromethane	Vinyl chloride	Phenol	Aluminum, Total	Antimony	Arsenic
EFFLUENT	11/09/11	480-12580-1	480-12580-1SITE	<0.9	<0.46	<0.88	<0.9			(<0.0068)	<0.0056
EFFLUENT	12/14/11	480-14094-1	480-14094-1SITE	<0.9	<0.46	<0.88	<0.9			(<0.0068)	<0.0056
EFFLUENT	01/11/12	480-14945-1	480-14945-1SITE	<0.9	<0.46	<0.88	<0.9			(<0.0068)	<0.0056
Effluent	02/08/12	480-15971-1	480-15971-1SITE	<0.9	<0.46	<0.88	<0.9			(<0.0068)	<0.0056
EFFLUENT	03/07/12	480-17017-1	480-17017-1SITE	<0.9	<0.46	<0.88	<0.9			(<0.0068)	<0.0056
EFFLUENT	04/18/12	480-18825-1	480-18825-1SITE	<0.9	<0.46	<0.88	<0.9			(<0.0068)	<0.0056
EFFLUENT	05/16/12	480-20174-1	480-20174-1SITE	<0.9	<0.46	<0.88	<0.9			(<0.0068)	<0.0056
EFFLUENT	06/27/12	480-21943-1	480-21943-1SITE	<0.9	<0.46	<0.88	<0.9			(<0.0068)	<0.0056
EFFLUENT	07/11/12	480-22507-1	480-22507-1SITE	<0.9	<0.46	<0.88	<0.9			(<0.0068)	<0.0056
EFFLUENT	07/11/12	480-22507-1	480-22507-1SITE	<0.9	<0.46	<0.88	<0.9			(<0.0068)	<0.0056
EFFLUENT	08/22/12	480-24317-1	480-24317-1SITE	<0.9	<0.46	<0.88	<0.9			(<0.0068)	<0.0056
EFFLUENT	09/19/12	480-25345-1	480-25345-1SITE	<0.9	<0.46	<0.88	<0.9			(<0.0068)	<0.0056
EFFLUENT	10/18/12	480-26941-1	480-26941-1SITE	<0.9	<0.46	<0.88	<0.9			(<0.0068)	<0.0056
EFFLUENT	10/18/12	480-26941-1	480-26941-1SITE	<0.9	<0.46	<0.88	<0.9			(<0.0068)	<0.0056
EFFLUENT	12/12/12	480-30087-1	480-30087-1SITE	<0.9	<0.46	<0.88	<0.9			(<0.0068)	<0.0056
EFFLUENT	01/09/13	480-31355-1	480-31355-1SITE	<0.9	<0.46	<0.88	<0.9			(<0.0068)	<0.0056
Effluent	40716	110622087	110622087-001A	<5.0	NA	NA	(<10)	<0.002	NA	NA	<0.005
System Effluent	40729	110706065	110706065-007C	<5	NA	NA	(<10)	NA	<0.1	(<0.06)	<0.005
Effluent	40744	110720067	110720067-005A	<5.0	NA	NA	(<10)	0.003	NA	NA	<0.005

TABLE 1 - EFFLUENT MONITORING DATA
FORT EDWARD LANDFILL

			Method	Metals	Metals	Metals	Metals	Metals	Metals	Metals	Metals	Metals	Metals	Metals	Metals	
			CAS	7440-39-3	7440-41-7	7440-43-9	7440-47-3	7440-48-4	7440-50-8	7439-89-6	7439-92-1	7439-97-6	7440-02-0	7782-49-2	7440-22-4	
			Unit	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
			NYSDEC Class GA Criteria	1	0.003	0.005	0.05	NS	0.2	0.3	0.025	0.0007	0.1	0.01	0.05	
Sample Name	Date Collected	Lab Report No	Lab Sample No	Barium	Beryllium	Cadmium	Chromium, Total	Cobalt	Copper	Iron	Lead	Mercury	Nickel	Selenium	Silver	
EFFLUENT	11/09/11	480-12580-1	480-12580-1SITE		<0.0003	<0.00033	<0.00087		0.0037		<0.003	<0.00012	0.0022	<0.0087	<0.0017	
EFFLUENT	12/14/11	480-14094-1	480-14094-1SITE		<0.0003	<0.00033	0.0015		0.0085		<0.003	<0.00012	0.0018	<0.0087	<0.0017	
EFFLUENT	01/11/12	480-14945-1	480-14945-1SITE		<0.0003	<0.00033	<0.00087		0.0031		<0.003	<0.00012	0.0029	<0.0087	<0.0017	
Effluent	02/08/12	480-15971-1	480-15971-1SITE		<0.0003	<0.00033	0.002		<0.0015		<0.003	<0.00012	0.0046	<0.0087	<0.0017	
EFFLUENT	03/07/12	480-17017-1	480-17017-1SITE		<0.0003	<0.0005	<0.001		0.0051		<0.003	<0.00012	0.0028	<0.0087	<0.0017	
EFFLUENT	04/18/12	480-18825-1	480-18825-1SITE		<0.0003	<0.0005	<0.001		0.0027		<0.003	<0.00012	0.0032	<0.0087	<0.0017	
EFFLUENT	05/16/12	480-20174-1	480-20174-1SITE		<0.0003	<0.0005	<0.001		0.0031		<0.003	<0.00012	0.0013	<0.0087	<0.0017	
EFFLUENT	06/27/12	480-21943-1	480-21943-1SITE		<0.0003	<0.0005	<0.001		<0.0016		<0.003	<0.00012	0.0033	<0.0087	<0.0017	
EFFLUENT	07/11/12	480-22507-1	480-22507-1SITE		<0.0003	<0.0005	<0.001		0.0023		<0.003	<0.00012	0.0019	<0.0087	<0.0017	
EFFLUENT	07/11/12	480-22507-1	480-22507-1SITE		<0.0003	<0.0005	<0.001		0.0023		<0.003	<0.00012	0.0019	<0.0087	<0.0017	
EFFLUENT	08/22/12	480-24317-1	480-24317-1SITE		<0.0003	<0.0005	<0.001		0.0021		<0.003	<0.00012	<0.0013	<0.0087	<0.0017	
EFFLUENT	09/19/12	480-25345-1	480-25345-1SITE		<0.0003	<0.0005	<0.001		0.0045		<0.003	<0.00012	<0.0013	<0.0087	<0.0017	
EFFLUENT	10/18/12	480-26941-1	480-26941-1SITE		0.00032	<0.0005	<0.001		0.0025		<0.003	<0.00012	0.0023	<0.0087	<0.0017	
EFFLUENT	10/18/12	480-26941-1	480-26941-1SITE		0.00032	<0.0005	<0.001		0.0025		<0.003	<0.00012	0.0023	<0.0087	<0.0017	
EFFLUENT	12/12/12	480-30087-1	480-30087-1SITE		<0.0003	<0.0005	<0.001		0.0038		<0.003	<0.00012	0.0022	<0.0087	<0.0017	
EFFLUENT	01/09/13	480-31355-1	480-31355-1SITE		<0.0003	<0.0005	0.0017		<0.0016		<0.003	<0.00012	0.0017	<0.0087	<0.0017	
Effluent	40716	110622087	110622087-001A	0.031	NA	<0.001	<0.005	<0.005	<0.005	0.891	<0.003	<0.0002	<0.009	NA	NA	
System Effluent	40729	110706065	110706065-007C	0.047	NA	(<0.005)	<0.005	(<0.05)	0.017	17.2	(<0.005)	<0.0002	(<0.02)	NA	NA	
Effluent	40744	110720067	110720067-005A	0.028	NA	<0.001	<0.005	<0.005	<0.005	1.02	<0.003	<0.0002	<0.009	NA	NA	

