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Site No.: 152061

NYSDEC Standby Contract
No. D007621

Final Site Characterization Report

Quiogue Landfill Site

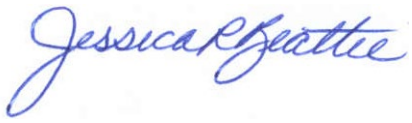
Quiogue, Town of Southampton,

Suffolk County, New York

August 31, 2020

CDM Smith

I, Jessica Beattie, certify that I am currently a Qualified Environmental Professional as defined in 6 NYCRR Part 375 and that this Report was prepared in accordance with all applicable statutes and regulations and in substantial conformance with the DER Technical Guidance for Site Investigation and Remediation (DER-10) and that all activities were performed in full accordance with the DER-approved work plan and any DER-approved modifications.



8/31/2020

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Section 1
Introduction

This Site Characterization Report (SCR) was prepared for the Quiogue Sanitary Landfill, New York State Department of Environmental Conservation (NYSDEC) Site No. 152061 (herein referred to as the "Site") located on South Country Road in the Hamlet of Quiogue, Town of Southampton, Suffolk County, New York (Figure 1-1). This report was prepared by Camp Dresser McKee & Smith (CDM Smith) for the NYSDEC Division of Environmental Remediation (DER) under the Engineering Services for Investigation and Design Standby Contract No. D007621. Sampling was performed in accordance with the scope of work prepared by CDM Smith and approved by NYSDEC on December 20, 2019. This report provides a summary of the field activities conducted between February 10and March 19, 2020. All activities were conducted in accordance with the guidelines set forth in the *Final Division of Environmental Remediation (DER)-10 Technical Guidance for Site Investigation and Remediation* (NYSDEC 2010) and *Guidelines for Sampling and Analysis of PFAS Under NYSDEC's Part 375 Remedial Programs* (NYSDEC 2020).

1.1 Scope and Objectives

The primary objective of the site characterization activities was to determine the presence of any contamination on the Site above the applicable standards as a result of historic and current Site operations. The scope of the investigation included the following:

- Brush hogging/clearing of site vegetation to allow drill rig to access sampling locations.
- Utility clearance and performance of a geophysical survey to clear boring locations and identify possible subrface materials, including underground storage tanks, that could interfere with drilling activities.
- Installing three CMT Multilevel System permanent groundwater monitoring wells (MW-03, MW-04, and MW-05) to 80 feet below ground surface (bgs). Each well was constructed with three sampling ports to allow for vertically discrete groundwater characterization.
- Advancing five soil borings (SB-01 through SB-05) to depths between 35 and 50 feet bgs.
- Collecting soil samples at four depths at each boring and well location during drilling to vertically characterize the site soil. The sample intervals were determined based on field observations during drilling. Soil samples were analyzed for all compounds on the Target Compounds List (TCL) and Target Analyte List (TAL), 1,4-dioxane, and the full list of 21 per- and polyfluoroalkyl substances (PFAS).
- Collecting a synoptic round of water level measurements at site monitoring wells.
- Collecting groundwater samples from new and existing monitoring wells. Groundwater samples were analyzed for the same TCL and TAL compounds as the soil samples, 1,4-dioxane and the full list of 21 PFAS.

- Surveying the newly installed CMT wells and borings.
- Disposal of investigation derived waste (IDW)

1.2 Site Background

1.2.1 Current Site and Surrounding Property Use

The Site is owned by the Town of Southampton, is approximately 11.7 acres, and is located on South Country Road, in the Hamlet of Quiogue, Town of Southampton, Suffolk County, New York. The Site is unsecured (without continuous fencing) and covered in sandy soils and vegetation including trees. It is bounded by residential properties to the east, J & V Auto Salvage Inc. to the south, a vacant lot to the west, and railroad tracks to the north. The Francis S. Gabreski Airport and 106th Rescue Wing of the Air National Guard (herein referred to as the "Gabreski Airport") is adjacent to the Site across the railroad tracks to the north. The Site is currently listed as recreation and open space per the Suffolk County Planning Department, and is frequented by bikers.

The closest production well is located approximately 2 miles northeast of the Site. A site vicinity map is provided as Figure 1-1.

1.2.2 Historical Site and Surrounding Property Use

The Site was operated by the Town of Southampton as a municipal solid waste and industrial landfill from 1968 to 1978. The landfill, which has no liner, accepted household and solid wastes from industrial and commercial sources and is believed to have accepted wastes from the nearby airport. As per 6 NYCRR Part 371.1(e)(2)(i), these wastes are exempt from being classified as hazardous wastes, and so the Site is considered a former solid waste landfill. The Site was closed in 1978 without an engineered cap. Reportedly, four feet of clean soil cover was placed on the landfill when it closed. A lagoon present at the Site was used for septage waste. Samples of the lagoon material showed it contained semivolatile organic compounds (SVOCs) and elevated levels of heavy metals.

Historical topographic maps first identify the railroad tracks along the north side of the Site in 1903, and the adjacent airport in 1947, in a location north of the current Gabreski Airport. Aside from the airport, the surrounding area was mostly undeveloped land at this time. The aerial photograph from 1947 indicates that there were two roads intersecting at the Site. The Site and surrounding land were mainly undeveloped and filled with trees. The Gabreski Airport appears to have expanded close to its current borders around 1954. In 1956 the eastern portion of the Site was marked as a sand pit and a road was constructed around the perimeter of the Site. The 1962 aerial photograph shows that the roads in the 1947 aerial photograph are still visible. However, the road is no longer depicted in 2010 photographs. The surrounding areas were undeveloped until at least the 1980s.

One Brownfields Cleanup Site (Suffolk Airport Canine Kennel, C152079) is located adjacent and upgradient to the Site on the Gabreski Airport. In the 1950s and 1960s, the airport was used by the United States Air Force as an Air Defense Command Base. During deactivation activities in 1970, the Suffolk Airport Canine Kennel was used to bury inert wastes such as office furniture as well as PCB-containing electrical equipment such as transformers and capacitors. The primary

contaminants of concern were PCBs in soil. Remediation at the Site is since complete and no known impacts to groundwater were reported.

Numerous spills were reported upgradient of the Site at the Gabreski Airport. Spills were predominantly unknown #2 fuel oil, jet fuel, gasoline, hydraulic oil, waste oil and/or diesel fuel impacting both soil and groundwater. One spill in 2008 reported 3 gallons of foam impacting soils. All spills are listed as closed in NYSDEC Spills Database.

1.2.3 Summary of Previous Investigations

In 1993 an investigation was performed on the Site and results were compiled in a Registry Site Classification Decision package recommending NYSDEC delist the Site from the State Registry of Inactive Hazardous Waste Sites. Samples collected from the former lagoon area contained elevated levels of SVOCs and heavy metals including 1,2-dichlorobenzene, 4-methylphenol, and 4-chloroaniline. Groundwater downgradient of the former lagoon also detected elevated concentrations of chlorobenzene and p-dichlorobenzene typical of unlined sanitary landfills that accepted septage wastes. Contaminated groundwater samples collected from the western portion of the Site were reported to be a result of off-site contamination from jet fuel spills at the adjacent tank farm for the Gabreski Airport northwest of the Site.

In response to the decision package results and recommendations, in 1993 and 1994 the Suffolk County Department of Health Services sampled nine private wells near the Site, to determine any potential impacts from past Site activities. Two wells were reported to have contained levels of 1,2-dichloropropane above the New York State Department of Health (NYSDOH) 1993 Drinking Water Standards. It is not known if the contaminants found in the private well water were from the landfill and it was concluded that environmental problems at or around the Site were not related to the disposal of hazardous waste. In March 1994, the Site was removed from the Registry of Inactive Hazardous Waste Disposal Sites and referred to the Division of Solid Waste for further action.

In 2017, existing site well MW-DEC-16 was sampled. Concentrations in excess of the NYSDEC Class GA groundwater standards for ammonia, aluminum, iron, sodium, ethylbenzene, and xylene were identified during this sampling event. In addition, the concentration of perfluorooctanesulfonic acid (PFOS) was identified in excess of the Environmental Protection Agency (EPA) Drinking Water Advisory Level.

Two monitoring wells (MW-01 and MW-02) were installed at the Site in February 2018. The wells were installed to total depths of 41 and 42 feet below ground surface (bgs). MW-01 was screened from 31 to 41 feet bgs, and MW-2 was screened from 32 to 42 feet bgs. MW-01, MW-02, and MW-DEC-16 were sampled in February 2018. The groundwater samples were analyzed for PFAS, metals, anions, alkalinity, ammonia, chemical oxidant demand (COD), hardness, total dissolved solids (TDS), total organic carbon (TOC), and various organics including volatile organic compounds (VOCs) and SVOCs. Samples exhibited concentrations in excess of Class GA groundwater standards for iron, ammonia, chlorobenzene, ethylbenzene, and xylene. In addition, PFAS parameters were detected in excess of EPA Drinking Water Advisory Levels.

According to a NYSDEC Landfill Site Summary, public and private drinking water receptors in the vicinity of the landfill have been and are currently sampled through environmental investigations associated with the landfill and with the Gabreski Airport.

Section 2
Physical Setting

The physical characteristics of the Site and surrounding area are important for understanding the current nature and extent of contamination and future transport of contaminants. These characteristics can be described in terms of the demography and land use, meteorology, surface features and drainage, geology and hydrogeology. This section describes the physical characteristics of the Site and surrounding environment.

2.1 Demography

The Site is located in the Hamlet of Quiogue, in the Town of Southampton, in Suffolk County, New York. The Hamlet of Quiogue has a land area of 1.68 square miles and, as of the 2010 Census, a local population of 816 people. The hamlet is predominantly residential. The Town of Southampton, as of the 2010 Census had a population of 56,790.

2.2 Meteorology

The field investigation was performed between February and March, during typical wet months. Average monthly precipitation in Southampton is approximately 4.1 inches with the most rain fall during the 31 days centered around March 31. Over the course of the year, the temperature typically varies from 26°F to 79°F and is rarely below 13°F or above 86°F. The cold season in Southampton extends from December 8 to March 18, with an average daily high temperature below 47°F.

2.3 Surface Topography and Features

The Site lies at an approximate elevation of 40 feet above mean sea level (amsl). Site ground surface elevations range from about 33 feet amsl at the southeast side of the Site to 42 feet amsl along the west and north side of the Site. The site contains areas of heavy vegetation and areas of loose sandy soil. Access to the site is through an unpaved right-of-way from South Country Road that lies adjacent to the west of J & V Auto Salvage Inc.

2.4 Geology

Long Island is comprised of Cretaceous and Pleistocene unconsolidated deposits underlain by Early Paleozoic to Precambrian bedrock. The Precambrian to Early Paleozoic bedrock is igneous or metamorphic consolidated bedrock. Unconformably overlying the bedrock is a thick succession of Late Cretaceous deposits: the Raritan and overlying Magothy Formations, both of fluvio-deltaic depositional origin. The Upper Cretaceous deposits are unconformably overlain by a veneer of Pliocene and Pleistocene deposits, chiefly of glacial origin.

Based on lithologic logs and soil observation from the subsurface soil investigation, soil types encountered were fairly consistent across the Site. The top two inches of material generally consisted of loamy sandy topsoil. Below the topsoil, the soil was sandy with various types of debris such as plastics, metals, brick, wood, ash, and trash dispersed. Historical reports suggest

that a 4 foot loam cap was placed over the Site, but a significant difference in material was not noted Generally, the bulk of the debris was observed above the water table, but in some borings debris was observed to a depth of 40 feet bgs. No confining layers were identified.

2.5 Hydrogeology

Three major aquifers are present on Long Island: the Upper Glacial aquifer, the Magothy aquifer and the Lloyd aquifer. The upper glacial aquifer is the surficial unit on Long Island and is therefore entirely unconfined. Along the Harbor Hill and Ronkonkoma terminal moraines and parts of the north shore, the unit is composed of till consisting of poorly sorted clay, sand, gravel, and boulders. The till is generally poorly permeable and may contain perched water. The outwash deposits that are found are mainly between, and south of, the moraines. The outwash deposits are moderately to highly permeable, consisting of gray, brown, and yellow fine to very coarse sand and gravel. The upper glacial aquifer ranges up to 600 feet thick, however the saturated thickness is often much lower. The estimated average horizontal hydraulic conductivity generally exceeds 225 feet per day.

A synoptic round of groundwater levels was collected from the site wells on March 16, 2020. Groundwater elevations ranged from 7.88 to 9.08 feet amsl. Based on the data, it suggests groundwater is flowing south, southeast towards Quantuck Bay. Table 2-1 provides the groundwater elevation for each monitoring well, and Figure 2-1 depicts groundwater contours based on the synoptic round.

There are no known sensitive groundwater receptors south of the Site; however, historical reports indicate there were nearby residential wells. The status and location of such wells are currently unknown.

Section 3
Site Characterization Field Activities

Field sampling activities were conducted by CDM Smith between February 10 and March 19, 2020. A total of three CMT monitoring wells and five soil borings were completed at the Site during the investigation. Soil boring and monitoring well locations were selected to fill data gaps based on historical information. The primary goal of the investigation was to characterize the existing soil and groundwater conditions and confirm or deny the presence of contamination. All sampling locations are shown on Figure 3-1.

3.1 Preliminary Activities

Prior to commencement of the boring and well installation activities, brush hogging/clearing of vegetation was performed to allow the drill rig to access sampling locations. CDM Smith subcontracted Delta Geophysics Inc. (Delta) to conduct a geophysical survey at the Site prior to drilling activities. The objectives of the survey were to clear proposed drilling locations of identifiable utilities, and to identify any underground utilities or subsurface anomalies such as underground storage tanks on the Site. CDM Smith accompanied Delta during the survey conducted on February 10, 2020.

Delta Geophysics Inc utilized a combination of ground penetrating radar (GPR), radio frequency utility locating, and handheld metal detection methods to complete the survey. All eight locations identified in this investigation for drilling were cleared of identifiable utilities or subsurface anomalies. No subsurface utilities were identified during the GPR survey. Some subsurface anomalies, assumed to be buried debris, were detected, and boring locations were adjusted accordingly to avoid those anomalies. The geophysical survey results are provided in Appendix A.

3.2 Subsurface Soil Sampling

Between February 11 and February 24, 2020, Aquifer Drilling & Testing Inc. Company (ADT) advanced five soil borings (SB-01 through SB-05) and installed three monitoring wells (MW-03, MW-04, and MW-05) utilizing a hollow stem auger rig (model LM6U69). Continuous soil sampling was performed during the advancement at all eight locations. Continuous soil samples were collected using macro core samplers with acetate liners and were screened by CDM Smith using a photoionization detector (PID). Lithologic logging was performed continuously at all eight locations. The five locations completed as soil borings were advanced to depths between 35 and 50 feet bgs. The three locations completed as monitoring wells were advanced 80 feet bgs. Soil boring logs are provided in Appendix B and the daily summary reports are provided in Appendix C.

A total of 34 soil samples, including 2 duplicate samples, were collected from 8 soil boring locations as indicated on Table 3-1. Samples were collected at four depth intervals at each location during drilling based on field observations and on the depth of water as follows:

- a surface soil sample (designated as SS),

- a sample in the vadose zone,
- a sample directly above the water table, and
- a sample below the water table.

In general, the water table was encountered from 25 to 35 feet bgs. The water table was not encountered at SB-01, as burned/charred wood/timber was encountered at 35 feet bgs and the boring was terminated. Elevated PID readings were observed at MW-03 at 36 feet bgs (403.5 parts per million [ppm]), SB-03 from 20 to 21 feet bgs (99.8 ppm), and SB-05 from 30 to 32 feet bgs (188 ppm). All other borings had PID readings below 30 ppm.

All subsurface soils samples were analyzed for TCL VOCs via EPA Method 8260C, TCL SVOCs via EPA Method 8270D, TCL pesticides via EPA Method 8081B, herbicides via EPA Method 8151A, TCL polychlorinated biphenyls (PCBs) via EPA Method 8082A, TAL metals via EPA Method 6010C, mercury via EPA Method 7470A, cyanide via EPA Method 9012B, 1,4-dioxane via EPA Method 8270D, and PFAS via modified EPA Method 537. A sample summary is provided in Table 3-1 and results are discussed in Section 4.1.

3.3 Monitoring Well Installation

Between February 17 and February 24, 2020, three CMT Multilevel System groundwater monitoring wells (MW-03, MW-04, MW-05) were installed using hollow stem auger drilling methods. The locations of the monitoring wells were selected to fill data gaps based on historical site use and previous investigations.

Each monitoring well was constructed using 1.7-inch outer diameter medium density polyethylene tubing containing two outer channels and one center channel. Each monitoring well contained three, one-inch sampling ports at three specific depths: 5 feet below the water table, 60 feet bgs, and 80 feet bgs. The shallow interval at MW-04 and MW-05 was set at 35 feet bgs and the shallow interval at MW-03 was set at 40 feet bgs, based on water levels encountered during the subsurface soil investigation. The wells were finished with a yellow steel stickup, three-foot-tall for MW-03 and MW-04 and two-foot-tall for MW-05. All wells are secured with locks.

All monitoring wells (existing and new) were subsequently surveyed by a New York licensed surveyor on March 16, 2020. Survey information and monitoring well construction information is provided in Table 2-1. Monitoring well construction diagrams are provided in Appendix D.

3.4 Groundwater Sampling

A synoptic round of groundwater levels was collected prior to sampling. A total of 15 groundwater samples, including 1 duplicate sample, were collected between March 16 and March 18, 2020. One sample was collected from each of five existing monitoring wells (MW-01, MW-02, MW-A35, MW-A46, MW-DEC-16) and from each of the three sample ports at the three newly installed CMT wells (MW-03, MW-04, MW-05).

The CMT Multilevel System wells did not require development prior to sampling. Groundwater sampling was conducted via low-flow methodology using acceptable equipment and materials as presented in the *Guidelines for Sampling and Analysis of PFAS* implemented under 6 New York

Code of Rules and Regulations (NYCRR) Part 375 (NYSDEC 2020). The previously installed, two-inch monitoring wells were sampled using high density polyethylene tubing, a ½ inch diameter stainless-steel foot valve, and an inertial pump (Waterra pump). Groundwater samples were collected once water quality parameters stabilized. Low flow logs are provided in Appendix E. The newly installed CMT wells were sampled via hand purging using high density polyethylene tubing and a mini stainless-steel inertial pump. Samples were collected after a minimum three well volumes were purged from each well interval. The daily summary reports are provided in Appendix C.

Groundwater samples were analyzed for TCL VOCs by EPA Method 8260C, TCL SVOCs via EPA Method 8270D, TCL pesticides via EPA Method 8081B, herbicides via EPA Method 8151A, PCBs via EPA Method 8082A, TAL metals via EPA Method 6010B, mercury via EPA Method 7471A, cyanide by EPA Method 9010B, 1,4-dioxane via EPA Method 8270D, and PFAS via modified EPA Method 537.

3.5 Investigative Derived Waste

Investigation derived waste (IDW) generated from field activities consisted of both soil cuttings and groundwater. All soil cuttings generated from subsurface soil borings and groundwater purged from monitoring wells were containerized in 55-gallon drums for off-site disposal. The drums are securely stored at the southwest entrance of the Site for off-site disposal on a wooden pallet. A total of two drums are stored onsite, one contains decontamination water and the other contains purged groundwater. Drums will be removed from the Site in June 2020. Coordination, transportation and disposal of the waste will be performed by Seacoast Environmental Services, Inc.

3.6 Decontamination

All non-dedicated equipment and tools used to collect samples for chemical analysis were decontaminated prior to and between each sample interval using an Alconox and water mix for washing and PFAS-free water rinse prior to reuse. Decontamination fluids were collected and containerized in drums. All non-dedicated sampling equipment for chemical analyses were decontaminated per the CDM Smith Generic Quality Assurance Project Plan (QAPP) (CDM Smith, 2018) and all associated standard operating procedures.

3.7 Quality Assurance/Quality Control

All samples were analyzed by NYSDOH approved and National Environmental Laboratory Accreditation Program (NELAP) certified Eurofins TestAmerica Laboratories. Table 3-1 provides a sample summary and the associated analytical parameters analyzed at each sampling location. NYSDEC Analytical Services Protocols Category B data deliverables are provided in Appendix F.

Quality assurance/quality control (QA/QC) samples include field duplicate samples, matrix spike/matrix spike duplicate (MS/MSD) samples, field blank (FB) samples, and trip blank (TB) samples. Field duplicate samples evaluate laboratory repeatability and MS/MSD samples evaluate matrix effects and the reliability of the analytical processes and equipment. Per NYSDEC *Quality Assurance Project Plan Guidelines* in October 2019, specific guidelines for PFAS require FB samples to be collected a minimum frequency of one per day per matrix. FB samples are collected

to evaluate the efficacy of equipment decontamination and general cleanliness of the field procedures while TB samples are provided to evaluate whether samples were contaminated by ambient conditions during transit from the project Site to the laboratory. Field duplicate, MS/MSD, FB, and TB samples were collected in accordance with the QAPP.

A total of three blind duplicates were collected including two soil blind duplicates and one groundwater blind duplicate. Additionally, two MS/MSD, nine FB, and two TB samples were submitted for laboratory analysis. Table 3-1 presents each duplicate and its parent sample collected. QA/QC sample results are provided in Table 3-2.

3.8 Data Validation

Under the provisions of NYSDEC Environmental Restoration Program (ERP) guidelines, all environmental site data is required to undergo a third-party validation by a qualified firm. ERP requires that data is reliable and meets certain basic requirements as identified in DER-10/Technical Guidance for Site Investigation and Remediation, May 2010. Under Appendix 2B of DER-10, all data is required to meet the standards set forth in the Data Usability Summary Report (DUSR) meeting NYSDEC Analytical Services Protocol (ASP) Category B requirements.

All analytical data were validated by an independent data validator, Data Validation Services of North Creek, New York. Validation was performed in accordance with NYSDEC DUSR guidance references in NYSDEC DER-10 (NYSDEC 2010).

Some QC parameters were outside criteria; associated sample results were qualified accordingly. Data qualified as estimated J, J−, J+, U, or UJ are usable for project decisions. Rejected data cannot be used in the decision-making process for this project. Caprolactam and atrazine were rejected in 10 aqueous samples and 2,4-dinitrophenol and 4,6-dinitro-3-methylphenol were rejected in 1 soil sample due to unacceptable recoveries of matrix spikes. Data completeness, accuracy, precision, representativeness, reproducibility, sensitivity, and comparability are acceptable with the exception of the precision of the field duplicate of the soil boring matrix.

All data reported herein are usable with the appropriate data validation qualifiers applied. Data generated during field investigation are considered definitive level data and are usable for intended purposes. The DUSRs are provided in Appendix G.

Section 4
Site Characterization Results

Soil analytical results were screened against the following criteria:

- NYSDEC Unrestricted Use Soil Cleanup Objectives (SCOs) – NYCRR Part 375-6.8(a),
- NYSDEC Restricted Industrial Use SCOs – NYCRR Part 375-6.8(b),
- NYSDEC Restricted Use Protection of Groundwater SCOs – NYCRR Part 375-6.8(b), and
- NYSDEC Supplemental Soil Cleanup Objectives CP-51.

Groundwater results were compared to:

- Technical Operations and Guidance Series (TOGS) 1.1.1 – Ambient Water Quality Standards (AWQS).

PFAS results were screened using criteria summarized in *Guidelines for Sampling and Analysis of PFAS Under NYSDEC's Part 375 Remedial Programs* (NYSDEC 2020). PFAS sample results in soil samples were compared to the criteria of 1 µg/kg, which indicates that further analysis of the soil is necessary via synthetic precipitation leaching procedure (SPLP). In groundwater samples, PFOS and perfluorooctanoic acid (PFOA) concentrations were compared to the screening level of 10 nanograms per liter (ng/L). All other individual PFAS compounds were compared to the screening level of 100 ng/L. Total PFAS (including PFOS and PFOA) were compared to the screening level of 500 ng/L.

A summary of all samples collected is presented in Table 3-1.

4.1 Summary of Soil Sampling Results

Soil samples were analyzed by Eurofins TestAmerica Laboratories for TCL VOCs, TCL SVOCs, TCL pesticides, TCL herbicides, TCL PCBs, TAL metals, mercury, cyanide, 1,4-dioxane, and PFAS. Two duplicate soils samples were collected. Soil analytical results are summarized in Table 3-3a and 3-3b. Several analytes exceeded the various soil screening criteria and are shown in Figure 3-2a and 3-2b and outlined below:

NYSDEC Unrestricted Use SCOs:

- Several compounds were detected in soil samples at concentrations exceeding the Unrestricted Use SCOs including:
  - *VOCs*: acetone, ethylbenzene, and xylenes.
  - *Polyaromatic hydrocarbons (PAHs)*: benzo(a)anthracene, benzo(a)pyrene, benzo(b)fluoranthene, chrysene, and ideno(1,2,3-C,D)pyrene.

- *Pesticides*: dieldrin, P,P'-DDD, P,P'-DDE, and P,P'-DDT.
- *PCBs*: Aroclor 1242, Aroclor 1254, and total PCBs.
- *Inorganics*: lead, mercury, nickel, and zinc.

- Soil samples from SB-01, SB-03, SB-04, SB-05, MW-03, and MW-05 had concentrations of contaminants exceeding the Unrestricted Use SCOs. Depths of exceedances ranged from the surface (0 to 0.17 feet bgs) at SB-01, SB-03, and SB-04 to 35 to 37 feet bgs at MW-03.

NYSDEC Restricted Use SCOs:

- Several VOCs, SVOCs, and inorganics were detected in soil samples at concentrations exceeding the Restricted Use SCOs for Industrial Use or Protection of Groundwater including:
  - *VOCs*: acetone, ethylbenzene, and xylenes.
  - *PAHs*: benzo(a)anthracene, benzo(a)pyrene, and chrysene.
  - *Inorganics*: nickel.
- Soil samples from SB-01, SB-05, and MW-03 had concentrations of contaminants exceeding the Restricted Use - Protection of Groundwater SCO. Depths of exceedances ranged from 5 to 7 feet bgs at SB-01 to 35 to 37 feet bgs at MW-03.
- One soil sample collected from 5 to 7 feet bgs at SB-01 had concentrations of benzo(a)pyrene (1,200 J µg/kg) greater than the Restricted Use - Industrial Use SCO (1,100 µg/kg).

NYSDEC does not have SCOs listed for PFAS; however, the Guidelines for Sampling and Analysis of PFAS suggest that any sample with PFOA or PFOS detected at or above 1 µg/kg should be tested by SPLP (NYSDEC 2020). As such, all PFAS compounds were screened against 1 µg/kg for comparative purposes. PFAS compounds were detected in 24 soil samples collected, and 17 of those samples had concentrations of total PFAS greater than 1 µg/kg. A summary of total PFAS concentrations is provided below based on depth interval collected:

- Surface: Concentrations ranged from 0.29 µg/kg (SB-05) to 7.31 µg/kg (SB-04).
- Vadose Zone: Concentrations ranged from 0.22 µg/kg (MW-04) to 49.6 µg/kg (SB-01).
- Water Table: Concentrations ranged from 0.22 µg/kg (SB-03) to 15.46 µg/kg (SB-01).
- Saturated Zone: Concentrations ranged from 0.47 µg/kg (MW-05) to 1.28 µg/kg (SB-03).

4.2 Summary of Groundwater Sampling Results

Groundwater samples were analyzed by Eurofins TestAmerica Laboratories for TCL VOCs, TCL SVOCs, TCL pesticides, TCL herbicides, TCL PCBs, TAL metals, mercury, cyanide, 1,4-dioxane, and PFAS. One duplicate groundwater sample was collected. Groundwater analytical results are

summarized in Table 3-4a and 3-4b. Several analytes exceeded the groundwater screening criteria and are shown in Figures 3-3a and 3-3b and outlined below:

- Several volatile organic compounds were detected in groundwater samples at concentrations exceeding the NYSDEC AWQS including:
  - *1,4-Dichlorobenzene*: Concentrations were detected at MW-01 (6.3 µg/L) and MW-05 at a depth of 35 feet bgs (3.6 µg/L) exceeding the AWQS of 3 µg/L.
  - *Benzene*: Concentrations were detected at MW-01 (3.1 ug/L), MW-05 at a depth of 35 feet bgs (2.8 µg/L), and MW-A35 (1.4 µg/L) exceeding the AWQS of 1 µg/L.
  - *Chlorobenzene*: Concentrations were detected at MW-01 (37 µg/L), MW-05 at a depth of 35 feet bgs (21 µg/L), and MW-A35 (14 µg/L) exceeding the AWQS of 5 µg/L.
  - *Ethylbenzene*: Concentrations were detected at MW-A46 (36 µg/L) and MW-DEC-16 (19 µg/L) exceeding the AWQS of 5 µg/L.
  - *Isopropylbenzene*: Concentrations were detected at MW-01 (33 µg/L), MW-03 at a depth of 40 feet bgs (19 µg/L), MW-A46 (31 µg/L), and MW-DEC-16 (65 µg/L) exceeding the AWQS of 5 µg/L.
  - *Naphthalene*: Concentrations at MW-01 (32 µg/L) exceeded the AWQS of 10 µg/L.
  - *Xylenes*: Concentrations were detected at MW-03 at a depth of 40 feet bgs (13 µg/L), MW-A46 (22 µg/L), and MW-DEC-16 (28 µg/L) exceeding the AWQS of 5 µg/L.
- Several inorganics were detected in groundwater samples at concentrations exceeding the NYSDEC AWQS including:
  - *Antimony*: Concentrations at MW-05 at a depth of 80 feet bgs (7 µg/L) exceeded the AWQS of 3 µg/L.
  - *Chromium, Total*: Concentrations at MW-05 at a depth of 80 feet bgs (101 µg/L).exceeded the AWQS of 50 µg/L.
  - *Copper*: Concentrations at MW-A35 (607 µg/L) exceeded the AWQS of 200 µg/L.
  - *Iron*: Concentrations were detected at 12 monitoring wells exceeding the AWQS of 300 µg/L ranging from 341 µg/L (MW-02) to 55,700 µg/L (MW-01).
  - *Lead*: Concentrations at MW-A35 (34.8 µg/L) exceeded the AWQS of 25 µg/L.
  - *Manganese*: Concentrations were detected at MW-01 (389 µg/L), MW-04 at a depth of 60 feet bgs (314 µg/L), MW-05 at a depth of 35 feet bgs (476 µg/L), and MW-A35 (345 µg/L) exceeding the AWQS of 300 µg/L.
  - *Sodium*: Concentrations were detected at MW-A46 (36,500 µg/L) and MW-DEC-16 (24,700 µg/L) exceeding the AWQS of 20,000 µg/L.

- Several PFAS were detected in groundwater samples at concentrations exceeding criteria summarized in *Guidelines for Sampling and analysis of PFAS Under NYSDEC's Part 375 Remedial Programs* (NYSDEC 2020):
  - *Perfluorohexanesulfonic acid*: Concentrations were detected above 100 ng/L at MW-DEC-16 (137 ng/L).
  - *PFOS*: Concentrations were detected at seven monitoring wells exceeding the Drinking Water Standard of 10 ng/L ranging from 55.3 ng/L (MY-DEC-16) to 454 ng/L (MW-02).
  - *PFOA*: Concentrations were detected at five monitoring wells exceeding the Drinking Water Standard of 10 ng/L ranging from 22.6 ng/L (MW-A46) to 97.8 ng/L (MW-05 at a depth of 35 feet bgs).
  - *Total PFAS*: Concentrations were detected above 500 ng/L at MW-02 (507 ng/L).

Section 5
Findings and Conclusions

5.1 Evaluation

In general, various contaminants were detected in soil and groundwater across the Site at concentrations exceeding respective standards, as would be expected for an unlined solid waste landfill with a former septage lagoon. A total of six out of eight soil borings contained samples with concentrations of contaminants exceeding the Unrestricted Use SCOs. A wide variety of contaminants exceeded Unrestricted Use SCOs including VOCs, SVOCs, pesticides, PCBs, and inorganics. Four soil samples had concentrations exceeding NYSDEC Restricted Use – Protection of Groundwater SCOs, and one sample had concentrations exceeding NYSDEC Restricted Use – Industrial SCOs.

Samples with concentrations exceeding the NYSDEC Restricted Use SCOs (Protection of Groundwater or Industrial) were located across the Site (SB-01, SB-05, MW-03) and at varying depths (5 to 37 feet bgs). PFAS compounds in soil, specifically PFOS, PFOA, and glycine (n-ethyl-n-[(heptadecafluoroocytyl)sulphonyl]glycine) were also prevalent across the Site. The contamination in soil is most likely related to the historical use of the property as a solid waste landfill.

In groundwater, numerous volatile organics and inorganics exceeded AWQS. PFAS compounds, specifically PFOS, PFOA, and perfluorohexanesulfonic acid were also detected in groundwater at concentrations greater than NYSDEC PFAS criteria listed in the *Guidelines for Sampling and Analysis of PFAS* (NYSDEC 2020). These concentrations are also expected to be related to the historical use of the property as a solid waste landfill and/or nearby fuel spills.

5.1.1 Area of Concern 1: Soil

Concentrations of contaminants in soil were compared to several different NYSDEC criteria including: Unrestricted Use SCOs, Restricted Use – Protection of Groundwater SCOs, Restricted Use – Industrial SCOs, and Supplemental SCOs for Protection of Groundwater. The extent of soil contamination is discussed below grouped by contaminant type.

- *VOCs:* Concentrations of VOCs includes acetone, xylenes, and ethylbenzene were detected above relevant criteria at MW-03 in the northern portion of the Site and at SB-05 in the southern portion of the Site. The concentrations of xylenes and ethylbenzene above the Restricted Use – Protection of Groundwater SCOs at SB-05 from 30 to 32 feet bgs suggest a potential hot-spot in this area.

- *SVOCs:* Concentrations of PAHs exceeding criteria were limited to the 5 to 7 feet bgs interval of the SB-01 boring where dense black sand with woody debris was observed. The elevated PAHs may be a result of the charred woody debris as PAHs are a common byproduct of combustion processes. The contamination may also be related to the nearby former septage lagoon which historically had elevated concentrations of PAHs.

- *Pesticides:* Pesticides appear to be limited to samples collected from the center of the Site (SB-01, SS-03, and SS-04). Concentrations of pesticides above Unrestricted Use SCOs exhibited no pattern with respect to depth and were observed in samples collected from 0 to 26 feet bgs. Elevated concentrations of pesticides are likely related to the historical use of the property as a solid waste landfill.

- *PCBs:* SB-01 was the only soil boring to have concentrations of PCBs above relevant criteria. PCBs were detected above the Unrestricted Use SCO of 100 µg/kg in the sample collected from 25 to 26 feet bgs. Elevated concentrations of PCBs may be related to the septage lagoon near SB-01 or a result of the historical use of the property as a solid waste landfill.

- *Inorganics:* Lead, mercury, nickel, and zinc were all detected at concentrations above the Unrestricted Use SCOs. Nickel was detected at a concentration exceeding the Restricted Use – Industrial SCO of 130 µg/kg at SB-05 from 15 to 16 feet bgs. Elevated concentrations of inorganics are likely related to the historical use of the property as a solid waste landfill.

- *PFAS:* Several samples had concentrations of PFAS greater than 1 µg/kg, suggesting that the samples should be analyzed by SPLP. The highest concentration of total PFAS was detected at SB-01 from 5 to 7 feet bgs, where concentrations of PAHs were also elevated. These elevated concentrations may be related to the nearby former septage lagoon. PFOS was the most predominant of the PFAS compounds detected, but glycine was also widespread. These elevated concentrations detected throughout the Site are likely related to the historical use of the property as a solid waste landfill.

5.1.2 Area of Concern 2: Groundwater

Groundwater concentrations were compared to NYSDEC AWQS and PFAS Guidelines. Concentrations of contaminants exceeding NYSDEC AWQS were predominantly in the shallow groundwater zone and varied across the Site. Groundwater flows from the northwest corner of the Site to the southeastern corner of the Site; however, the types of contaminants and concentrations of contaminants were not the same in the upgradient portion of the Site and the downgradient portion of the Site. The extent of groundwater contamination is discussed below grouped by contaminant type.

- *Volatile organic compounds*: Concentrations of 1,4-dichlorobenzene, benzene, and chlorobenzene above the NYSDEC AWQS were limited to the shallow zone of southeastern corner of the Site at MW-01, AW-35, and MW-05. Isopropylbenzene and xylenes were detected at elevated concentrations in samples collected from the shallow zone of the western monitoring wells (MW-03, MW-DEC-16, MW-a46). Ethylbenzene was elevated in MW-DEC-16 only, where concentrations of isopropylbenzene were also the highest. Concentrations of naphthalene were elevated in samples collected from the shallow zone in both the upgradient and downgradient portion of the Site (MW-01, MW-05, and MW-03). Concentrations were highest at MW-01, located near the southern edge of the property boundary.

- *Inorganics*: Iron and manganese were detected in groundwater at concentrations greater than the NYSDEC AWQS throughout the Site. Manganese concentrations were consistent suggesting regional groundwater may have elevated concentrations of manganese, but concentrations of iron were notably higher in the southeastern corner of the Site indicating a potential on-site source. Antimony and chromium were detected at concentrations greater than the NYSDEC AWQS in the deep zone of MW-05 only. Copper was detected at concentrations exceeding NYSDEC AWQS at MW-A35 only. Sodium was detected at concentrations greater than the NYSDEC AWQS at the westernmost wells, MW-DEC-1 and AW-46. The varying concentrations of antimony, chromium, copper, and sodium suggest these contaminants may be associated with the historical use of the property as a solid waste landfill.

- *PFAS*: Concentrations of PFOS and PFOA were generally elevated throughout the Site. The highest concentrations were detected at MW-02, located in the northern portion of the Site immediately downgradient of the Gabreski airport. PFAS compounds (especially PFOS) are common constituents of aqueous film forming foam (AFFF) which may have historically been used at the upgradient Gabreski airport. In addition, PFAS compounds are often associated with landfills because they can be found in various household and industrial wastes.

According to a Site sketch of the Quiogue Landfill in 1986, underground fuel storage tanks were formerly stored in the southeast corner of the Site and nearby surface soils were stained with various automotive fluids and fuels. The compounds 1,4-dichlorobenzene and chlorobenzene, detected in groundwater samples collected from the shallow zone in this area, are associated with solvents and insecticides. Benzene, also detected in groundwater samples collected from the shallow zone in this area may be related to the underground fuel storage tanks and indicative of a historical fuel spill, as these contaminants are commonly found in crude oils such as petroleum In addition, the localized concentrations of isopropylbenzene, xylenes, and ethylbenzene in the western portion of the Site may also be indicative of a historical fuel spill in the area, as these contaminants are also commonly found in crude oils. Fuel spills at the upgradient Gabreski airport may also be the source of contamination in this area. In addition, it is possible that the types of municipal and industrial wastes historically accepted by the landfill contributed to these concentrations.

5.2 Conclusions

The following contaminants were detected in soil at concentrations exceeding relevant criteria, and therefore should be retained as potential contaminants of concern for further evaluation:

- VOCs including acetone, ethylbenzene, and xylenes;

- PAHs including benzo(a)anthracene, benzo(a)pyrene, benzo(b)fluoranthene, chrysene, and ideno(1,2,3-c,d)pyrene;

- pesticides including dieldrin, 4,4'-DDD, 4,4'-DDE, and 4,4'-DDT;

- PCBs including Aroclor 1242, Aroclor 1254, and total PCBs;
- inorganics including lead, mercury, nickel, and zinc; and
- PFAS compounds including PFOS, PFOA, glycine, and total PFAS.

The following contaminants were detected in groundwater at concentrations exceeding relevant criteria, and therefore should be retained as potential contaminants of concern for further evaluation:

- VOCs including 1,4-dichlorobenzene, benzene, chlorobenzene, ethylbenzene, isopropylbenzene, naphthalene, and xylenes;
- Inorganics including antimony, chromium, copper, iron, lead, manganese, and sodium; and
- PFAS compounds including PFOS, PFOA, perfluorohexanesulfonic acid, and total PFAS.

Concentrations of contaminants in soil across the Site exceeded the Unrestricted Use SCOs, suggesting the Site could not be used unrestricted without remediation. Several of the samples with concentrations exceeding the Unrestricted Use SCOs were collected from surface soil suggesting a potential risk to receptors. However, significantly fewer samples had concentrations exceeding the Restricted Use SCOs for Protection of Groundwater or Industrial Use, and all of these samples were collected at depths below 5 feet bgs.

The only soil sample with concentrations exceeding the Restricted Use – Industrial SCO was collected from 5 to 7 feet bgs within black sand and wood debris layer near the former septage lagoon. However, concentrations of PAHs may continue to exceed this criteria in soils northeast of SB-01, as historical sketches of the landfill suggest the septage lagoon was located slightly northeast of SB-01. Results for VOCs in soil including ethylbenzene and xylenes suggest there may be localized hot-spots, especially in the southwestern corner. The elevated concentrations of acetone above the Restricted Use – Protection of Groundwater SCO may also be indicative of a hot-spot related to the historical use of the property as a solid waste landfill.

Concentrations of VOCs such as 1,4-dichlorobenzene, benzene, chlorobenzene, ethylbenzene, isopropylenzene, naphthalene, and xylenes were detected above AWQS in shallow groundwater across the Site. All three groundwater samples collected from the shallow zone contained similar VOCs at similar concentrations. The compounds detected in the northwest portion of the Site differed in concentration and specific VOC compounds; however, all compounds identified are indicative of either petroleum releases or solvents. It is possible multiple sources of contamination exist on and around the Site. Known jet fuel spills and leaking underground tanks were identified upgradient near the northwest portion of the Site from the Gabreski airport while the southwest corner of the Site formerly housed underground fuel tanks. It is also possible fuels and solvents were introduced into the subsurface during operations as a landfill and leached into the groundwater. VOC contamination was not identified in the 60- or 80-foot ports of the CMT wells, suggesting that contamination is limited to the interval near the water table and does not extend vertically. The extent of shallow VOC contamination in groundwater has not been horizontally delineated and may extend off-site.

Metals were detected above AWQS in both shallow and deep groundwater across the Site. Manganese was detected fairly consistently across the Site at a concentration slightly above AWQS and may be the result of regional groundwater concentrations rather than an on-site source. Iron was detected at varying concentrations across the Site in the shallow and deep groundwater zones. The higher iron concentrations observed in the shallow zone of the southern portion of the Site may be a result of historical operations as a landfill, while the more consistent concentrations in the northern portion of the Site may be a result of regional groundwater concentrations. Sodium was detected at varying concentrations across the Site within shallow groundwater and antimony, chromium, and lead were detected at varying concentrations across the Site within deep groundwater. Exceedances of antimony, chromium, and lead were only detected in the deep interval at MW-05 at the southeast portion of the site. The differing concentrations exceeding AWQS indicate contamination may be related to historical operations as a landfill.

PFAS compounds were detected throughout site soil and groundwater at concentrations exceeding NYSDEC PFAS Guidelines. In soil, concentrations of PFOS and PFOA were detected at concentrations greater than 1 µg/kg, indicating that samples should be collected for SPLP analysis. In groundwater, the highest concentration of total PFAS was identified in the northern portion of the Site, directly downgradient of the Gabreski airport, in the shallow groundwater. The second highest concentration was also detected in the northern portion of the Site but in the deep groundwater (80 feet bgs). PFAS exceedences were not detected in the 60-foot and 80-foot intervals in the southeast portion of the site. In general, concentrations of PFOS are greater than PFOA indicating AFFF as a potential source. Airports commonly used AFFF as a fire suppressant agent and stored the compound on-site. In addition, the PFAS detected in groundwater is likely a result of the PFAS detected in soils related to the historical use of the property as a solid waste landfill.

Potential off-site receptors include residential wells and Quantuck Bay which eventually feeds into the Atlantic Ocean. It is unlikely the drinking water wells are screened within the shallow groundwater where the VOC contamination is present, so the potential for migration of contamination into off-site drinking water wells remains unknown. No confining layers were identified within the saturated zone so the potential for mixing is high and some contamination was identified in the deeper groundwater.

Section 6
References

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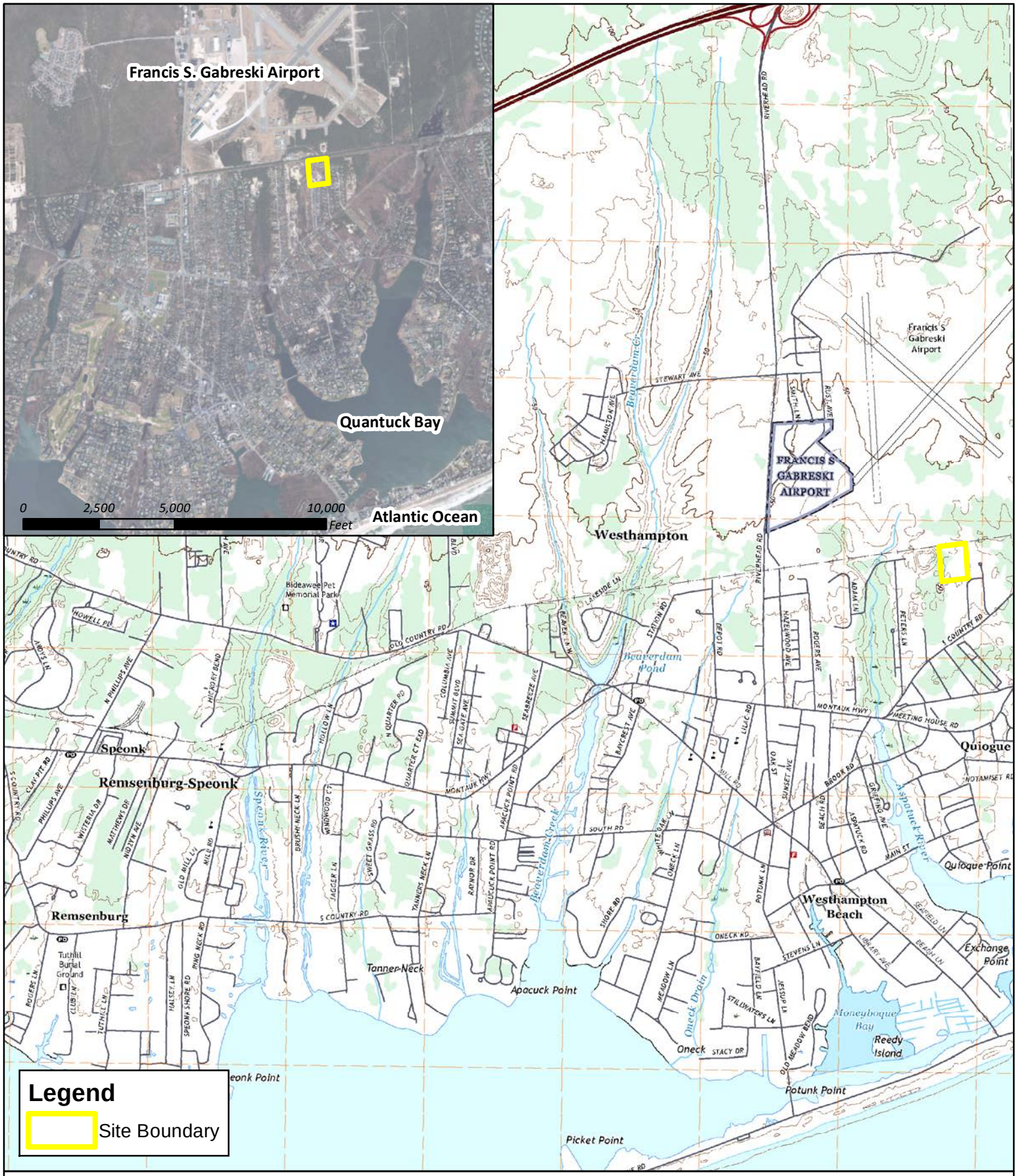
Figures



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Site Vicinty Map

Figure adapted from USGS Eastport Quadrangle, New York - Suffolk County, 7.5-Minute Series.

1 inch = 3,000 feet

0 750 1,500 3,000
Feet

Figure 1-1
Quiogue Landfill
Quiogue, Southampton, New York

CDM Smith

SCHLOSSERM S:\NYSDEC D007621\WA#31 - Quiogue Landfill\GIS\MXD\Fig1-1_Site Vicinity.mxd 6/3/2020

N

Notes:
1. All groundwater levels and contours in feet above mean sea level.
2. Water depths were collected on March 16, 2020.

Groundwater Elevation Contour Map

1 inch = 100 feet

0 25 50 100 Feet

Figure 2-1
Quiogue Landfill
Quiogue, Southampton, New York

CDM Smith

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N

Sample Location Map

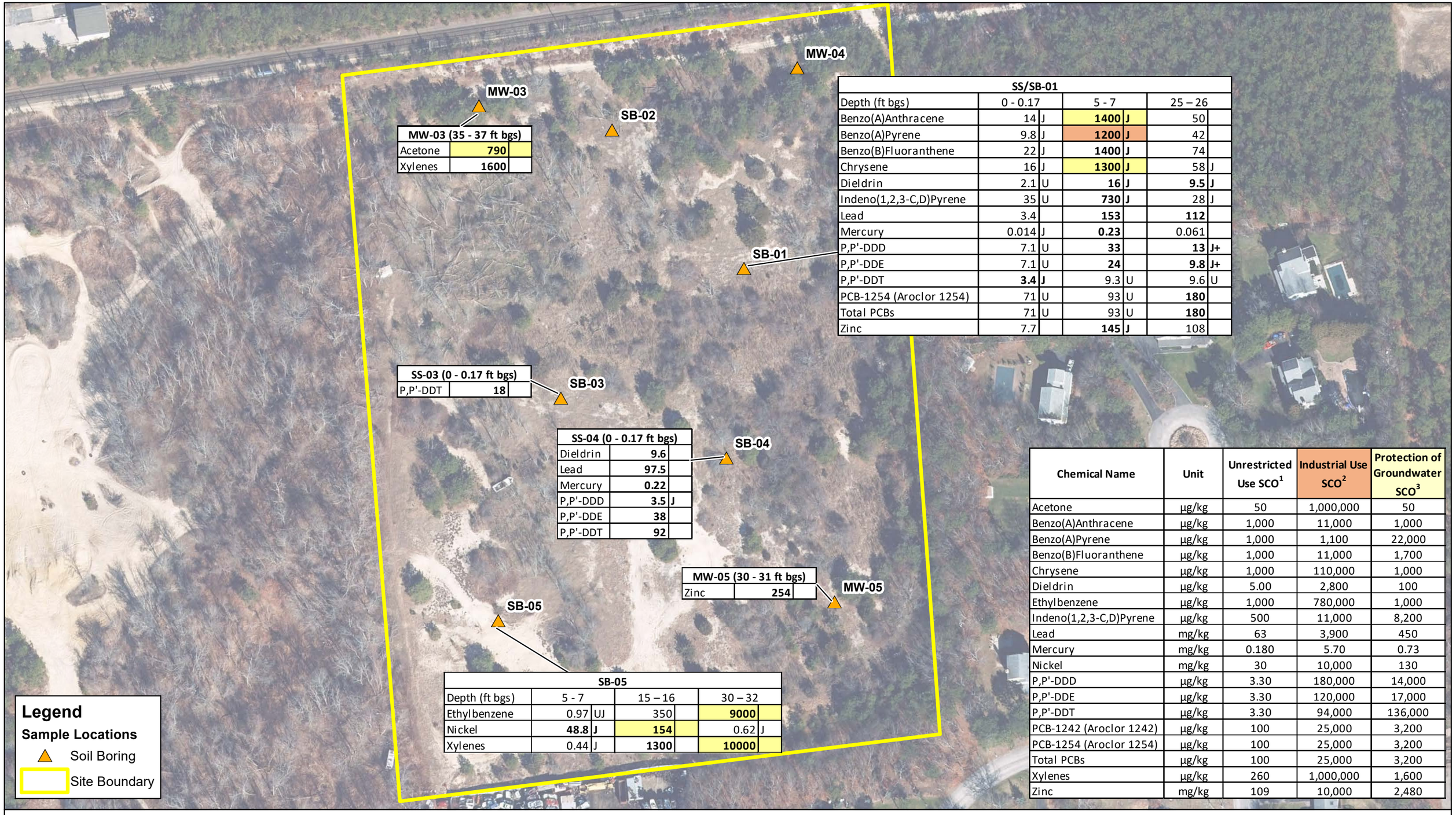
1 inch = 100 feet

0 25 50 100 Feet

Figure 3-1
Quiogue Landfill
Quiogue, Southampton, New York

CDM Smith

SCHLOSSERM S:\NYSDEC D007621\WA#31 - Quiogue Landfill\GIS\MXD\Fig3-1_Sample_Location_Map_rev.mxd 6/3/2020



MW-03 (35 - 37 ft bgs)		
Acetone	**790**	
Xylenes	**1600**	

SS-03 (0 - 0.17 ft bgs)		
P,P'-DDT	**18**	

SS-04 (0 - 0.17 ft bgs)		
Dieldrin	**9.6**	
Lead	**97.5**	
Mercury	**0.22**	
P,P'-DDD	**3.5**	J
P,P'-DDE	**38**	
P,P'-DDT	**92**	

MW-05 (30 - 31 ft bgs)		
Zinc	**254**	

SS/SB-01							
Depth (ft bgs)	0 - 0.17		5 - 7		25 – 26		
Benzo(A)Anthracene	14	J	**1400**	**J**	50		
Benzo(A)Pyrene	9.8	J	**1200**	**J**	42		
Benzo(B)Fluoranthene	22	J	**1400**	**J**	74		
Chrysene	16	J	**1300**	**J**	58	J	
Dieldrin	2.1	U	**16**	**J**	**9.5**	**J**	
Indeno(1,2,3-C,D)Pyrene	35	U	**730**	**J**	28	J	
Lead	3.4		**153**		**112**		
Mercury	0.014	J	**0.23**		0.061		
P,P'-DDD	7.1	U	**33**		**13**	**J+**	
P,P'-DDE	7.1	U	**24**		**9.8**	**J+**	
P,P'-DDT	**3.4**	**J**	9.3	U	9.6	U	
PCB-1254 (Aroclor 1254)	71	U	93	U	**180**		
Total PCBs	71	U	93	U	**180**		
Zinc	7.7		**145**	**J**	108		

SB-05						
Depth (ft bgs)	5 - 7		15 – 16		30 – 32	
Ethylbenzene	0.97	UJ	350		**9000**	
Nickel	**48.8**	**J**	**154**		0.62	J
Xylenes	0.44	J	**1300**		**10000**	

Legend

Sample Locations

- Soil Boring
- Site Boundary

Chemical Name	Unit	Unrestricted Use SCO[1]	Industrial Use SCO[2]	Protection of Groundwater SCO[3]
Acetone	µg/kg	50	1,000,000	50
Benzo(A)Anthracene	µg/kg	1,000	11,000	1,000
Benzo(A)Pyrene	µg/kg	1,000	1,100	22,000
Benzo(B)Fluoranthene	µg/kg	1,000	11,000	1,700
Chrysene	µg/kg	1,000	110,000	1,000
Dieldrin	µg/kg	5.00	2,800	100
Ethylbenzene	µg/kg	1,000	780,000	1,000
Indeno(1,2,3-C,D)Pyrene	µg/kg	500	11,000	8,200
Lead	mg/kg	63	3,900	450
Mercury	mg/kg	0.180	5.70	0.73
Nickel	mg/kg	30	10,000	130
P,P'-DDD	µg/kg	3.30	180,000	14,000
P,P'-DDE	µg/kg	3.30	120,000	17,000
P,P'-DDT	µg/kg	3.30	94,000	136,000
PCB-1242 (Aroclor 1242)	µg/kg	100	25,000	3,200
PCB-1254 (Aroclor 1254)	µg/kg	100	25,000	3,200
Total PCBs	µg/kg	100	25,000	3,200
Xylenes	µg/kg	260	1,000,000	1,600
Zinc	mg/kg	109	10,000	2,480

N

Notes:
1. Bolded values are greater than NYSDEC Unrestricted Use SCO.
2. Orange shaded values are greater than NYSDEC Restricted Use - Industrial SCO.
3. Yellow shaded values are greater than NYSDEC Restricted Use - Protection of Groundwater SCO.

Soil Sample Results

1 inch = 100 feet

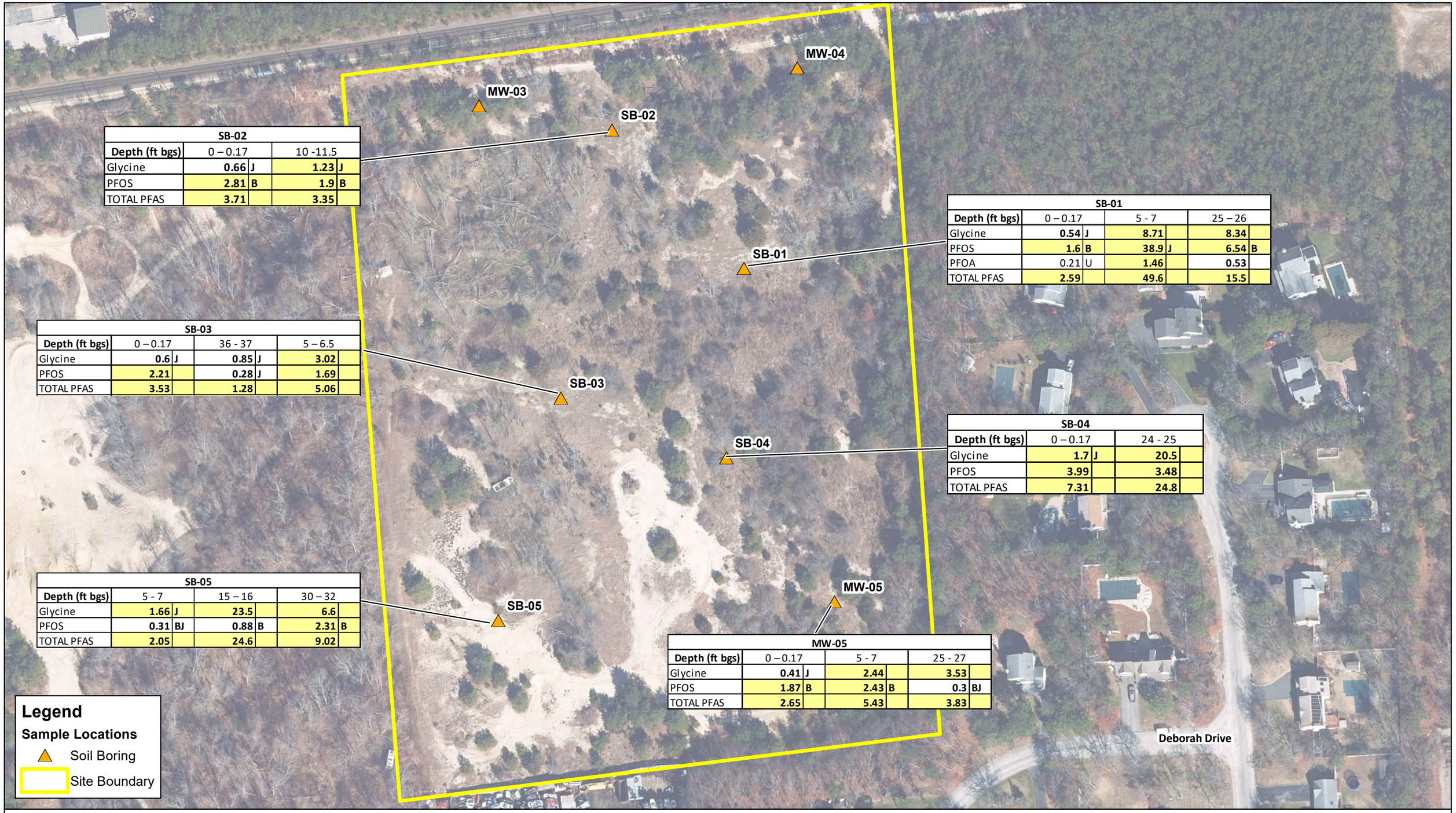
0 25 50 100 Feet

ft bgs - feet below ground surface
J - estimated
J+ - estimated, biased high
NYSDEC - New York State Department of Environmental Conservation
SCO - Soil Cleanup Objective
UJ - nondetect, estimated
µg/kg - micrograms per kilogram

Figure 3-2a
Quiogue Landfill
Quiogue, Southampton, New York

CDM Smith

SCHLOSSERM S:\NYSDEC D007621\WA#31 - Quiogue Landfill\GIS\MXD\Fig3-2a_Soil_Results_Map_rev.mxd 6/3/2020



SB-02				
Depth (ft bgs)	0 – 0.17		10 -11.5	
Glycine	**0.66**	**J**	**1.23**	**J**
PFOS	**2.81**	**B**	**1.9**	**B**
TOTAL PFAS	**3.71**		**3.35**	

SB-01						
Depth (ft bgs)	0 – 0.17		5 - 7		25 – 26	
Glycine	**0.54**	**J**	**8.71**		**8.34**	
PFOS	**1.6**	**B**	**38.9**	**J**	**6.54**	**B**
PFOA	0.21	U	**1.46**		**0.53**	
TOTAL PFAS	**2.59**		**49.6**		**15.5**	

SB-03						
Depth (ft bgs)	0 – 0.17		36 - 37		5 – 6.5	
Glycine	**0.6**	**J**	**0.85**	**J**	**3.02**	
PFOS	**2.21**		**0.28**	**J**	**1.69**	
TOTAL PFAS	**3.53**		**1.28**		**5.06**	

SB-04				
Depth (ft bgs)	0 – 0.17		24 - 25	
Glycine	**1.7**	**J**	**20.5**	
PFOS	**3.99**		**3.48**	
TOTAL PFAS	**7.31**		**24.8**	

SB-05						
Depth (ft bgs)	5 - 7		15 – 16		30 – 32	
Glycine	**1.66**	**J**	**23.5**		**6.6**	
PFOS	**0.31**	**BJ**	**0.88**	**B**	**2.31**	**B**
TOTAL PFAS	**2.05**		**24.6**		**9.02**	

MW-05						
Depth (ft bgs)	0 – 0.17		5 - 7		25 - 27	
Glycine	**0.41**	**J**	**2.44**		**3.53**	
PFOS	**1.87**	**B**	**2.43**	**B**	**0.3**	**BJ**
TOTAL PFAS	**2.65**		**5.43**		**3.83**	

Legend

Sample Locations

- Soil Boring
- Site Boundary

N

Notes:
1. All concentrations are in µg/kg.
2. Yellow shaded values are greater than 1 µg/kg, suggesting SPLP analysis is warranted.

B - analyte was detected in the blank
BJ - analyte was detected in the blank, estimated
ft bgs - feet below ground surface
J - estimated
µg/kg - microgram per kilogram

Soil Sample Results - PFAS

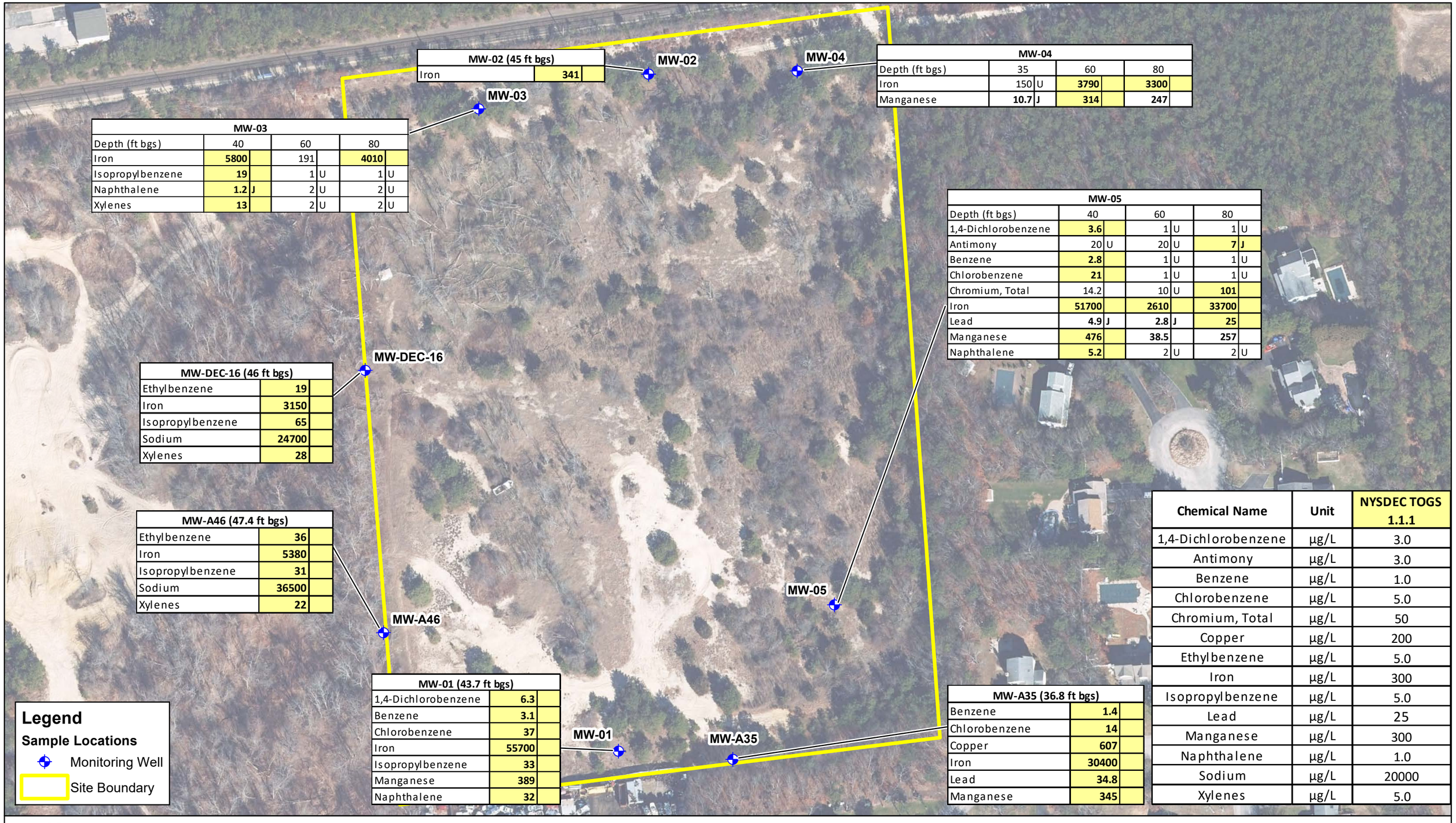
1 inch = 100 feet

0 25 50 100 Feet

PFAS - per- and polyfluoroalkyl substances
PFOA - perfluorooctanoic acid
PFOS - perfluorooctane sulfonic acid
SPLP - synthetic precipitation leaching procedure

Figure 3-2b
Quiogue Landfill
Quiogue, Southampton, New York

CDM Smith



Chemical Name	Unit	NYSDEC TOGS 1.1.1
1,4-Dichlorobenzene	µg/L	3.0
Antimony	µg/L	3.0
Benzene	µg/L	1.0
Chlorobenzene	µg/L	5.0
Chromium, Total	µg/L	50
Copper	µg/L	200
Ethylbenzene	µg/L	5.0
Iron	µg/L	300
Isopropylbenzene	µg/L	5.0
Lead	µg/L	25
Manganese	µg/L	300
Naphthalene	µg/L	1.0
Sodium	µg/L	20000
Xylenes	µg/L	5.0

N

Notes:
1. Yellow shaded values are greater than the NYSDEC TOGs 1.1.11.

Groundwater Sample Results

1 inch = 100 feet

0 25 50 100 Feet

ft bgs - feet below ground surface
J - estimated
ng/L - nanograms per liter
NYSDEC - New York State Department of Environmental Conservation
TOGS - Technical and Operational Guidance Series
U - nondetect
µg/L - micrograms per liter

Figure 3-3a
Quiogue Landfill
Quiogue, Southampton, New York

CDM Smith

MW-02 (45 ft bgs)		
PFOS	454	
TOTAL PFAS	507	

MW-03 (80 ft bgs)		
PFOS	248	

MW-DEC-16 (46 ft bgs)		
Perfluorohexanesulfonic acid	137	B
PFOS	55.3	
PFOA	45.9	

MW-A46 (47.4 ft bgs)		
PFOS	68.8	
PFOA	22.6	

MW-01 (43.7 ft bgs)		
PFOS	85.1	
PFOA	35.6	

MW-05 (40 ft bgs)		
PFOS	85.6	EMPC
PFOA	97.8	

MW-A35 (36.8 ft bgs)		
PFOS	89.8	
PFOA	41.9	

MW-02 MW-04 MW-03 MW-DEC-16 MW-A46 MW-05 MW-01 MW-A35

Legend

Sample Locations

Monitoring Well

Site Boundary

Chemical Name	CAS No.	Unit	NYSDEC PFAS Criteria[1]
Perfluorohexanesulfonic acid	355-46-4	ng/L	100
PFOS	1763-23-1	ng/L	10
PFOA	335-67-1	ng/L	10
TOTAL PFAS	N/A	ng/L	500

N

Notes:
1. Yellow shaded values are greater than the NYSDEC PFAS Criteria based on January 2020 Guidelines for Sampling and Analysis of PFAS.

PFAS - per- and polyfluoroalkyl substances
PFOA - perfluorooctanoic acid
PFOS - perfluorooctane sulfonic acid

Groundwater Sample Results - PFAS

1 inch = 100 feet

0 25 50 100 Feet

ft bgs - feet below ground surface
B - analyte detected in the blank
EMPC - estimated maximum possible concentration
ng/L - nanograms per liter
NYSDEC - New York State Department of Environmental Conservation

Figure 3-3b
Quiogue Landfill
Quiogue, Southampton, New York

CDM Smith

Tables

Table 2-1
Groundwater Elevations
Quiogue Landfill, NYSDEC Site No. 152061
Quiogue, Southampton, New York

Monitoring Well	Northing	Easting	Screen Depth (feet bgs)	Ground Elevation (feet amsl)	Top of Inner Casing Elevation (feet amsl)	Date	Depth to Water (feet TIC)	Depth to Bottom (feet TIC)	Groundwater Elevation (feet amsl)
MW-01	244603.3	1363200.8	31 - 41	40.2	43.0	3/16/2020	35.0	43.7	8.04
MW-02	245373.5	1363235.8	32 - 42	41.4	43.4	3/16/2020	34.3	45.0	9.07
MW-03	245334.2	1363042.1	Port 1: 40	42.9	45.9	3/16/2020	36.8	Port 1: 41.8	9.08
			Port 2: 60					Port 2: 61.8	
			Port 3: 80					Port 3: 80.8	
MW-04	245377.4	1363404.5	Port 1: 35	36.7	39.9	3/16/2020	31.0	Port 1: 35.5	8.85
			Port 2: 60					Port 2: 60.5	
			Port 3: 80					Port 3: 80.5	
MW-05	244769.4	1363447.7	Port 1: 40	33.6	35.3	3/16/2020	27.5	Port 1: 40	7.90
			Port 2: 60					Port 2: 60	
			Port 3: 80					Port 3: 80	
MW-A35	244593.9	1363331.8	Unknown	38.6	39.7	3/16/2020	31.9	36.8	7.88
MW-A38	244652.8	1363544.3	Unknown	38.5	39.0	3/16/2020	DRY	31.3	DRY
MW-A46	244738.0	1362933.0	Unknown	42.7	45.5	3/16/2020	37.0	47.4	8.48
MW-DEC-13	245238.8	1362934.4	Unknown	42.7	42.9	3/16/2020	DRY	32.1	DRY
MW-DEC-16	245036.8	1362912.6	Unknown	42.1	43.2	3/16/2020	34.2	46.0	8.95
MW-DEC-17	244935.4	1362913.1	Unknown	42.7	45.5	3/16/2020	36.7	47.9	8.77
MW-DEC-18	244836.1	1362921.0	Unknown	42.9	43.8	3/16/2020	DRY	36.7	DRY

Acronyms:
amsl - above mean sea level
TIC - top of inner casing

Table 3-1
Sample Summary
Quiogue Landfill, NYSDEC Site No. 152061
Quiogue, Southampton, New York

Sample Location	Sample ID	Sample Date	Sample Depth (feet bgs)	Laboratory Analyses Collected	PID Reading (ppm)	QA/QC
Soil Samples						
SS-01	SS-01-021420	2/14/2020	0 – 0.17	VOCs, SVOCs + SIM (1,4-dioxane), PFAS, PCBs, Metals + Hg, Pesticides, Herbicides, Cyanide	0.0	NA
SB-01	SB-01-5-7-021320	2/13/2020	5 - 7		2.5	NA
SB-01	SB-101-5-7-021320	2/13/2020	5 – 7		2.5	Duplicate of SB-01-5-7-021320
SB-01	SB-01-25-26-021320	2/13/2020	25 – 26		18.5	NA
SS-02	SS-02-021420	2/14/2020	0 – 0.17		0.0	NA
SB-02	SB-02-10-11.5-021420	2/14/2020	10 -11.5		0.5	NA
SB-02	SB-02-30-32-021420	2/14/2020	30 - 32		6.8	NA
SB-02	SB-02-35-36-021420	2/14/2020	35 – 36		0.0	NA
SS-03	SS-03-021220	2/12/2020	0 – 0.17		0.0	NA
SB-03	SB-03-5-6.5-021220	2/12/2020	5 – 6.5		2.3	NA
SB-03	SB-03-26-27.5-021220	2/12/2020	26 – 27.5		1.8	NA
SB-03	SB-03-36-37-021220	2/12/2020	36 - 37		0.0	NA
SS-04	SS-04-021220	2/12/2020	0 – 0.17		0.0	NA
SB-04	SB-04-24-25-021220	2/12/2020	24 - 25		25.6	NA
SB-04	SB-04-30-31-021220	2/12/2020	30 - 31		0.0	NA
SB-04	SB-04-40-41-021220	2/12/2020	40– 41		0.0	NA
SS-05	SS-105-021320	2/13/2020	0 – 0.17		0.0	Duplicate of SS-05-021320
SS-05	SS-05-021320	2/13/2020	0 – 0.17		0.0	NA
SB-05	SB-05-5-7-021720	2/17/2020	5 - 7		4.3	MS/MSD
SB-05	SB-05-15-16-021720	2/17/2020	15 – 16		34.9	NA
SB-05	SB-05-30-32-021720	2/17/2020	30 – 32		188	NA
SB-05	SB-05-40-41.5-021720	2/17/2020	40 – 41.5		11.5	NA
MW-03	SS-MW-03-021920	2/19/2020	0 – 0.17	VOCs, SVOCs + SIM (1,4-dioxane), PFAS, PCBs, Metals + Hg, Pesticides, Herbicides, Cyanide	NA	MS/MSD
MW-03	SO-MW-03-10-12-022020	2/20/2020	10 - 12		0.7	NA
MW-03	SO-MW-03-35-37-022020	2/20/2020	35 - 37		403.5	NA
MW-03	SO-MW-03-45-47-022020	2/20/2020	45 - 47		129.2	NA
MW-04	SS-MW-04-022020	2/20/2020	0 – 0.17		0.0	NA
MW-04	SO-MW-04-16.5-18.5-02242020	2/24/2020	16.5 – 18.5		0.0	NA
MW-04	SO-MW-04-30-32-02242020	2/24/2020	30 – 32		0.0	NA
MW-04	SO-MW-04-40-42-02242020	2/24/2020	40 – 42		0.0	NA
MW-05	SS-MW-05-021720	2/17/2020	0 – 0.17		0.0	NA
MW-05	SB-MW-05-5-7-021720	2/17/2020	5 – 7		2.1	NA
MW-05	SB-MW-05-25-27-021720	2/17/2020	25 – 27		6.1	NA
MW-05	SB-MW-05-30-31-021720	2/17/2020	30 – 31		2.8	NA

Table 3-1
Sample Summary
Quiogue Landfill, NYSDEC Site No. 152061
Quiogue, Southampton, New York

Sample Location	Sample ID	Sample Date	Sample Depth (feet bgs)	Laboratory Analyses Collected	PID Reading (ppm)	QA/QC
Groundwater Samples						
MW-01	MW-01-031620	3/16/2020	43.7	VOCs, SVOCs + SIM (1,4-dioxane), PFAS, PCBs, Metals + Hg, Pesticides, Herbicides, Cyanide	NA	MS/MSD
MW-02	MW-02-031720	3/17/2020	44.95		NA	NA
MW-02	MW-102-031720	3/17/2020	44.95		NA	Duplicate of MW-02-031720
MW-03	MW-03-40-031720	3/17/2020	40		NA	NA
MW-03	MW-03-60-031820	3/18/2020	60		NA	NA
MW-03	MW-03-80-031820	3/18/2020	80		NA	NA
MW-04	MW-04-35-031820	3/18/2020	35		NA	NA
MW-04	MW-04-60-031820	3/18/2020	60		NA	NA
MW-04	MW-04-80-031820	3/18/2020	80		NA	NA
MW-05	MW-05-35-031620	3/16/2020	40		NA	NA
MW-05	MW-05-60-031720	3/17/2020	60		NA	NA
MW-05	MW-05-80-031720	3/17/2020	80		NA	NA
MW-A35	MW-A35-031620	3/16/2020	36.8		NA	NA
MW-A46	MW-A46-031620	3/16/2020	47.35		NA	NA
MW-DEC-16	MW-DEC-16-031720	3/17/2020	46		NA	NA
Quality Control Samples						
Field Blank	FB-01-021220	2/12/2020	NA	VOCs, SVOCs + SIM (1,4-dioxane), PFAS, PCBs, Metals + Hg, Pesticides, Herbicides, Cyanide	NA	Field Blank
Field Blank	FB-02-021320	2/13/2020	NA		NA	Field Blank
Field Blank	FB-021420	2/14/2020	NA		NA	Field Blank
Field Blank	FB-021720	2/17/2020	NA		NA	Field Blank
Field Blank	FB-021920	2/19/2020	NA		NA	Field Blank
Field Blank	FB-022420	2/24/2020	NA		NA	Field Blank
Field Blank	FB-031620	3/16/2020	NA		NA	Field Blank
Field Blank	FB-031720	3/17/2020	NA		NA	Field Blank
Field Blank	FB-031820	3/18/2020	NA		NA	Field Blank
Field Blank	TB-01	3/16/2020	NA	VOCs	NA	Trip Blank
Field Blank	TB-02	3/17/2020	NA		NA	Trip Blank