TABLE 1 - EFFLUENT MONITORING DATA
FORT EDWARD LANDFILL

			Method	Metals	Metals	Metals	Misc	Misc	Misc	Misc	Misc	Misc	Misc
			CAS	7440-28-0	7440-62-2	7440-66-6	12674-11-2	11104-28-2	11141-16-5	53469-21-9	12672-29-6	11097-69-1	11096-82-5
			Unit	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l
			NYSDEC Class GA Criteria	0.0005	NS	2	0.00009	0.00009	0.00009	0.00009	0.00009	0.00009	0.00009
Sample Name	Date Collected	Lab Report No	Lab Sample No	Thallium	Vanadium	Zinc	PCB-1016	PCB-1221	PCB-1232	PCB-1242	PCB-1248	PCB-1254	PCB-1260
EFFLUENT	11/09/11	480-12580-1	480-12580-1SITE	(<0.01)		0.04							
EFFLUENT	12/14/11	480-14094-1	480-14094-1SITE	(<0.01)		0.019							
EFFLUENT	01/11/12	480-14945-1	480-14945-1SITE	(<0.01)		0.031							
Effluent	02/08/12	480-15971-1	480-15971-1SITE	(<0.01)		0.04							
EFFLUENT	03/07/12	480-17017-1	480-17017-1SITE	(<0.01)		0.014							
EFFLUENT	04/18/12	480-18825-1	480-18825-1SITE	(<0.01)		0.0017							
EFFLUENT	05/16/12	480-20174-1	480-20174-1SITE	(<0.01)		0.012							
EFFLUENT	06/27/12	480-21943-1	480-21943-1SITE	(<0.01)		0.037							
EFFLUENT	07/11/12	480-22507-1	480-22507-1SITE	(<0.01)		0.019							
EFFLUENT	07/11/12	480-22507-1	480-22507-1SITE	(<0.01)		0.019							
EFFLUENT	08/22/12	480-24317-1	480-24317-1SITE	(<0.01)		0.01							
EFFLUENT	09/19/12	480-25345-1	480-25345-1SITE	(<0.01)		0.013							
EFFLUENT	10/18/12	480-26941-1	480-26941-1SITE	(<0.01)		0.0031	<0.000036	<0.000036	<0.000036	<0.000036	<0.000036	<0.00003	<0.00003
EFFLUENT	10/18/12	480-26941-1	480-26941-1SITE	(<0.01)		0.0031	<0.000036	<0.000036	<0.000036	<0.000036	<0.000036	<0.00003	<0.00003
EFFLUENT	12/12/12	480-30087-1	480-30087-1SITE	(<0.01)		0.0099							
EFFLUENT	01/09/13	480-31355-1	480-31355-1SITE	(<0.01)		0.0067							
Effluent	40716	110622087	110622087-001A	NA	<0.010	<0.010	NA	NA	NA	NA	NA	NA	NA
System Effluent	40729	110706065	110706065-007C	NA	(<0.02)	0.074	<0.065	1.68	<0.065	0.373	<0.065	<0.065	<0.065
Effluent	40744	110720067	110720067-005A	NA	<0.010	<0.010	NA	NA	NA	NA	NA	NA	NA

TABLE 1 - EFFLUENT MONITORING DATA
FORT EDWARD LANDFILL

			Method	Misc	Misc	Misc	Pest-8081A	Pest-8081A	Pest-8081A	Pest-8081A	Pest-8081A
			CAS	TOTPHEN	TDS	TSS	12674-11-2	11096-82-5	11097-69-1	12672-29-6	53469-21-9
			Unit	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l
			NYSDEC Class GA Criteria				0.00009	0.00009	0.00009	0.00009	0.00009
Sample Name	Date Collected	Lab Report No	Lab Sample No	Phenolics, Total Recoverable	Total Dissolved Solids	Total Suspended Solids	PCB-1016	PCB-1260	PCB-1254	PCB-1248	PCB-1242
EFFLUENT	11/09/11	480-12580-1	480-12580-1SITE	<0.005	389	<4	<0.000036	<0.000029	<0.000029	<0.000036	<0.000036
EFFLUENT	12/14/11	480-14094-1	480-14094-1SITE	0.0064	415	<4	<0.000036	<0.000029	<0.000029	<0.000036	<0.000036
EFFLUENT	01/11/12	480-14945-1	480-14945-1SITE	<0.005	493	30.4	<0.000036	<0.000029	<0.000029	<0.000036	<0.000036
Effluent	02/08/12	480-15971-1	480-15971-1SITE	<0.005	460	10.4	<0.000036	<0.000029	<0.000029	<0.000036	<0.000036
EFFLUENT	03/07/12	480-17017-1	480-17017-1SITE	<0.005	330	16	<0.000036	<0.000029	<0.000029	<0.000036	<0.000036
EFFLUENT	04/18/12	480-18825-1	480-18825-1SITE	0.0098	338	<4	<0.000036	<0.000029	<0.000029	<0.000036	<0.000036
EFFLUENT	05/16/12	480-20174-1	480-20174-1SITE	0.011	305	6.8	<0.000036	<0.000029	<0.000029	<0.000036	0.000043
EFFLUENT	06/27/12	480-21943-1	480-21943-1SITE	<0.005	265	<4	<0.000036	<0.000029	<0.000029	<0.000036	<0.000036
EFFLUENT	07/11/12	480-22507-1	480-22507-1SITE	<0.005	253	47.2	<0.000036	<0.000029	<0.000029	<0.000036	<0.000036
EFFLUENT	07/11/12	480-22507-1	480-22507-1SITE	<0.005	253	47.2	<0.000036	<0.000029	<0.000029	<0.000036	<0.000036
EFFLUENT	08/22/12	480-24317-1	480-24317-1SITE	<0.005	305	12	<0.000036	<0.000029	<0.000029	<0.000036	<0.000036
EFFLUENT	09/19/12	480-25345-1	480-25345-1SITE	0.016	212	6	<0.000038	<0.000031	<0.000031	<0.000038	<0.000038
EFFLUENT	10/18/12	480-26941-1	480-26941-1SITE	0.0052	404	<4					
EFFLUENT	10/18/12	480-26941-1	480-26941-1SITE	0.0052	404	<4					
EFFLUENT	12/12/12	480-30087-1	480-30087-1SITE	0.0052	403	<4	<0.000036	<0.000029	<0.000029	<0.000036	<0.000036
EFFLUENT	01/09/13	480-31355-1	480-31355-1SITE	<0.005	430	12.8	<0.000036	<0.000029	<0.000029	<0.000036	<0.000036
Effluent	40716	110622087	110622087-001A		300	4					
System Effluent	40729	110706065	110706065-007C		NA	NA					
Effluent	40744	110720067	110720067-005A		290	9					