Acronyms:

bgs - below ground surface
Hg - mercury
ID - identification
MS/MSD - matrix spike/matrix spike duplicate
NA - not applicable
PCB - polychlorinated biphenyl
PFAS - per- and polyfluoroalkyl substances
PID - photoionization detector
ppm - parts per million
QA/QC - quality assurance/quality control
SIM - selective ion monitoring
SVOC - semivolatile organic compound
VOC - volatile organic compound

Table 3-2
Quality Assurance/Quality Control Sample Results
Quiogue Landfill, NYSDEC Site No. 152061
Quiogue, Southampton, New York

		Sample ID	FB-021220		FB-021320		FB-021420		FB-021720		FB-021920		FB-022420		FB-031620		FB-031720		FB-031820		TB-01-20200316		TB-02-20200317	
		Sample Date	2/12/2020		2/13/2020		2/14/2020		2/17/2020		2/19/2020		2/24/2020		3/16/2020		3/17/2020		3/18/2020		3/16/2020		3/17/2020	
		Sample Type	FB		FB		FB		FB		FB		FB		FB		FB		FB		TB		TB	
Chemical Name	**CAS No.**	**Unit**	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q
1,1,1-Trichloroethane	71-55-6	µg/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
1,1,2,2-Tetrachloroethane	79-34-5	µg/L	1	U	1	U	1	UT	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	µg/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
1,1,2-Trichloroethane	79-00-5	µg/L	1	U	1	U	1	UT	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
1,1-Dichloroethane	75-34-3	µg/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
1,1-Dichloroethene	75-35-4	µg/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
1,2,4-Trichlorobenzene	120-82-1	µg/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
1,2-Dibromo-3-Chloropropane	96-12-8	µg/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
1,2-Dibromoethane (Ethylene Dibromide)	106-93-4	µg/L	1	U	1	U	1	UT	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
1,2-Dichlorobenzene	95-50-1	µg/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
1,2-Dichloroethane	107-06-2	µg/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
1,2-Dichloropropane	78-87-5	µg/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
1,3-Dichlorobenzene	541-73-1	µg/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
1,4-Dichlorobenzene	106-46-7	µg/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
1,4-Dioxane (P-Dioxane)	123-91-1	µg/L	0.4	U	0.4	U	0.4	U	0.4	UT	0.4	U	0.4	U	0.4	UJ	0.4	U	0.4	U	NA		NA	
2,4,5-Trichlorophenol	95-95-4	µg/L	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U	NA		NA	
2,4,6-Trichlorophenol	88-06-2	µg/L	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U	NA		NA	
2,4-D (Dichlorophenoxyacetic Acid)	94-75-7	µg/L	1.2	U	1.2	U	1.2	U	1.2	U	1.2	U	1.2	U	1.2	U	1.2	U	1.2	U	NA		NA	
2,4-Dichlorophenol	120-83-2	µg/L	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U	NA		NA	
2,4-Dimethylphenol	105-67-9	µg/L	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U	NA		NA	
2,4-Dinitrophenol	51-28-5	µg/L	20	U	20	U	20	U	20	U	20	U	20	U	20	U	20	U	20	U	NA		NA	
2,4-Dinitrotoluene	121-14-2	µg/L	2	U	2	U	2	U	2	U	2	U	2	U	2	U	2	U	2	U	NA		NA	
2,6-Dinitrotoluene	606-20-2	µg/L	2	U	2	U	2	U	2	U	2	U	2	U	2	U	2	U	2	U	NA		NA	
2-Chloronaphthalene	91-58-7	µg/L	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U	NA		NA	
2-Chlorophenol	95-57-8	µg/L	10	U	10	U	10	UT	10	U	10	U	10	U	10	U	10	U	10	U	NA		NA	
2-Hexanone	591-78-6	µg/L	5	U	5	U	5	U	5	U	5	U	5	UT	5	U	5	U	5	U	5	U	5	U
2-Methylnaphthalene	91-57-6	µg/L	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U	NA		NA	
2-Methylphenol (O-Cresol)	95-48-7	µg/L	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U	NA		NA	
2-Nitroaniline	88-74-4	µg/L	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U	NA		NA	
2-Nitrophenol	88-75-5	µg/L	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U	NA		NA	
3,3'-Dichlorobenzidine	91-94-1	µg/L	10	U	10	U	10	UJ	10	U	10	U	10	U	10	U	10	U	10	U	NA		NA	
3-Nitroaniline	99-09-2	µg/L	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U	NA		NA	
4,6-Dinitro-2-Methylphenol	534-52-1	µg/L	20	U	20	U	20	U	20	U	20	U	20	U	20	U	20	U	20	U	NA		NA	
4-Bromophenyl Phenyl Ether	101-55-3	µg/L	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U	NA		NA	
4-Chloro-3-Methylphenol	59-50-7	µg/L	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U	NA		NA	
4-Chloroaniline	106-47-8	µg/L	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U	NA		NA	
4-Chlorophenyl Phenyl Ether	7005-72-3	µg/L	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U	NA		NA	
4-Methylphenol (P-Cresol)	106-44-5	µg/L	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U	NA		NA	
4-Nitroaniline	100-01-6	µg/L	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U	NA		NA	
4-Nitrophenol	100-02-7	µg/L	20	U	20	U	20	U	20	U	20	U	20	U	20	U	20	U	20	U	NA		NA	
Acenaphthene	83-32-9	µg/L	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U	NA		NA	
Acenaphthylene	208-96-8	µg/L	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U	NA		NA	
Acetic acid, (2,4,5-trichlorophenoxy)-	93-76-5	µg/L	1.2	U	1.2	U	1.2	U	1.2	U	1.2	U	1.2	U	1.2	U	1.2	U	1.2	U	NA		NA	
Acetone	67-64-1	µg/L	6.2		5	U	6.7		6.8		5	U	5	U	5	U	5	U	5	U	5	U	5	U
Acetophenone	98-86-2	µg/L	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U	NA		NA	
Aldrin	309-00-2	µg/L	0.02	U	0.02	U	0.02	U	0.02	U	0.02	UT	0.02	U	0.02	U	0.02	U	0.02	U	NA		NA	
Alpha Bhc (Alpha Hexachlorocyclohexane)	319-84-6	µg/L	0.02	U	0.02	U	0.02	U	0.02	U	0.02	U	0.02	U	0.02	U	0.02	U	0.02	U	NA		NA	
Alpha Endosulfan	959-98-8	µg/L	0.02	U	0.02	U	0.02	U	0.02	U	0.02	U	0.02	U	0.02	U	0.02	U	0.02	U	NA		NA	

Table 3-2
Quality Assurance/Quality Control Sample Results
Quiogue Landfill, NYSDEC Site No. 152061
Quiogue, Southampton, New York

		Sample ID	FB-021220		FB-021320		FB-021420		FB-021720		FB-021920		FB-022420		FB-031620		FB-031720		FB-031820		TB-01-20200316		TB-02-20200317	
		Sample Date	2/12/2020		2/13/2020		2/14/2020		2/17/2020		2/19/2020		2/24/2020		3/16/2020		3/17/2020		3/18/2020		3/16/2020		3/17/2020	
		Sample Type	FB		FB		FB		FB		FB		FB		FB		FB		FB		TB		TB	
Chemical Name	**CAS No.**	**Unit**	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q
Aluminum	7429-90-5	µg/L	200	U	200	U	200	U	200	U	200	U	200	U	200	U	200	U	200	U	NA		NA	
Anthracene	120-12-7	µg/L	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U	NA		NA	
Antimony	7440-36-0	µg/L	20	U	20	U	20	U	20	U	20	U	20	U	20	U	20	U	20	U	NA		NA	
Arsenic	7440-38-2	µg/L	15	U	15	U	15	U	15	U	15	U	15	U	15	U	15	U	15	U	NA		NA	
Atrazine	1912-24-9	µg/L	2	U	2	U	2	U	2	UT	2	U	2	U	2	UJ	2	U	2	R	NA		NA	
Barium	7440-39-3	µg/L	200	U	200	U	200	U	200	U	200	U	200	U	200	U	200	U	200	U	NA		NA	
Benzaldehyde	100-52-7	µg/L	10	U	10	U	10	U	10	U	10	U	10	U	10	UT	10	U	10	U	NA		NA	
Benzene	71-43-2	µg/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
Benzo(A)Anthracene	56-55-3	µg/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	UT	1	U	NA		NA	
Benzo(A)Pyrene	50-32-8	µg/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	UJ	1	U	NA		NA	
Benzo(B)Fluoranthene	205-99-2	µg/L	2	U	2	U	2	U	2	U	2	U	2	U	2	U	2	U	2	U	NA		NA	
Benzo(G,H,I)Perylene	191-24-2	µg/L	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U	NA		NA	
Benzo(K)Fluoranthene	207-08-9	µg/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	NA		NA	
Benzyl Butyl Phthalate	85-68-7	µg/L	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U	NA		NA	
Beryllium	7440-41-7	µg/L	2	U	2	U	2	U	2	U	2	U	2	U	2	U	0.17	J	2	U	NA		NA	
Beta Bhc (Beta Hexachlorocyclohexane)	319-85-7	µg/L	0.02	U	0.02	U	0.02	U	0.02	U	0.02	U	0.02	U	0.02	U	0.02	U	0.02	U	NA		NA	
Beta Endosulfan	33213-65-9	µg/L	0.02	U	0.02	U	0.02	U	0.02	U	0.02	U	0.02	U	0.02	U	0.02	U	0.02	U	NA		NA	
Biphenyl (Diphenyl)	92-52-4	µg/L	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U	NA		NA	
Bis(2-Chloroethoxy) Methane	111-91-1	µg/L	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U	NA		NA	
Bis(2-Chloroethyl) Ether (2-Chloroethyl Ether)	111-44-4	µg/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	NA		NA	
Bis(2-Chloroisopropyl) Ether	108-60-1	µg/L	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U	NA		NA	
Bis(2-Ethylhexyl) Phthalate	117-81-7	µg/L	2	U	2	U	2	U	2	U	2	U	2	U	2	U	2	U	2	U	NA		NA	
Bromodichloromethane	75-27-4	µg/L	1	U	1	U	1	UT	1	UT	1	U	1	U	1	U	1	U	1	U	1	U	1	U
Bromoform	75-25-2	µg/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	UJ	1	UJ	1	U	1	UJ
Bromomethane	74-83-9	µg/L	1	U	1	U	1	UJ	1	UJ	1	U	1	UJ	1	U	1	UJ	1	UJ	1	U	1	UJ
Cadmium	7440-43-9	µg/L	4	U	4	U	4	U	0.77	J	4	U	4	U	4	U	4	U	4	U	NA		NA	
Calcium	7440-70-2	µg/L	5000	U	5000	U	5000	U	5000	U	5000	U	5000	U	5000	U	5000	U	5000	U	NA		NA	
Caprolactam	105-60-2	µg/L	10	U	10	U	10	U	10	R	10	UT	10	U	10	UT	10	U	10	R	NA		NA	
Carbazole	86-74-8	µg/L	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U	NA		NA	
Carbon Disulfide	75-15-0	µg/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
Carbon Tetrachloride	56-23-5	µg/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
Chlordane (Technical)	12789-03-6	µg/L	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	NA		NA	
Chlorobenzene	108-90-7	µg/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
Chloroethane	75-00-3	µg/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
Chloroform	67-66-3	µg/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
Chloromethane	74-87-3	µg/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
Chromium, Total	7440-47-3	µg/L	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U	NA		NA	
Chrysene	218-01-9	µg/L	2	U	2	U	2	U	2	U	2	U	2	U	2	U	2	U	2	U	NA		NA	
Cis-1,2-Dichloroethylene	156-59-2	µg/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
Cis-1,3-Dichloropropene	10061-01-5	µg/L	1	U	1	U	1	UT	1	UT	1	U	1	U	1	U	1	U	1	U	1	U	1	U
Cobalt	7440-48-4	µg/L	50	U	50	U	50	U	50	U	50	U	50	U	50	U	50	U	50	U	NA		NA	
Copper	7440-50-8	µg/L	25	U	25	U	25	U	25	U	25	U	25	U	25	U	25	U	25	U	NA		NA	
Cyanide	57-12-5	µg/L	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	UT	NA		NA	
Cyclohexane	110-82-7	µg/L	1	U	1	U	1	U	1	U	1	UT	1	U	1	U	1	U	1	U	1	U	1	U
Delta BHC (Delta Hexachlorocyclohexane)	319-86-8	µg/L	0.02	U	0.02	U	0.02	U	0.02	U	0.02	UT	0.02	U	0.02	U	0.02	U	0.02	U	NA		NA	
Dibenz(A,H)Anthracene	53-70-3	µg/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	NA		NA	
Dibenzofuran	132-64-9	µg/L	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U	NA		NA	
Dibromochloromethane	124-48-1	µg/L	1	U	1	U	1	UT	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U

Table 3-2
Quality Assurance/Quality Control Sample Results
Quiogue Landfill, NYSDEC Site No. 152061
Quiogue, Southampton, New York

		Sample ID	FB-021220		FB-021320		FB-021420		FB-021720		FB-021920		FB-022420		FB-031620		FB-031720		FB-031820		TB-01-20200316		TB-02-20200317	
		Sample Date	2/12/2020		2/13/2020		2/14/2020		2/17/2020		2/19/2020		2/24/2020		3/16/2020		3/17/2020		3/18/2020		3/16/2020		3/17/2020	
		Sample Type	FB		FB		FB		FB		FB		FB		FB		FB		FB		TB		TB	
Chemical Name	**CAS No.**	**Unit**	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q
Dichlorodifluoromethane	75-71-8	µg/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
Dieldrin	60-57-1	µg/L	0.02	U	0.02	U	0.02	U	0.02	U	0.02	U	0.02	U	0.02	U	0.02	U	0.02	U	NA		NA	
Diethyl Phthalate	84-66-2	µg/L	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U	NA		NA	
Dimethyl Phthalate	131-11-3	µg/L	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U	NA		NA	
Di-N-Butyl Phthalate	84-74-2	µg/L	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U	NA		NA	
Di-N-Octylphthalate	117-84-0	µg/L	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U	NA		NA	
Endosulfan Sulfate	1031-07-8	µg/L	0.02	U	0.02	U	0.02	U	0.02	U	0.02	U	0.02	U	0.02	U	0.02	U	0.02	U	NA		NA	
Endrin	72-20-8	µg/L	0.02	U	0.02	U	0.02	U	0.02	U	0.02	U	0.02	U	0.02	U	0.02	U	0.02	U	NA		NA	
Endrin Aldehyde	7421-93-4	µg/L	0.02	U	0.02	U	0.02	U	0.02	U	0.02	U	0.02	U	0.02	U	0.02	U	0.02	U	NA		NA	
Endrin Ketone	53494-70-5	µg/L	0.02	U	0.02	U	0.02	U	0.02	U	0.02	U	0.02	U	0.02	U	0.02	U	0.02	U	NA		NA	
Ethylbenzene	100-41-4	µg/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
Fluoranthene	206-44-0	µg/L	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U	NA		NA	
Fluorene	86-73-7	µg/L	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U	NA		NA	
Gamma Bhc (Lindane)	58-89-9	µg/L	0.02	U	0.02	U	0.02	U	0.02	U	0.02	U	0.02	U	0.02	U	0.02	U	0.02	U	NA		NA	
Heptachlor	76-44-8	µg/L	0.02	U	0.02	U	0.02	U	0.02	U	0.02	U	0.02	U	0.02	U	0.02	U	0.02	U	NA		NA	
Heptachlor Epoxide	1024-57-3	µg/L	0.02	U	0.02	U	0.02	U	0.02	U	0.02	U	0.02	U	0.02	U	0.02	U	0.02	U	NA		NA	
Hexachlorobenzene	118-74-1	µg/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	NA		NA	
Hexachlorobutadiene	87-68-3	µg/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	NA		NA	
Hexachlorocyclopentadiene	77-47-4	µg/L	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U	NA		NA	
Hexachloroethane	67-72-1	µg/L	2	U	2	U	2	U	2	U	2	U	2	U	2	U	2	U	2	U	NA		NA	
Indeno(1,2,3-C,D)Pyrene	193-39-5	µg/L	2	U	2	U	2	U	2	U	2	U	2	U	2	U	2	U	2	U	NA		NA	
Iron	7439-89-6	µg/L	150	U	150	U	150	U	150	U	150	U	150	U	150	U	150	U	150	U	NA		NA	
Isophorone	78-59-1	µg/L	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U	NA		NA	
Isopropylbenzene (Cumene)	98-82-8	µg/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
Lead	7439-92-1	µg/L	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U	NA		NA	
Magnesium	7439-95-4	µg/L	5000	U	5000	U	5000	U	5000	U	5000	U	5000	U	5000	U	5000	U	5000	U	NA		NA	
Manganese	7439-96-5	µg/L	15	U	15	U	15	U	15	U	15	U	15	U	15	U	15	U	15	U	NA		NA	
Mercury	7439-97-6	µg/L	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	NA		NA	
Methoxychlor	72-43-5	µg/L	0.02	U	0.02	U	0.02	U	0.02	U	0.02	U	0.02	U	0.02	U	0.02	U	0.02	U	NA		NA	
Methyl Acetate	79-20-9	µg/L	5	U	5	U	5	U	5	U	5	UT	5	U	5	U	5	U	5	U	5	U	5	U
Methyl Ethyl Ketone (2-Butanone)	78-93-3	µg/L	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U
Methyl Isobutyl Ketone (4-Methyl-2-Pentanone)	108-10-1	µg/L	5	U	5	U	5	U	5	U	5	U	5	UT	5	U	5	U	5	U	5	U	5	U
Methylcyclohexane	108-87-2	µg/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
Methylene Chloride	75-09-2	µg/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
Naphthalene	91-20-3	µg/L	10	U	10	U	10	U	10	U	10	U	10	U	2	U	2	U	2	U	NA		NA	
Nickel	7440-02-0	µg/L	40	U	40	U	40	U	40	U	40	U	40	U	40	U	40	U	40	U	NA		NA	
Nitrobenzene	98-95-3	µg/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	NA		NA	
N-Nitrosodi-N-Propylamine	621-64-7	µg/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	NA		NA	
N-Nitrosodiphenylamine	86-30-6	µg/L	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U	NA		NA	
P,P'-DDD	72-54-8	µg/L	0.02	U	0.02	U	0.02	U	0.02	U	0.02	U	0.02	U	0.02	U	0.02	U	0.02	U	NA		NA	
P,P'-DDE	72-55-9	µg/L	0.02	U	0.02	U	0.02	U	0.02	U	0.02	U	0.02	U	0.02	U	0.02	U	0.02	U	NA		NA	
P,P'-DDT	50-29-3	µg/L	0.02	U	0.02	U	0.02	U	0.02	U	0.02	U	0.02	U	0.02	U	0.02	U	0.02	U	NA		NA	
PCB-1016 (Aroclor 1016)	12674-11-2	µg/L	0.4	U	0.4	U	0.4	U	0.4	U	0.4	U	0.4	U	0.4	U	0.4	U	0.4	U	NA		NA	
PCB-1221 (Aroclor 1221)	11104-28-2	µg/L	0.4	U	0.4	U	0.4	U	0.4	U	0.4	U	0.4	U	0.4	U	0.4	U	0.4	U	NA		NA	
PCB-1232 (Aroclor 1232)	11141-16-5	µg/L	0.4	U	0.4	U	0.4	U	0.4	U	0.4	U	0.4	U	0.4	U	0.4	U	0.4	U	NA		NA	
PCB-1242 (Aroclor 1242)	53469-21-9	µg/L	0.4	U	0.4	U	0.4	U	0.4	U	0.4	U	0.4	U	0.4	U	0.4	U	0.4	U	NA		NA	
PCB-1248 (Aroclor 1248)	12672-29-6	µg/L	0.4	U	0.4	U	0.4	U	0.4	U	0.4	U	0.4	U	0.4	U	0.4	U	0.4	U	NA		NA	
PCB-1254 (Aroclor 1254)	11097-69-1	µg/L	0.4	U	0.4	U	0.4	U	0.4	U	0.4	U	0.4	U	0.4	U	0.4	U	0.4	U	NA		NA	

Table 3-2
Quality Assurance/Quality Control Sample Results
Quiogue Landfill, NYSDEC Site No. 152061
Quiogue, Southampton, New York

		Sample ID	FB-021220		FB-021320		FB-021420		FB-021720		FB-021920		FB-022420		FB-031620		FB-031720		FB-031820		TB-01-20200316		TB-02-20200317	
		Sample Date	2/12/2020		2/13/2020		2/14/2020		2/17/2020		2/19/2020		2/24/2020		3/16/2020		3/17/2020		3/18/2020		3/16/2020		3/17/2020	
		Sample Type	FB		FB		FB		FB		FB		FB		FB		FB		FB		TB		TB	
Chemical Name	**CAS No.**	**Unit**	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q
PCB-1260 (Aroclor 1260)	11096-82-5	µg/L	0.4	U	0.4	U	0.4	U	0.4	U	0.4	U	0.4	U	0.4	U	0.4	U	0.4	U	NA		NA	
Pentachlorophenol	87-86-5	µg/L	20	U	20	U	20	U	20	U	20	U	20	U	20	U	20	U	20	U	NA		NA	
Phenanthrene	85-01-8	µg/L	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U	NA		NA	
Phenol	108-95-2	µg/L	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U	NA		NA	
Potassium	7440-09-7	µg/L	5000	U	5000	U	5000	U	5000	U	5000	U	5000	U	5000	U	5000	U	5000	U	NA		NA	
Pyrene	129-00-0	µg/L	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U	NA		NA	
Selenium	7782-49-2	µg/L	20	U	20	U	20	U	20	U	20	U	20	U	20	U	20	U	20	U	NA		NA	
Silver	7440-22-4	µg/L	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U	NA		NA	
Silvex (2,4,5-TP)	93-72-1	µg/L	1.2	U	1.2	U	1.2	U	1.2	U	1.2	U	1.2	U	1.2	U	1.2	U	1.2	U	NA		NA	
Sodium	7440-23-5	µg/L	5000	U	5000	U	5000	U	5000	U	5000	U	5000	U	127	J	151	J	5000	U	NA		NA	
Styrene	100-42-5	µg/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
Tert-Butyl Methyl Ether	1634-04-4	µg/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
Tetrachloroethylene (PCE)	127-18-4	µg/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
Thallium	7440-28-0	µg/L	20	U	20	U	20	U	20	U	20	U	20	U	20	U	20	U	20	U	NA		NA	
Toluene	108-88-3	µg/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
Toxaphene	8001-35-2	µg/L	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	NA		NA	
Trans-1,2-Dichloroethene	156-60-5	µg/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
Trans-1,3-Dichloropropene	10061-02-6	µg/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
Trichloroethylene (TCE)	79-01-6	µg/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
Trichlorofluoromethane	75-69-4	µg/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
Vanadium	7440-62-2	µg/L	50	U	50	U	50	U	50	U	50	U	50	U	50	U	50	U	50	U	NA		NA	
Vinyl Chloride	75-01-4	µg/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
Xylenes	1330-20-7	µg/L	2	U	2	U	2	U	2	U	2	U	2	U	2	U	2	U	2	U	2	U	2	U
Zinc	7440-66-6	µg/L	3	J	2.4	J	2	J	2.8	J	1.7	J	2	J	30	U	2.8	J	2.2	J	NA		NA	
2-(N-methyl perfluorooctanesulfonamido) acetic acid	2355-31-9	ng/L	18.3	U	18.6	U	18.4	U	18.5	U	17.2	U	18.2	U	17.7	U	17.4	U	17.8	U	NA		NA	
N-Ethyl-N-((heptadecafluorooctyl)sulphonyl) glycine	2991-50-6	ng/L	18.3	U	18.6	U	18.4	U	18.5	U	17.2	U	18.2	U	17.7	U	17.4	U	17.8	U	NA		NA	
PERFLUOROBUTANESULFONIC ACID	375-73-5	ng/L	1.83	U	1.86	U	1.84	U	1.85	U	1.72	U	1.82	U	1.77	U	1.74	U	1.78	U	NA		NA	
PERFLURODECANOIC ACID (PFDA)	335-76-2	ng/L	1.83	U	1.86	U	1.84	U	1.85	U	1.72	U	1.82	U	1.77	U	1.74	U	1.78	U	NA		NA	
PERFLURODODECANOIC ACID (PFDoA)	307-55-1	ng/L	1.83	U	1.86	U	1.84	U	1.85	U	1.72	U	1.82	U	1.77	U	1.74	U	1.78	U	NA		NA	
Perfluoroheptanoic Acid (PFHpA)	375-85-9	ng/L	1.83	U	1.86	U	1.84	U	1.85	U	1.72	U	1.82	U	1.77	U	1.74	U	1.78	U	NA		NA	
PERFLUOROHEXANESULFONIC ACID	355-46-4	ng/L	**0.3**	**BJ**	**0.28**	**BJ**	**0.28**	**BJ**	**0.3**	**BJ**	**0.23**	**BJ**	**0.25**	**BJ**	**0.3**	**BJ**	**0.25**	**BJ**	**0.26**	**BJ**	NA		NA	
PERFLUOROHEXANOIC ACID (PFHxA)	307-24-4	ng/L	1.83	U	1.86	U	1.84	U	1.85	U	1.72	U	1.82	U	1.77	U	1.74	U	1.78	U	NA		NA	
PERFLURONONANOIC ACID	375-95-1	ng/L	1.83	U	1.86	U	1.84	U	1.85	U	1.72	U	1.82	U	1.77	U	1.74	U	1.78	U	NA		NA	
PERFLUOROOCTANE SULFONIC ACID	1763-23-1	ng/L	1.83	U	1.86	U	1.84	U	1.85	U	1.72	U	1.82	U	1.77	U	1.74	U	1.78	U	NA		NA	
Perfluorooctanoic acid (PFOA)	335-67-1	ng/L	1.83	U	1.86	U	1.84	U	1.85	U	1.72	U	1.82	U	1.77	U	1.74	U	1.78	U	NA		NA	
PERFLUOROTETRADECANOIC ACID (PFTeA)	376-06-7	ng/L	1.83	U	1.86	U	1.84	U	1.85	U	1.72	U	1.82	U	1.77	U	**0.46**	**J**	1.78	U	NA		NA	
PERFLUOROTRIDECANOIC ACID (PFTriA)	72629-94-8	ng/L	1.83	U	1.86	U	1.84	U	1.85	U	1.72	U	1.82	U	1.77	U	1.74	U	1.78	U	NA		NA	
PERFLUOROUNDECANOIC ACID (PFUnA)	2058-94-8	ng/L	1.83	U	1.86	U	1.84	U	1.85	U	1.72	U	1.82	U	1.77	U	1.74	U	1.78	U	NA		NA	

Acronyms:

BJ - analyte detected in blank, estimated
CAS - chemical abstract service
FD - field duplicate
ID - identification
J - estimated
N - normal sample
NA - not analyzed
NC - no criteria listed
NYSDEC - New York State Department of Environmental Conservation
R - result rejected
U - nondetect
ug/l - micrograms per liter

Table 3-3a
Soil Analytical Results - VOCs, SVOCs, Pesticides, Herbicides, PCBs, Metals, Mercury, Cyanide, and 1,4-Dioxane
Quiogue Landfill, NYSDEC Site No. 152061
Quiogue, Southampton, New York

					Location ID		SS-01		SB-01		SB-01		SB-01		SS-02		SB-02	
					Sample ID		SS-01-021420		SB-01-5-7-021320		SB-101-5-7-021320		SB-01-25-26-021320		SS-02-021420		SB-02-10-11.5-021420	
					Sample Depth (feet bgs)		0 – 0.17		5 - 7		5 – 7		25 – 26		0 – 0.17		10 -11.5	
					Sample Date		2/14/2020		2/13/2020		2/13/2020		2/13/2020		2/14/2020		2/14/2020	
					Sample Type		N		N		FD		N		N		N	
					Parent Sample Code						SB-01-5-7-021320							
Chemical Name	**CAS No.**	**Unit**	**Unrestricted Use SCO[1]**	**Industrial Use SCO[2]**	**Protection of Groundwater SCO[3]**		Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q
1,1,1-Trichloroethane	71-55-6	µg/kg	680	1,000,000	680	a	1.1	U	1.3	U	1.6	U	1.2	U	1	U	1.1	U
1,1,2,2-Tetrachloroethane	79-34-5	µg/kg	NC	NC	600	b	1.1	U	1.3	U	1.6	U	1.2	U	1	U	1.1	U
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	µg/kg	NC	NC	6,000	b	1.1	U	1.3	U	1.6	U	1.2	U	1	U	1.1	U
1,1,2-Trichloroethane	79-00-5	µg/kg	NC	NC	NC	a	1.1	U	1.3	U	1.6	U	1.2	U	1	U	1.1	U
1,1-Dichloroethane	75-34-3	µg/kg	270	480,000	270	a	1.1	U	1.3	U	1.6	U	1.2	U	1	U	1.1	U
1,1-Dichloroethene	75-35-4	µg/kg	330	1,000,000	330	a	1.1	U	1.3	U	1.6	U	1.2	U	1	U	1.1	U
1,2,4-Trichlorobenzene	120-82-1	µg/kg	NC	NC	340	b	1.1	U	1.3	U	1.6	U	1.2	U	1	U	0.57	J
1,2-Dibromo-3-Chloropropane	96-12-8	µg/kg	NC	NC	NC	a	1.1	U	1.3	U	1.6	U	1.2	U	1	U	1.1	U
1,2-Dibromoethane (Ethylene Dibromide)	106-93-4	µg/kg	NC	NC	NC	a	1.1	U	1.3	U	1.6	U	1.2	U	1	U	1.1	U
1,2-Dichlorobenzene	95-50-1	µg/kg	1,100	1,000,000	1,100	a	1.1	U	1.3	U	1.6		0.32	J	1	U	14	
1,2-Dichloroethane	107-06-2	µg/kg	20	60,000	20	a	1.1	U	1.3	U	1.6	U	1.2	U	1	U	1.1	U
1,2-Dichloropropane	78-87-5	µg/kg	NC	NC	NC	a	1.1	U	1.3	U	1.6	U	1.2	U	1	U	1.1	U
1,3-Dichlorobenzene	541-73-1	µg/kg	2,400	560,000	2,400	a	1.1	U	1.3	U	1.6	U	1.2	U	1	U	2.3	
1,4-Dichlorobenzene	106-46-7	µg/kg	1,800	250,000	1,800	a	1.1	U	1.3	U	2.2		1.7		1	U	23	
1,4-Dioxane (P-Dioxane)	123-91-1	µg/kg	100	250,000	100	a	110	U	140	U	140	U	120	U	110	U	110	U
2,4,5-Trichlorophenol	95-95-4	µg/kg	NC	NC	100	b	350	U	460	U	470	U	400	U	350	U	370	U
2,4,6-Trichlorophenol	88-06-2	µg/kg	NC	NC	NC	a	140	U	180	U	190	U	160	U	140	U	150	U
2,4-D (Dichlorophenoxyacetic Acid)	94-75-7	µg/kg	NC	NC	500	b	35	U	46	U	48	U	40	U	35	U	37	U
2,4-Dichlorophenol	120-83-2	µg/kg	NC	NC	400	b	140	U	180	U	190	U	160	U	140	U	150	U
2,4-Dimethylphenol	105-67-9	µg/kg	NC	NC	NC	a	350	U	460	U	470	U	400	U	350	U	370	U
2,4-Dinitrophenol	51-28-5	µg/kg	NC	NC	200	b	280	U	370	U	380	U	320	U	280	U	290	U
2,4-Dinitrotoluene	121-14-2	µg/kg	NC	NC	NC	a	71	U	93	U	96	U	80	U	71	U	74	U
2,6-Dinitrotoluene	606-20-2	µg/kg	NC	NC	1,000	b	71	U	93	U	96	U	80	U	71	U	74	U
2-Chloronaphthalene	91-58-7	µg/kg	NC	NC	NC	a	350	U	460	U	470	U	400	U	350	U	370	U
2-Chlorophenol	95-57-8	µg/kg	NC	NC	NC	a	350	U	460	U	470	U	400	U	350	U	370	U
2-Hexanone	591-78-6	µg/kg	NC	NC	NC	a	5.7	U	6.4	U	7.8	U	6.2	U	5.2	U	5.6	U
2-Methylnaphthalene	91-57-6	µg/kg	NC	NC	NC	b	350	U	50	J	20	J	19	J	350	U	38	J
2-Methylphenol (O-Cresol)	95-48-7	µg/kg	330	1,000,000	330	a	350	U	460	U	470	U	400	U	350	U	370	U
2-Nitroaniline	88-74-4	µg/kg	NC	NC	400	b	350	U	460	U	470	U	400	U	350	U	370	U
2-Nitrophenol	88-75-5	µg/kg	NC	NC	300	b	350	U	460	U	470	U	400	U	350	U	370	U
3,3'-Dichlorobenzidine	91-94-1	µg/kg	NC	NC	NC	a	140	U	180	U	190	U	160	U	140	U	150	U
3-Nitroaniline	99-09-2	µg/kg	NC	NC	400	b	350	U	460	U	470	U	400	U	350	U	370	U
4,6-Dinitro-2-Methylphenol	534-52-1	µg/kg	NC	NC	NC	a	280	U	370	U	380	U	320	U	280	U	290	U
4-Bromophenyl Phenyl Ether	101-55-3	µg/kg	NC	NC	NC	a	350	U	460	U	470	U	400	U	350	U	370	U
4-Chloro-3-Methylphenol	59-50-7	µg/kg	NC	NC	NC	a	350	U	460	U	470	U	400	U	350	U	370	U
4-Chloroaniline	106-47-8	µg/kg	NC	NC	220	b	350	U	460	U	470	U	400	U	350	U	370	U
4-Chlorophenyl Phenyl Ether	7005-72-3	µg/kg	NC	NC	NC	a	350	U	460	U	470	U	400	U	350	U	370	U
4-Methylphenol (P-Cresol)	106-44-5	µg/kg	330	1,000,000	330	a	350	U	88	J	470	U	400	U	350	U	370	U
4-Nitroaniline	100-01-6	µg/kg	NC	NC	NC	a	350	U	460	U	470	U	400	U	350	U	370	U
4-Nitrophenol	100-02-7	µg/kg	NC	NC	100	b	710	U	930	U	960	U	800	U	710	U	740	U
Acenaphthene	83-32-9	µg/kg	20,000	1,000,000	98,000	a	350	U	460	U	470	U	400	U	350	U	370	U
Acenaphthylene	208-96-8	µg/kg	100,000	1,000,000	107,000	a	350	U	12	J	470	U	7.2	J	350	U	370	U
Acetic acid, (2,4,5-trichlorophenoxy)-	93-76-5	µg/kg	NC	NC	1,900	b	35	U	46	U	48	U	40	U	35	U	37	U

Table 3-3a
Soil Analytical Results - VOCs, SVOCs, Pesticides, Herbicides, PCBs, Metals, Mercury, Cyanide, and 1,4-Dioxane
Quiogue Landfill, NYSDEC Site No. 152061
Quiogue, Southampton, New York