TABLE 1 - EFFLUENT MONITORING DATA
FORT EDWARD LANDFILL

			Method	Pest-8081A	Pest-8081A
			CAS	11141-16-5	11104-28-2
			Unit	mg/l	mg/l
			NYSDEC Class GA Criteria	0.00009	0.00009
Sample Name	Date Collected	Lab Report No	Lab Sample No	PCB-1232	PCB-1221
EFFLUENT	11/09/11	480-12580-1	480-12580-1SITE	<0.000036	<0.000036
EFFLUENT	12/14/11	480-14094-1	480-14094-1SITE	<0.000036	<0.000036
EFFLUENT	01/11/12	480-14945-1	480-14945-1SITE	<0.000036	<0.000036
Effluent	02/08/12	480-15971-1	480-15971-1SITE	<0.000036	<0.000036
EFFLUENT	03/07/12	480-17017-1	480-17017-1SITE	<0.000036	<0.000036
EFFLUENT	04/18/12	480-18825-1	480-18825-1SITE	<0.000036	<0.000036
EFFLUENT	05/16/12	480-20174-1	480-20174-1SITE	<0.000036	<0.000036
EFFLUENT	06/27/12	480-21943-1	480-21943-1SITE	<0.000036	<0.000036
EFFLUENT	07/11/12	480-22507-1	480-22507-1SITE	<0.000036	<0.000036
EFFLUENT	07/11/12	480-22507-1	480-22507-1SITE	<0.000036	<0.000036
EFFLUENT	08/22/12	480-24317-1	480-24317-1SITE	<0.000036	<0.000036
EFFLUENT	09/19/12	480-25345-1	480-25345-1SITE	<0.000038	<0.000038
EFFLUENT	10/18/12	480-26941-1	480-26941-1SITE		
EFFLUENT	10/18/12	480-26941-1	480-26941-1SITE		
EFFLUENT	12/12/12	480-30087-1	480-30087-1SITE	<0.000036	<0.000036
EFFLUENT	01/09/13	480-31355-1	480-31355-1SITE	<0.000036	<0.000036
Effluent	40716	110622087	110622087-001A		
System Effluent	40729	110706065	110706065-007C		
Effluent	40744	110720067	110720067-005A		

Analyte	NYSDEC Class GA GW Standard	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	12/19/2017
Volatile Organic Compounds (VOCs) (mg/L)											
ACETONE	50	27 J	12 J	50 U	5.6 J	8.1 J	50 U	8.7 J	50 U	50 U	50 U
BENZENE	1	0.16 J	0.24 J	0.5 J	0.31 J	0.74 J	0.63 J	0.71 J	0.24 J	0.37 J	0.39 J
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
BROMODICHLOROMETHANE	50	1.2 U	0.61	0.5	0.38 J	1.1 J	0.5 U	0.54	0.5 U	0.5 U	0.5 U
BROMOFORM	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	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	4.0 J	7.7 J	20 U	3.5 J	20 U	20 U	8.0 J	20 U	20 U	20 U
CARBON DISULFIDE	60	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	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
CHLOROBENZENE	5	0.2 J	0.27 J	0.67 J	0.32 J	1.3	1.1	0.86 J	0.27 J	0.5 J	0.48 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
CHLOROETHANE	5	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	0.4 J	2.0 U	2.0 U	2.0 U
CHLOROFORM	7	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CHLOROMETHANE	5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
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
1,2-DIBROMO-3-CHLOROPROPANE	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
1,2-DIBROMOETHANE (ETHYLENE DIBROMIDE)	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
1,2-DICHLOROENZENE	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-DICHLOROENZENE	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
1,4-DICHLOROENZENE	3	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	1.0 U
DICHLORODIFLUOROMETHANE	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	1.0 U	1.0 U	1.0 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	1.0 U	1.0 U	1.0 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	1.0 U	1.0 U	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	0.38 J	0.3 J	10	8.8	25	17	20	0.3 J	8.9	7.2
TRANS-1,2-DICHLOROETHYLENE	5	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	1.0 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
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
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
1,4-DIOXANE	--	50 U	50 U	50 U	50 U	11	50 U	50 U	50 U	50 U	50 U
ETHYLBENZENE	5	1.0 U	1.0 U	0.2 J	1.0 U	0.13 J	0.18 J	0.16 J	1.0 U	1.0 U	1.0 U
2-HEXANONE	50	10 U	10 U	10 U	10 U	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	0.18 J	0.16 J	1.0 U	1.0 U	2.0 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	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	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
METHYLENE CHLORIDE	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
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
STYRENE	5	0.29 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	1.0 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
TETRACHLOROETHYLENE (PCE)	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	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	0.22 J
1,2,3-TRICHLOROENZENE	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
1,2,4-TRICHLOROENZENE	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	1.0 U	1.0 U	1.0 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	1.0 U	1.0 U	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	1.0 U	1.0 U	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	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	1.0 U	1.0 U	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	2.0 U	2.0 U	14	7.6	37	14	15	0.21 J	8.0	4.6
M,P-XYLENES	5	2.0 U	2.0 U	0.89 J	0.5 J	0.37 J	0.71 J	0.62 J	2.0 U	2.0 U	0.26 J
O-XYLENE (1,2-DIMETHYLBENZENE)	5	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	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
VOCs Total	--	32.03	21.12	27.81	29.80	86.20	35.03	56.15	1.18	8.50	13.15

Notes:
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
ug/L - micrograms per liter
ng/L - nanograms per liter
NA - Not Analyzed
NYSDEC Class GA GW Standard - New York State Department of Environmental Conservation Groundwater Standard and Guidance Value.
Concentrations detected above the NYSDEC Class GA GW Standard are highlighted in yellow.

Analyte	NYSDEC Class GA GW Standard	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	12/19/2017
Polychlorinated Biphenyls (PCBs) (µg/L)											
PCB-1016 (AROCOR 1016)	0.09	0.72	0.34	4.1	7.9	21	4.0 U	4.0 U	3.3	3.9 U	2.8
PCB-1221 (AROCOR 1221)	0.09	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	0.77 U
PCB-1232 (AROCOR 1232)	0.09	0.2 U	0.2 U	1.0 U	1.0 U	1.0 U	4.0 U	37	0.77 U	23	0.77 U
PCB-1242 (AROCOR 1242)	0.09	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	0.77 U
PCB-1248 (AROCOR 1248)	0.09	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	0.77 U
PCB-1254 (AROCOR 1254)	0.09	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	0.77 U
PCB-1260 (AROCOR 1260)	0.09	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	0.77 U
PCB-1262 (AROCOR 1262)	0.09	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	0.77 U
PCB-1268 (AROCOR 1268)	0.09	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	0.77 U
PCB Total	0.09	0.72	0.34	4.1	7.9	21	20	37	3.3	23	2.8
Metals (mg/L)											
ALUMINUM	--	0.65	1.9	0.54	0.35	0.57	0.73	1.5	0.33	0.39	0.45
ANTIMONY	0.003	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	0.005 U
ARSENIC	0.03	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	0.002 U
BARIUM	1	0.05 U	0.05 U	0.053	0.056	0.061	0.063	0.06	0.05 U	0.07	0.05 U
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	0.002 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	0.0025 U
CALCIUM	--	88	83	100	100	97	91	88	86	100	82
CHROMIUM, TOTAL	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	0.005 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	0.005 U
COPPER	0.2	0.01 U	0.01 U	0.01 U	0.19	0.01 U	0.018	0.018	0.018	0.013	0.025 U
IRON	0.3	0.89	7.1	4.0	5.0	4.3	13	6.7	11	12	10
LEAD	0.03	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	0.005 U
MAGNESIUM	35	22	23	25	26	26	25	24	20	23	19
MANGANESE	0.3	1.4	1.6	1.8	1.8	1.8	1.8	1.7	1.8	1.8	1.4
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	0.0001 U	0.0001 U
NICKEL	0.1	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.013	0.042	0.051	0.016	0.025 U
POTASSIUM	--	3.6	3.2	5.1	4.0	6.3	5.4	5.3	3.3	5.1	3.0
SELENIUM	0.01	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	0.025 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	0.0025 U
SODIUM	20	59	59	61	58	75	59	66	56	55	47
THALLIUM	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	0.001 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	0.025 U
ZINC	2	0.027	0.02 U	0.035	0.49	0.02 U	0.1	0.02 U	0.15	0.27	0.05 U
Conventional Chemistry (mg/L)											
TOTAL DISSOLVED SOLIDS	--	520	440	550	480	480	450	430	460	540	410
TOTAL SUSPENDED SOLIDS	--	40	32	23	5.0	14	45	18	48	11	14
Perfluorinated Alkyl Substances (PFAS) by 537 Modified (ng/L)											
PERFLUOROBUTANESULFONIC ACID (PFBS)	--	NA	NA	NA	NA	2.0 U	NA	NA	NA	NA	NA
PERFLUOROHXANESULFONIC ACID (PFHxS)	--	NA	NA	NA	NA	3.6	NA	NA	NA	NA	NA
PERFLUOROOCTANESULFONIC ACID (PFOS)	--	NA	NA	NA	NA	8.2	NA	NA	NA	NA	NA
PERFLUOROHXANOIC ACID (PFHxA)	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PERFLUOROHEPTANOIC ACID (PFHpA)	--	NA	NA	NA	NA	14	NA	NA	NA	NA	NA
PERFLUOROOCTANOIC ACID (PFOA)	--	NA	NA	NA	NA	63	NA	NA	NA	NA	NA
PERFLUORONONANOIC ACID (PFNA)	--	NA	NA	NA	NA	2.0 U	NA	NA	NA	NA	NA
PERFLUORODECANOIC ACID (PFDA)	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PERFLUOROUNDECANOIC ACID (PFUnDA)	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PERFLUORODODECANANOIC ACID (PFDoDA)	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PERFLUOROTRIDECANOIC ACID (PFTrDA)	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PERFLUOROTETRADECANOIC ACID (PFTeDA)	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-ETHYLPERFLUOROOCTANESULFONAMIDOACETIC ACID (NEtFOSAA)	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-METHYLPERFLUOROOCTANESULFONAMIDOACETIC ACID (NMeFOSAA)	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TOTAL PFOA + PFOS	--	NA	NA	NA	NA	71.2	NA	NA	NA	NA	NA
TOTAL PFAS	--	NA	NA	NA	NA	88.8	NA	NA	NA	NA	NA

Notes:
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
ug/L - micrograms per liter
ng/L - nanograms per liter
NA - Not Analyzed
NYSDEC Class GA GW Standard - New York State Department of Environmental Conservation Groundwater Standard and Guidance Value.
Concentrations detected above the NYSDEC Class GA GW Standard are highlighted in yellow.