					Location ID		SS-01		SB-01		SB-01		SB-01		SS-02		SB-02	
					Sample ID		SS-01-021420		SB-01-5-7-021320		SB-101-5-7-021320		SB-01-25-26-021320		SS-02-021420		SB-02-10-11.5-021420	
					Sample Depth (feet bgs)		0 – 0.17		5 - 7		5 – 7		25 – 26		0 – 0.17		10 -11.5	
					Sample Date		2/14/2020		2/13/2020		2/13/2020		2/13/2020		2/14/2020		2/14/2020	
					Sample Type		N		N		FD		N		N		N	
					Parent Sample Code						SB-01-5-7-021320							
Chemical Name	**CAS No.**	**Unit**	**Unrestricted Use SCO[1]**	**Industrial Use SCO[2]**	**Protection of Groundwater SCO[3]**		Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q
Acetone	67-64-1	µg/kg	50	1,000,000	50	a	6.8	U	7.6	UJ	**250**	**J**	12	U	6.2	U	64	U
Acetophenone	98-86-2	µg/kg	NC	NC	NC	a	350	U	460	U	43	J	30	J	350	U	370	U
Aldrin	309-00-2	µg/kg	5.0	1,400	190	a	7.1	U	9.3	U	9.6	U	8	U	7.1	U	7.4	U
Alpha Bhc (Alpha Hexachlorocyclohexane)	319-84-6	µg/kg	20	6,800	20	a	2.1	U	2.8	U	2.9	U	2.4	U	2.1	U	2.2	U
Alpha Endosulfan	959-98-8	µg/kg	2,400	920,000	102,000	a	7.1	U	9.3	U	9.6	U	8	U	7.1	U	7.4	U
Aluminum	7429-90-5	mg/kg	NC	NC	NC	a	598		2640		2410		2270		972		1020	
Anthracene	120-12-7	µg/kg	100,000	1,000,000	1,000,000	a	350	U	260	J	470	U	400	U	350	U	370	U
Antimony	7440-36-0	mg/kg	NC	NC	NC	a	4.1	U	5.4	U	5.4	U	4.6	U	4	U	4.1	U
Arsenic	7440-38-2	mg/kg	13	16	16	a	3.1	U	1.6	J	4.5		3.5	U	3	U	3.1	U
Atrazine	1912-24-9	µg/kg	NC	NC	NC	a	140	U	180	U	190	U	160	U	140	U	150	U
Barium	7440-39-3	mg/kg	350	10,000	820	a	40.9	U	32.4	J	51.3	J	22.9	J	40.3	U	5.9	J
Benzaldehyde	100-52-7	µg/kg	NC	NC	NC	a	350	U	91	J	110	J	52	J	350	U	19	J
Benzene	71-43-2	µg/kg	60	89,000	60	a	1.1	U	1.3	U	1.6	U	1.2	U	1	U	1.1	U
Benzo(A)Anthracene	56-55-3	µg/kg	1,000	11,000	1,000	a	14	J	**1400**	**J**	61	J	50		17	J	49	
Benzo(A)Pyrene	50-32-8	µg/kg	1,000	1,100	22,000	a	9.8	J	**1200**	**J**	72	J	42		14	J	86	
Benzo(B)Fluoranthene	205-99-2	µg/kg	1,000	11,000	1,700	a	22	J	**1400**	**J**	91	J	74		22	J	57	
Benzo(G,H,I)Perylene	191-24-2	µg/kg	100,000	1,000,000	1,000,000	a	350	U	650		100	J	25	J	11	J	140	J
Benzo(K)Fluoranthene	207-08-9	µg/kg	800	110,000	1,700	a	6.9	J	690	J	35	J	22	J	8.4	J	12	J
Benzyl Butyl Phthalate	85-68-7	µg/kg	NC	NC	122,000	b	350	U	200	J	1100		290	J	350	U	370	U
Beryllium	7440-41-7	mg/kg	7.20	2,700	47	a	0.41	U	0.54	U	0.21	J	0.46	U	0.1	J	0.074	J
Beta Bhc (Beta Hexachlorocyclohexane)	319-85-7	µg/kg	36	14,000	90	a	2.1	U	2.8	U	2.9	U	2.4	U	2.1	U	2.2	U
Beta Endosulfan	33213-65-9	µg/kg	2,400	920,000	102,000	a	7.1	U	9.3	U	9.6	U	8	U	7.1	U	7.4	U
Biphenyl (Diphenyl)	92-52-4	µg/kg	NC	NC	NC	a	350	U	460	U	470	U	400	U	350	U	370	U
Bis(2-Chloroethoxy) Methane	111-91-1	µg/kg	NC	NC	NC	a	350	U	460	U	470	U	400	U	350	U	370	U
Bis(2-Chloroethyl) Ether (2-Chloroethyl Ether	111-44-4	µg/kg	NC	NC	NC	a	35	U	46	U	47	U	40	U	35	U	37	U
Bis(2-Chloroisopropyl) Ether	108-60-1	µg/kg	NC	NC	NC	a	350	U	460	U	470	U	400	U	350	U	370	U
Bis(2-Ethylhexyl) Phthalate	117-81-7	µg/kg	NC	NC	435,000	b	350	U	1600	J	4600	J	5900		130	J	710	
Bromodichloromethane	75-27-4	µg/kg	NC	NC	NC	a	1.1	U	1.3	U	1.6	U	1.2	U	1	U	1.1	U
Bromoform	75-25-2	µg/kg	NC	NC	NC	a	1.1	UJ	1.3	U	1.6	U	1.2	UJ	1	UJ	1.1	U
Bromomethane	74-83-9	µg/kg	NC	NC	NC	a	1.1	U	1.3	U	1.6	U	1.2	U	1	U	1.1	U
Cadmium	7440-43-9	mg/kg	2.50	60	7.50	a	0.82	U	0.41	J	0.68	J	0.31	J	0.15	J	0.075	J
Calcium	7440-70-2	mg/kg	NC	NC	NC	a	147	J	1540	J	6080	J	2180		1940		5850	
Caprolactam	105-60-2	µg/kg	NC	NC	NC	a	350	U	460	U	470	U	400	U	350	U	370	U
Carbazole	86-74-8	µg/kg	NC	NC	NC	a	350	U	460	U	470	U	400	U	350	U	370	U
Carbon Disulfide	75-15-0	µg/kg	NC	NC	2,700	b	1.1	U	1.3	U	0.94	J	1.2	U	1	U	0.95	J
Carbon Tetrachloride	56-23-5	µg/kg	760	44,000	760	a	1.1	U	1.3	U	1.6	U	1.2	U	1	U	1.1	U
Chlordane (Technical)	12789-03-6	µg/kg	NC	NC	NC	a	71	U	93	U	96	U	80	U	71	U	74	U
Chlorobenzene	108-90-7	µg/kg	1,100	1,000,000	1,100	a	1.1	U	1.3	U	2.6		0.26	J	1	U	37	
Chloroethane	75-00-3	µg/kg	NC	NC	1,900	b	1.1	U	1.3	U	1.6	U	1.2	U	1	U	1.1	U
Chloroform	67-66-3	µg/kg	370	700,000	370	a	1.1	U	1.3	U	1.6	U	1.2	U	1	U	1.1	U
Chloromethane	74-87-3	µg/kg	NC	NC	NC	a	1.1	U	1.3	U	1.6	U	1.2	U	1	U	1.1	U
Chromium, Total	7440-47-3	mg/kg	30	6,800	NC	a	1.6	J	7.4	J	20.5	J	11.8		3.3		2.7	
Chrysene	218-01-9	µg/kg	1,000	110,000	1,000	a	16	J	**1300**	**J**	76	J	58	J	15	J	73	J

Table 3-3a
Soil Analytical Results - VOCs, SVOCs, Pesticides, Herbicides, PCBs, Metals, Mercury, Cyanide, and 1,4-Dioxane
Quiogue Landfill, NYSDEC Site No. 152061
Quiogue, Southampton, New York

					Location ID		SS-01		SB-01		SB-01		SB-01		SS-02		SB-02	
					Sample ID		SS-01-021420		SB-01-5-7-021320		SB-101-5-7-021320		SB-01-25-26-021320		SS-02-021420		SB-02-10-11.5-021420	
					Sample Depth (feet bgs)		0 – 0.17		5 - 7		5 – 7		25 – 26		0 – 0.17		10 -11.5	
					Sample Date		2/14/2020		2/13/2020		2/13/2020		2/13/2020		2/14/2020		2/14/2020	
					Sample Type		N		N		FD		N		N		N	
					Parent Sample Code						SB-01-5-7-021320							
Chemical Name	**CAS No.**	**Unit**	**Unrestricted Use SCO[1]**	**Industrial Use SCO[2]**	**Protection of Groundwater SCO[3]**		Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q
Cis-1,2-Dichloroethylene	156-59-2	µg/kg	250	1,000,000	250	a	1.1	U	1.3	U	1.6	U	1.2	U	1	U	1.1	U
Cis-1,3-Dichloropropene	10061-01-5	µg/kg	NC	NC	NC	a	1.1	U	1.3	U	1.6	U	1.2	U	1	U	1.1	U
Cobalt	7440-48-4	mg/kg	NC	NC	NC	a	10.2	U	13.5	U	1.5	J	11.5	U	10.1	U	10.3	U
Copper	7440-50-8	mg/kg	50	10,000	1,720	a	2.4	J	33.3		25.8		23.8		5	U	4.6	J
Cyanide	57-12-5	mg/kg	27	10,000	40	a	0.23	U	0.96	J	6.6	J	1.5		0.27		0.23	U
Cyclohexane	110-82-7	µg/kg	NC	NC	NC	a	1.1	U	1.3	U	1.6	U	1.2	U	1	U	1.1	U
Delta BHC (Delta Hexachlorocyclohexane)	319-86-8	µg/kg	40	1,000,000	250	a	2.1	U	2.8	U	2.9	U	2.4	U	2.1	U	2.2	U
Dibenz(A,H)Anthracene	53-70-3	µg/kg	330	1,100	1,000,000	a	35	U	170	J	22	J	40	U	35	U	27	J
Dibenzofuran	132-64-9	µg/kg	7,000	1,000,000	6,200	b	350	U	460	U	470	U	400	U	350	U	30	J
Dibromochloromethane	124-48-1	µg/kg	NC	NC	NC	a	1.1	U	1.3	U	1.6	U	1.2	U	1	U	1.1	U
Dichlorodifluoromethane	75-71-8	µg/kg	NC	NC	NC	a	1.1	U	1.3	U	1.6	U	1.2	U	1	U	1.1	U
Dieldrin	60-57-1	µg/kg	5.00	2,800	100	a	2.1	U	**16**	J	2.9	UJ	**9.5**	J	2.1	U	2.2	U
Diethyl Phthalate	84-66-2	µg/kg	NC	NC	7,100	b	350	U	460	U	470	U	400	U	350	U	370	U
Dimethyl Phthalate	131-11-3	µg/kg	NC	NC	27,000	b	350	U	460	U	470	U	400	U	350	U	370	U
Di-N-Butyl Phthalate	84-74-2	µg/kg	NC	NC	8,100	b	350	U	460	U	470	U	400	U	350	U	370	U
Di-N-Octylphthalate	117-84-0	µg/kg	NC	NC	120,000	b	350	U	210	J	470	U	350	J	350	U	370	U
Endosulfan Sulfate	1031-07-8	µg/kg	2,400	920,000	1,000,000	a	7.1	U	9.3	U	9.6	U	8	U	7.1	U	7.4	U
Endrin	72-20-8	µg/kg	14	410,000	60	a	7.1	U	9.3	U	9.6	U	8	U	7.1	U	7.4	U
Endrin Aldehyde	7421-93-4	µg/kg	NC	NC	NC	a	7.1	U	9.3	U	9.6	U	8	U	7.1	U	7.4	U
Endrin Ketone	53494-70-5	µg/kg	NC	NC	NC	a	7.1	U	9.3	U	9.6	U	8	U	7.1	U	7.4	U
Ethylbenzene	100-41-4	µg/kg	1,000	780,000	1,000	a	1.1	U	1.3	U	1.6	U	1.2	U	1	U	0.43	J
Fluoranthene	206-44-0	µg/kg	100,000	1,000,000	1,000,000	a	21	J	2200	J	82	J	77	J	23	J	40	J
Fluorene	86-73-7	µg/kg	30,000	1,000,000	386,000	a	350	U	26	J	470	U	400	U	350	U	33	J
Gamma Bhc (Lindane)	58-89-9	µg/kg	100	23,000	100	a	2.1	U	2.8	U	2.9	U	2.4	U	2.1	U	2.2	U
Heptachlor	76-44-8	µg/kg	42	29,000	380	a	7.1	U	9.3	U	9.6	U	8	U	7.1	U	7.4	U
Heptachlor Epoxide	1024-57-3	µg/kg	NC	NC	20	b	7.1	U	9.3	U	9.6	U	8	U	7.1	U	7.4	U
Hexachlorobenzene	118-74-1	µg/kg	330	12,000	1,400	b	35	U	46	U	47	U	40	U	35	U	37	U
Hexachlorobutadiene	87-68-3	µg/kg	NC	NC	NC	a	71	U	93	U	96	U	80	U	71	U	74	U
Hexachlorocyclopentadiene	77-47-4	µg/kg	NC	NC	NC	a	350	U	460	U	470	U	400	U	350	U	370	U
Hexachloroethane	67-72-1	µg/kg	NC	NC	NC	a	35	U	46	U	47	U	40	U	35	U	37	U
Indeno(1,2,3-C,D)Pyrene	193-39-5	µg/kg	500	11,000	8,200	a	35	U	**730**	J	54	J	28	J	35	U	40	
Iron	7439-89-6	mg/kg	NC	NC	NC	a	1270		7020	J	52700	J	23100		1030		2740	
Isophorone	78-59-1	µg/kg	NC	NC	4,400	b	140	U	180	U	190	U	160	U	140	U	150	U
Isopropylbenzene (Cumene)	98-82-8	µg/kg	NC	NC	2,300	b	1.1	U	1.3	U	1.5	J	2		1	U	0.36	J
Lead	7439-92-1	mg/kg	63	3,900	450	a	3.4		**153**		**209**		**112**		14.2		27.1	
Magnesium	7439-95-4	mg/kg	NC	NC	NC	a	110	J	292	J	958	J	761	J	167	J	3210	
Manganese	7439-96-5	mg/kg	1,600	10,000	2,000	a	9.4		38.7	J	269	J	89.3		14.5		20.1	
Mercury	7439-97-6	mg/kg	0.180	5.70	0.73	a	0.014	J	**0.23**		**0.32**		0.061		0.015	J	0.025	
Methoxychlor	72-43-5	µg/kg	NC	NC	900,000	b	7.1	U	9.3	U	9.6	U	8	U	7.1	U	7.4	U
Methyl Acetate	79-20-9	µg/kg	NC	NC	NC	a	5.7	UT	6.4	UT	7.8	UT	6.2	UT	5.2	UT	5.6	UT
Methyl Ethyl Ketone (2-Butanone)	78-93-3	µg/kg	120	1,000,000	120	b	5.7	U	6.4	UJ	43	J	6.2	U	5.2	U	5.6	U
Methyl Isobutyl Ketone (4-Methyl-2-Pentanor	108-10-1	µg/kg	NC	NC	1,000	b	5.7	U	6.4	U	7.8	U	6.2	U	5.2	U	5.6	U
Methylcyclohexane	108-87-2	µg/kg	NC	NC	NC	a	1.1	U	1.3	U	1.6	U	1.2	U	1	U	1.1	U

Table 3-3a
Soil Analytical Results - VOCs, SVOCs, Pesticides, Herbicides, PCBs, Metals, Mercury, Cyanide, and 1,4-Dioxane
Quiogue Landfill, NYSDEC Site No. 152061
Quiogue, Southampton, New York

					Location ID		SS-01		SB-01		SB-01		SB-01		SS-02		SB-02	
					Sample ID		SS-01-021420		SB-01-5-7-021320		SB-101-5-7-021320		SB-01-25-26-021320		SS-02-021420		SB-02-10-11.5-021420	
					Sample Depth (feet bgs)		0 – 0.17		5 - 7		5 – 7		25 – 26		0 – 0.17		10 -11.5	
					Sample Date		2/14/2020		2/13/2020		2/13/2020		2/13/2020		2/14/2020		2/14/2020	
					Sample Type		N		N		FD		N		N		N	
					Parent Sample Code						SB-01-5-7-021320							
Chemical Name	**CAS No.**	**Unit**	**Unrestricted Use SCO[1]**	**Industrial Use SCO[2]**	**Protection of Groundwater SCO[3]**		Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q
Methylene Chloride	75-09-2	µg/kg	50	1,000,000	50	a	1.1	U	1.3	U	1.6	U	1.1	J	1	U	0.99	J
Naphthalene	91-20-3	µg/kg	12,000	1,000,000	12,000	a	350	U	67	J	25	J	230	J	350	U	68	J
Nickel	7440-02-0	mg/kg	30	10,000	130	a	0.81	J	5.5	J	12		6.2	J	0.99	J	1.1	J
Nitrobenzene	98-95-3	µg/kg	NC	NC	170	b	35	U	46	U	47	U	40	U	35	U	37	U
N-Nitrosodi-N-Propylamine	621-64-7	µg/kg	NC	NC	NC	a	35	U	46	U	47	U	40	U	35	U	37	U
N-Nitrosodiphenylamine	86-30-6	µg/kg	NC	NC	NC	a	350	U	460	U	470	U	11	J	350	U	370	U
P,P'-DDD	72-54-8	µg/kg	3.30	180,000	14,000	a	7.1	U	**33**		**28**		**13**	J+	7.1	U	7.4	U
P,P'-DDE	72-55-9	µg/kg	3.30	120,000	17,000	a	7.1	U	**24**		**20**	NJ	**9.8**	J+	7.1	U	7.4	U
P,P'-DDT	50-29-3	µg/kg	3.30	94,000	136,000	a	**3.4**	**J**	9.3	U	9.6	U	8	U	7.1	U	7.4	U
PCB-1016 (Aroclor 1016)	12674-11-2	µg/kg	100	25,000	3,200	a	71	U	93	U	96	U	80	U	71	U	74	U
PCB-1221 (Aroclor 1221)	11104-28-2	µg/kg	100	25,000	3,200	a	71	U	93	U	96	U	80	U	71	U	74	U
PCB-1232 (Aroclor 1232)	11141-16-5	µg/kg	100	25,000	3,200	a	71	U	93	U	96	U	80	U	71	U	74	U
PCB-1242 (Aroclor 1242)	53469-21-9	µg/kg	100	25,000	3,200	a	71	U	93	UJ	**330**	J	80	U	71	U	74	U
PCB-1248 (Aroclor 1248)	12672-29-6	µg/kg	100	25,000	3,200	a	71	U	93	U	96	U	80	U	71	U	74	U
PCB-1254 (Aroclor 1254)	11097-69-1	µg/kg	100	25,000	3,200	a	71	U	93	U	96	U	**180**		71	U	74	U
PCB-1260 (Aroclor 1260)	11096-82-5	µg/kg	100	25,000	3,200	a	71	U	93	U	96	U	80	U	71	U	74	U
Pentachlorophenol	87-86-5	µg/kg	800	55,000	800	a	280	U	370	U	380	U	320	U	280	U	290	U
Phenanthrene	85-01-8	µg/kg	100,000	1,000,000	1,000,000	a	350	U	620		52	J	38	J	350	U	100	J
Phenol	108-95-2	µg/kg	330	1,000,000	330	a	350	U	460	U	470	U	400	U	350	U	370	U
Polychlorinated Biphenyl (PCBs)	1336-36-3	µg/kg	100	25,000	3,200	a	71	U	93	U	**330**		**180**		71	U	74	U
Potassium	7440-09-7	mg/kg	NC	NC	NC	a	63.1	J	1350	U	1350	U	1150	U	1010	U	1030	U
Pyrene	129-00-0	µg/kg	100,000	1,000,000	1,000,000	a	21	J	2400	J	110	J	63	J	22	J	78	J
Selenium	7782-49-2	mg/kg	3.90	6,800	4.00	a	4.1	U	5.4	U	5.4	U	4.6	U	4	U	4.1	U
Silver	7440-22-4	mg/kg	2.00	6,800	8.30	a	2	U	2.7	U	2.7	U	2.3	U	2	U	2.1	U
Silvex (2,4,5-TP)	93-72-1	µg/kg	3,800	1,000,000	3,800	a	35	U	46	U	48	U	40	U	35	U	37	U
Sodium	7440-23-5	mg/kg	NC	NC	NC	a	1020	U	1350	U	1350	U	1150	U	1010	U	1030	U
Styrene	100-42-5	µg/kg	NC	NC	NC	a	1.1	U	1.3	U	1.6	U	1.2	U	1	U	1.1	U
Tert-Butyl Methyl Ether	1634-04-4	µg/kg	930	1,000,000	930	a	1.1	U	1.3	U	1.6	U	1.2	U	1	U	1.1	U
Tetrachloroethylene (PCE)	127-18-4	µg/kg	1,300	300,000	1,300	a	1.1	U	1.3	U	1.6	U	1.2	U	1	U	1.1	U
Thallium	7440-28-0	mg/kg	NC	NC	NC	a	4.1	U	5.4	U	5.4	U	4.6	U	4	U	4.1	U
Toluene	108-88-3	µg/kg	700	1,000,000	700	a	1.1	U	1.3	U	1.1	J	1.2	U	1	U	1.1	U
Toxaphene	8001-35-2	µg/kg	NC	NC	NC	a	71	U	93	U	96	U	80	U	71	U	74	U
Trans-1,2-Dichloroethene	156-60-5	µg/kg	190	1,000,000	190	a	1.1	U	1.3	U	1.6	U	1.2	U	1	U	1.1	U
Trans-1,3-Dichloropropene	10061-02-6	µg/kg	NC	NC	NC	a	1.1	U	1.3	U	1.6	U	1.2	U	1	U	1.1	U
Trichloroethylene (TCE)	79-01-6	µg/kg	470	400,000	470	a	1.1	U	1.3	U	1.6	U	1.2	U	1	U	1.1	U
Trichlorofluoromethane	75-69-4	µg/kg	NC	NC	NC	a	1.1	U	1.3	U	1.6	U	1.2	U	1	U	1.1	U
Vanadium	7440-62-2	mg/kg	NC	NC	NC	a	2.3	J	5.7	J	9.6	J	4.2	J	2.9	J	4	J
Vinyl Chloride	75-01-4	µg/kg	20	27,000	20	a	1.1	U	1.3	U	1.6	U	1.2	U	1	U	1.1	U
Xylenes	1330-20-7	µg/kg	260	1,000,000	1,600	a	2.3	U	2.5	U	3.1	U	0.74	J	2.1	U	0.24	J
Zinc	7440-66-6	mg/kg	109	10,000	2,480	a	7.7		**145**	**J**	**242**	**J**	108		10.3		28.6	

Table 3-3a
Soil Analytical Results - VOCs, SVOCs, Pesticides, Herbicides, PCBs, Metals, Mercury, Cyanide, and 1,4-Dioxane
Quiogue Landfill, NYSDEC Site No. 152061
Quiogue, Southampton, New York

					Location ID	SS-01		SB-01		SB-01		SB-01		SS-02		SB-02	
					Sample ID	SS-01-021420		SB-01-5-7-021320		SB-101-5-7-021320		SB-01-25-26-021320		SS-02-021420		SB-02-10-11.5-021420	
					Sample Depth (feet bgs)	0 – 0.17		5 - 7		5 – 7		25 – 26		0 – 0.17		10 -11.5	
					Sample Date	2/14/2020		2/13/2020		2/13/2020		2/13/2020		2/14/2020		2/14/2020	
					Sample Type	N		N		FD		N		N		N	
					Parent Sample Code					SB-01-5-7-021320							
Chemical Name	**CAS No.**	**Unit**	**Unrestricted Use SCO[1]**	**Industrial Use SCO[2]**	**Protection of Groundwater SCO[3]**	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q

Notes:
1 - 6 NYCRR Part 375-6.8(a): Unrestricted Use Soil Cleanup Objectives, New York State Department of Environmental Conservation, Effective December, 14, 2006.
2 - 6 NYCRR Part 375-6.8(b): Restricted Use Soil Cleanup Objectives, Industrial Use, New York State Department of Environmental
3 - Lowest values between:
a. 6 NYCRR Part 375-6.8(b): Restricted Use Soil Cleanup Objectives, Protection of Groundwater, NYSDEC, Effective December, 14, 2006.
b. CP-51, Supplemental Soil Cleanup Objectives, Table 1, Protection of Groundwater, NYSDEC, October 21, 2010.

> Supplemental SCO, Protection of Groundwater
> Industrial Use SCOs
Bold > Unrestricted Use SCOs

Acronyms:
BJ - analyte detected in the blank, estimated
CAS - chemical abstract service
FD - field duplicate
ID - identification
J - estimated
mg/kg - milligrams per kilogram
N - normal sample
NC - no criteria listed
NYSDEC - New York State Department of Environmental Conservation
PCB - polychlorinated biphenyl
PFAS - per- and polyfluoroalkyl substances
R - result rejected
SVOC - semivolatile organic compound
U - nondetect
UJ - nondetect, estimated
UT -
VOC - volatile organic compounds
µg/kg - micrograms per kilogram

Table 3-3a
Soil Analytical Results - VOCs, SVOCs, Pesticides, Herbicides, PCBs, Metals, Mercury, Cyanide, and 1,4-Dioxane
Quiogue Landfill, NYSDEC Site No. 152061
Quiogue, Southampton, New York

					Location ID		SB-02		SB-02		SS-03		SB-03		SB-03		SB-03						
					Sample ID		SB-02-30-32-021420		SB-02-35-36-021420		SS-03-021220		SB-03-5-6.5-021220		SB-03-26-27.5-021220		SB-03-36-37-021220						
					Sample Depth (feet bgs)		30 - 32		35 – 36		0 – 0.17		5 – 6.5		26 – 27.5		36 - 37						
					Sample Date		2/14/2020		2/14/2020		2/12/2020		2/12/2020		2/12/2020		2/12/2020						
					Sample Type		N		N		N		N		N		N						
					Parent Sample Code																		
Chemical Name	**CAS No.**	**Unit**	**Unrestricted Use SCO[1]**	**Industrial Use SCO[2]**	**Protection of Groundwater SCO[3]**		Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q					
1,1,1-Trichloroethane	71-55-6	µg/kg	680	1,000,000	680	a	1	U	1.4	U	1.2	U	0.99	U	1.1	U	0.99	U					
1,1,2,2-Tetrachloroethane	79-34-5	µg/kg	NC	NC	600	b	1	U	1.4	U	1.2	U	0.99	U	1.1	U	0.99	U					
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	µg/kg	NC	NC	6,000	b	1	U	1.4	U	1.2	U	0.99	U	1.1	U	0.99	U					
1,1,2-Trichloroethane	79-00-5	µg/kg	NC	NC	NC	a	1	U	1.4	U	1.2	U	0.99	U	1.1	U	0.99	U					
1,1-Dichloroethane	75-34-3	µg/kg	270	480,000	270	a	1	U	1.4	U	1.2	U	0.99	U	1.1	U	0.99	U					
1,1-Dichloroethene	75-35-4	µg/kg	330	1,000,000	330	a	1	U	1.4	U	1.2	U	0.99	U	1.1	U	0.99	U					
1,2,4-Trichlorobenzene	120-82-1	µg/kg	NC	NC	340	b	1	U	1.2	J	1.2	U	0.99	U	1.1	U	0.52	J					
1,2-Dibromo-3-Chloropropane	96-12-8	µg/kg	NC	NC	NC	a	1	U	1.4	U	1.2	U	0.99	U	1.1	U	0.99	U					
1,2-Dibromoethane (Ethylene Dibromide)	106-93-4	µg/kg	NC	NC	NC	a	1	U	1.4	U	1.2	U	0.99	U	1.1	U	0.99	U					
1,2-Dichlorobenzene	95-50-1	µg/kg	1,100	1,000,000	1,100	a	1	U	15		1.2	U	0.99	U	0.27	J	0.39	J					
1,2-Dichloroethane	107-06-2	µg/kg	20	60,000	20	a	1	U	1.4	U	1.2	U	0.99	U	1.1	U	0.99	U					
1,2-Dichloropropane	78-87-5	µg/kg	NC	NC	NC	a	1	U	1.4	U	1.2	U	0.99	U	1.1	U	0.99	U					
1,3-Dichlorobenzene	541-73-1	µg/kg	2,400	560,000	2,400	a	1	U	3.6		1.2	U	0.99	U	1.1	U	0.99						
1,4-Dichlorobenzene	106-46-7	µg/kg	1,800	250,000	1,800	a	1	U	19		1.2	U	5.9		1.7		5.2						
1,4-Dioxane (P-Dioxane)	123-91-1	µg/kg	100	250,000	100	a	100	U	130	U	110	U	120	U	120	U	120	U					
2,4,5-Trichlorophenol	95-95-4	µg/kg	NC	NC	100	b	350	U	420	U	370	U	380	U	380	U	390	U					
2,4,6-Trichlorophenol	88-06-2	µg/kg	NC	NC	NC	a	140	U	170	U	150	U	150	U	150	U	160	U					
2,4-D (Dichlorophenoxyacetic Acid)	94-75-7	µg/kg	NC	NC	500	b	35	U	42	U	38	U	39	U	38	U	39	U					
2,4-Dichlorophenol	120-83-2	µg/kg	NC	NC	400	b	140	U	170	U	150	U	150	U	150	U	160	U					
2,4-Dimethylphenol	105-67-9	µg/kg	NC	NC	NC	a	350	U	420	U	370	U	380	U	380	U	390	U					
2,4-Dinitrophenol	51-28-5	µg/kg	NC	NC	200	b	280	U	340	U	300	U	310	U	310	U	310	U					
2,4-Dinitrotoluene	121-14-2	µg/kg	NC	NC	NC	a	70	U	85	U	76	U	77	U	77	U	79	U					
2,6-Dinitrotoluene	606-20-2	µg/kg	NC	NC	1,000	b	70	U	85	U	76	U	77	U	77	U	79	U					
2-Chloronaphthalene	91-58-7	µg/kg	NC	NC	NC	a	350	U	420	U	370	U	380	U	380	U	390	U					
2-Chlorophenol	95-57-8	µg/kg	NC	NC	NC	a	350	U	420	U	370	U	380	U	380	U	390	U					
2-Hexanone	591-78-6	µg/kg	NC	NC	NC	a	5.2	U	6.8	U	6.1	U	4.9	U	5.3	U	4.9	U					
2-Methylnaphthalene	91-57-6	µg/kg	NC	NC	NC	b	350	U	47	J	370	U	11	J	380	U	23	J					
2-Methylphenol (O-Cresol)	95-48-7	µg/kg	330	1,000,000	330	a	350	U	420	U	370	U	380	U	380	U	390	U					
2-Nitroaniline	88-74-4	µg/kg	NC	NC	400	b	350	U	420	U	370	U	380	U	380	U	390	U					
2-Nitrophenol	88-75-5	µg/kg	NC	NC	300	b	350	U	420	U	370	U	380	U	380	U	390	U					
3,3'-Dichlorobenzidine	91-94-1	µg/kg	NC	NC	NC	a	140	U	170	U	150	U	150	U	150	U	160	U					
3-Nitroaniline	99-09-2	µg/kg	NC	NC	400	b	350	U	420	U	370	U	380	U	380	U	390	U					
4,6-Dinitro-2-Methylphenol	534-52-1	µg/kg	NC	NC	NC	a	280	U	340	U	300	U	310	U	310	U	310	U					
4-Bromophenyl Phenyl Ether	101-55-3	µg/kg	NC	NC	NC	a	350	U	420	U	370	U	380	U	380	U	390	U					
4-Chloro-3-Methylphenol	59-50-7	µg/kg	NC	NC	NC	a	350	U	420	U	370	U	380	U	380	U	390	U					
4-Chloroaniline	106-47-8	µg/kg	NC	NC	220	b	350	U	420	U	370	U	380	U	380	U	390	U					
4-Chlorophenyl Phenyl Ether	7005-72-3	µg/kg	NC	NC	NC	a	350	U	420	U	370	U	380	U	380	U	390	U					
4-Methylphenol (P-Cresol)	106-44-5	µg/kg	330	1,000,000	330	a	350	U	420	U	370	U	380	U	380	U	390	U					
4-Nitroaniline	100-01-6	µg/kg	NC	NC	NC	a	350	U	420	U	370	U	380	U	380	U	390	U					
4-Nitrophenol	100-02-7	µg/kg	NC	NC	100	b	700	U	850	U	760	U	770	U	770	U	790	U					
Acenaphthene	83-32-9	µg/kg	20,000	1,000,000	98,000	a	350	U	420	U	370	U	380	U	380	U	390	U					
Acenaphthylene	208-96-8	µg/kg	100,000	1,000,000	107,000	a	350	U	420	U	370	U	380	U	380	U	390	U					
Acetic acid, (2,4,5-trichlorophenoxy)-	93-76-5	µg/kg	NC	NC	1,900	b	35	U	42	U	38	U	39	U	38	U	39	U					

Table 3-3a
Soil Analytical Results - VOCs, SVOCs, Pesticides, Herbicides, PCBs, Metals, Mercury, Cyanide, and 1,4-Dioxane
Quiogue Landfill, NYSDEC Site No. 152061
Quiogue, Southampton, New York

					Location ID		SB-02		SB-02		SS-03		SB-03		SB-03		SB-03					
					Sample ID		SB-02-30-32-021420		SB-02-35-36-021420		SS-03-021220		SB-03-5-6.5-021220		SB-03-26-27.5-021220		SB-03-36-37-021220					
					Sample Depth (feet bgs)		30 - 32		35 – 36		0 – 0.17		5 – 6.5		26 – 27.5		36 - 37					
					Sample Date		2/14/2020		2/14/2020		2/12/2020		2/12/2020		2/12/2020		2/12/2020					
					Sample Type		N		N		N		N		N		N					
					Parent Sample Code																	
Chemical Name	**CAS No.**	**Unit**	**Unrestricted Use SCO[1]**	**Industrial Use SCO[2]**	**Protection of Groundwater SCO[3]**		Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q				
Acetone	67-64-1	µg/kg	50	1,000,000	50	a	6.3	U	71	U	7.3	U	5.9	U	6.4	U	5.9	U				
Acetophenone	98-86-2	µg/kg	NC	NC	NC	a	350	U	420	U	370	U	380	U	380	U	390	U				
Aldrin	309-00-2	µg/kg	5.0	1,400	190	a	7	U	8.5	U	7.6	U	7.8	U	7.7	U	7.9	U				
Alpha Bhc (Alpha Hexachlorocyclohexane)	319-84-6	µg/kg	20	6,800	20	a	2.1	U	2.5	U	2.3	U	2.3	U	2.3	U	2.3	U				
Alpha Endosulfan	959-98-8	µg/kg	2,400	920,000	102,000	a	7	U	8.5	U	7.6	U	7.8	U	7.7	U	7.9	U				
Aluminum	7429-90-5	mg/kg	NC	NC	NC	a	294		390		1430		890		950		247					
Anthracene	120-12-7	µg/kg	100,000	1,000,000	1,000,000	a	350	U	420	U	370	U	380	U	380	U	390	U				
Antimony	7440-36-0	mg/kg	NC	NC	NC	a	4	U	4.6	U	4.4	U	4.5	U	4.2	U	4.5	U				
Arsenic	7440-38-2	mg/kg	13	16	16	a	3	U	3.5	U	0.92	J	0.69	J	0.97	J	3.4	U				
Atrazine	1912-24-9	µg/kg	NC	NC	NC	a	140	U	170	U	150	U	150	U	150	U	160	U				
Barium	7440-39-3	mg/kg	350	10,000	820	a	39.6	U	46.4	U	10.1	J	14.9	J	42.4	U	45.2	U				
Benzaldehyde	100-52-7	µg/kg	NC	NC	NC	a	350	U	420	U	370	U	380	U	380	U	390	U				
Benzene	71-43-2	µg/kg	60	89,000	60	a	1	U	0.78	J	1.2	U	0.99	U	1.1	U	0.99	U				
Benzo(A)Anthracene	56-55-3	µg/kg	1,000	11,000	1,000	a	35	U	42	U	21	J	38	U	38	U	17	J				
Benzo(A)Pyrene	50-32-8	µg/kg	1,000	1,100	22,000	a	35	U	42	UJ	19	J	38	U	38	U	39	U				
Benzo(B)Fluoranthene	205-99-2	µg/kg	1,000	11,000	1,700	a	35	U	42	UJ	34	J	38	U	38	U	39	U				
Benzo(G,H,I)Perylene	191-24-2	µg/kg	100,000	1,000,000	1,000,000	a	350	U	420	UJ	14	J	380	U	380	U	390	U				
Benzo(K)Fluoranthene	207-08-9	µg/kg	800	110,000	1,700	a	35	U	42	UJ	13	J	38	U	38	U	39	U				
Benzyl Butyl Phthalate	85-68-7	µg/kg	NC	NC	122,000	b	350	U	420	U	370	U	380	U	380	U	40	J				
Beryllium	7440-41-7	mg/kg	7.20	2,700	47	a	0.067	J	0.076	J	0.44	U	0.45	U	0.069	J	0.45	U				
Beta Bhc (Beta Hexachlorocyclohexane)	319-85-7	µg/kg	36	14,000	90	a	2.1	U	2.5	U	2.3	U	2.3	U	2.3	U	2.3	U				
Beta Endosulfan	33213-65-9	µg/kg	2,400	920,000	102,000	a	7	U	8.5	U	7.6	U	7.8	U	7.7	U	7.9	U				
Biphenyl (Diphenyl)	92-52-4	µg/kg	NC	NC	NC	a	350	U	420	U	370	U	49	J	380	U	140	J				
Bis(2-Chloroethoxy) Methane	111-91-1	µg/kg	NC	NC	NC	a	350	U	420	U	370	U	380	U	380	U	390	U				
Bis(2-Chloroethyl) Ether (2-Chloroethyl Ether	111-44-4	µg/kg	NC	NC	NC	a	35	U	42	U	37	U	38	U	38	U	39	U				
Bis(2-Chloroisopropyl) Ether	108-60-1	µg/kg	NC	NC	NC	a	350	U	420	U	370	U	380	U	380	U	390	U				
Bis(2-Ethylhexyl) Phthalate	117-81-7	µg/kg	NC	NC	435,000	b	350	U	160	J	23	J	530		29	J	630					
Bromodichloromethane	75-27-4	µg/kg	NC	NC	NC	a	1	U	1.4	U	1.2	U	0.99	U	1.1	U	0.99	U				
Bromoform	75-25-2	µg/kg	NC	NC	NC	a	1	UJ	1.4	U	1.2	U	0.99	U	1.1	U	0.99	U				
Bromomethane	74-83-9	µg/kg	NC	NC	NC	a	1	U	1.4	U	1.2	U	0.99	U	1.1	U	0.99	U				
Cadmium	7440-43-9	mg/kg	2.50	60	7.50	a	0.79	U	0.93	U	0.12	J	0.89	U	0.85	U	0.9	U				
Calcium	7440-70-2	mg/kg	NC	NC	NC	a	990	U	1880		211	J	126	J	139	J	457	J				
Caprolactam	105-60-2	µg/kg	NC	NC	NC	a	350	U	420	U	370	U	380	U	380	U	390	U				
Carbazole	86-74-8	µg/kg	NC	NC	NC	a	350	U	420	U	370	U	380	U	380	U	390	U				
Carbon Disulfide	75-15-0	µg/kg	NC	NC	2,700	b	0.35	J	1.1	J	1.2	U	0.99	U	0.49	J	0.85	J				
Carbon Tetrachloride	56-23-5	µg/kg	760	44,000	760	a	1	U	1.4	U	1.2	U	0.99	U	1.1	U	0.99	U				
Chlordane (Technical)	12789-03-6	µg/kg	NC	NC	NC	a	70	U	200		76	U	78	U	77	U	79	U				
Chlorobenzene	108-90-7	µg/kg	1,100	1,000,000	1,100	a	1	U	66		1.2	U	8.7		3.9		6.6					
Chloroethane	75-00-3	µg/kg	NC	NC	1,900	b	1	U	1.4	U	1.2	U	0.99	U	1.1	U	0.99	U				
Chloroform	67-66-3	µg/kg	370	700,000	370	a	1	U	1.4	U	1.2	U	0.99	U	1.1	U	0.99	U				
Chloromethane	74-87-3	µg/kg	NC	NC	NC	a	1	U	1.4	U	1.2	U	0.99	U	1.1	U	0.99	U				
Chromium, Total	7440-47-3	mg/kg	30	6,800	NC	a	4.3		3.5		2.3		3.2		4		3.4					
Chrysene	218-01-9	µg/kg	1,000	110,000	1,000	a	350	U	420	U	22	J	380	U	380	U	13	J				

Table 3-3a
Soil Analytical Results - VOCs, SVOCs, Pesticides, Herbicides, PCBs, Metals, Mercury, Cyanide, and 1,4-Dioxane
Quiogue Landfill, NYSDEC Site No. 152061
Quiogue, Southampton, New York

					Location ID		SB-02		SB-02		SS-03		SB-03		SB-03		SB-03					
					Sample ID		SB-02-30-32-021420		SB-02-35-36-021420		SS-03-021220		SB-03-5-6.5-021220		SB-03-26-27.5-021220		SB-03-36-37-021220					
					Sample Depth (feet bgs)		30 - 32		35 – 36		0 – 0.17		5 – 6.5		26 – 27.5		36 - 37					
					Sample Date		2/14/2020		2/14/2020		2/12/2020		2/12/2020		2/12/2020		2/12/2020					
					Sample Type		N		N		N		N		N		N					
					Parent Sample Code																	
Chemical Name	**CAS No.**	**Unit**	**Unrestricted Use SCO[1]**	**Industrial Use SCO[2]**	**Protection of Groundwater SCO[3]**		Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q				
Cis-1,2-Dichloroethylene	156-59-2	µg/kg	250	1,000,000	250	a	1	U	1.4	U	1.2	U	0.99	U	1.1	U	0.99	U				
Cis-1,3-Dichloropropene	10061-01-5	µg/kg	NC	NC	NC	a	1	U	1.4	U	1.2	U	0.99	U	1.1	U	0.99	U				
Cobalt	7440-48-4	mg/kg	NC	NC	NC	a	0.6	J	11.6	U	11	U	11.1	U	10.6	U	11.3	U				
Copper	7440-50-8	mg/kg	50	10,000	1,720	a	4.9	U	3.7	J	4.4	J	11.4		1.7	J	2.6	J				
Cyanide	57-12-5	mg/kg	27	10,000	40	a	0.22	U	0.55		0.17	J	0.62		0.25	U	0.28	U				
Cyclohexane	110-82-7	µg/kg	NC	NC	NC	a	1	U	1.4	U	1.2	U	0.99	U	1.1	U	0.99	U				
Delta BHC (Delta Hexachlorocyclohexane)	319-86-8	µg/kg	40	1,000,000	250	a	2.1	U	2.5	U	2.3	U	2.3	U	2.3	U	2.3	U				
Dibenz(A,H)Anthracene	53-70-3	µg/kg	330	1,100	1,000,000	a	35	U	42	UJ	37	U	38	U	38	U	39	U				
Dibenzofuran	132-64-9	µg/kg	7,000	1,000,000	6,200	b	350	U	420	U	370	U	380	U	380	U	390	U				
Dibromochloromethane	124-48-1	µg/kg	NC	NC	NC	a	1	U	1.4	U	1.2	U	0.99	U	1.1	U	0.99	U				
Dichlorodifluoromethane	75-71-8	µg/kg	NC	NC	NC	a	1	U	1.4	U	1.2	U	0.99	U	1.1	U	0.99	U				
Dieldrin	60-57-1	µg/kg	5.00	2,800	100	a	2.1	U	2.5	U	1.8	J	2.3	U	2.3	U	2.3	U				
Diethyl Phthalate	84-66-2	µg/kg	NC	NC	7,100	b	350	U	420	U	370	U	380	U	380	U	390	U				
Dimethyl Phthalate	131-11-3	µg/kg	NC	NC	27,000	b	350	U	420	U	370	U	380	U	380	U	390	U				
Di-N-Butyl Phthalate	84-74-2	µg/kg	NC	NC	8,100	b	350	U	420	U	370	U	380	U	380	U	390	U				
Di-N-Octylphthalate	117-84-0	µg/kg	NC	NC	120,000	b	350	U	420	UJ	370	U	380	U	380	U	53	J				
Endosulfan Sulfate	1031-07-8	µg/kg	2,400	920,000	1,000,000	a	7	U	8.5	U	7.6	U	7.8	U	7.7	U	7.9	U				
Endrin	72-20-8	µg/kg	14	410,000	60	a	7	U	8.5	U	7.6	U	7.8	U	7.7	U	7.9	U				
Endrin Aldehyde	7421-93-4	µg/kg	NC	NC	NC	a	7	U	8.5	U	7.6	U	7.8	U	7.7	U	7.9	U				
Endrin Ketone	53494-70-5	µg/kg	NC	NC	NC	a	7	U	8.5	U	7.6	U	7.8	U	7.7	U	7.9	U				
Ethylbenzene	100-41-4	µg/kg	1,000	780,000	1,000	a	1	U	11		1.2	U	0.99	U	1.1	U	0.99	U				
Fluoranthene	206-44-0	µg/kg	100,000	1,000,000	1,000,000	a	350	U	17	J	24	J	380	U	18	J	16	J				
Fluorene	86-73-7	µg/kg	30,000	1,000,000	386,000	a	350	U	420	U	370	U	380	U	12	J	390	U				
Gamma Bhc (Lindane)	58-89-9	µg/kg	100	23,000	100	a	2.1	U	2.5	U	2.3	U	2.3	U	2.3	U	2.3	U				
Heptachlor	76-44-8	µg/kg	42	29,000	380	a	7	U	8.5	U	7.6	U	7.8	U	7.7	U	7.9	U				
Heptachlor Epoxide	1024-57-3	µg/kg	NC	NC	20	b	7	U	8.5	U	7.6	U	7.8	U	7.7	U	7.9	U				
Hexachlorobenzene	118-74-1	µg/kg	330	12,000	1,400	b	35	U	42	U	37	U	38	U	38	U	39	U				
Hexachlorobutadiene	87-68-3	µg/kg	NC	NC	NC	a	70	U	85	U	76	U	77	U	77	U	79	U				
Hexachlorocyclopentadiene	77-47-4	µg/kg	NC	NC	NC	a	350	U	420	U	370	U	380	U	380	U	390	U				
Hexachloroethane	67-72-1	µg/kg	NC	NC	NC	a	35	U	42	U	37	U	38	U	38	U	39	U				
Indeno(1,2,3-C,D)Pyrene	193-39-5	µg/kg	500	11,000	8,200	a	35	U	42	UJ	15	J	38	U	38	U	39	U				
Iron	7439-89-6	mg/kg	NC	NC	NC	a	897		1310		1880		1700		1250		1360					
Isophorone	78-59-1	µg/kg	NC	NC	4,400	b	140	U	170	U	150	U	150	U	150	U	160	U				
Isopropylbenzene (Cumene)	98-82-8	µg/kg	NC	NC	2,300	b	1	U	3.1		1.2	U	1.4		1.1		3.3					
Lead	7439-92-1	mg/kg	63	3,900	450	a	1.1	J	4.3		19.2		21.2		4.4		2.1	J				
Magnesium	7439-95-4	mg/kg	NC	NC	NC	a	990	U	125	J	137	J	103	J	105	J	1130	U				
Manganese	7439-96-5	mg/kg	1,600	10,000	2,000	a	3.2		9.5		32.3		10.8		10.4		12.8					
Mercury	7439-97-6	mg/kg	0.180	5.70	0.73	a	0.018	U	0.014	J	0.047		0.034		0.03		0.022					
Methoxychlor	72-43-5	µg/kg	NC	NC	900,000	b	7	U	8.5	U	7.6	U	7.8	U	7.7	U	7.9	U				
Methyl Acetate	79-20-9	µg/kg	NC	NC	NC	a	5.2	UT	6.8	UT	6.1	UT	4.9	U	5.3	U	4.9	U				
Methyl Ethyl Ketone (2-Butanone)	78-93-3	µg/kg	120	1,000,000	120	b	5.2	U	6.9		6.1	U	4.9	U	8.9		5.1					
Methyl Isobutyl Ketone (4-Methyl-2-Pentanor	108-10-1	µg/kg	NC	NC	1,000	b	5.2	U	6.8	U	6.1	U	4.9	U	5.3	U	4.9	U				
Methylcyclohexane	108-87-2	µg/kg	NC	NC	NC	a	1	U	3.3		1.2	U	0.99	U	2.1		2					

Table 3-3a
Soil Analytical Results - VOCs, SVOCs, Pesticides, Herbicides, PCBs, Metals, Mercury, Cyanide, and 1,4-Dioxane
Quiogue Landfill, NYSDEC Site No. 152061
Quiogue, Southampton, New York

					Location ID		SB-02		SB-02		SS-03		SB-03		SB-03		SB-03					
					Sample ID		SB-02-30-32-021420		SB-02-35-36-021420		SS-03-021220		SB-03-5-6.5-021220		SB-03-26-27.5-021220		SB-03-36-37-021220					
					Sample Depth (feet bgs)		30 - 32		35 – 36		0 – 0.17		5 – 6.5		26 – 27.5		36 - 37					
					Sample Date		2/14/2020		2/14/2020		2/12/2020		2/12/2020		2/12/2020		2/12/2020					
					Sample Type		N		N		N		N		N		N					
					Parent Sample Code																	
Chemical Name	**CAS No.**	**Unit**	**Unrestricted Use SCO[1]**	**Industrial Use SCO[2]**	**Protection of Groundwater SCO[3]**		Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q				
Methylene Chloride	75-09-2	µg/kg	50	1,000,000	50	a	1	U	1.8		1.2	U	0.99	U	1.1	U	0.99	U				
Naphthalene	91-20-3	µg/kg	12,000	1,000,000	12,000	a	350	U	69	J	370	U	160	J	24	J	63	J				
Nickel	7440-02-0	mg/kg	30	10,000	130	a	0.94	J	0.93	J	1.3	J	1.1	J	1.7	J	0.72	J				
Nitrobenzene	98-95-3	µg/kg	NC	NC	170	b	35	U	42	U	37	U	38	U	38	U	39	U				
N-Nitrosodi-N-Propylamine	621-64-7	µg/kg	NC	NC	NC	a	35	U	42	U	37	U	38	U	38	U	39	U				
N-Nitrosodiphenylamine	86-30-6	µg/kg	NC	NC	NC	a	350	U	420	U	370	U	380	U	380	U	390	U				
P,P'-DDD	72-54-8	µg/kg	3.30	180,000	14,000	a	7	U	8.5	U	7.6	U	7.8	U	7.7	U	7.9	U				
P,P'-DDE	72-55-9	µg/kg	3.30	120,000	17,000	a	7	U	8.5	U	7.6	U	7.8	U	7.7	U	7.9	U				
P,P'-DDT	50-29-3	µg/kg	3.30	94,000	136,000	a	7	U	8.5	U	**18**		7.8	U	7.7	U	7.9	U				
PCB-1016 (Aroclor 1016)	12674-11-2	µg/kg	100	25,000	3,200	a	70	U	85	U	76	U	78	U	77	U	79	U				
PCB-1221 (Aroclor 1221)	11104-28-2	µg/kg	100	25,000	3,200	a	70	U	85	U	76	U	78	U	77	U	79	U				
PCB-1232 (Aroclor 1232)	11141-16-5	µg/kg	100	25,000	3,200	a	70	U	85	U	76	U	78	U	77	U	79	U				
PCB-1242 (Aroclor 1242)	53469-21-9	µg/kg	100	25,000	3,200	a	70	U	85	U	76	U	78	U	77	U	79	U				
PCB-1248 (Aroclor 1248)	12672-29-6	µg/kg	100	25,000	3,200	a	70	U	85	U	76	U	78	U	77	U	79	U				
PCB-1254 (Aroclor 1254)	11097-69-1	µg/kg	100	25,000	3,200	a	70	U	85	U	76	U	78	U	77	U	79	U				
PCB-1260 (Aroclor 1260)	11096-82-5	µg/kg	100	25,000	3,200	a	70	U	85	U	76	U	78	U	77	U	79	U				
Pentachlorophenol	87-86-5	µg/kg	800	55,000	800	a	280	U	340	U	300	U	310	U	310	U	310	U				
Phenanthrene	85-01-8	µg/kg	100,000	1,000,000	1,000,000	a	350	U	24	J	370	U	380	U	29	J	28	J				
Phenol	108-95-2	µg/kg	330	1,000,000	330	a	350	U	420	U	370	U	380	U	380	U	390	U				
Polychlorinated Biphenyl (PCBs)	1336-36-3	µg/kg	100	25,000	3,200	a	70	U	85	U	76	U	78	U	77	U	79	U				
Potassium	7440-09-7	mg/kg	NC	NC	NC	a	990	U	1160	U	1100	U	1110	U	1060	U	1130	U				
Pyrene	129-00-0	µg/kg	100,000	1,000,000	1,000,000	a	350	U	22	J	27	J	380	U	380	U	20	J				
Selenium	7782-49-2	mg/kg	3.90	6,800	4.00	a	4	U	4.6	U	4.4	U	4.5	U	4.2	U	4.5	U				
Silver	7440-22-4	mg/kg	2.00	6,800	8.30	a	2	U	2.3	U	2.2	U	2.2	U	2.1	U	2.3	U				
Silvex (2,4,5-TP)	93-72-1	µg/kg	3,800	1,000,000	3,800	a	35	U	42	U	38	U	39	U	38	U	39	U				
Sodium	7440-23-5	mg/kg	NC	NC	NC	a	990	U	1160	U	1100	U	1110	U	1060	U	1130	U				
Styrene	100-42-5	µg/kg	NC	NC	NC	a	1	U	1.4	U	1.2	U	0.99	U	1.1	U	0.99	U				
Tert-Butyl Methyl Ether	1634-04-4	µg/kg	930	1,000,000	930	a	1	U	1.4	U	1.2	U	0.99	U	1.1	U	0.99	U				
Tetrachloroethylene (PCE)	127-18-4	µg/kg	1,300	300,000	1,300	a	1	U	1.4	U	1.2	U	0.99	U	1.1	U	0.99	U				
Thallium	7440-28-0	mg/kg	NC	NC	NC	a	4	U	4.6	U	4.4	U	4.5	U	4.2	U	4.5	U				
Toluene	108-88-3	µg/kg	700	1,000,000	700	a	1	U	5.8		1.2	U	0.99	U	1.1	U	0.99	U				
Toxaphene	8001-35-2	µg/kg	NC	NC	NC	a	70	U	85	U	76	U	78	U	77	U	79	U				
Trans-1,2-Dichloroethene	156-60-5	µg/kg	190	1,000,000	190	a	1	U	1.4	U	1.2	U	0.99	U	1.1	U	0.99	U				
Trans-1,3-Dichloropropene	10061-02-6	µg/kg	NC	NC	NC	a	1	U	1.4	U	1.2	U	0.99	U	1.1	U	0.99	U				
Trichloroethylene (TCE)	79-01-6	µg/kg	470	400,000	470	a	1	U	1.4	U	1.2	U	0.99	U	1.1	U	0.99	U				
Trichlorofluoromethane	75-69-4	µg/kg	NC	NC	NC	a	1	U	1.4	U	1.2	U	0.99	U	1.1	U	0.99	U				
Vanadium	7440-62-2	mg/kg	NC	NC	NC	a	1.5	J	1.9	J	4	J	2.4	J	2.7	J	11.3	U				
Vinyl Chloride	75-01-4	µg/kg	20	27,000	20	a	1	U	1.4	U	1.2	U	0.99	U	1.1	U	0.99	U				
Xylenes	1330-20-7	µg/kg	260	1,000,000	1,600	a	2.1	U	11		2.4	U	1.3	J	0.19	J	3.3					
Zinc	7440-66-6	mg/kg	109	10,000	2,480	a	34.7		10.3		20.8		20.2		23.7		8.1					

Table 3-3a
Soil Analytical Results - VOCs, SVOCs, Pesticides, Herbicides, PCBs, Metals, Mercury, Cyanide, and 1,4-Dioxane
Quiogue Landfill, NYSDEC Site No. 152061
Quiogue, Southampton, New York

					Location ID	SB-02		SB-02		SS-03		SB-03		SB-03		SB-03	
					Sample ID	SB-02-30-32-021420		SB-02-35-36-021420		SS-03-021220		SB-03-5-6.5-021220		SB-03-26-27.5-021220		SB-03-36-37-021220	
					Sample Depth (feet bgs)	30 - 32		35 – 36		0 – 0.17		5 – 6.5		26 – 27.5		36 - 37	
					Sample Date	2/14/2020		2/14/2020		2/12/2020		2/12/2020		2/12/2020		2/12/2020	
					Sample Type	N		N		N		N		N		N	
					Parent Sample Code												
Chemical Name	**CAS No.**	**Unit**	**Unrestricted Use SCO[1]**	**Industrial Use SCO[2]**	**Protection of Groundwater SCO[3]**	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q

Notes:
1 - 6 NYCRR Part 375-6.8(a): Unrestricted Use Soil Cleanup Objectives, New York State Department of Environmental Conservation, Eff
2 - 6 NYCRR Part 375-6.8(b): Restricted Use Soil Cleanup Objectives, Industrial Use, New York State Department of Environmental
3 - Lowest values between:
a. 6 NYCRR Part 375-6.8(b): Restricted Use Soil Cleanup Objectives, Protection of Groundwater, NYSDEC, Effective December, 14, 20
b. CP-51, Supplemental Soil Cleanup Objectives, Table 1, Protection of Groundwater, NYSDEC, October 21, 2010.

> Supplemental SCO, Protection of Groundwater
> Industrial Use SCOs
Bold > Unrestricted Use SCOs

Acronyms:

BJ - analyte detected in the blank, estimated	PFAS - per- and polyfluoroalkyl substances
CAS - chemical abstract service	R - result rejected
FD - field duplicate	SVOC - semivolatile organic compound
ID - identification	U - nondetect
J - estimated	UJ - nondetect, estimated
mg/kg - milligrams per kilogram	UT -
N - normal sample	VOC - volatile organic compounds
NC - no criteria listed	µg/kg - micrograms per kilogram

NYSDEC - New York State Department of Environmental Conservation
PCB - polychlorinated biphenyl

Table 3-3a
Soil Analytical Results - VOCs, SVOCs, Pesticides, Herbicides, PCBs, Metals, Mercury, Cyanide, and 1,4-Dioxane
Quiogue Landfill, NYSDEC Site No. 152061
Quiogue, Southampton, New York

					Location ID		SS-04		SB-04		SB-04		SB-04		SS-05		SS-05				
					Sample ID		SS-04-021220		SB-04-24-25-021220		SB-04-30-31-021220		SB-04-40-41-021220		SS-05-021320		SS-105-021320				
					Sample Depth (feet bgs)		0 – 0.17		24 - 25		30 - 31		40– 41		0 – 0.17		0 – 0.17				
					Sample Date		2/12/2020		2/12/2020		2/12/2020		2/12/2020		2/13/2020		2/13/2020				
					Sample Type		N		N		N		N		N		FD				
					Parent Sample Code												SS-05-021320				
Chemical Name	**CAS No.**	**Unit**	**Unrestricted Use SCO[1]**	**Industrial Use SCO[2]**	**Protection of Groundwater SCO[3]**		Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q			
1,1,1-Trichloroethane	71-55-6	µg/kg	680	1,000,000	680	a	1.3	U	1.1	U	1	U	1.2	U	0.96	U	1.2	U			
1,1,2,2-Tetrachloroethane	79-34-5	µg/kg	NC	NC	600	b	1.3	U	1.1	U	1	U	1.2	U	0.96	U	1.2	U			
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	µg/kg	NC	NC	6,000	b	1.3	U	1.1	U	1	U	1.2	U	0.96	U	1.2	U			
1,1,2-Trichloroethane	79-00-5	µg/kg	NC	NC	NC	a	1.3	U	1.1	U	1	U	1.2	U	0.96	U	1.2	U			
1,1-Dichloroethane	75-34-3	µg/kg	270	480,000	270	a	1.3	U	1.1	U	1	U	1.2	U	0.96	U	1.2	U			
1,1-Dichloroethene	75-35-4	µg/kg	330	1,000,000	330	a	1.3	U	1.1	U	1	U	1.2	U	0.96	U	1.2	U			
1,2,4-Trichlorobenzene	120-82-1	µg/kg	NC	NC	340	b	1.3	U	1.1	U	1	U	1.2	U	0.96	U	1.2	U			
1,2-Dibromo-3-Chloropropane	96-12-8	µg/kg	NC	NC	NC	a	1.3	U	1.1	U	1	U	1.2	U	0.96	U	1.2	U			
1,2-Dibromoethane (Ethylene Dibromide)	106-93-4	µg/kg	NC	NC	NC	a	1.3	U	1.1	U	1	U	1.2	U	0.96	U	1.2	U			
1,2-Dichlorobenzene	95-50-1	µg/kg	1,100	1,000,000	1,100	a	1.3	U	1.1	U	0.2	J	1.2	U	0.96	U	1.2	U			
1,2-Dichloroethane	107-06-2	µg/kg	20	60,000	20	a	1.3	U	1.1	U	1	U	1.2	U	0.96	U	1.2	U			
1,2-Dichloropropane	78-87-5	µg/kg	NC	NC	NC	a	1.3	U	1.1	U	1	U	1.2	U	0.96	U	1.2	U			
1,3-Dichlorobenzene	541-73-1	µg/kg	2,400	560,000	2,400	a	1.3	U	1.1	U	1	U	1.2	U	0.96	U	1.2	U			
1,4-Dichlorobenzene	106-46-7	µg/kg	1,800	250,000	1,800	a	1.3	U	0.7	J	0.71	J	1.2	U	0.96	U	1.2	U			
1,4-Dioxane (P-Dioxane)	123-91-1	µg/kg	100	250,000	100	a	130	U	110	U	120	U	120	U	100	UJ	100	U			
2,4,5-Trichlorophenol	95-95-4	µg/kg	NC	NC	100	b	420	U	370	U	410	U	400	U	340	UJ	350	U			
2,4,6-Trichlorophenol	88-06-2	µg/kg	NC	NC	NC	a	170	U	150	U	170	U	160	U	140	UJ	140	U			
2,4-D (Dichlorophenoxyacetic Acid)	94-75-7	µg/kg	NC	NC	500	b	43	U	38	U	41	U	40	U	35	U	35	U			
2,4-Dichlorophenol	120-83-2	µg/kg	NC	NC	400	b	170	U	150	U	170	U	160	U	140	UJ	140	U			
2,4-Dimethylphenol	105-67-9	µg/kg	NC	NC	NC	a	420	U	370	U	410	U	400	U	340	UJ	350	U			
2,4-Dinitrophenol	51-28-5	µg/kg	NC	NC	200	b	340	U	300	U	330	U	320	U	280	UJ	280	U			
2,4-Dinitrotoluene	121-14-2	µg/kg	NC	NC	NC	a	86	U	76	U	83	U	80	U	70	UJ	70	U			
2,6-Dinitrotoluene	606-20-2	µg/kg	NC	NC	1,000	b	86	U	76	U	83	U	80	U	70	UJ	70	U			
2-Chloronaphthalene	91-58-7	µg/kg	NC	NC	NC	a	420	U	370	U	410	U	400	U	340	UJ	350	U			
2-Chlorophenol	95-57-8	µg/kg	NC	NC	NC	a	420	U	370	U	410	U	400	U	340	UJ	350	U			
2-Hexanone	591-78-6	µg/kg	NC	NC	NC	a	6.5	U	5.4	U	5.2	U	5.8	U	4.8	U	6	U			
2-Methylnaphthalene	91-57-6	µg/kg	NC	NC	NC	b	420	U	370	U	12	J	400	U	340	UJ	350	U			
2-Methylphenol (O-Cresol)	95-48-7	µg/kg	330	1,000,000	330	a	420	U	370	U	410	U	400	U	340	UJ	350	U			
2-Nitroaniline	88-74-4	µg/kg	NC	NC	400	b	420	U	370	U	410	U	400	U	340	UJ	350	U			
2-Nitrophenol	88-75-5	µg/kg	NC	NC	300	b	420	U	370	U	410	U	400	U	340	UJ	350	U			
3,3'-Dichlorobenzidine	91-94-1	µg/kg	NC	NC	NC	a	170	U	150	U	170	U	160	U	140	UJ	140	U			
3-Nitroaniline	99-09-2	µg/kg	NC	NC	400	b	420	U	370	U	410	U	400	U	340	UJ	350	U			
4,6-Dinitro-2-Methylphenol	534-52-1	µg/kg	NC	NC	NC	a	340	U	300	U	330	U	320	U	280	UJ	280	U			
4-Bromophenyl Phenyl Ether	101-55-3	µg/kg	NC	NC	NC	a	420	U	370	U	410	U	400	U	340	UJ	350	U			
4-Chloro-3-Methylphenol	59-50-7	µg/kg	NC	NC	NC	a	420	U	370	U	410	U	400	U	340	UJ	350	U			
4-Chloroaniline	106-47-8	µg/kg	NC	NC	220	b	420	U	370	U	410	U	400	U	340	UJ	350	U			
4-Chlorophenyl Phenyl Ether	7005-72-3	µg/kg	NC	NC	NC	a	420	U	370	U	410	U	400	U	340	UJ	350	U			
4-Methylphenol (P-Cresol)	106-44-5	µg/kg	330	1,000,000	330	a	420	U	370	U	410	U	400	U	340	UJ	350	U			
4-Nitroaniline	100-01-6	µg/kg	NC	NC	NC	a	420	U	370	U	410	U	400	U	340	UJ	350	U			
4-Nitrophenol	100-02-7	µg/kg	NC	NC	100	b	860	U	760	U	830	U	800	U	700	UJ	700	U			
Acenaphthene	83-32-9	µg/kg	20,000	1,000,000	98,000	a	420	U	370	U	410	U	400	U	340	UJ	350	U			
Acenaphthylene	208-96-8	µg/kg	100,000	1,000,000	107,000	a	420	U	17	J	410	U	400	U	340	UJ	350	U			
Acetic acid, (2,4,5-trichlorophenoxy)-	93-76-5	µg/kg	NC	NC	1,900	b	43	U	38	U	41	U	40	U	35	U	35	U			

Table 3-3a
Soil Analytical Results - VOCs, SVOCs, Pesticides, Herbicides, PCBs, Metals, Mercury, Cyanide, and 1,4-Dioxane
Quiogue Landfill, NYSDEC Site No. 152061
Quiogue, Southampton, New York

					Location ID		SS-04		SB-04		SB-04		SB-04		SS-05		SS-05	
					Sample ID		SS-04-021220		SB-04-24-25-021220		SB-04-30-31-021220		SB-04-40-41-021220		SS-05-021320		SS-105-021320	
					Sample Depth (feet bgs)		0 – 0.17		24 - 25		30 - 31		40– 41		0 – 0.17		0 – 0.17	
					Sample Date		2/12/2020		2/12/2020		2/12/2020		2/12/2020		2/13/2020		2/13/2020	
					Sample Type		N		N		N		N		N		FD	
					Parent Sample Code												SS-05-021320	
Chemical Name	**CAS No.**	**Unit**	**Unrestricted Use SCO[1]**	**Industrial Use SCO[2]**	**Protection of Groundwater SCO[3]**		Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q
Acetone	67-64-1	µg/kg	50	1,000,000	50	a	7.7	U	6.5	U	6.3	U	7	U	5.8	U	7.2	U
Acetophenone	98-86-2	µg/kg	NC	NC	NC	a	420	U	370	U	410	U	400	U	340	UJ	350	U
Aldrin	309-00-2	µg/kg	5.0	1,400	190	a	8.6	U	7.6	UJ	8.3	U	8.1	U	7	U	7	U
Alpha Bhc (Alpha Hexachlorocyclohexane)	319-84-6	µg/kg	20	6,800	20	a	2.6	U	2.3	UJ	2.5	U	2.4	U	2.1	U	2.1	U
Alpha Endosulfan	959-98-8	µg/kg	2,400	920,000	102,000	a	8.6	U	7.6	UJ	8.3	U	8.1	U	7	U	7	U
Aluminum	7429-90-5	mg/kg	NC	NC	NC	a	1400		808		274		271		744		744	
Anthracene	120-12-7	µg/kg	100,000	1,000,000	1,000,000	a	420	U	46	J	410	U	400	U	340	UJ	350	U
Antimony	7440-36-0	mg/kg	NC	NC	NC	a	4.8	U	4.3	U	4.7	U	4.4	U	4.2	U	3.9	U
Arsenic	7440-38-2	mg/kg	13	16	16	a	2.4	J	0.84	J	0.91	J	3.3	U	0.74	J	0.88	J
Atrazine	1912-24-9	µg/kg	NC	NC	NC	a	170	U	150	U	170	U	160	U	140	UJ	140	U
Barium	7440-39-3	mg/kg	350	10,000	820	a	23.1	J	8.7	J	46.6	U	44.1	U	41.8	U	38.9	U
Benzaldehyde	100-52-7	µg/kg	NC	NC	NC	a	40	J	370	U	410	U	400	U	340	UJ	350	U
Benzene	71-43-2	µg/kg	60	89,000	60	a	1.3	U	1.1	U	1	U	1.2	U	0.96	U	1.2	U
Benzo(A)Anthracene	56-55-3	µg/kg	1,000	11,000	1,000	a	37	J	89		19	J	40	U	34	UJ	35	U
Benzo(A)Pyrene	50-32-8	µg/kg	1,000	1,100	22,000	a	37	J	80		41	U	40	U	34	UJ	35	U
Benzo(B)Fluoranthene	205-99-2	µg/kg	1,000	11,000	1,700	a	69		81		41	U	40	U	34	UJ	35	U
Benzo(G,H,I)Perylene	191-24-2	µg/kg	100,000	1,000,000	1,000,000	a	32	J	49	J	410	U	400	U	340	UJ	350	U
Benzo(K)Fluoranthene	207-08-9	µg/kg	800	110,000	1,700	a	29	J	30	J	8.1	J	40	U	34	UJ	35	U
Benzyl Butyl Phthalate	85-68-7	µg/kg	NC	NC	122,000	b	24	J	56	J	410	U	400	U	340	UJ	350	U
Beryllium	7440-41-7	mg/kg	7.20	2,700	47	a	0.078	J	0.073	J	0.47	U	0.44	U	0.094	J	0.39	U
Beta Bhc (Beta Hexachlorocyclohexane)	319-85-7	µg/kg	36	14,000	90	a	2.6	U	2.3	UJ	2.5	U	2.4	U	2.1	U	2.1	U
Beta Endosulfan	33213-65-9	µg/kg	2,400	920,000	102,000	a	8.6	U	7.6	UJ	8.3	U	8.1	U	7	U	7	U
Biphenyl (Diphenyl)	92-52-4	µg/kg	NC	NC	NC	a	420	U	370	U	410	U	400	U	340	UJ	350	U
Bis(2-Chloroethoxy) Methane	111-91-1	µg/kg	NC	NC	NC	a	420	U	370	U	410	U	400	U	340	UJ	350	U
Bis(2-Chloroethyl) Ether (2-Chloroethyl Ether	111-44-4	µg/kg	NC	NC	NC	a	42	U	37	U	41	U	40	U	34	UJ	35	U
Bis(2-Chloroisopropyl) Ether	108-60-1	µg/kg	NC	NC	NC	a	420	U	370	U	410	U	400	U	340	UJ	350	U
Bis(2-Ethylhexyl) Phthalate	117-81-7	µg/kg	NC	NC	435,000	b	130	J	1300		76	J	400	U	340	UJ	350	U
Bromodichloromethane	75-27-4	µg/kg	NC	NC	NC	a	1.3	U	1.1	U	1	U	1.2	U	0.96	U	1.2	U
Bromoform	75-25-2	µg/kg	NC	NC	NC	a	1.3	U	1.1	U	1	U	1.2	U	0.96	U	1.2	U
Bromomethane	74-83-9	µg/kg	NC	NC	NC	a	1.3	U	1.1	U	1	U	1.2	U	0.96	U	1.2	U
Cadmium	7440-43-9	mg/kg	2.50	60	7.50	a	0.5	J	0.099	J	0.93	U	0.88	U	0.84	U	0.78	U
Calcium	7440-70-2	mg/kg	NC	NC	NC	a	411	J	462	J	133	J	1100	U	1040	U	972	U
Caprolactam	105-60-2	µg/kg	NC	NC	NC	a	420	U	370	U	410	U	400	U	340	UJ	350	U
Carbazole	86-74-8	µg/kg	NC	NC	NC	a	420	U	370	U	410	U	400	U	340	UJ	350	U
Carbon Disulfide	75-15-0	µg/kg	NC	NC	2,700	b	1.3	U	1.1	U	0.56	J	1.2	U	0.96	U	1.2	U
Carbon Tetrachloride	56-23-5	µg/kg	760	44,000	760	a	1.3	U	1.1	U	1	U	1.2	U	0.96	U	1.2	U
Chlordane (Technical)	12789-03-6	µg/kg	NC	NC	NC	a	86	U	76	UJ	83	U	81	U	70	U	70	U
Chlorobenzene	108-90-7	µg/kg	1,100	1,000,000	1,100	a	1.3	U	0.66	J	2.7		0.3	J	0.96	U	1.2	U
Chloroethane	75-00-3	µg/kg	NC	NC	1,900	b	1.3	U	1.1	U	1	U	1.2	U	0.96	U	1.2	U
Chloroform	67-66-3	µg/kg	370	700,000	370	a	1.3	U	1.1	U	1	U	1.2	U	0.96	U	1.2	U
Chloromethane	74-87-3	µg/kg	NC	NC	NC	a	1.3	U	1.1	U	1	U	1.2	U	0.96	U	1.2	U
Chromium, Total	7440-47-3	mg/kg	30	6,800	NC	a	8.4		11.3		2.8		2.3		2.1	UJ	9	J
Chrysene	218-01-9	µg/kg	1,000	110,000	1,000	a	58	J	120	J	14	J	400	U	340	UJ	350	U

Table 3-3a
Soil Analytical Results - VOCs, SVOCs, Pesticides, Herbicides, PCBs, Metals, Mercury, Cyanide, and 1,4-Dioxane
Quiogue Landfill, NYSDEC Site No. 152061
Quiogue, Southampton, New York

					Location ID		SS-04		SB-04		SB-04		SB-04		SS-05		SS-05	
					Sample ID		SS-04-021220		SB-04-24-25-021220		SB-04-30-31-021220		SB-04-40-41-021220		SS-05-021320		SS-105-021320	
					Sample Depth (feet bgs)		0 – 0.17		24 - 25		30 - 31		40– 41		0 – 0.17		0 – 0.17	
					Sample Date		2/12/2020		2/12/2020		2/12/2020		2/12/2020		2/13/2020		2/13/2020	
					Sample Type		N		N		N		N		N		FD	
					Parent Sample Code												SS-05-021320	
Chemical Name	**CAS No.**	**Unit**	**Unrestricted Use SCO[1]**	**Industrial Use SCO[2]**	**Protection of Groundwater SCO[3]**		Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q
Cis-1,2-Dichloroethylene	156-59-2	µg/kg	250	1,000,000	250	a	1.3	U	1.1	U	1	U	1.2	U	0.96	U	1.2	U
Cis-1,3-Dichloropropene	10061-01-5	µg/kg	NC	NC	NC	a	1.3	U	1.1	U	1	U	1.2	U	0.96	U	1.2	U
Cobalt	7440-48-4	mg/kg	NC	NC	NC	a	1.5	J	10.7	U	11.6	U	11	U	10.4	U	9.7	U
Copper	7440-50-8	mg/kg	50	10,000	1,720	a	26.5		32.5		13.8		5.5	U	1.6	J	1.7	J
Cyanide	57-12-5	mg/kg	27	10,000	40	a	0.32		0.22	J	0.26	U	0.28	U	0.23	U	0.23	U
Cyclohexane	110-82-7	µg/kg	NC	NC	NC	a	1.3	U	1.1	U	1		1.2	U	0.96	U	1.2	U
Delta BHC (Delta Hexachlorocyclohexane)	319-86-8	µg/kg	40	1,000,000	250	a	2.6	U	2.3	UJ	2.5	U	2.4	U	2.1	U	2.1	U
Dibenz(A,H)Anthracene	53-70-3	µg/kg	330	1,100	1,000,000	a	42	U	37	U	41	U	40	U	34	UJ	35	U
Dibenzofuran	132-64-9	µg/kg	7,000	1,000,000	6,200	b	420	U	370	U	410	U	400	U	340	UJ	350	U
Dibromochloromethane	124-48-1	µg/kg	NC	NC	NC	a	1.3	U	1.1	U	1	U	1.2	U	0.96	U	1.2	U
Dichlorodifluoromethane	75-71-8	µg/kg	NC	NC	NC	a	1.3	U	1.1	U	1	U	1.2	U	0.96	U	1.2	U
Dieldrin	60-57-1	µg/kg	5.00	2,800	100	a	**9.6**		2.3	UJ	2.5	U	2.4	U	2.1	U	2.1	U
Diethyl Phthalate	84-66-2	µg/kg	NC	NC	7,100	b	420	U	370	U	410	U	400	U	340	UJ	350	U
Dimethyl Phthalate	131-11-3	µg/kg	NC	NC	27,000	b	420	U	370	U	410	U	400	U	340	UJ	350	U
Di-N-Butyl Phthalate	84-74-2	µg/kg	NC	NC	8,100	b	280	J	4000		410	U	400	U	340	UJ	350	U
Di-N-Octylphthalate	117-84-0	µg/kg	NC	NC	120,000	b	420	U	370	U	410	U	400	U	340	UJ	350	U
Endosulfan Sulfate	1031-07-8	µg/kg	2,400	920,000	1,000,000	a	8.6	U	7.6	UJ	8.3	U	8.1	U	7	U	7	U
Endrin	72-20-8	µg/kg	14	410,000	60	a	14		7.6	UJ	8.3	U	8.1	U	7	U	7	U
Endrin Aldehyde	7421-93-4	µg/kg	NC	NC	NC	a	8.6	U	7.6	UJ	8.3	U	8.1	U	7	U	7	U
Endrin Ketone	53494-70-5	µg/kg	NC	NC	NC	a	8.6	U	7.6	UJ	8.3	U	8.1	U	7	U	7	U
Ethylbenzene	100-41-4	µg/kg	1,000	780,000	1,000	a	1.3	U	0.32	J	0.32	J	1.2	U	0.96	U	1.2	U
Fluoranthene	206-44-0	µg/kg	100,000	1,000,000	1,000,000	a	50	J	150	J	17	J	400	U	340	UJ	350	U
Fluorene	86-73-7	µg/kg	30,000	1,000,000	386,000	a	420	U	11	J	11	J	400	U	340	UJ	350	U
Gamma Bhc (Lindane)	58-89-9	µg/kg	100	23,000	100	a	2.6	U	2.3	UJ	2.5	U	2.4	U	2.1	U	2.1	U
Heptachlor	76-44-8	µg/kg	42	29,000	380	a	8.6	U	7.6	UJ	8.3	U	8.1	U	7	U	7	U
Heptachlor Epoxide	1024-57-3	µg/kg	NC	NC	20	b	8.6	U	7.6	UJ	8.3	U	8.1	U	7	U	7	U
Hexachlorobenzene	118-74-1	µg/kg	330	12,000	1,400	b	42	U	37	U	41	U	40	U	34	UJ	35	U
Hexachlorobutadiene	87-68-3	µg/kg	NC	NC	NC	a	86	U	76	U	83	U	80	U	70	UJ	70	U
Hexachlorocyclopentadiene	77-47-4	µg/kg	NC	NC	NC	a	420	U	370	U	410	U	400	U	340	UJ	350	U
Hexachloroethane	67-72-1	µg/kg	NC	NC	NC	a	42	U	37	U	41	U	40	U	34	UJ	35	U
Indeno(1,2,3-C,D)Pyrene	193-39-5	µg/kg	500	11,000	8,200	a	27	J	43		41	U	40	U	34	UJ	35	U
Iron	7439-89-6	mg/kg	NC	NC	NC	a	23700		3270		784		583		1030		1130	
Isophorone	78-59-1	µg/kg	NC	NC	4,400	b	170	U	150	U	170	U	160	U	140	UJ	140	U
Isopropylbenzene (Cumene)	98-82-8	µg/kg	NC	NC	2,300	b	1.3	U	0.25	J	2.8		0.22	J	0.96	U	1.2	U
Lead	7439-92-1	mg/kg	63	3,900	450	a	**97.5**		10.1		1.7	J	1.2	J	2	J	32.1	J
Magnesium	7439-95-4	mg/kg	NC	NC	NC	a	201	J	187	J	1160	U	1100	U	128	J	82.7	J
Manganese	7439-96-5	mg/kg	1,600	10,000	2,000	a	93		31.3		4.7		3.9		8.7		9.8	
Mercury	7439-97-6	mg/kg	0.180	5.70	0.73	a	**0.22**		0.03		0.033		0.019		0.017	U	0.01	J
Methoxychlor	72-43-5	µg/kg	NC	NC	900,000	b	8.6	U	7.6	UJ	8.3	U	8.1	U	7	U	7	U
Methyl Acetate	79-20-9	µg/kg	NC	NC	NC	a	6.5	U	5.4	U	5.2	U	5.8	U	4.8	UT	6	U
Methyl Ethyl Ketone (2-Butanone)	78-93-3	µg/kg	120	1,000,000	120	b	6.5	U	10		4	J	5.8	U	4.8	U	6	U
Methyl Isobutyl Ketone (4-Methyl-2-Pentanor	108-10-1	µg/kg	NC	NC	1,000	b	6.5	U	5.4	U	5.2	U	5.8	U	4.8	U	6	U
Methylcyclohexane	108-87-2	µg/kg	NC	NC	NC	a	1.3	U	1.1	U	2.8		1.2	U	0.96	U	1.2	U