Analyte	NYSDEC Class GA GW Standard	1/29/2018	2/26/2018	3/26/2018	4/30/2018	5/29/2018	6/26/2018	7/31/2018	8/26/2018	9/25/2018	10/22/2018
Volatile Organic Compounds (VOCs) (mg/L)											
ACETONE	50	50 U	11 J	50 U	25 J	13 J	50 U	23 J	50 U	50 U	50 U
BENZENE	1	0.27 J	0.39 J	0.13 J	0.22 J	0.19 J	0.22 J	1.0 U	0.23 J	1.0 U	0.17 J
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
BROMODICHLOROMETHANE	50	1.2	0.5 U	0.71	2.1	1.6	0.5 U	0.5 U	1.2	1.3	0.5 U
BROMOFORM	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	2.0 U	1.0 U
BROMOMETHANE	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-BUTANONE (MEK)	50	20 U	20 U	20 U	22	22	4.4 J	12 J	20 U	20 U	20 U
CARBON DISULFIDE	60	4.0 U	4.0 U	4.0 U	4.0 U	1.4 J	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	1.1 J	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
CHLOROBENZENE	5	0.43 J	0.47 J	0.28 J	0.34 J	0.32 J	0.43 J	1.0 U	1.0 U	0.3 J	1.0 U
CHLORODIBROMOMETHANE	50	0.21 J	0.59	0.38 J	0.7	0.28 J	0.5 U	0.5 U	0.67	0.73	0.5 U
CHLOROETHANE	5	2.0 U	0.39 J	2.0 U	2.0 U	0.56 J	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
CHLOROFORM	7	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CHLOROMETHANE	5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
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
1,2-DIBROMO-3-CHLOROPROPANE	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
1,2-DIBROMOETHANE (ETHYLENE DIBROMIDE)	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
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	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	1.0 U	1.0 U	1.0 U	1.0 U
1,4-DICHLOROBENZENE	3	1.0 U	0.17 J	1.0 U	0.17 J	0.2 J	1.0 U	1.0 U	1.0 U	0.18 J	1.0 U
DICHLORODIFLUOROMETHANE	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	1.0 U	1.0 U	1.0 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	1.0 U	1.0 U	1.0 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	1.0 U	1.0 U	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	7.8	11	0.15 J	0.27 J	0.35 J	1.0 U	0.56 J	0.15 J	1.0 U	1.0 U
TRANS-1,2-DICHLOROETHYLENE	5	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
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
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
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
1,4-DIOXANE	--	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U	100 U
ETHYLBENZENE	5	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	0.14 J	12	1.0 U	1.0 U	1.0 U
2-HEXANONE	50	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
ISOPROPYLBENZENE (CUMENE)	5	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	0.45 J	0.45 J	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	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	1.0 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
METHYLENE CHLORIDE	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
METHYL ISOBUTYL KETONE (4-METHYL-2-PENTANONE)	--	10 U	10 U	10 U	10 U	2.6 J	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	1.0 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	1.0 U	1.0 U	1.0 U	1.0 U
TETRACHLOROETHYLENE (PCE)	5	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	14	1.0 U	1.0 U	1.0 U
TOLUENE	5	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	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
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	1.0 U	2.0 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
1,1,2-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
TRICHLOROETHYLENE (TCE)	5	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	0.45 J	1.00 U	1.0 U	1.0 U
TRICHLOROFLUOROMETHANE	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
1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE	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
VINYL CHLORIDE	2	3.8	6.6	2.0 U	2.0 U	0.16 J	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
M,P-XYLENES	5	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	0.78 J	6.7	2.0 U	2.0 U	2.0 U
O-XYLENE (1,2-DIMETHYLBENZENE)	5	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	0.53 J	2.4	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	9.1	3.0 U	3.0 U	3.0 U
VOCs Total		13.71	30.95	1.65	50.80	43.96	6.50	80.66	2.70	2.51	0.17

Notes:
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mg/L - milligrams per liter
ug/L - micrograms per liter
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NA - Not Analyzed
NYSDEC Class GA GW Standard - New York State Department of Environmental Conservation Groundwater Standard and Guidance Value.
Concentrations detected above the NYSDEC Class GA GW Standard are highlighted in yellow.

Analyte	NYSDEC Class GA GW Standard	1/29/2018	2/26/2018	3/26/2018	4/30/2018	5/29/2018	6/26/2018	7/31/2018	8/26/2018	9/25/2018	10/22/2018
Polychlorinated Biphenyls (PCBs) (µg/L)											
PCB-1016 (Aroclor 1016)	0.09	5.8	8.7	0.91	4.3	5.6	0.98	2.4	0.68	0.71	0.54
PCB-1221 (Aroclor 1221)	0.09	1.0 U	2.0 U	0.2 U	0.77 U	2.0 U	0.2 U	0.4 U	0.2 U	0.2 U	0.2 U
PCB-1232 (Aroclor 1232)	0.09	1.0 U	2.0 U	0.2 U	0.77 U	2.0 U	0.2 U	0.4 U	0.2 U	0.2 U	0.2 U
PCB-1242 (Aroclor 1242)	0.09	1.0 U	2.0 U	0.2 U	0.77 U	2.0 U	0.2 U	0.4 U	0.2 U	0.2 U	0.2 U
PCB-1248 (Aroclor 1248)	0.09	1.0 U	2.0 U	0.2 U	0.77 U	2.0 U	0.2 U	0.4 U	0.2 U	0.2 U	0.2 U
PCB-1254 (Aroclor 1254)	0.09	1.0 U	2.0 U	0.2 U	0.77 U	2.0 U	0.2 U	0.4 U	0.8	0.2 U	0.2 U
PCB-1260 (Aroclor 1260)	0.09	1.0 U	2.0 U	0.2 U	0.77 U	2.0 U	0.2 U	0.4 U	0.2 U	0.2 U	0.2 U
PCB-1262 (Aroclor 1262)	0.09	1.0 U	2.0 U	0.2 U	0.77 U	2.0 U	0.2 U	0.4 U	0.2 U	0.2 U	0.2 U
PCB-1268 (Aroclor 1268)	0.09	1.0 U	2.0 U	0.2 U	0.77 U	2.0 U	0.2 U	0.4 U	0.2 U	0.2 U	0.2 U
PCB Total	0.09	5.8	8.7	0.91	4.3	5.6	0.98	2.4	1.48	0.71	0.54
Metals (mg/L)											
ALUMINUM	--	0.05 U	0.68	0.46	0.41	0.05 U	0.15	0.42	1.8	0.7	0.48
ANTIMONY	0.003	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.05 U	0.05 U
ARSENIC	0.03	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.01 U	0.01 U
BARIUM	1	0.05 U	0.05 U	0.05 U	0.05 U	0.066	0.05 U	0.081	0.05 U	0.05 U	0.05 U
BERYLLIUM	0.003	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.004 U	0.004 U
CADMIUM	0.005	0.0025 U	0.0025 U	0.0025 U	0.0025 U	0.0025 U	0.0025 U	0.0025 U	0.0025 U	0.004 U	0.004 U
CALCIUM	--	81	80	84	80	91	87	93	79	83	84
CHROMIUM, TOTAL	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	0.01 U	0.01 U
COBALT	--	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.05 U	0.05 U
COPPER	0.2	0.025 U	0.025 U	0.025 U	0.025 U	0.025 U	0.046	0.082	0.048	0.01 U	0.01 U
IRON	0.3	3.2	1.2	2.3	1.2	2.0	11	13	2.5	0.58	3.2
LEAD	0.03	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.01 U	0.01 U
MAGNESIUM	35	20	18	19	18	18	17	18	19	20	19
MANGANESE	0.3	1.1	3.2	1.3	3.0	6.0	1.7	2.7	1.4	1.5	1.6
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	0.0001 U	0.0001 U
NICKEL	0.1	0.025 U	0.025 U	0.025 U	0.025 U	0.025 U	0.011	0.014	0.016	0.011	0.031
POTASSIUM	--	3.2	3.6	2.6	2.9	2.8	2.7	3.0	2.5	2.8	2.4
SELENIUM	0.01	0.025 U	0.025 U	0.025 U	0.025 U	0.025 U	0.025 U	0.025 U	0.025 U	0.05 U	0.05 U
SILVER	0.05	0.0025 U	0.0025 U	0.0025 U	0.0025 U	0.0025 U	0.0025 U	0.0025 U	0.0025 U	0.005 U	0.005 U
SODIUM	20	56	60	49	64	57	55	60	61	62	50
THALLIUM	0.0005	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.05 U	0.05 U
VANADIUM	--	0.025 U	0.025 U	0.025 U	0.025 U	0.025 U	0.025 U	0.015	0.01 U	0.01 U	0.01 U
ZINC	2	0.05 U	0.05 U	0.05 U	0.027	0.026	0.11	0.13	0.21	0.02	0.035
Conventional Chemistry (mg/L)											
TOTAL DISSOLVED SOLIDS	--	550	310	280	400	500	390	440	380	450	490
TOTAL SUSPENDED SOLIDS	--	4.8	5.8	6.4	8.3 U	7.6	21	28	8.3	6.0	8.3
Perfluorinated Alkyl Substances (PFAS) by 537 Modified (ng/L)											
PERFLUOROBUTANESULFONIC ACID (PFBS)	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PERFLUOROHXANESULFONIC ACID (PFHxS)	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PERFLUOROOCTANESULFONIC ACID (PFOS)	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PERFLUOROHXANOIC ACID (PFHxA)	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PERFLUOROHEPTANOIC ACID (PFHpA)	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PERFLUOROOCTANOIC ACID (PFOA)	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PERFLUORONONANOIC ACID (PFNA)	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PERFLUORODECANOIC ACID (PFDA)	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PERFLUOROUNDECANOIC ACID (PFUnDA)	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PERFLUORODODECANANOIC ACID (PFDoDA)	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PERFLUOROTRIDECANOIC ACID (PFTrDA)	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PERFLUOROTETRADECANOIC ACID (PFTeDA)	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-ETHYLPERFLUOROOCTANESULFONAMIDOACETIC ACID (NEtFOSAA)	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-METHYLPERFLUOROOCTANESULFONAMIDOACETIC ACID (NMeFOSAA)	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TOTAL PFOA + PFOS	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TOTAL PFAS	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Notes:

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

ug/L - micrograms per liter

ng/L - nanograms per liter

NA - Not Analyzed

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

Concentrations detected above the NYSDEC Class GA GW Standard are highlighted in yellow.

Analyte	NYSDEC Class GA GW Standard	11/26/2018	12/18/2018	1/19/2019	2/26/2019	3/26/2019	4/30/2019	5/28/2019	11/6/2019	11/20/2019	11/26/2019	12/17/2019
Volatile Organic Compounds (VOCs) (mg/L)												
ACETONE	50	50 U	50 U	50 U	50 U	5.5 J	50 U	100	50 U	50 U	50 U	5.0
BENZENE	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
BROMOCHLOROMETHANE	5	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	NA	NA	NA	NA
BROMODICHLOROMETHANE	50	0.5 U	0.5 U	0.89	0.53	0.85	0.73	21	1.0 U	1.0	0.87 J	0.79 J
BROMOFORM	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
BROMOMETHANE	5	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U
2-BUTANONE (MEK)	50	20 U	20 U	20 U	20 U	20 U	20 U	3.8 J	5.0 U	5.0 U	5.0 U	5.0 U
CARBON DISULFIDE	60	4.0 U	4.0 U	4.0 U	4.0 U	4.0 U	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 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	1.0 U	1.0 U	1.0 U	1.0 U
CHLOROBENZENE	5	0.16 J	1.0 U	1.0 U	1.0 U	0.17 J	0.31 J	0.99 J	0.58 J	0.57 J	0.51 J	0.69 J
CHLORODIBROMOMETHANE	50	0.5 U	0.5 U	0.59	0.46 J	0.25 J	0.3 J	2.4	1.0 U	0.31 J	1.0 U	1.0 U
CHLOROETHANE	5	2.0 U	2.0 U	2.0 U	2.0 U	0.41 J	2.0 U	2.0 U	1.0 U	0.47 J	0.35 J	0.38 J
CHLOROFORM	7	NA	NA	NA	NA	NA	NA	NA	0.39 J	2.7	2.0	2.4
CHLOROMETHANE	5	NA	NA	NA	NA	NA	NA	NA	1.0 U	1.0 U	1.0 U	1.0 U
CYCLOHEXANE	--	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-DIBROMO-3-CHLOROPROPANE	0.04	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-DIBROMOETHANE (ETHYLENE DIBROMIDE)	0.0006	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-DICHLOROENZENE	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
1,3-DICHLOROENZENE	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
1,4-DICHLOROENZENE	3	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	0.76 J	1.0 U	1.0 U	1.0 U	1.0 U
DICHLORODIFLUOROMETHANE	5	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	1.0 U	1.0 U	0.87 J	1.0 U
1,1-DICHLOROETHANE	5	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-DICHLOROETHANE	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	6.5	8.3
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
CIS-1,2-DICHLOROETHYLENE	5	1.0 U	0.18 J	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	6.3	6.0	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	1.0 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	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	0.5 U	1.0 U	1.0 U	1.0 U	1.0 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	0.75	1.0 U	1.0 U	1.0 U	1.0 U
1,4-DIOXANE	--	100 U	50 U	50 U	50 U	50 U	50 U	37 J	NA	NA	NA	NA
ETHYLBENZENE	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
2-HEXANONE	50	10 U	10 U	10 U	10 U	10 U	10 U	10 U	5.0 U	5.0 U	5.0 U	5.0 U
ISOPROPYLBENZENE (CUMENE)	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
METHYL ACETATE	--	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U	5.0 U	5.0 U	5.0 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	1.0 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	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	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U
METHYL ISOBUTYL KETONE (4-METHYL-2-PENTANONE)	--	10 U	10 U	10 U	10 U	10 U	10 U	5.9 J	5.0 U	5.0 U	5.0 U	5.0 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
1,1,1,2-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
TETRACHLOROETHYLENE (PCE)	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
TOLUENE	5	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	0.43 J	1.0 U	1.0 U	1.0 U
1,2,3-TRICHLOROENZENE	5	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	1.0 U	1.0 U	5.0 U	NA
1,2,4-TRICHLOROENZENE	5	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
1,1,1-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
1,1,2-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
TRICHLOROETHYLENE (TCE)	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
TRICHLOROFLUOROMETHANE	5	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE	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
VINYL CHLORIDE	2	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	6.2	3.9	7.3	7.6
M,P-XYLENES	5	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	1.0 U	1.0 U	2.0 U	2.0 U
O-XYLENE (1,2-DIMETHYLBENZENE)	5	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	0.17 J	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	3.0 U	1.0 U	1.0 U	2.0 U	2.0 U
VOCs Total		0.16	0.18	1.48	0.99	7.18	1.34	172.77	13.90	14.95	18.40	22.76