Table 3-3a
Soil Analytical Results - VOCs, SVOCs, Pesticides, Herbicides, PCBs, Metals, Mercury, Cyanide, and 1,4-Dioxane
Quiogue Landfill, NYSDEC Site No. 152061
Quiogue, Southampton, New York

					Location ID		SS-04		SB-04		SB-04		SB-04		SS-05		SS-05				
					Sample ID		SS-04-021220		SB-04-24-25-021220		SB-04-30-31-021220		SB-04-40-41-021220		SS-05-021320		SS-105-021320				
					Sample Depth (feet bgs)		0 – 0.17		24 - 25		30 - 31		40– 41		0 – 0.17		0 – 0.17				
					Sample Date		2/12/2020		2/12/2020		2/12/2020		2/12/2020		2/13/2020		2/13/2020				
					Sample Type		N		N		N		N		N		FD				
					Parent Sample Code												SS-05-021320				
Chemical Name	**CAS No.**	**Unit**	**Unrestricted Use SCO[1]**	**Industrial Use SCO[2]**	**Protection of Groundwater SCO[3]**		Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q			
Methylene Chloride	75-09-2	µg/kg	50	1,000,000	50	a	1.3	U	1.1	U	1	U	1.2	U	0.96	U	1.2	U			
Naphthalene	91-20-3	µg/kg	12,000	1,000,000	12,000	a	420	U	13	J	15	J	400	U	340	UJ	350	U			
Nickel	7440-02-0	mg/kg	30	10,000	130	a	14.1		3	J	1	J	0.59	J	0.89	J	0.72	J			
Nitrobenzene	98-95-3	µg/kg	NC	NC	170	b	42	U	37	U	41	U	40	U	34	UJ	35	U			
N-Nitrosodi-N-Propylamine	621-64-7	µg/kg	NC	NC	NC	a	42	U	37	U	41	U	40	U	34	UJ	35	U			
N-Nitrosodiphenylamine	86-30-6	µg/kg	NC	NC	NC	a	420	U	370	U	410	U	400	U	340	UJ	350	U			
P,P'-DDD	72-54-8	µg/kg	3.30	180,000	14,000	a	**3.5**	**J**	7.6	UJ	8.3	U	8.1	U	7	U	7	U			
P,P'-DDE	72-55-9	µg/kg	3.30	120,000	17,000	a	**38**		7.6	UJ	8.3	U	8.1	U	7	U	7	U			
P,P'-DDT	50-29-3	µg/kg	3.30	94,000	136,000	a	**92**		7.6	UJ	8.3	U	8.1	U	7	U	7	U			
PCB-1016 (Aroclor 1016)	12674-11-2	µg/kg	100	25,000	3,200	a	86	U	76	U	83	U	81	U	70	U	70	U			
PCB-1221 (Aroclor 1221)	11104-28-2	µg/kg	100	25,000	3,200	a	86	U	76	U	83	U	81	U	70	U	70	U			
PCB-1232 (Aroclor 1232)	11141-16-5	µg/kg	100	25,000	3,200	a	86	U	76	U	83	U	81	U	70	U	70	U			
PCB-1242 (Aroclor 1242)	53469-21-9	µg/kg	100	25,000	3,200	a	86	U	76	U	83	U	81	U	70	U	70	U			
PCB-1248 (Aroclor 1248)	12672-29-6	µg/kg	100	25,000	3,200	a	86	U	76	U	83	U	81	U	70	U	70	U			
PCB-1254 (Aroclor 1254)	11097-69-1	µg/kg	100	25,000	3,200	a	86	U	76	U	83	U	81	U	70	U	70	U			
PCB-1260 (Aroclor 1260)	11096-82-5	µg/kg	100	25,000	3,200	a	86	U	76	U	83	U	81	U	70	U	70	U			
Pentachlorophenol	87-86-5	µg/kg	800	55,000	800	a	340	U	300	U	330	U	320	U	280	UJ	280	U			
Phenanthrene	85-01-8	µg/kg	100,000	1,000,000	1,000,000	a	18	J	140	J	20	J	400	U	340	UJ	350	U			
Phenol	108-95-2	µg/kg	330	1,000,000	330	a	420	U	45	J	410	U	400	U	340	UJ	350	U			
Polychlorinated Biphenyl (PCBs)	1336-36-3	µg/kg	100	25,000	3,200	a	86	U	76	U	83	U	81	U	70	U	70	U			
Potassium	7440-09-7	mg/kg	NC	NC	NC	a	1210	U	117	J	1160	U	1100	U	1040	U	972	U			
Pyrene	129-00-0	µg/kg	100,000	1,000,000	1,000,000	a	63	J	230	J	410	U	400	U	340	UJ	350	U			
Selenium	7782-49-2	mg/kg	3.90	6,800	4.00	a	4.8	U	4.3	U	4.7	U	4.4	U	4.2	U	3.9	U			
Silver	7440-22-4	mg/kg	2.00	6,800	8.30	a	2.4	U	2.1	U	2.3	U	2.2	U	2.1	U	1.9	U			
Silvex (2,4,5-TP)	93-72-1	µg/kg	3,800	1,000,000	3,800	a	43	U	38	U	41	U	40	U	35	U	35	U			
Sodium	7440-23-5	mg/kg	NC	NC	NC	a	1210	U	1070	U	1160	U	1100	U	1040	U	972	U			
Styrene	100-42-5	µg/kg	NC	NC	NC	a	1.3	U	1.1	U	1	U	1.2	U	0.96	U	1.2	U			
Tert-Butyl Methyl Ether	1634-04-4	µg/kg	930	1,000,000	930	a	1.3	U	1.1	U	1	U	1.2	U	0.96	U	1.2	U			
Tetrachloroethylene (PCE)	127-18-4	µg/kg	1,300	300,000	1,300	a	1.3	U	1.1	U	1	U	1.2	U	0.96	U	1.2	U			
Thallium	7440-28-0	mg/kg	NC	NC	NC	a	4.8	U	4.3	U	4.7	U	4.4	U	4.2	U	3.9	U			
Toluene	108-88-3	µg/kg	700	1,000,000	700	a	1.3	U	1.1	U	0.27	J	1.2	U	0.96	U	1.2	U			
Toxaphene	8001-35-2	µg/kg	NC	NC	NC	a	86	U	76	UJ	83	U	81	U	70	U	70	U			
Trans-1,2-Dichloroethene	156-60-5	µg/kg	190	1,000,000	190	a	1.3	U	1.1	U	1	U	1.2	U	0.96	U	1.2	U			
Trans-1,3-Dichloropropene	10061-02-6	µg/kg	NC	NC	NC	a	1.3	U	1.1	U	1	U	1.2	U	0.96	U	1.2	U			
Trichloroethylene (TCE)	79-01-6	µg/kg	470	400,000	470	a	1.3	U	1.1	U	1	U	1.2	U	0.96	U	1.2	U			
Trichlorofluoromethane	75-69-4	µg/kg	NC	NC	NC	a	1.3	U	1.1	U	1	U	1.2	U	0.96	U	1.2	U			
Vanadium	7440-62-2	mg/kg	NC	NC	NC	a	4.8	J	2.5	J	1.5	J	1.7	J	2.9	J	2.7	J			
Vinyl Chloride	75-01-4	µg/kg	20	27,000	20	a	1.3	U	1.1	U	1	U	1.2	U	0.96	U	1.2	U			
Xylenes	1330-20-7	µg/kg	260	1,000,000	1,600	a	2.6	U	0.4	J	0.45	J	2.3	U	1.9	U	2.4	U			
Zinc	7440-66-6	mg/kg	109	10,000	2,480	a	79.1		27.4		7	U	6.6	U	6.3	U	5.8	U			

Table 3-3a
Soil Analytical Results - VOCs, SVOCs, Pesticides, Herbicides, PCBs, Metals, Mercury, Cyanide, and 1,4-Dioxane
Quiogue Landfill, NYSDEC Site No. 152061
Quiogue, Southampton, New York

					Location ID	SS-04		SB-04		SB-04		SB-04		SS-05		SS-05	
					Sample ID	SS-04-021220		SB-04-24-25-021220		SB-04-30-31-021220		SB-04-40-41-021220		SS-05-021320		SS-105-021320	
					Sample Depth (feet bgs)	0 – 0.17		24 - 25		30 - 31		40– 41		0 – 0.17		0 – 0.17	
					Sample Date	2/12/2020		2/12/2020		2/12/2020		2/12/2020		2/13/2020		2/13/2020	
					Sample Type	N		N		N		N		N		FD	
					Parent Sample Code											SS-05-021320	
Chemical Name	**CAS No.**	**Unit**	**Unrestricted Use SCO[1]**	**Industrial Use SCO[2]**	**Protection of Groundwater SCO[3]**	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q

Notes:
1 - 6 NYCRR Part 375-6.8(a): Unrestricted Use Soil Cleanup Objectives, New York State Department of Environmental Conservation, Eff
2 - 6 NYCRR Part 375-6.8(b): Restricted Use Soil Cleanup Objectives, Industrial Use, New York State Department of Environmental
3 - Lowest values between:
a. 6 NYCRR Part 375-6.8(b): Restricted Use Soil Cleanup Objectives, Protection of Groundwater, NYSDEC, Effective December, 14, 20
b. CP-51, Supplemental Soil Cleanup Objectives, Table 1, Protection of Groundwater, NYSDEC, October 21, 2010.

> Supplemental SCO, Protection of Groundwater
> Industrial Use SCOs
Bold > Unrestricted Use SCOs

Acronyms:
BJ - analyte detected in the blank, estimated
CAS - chemical abstract service
FD - field duplicate
ID - identification
J - estimated
mg/kg - milligrams per kilogram
N - normal sample
NC - no criteria listed
NYSDEC - New York State Department of Environmental Conservation
PCB - polychlorinated biphenyl
PFAS - per- and polyfluoroalkyl substances
R - result rejected
SVOC - semivolatile organic compounds
U - nondetect
UJ - nondetect, estimated
UT -
VOC - volatile organic compounds
µg/kg - micrograms per kilogram

Table 3-3a
Soil Analytical Results - VOCs, SVOCs, Pesticides, Herbicides, PCBs, Metals, Mercury, Cyanide, and 1,4-Dioxane
Quiogue Landfill, NYSDEC Site No. 152061
Quiogue, Southampton, New York

					Location ID		SB-05				SB-05				SB-05				SB-05				MW-03				MW-03			
					Sample ID		SB-05-5-7-021720				SB-05-15-16-021720				SB-05-30-32-021720				SB-05-40-41.5-021720				SS-MW-03-021920				SO-MW-03-10-12-022020			
					Sample Depth (feet bgs)		5 - 7				15 – 16				30 – 32				40 – 41.5				0 – 0.17				10 - 12			
					Sample Date		2/17/2020				2/17/2020				2/17/2020				2/17/2020				2/19/2020				2/20/2020			
					Sample Type		N				N				N				N				N				N			
					Parent Sample Code																									
Chemical Name	**CAS No.**	**Unit**	**Unrestricted Use SCO[1]**	**Industrial Use SCO[2]**	**Protection of Groundwater SCO[3]**		Result		Q		Result		Q		Result		Q		Result		Q		Result		Q		Result		Q	
1,1,1-Trichloroethane	71-55-6	µg/kg	680	1,000,000	680	a	0.97		UJ		110		U		470		U		1.3		U		0.92		U		0.9		U	
1,1,2,2-Tetrachloroethane	79-34-5	µg/kg	NC	NC	600	b	0.97		UJ		110		U		470		U		1.3		U		0.92		U		0.9		U	
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	µg/kg	NC	NC	6,000	b	0.97		UJ		110		U		470		U		1.3		U		0.92		U		0.9		U	
1,1,2-Trichloroethane	79-00-5	µg/kg	NC	NC	NC	a	0.97		UJ		110		U		470		U		1.3		U		0.92		U		0.9		U	
1,1-Dichloroethane	75-34-3	µg/kg	270	480,000	270	a	0.97		UJ		110		U		470		U		1.3		U		0.92		U		0.9		U	
1,1-Dichloroethene	75-35-4	µg/kg	330	1,000,000	330	a	0.97		UJ		110		U		470		U		1.3		U		0.92		U		0.9		U	
1,2,4-Trichlorobenzene	120-82-1	µg/kg	NC	NC	340	b	0.97		UJ		110		U		470		U		1.3		U		0.92		UJ		0.9		U	
1,2-Dibromo-3-Chloropropane	96-12-8	µg/kg	NC	NC	NC	a	0.97		UJ		110		U		470		U		1.3		U		0.92		U		0.9		U	
1,2-Dibromoethane (Ethylene Dibromide)	106-93-4	µg/kg	NC	NC	NC	a	0.97		UJ		110		U		470		U		1.3		U		0.92		U		0.9		U	
1,2-Dichlorobenzene	95-50-1	µg/kg	1,100	1,000,000	1,100	a	0.97		UJ		110		U		470		U		1.3		U		0.92		UJ		0.9		U	
1,2-Dichloroethane	107-06-2	µg/kg	20	60,000	20	a	0.97		UJ		110		U		470		U		1.3		U		0.92		U		0.9		U	
1,2-Dichloropropane	78-87-5	µg/kg	NC	NC	NC	a	0.97		UJ		110		U		470		U		1.3		U		0.92		U		0.9		U	
1,3-Dichlorobenzene	541-73-1	µg/kg	2,400	560,000	2,400	a	0.97		UJ		110		U		470		U		1.3		U		0.92		UJ		0.9		U	
1,4-Dichlorobenzene	106-46-7	µg/kg	1,800	250,000	1,800	a	0.97		UJ		630				480		U		1.3		U		0.92		UJ		0.9		U	
1,4-Dioxane (P-Dioxane)	123-91-1	µg/kg	100	250,000	100	a	100		U		100		U		600		U		120		U		110		U		100		U	
2,4,5-Trichlorophenol	95-95-4	µg/kg	NC	NC	100	b	350		U		340		U		2000		U		400		U		360		U		350		U	
2,4,6-Trichlorophenol	88-06-2	µg/kg	NC	NC	NC	a	140		U		140		U		790		U		160		U		140		U		140		U	
2,4-D (Dichlorophenoxyacetic Acid)	94-75-7	µg/kg	NC	NC	500	b	35		U		35		U		40		U		41		U		36		U		35		U	
2,4-Dichlorophenol	120-83-2	µg/kg	NC	NC	400	b	140		U		140		U		790		U		160		U		140		U		140		U	
2,4-Dimethylphenol	105-67-9	µg/kg	NC	NC	NC	a	350		U		340		U		2000		U		400		U		360		U		350		U	
2,4-Dinitrophenol	51-28-5	µg/kg	NC	NC	200	b	280		R		280		U		1600		U		330		U		290		UJ		280		U	
2,4-Dinitrotoluene	121-14-2	µg/kg	NC	NC	NC	a	70		U		70		U		400		U		82		U		73		U		70		U	
2,6-Dinitrotoluene	606-20-2	µg/kg	NC	NC	1,000	b	70		U		70		U		400		U		82		U		73		U		70		U	
2-Chloronaphthalene	91-58-7	µg/kg	NC	NC	NC	a	350		U		340		U		2000		U		400		U		360		U		350		U	
2-Chlorophenol	95-57-8	µg/kg	NC	NC	NC	a	350		U		340		U		2000		U		400		U		360		U		350		U	
2-Hexanone	591-78-6	µg/kg	NC	NC	NC	a	4.9		UJ		570		U		2300		U		6.6		U		4.6		U		4.5		U	
2-Methylnaphthalene	91-57-6	µg/kg	NC	NC	NC	b	350		U		2100				15000				310		J		360		U		350		U	
2-Methylphenol (O-Cresol)	95-48-7	µg/kg	330	1,000,000	330	a	350		U		340		U		2000		U		400		U		360		U		350		U	
2-Nitroaniline	88-74-4	µg/kg	NC	NC	400	b	350		U		340		U		2000		U		400		U		360		U		350		U	
2-Nitrophenol	88-75-5	µg/kg	NC	NC	300	b	350		UJ		340		U		2000		U		400		U		360		U		350		U	
3,3'-Dichlorobenzidine	91-94-1	µg/kg	NC	NC	NC	a	140		UT		140		UT		790		UT		160		UT		140		U		140		U	
3-Nitroaniline	99-09-2	µg/kg	NC	NC	400	b	350		UJ		340		UJ		2000		UJ		400		UJ		360		U		350		U	
4,6-Dinitro-2-Methylphenol	534-52-1	µg/kg	NC	NC	NC	a	280		R		280		U		1600		U		330		U		290		UJ		280		U	
4-Bromophenyl Phenyl Ether	101-55-3	µg/kg	NC	NC	NC	a	350		U		340		U		2000		U		400		U		360		U		350		U	
4-Chloro-3-Methylphenol	59-50-7	µg/kg	NC	NC	NC	a	350		U		340		U		2000		U		400		U		360		U		350		U	
4-Chloroaniline	106-47-8	µg/kg	NC	NC	220	b	350		UJ		340		UJ		2000		UJ		400		UJ		360		U		350		U	
4-Chlorophenyl Phenyl Ether	7005-72-3	µg/kg	NC	NC	NC	a	350		U		340		U		2000		U		400		U		360		U		350		U	
4-Methylphenol (P-Cresol)	106-44-5	µg/kg	330	1,000,000	330	a	350		U		170		J		2000		U		400		U		360		U		350		U	
4-Nitroaniline	100-01-6	µg/kg	NC	NC	NC	a	350		U		340		U		2000		U		400		U		360		U		350		U	
4-Nitrophenol	100-02-7	µg/kg	NC	NC	100	b	700		U		700		U		4000		U		820		U		730		U		700		U	
Acenaphthene	83-32-9	µg/kg	20,000	1,000,000	98,000	a	350		U		340		U		450		J		400		U		360		U		350		U	
Acenaphthylene	208-96-8	µg/kg	100,000	1,000,000	107,000	a	350		U		340		U		550		J		400		U		360		U		350		U	
Acetic acid, (2,4,5-trichlorophenoxy)-	93-76-5	µg/kg	NC	NC	1,900	b	35		U		35		U		40		U		41		U		36		U		35		U	

Table 3-3a
Soil Analytical Results - VOCs, SVOCs, Pesticides, Herbicides, PCBs, Metals, Mercury, Cyanide, and 1,4-Dioxane
Quiogue Landfill, NYSDEC Site No. 152061
Quiogue, Southampton, New York

					Location ID		SB-05		SB-05		SB-05		SB-05		MW-03		MW-03	
					Sample ID		SB-05-5-7-021720		SB-05-15-16-021720		SB-05-30-32-021720		SB-05-40-41.5-021720		SS-MW-03-021920		SO-MW-03-10-12-022020	
					Sample Depth (feet bgs)		5 - 7		15 – 16		30 – 32		40 – 41.5		0 – 0.17		10 - 12	
					Sample Date		2/17/2020		2/17/2020		2/17/2020		2/17/2020		2/19/2020		2/20/2020	
					Sample Type		N		N		N		N		N		N	
					Parent Sample Code													
Chemical Name	**CAS No.**	**Unit**	**Unrestricted Use SCO[1]**	**Industrial Use SCO[2]**	**Protection of Groundwater SCO[3]**		Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q
Acetone	67-64-1	µg/kg	50	1,000,000	50	a	6.5	UJ	570	U	2300	U	7.9	U	5.5	U	5.4	U
Acetophenone	98-86-2	µg/kg	NC	NC	NC	a	350	U	340	U	2000	U	400	U	360	U	350	U
Aldrin	309-00-2	µg/kg	5.0	1,400	190	a	7	U	7	U	8	U	8.2	U	7.3	U	7	U
Alpha Bhc (Alpha Hexachlorocyclohexane)	319-84-6	µg/kg	20	6,800	20	a	2.1	U	2.1	U	2.4	U	2.5	U	2.2	U	2.1	U
Alpha Endosulfan	959-98-8	µg/kg	2,400	920,000	102,000	a	7	U	7	U	8	U	8.2	U	7.3	U	7	U
Aluminum	7429-90-5	mg/kg	NC	NC	NC	a	1000		3070		166		304		1460		521	
Anthracene	120-12-7	µg/kg	100,000	1,000,000	1,000,000	a	350	U	340	U	2000	U	400	U	360	U	350	U
Antimony	7440-36-0	mg/kg	NC	NC	NC	a	3.4	UJ	3.3	U	3.6	U	3.9	U	4.1	UJ	3.7	U
Arsenic	7440-38-2	mg/kg	13	16	16	a	0.6	J	0.76	J	2.7	U	2.9	U	0.82	J	0.68	J
Atrazine	1912-24-9	µg/kg	NC	NC	NC	a	140	U	140	U	790	U	160	U	140	U	140	U
Barium	7440-39-3	mg/kg	350	10,000	820	a	3.9	J	41.2		35.8	U	5.6	J	4.9	J	37.5	U
Benzaldehyde	100-52-7	µg/kg	NC	NC	NC	a	350	U	340	U	2000	U	400	U	44	J	350	U
Benzene	71-43-2	µg/kg	60	89,000	60	a	0.97	UJ	110	U	470	U	1.3	U	0.92	U	0.9	U
Benzo(A)Anthracene	56-55-3	µg/kg	1,000	11,000	1,000	a	12	J	34	U	200	U	40	U	24	J	35	U
Benzo(A)Pyrene	50-32-8	µg/kg	1,000	1,100	22,000	a	35	U	23	J	200	U	40	U	24	J	35	U
Benzo(B)Fluoranthene	205-99-2	µg/kg	1,000	11,000	1,700	a	35	U	46		200	U	40	U	46		35	U
Benzo(G,H,I)Perylene	191-24-2	µg/kg	100,000	1,000,000	1,000,000	a	350	U	340	U	2000	U	400	U	15	J	350	U
Benzo(K)Fluoranthene	207-08-9	µg/kg	800	110,000	1,700	a	35	U	34	U	200	U	40	U	16	J	35	U
Benzyl Butyl Phthalate	85-68-7	µg/kg	NC	NC	122,000	b	350	U	180	J	2000	U	400	U	360	U	350	U
Beryllium	7440-41-7	mg/kg	7.20	2,700	47	a	0.34	U	0.24	J	0.36	U	0.39	U	0.41	U	0.37	U
Beta Bhc (Beta Hexachlorocyclohexane)	319-85-7	µg/kg	36	14,000	90	a	2.1	U	2.1	U	2.4	U	2.5	U	2.2	U	2.1	U
Beta Endosulfan	33213-65-9	µg/kg	2,400	920,000	102,000	a	7	U	7	U	8	U	8.2	U	7.3	U	7	U
Biphenyl (Diphenyl)	92-52-4	µg/kg	NC	NC	NC	a	350	U	200	J	2000	U	400	U	360	U	350	U
Bis(2-Chloroethoxy) Methane	111-91-1	µg/kg	NC	NC	NC	a	350	U	340	U	2000	U	400	U	360	U	350	U
Bis(2-Chloroethyl) Ether (2-Chloroethyl Ether	111-44-4	µg/kg	NC	NC	NC	a	35	U	34	U	200	U	40	U	36	UJ	35	U
Bis(2-Chloroisopropyl) Ether	108-60-1	µg/kg	NC	NC	NC	a	350	U	340	U	2000	U	400	U	360	U	350	U
Bis(2-Ethylhexyl) Phthalate	117-81-7	µg/kg	NC	NC	435,000	b	64	J	4800		2000	U	130	J	360	U	350	U
Bromodichloromethane	75-27-4	µg/kg	NC	NC	NC	a	0.97	UJ	110	U	470	U	1.3	U	0.92	U	0.9	U
Bromoform	75-25-2	µg/kg	NC	NC	NC	a	0.97	UJ	110	UJ	470	U	1.3	U	0.92	U	0.9	U
Bromomethane	74-83-9	µg/kg	NC	NC	NC	a	0.97	UJ	110	U	470	U	1.3	U	0.92	U	0.9	U
Cadmium	7440-43-9	mg/kg	2.50	60	7.50	a	0.68	U	0.66	U	0.72	U	0.78	U	0.82	U	0.75	U
Calcium	7440-70-2	mg/kg	NC	NC	NC	a	78.2	J	30100		895	U	981	U	123	J	162	J
Caprolactam	105-60-2	µg/kg	NC	NC	NC	a	350	U	340	U	2000	U	400	U	360	U	350	U
Carbazole	86-74-8	µg/kg	NC	NC	NC	a	350	U	340	U	2000	U	400	U	360	U	350	U
Carbon Disulfide	75-15-0	µg/kg	NC	NC	2,700	b	0.97	UJ	110	U	470	U	1.3	U	0.92	U	0.9	U
Carbon Tetrachloride	56-23-5	µg/kg	760	44,000	760	a	0.97	UJ	110	U	470	U	1.3	U	0.92	U	0.9	U
Chlordane (Technical)	12789-03-6	µg/kg	NC	NC	NC	a	100	J	70	U	80	U	82	U	73	U	70	U
Chlorobenzene	108-90-7	µg/kg	1,100	1,000,000	1,100	a	0.97	UJ	300		810		1.3	U	0.92	U	0.9	U
Chloroethane	75-00-3	µg/kg	NC	NC	1,900	b	0.97	UJ	110	U	470	U	1.3	U	0.92	U	0.9	U
Chloroform	67-66-3	µg/kg	370	700,000	370	a	0.97	UJ	110	U	470	U	1.3	U	0.92	U	0.9	U
Chloromethane	74-87-3	µg/kg	NC	NC	NC	a	0.97	UJ	110	U	470	U	1.3	U	0.92	U	0.9	U
Chromium, Total	7440-47-3	mg/kg	30	6,800	NC	a	2.7		22.4		1.8	U	1.8	J	2.4		2.7	
Chrysene	218-01-9	µg/kg	1,000	110,000	1,000	a	350	U	37	J	2000	U	400	U	37	J	350	U

Table 3-3a
Soil Analytical Results - VOCs, SVOCs, Pesticides, Herbicides, PCBs, Metals, Mercury, Cyanide, and 1,4-Dioxane
Quiogue Landfill, NYSDEC Site No. 152061
Quiogue, Southampton, New York

					Location ID		SB-05		SB-05		SB-05		SB-05		MW-03		MW-03	
					Sample ID		SB-05-5-7-021720		SB-05-15-16-021720		SB-05-30-32-021720		SB-05-40-41.5-021720		SS-MW-03-021920		SO-MW-03-10-12-022020	
					Sample Depth (feet bgs)		5 - 7		15 – 16		30 – 32		40 – 41.5		0 – 0.17		10 - 12	
					Sample Date		2/17/2020		2/17/2020		2/17/2020		2/17/2020		2/19/2020		2/20/2020	
					Sample Type		N		N		N		N		N		N	
					Parent Sample Code													
Chemical Name	**CAS No.**	**Unit**	**Unrestricted Use SCO[1]**	**Industrial Use SCO[2]**	**Protection of Groundwater SCO[3]**		Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q
Cis-1,2-Dichloroethylene	156-59-2	µg/kg	250	1,000,000	250	a	0.97	UJ	110	U	470	U	1.3	U	0.92	U	0.9	U
Cis-1,3-Dichloropropene	10061-01-5	µg/kg	NC	NC	NC	a	0.97	UJ	110	U	470	U	1.3	U	0.92	U	0.9	U
Cobalt	7440-48-4	mg/kg	NC	NC	NC	a	0.54	J	2.9	J	9	U	9.8	U	10.2	U	9.4	U
Copper	7440-50-8	mg/kg	50	10,000	1,720	a	2.2	J	18.1		4.5	U	4.9	U	3.5	J	1.5	J
Cyanide	57-12-5	mg/kg	27	10,000	40	a	0.24	U	0.22	U	0.25	U	0.25	U	0.26	U	0.23	U
Cyclohexane	110-82-7	µg/kg	NC	NC	NC	a	0.97	UJ	64	J	13000		1.5		0.92	U	0.9	U
Delta BHC (Delta Hexachlorocyclohexane)	319-86-8	µg/kg	40	1,000,000	250	a	2.1	U	2.1	U	2.4	U	2.5	U	2.2	U	2.1	U
Dibenz(A,H)Anthracene	53-70-3	µg/kg	330	1,100	1,000,000	a	35	U	34	U	200	U	40	U	36	U	35	U
Dibenzofuran	132-64-9	µg/kg	7,000	1,000,000	6,200	b	350	U	15	NJ	340	J	400	U	360	U	350	U
Dibromochloromethane	124-48-1	µg/kg	NC	NC	NC	a	0.97	UJ	110	U	470	U	1.3	U	0.92	U	0.9	U
Dichlorodifluoromethane	75-71-8	µg/kg	NC	NC	NC	a	0.97	UJ	110	U	470	U	1.3	U	0.92	U	0.9	U
Dieldrin	60-57-1	µg/kg	5.00	2,800	100	a	2.1	U	2.1	U	2.4	U	2.5	U	2.2	U	2.1	U
Diethyl Phthalate	84-66-2	µg/kg	NC	NC	7,100	b	350	U	340	U	2000	U	400	U	360	U	350	U
Dimethyl Phthalate	131-11-3	µg/kg	NC	NC	27,000	b	350	U	340	U	2000	U	400	U	360	U	350	U
Di-N-Butyl Phthalate	84-74-2	µg/kg	NC	NC	8,100	b	350	U	340	U	2000	U	400	U	360	U	350	U
Di-N-Octylphthalate	117-84-0	µg/kg	NC	NC	120,000	b	350	U	340	U	2000	U	400	U	360	U	350	U
Endosulfan Sulfate	1031-07-8	µg/kg	2,400	920,000	1,000,000	a	7	U	7	U	8	U	8.2	U	7.3	U	7	U
Endrin	72-20-8	µg/kg	14	410,000	60	a	7	U	7	U	8	U	8.2	U	7.3	U	7	U
Endrin Aldehyde	7421-93-4	µg/kg	NC	NC	NC	a	7	U	7	U	8	U	8.2	U	7.3	U	7	U
Endrin Ketone	53494-70-5	µg/kg	NC	NC	NC	a	7	U	7	U	8	U	8.2	U	7.3	U	7	U
Ethylbenzene	100-41-4	µg/kg	1,000	780,000	1,000	a	0.97	UJ	350		**9000**		0.77	J	0.92	UJ	0.9	U
Fluoranthene	206-44-0	µg/kg	100,000	1,000,000	1,000,000	a	350	U	56	J	130	J	400	U	44	J	350	U
Fluorene	86-73-7	µg/kg	30,000	1,000,000	386,000	a	350	U	17	J	430	J	18	J	360	U	350	U
Gamma Bhc (Lindane)	58-89-9	µg/kg	100	23,000	100	a	2.1	U	2.1	U	2.4	U	2.5	U	2.2	U	2.1	U
Heptachlor	76-44-8	µg/kg	42	29,000	380	a	7	U	7	U	8	U	8.2	U	7.3	U	7	U
Heptachlor Epoxide	1024-57-3	µg/kg	NC	NC	20	b	7	U	7	U	8	U	8.2	U	7.3	U	7	U
Hexachlorobenzene	118-74-1	µg/kg	330	12,000	1,400	b	35	U	34	U	200	U	40	U	36	U	35	U
Hexachlorobutadiene	87-68-3	µg/kg	NC	NC	NC	a	70	U	70	U	400	U	82	U	73	U	70	U
Hexachlorocyclopentadiene	77-47-4	µg/kg	NC	NC	NC	a	350	UJ	340	U	2000	U	400	U	360	U	350	U
Hexachloroethane	67-72-1	µg/kg	NC	NC	NC	a	35	UJ	34	U	200	U	40	U	36	U	35	U
Indeno(1,2,3-C,D)Pyrene	193-39-5	µg/kg	500	11,000	8,200	a	35	U	34	U	200	U	40	U	15	J	35	U
Iron	7439-89-6	mg/kg	NC	NC	NC	a	2260		17200		247		724		3530		831	
Isophorone	78-59-1	µg/kg	NC	NC	4,400	b	140	U	140	U	790	U	160	U	140	U	140	U
Isopropylbenzene (Cumene)	98-82-8	µg/kg	NC	NC	2,300	b	0.97	UJ	150	U	11000		3.8		0.92	UJ	0.9	U
Lead	7439-92-1	mg/kg	63	3,900	450	a	8.5	J	42.9		0.49	J	1.4	J	19.6		8.6	
Magnesium	7439-95-4	mg/kg	NC	NC	NC	a	168	J	1300		895	U	981	U	154	J	121	J
Manganese	7439-96-5	mg/kg	1,600	10,000	2,000	a	19.1		119		1.3	J	4		18.8		5.2	
Mercury	7439-97-6	mg/kg	0.180	5.70	0.73	a	0.017	U	0.019		0.02	U	0.021	U	0.013	J	0.017	U
Methoxychlor	72-43-5	µg/kg	NC	NC	900,000	b	7	U	7	U	8	U	8.2	U	7.3	U	7	U
Methyl Acetate	79-20-9	µg/kg	NC	NC	NC	a	4.9	UJ	150	J	2300	U	6.6	U	4.6	UT	4.5	UT
Methyl Ethyl Ketone (2-Butanone)	78-93-3	µg/kg	120	1,000,000	120	b	4.9	UJ	570	U	2300	U	6.6	U	4.6	UT	4.5	UT
Methyl Isobutyl Ketone (4-Methyl-2-Pentanor	108-10-1	µg/kg	NC	NC	1,000	b	4.9	UJ	570	U	2300	U	6.6	U	4.6	U	4.5	U
Methylcyclohexane	108-87-2	µg/kg	NC	NC	NC	a	0.97	UJ	980		110000		35		0.92	UJ	0.9	U

Table 3-3a
Soil Analytical Results - VOCs, SVOCs, Pesticides, Herbicides, PCBs, Metals, Mercury, Cyanide, and 1,4-Dioxane
Quiogue Landfill, NYSDEC Site No. 152061
Quiogue, Southampton, New York

					Location ID		SB-05		SB-05		SB-05		SB-05		MW-03		MW-03	
					Sample ID		SB-05-5-7-021720		SB-05-15-16-021720		SB-05-30-32-021720		SB-05-40-41.5-021720		SS-MW-03-021920		SO-MW-03-10-12-022020	
					Sample Depth (feet bgs)		5 - 7		15 – 16		30 – 32		40 – 41.5		0 – 0.17		10 - 12	
					Sample Date		2/17/2020		2/17/2020		2/17/2020		2/17/2020		2/19/2020		2/20/2020	
					Sample Type		N		N		N		N		N		N	
					Parent Sample Code													
Chemical Name	**CAS No.**	**Unit**	**Unrestricted Use SCO[1]**	**Industrial Use SCO[2]**	**Protection of Groundwater SCO[3]**		Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q
Methylene Chloride	75-09-2	µg/kg	50	1,000,000	50	a	0.97	UJ	110	U	470	U	1.3	U	0.92	U	0.9	U
Naphthalene	91-20-3	µg/kg	12,000	1,000,000	12,000	a	9.4	J	5100		7000		140	J	360	U	350	U
Nickel	7440-02-0	mg/kg	30	10,000	130	a	**48.8**	**J**	**154**		0.62	J	0.93	J	2	J	0.74	J
Nitrobenzene	98-95-3	µg/kg	NC	NC	170	b	35	U	34	U	200	U	40	U	36	U	35	U
N-Nitrosodi-N-Propylamine	621-64-7	µg/kg	NC	NC	NC	a	35	U	34	U	200	U	40	U	36	U	35	U
N-Nitrosodiphenylamine	86-30-6	µg/kg	NC	NC	NC	a	350	U	340	U	2000	U	400	U	360	U	350	U
P,P'-DDD	72-54-8	µg/kg	3.30	180,000	14,000	a	7	U	7	U	8	U	8.2	U	7.3	U	7	U
P,P'-DDE	72-55-9	µg/kg	3.30	120,000	17,000	a	7	U	7	U	8	U	8.2	U	7.3	U	7	U
P,P'-DDT	50-29-3	µg/kg	3.30	94,000	136,000	a	7	U	7	U	8	U	8.2	U	**7.3**	U	7	U
PCB-1016 (Aroclor 1016)	12674-11-2	µg/kg	100	25,000	3,200	a	70	U	70	U	80	U	82	U	73	U	70	U
PCB-1221 (Aroclor 1221)	11104-28-2	µg/kg	100	25,000	3,200	a	70	U	70	U	80	U	82	U	73	U	70	U
PCB-1232 (Aroclor 1232)	11141-16-5	µg/kg	100	25,000	3,200	a	70	U	70	U	80	U	82	U	73	U	70	U
PCB-1242 (Aroclor 1242)	53469-21-9	µg/kg	100	25,000	3,200	a	70	U	70	U	80	U	82	U	73	U	70	U
PCB-1248 (Aroclor 1248)	12672-29-6	µg/kg	100	25,000	3,200	a	70	U	70	U	80	U	82	U	73	U	70	U
PCB-1254 (Aroclor 1254)	11097-69-1	µg/kg	100	25,000	3,200	a	70	U	70	U	80	U	82	U	73	U	70	U
PCB-1260 (Aroclor 1260)	11096-82-5	µg/kg	100	25,000	3,200	a	70	U	70	U	80	U	82	U	73	U	70	U
Pentachlorophenol	87-86-5	µg/kg	800	55,000	800	a	280	U	280	U	1600	U	330	U	290	U	280	U
Phenanthrene	85-01-8	µg/kg	100,000	1,000,000	1,000,000	a	350	U	87	J	180	J	400	U	19	J	350	U
Phenol	108-95-2	µg/kg	330	1,000,000	330	a	350	U	340	U	2000	U	400	U	360	U	350	U
Polychlorinated Biphenyl (PCBs)	1336-36-3	µg/kg	100	25,000	3,200	a	70	U	70	U	80	U	82	U	73	U	70	U
Potassium	7440-09-7	mg/kg	NC	NC	NC	a	85.1	J	1590		895	U	73.1	J	1020	U	936	U
Pyrene	129-00-0	µg/kg	100,000	1,000,000	1,000,000	a	350	U	71	J	110	J	400	U	37	J	350	U
Selenium	7782-49-2	mg/kg	3.90	6,800	4.00	a	3.4	U	3.3	U	3.6	U	3.9	U	4.1	U	3.7	U
Silver	7440-22-4	mg/kg	2.00	6,800	8.30	a	1.7	U	1.6	U	1.8	U	2	U	2	U	1.9	U
Silvex (2,4,5-TP)	93-72-1	µg/kg	3,800	1,000,000	3,800	a	35	U	35	U	40	U	41	U	36	U	35	U
Sodium	7440-23-5	mg/kg	NC	NC	NC	a	852	U	442	J	895	U	981	U	1020	U	936	U
Styrene	100-42-5	µg/kg	NC	NC	NC	a	0.97	UJ	110	U	470	U	1.3	U	0.92	U	0.9	U
Tert-Butyl Methyl Ether	1634-04-4	µg/kg	930	1,000,000	930	a	0.97	UJ	110	U	470	U	1.3	U	0.92	U	0.9	U
Tetrachloroethylene (PCE)	127-18-4	µg/kg	1,300	300,000	1,300	a	0.97	UJ	110	U	470	U	1.3	U	0.92	U	0.9	U
Thallium	7440-28-0	mg/kg	NC	NC	NC	a	3.4	U	3.3	U	3.6	U	3.9	U	4.1	U	0.68	J
Toluene	108-88-3	µg/kg	700	1,000,000	700	a	0.97	UJ	110	U	470	U	1.3	U	0.92	U	0.9	U
Toxaphene	8001-35-2	µg/kg	NC	NC	NC	a	70	U	70	U	80	U	82	U	73	U	70	U
Trans-1,2-Dichloroethene	156-60-5	µg/kg	190	1,000,000	190	a	0.97	UJ	110	U	470	U	1.3	U	0.92	U	0.9	U
Trans-1,3-Dichloropropene	10061-02-6	µg/kg	NC	NC	NC	a	0.97	UJ	110	U	470	U	1.3	U	0.92	U	0.9	U
Trichloroethylene (TCE)	79-01-6	µg/kg	470	400,000	470	a	0.97	UJ	110	U	470	U	1.3	U	0.92	U	0.9	U
Trichlorofluoromethane	75-69-4	µg/kg	NC	NC	NC	a	0.97	UJ	110	U	470	U	1.3	U	0.92	U	0.9	U
Vanadium	7440-62-2	mg/kg	NC	NC	NC	a	2.7	J	7.9	J	9	U	1.7	J	3.8	J	2.1	J
Vinyl Chloride	75-01-4	µg/kg	20	27,000	20	a	0.97	UJ	110	U	470	U	1.3	U	0.92	U	0.9	U
Xylenes	1330-20-7	µg/kg	260	1,000,000	1,600	a	0.44	J	**1300**		**10000**		0.89	J	1.8	U	0.42	J
Zinc	7440-66-6	mg/kg	109	10,000	2,480	a	7		54.8		5.4	U	2.5	J	10.7		5.6	U

Table 3-3a
Soil Analytical Results - VOCs, SVOCs, Pesticides, Herbicides, PCBs, Metals, Mercury, Cyanide, and 1,4-Dioxane
Quiogue Landfill, NYSDEC Site No. 152061
Quiogue, Southampton, New York

					Location ID	SB-05		SB-05		SB-05		SB-05		MW-03		MW-03	
					Sample ID	SB-05-5-7-021720		SB-05-15-16-021720		SB-05-30-32-021720		SB-05-40-41.5-021720		SS-MW-03-021920		SO-MW-03-10-12-022020	
					Sample Depth (feet bgs)	5 - 7		15 – 16		30 – 32		40 – 41.5		0 – 0.17		10 - 12	
					Sample Date	2/17/2020		2/17/2020		2/17/2020		2/17/2020		2/19/2020		2/20/2020	
					Sample Type	N		N		N		N		N		N	
					Parent Sample Code												
Chemical Name	**CAS No.**	**Unit**	**Unrestricted Use SCO[1]**	**Industrial Use SCO[2]**	**Protection of Groundwater SCO[3]**	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q

Notes:
1 - 6 NYCRR Part 375-6.8(a): Unrestricted Use Soil Cleanup Objectives, New York State Department of Environmental Conservation, Eff
2 - 6 NYCRR Part 375-6.8(b): Restricted Use Soil Cleanup Objectives, Industrial Use, New York State Department of Environmental
3 - Lowest values between:
a. 6 NYCRR Part 375-6.8(b): Restricted Use Soil Cleanup Objectives, Protection of Groundwater, NYSDEC, Effective December, 14, 20
b. CP-51, Supplemental Soil Cleanup Objectives, Table 1, Protection of Groundwater, NYSDEC, October 21, 2010.