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Analyte	NYSDEC Class GA GW Standard	11/26/2018	12/18/2018	1/19/2019	2/26/2019	3/26/2019	4/30/2019	5/28/2019	11/6/2019	11/20/2019	11/26/2019	12/17/2019
Polychlorinated Biphenyls (PCBs) (µg/L)												
PCB-1016 (AROCOR 1016)	0.09	0.5	0.51	0.16 U	0.33 U	0.14 U	0.14 U	0.64	0.8 U	0.8 U	0.8 U	0.8 U
PCB-1221 (AROCOR 1221)	0.09	0.19 U	0.2 U	0.63	0.92	0.14 U	0.14 U	0.32 U	0.8 U	0.8 U	0.8 U	0.8 U
PCB-1232 (AROCOR 1232)	0.09	0.19 U	0.2 U	0.16 U	0.33 U	0.14 U	0.63	0.32 U	6.4	5.3	7.2	7.7
PCB-1242 (AROCOR 1242)	0.09	0.19 U	0.2 U	0.16 U	0.33 U	0.14 U	0.14 U	0.32 U	0.8 U	0.8 U	0.8 U	0.8 U
PCB-1248 (AROCOR 1248)	0.09	0.19 U	0.2 U	0.16 U	0.33 U	0.14 U	0.14 U	0.32 U	0.8 U	0.8 U	0.8 U	0.8 U
PCB-1254 (AROCOR 1254)	0.09	0.19 U	0.2 U	0.16 U	0.33 U	0.14 U	0.14 U	0.32 U	0.8 U	0.8 U	0.8 U	0.8 U
PCB-1260 (AROCOR 1260)	0.09	0.19 U	0.2 U	0.16 U	0.33 U	0.14 U	0.14 U	0.32 U	0.8 U	0.8 U	0.8 U	0.8 U
PCB-1262 (AROCOR 1262)	0.09	0.19 U	0.2 U	0.16 U	0.33 U	0.14 U	0.14 U	0.32 U	0.8 U	0.8 U	0.8 U	0.8 U
PCB-1268 (AROCOR 1268)	0.09	0.19 U	0.2 U	0.16 U	0.33 U	0.14 U	0.14 U	0.32 U	0.8 U	0.8 U	0.8 U	0.8 U
PCB Total	0.09	0.5	0.51	0.63	0.92	0.00	0.63	0.64	6.4	5.3	7.2	7.7
Metals (mg/L)												
ALUMINUM	--	0.38	0.05 U	0.39	0.49	0.13	0.33	0.2	0.297	0.522	0.331	2.37
ANTIMONY	0.003	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.02 U	0.02 U	0.02 U	0.02 U
ARSENIC	0.03	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.015 U	0.015 U	0.0071 J	0.0044 J
BARIUM	1	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.0463 J	0.0423 J	0.0417 J	0.0452 J
BERYLLIUM	0.003	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U	0.002 U	0.002 U	0.002 U	0.002 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
CALCIUM	--	87	95	80	71	68	87	63	86.2	78.5	83.1	83.4
CHROMIUM, TOTAL	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	0.0015 J	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	0.0026 J	0.0025 J	0.0028 J	0.0026 J
COPPER	0.2	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.014 J	0.025 U	0.025 U	0.025 U
IRON	0.3	1.5	2.2	1.1	0.59	2.0	3.6	0.99	4.38	1.92	1.38	7.9
LEAD	0.03	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.0035 J	0.01 U	0.01 U	0.0029 J
MAGNESIUM	35	20	19	19	17	16	19	28	20.7	19.4	20.9	20.3
MANGANESE	0.3	1.7	1.5	1.4	1.3	1.4	1.6	0.56	1.91	1.62	1.68	1.79
MERCURY	0.0007	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U
NICKEL	0.1	0.015	0.010	0.019	0.019	0.012	0.01 U	0.018	0.0498	0.0179 J	0.0061 J	0.0147 J
POTASSIUM	--	2.4	2.4	2.2	2.1	2.1	3.2	26	4.43 J	4.21 J	3.85 J	4.05 J
SELENIUM	0.01	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.02 U	0.02 U	0.02 U	0.02 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	0.01 U	0.01 U	0.01 U	0.01 U
SODIUM	20	56	50	48	51	53	53	480	54.7	59.4	56.8	58.3
THALLIUM	0.0005	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.02 U	0.02 U	0.02 U	0.02 U
VANADIUM	--	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.05 U	0.05 U	0.05 U	0.05 U
ZINC	2	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.088	0.0431	0.0276	0.014 J	0.0336
Conventional Chemistry (mg/L)												
TOTAL DISSOLVED SOLIDS	--	400	330	410	330	380	440	1600	NA	518	502	482
TOTAL SUSPENDED SOLIDS	--	4.0	5.7	4.8	4.4	13	8.2	8.3	NA	5.9	6.3 U	26
Perfluorinated Alkyl Substances (PFAS) by 537 Modified (ng/L)												
PERFLUOROBUTANESULFONIC ACID (PFBS)	--	NA	NA	NA	NA	NA	NA	NA	1.32 J	1.48 J	NA	NA
PERFLUOROHEXANESULFONIC ACID (PFHxS)	--	NA	NA	NA	NA	NA	NA	NA	2.69 B	2.69 B	NA	NA
PERFLUOROOCTANESULFONIC ACID (PFOS)	--	NA	NA	NA	NA	NA	NA	NA	8.4	8.02	NA	NA
PERFLUOROHEXANOIC ACID (PFHxA)	--	NA	NA	NA	NA	NA	NA	NA	33.5	28.7	NA	NA
PERFLUOROHEPTANOIC ACID (PFHpA)	--	NA	NA	NA	NA	NA	NA	NA	11.3	9.68	NA	NA
PERFLUOROOCTANOIC ACID (PFOA)	--	NA	NA	NA	NA	NA	NA	NA	40.4	35.3	NA	NA
PERFLUORONONANOIC ACID (PFNA)	--	NA	NA	NA	NA	NA	NA	NA	0.68 JB	0.25 J	NA	NA
PERFLUORODECANOIC ACID (PFDA)	--	NA	NA	NA	NA	NA	NA	NA	1.87 U	1.81 U	NA	NA
PERFLUOROUNDECANOIC ACID (PFUnDA)	--	NA	NA	NA	NA	NA	NA	NA	1.87 U	1.81 U	NA	NA
PERFLUORODODECANANOIC ACID (PFDoDA)	--	NA	NA	NA	NA	NA	NA	NA	1.87 U	1.81 U	NA	NA
PERFLUOROTRIDECANOIC ACID (PFTrDA)	--	NA	NA	NA	NA	NA	NA	NA	1.87 U	1.81 U	NA	NA
PERFLUOROTETRADECANOIC ACID (PFTeDA)	--	NA	NA	NA	NA	NA	NA	NA	1.87 U	1.81 U	NA	NA
N-ETHYLPERFLUOROOCTANESULFONAMIDOACETIC ACID (NETFOSAA)	--	NA	NA	NA	NA	NA	NA	NA	3.2 J	18.1 U	NA	NA
N-METHYLPERFLUOROOCTANESULFONAMIDOACETIC ACID (NMeFOSAA)	--	NA	NA	NA	NA	NA	NA	NA	18.7 U	18.1 U	NA	NA
TOTAL PFOA + PFOS	--	NA	NA	NA	NA	NA	NA	NA	48.8	43.32	NA	NA
TOTAL PFAS	--	NA	NA	NA	NA	NA	NA	NA	101.49	86.12	NA	NA