> Supplemental SCO, Protection of Groundwater
> Industrial Use SCOs
Bold > Unrestricted Use SCOs

Acronyms:

BJ - analyte detected in the blank, estimated	PFAS - per- and polyfluoroalkyl substances
CAS - chemical abstract service	R - result rejected
FD - field duplicate	SVOC - semivolatile organic compound
ID - identification	U - nondetect
J - estimated	UJ - nondetect, estimated
mg/kg - milligrams per kilogram	UT -
N - normal sample	VOC - volatile organic compounds
NC - no criteria listed	µg/kg - micrograms per kilogram

NYSDEC - New York State Department of Environmental Conservation
PCB - polychlorinated biphenyl

Table 3-3a
Soil Analytical Results - VOCs, SVOCs, Pesticides, Herbicides, PCBs, Metals, Mercury, Cyanide, and 1,4-Dioxane
Quiogue Landfill, NYSDEC Site No. 152061
Quiogue, Southampton, New York

							Location ID	MW-03		MW-03		MW-04		MW-04		MW-04	
							Sample ID	SO-MW-03-35-37-022020		SO-MW-03-45-47-022020		SS-MW-04-022020		SO-MW-04-16.5-18.5-022420		SO-MW-04-30-32-022420	
							Sample Depth (feet bgs)	35 - 37		45 - 47		0 – 0.17		16.5 - 18.5		30 - 32	
							Sample Date	2/20/2020		2/20/2020		2/20/2020		2/24/2020		2/24/2020	
							Sample Type	N		N		N		N		N	
							Parent Sample Code										
Chemical Name	**CAS No.**	**Unit**	**Unrestricted Use SCO[1]**	**Industrial Use SCO[2]**	**Protection of Groundwater SCO[3]**		Result	Q	Result	Q	Result	Q	Result	Q	Result	Q
1,1,1-Trichloroethane	71-55-6	µg/kg	680	1,000,000	680	a	130	U	1.4	U	1.2	U	0.94	U	1.1	U
1,1,2,2-Tetrachloroethane	79-34-5	µg/kg	NC	NC	600	b	130	U	1.4	U	1.2	U	0.94	U	1.1	U
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	µg/kg	NC	NC	6,000	b	130	U	1.4	U	1.2	U	0.94	U	1.1	U
1,1,2-Trichloroethane	79-00-5	µg/kg	NC	NC	NC	a	130	U	1.4	U	1.2	U	0.94	U	1.1	U
1,1-Dichloroethane	75-34-3	µg/kg	270	480,000	270	a	130	U	1.4	U	1.2	U	0.94	U	1.1	U
1,1-Dichloroethene	75-35-4	µg/kg	330	1,000,000	330	a	130	U	1.4	U	1.2	U	0.94	U	1.1	U
1,2,4-Trichlorobenzene	120-82-1	µg/kg	NC	NC	340	b	130	U	1.4	U	1.2	U	0.94	U	1.1	U
1,2-Dibromo-3-Chloropropane	96-12-8	µg/kg	NC	NC	NC	a	130	UT	1.4	U	1.2	U	0.94	U	1.1	U
1,2-Dibromoethane (Ethylene Dibromide)	106-93-4	µg/kg	NC	NC	NC	a	130	U	1.4	U	1.2	U	0.94	U	1.1	U
1,2-Dichlorobenzene	95-50-1	µg/kg	1,100	1,000,000	1,100	a	130	U	1.4	U	1.2	U	0.94	U	1.1	U
1,2-Dichloroethane	107-06-2	µg/kg	20	60,000	20	a	130	U	1.4	U	1.2	U	0.94	U	1.1	U
1,2-Dichloropropane	78-87-5	µg/kg	NC	NC	NC	a	130	U	1.4	U	1.2	U	0.94	U	1.1	U
1,3-Dichlorobenzene	541-73-1	µg/kg	2,400	560,000	2,400	a	130	U	1.4	U	1.2	U	0.94	U	1.1	U
1,4-Dichlorobenzene	106-46-7	µg/kg	1,800	250,000	1,800	a	130	U	1.4	U	1.2	U	0.94	U	1.1	U
1,4-Dioxane (P-Dioxane)	123-91-1	µg/kg	100	250,000	100	a	120	U	130	U	110	U	100	UJ	120	U
2,4,5-Trichlorophenol	95-95-4	µg/kg	NC	NC	100	b	410	U	420	U	350	U	340	UJ	400	U
2,4,6-Trichlorophenol	88-06-2	µg/kg	NC	NC	NC	a	160	U	170	U	140	U	140	UJ	160	U
2,4-D (Dichlorophenoxyacetic Acid)	94-75-7	µg/kg	NC	NC	500	b	41	U	43	U	36	U	34	U	40	U
2,4-Dichlorophenol	120-83-2	µg/kg	NC	NC	400	b	160	U	170	U	140	U	140	UJ	160	U
2,4-Dimethylphenol	105-67-9	µg/kg	NC	NC	NC	a	410	U	420	U	350	U	340	UJ	400	U
2,4-Dinitrophenol	51-28-5	µg/kg	NC	NC	200	b	330	U	340	U	280	U	270	UJ	320	U
2,4-Dinitrotoluene	121-14-2	µg/kg	NC	NC	NC	a	83	U	86	U	72	U	69	UJ	80	U
2,6-Dinitrotoluene	606-20-2	µg/kg	NC	NC	1,000	b	83	U	86	U	72	U	69	UJ	80	U
2-Chloronaphthalene	91-58-7	µg/kg	NC	NC	NC	a	410	U	420	U	350	U	340	UJ	400	U
2-Chlorophenol	95-57-8	µg/kg	NC	NC	NC	a	410	U	420	U	350	U	340	UJ	400	U
2-Hexanone	591-78-6	µg/kg	NC	NC	NC	a	640	U	7	U	5.8	U	4.7	U	5.6	U
2-Methylnaphthalene	91-57-6	µg/kg	NC	NC	NC	b	1700		54	J	350	U	340	UJ	400	U
2-Methylphenol (O-Cresol)	95-48-7	µg/kg	330	1,000,000	330	a	410	U	420	U	350	U	340	UJ	400	U
2-Nitroaniline	88-74-4	µg/kg	NC	NC	400	b	410	U	420	U	350	U	340	UJ	400	U
2-Nitrophenol	88-75-5	µg/kg	NC	NC	300	b	410	U	420	U	350	U	340	UJ	400	U
3,3'-Dichlorobenzidine	91-94-1	µg/kg	NC	NC	NC	a	160	U	170	U	140	U	140	UJ	160	U
3-Nitroaniline	99-09-2	µg/kg	NC	NC	400	b	410	U	420	U	350	U	340	UJ	400	U
4,6-Dinitro-2-Methylphenol	534-52-1	µg/kg	NC	NC	NC	a	330	U	340	U	280	U	270	UJ	320	U
4-Bromophenyl Phenyl Ether	101-55-3	µg/kg	NC	NC	NC	a	410	U	420	U	350	U	340	UJ	400	U
4-Chloro-3-Methylphenol	59-50-7	µg/kg	NC	NC	NC	a	410	U	420	U	350	U	340	UJ	400	U
4-Chloroaniline	106-47-8	µg/kg	NC	NC	220	b	410	U	420	U	350	U	340	UJ	400	U
4-Chlorophenyl Phenyl Ether	7005-72-3	µg/kg	NC	NC	NC	a	410	U	420	U	350	U	340	UJ	400	U
4-Methylphenol (P-Cresol)	106-44-5	µg/kg	330	1,000,000	330	a	410	U	420	U	350	U	340	UJ	400	U
4-Nitroaniline	100-01-6	µg/kg	NC	NC	NC	a	410	U	420	U	350	U	340	UJ	400	U
4-Nitrophenol	100-02-7	µg/kg	NC	NC	100	b	830	U	860	U	720	U	690	UJ	800	U
Acenaphthene	83-32-9	µg/kg	20,000	1,000,000	98,000	a	410	U	420	U	350	U	340	UJ	400	U
Acenaphthylene	208-96-8	µg/kg	100,000	1,000,000	107,000	a	410	U	420	U	350	U	340	UJ	400	U
Acetic acid, (2,4,5-trichlorophenoxy)-	93-76-5	µg/kg	NC	NC	1,900	b	41	U	43	U	36	U	34	U	40	U

Table 3-3a
Soil Analytical Results - VOCs, SVOCs, Pesticides, Herbicides, PCBs, Metals, Mercury, Cyanide, and 1,4-Dioxane
Quiogue Landfill, NYSDEC Site No. 152061
Quiogue, Southampton, New York

					Location ID		MW-03		MW-03		MW-04		MW-04		MW-04	
					Sample ID		SO-MW-03-35-37-022020		SO-MW-03-45-47-022020		SS-MW-04-022020		SO-MW-04-16.5-18.5-022420		SO-MW-04-30-32-022420	
					Sample Depth (feet bgs)		35 - 37		45 - 47		0 – 0.17		16.5 - 18.5		30 - 32	
					Sample Date		2/20/2020		2/20/2020		2/20/2020		2/24/2020		2/24/2020	
					Sample Type		N		N		N		N		N	
					Parent Sample Code											
Chemical Name	**CAS No.**	**Unit**	**Unrestricted Use SCO[1]**	**Industrial Use SCO[2]**	**Protection of Groundwater SCO[3]**		Result	Q	Result	Q	Result	Q	Result	Q	Result	Q
Acetone	67-64-1	µg/kg	50	1,000,000	50	a	**790**		18		6.9	U	5.6	U	6.7	U
Acetophenone	98-86-2	µg/kg	NC	NC	NC	a	410	U	420	U	350	U	340	UJ	400	U
Aldrin	309-00-2	µg/kg	5.0	1,400	190	a	8.3	U	8.6	U	7.2	U	6.9	U	8.1	U
Alpha Bhc (Alpha Hexachlorocyclohexane)	319-84-6	µg/kg	20	6,800	20	a	2.5	U	2.6	U	2.1	U	2.1	U	2.4	U
Alpha Endosulfan	959-98-8	µg/kg	2,400	920,000	102,000	a	8.3	U	8.6	U	7.2	U	6.9	U	8.1	U
Aluminum	7429-90-5	mg/kg	NC	NC	NC	a	344		347		1210		321		260	
Anthracene	120-12-7	µg/kg	100,000	1,000,000	1,000,000	a	410	U	420	U	350	U	340	UJ	400	U
Antimony	7440-36-0	mg/kg	NC	NC	NC	a	4.5	U	4.8	U	4	U	4	U	4.7	U
Arsenic	7440-38-2	mg/kg	13	16	16	a	3.4	U	3.6	U	3	U	3	U	3.5	U
Atrazine	1912-24-9	µg/kg	NC	NC	NC	a	160	U	170	U	140	U	140	UJ	160	U
Barium	7440-39-3	mg/kg	350	10,000	820	a	45.1	U	48.2	U	7	J	40.5	U	46.7	U
Benzaldehyde	100-52-7	µg/kg	NC	NC	NC	a	410	U	420	U	350	U	340	UJ	400	U
Benzene	71-43-2	µg/kg	60	89,000	60	a	130	U	1.4	U	1.2	U	0.94	U	1.1	U
Benzo(A)Anthracene	56-55-3	µg/kg	1,000	11,000	1,000	a	41	U	42	U	35	U	34	UJ	40	U
Benzo(A)Pyrene	50-32-8	µg/kg	1,000	1,100	22,000	a	41	U	42	U	35	U	34	UJ	40	U
Benzo(B)Fluoranthene	205-99-2	µg/kg	1,000	11,000	1,700	a	41	U	42	U	35	U	34	UJ	40	U
Benzo(G,H,I)Perylene	191-24-2	µg/kg	100,000	1,000,000	1,000,000	a	410	U	420	U	350	U	340	UJ	400	U
Benzo(K)Fluoranthene	207-08-9	µg/kg	800	110,000	1,700	a	41	U	42	U	35	U	34	UJ	40	U
Benzyl Butyl Phthalate	85-68-7	µg/kg	NC	NC	122,000	b	410	U	420	U	350	U	340	UJ	400	U
Beryllium	7440-41-7	mg/kg	7.20	2,700	47	a	0.45	U	0.48	U	0.4	U	0.4	U	0.47	U
Beta Bhc (Beta Hexachlorocyclohexane)	319-85-7	µg/kg	36	14,000	90	a	2.5	U	2.6	U	2.1	U	2.1	U	2.4	U
Beta Endosulfan	33213-65-9	µg/kg	2,400	920,000	102,000	a	8.3	U	8.6	U	7.2	U	6.9	U	8.1	U
Biphenyl (Diphenyl)	92-52-4	µg/kg	NC	NC	NC	a	240	J	420	U	350	U	340	UJ	400	U
Bis(2-Chloroethoxy) Methane	111-91-1	µg/kg	NC	NC	NC	a	410	U	420	U	350	U	340	UJ	400	U
Bis(2-Chloroethyl) Ether (2-Chloroethyl Ether	111-44-4	µg/kg	NC	NC	NC	a	41	U	42	U	35	U	34	UJ	40	U
Bis(2-Chloroisopropyl) Ether	108-60-1	µg/kg	NC	NC	NC	a	410	U	420	U	350	U	340	UJ	400	U
Bis(2-Ethylhexyl) Phthalate	117-81-7	µg/kg	NC	NC	435,000	b	410	U	420	U	410		340	UJ	400	U
Bromodichloromethane	75-27-4	µg/kg	NC	NC	NC	a	130	U	1.4	U	1.2	U	0.94	U	1.1	U
Bromoform	75-25-2	µg/kg	NC	NC	NC	a	130	UJ	1.4	U	1.2	U	0.94	U	1.1	U
Bromomethane	74-83-9	µg/kg	NC	NC	NC	a	130	U	1.4	U	1.2	U	0.94	U	1.1	U
Cadmium	7440-43-9	mg/kg	2.50	60	7.50	a	0.9	U	0.96	U	0.79	U	0.81	U	0.93	U
Calcium	7440-70-2	mg/kg	NC	NC	NC	a	1130	U	171	J	224	J	1010	U	1170	U
Caprolactam	105-60-2	µg/kg	NC	NC	NC	a	410	U	420	U	350	U	340	UJ	400	U
Carbazole	86-74-8	µg/kg	NC	NC	NC	a	410	U	420	U	350	U	340	UJ	400	U
Carbon Disulfide	75-15-0	µg/kg	NC	NC	2,700	b	130	U	1.4	U	1.2	U	0.94	U	1.1	U
Carbon Tetrachloride	56-23-5	µg/kg	760	44,000	760	a	130	U	1.4	U	1.2	U	0.94	U	1.1	U
Chlordane (Technical)	12789-03-6	µg/kg	NC	NC	NC	a	83	U	86	U	72	U	69	U	81	U
Chlorobenzene	108-90-7	µg/kg	1,100	1,000,000	1,100	a	130	U	1.4	U	1.2	U	0.94	U	1.1	U
Chloroethane	75-00-3	µg/kg	NC	NC	1,900	b	130	UT	1.4	U	1.2	U	0.94	U	1.1	U
Chloroform	67-66-3	µg/kg	370	700,000	370	a	130	U	1.4	U	1.2	U	0.94	U	1.1	U
Chloromethane	74-87-3	µg/kg	NC	NC	NC	a	130	U	1.4	U	1.2	U	0.94	U	1.1	U
Chromium, Total	7440-47-3	mg/kg	30	6,800	NC	a	2.3	U	3.1		2.1		1.8	J	2.3	U
Chrysene	218-01-9	µg/kg	1,000	110,000	1,000	a	410	U	420	U	350	U	340	UJ	400	U

Table 3-3a
Soil Analytical Results - VOCs, SVOCs, Pesticides, Herbicides, PCBs, Metals, Mercury, Cyanide, and 1,4-Dioxane
Quiogue Landfill, NYSDEC Site No. 152061
Quiogue, Southampton, New York

					Location ID		MW-03		MW-03		MW-04		MW-04		MW-04	
					Sample ID		SO-MW-03-35-37-022020		SO-MW-03-45-47-022020		SS-MW-04-022020		SO-MW-04-16.5-18.5-022420		SO-MW-04-30-32-022420	
					Sample Depth (feet bgs)		35 - 37		45 - 47		0 – 0.17		16.5 - 18.5		30 - 32	
					Sample Date		2/20/2020		2/20/2020		2/20/2020		2/24/2020		2/24/2020	
					Sample Type		N		N		N		N		N	
					Parent Sample Code											
Chemical Name	**CAS No.**	**Unit**	**Unrestricted Use SCO[1]**	**Industrial Use SCO[2]**	**Protection of Groundwater SCO[3]**		Result	Q	Result	Q	Result	Q	Result	Q	Result	Q
Cis-1,2-Dichloroethylene	156-59-2	µg/kg	250	1,000,000	250	a	130	U	1.4	U	1.2	U	0.94	U	1.1	U
Cis-1,3-Dichloropropene	10061-01-5	µg/kg	NC	NC	NC	a	130	U	1.4	U	1.2	U	0.94	U	1.1	U
Cobalt	7440-48-4	mg/kg	NC	NC	NC	a	11.3	U	12.1	U	0.62	J	10.1	U	11.7	U
Copper	7440-50-8	mg/kg	50	10,000	1,720	a	5.6	U	6	U	2.4	J	3.9	J	4.4	J
Cyanide	57-12-5	mg/kg	27	10,000	40	a	0.26	U	0.26	U	0.25	U	0.26	U	0.29	U
Cyclohexane	110-82-7	µg/kg	NC	NC	NC	a	450		1.4	U	1.2	U	0.94	U	1.1	U
Delta BHC (Delta Hexachlorocyclohexane)	319-86-8	µg/kg	40	1,000,000	250	a	2.5	U	2.6	U	2.1	U	2.1	U	2.4	U
Dibenz(A,H)Anthracene	53-70-3	µg/kg	330	1,100	1,000,000	a	41	U	42	U	35	U	34	UJ	40	U
Dibenzofuran	132-64-9	µg/kg	7,000	1,000,000	6,200	b	410	U	420	U	350	U	340	UJ	400	U
Dibromochloromethane	124-48-1	µg/kg	NC	NC	NC	a	130	UT	1.4	U	1.2	U	0.94	U	1.1	U
Dichlorodifluoromethane	75-71-8	µg/kg	NC	NC	NC	a	130	U	1.4	UJ	1.2	UJ	0.94	U	1.1	U
Dieldrin	60-57-1	µg/kg	5.00	2,800	100	a	2.5	U	2.6	U	2.1	U	2.1	U	2.4	U
Diethyl Phthalate	84-66-2	µg/kg	NC	NC	7,100	b	410	U	420	U	350	U	340	UJ	400	U
Dimethyl Phthalate	131-11-3	µg/kg	NC	NC	27,000	b	410	U	420	U	350	U	340	UJ	400	U
Di-N-Butyl Phthalate	84-74-2	µg/kg	NC	NC	8,100	b	410	U	420	U	350	U	340	UJ	400	U
Di-N-Octylphthalate	117-84-0	µg/kg	NC	NC	120,000	b	410	U	420	U	350	U	340	UJ	400	U
Endosulfan Sulfate	1031-07-8	µg/kg	2,400	920,000	1,000,000	a	8.3	U	8.6	U	7.2	U	6.9	U	8.1	U
Endrin	72-20-8	µg/kg	14	410,000	60	a	8.3	U	8.6	U	7.2	U	6.9	U	8.1	U
Endrin Aldehyde	7421-93-4	µg/kg	NC	NC	NC	a	8.3	U	8.6	U	7.2	U	6.9	U	8.1	U
Endrin Ketone	53494-70-5	µg/kg	NC	NC	NC	a	8.3	U	8.6	U	7.2	U	6.9	U	8.1	U
Ethylbenzene	100-41-4	µg/kg	1,000	780,000	1,000	a	240		5.4		1.2	U	0.94	U	1.1	U
Fluoranthene	206-44-0	µg/kg	100,000	1,000,000	1,000,000	a	410	U	420	U	350	U	340	UJ	400	U
Fluorene	86-73-7	µg/kg	30,000	1,000,000	386,000	a	28	J	420	U	350	U	340	UJ	400	U
Gamma Bhc (Lindane)	58-89-9	µg/kg	100	23,000	100	a	2.5	U	2.6	U	2.1	U	2.1	U	2.4	U
Heptachlor	76-44-8	µg/kg	42	29,000	380	a	8.3	U	8.6	U	7.2	U	6.9	U	8.1	U
Heptachlor Epoxide	1024-57-3	µg/kg	NC	NC	20	b	8.3	U	8.6	U	7.2	U	6.9	U	8.1	U
Hexachlorobenzene	118-74-1	µg/kg	330	12,000	1,400	b	41	U	42	U	35	U	34	UJ	40	U
Hexachlorobutadiene	87-68-3	µg/kg	NC	NC	NC	a	83	U	86	U	72	U	69	UJ	80	U
Hexachlorocyclopentadiene	77-47-4	µg/kg	NC	NC	NC	a	410	U	420	U	350	U	340	UJ	400	U
Hexachloroethane	67-72-1	µg/kg	NC	NC	NC	a	41	U	42	U	35	U	34	UJ	40	U
Indeno(1,2,3-C,D)Pyrene	193-39-5	µg/kg	500	11,000	8,200	a	41	U	42	U	35	U	34	UJ	40	U
Iron	7439-89-6	mg/kg	NC	NC	NC	a	436		786		2330		481		948	
Isophorone	78-59-1	µg/kg	NC	NC	4,400	b	160	U	170	U	140	U	140	UJ	160	U
Isopropylbenzene (Cumene)	98-82-8	µg/kg	NC	NC	2,300	b	680		17		1.2	U	0.94	U	1.1	U
Lead	7439-92-1	mg/kg	63	3,900	450	a	2.2	J	1.1	J	8.1		0.82	J	3.9	
Magnesium	7439-95-4	mg/kg	NC	NC	NC	a	81.9	J	81.9	J	277	J	1010	U	1170	U
Manganese	7439-96-5	mg/kg	1,600	10,000	2,000	a	3.2	J	6.5		48.3		4		5.3	
Mercury	7439-97-6	mg/kg	0.180	5.70	0.73	a	0.019	U	0.021	U	0.011	J	0.016	U	0.019	U
Methoxychlor	72-43-5	µg/kg	NC	NC	900,000	b	8.3	U	8.6	U	7.2	U	6.9	U	8.1	U
Methyl Acetate	79-20-9	µg/kg	NC	NC	NC	a	640	U	7	UT	5.8	UT	4.7	U	5.6	U
Methyl Ethyl Ketone (2-Butanone)	78-93-3	µg/kg	120	1,000,000	120	b	640	U	7	U	5.8	U	4.7	U	5.6	U
Methyl Isobutyl Ketone (4-Methyl-2-Pentanor	108-10-1	µg/kg	NC	NC	1,000	b	640	U	7	U	5.8	U	4.7	U	5.6	U
Methylcyclohexane	108-87-2	µg/kg	NC	NC	NC	a	4300		180		1.2	U	0.94	U	1.1	U

Table 3-3a
Soil Analytical Results - VOCs, SVOCs, Pesticides, Herbicides, PCBs, Metals, Mercury, Cyanide, and 1,4-Dioxane
Quiogue Landfill, NYSDEC Site No. 152061
Quiogue, Southampton, New York

					Location ID		MW-03		MW-03		MW-04		MW-04		MW-04	
					Sample ID		SO-MW-03-35-37-022020		SO-MW-03-45-47-022020		SS-MW-04-022020		SO-MW-04-16.5-18.5-022420		SO-MW-04-30-32-022420	
					Sample Depth (feet bgs)		35 - 37		45 - 47		0 – 0.17		16.5 - 18.5		30 - 32	
					Sample Date		2/20/2020		2/20/2020		2/20/2020		2/24/2020		2/24/2020	
					Sample Type		N		N		N		N		N	
					Parent Sample Code											
Chemical Name	**CAS No.**	**Unit**	**Unrestricted Use SCO[1]**	**Industrial Use SCO[2]**	**Protection of Groundwater SCO[3]**		Result	Q	Result	Q	Result	Q	Result	Q	Result	Q
Methylene Chloride	75-09-2	µg/kg	50	1,000,000	50	a	130	U	2.2		1.2	U	0.94	U	1	J
Naphthalene	91-20-3	µg/kg	12,000	1,000,000	12,000	a	410	U	420	U	350	U	340	UJ	400	U
Nickel	7440-02-0	mg/kg	30	10,000	130	a	0.73	J	0.65	J	1.2	J	8.1	U	9.3	U
Nitrobenzene	98-95-3	µg/kg	NC	NC	170	b	41	U	42	U	35	U	34	UJ	40	U
N-Nitrosodi-N-Propylamine	621-64-7	µg/kg	NC	NC	NC	a	41	U	42	U	35	U	34	UJ	40	U
N-Nitrosodiphenylamine	86-30-6	µg/kg	NC	NC	NC	a	410	U	420	U	350	U	340	UJ	400	U
P,P'-DDD	72-54-8	µg/kg	3.30	180,000	14,000	a	8.3	U	8.6	U	7.2	U	6.9	U	8.1	U
P,P'-DDE	72-55-9	µg/kg	3.30	120,000	17,000	a	8.3	U	8.6	U	7.2	U	6.9	U	8.1	U
P,P'-DDT	50-29-3	µg/kg	3.30	94,000	136,000	a	8.3	U	8.6	U	7.2	U	6.9	U	8.1	U
PCB-1016 (Aroclor 1016)	12674-11-2	µg/kg	100	25,000	3,200	a	83	U	86	U	72	U	69	U	81	U
PCB-1221 (Aroclor 1221)	11104-28-2	µg/kg	100	25,000	3,200	a	83	U	86	U	72	U	69	U	81	U
PCB-1232 (Aroclor 1232)	11141-16-5	µg/kg	100	25,000	3,200	a	83	U	86	U	72	U	69	U	81	U
PCB-1242 (Aroclor 1242)	53469-21-9	µg/kg	100	25,000	3,200	a	83	U	86	U	72	U	69	U	81	U
PCB-1248 (Aroclor 1248)	12672-29-6	µg/kg	100	25,000	3,200	a	83	U	86	U	72	U	69	U	81	U
PCB-1254 (Aroclor 1254)	11097-69-1	µg/kg	100	25,000	3,200	a	83	U	86	U	72	U	69	U	81	U
PCB-1260 (Aroclor 1260)	11096-82-5	µg/kg	100	25,000	3,200	a	83	U	86	U	72	U	69	U	81	U
Pentachlorophenol	87-86-5	µg/kg	800	55,000	800	a	330	U	340	U	280	U	270	UJ	320	U
Phenanthrene	85-01-8	µg/kg	100,000	1,000,000	1,000,000	a	410	U	420	U	350	U	340	UJ	400	U
Phenol	108-95-2	µg/kg	330	1,000,000	330	a	410	U	420	U	350	U	340	UJ	400	U
Polychlorinated Biphenyl (PCBs)	1336-36-3	µg/kg	100	25,000	3,200	a	83	U	86	U	72	U	69	U	81	U
Potassium	7440-09-7	mg/kg	NC	NC	NC	a	1130	U	1210	U	121	J	1010	U	1170	U
Pyrene	129-00-0	µg/kg	100,000	1,000,000	1,000,000	a	410	U	420	U	350	U	340	UJ	400	U
Selenium	7782-49-2	mg/kg	3.90	6,800	4.00	a	4.5	U	4.8	U	4	U	4	U	4.7	U
Silver	7440-22-4	mg/kg	2.00	6,800	8.30	a	2.3	U	2.4	U	2	U	2	U	2.3	U
Silvex (2,4,5-TP)	93-72-1	µg/kg	3,800	1,000,000	3,800	a	41	U	43	U	36	U	34	U	40	U
Sodium	7440-23-5	mg/kg	NC	NC	NC	a	1130	U	1210	U	989	U	1010	U	1170	U
Styrene	100-42-5	µg/kg	NC	NC	NC	a	130	U	1.4	U	1.2	U	0.94	U	1.1	U
Tert-Butyl Methyl Ether	1634-04-4	µg/kg	930	1,000,000	930	a	130	U	1.4	U	1.2	U	0.94	U	1.1	U
Tetrachloroethylene (PCE)	127-18-4	µg/kg	1,300	300,000	1,300	a	130	U	1.4	U	1.2	U	0.94	U	1.1	U
Thallium	7440-28-0	mg/kg	NC	NC	NC	a	4.5	U	4.8	U	0.7	J	4	U	4.7	U
Toluene	108-88-3	µg/kg	700	1,000,000	700	a	130	U	1.4	U	1.2	U	0.94	U	1.1	U
Toxaphene	8001-35-2	µg/kg	NC	NC	NC	a	83	U	86	U	72	U	69	U	81	U
Trans-1,2-Dichloroethene	156-60-5	µg/kg	190	1,000,000	190	a	130	U	1.4	U	1.2	U	0.94	U	1.1	U
Trans-1,3-Dichloropropene	10061-02-6	µg/kg	NC	NC	NC	a	130	U	1.4	U	1.2	U	0.94	U	1.1	U
Trichloroethylene (TCE)	79-01-6	µg/kg	470	400,000	470	a	130	U	1.4	U	1.2	U	0.94	U	1.1	U
Trichlorofluoromethane	75-69-4	µg/kg	NC	NC	NC	a	130	U	1.4	U	1.2	U	0.94	U	1.1	U
Vanadium	7440-62-2	mg/kg	NC	NC	NC	a	1.6	J	1.6	J	3.9	J	1.4	J	1.2	J
Vinyl Chloride	75-01-4	µg/kg	20	27,000	20	a	130	U	1.4	U	1.2	U	0.94	U	1.1	U
Xylenes	1330-20-7	µg/kg	260	1,000,000	1,600	a	**1600**		35		2.3	U	1.9	U	0.56	BJ
Zinc	7440-66-6	mg/kg	109	10,000	2,480	a	6.8	U	7.2	U	7.7		1.2	J	2.9	J

Table 3-3a
Soil Analytical Results - VOCs, SVOCs, Pesticides, Herbicides, PCBs, Metals, Mercury, Cyanide, and 1,4-Dioxane
Quiogue Landfill, NYSDEC Site No. 152061
Quiogue, Southampton, New York

					Location ID	MW-03		MW-03		MW-04		MW-04		MW-04	
					Sample ID	SO-MW-03-35-37-022020		SO-MW-03-45-47-022020		SS-MW-04-022020		SO-MW-04-16.5-18.5-022420		SO-MW-04-30-32-022420	
					Sample Depth (feet bgs)	35 - 37		45 - 47		0 – 0.17		16.5 - 18.5		30 - 32	
					Sample Date	2/20/2020		2/20/2020		2/20/2020		2/24/2020		2/24/2020	
					Sample Type	N		N		N		N		N	
					Parent Sample Code										
Chemical Name	**CAS No.**	**Unit**	**Unrestricted Use SCO[1]**	**Industrial Use SCO[2]**	**Protection of Groundwater SCO[3]**	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q

Notes:
1 - 6 NYCRR Part 375-6.8(a): Unrestricted Use Soil Cleanup Objectives, New York State Department of Environmental Conservation, Eff
2 - 6 NYCRR Part 375-6.8(b): Restricted Use Soil Cleanup Objectives, Industrial Use, New York State Department of Environmental
3 - Lowest values between:
a. 6 NYCRR Part 375-6.8(b): Restricted Use Soil Cleanup Objectives, Protection of Groundwater, NYSDEC, Effective December, 14, 20
b. CP-51, Supplemental Soil Cleanup Objectives, Table 1, Protection of Groundwater, NYSDEC, October 21, 2010.