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Arcadis CE, Inc.

855 Route 146

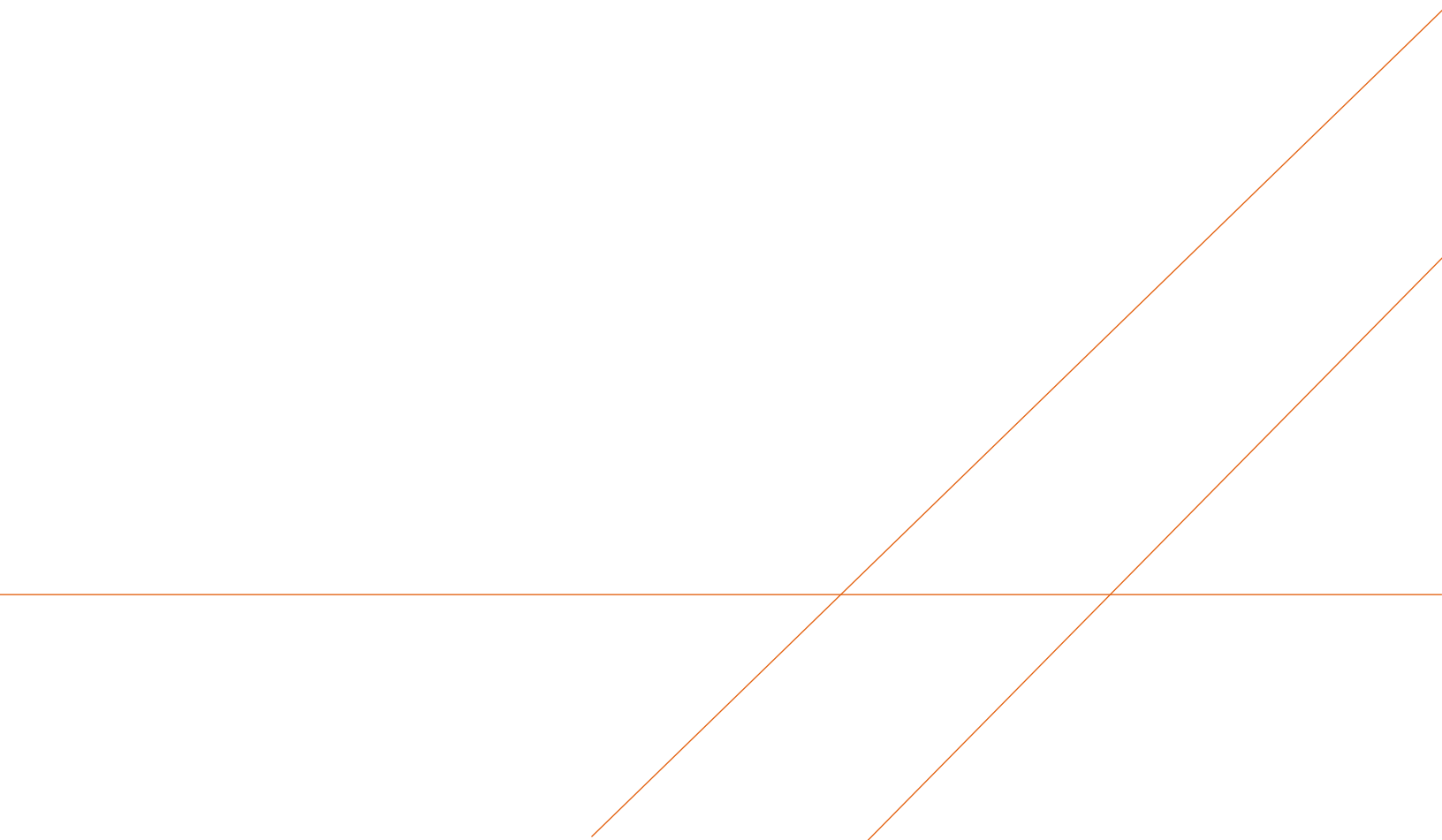
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A decorative graphic consisting of three thin orange lines. One line is horizontal, extending from the left edge of the page. Two other lines are diagonal, starting from the bottom left and extending towards the top right, intersecting the horizontal line.