> Supplemental SCO, Protection of Groundwater
> Industrial Use SCOs
Bold > Unrestricted Use SCOs

Acronyms:

BJ - analyte detected in the blank, estimated	PFAS - per- and polyfluoroalkyl substances
CAS - chemical abstract service	R - result rejected
FD - field duplicate	SVOC - semivolatile organic compound
ID - identification	U - nondetect
J - estimated	UJ - nondetect, estimated
mg/kg - milligrams per kilogram	UT -
N - normal sample	VOC - volatile organic compounds
NC - no criteria listed	µg/kg - micrograms per kilogram

NYSDEC - New York State Department of Environmental Conservation
PCB - polychlorinated biphenyl

Table 3-3a
Soil Analytical Results - VOCs, SVOCs, Pesticides, Herbicides, PCBs, Metals, Mercury, Cyanide, and 1,4-Dioxane
Quiogue Landfill, NYSDEC Site No. 152061
Quiogue, Southampton, New York

							MW-04		MW-05		MW-05		MW-05		MW-05	
Location ID							MW-04		MW-05		MW-05		MW-05		MW-05	
Sample ID							SO-MW-04-40-42-022420		SS-MW-05-021720		SO-MW-05-5-7-021720		SO-MW-05-25-27-021720		SO-MW-05-30-31-021720	
Sample Depth (feet bgs)							40 - 42		0 – 0.17		5 - 7		25 - 27		30 - 31	
Sample Date							2/24/2020		2/17/2020		2/17/2020		2/17/2020		2/17/2020	
Sample Type							N		N		N		N		N	
Parent Sample Code																
Chemical Name	**CAS No.**	**Unit**	**Unrestricted Use SCO[1]**	**Industrial Use SCO[2]**	**Protection of Groundwater SCO[3]**		Result	Q	Result	Q	Result	Q	Result	Q	Result	Q
1,1,1-Trichloroethane	71-55-6	µg/kg	680	1,000,000	680	a	1.1	U	1.2	U	1.1	U	1	U	1.2	U
1,1,2,2-Tetrachloroethane	79-34-5	µg/kg	NC	NC	600	b	1.1	U	1.2	U	1.1	U	1	U	1.2	U
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	µg/kg	NC	NC	6,000	b	1.1	U	1.2	U	1.1	U	1	U	1.2	U
1,1,2-Trichloroethane	79-00-5	µg/kg	NC	NC	NC	a	1.1	U	1.2	U	1.1	U	1	U	1.2	U
1,1-Dichloroethane	75-34-3	µg/kg	270	480,000	270	a	1.1	U	1.2	U	1.1	U	1	U	1.2	U
1,1-Dichloroethene	75-35-4	µg/kg	330	1,000,000	330	a	1.1	U	1.2	U	1.1	U	1	U	1.2	U
1,2,4-Trichlorobenzene	120-82-1	µg/kg	NC	NC	340	b	1.1	U	1.2	U	1.1	U	1	U	1.2	U
1,2-Dibromo-3-Chloropropane	96-12-8	µg/kg	NC	NC	NC	a	1.1	U	1.2	U	1.1	U	1	U	1.2	U
1,2-Dibromoethane (Ethylene Dibromide)	106-93-4	µg/kg	NC	NC	NC	a	1.1	U	1.2	U	1.1	U	1	U	1.2	U
1,2-Dichlorobenzene	95-50-1	µg/kg	1,100	1,000,000	1,100	a	1.1	U	1.2	U	1.1	U	1	U	0.43	J
1,2-Dichloroethane	107-06-2	µg/kg	20	60,000	20	a	1.1	U	1.2	U	1.1	U	1	U	1.2	U
1,2-Dichloropropane	78-87-5	µg/kg	NC	NC	NC	a	1.1	U	1.2	U	1.1	U	1	U	1.2	U
1,3-Dichlorobenzene	541-73-1	µg/kg	2,400	560,000	2,400	a	1.1	U	1.2	U	1.1	U	1	U	1.2	U
1,4-Dichlorobenzene	106-46-7	µg/kg	1,800	250,000	1,800	a	1.1	U	1.2	U	1.1	U	1	U	3.8	
1,4-Dioxane (P-Dioxane)	123-91-1	µg/kg	100	250,000	100	a	120	U	110	U	100	U	110	U	120	U
2,4,5-Trichlorophenol	95-95-4	µg/kg	NC	NC	100	b	400	U	380	U	350	U	370	U	410	U
2,4,6-Trichlorophenol	88-06-2	µg/kg	NC	NC	NC	a	160	U	150	U	140	U	150	U	160	U
2,4-D (Dichlorophenoxyacetic Acid)	94-75-7	µg/kg	NC	NC	500	b	41	U	38	U	35	U	37	U	41	U
2,4-Dichlorophenol	120-83-2	µg/kg	NC	NC	400	b	160	U	150	U	140	U	150	U	160	U
2,4-Dimethylphenol	105-67-9	µg/kg	NC	NC	NC	a	400	U	380	U	350	U	370	U	410	U
2,4-Dinitrophenol	51-28-5	µg/kg	NC	NC	200	b	330	U	300	U	280	U	300	U	330	U
2,4-Dinitrotoluene	121-14-2	µg/kg	NC	NC	NC	a	82	U	76	U	70	U	75	U	83	U
2,6-Dinitrotoluene	606-20-2	µg/kg	NC	NC	1,000	b	82	U	76	U	70	U	75	U	83	U
2-Chloronaphthalene	91-58-7	µg/kg	NC	NC	NC	a	400	U	380	U	350	U	370	U	410	U
2-Chlorophenol	95-57-8	µg/kg	NC	NC	NC	a	400	U	380	U	350	U	370	U	410	U
2-Hexanone	591-78-6	µg/kg	NC	NC	NC	a	5.6	U	5.8	U	5.7	U	5.2	U	5.8	U
2-Methylnaphthalene	91-57-6	µg/kg	NC	NC	NC	b	400	U	380	U	350	U	370	U	35	J
2-Methylphenol (O-Cresol)	95-48-7	µg/kg	330	1,000,000	330	a	400	U	380	U	350	U	370	U	410	U
2-Nitroaniline	88-74-4	µg/kg	NC	NC	400	b	400	U	380	U	350	U	370	U	410	U
2-Nitrophenol	88-75-5	µg/kg	NC	NC	300	b	400	U	380	U	350	U	370	U	410	U
3,3'-Dichlorobenzidine	91-94-1	µg/kg	NC	NC	NC	a	160	U	150	UT	140	UT	150	UT	160	UT
3-Nitroaniline	99-09-2	µg/kg	NC	NC	400	b	400	U	380	UJ	350	UJ	370	UJ	410	UJ
4,6-Dinitro-2-Methylphenol	534-52-1	µg/kg	NC	NC	NC	a	330	U	300	U	280	U	300	U	330	U
4-Bromophenyl Phenyl Ether	101-55-3	µg/kg	NC	NC	NC	a	400	U	380	U	350	U	370	U	410	U
4-Chloro-3-Methylphenol	59-50-7	µg/kg	NC	NC	NC	a	400	U	380	U	350	U	370	U	410	U
4-Chloroaniline	106-47-8	µg/kg	NC	NC	220	b	400	U	380	UJ	350	UJ	370	UJ	410	UJ
4-Chlorophenyl Phenyl Ether	7005-72-3	µg/kg	NC	NC	NC	a	400	U	380	U	350	U	370	U	410	U
4-Methylphenol (P-Cresol)	106-44-5	µg/kg	330	1,000,000	330	a	400	U	380	U	350	U	370	U	410	U
4-Nitroaniline	100-01-6	µg/kg	NC	NC	NC	a	400	U	380	U	350	U	370	U	410	U
4-Nitrophenol	100-02-7	µg/kg	NC	NC	100	b	820	U	760	U	700	U	750	U	830	U
Acenaphthene	83-32-9	µg/kg	20,000	1,000,000	98,000	a	400	U	380	U	350	U	370	U	410	U
Acenaphthylene	208-96-8	µg/kg	100,000	1,000,000	107,000	a	400	U	380	U	350	U	370	U	410	U
Acetic acid, (2,4,5-trichlorophenoxy)-	93-76-5	µg/kg	NC	NC	1,900	b	41	U	38	U	35	U	37	U	41	U

Table 3-3a
Soil Analytical Results - VOCs, SVOCs, Pesticides, Herbicides, PCBs, Metals, Mercury, Cyanide, and 1,4-Dioxane
Quiogue Landfill, NYSDEC Site No. 152061
Quiogue, Southampton, New York

					Location ID		MW-04		MW-05		MW-05		MW-05		MW-05						
					Sample ID		SO-MW-04-40-42-022420		SS-MW-05-021720		SO-MW-05-5-7-021720		SO-MW-05-25-27-021720		SO-MW-05-30-31-021720						
					Sample Depth (feet bgs)		40 - 42		0 – 0.17		5 - 7		25 - 27		30 - 31						
					Sample Date		2/24/2020		2/17/2020		2/17/2020		2/17/2020		2/17/2020						
					Sample Type		N		N		N		N		N						
					Parent Sample Code																
Chemical Name	**CAS No.**	**Unit**	**Unrestricted Use SCO[1]**	**Industrial Use SCO[2]**	**Protection of Groundwater SCO[3]**		Result	Q	Result	Q	Result	Q	Result	Q	Result	Q					
Acetone	67-64-1	µg/kg	50	1,000,000	50	a	10		6.9	U	25	U	12	U	21	U					
Acetophenone	98-86-2	µg/kg	NC	NC	NC	a	400	U	380	U	350	U	370	U	410	U					
Aldrin	309-00-2	µg/kg	5.0	1,400	190	a	41	U	7.6	U	7	U	7.5	U	8.3	U					
Alpha Bhc (Alpha Hexachlorocyclohexane)	319-84-6	µg/kg	20	6,800	20	a	12	U	2.3	U	2.1	U	2.2	U	2.5	U					
Alpha Endosulfan	959-98-8	µg/kg	2,400	920,000	102,000	a	41	U	7.6	U	7	U	7.5	U	8.3	U					
Aluminum	7429-90-5	mg/kg	NC	NC	NC	a	278		1660		1140		208		714						
Anthracene	120-12-7	µg/kg	100,000	1,000,000	1,000,000	a	400	U	380	U	350	U	370	U	410	U					
Antimony	7440-36-0	mg/kg	NC	NC	NC	a	4.7	U	4.3	U	4	U	4.3	U	4.6	U					
Arsenic	7440-38-2	mg/kg	13	16	16	a	3.5	U	0.88	J	3	U	3.2	U	3.5	U					
Atrazine	1912-24-9	µg/kg	NC	NC	NC	a	160	U	150	U	140	U	150	U	160	U					
Barium	7440-39-3	mg/kg	350	10,000	820	a	46.8	U	43	U	4.5	J	43.3	U	7.6	J					
Benzaldehyde	100-52-7	µg/kg	NC	NC	NC	a	400	U	380	U	350	U	370	U	410	U					
Benzene	71-43-2	µg/kg	60	89,000	60	a	1.1	U	1.2	U	1.1	U	1	U	1.2	U					
Benzo(A)Anthracene	56-55-3	µg/kg	1,000	11,000	1,000	a	40	U	38	U	35	U	37	U	41	U					
Benzo(A)Pyrene	50-32-8	µg/kg	1,000	1,100	22,000	a	40	U	38	U	35	U	37	U	41	U					
Benzo(B)Fluoranthene	205-99-2	µg/kg	1,000	11,000	1,700	a	40	U	13	J	35	U	37	U	41	U					
Benzo(G,H,I)Perylene	191-24-2	µg/kg	100,000	1,000,000	1,000,000	a	400	U	380	U	350	U	370	U	410	U					
Benzo(K)Fluoranthene	207-08-9	µg/kg	800	110,000	1,700	a	40	U	38	U	35	U	37	U	41	U					
Benzyl Butyl Phthalate	85-68-7	µg/kg	NC	NC	122,000	b	400	U	380	U	130	J	370	U	37	J					
Beryllium	7440-41-7	mg/kg	7.20	2,700	47	a	0.15	J	0.43	U	0.4	U	0.43	U	0.46	U					
Beta Bhc (Beta Hexachlorocyclohexane)	319-85-7	µg/kg	36	14,000	90	a	12	U	2.3	U	2.1	U	2.2	U	2.5	U					
Beta Endosulfan	33213-65-9	µg/kg	2,400	920,000	102,000	a	41	U	7.6	U	7	U	7.5	U	8.3	U					
Biphenyl (Diphenyl)	92-52-4	µg/kg	NC	NC	NC	a	400	U	380	U	350	U	370	U	410	U					
Bis(2-Chloroethoxy) Methane	111-91-1	µg/kg	NC	NC	NC	a	400	U	380	U	350	U	370	U	410	U					
Bis(2-Chloroethyl) Ether (2-Chloroethyl Ether	111-44-4	µg/kg	NC	NC	NC	a	40	U	38	U	35	U	37	U	41	U					
Bis(2-Chloroisopropyl) Ether	108-60-1	µg/kg	NC	NC	NC	a	400	U	380	U	350	U	370	U	410	U					
Bis(2-Ethylhexyl) Phthalate	117-81-7	µg/kg	NC	NC	435,000	b	400	U	380	U	440		370	U	590						
Bromodichloromethane	75-27-4	µg/kg	NC	NC	NC	a	1.1	U	1.2	U	1.1	U	1	U	1.2	U					
Bromoform	75-25-2	µg/kg	NC	NC	NC	a	1.1	U	1.2	UJ	1.1	UJ	1	UJ	1.2	UJ					
Bromomethane	74-83-9	µg/kg	NC	NC	NC	a	1.1	U	1.2	U	1.1	U	1	U	1.2	U					
Cadmium	7440-43-9	mg/kg	2.50	60	7.50	a	0.94	U	0.86	U	0.79	U	0.87	U	0.92	U					
Calcium	7440-70-2	mg/kg	NC	NC	NC	a	1170	U	1070	U	100	J	1080	U	645	J					
Caprolactam	105-60-2	µg/kg	NC	NC	NC	a	400	U	380	U	350	U	370	U	410	U					
Carbazole	86-74-8	µg/kg	NC	NC	NC	a	400	U	380	U	350	U	370	U	410	U					
Carbon Disulfide	75-15-0	µg/kg	NC	NC	2,700	b	1.1	U	1.2	U	1.1	U	1	U	1.2	U					
Carbon Tetrachloride	56-23-5	µg/kg	760	44,000	760	a	1.1	U	1.2	U	1.1	U	1	U	1.2	U					
Chlordane (Technical)	12789-03-6	µg/kg	NC	NC	NC	a	410	U	76	U	70	U	75	U	83	U					
Chlorobenzene	108-90-7	µg/kg	1,100	1,000,000	1,100	a	1.1	U	1.2	U	1.1	U	1	U	2.4						
Chloroethane	75-00-3	µg/kg	NC	NC	1,900	b	1.1	U	1.2	U	1.1	U	1	U	1.2	U					
Chloroform	67-66-3	µg/kg	370	700,000	370	a	1.1	U	1.2	U	1.1	U	1	U	1.2	U					
Chloromethane	74-87-3	µg/kg	NC	NC	NC	a	1.1	U	1.2	U	1.1	U	1	U	1.2	U					
Chromium, Total	7440-47-3	mg/kg	30	6,800	NC	a	1.7	J	2.7		2.6		2.2	U	4.4						
Chrysene	218-01-9	µg/kg	1,000	110,000	1,000	a	400	U	380	U	350	U	370	U	410	U					

Table 3-3a
Soil Analytical Results - VOCs, SVOCs, Pesticides, Herbicides, PCBs, Metals, Mercury, Cyanide, and 1,4-Dioxane
Quiogue Landfill, NYSDEC Site No. 152061
Quiogue, Southampton, New York

							MW-04		MW-05		MW-05		MW-05		MW-05	
						Location ID										
						Sample ID	SO-MW-04-40-42-022420		SS-MW-05-021720		SO-MW-05-5-7-021720		SO-MW-05-25-27-021720		SO-MW-05-30-31-021720	
						Sample Depth (feet bgs)	40 - 42		0 – 0.17		5 - 7		25 - 27		30 - 31	
						Sample Date	2/24/2020		2/17/2020		2/17/2020		2/17/2020		2/17/2020	
						Sample Type	N		N		N		N		N	
						Parent Sample Code										
Chemical Name	**CAS No.**	**Unit**	**Unrestricted Use SCO[1]**	**Industrial Use SCO[2]**	**Protection of Groundwater SCO[3]**		Result	Q	Result	Q	Result	Q	Result	Q	Result	Q
Cis-1,2-Dichloroethylene	156-59-2	µg/kg	250	1,000,000	250	a	1.1	U	1.2	U	1.1	U	1	U	1.2	U
Cis-1,3-Dichloropropene	10061-01-5	µg/kg	NC	NC	NC	a	1.1	U	1.2	U	1.1	U	1	U	1.2	U
Cobalt	7440-48-4	mg/kg	NC	NC	NC	a	11.7	U	10.7	U	0.56	J	10.8	U	11.6	U
Copper	7440-50-8	mg/kg	50	10,000	1,720	a	5.8	U	2.8	J	2.5	J	5.4	U	5.8	
Cyanide	57-12-5	mg/kg	27	10,000	40	a	0.29	U	0.26	U	0.22	U	0.23	U	0.27	U
Cyclohexane	110-82-7	µg/kg	NC	NC	NC	a	1.1	U	1.2	U	1.1	U	1	U	1.2	U
Delta BHC (Delta Hexachlorocyclohexane)	319-86-8	µg/kg	40	1,000,000	250	a	12	U	2.3	U	2.1	U	2.2	U	2.5	U
Dibenz(A,H)Anthracene	53-70-3	µg/kg	330	1,100	1,000,000	a	40	U	38	U	35	U	37	U	41	U
Dibenzofuran	132-64-9	µg/kg	7,000	1,000,000	6,200	b	400	U	380	U	350	U	370	U	410	U
Dibromochloromethane	124-48-1	µg/kg	NC	NC	NC	a	1.1	U	1.2	U	1.1	U	1	U	1.2	U
Dichlorodifluoromethane	75-71-8	µg/kg	NC	NC	NC	a	1.1	U	1.2	UJ	1.1	UJ	1	UJ	1.2	UJ
Dieldrin	60-57-1	µg/kg	5.00	2,800	100	a	12	U	2.3	U	2.1	U	2.2	U	2.5	U
Diethyl Phthalate	84-66-2	µg/kg	NC	NC	7,100	b	400	U	380	U	350	U	370	U	410	U
Dimethyl Phthalate	131-11-3	µg/kg	NC	NC	27,000	b	400	U	380	U	350	U	370	U	410	U
Di-N-Butyl Phthalate	84-74-2	µg/kg	NC	NC	8,100	b	400	U	380	U	350	U	370	U	410	U
Di-N-Octylphthalate	117-84-0	µg/kg	NC	NC	120,000	b	400	U	380	U	350	U	370	U	410	U
Endosulfan Sulfate	1031-07-8	µg/kg	2,400	920,000	1,000,000	a	41	U	7.6	U	7	U	7.5	U	8.3	U
Endrin	72-20-8	µg/kg	14	410,000	60	a	41	U	7.6	U	7	U	7.5	U	8.3	U
Endrin Aldehyde	7421-93-4	µg/kg	NC	NC	NC	a	41	U	7.6	U	7	U	7.5	U	8.3	U
Endrin Ketone	53494-70-5	µg/kg	NC	NC	NC	a	41	U	7.6	U	7	U	7.5	U	8.3	U
Ethylbenzene	100-41-4	µg/kg	1,000	780,000	1,000	a	1.1	U	1.2	U	1.1	U	1	U	1.2	U
Fluoranthene	206-44-0	µg/kg	100,000	1,000,000	1,000,000	a	400	U	380	U	350	U	370	U	410	U
Fluorene	86-73-7	µg/kg	30,000	1,000,000	386,000	a	400	U	380	U	350	U	370	U	410	U
Gamma Bhc (Lindane)	58-89-9	µg/kg	100	23,000	100	a	12	U	2.3	U	2.1	U	2.2	U	2.5	U
Heptachlor	76-44-8	µg/kg	42	29,000	380	a	41	U	7.6	U	7	U	7.5	U	8.3	U
Heptachlor Epoxide	1024-57-3	µg/kg	NC	NC	20	b	41	U	7.6	U	7	U	7.5	U	8.3	U
Hexachlorobenzene	118-74-1	µg/kg	330	12,000	1,400	b	40	U	38	U	35	U	37	U	41	U
Hexachlorobutadiene	87-68-3	µg/kg	NC	NC	NC	a	82	U	76	U	70	U	75	U	83	U
Hexachlorocyclopentadiene	77-47-4	µg/kg	NC	NC	NC	a	400	U	380	U	350	U	370	U	410	U
Hexachloroethane	67-72-1	µg/kg	NC	NC	NC	a	40	U	38	U	35	U	37	U	41	U
Indeno(1,2,3-C,D)Pyrene	193-39-5	µg/kg	500	11,000	8,200	a	40	U	38	U	35	U	37	U	41	U
Iron	7439-89-6	mg/kg	NC	NC	NC	a	537		2210		1800		413		4670	
Isophorone	78-59-1	µg/kg	NC	NC	4,400	b	160	U	150	U	140	U	150	U	160	U
Isopropylbenzene (Cumene)	98-82-8	µg/kg	NC	NC	2,300	b	1.1	U	1.2	UJ	1.1	UJ	1	UJ	2.5	J-
Lead	7439-92-1	mg/kg	63	3,900	450	a	1.3	J	8.1		11.1		0.69	J	20.6	
Magnesium	7439-95-4	mg/kg	NC	NC	NC	a	1170	U	161	J	106	J	1080	U	82.9	J
Manganese	7439-96-5	mg/kg	1,600	10,000	2,000	a	11.7		10		16.3		2.1	J	32.2	
Mercury	7439-97-6	mg/kg	0.180	5.70	0.73	a	0.019	U	0.016	J	0.017	U	0.018	U	0.012	J
Methoxychlor	72-43-5	µg/kg	NC	NC	900,000	b	41	U	7.6	U	7	U	7.5	U	8.3	U
Methyl Acetate	79-20-9	µg/kg	NC	NC	NC	a	5.6	U	5.8	U	5.7	U	5.2	U	5.8	U
Methyl Ethyl Ketone (2-Butanone)	78-93-3	µg/kg	120	1,000,000	120	b	5.6	U	5.8	U	5.7	U	5.2	U	5.8	U
Methyl Isobutyl Ketone (4-Methyl-2-Pentanor	108-10-1	µg/kg	NC	NC	1,000	b	5.6	U	5.8	U	5.7	U	5.2	U	5.8	U
Methylcyclohexane	108-87-2	µg/kg	NC	NC	NC	a	1.1	U	1.2	U	1.1	U	1	U	1.2	U

Table 3-3a
Soil Analytical Results - VOCs, SVOCs, Pesticides, Herbicides, PCBs, Metals, Mercury, Cyanide, and 1,4-Dioxane
Quiogue Landfill, NYSDEC Site No. 152061
Quiogue, Southampton, New York

					Location ID		MW-04		MW-05		MW-05		MW-05		MW-05					
					Sample ID		SO-MW-04-40-42-022420		SS-MW-05-021720		SO-MW-05-5-7-021720		SO-MW-05-25-27-021720		SO-MW-05-30-31-021720					
					Sample Depth (feet bgs)		40 - 42		0 – 0.17		5 - 7		25 - 27		30 - 31					
					Sample Date		2/24/2020		2/17/2020		2/17/2020		2/17/2020		2/17/2020					
					Sample Type		N		N		N		N		N					
					Parent Sample Code															
Chemical Name	**CAS No.**	**Unit**	**Unrestricted Use SCO[1]**	**Industrial Use SCO[2]**	**Protection of Groundwater SCO[3]**		Result	Q	Result	Q	Result	Q	Result	Q	Result	Q				
Methylene Chloride	75-09-2	µg/kg	50	1,000,000	50	a	2.9		1.2	U	1.1	U	1.1		3					
Naphthalene	91-20-3	µg/kg	12,000	1,000,000	12,000	a	400	U	380	U	17	J	370	U	130	J				
Nickel	7440-02-0	mg/kg	30	10,000	130	a	9.4	U	1.3	J	1.3	J	8.7	U	3.5	J				
Nitrobenzene	98-95-3	µg/kg	NC	NC	170	b	40	U	38	U	35	U	37	U	41	U				
N-Nitrosodi-N-Propylamine	621-64-7	µg/kg	NC	NC	NC	a	40	U	38	U	35	U	37	U	41	U				
N-Nitrosodiphenylamine	86-30-6	µg/kg	NC	NC	NC	a	400	U	380	U	350	U	370	U	410	U				
P,P'-DDD	72-54-8	µg/kg	3.30	180,000	14,000	a	41	U	7.6	U	**7**	U	7.5	U	8.3	U				
P,P'-DDE	72-55-9	µg/kg	3.30	120,000	17,000	a	41	U	7.6	U	**7**	U	7.5	U	8.3	U				
P,P'-DDT	50-29-3	µg/kg	3.30	94,000	136,000	a	41	U	2.4	J	7	U	7.5	U	8.3	U				
PCB-1016 (Aroclor 1016)	12674-11-2	µg/kg	100	25,000	3,200	a	82	U	76	U	70	U	75	U	83	U				
PCB-1221 (Aroclor 1221)	11104-28-2	µg/kg	100	25,000	3,200	a	82	U	76	U	70	U	75	U	83	U				
PCB-1232 (Aroclor 1232)	11141-16-5	µg/kg	100	25,000	3,200	a	82	U	76	U	70	U	75	U	83	U				
PCB-1242 (Aroclor 1242)	53469-21-9	µg/kg	100	25,000	3,200	a	82	U	76	U	70	U	75	U	83	U				
PCB-1248 (Aroclor 1248)	12672-29-6	µg/kg	100	25,000	3,200	a	82	U	76	U	70	U	75	U	83	U				
PCB-1254 (Aroclor 1254)	11097-69-1	µg/kg	100	25,000	3,200	a	82	U	76	U	70	U	75	U	83	U				
PCB-1260 (Aroclor 1260)	11096-82-5	µg/kg	100	25,000	3,200	a	82	U	76	U	70	U	75	U	83	U				
Pentachlorophenol	87-86-5	µg/kg	800	55,000	800	a	330	U	300	U	280	U	300	U	330	U				
Phenanthrene	85-01-8	µg/kg	100,000	1,000,000	1,000,000	a	400	U	380	U	350	U	370	U	21	J				
Phenol	108-95-2	µg/kg	330	1,000,000	330	a	400	U	380	U	350	U	370	U	410	U				
Polychlorinated Biphenyl (PCBs)	1336-36-3	µg/kg	100	25,000	3,200	a	82	U	76	U	70	U	75	U	83	U				
Potassium	7440-09-7	mg/kg	NC	NC	NC	a	1170	U	87.2	J	989	U	1080	U	74.6	J				
Pyrene	129-00-0	µg/kg	100,000	1,000,000	1,000,000	a	400	U	380	U	350	U	370	U	410	U				
Selenium	7782-49-2	mg/kg	3.90	6,800	4.00	a	4.7	U	4.3	U	4	U	4.3	U	4.6	U				
Silver	7440-22-4	mg/kg	2.00	6,800	8.30	a	2.3	U	2.1	U	2	U	2.2	U	2.3	U				
Silvex (2,4,5-TP)	93-72-1	µg/kg	3,800	1,000,000	3,800	a	41	U	38	U	35	U	37	U	41	U				
Sodium	7440-23-5	mg/kg	NC	NC	NC	a	1170	U	1070	U	989	U	1080	U	1160	U				
Styrene	100-42-5	µg/kg	NC	NC	NC	a	1.1	U	1.2	UT	1.1	UT	1	UT	1.2	UT				
Tert-Butyl Methyl Ether	1634-04-4	µg/kg	930	1,000,000	930	a	1.1	U	1.2	U	1.1	U	1	U	1.2	U				
Tetrachloroethylene (PCE)	127-18-4	µg/kg	1,300	300,000	1,300	a	1.1	U	1.2	U	1.1	U	1	U	1.2	U				
Thallium	7440-28-0	mg/kg	NC	NC	NC	a	4.7	U	4.3	U	4	U	4.3	U	4.6	U				
Toluene	108-88-3	µg/kg	700	1,000,000	700	a	1.1	U	1.2	U	1.1	U	1	U	1.2	U				
Toxaphene	8001-35-2	µg/kg	NC	NC	NC	a	410	U	76	U	70	U	75	U	83	U				
Trans-1,2-Dichloroethene	156-60-5	µg/kg	190	1,000,000	190	a	1.1	U	1.2	U	1.1	U	1	U	1.2	U				
Trans-1,3-Dichloropropene	10061-02-6	µg/kg	NC	NC	NC	a	1.1	U	1.2	U	1.1	U	1	U	1.2	U				
Trichloroethylene (TCE)	79-01-6	µg/kg	470	400,000	470	a	1.1	U	1.2	U	1.1	U	1	U	1.2	U				
Trichlorofluoromethane	75-69-4	µg/kg	NC	NC	NC	a	1.1	U	1.2	U	1.1	U	1	U	1.2	U				
Vanadium	7440-62-2	mg/kg	NC	NC	NC	a	1.2	J	4	J	2.4	J	10.8	U	2.3	J				
Vinyl Chloride	75-01-4	µg/kg	20	27,000	20	a	1.1	U	1.2	U	1.1	U	1	U	1.2	U				
Xylenes	1330-20-7	µg/kg	260	1,000,000	1,600	a	0.46	BJ	0.8	J	1.7	J	0.31	J	7.6					
Zinc	7440-66-6	mg/kg	109	10,000	2,480	a	1.6	J	7.4		11.2		6.5	U	**254**					

Table 3-3a
Soil Analytical Results - VOCs, SVOCs, Pesticides, Herbicides, PCBs, Metals, Mercury, Cyanide, and 1,4-Dioxane
Quiogue Landfill, NYSDEC Site No. 152061
Quiogue, Southampton, New York

					Location ID	MW-04		MW-05		MW-05		MW-05		MW-05	
					Sample ID	SO-MW-04-40-42-022420		SS-MW-05-021720		SO-MW-05-5-7-021720		SO-MW-05-25-27-021720		SO-MW-05-30-31-021720	
					Sample Depth (feet bgs)	40 - 42		0 – 0.17		5 - 7		25 - 27		30 - 31	
					Sample Date	2/24/2020		2/17/2020		2/17/2020		2/17/2020		2/17/2020	
					Sample Type	N		N		N		N		N	
					Parent Sample Code										
Chemical Name	**CAS No.**	**Unit**	**Unrestricted Use SCO[1]**	**Industrial Use SCO[2]**	**Protection of Groundwater SCO[3]**	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q

Notes:
1 - 6 NYCRR Part 375-6.8(a): Unrestricted Use Soil Cleanup Objectives, New York State Department of Environmental Conservation, Eff
2 - 6 NYCRR Part 375-6.8(b): Restricted Use Soil Cleanup Objectives, Industrial Use, New York State Department of Environmental
3 - Lowest values between:
a. 6 NYCRR Part 375-6.8(b): Restricted Use Soil Cleanup Objectives, Protection of Groundwater, NYSDEC, Effective December, 14, 20
b. CP-51, Supplemental Soil Cleanup Objectives, Table 1, Protection of Groundwater, NYSDEC, October 21, 2010.

> Supplemental SCO, Protection of Groundwater
> Industrial Use SCOs
Bold > Unrestricted Use SCOs

Acronyms:

BJ - analyte detected in the blank, estimated	PFAS - per- and polyfluoroalkyl substances
CAS - chemical abstract service	R - result rejected
FD - field duplicate	SVOC - semivolatile organic compound
ID - identification	U - nondetect
J - estimated	UJ - nondetect, estimated
mg/kg - milligrams per kilogram	UT -
N - normal sample	VOC - volatile organic compounds
NC - no criteria listed	µg/kg - micrograms per kilogram

NYSDEC - New York State Department of Environmental Conservation
PCB - polychlorinated biphenyl

Table 3-3b
Soil Analytical Results - PFAS
Quiogue Landfill, NYSDEC Site No. 152061
Quiogue, Southampton, New York

			Location ID		SS-01		SB-01		SB-01		SB-01		SS-02		SB-02		SB-02		SB-02		SS-03	
			Sample ID		SS-01-021420		SB-01-5-7-021320		SB-101-5-7-021320		SB-01-25-26-021320		SS-02-021420		SB-02-10-11.5-021420		SB-02-30-32-021420		SB-02-35-36-021420		SS-03-021220	
			Sample Depth (feet bgs)		0 – 0.17		5 - 7		5 – 7		25 – 26		0 – 0.17		10 -11.5		30 - 32		35 – 36		0 – 0.17	
			Sample Date		2/14/2020		2/13/2020		2/13/2020		2/13/2020		2/14/2020		2/14/2020		2/14/2020		2/14/2020		2/12/2020	
			Sample Type		N		N		FD		N		N		N		N		N		N	
			Parent Sample Code						SB-01-5-7-021320													
Chemical Name	**CAS No.**	**Unit**	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q
2-(N-methyl perfluorooctanesulfonamido) acetic acid	2355-31-9	µg/kg	2.1	U	2.55	U	2.79	U	2.44	U	2.07	U	2.18	U	2.04	U	2.59	U	2.17	U		
N-Ethyl-N-((heptadecafluorooctyl)sulphonyl) glycine	2991-50-6	µg/kg	**0.54**	**J**	**8.71**		**8.47**		**8.34**		**0.66**	**J**	**1.23**	**J**	2.04	U	2.59	U	**0.6**	**J**		
Perfluorobutanesulfonic acid	375-73-5	µg/kg	0.21	U	0.25	U	0.28	U	0.24	U	0.21	U	0.22	U	0.2	U	0.26	U	0.22	U		
Perfluorodecanoic acid (PFDA)	335-76-2	µg/kg	**0.061**	**J**	**0.17**	**J**	**0.1**	**J**	0.24	U	**0.082**	**J**	**0.037**	**J**	0.2	U	0.26	U	**0.13**	**J**		
Perfluorododecanoic acid (PFDoA)	307-55-1	µg/kg	**0.077**	**J**	0.25	U	0.28	U	0.24	U	**0.069**	**J**	0.22	U	0.2	U	0.26	U	**0.12**	**J**		
Perfluoroheptanoic Acid (PFHpA)	375-85-9	µg/kg	0.21	U	**0.081**	**J**	**0.082**	**J**	**0.05**	**J**	0.21	U	0.22	U	0.2	U	0.26	U	0.22	U		
Perfluorohexanesulfonic acid	355-46-4	µg/kg	0.21	U	0.25	U	**0.3**		0.24	U	0.21	U	0.22	U	0.2	U	0.26	U	0.22	U		
Perfluorohexanoic acid (PFHxA)	307-24-4	µg/kg	0.21	U	0.25	U	0.28	U	0.24	U	0.21	U	0.22	U	0.2	U	0.26	U	0.22	U		
Perfluorononanoic acid	375-95-1	µg/kg	**0.047**	**J**	**0.21**	**J**	**0.22**	**J**	0.24	U	0.21	U	0.22	U	0.2	U	0.26	U	**0.058**	**J**		
Perfluorooctane sulfonic acid (PFOS)	1763-23-1	µg/kg	**1.6**	**B**	**38.9**	**J**	**20.4**	**J**	**6.54**	**B**	**2.81**	**B**	**1.9**	**B**	0.51	U	0.65	U	**2.21**			
Perfluorooctanoic acid (PFOA)	335-67-1	µg/kg	0.21	U	**1.46**		**1.46**		**0.53**		0.21	U	**0.18**	**J**	0.2	U	0.26	U	0.22	U		
Perfluorotetradecanoic acid (PFTeA)	376-06-7	µg/kg	0.21	U	0.25	U	0.28	U	0.24	U	0.21	U	0.22	U	0.2	U	0.26	U	0.22	U		
Perfluorotridecanoic acid (PFTriA)	72629-94-8	µg/kg	**0.083**	**J**	0.25	U	0.28	U	0.24	U	0.21	U	0.22	U	0.2	U	0.26	U	**0.11**	**J**		
Perfluoroundecanoic acid (PFUnA)	2058-94-8	µg/kg	**0.18**	**J**	**0.06**	**J**	0.28	U	0.24	U	**0.087**	**J**	0.22	U	0.2	U	0.26	U	**0.3**			
TOTAL PFAS	N/A	µg/kg	**2.59**		**49.6**		**31.0**		**15.5**		**3.71**		**3.35**						**3.53**			

Notes:

	> 1 µg/kg (indicative of needing testing SPLP)
Bold	Detection

Acronyms:

B - analyte detected in the blank	NC - no criteria listed
BJ - analyte detected in the blank, estimated	NYSDEC - New York State Department of Environmental Conservation
CAS - chemical abstract service	PFAS - per- and polyfluoroalkyl substances
EMPC - estimated maximum possible concentration	R - result rejected
FD - field duplicate	SPLP - synthetic precipitation leaching procedure
ID - identification	U - nondetect
J - estimated	µg/kg - micrograms per kilogram
N - normal sample	

Table 3-3b
Soil Analytical Results - PFAS
Quiogue Landfill, NYSDEC Site No. 152061
Quiogue, Southampton, New York

		Location ID	SB-03		SB-03		SB-03		SS-04		SB-04		SB-04		SB-04		SS-05		SS-05		SB-05	
		Sample ID	SB-03-5-6.5-021220		SB-03-26-27.5-021220		SB-03-36-37-021220		SS-04-021220		SB-04-24-25-021220		SB-04-30-31-021220		SB-04-40-41-021220		SS-05-021320		SS-105-021320		SB-05-5-7-021720	
		Sample Depth (feet bgs)	5 – 6.5		26 – 27.5		36 - 37		0 – 0.17		24 - 25		30 - 31		40– 41		0 – 0.17		0 – 0.17		5 - 7	
		Sample Date	2/12/2020		2/12/2020		2/12/2020		2/12/2020		2/12/2020		2/12/2020		2/12/2020		2/13/2020		2/13/2020		2/17/2020	
		Sample Type	N		N		N		N		N		N		N		N		FD		N	
		Parent Sample Code																	SS-05-021320			
Chemical Name	**CAS No.**	**Unit**	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q
2-(N-methyl perfluorooctanesulfonamido) acetic acid	2355-31-9	µg/kg	2.31	U	2.23	U	2.2	U	2.45	U	2.18	U	2.43	U	2.37	U	2.07	U	1.94	U	2.07	U
N-Ethyl-N-((heptadecafluorooctyl)sulphonyl) glycine	2991-50-6	µg/kg	**3.02**		2.23	U	**0.85**	**J**	**1.7**	**J**	**20.5**		2.43	U	2.37	U	2.07	U	1.94	U	**1.66**	**J**
Perfluorobutanesulfonic acid	375-73-5	µg/kg	0.23	U	0.22	U	0.22	U	0.25	U	0.22	U	0.24	U	0.24	U	0.21	U	**0.14**	**J**	0.21	U
Perfluorodecanoic acid (PFDA)	335-76-2	µg/kg	**0.075**	**J**	0.22	U	0.22	U	**0.22**	**J**	**0.042**	**J**	0.24	U	0.24	U	0.21	U	0.19	U	**0.039**	**EMPC**
Perfluorododecanoic acid (PFDoA)	307-55-1	µg/kg	0.23	U	0.22	U	0.22	U	**0.27**		0.22	U	0.24	U	0.24	U	0.21	U	0.19	U	0.21	U
Perfluoroheptanoic Acid (PFHpA)	375-85-9	µg/kg	0.23	U	0.22	U	0.22	U	0.25	U	**0.062**	**J**	0.24	U	0.24	U	0.21	U	0.19	U	0.21	U
Perfluorohexanesulfonic acid	355-46-4	µg/kg	0.23	U	0.22	U	0.22	U	0.25	U	0.22	U	0.24	U	0.24	U	0.21	U	0.19	U	0.21	U
Perfluorohexanoic acid (PFHxA)	307-24-4	µg/kg	0.23	U	0.22	U	0.22	U	0.25	U	**0.077**	**J**	0.24	U	0.24	U	0.21	U	0.19	U	0.21	U
Perfluorononanoic acid	375-95-1	µg/kg	0.23	U	0.22	U	0.22	U	**0.13**	**J**	**0.052**	**EMPC**	0.24	U	0.24	U	0.21	U	0.19	U	**0.043**	**J**
Perfluorooctane sulfonic acid (PFOS)	1763-23-1	µg/kg	**1.69**		**0.22**	**J**	**0.28**	**J**	**3.99**		**3.48**		**0.33**	**J**	0.59	U	**0.29**	**J**	**0.19**	**J**	**0.31**	**BJ**
Perfluorooctanoic acid (PFOA)	335-67-1	µg/kg	**0.2**	**J**	0.22	U	**0.15**	**J**	**0.11**	**J**	**0.57**		0.24	U	0.24	U	0.21	U	0.19	U	0.21	U
Perfluorotetradecanoic acid (PFTeA)	376-06-7	µg/kg	0.23	U	0.22	U	0.22	U	**0.11**	**J**	0.22	U	0.24	U	0.24	U	0.21	U	0.19	U	0.21	U
Perfluorotridecanoic acid (PFTriA)	72629-94-8	µg/kg	0.23	U	0.22	U	0.22	U	**0.23**	**J**	0.22	U	0.24	U	0.24	U	0.21	U	0.19	U	0.21	U
Perfluoroundecanoic acid (PFUnA)	2058-94-8	µg/kg	**0.077**	**J**	0.22	U	0.22	U	**0.55**		0.22	U	0.24	U	0.24	U	0.21	U	0.19	U	0.21	U
TOTAL PFAS	N/A	µg/kg	**5.06**				**1.28**		**7.31**		**24.8**		**0.33**				**0.29**		**0.33**		**2.05**	

Notes:

	> 1 µg/kg (indicative of needing testing Sf
Bold	Detection

Acronyms:

B - analyte detected in the blank	NC - no criteria listed
BJ - analyte detected in the blank, estimated	NYSDEC - New York State Department of
CAS - chemical abstract service	PFAS - per- and polyfluoroalkyl substanc
EMPC - estimated maximum possible concentration	R - result rejected
FD - field duplicate	SPLP - synthetic precipitation leaching pro
ID - identification	U - nondetect
J - estimated	µg/kg - micrograms per kilogram
N - normal sample	

Table 3-3b
Soil Analytical Results - PFAS
Quiogue Landfill, NYSDEC Site No. 152061
Quiogue, Southampton, New York

			Location ID	SB-05		SB-05		SB-05		MW-03		MW-03		MW-03		MW-03		MW-04		MW-04	
			Sample ID	SB-05-15-16-021720		SB-05-30-32-021720		SB-05-40-41.5-021720		SS-MW-03-021920		SO-MW-03-10-12-022020		SO-MW-03-35-37-022020		SO-MW-03-45-47-022020		SS-MW-04-022020		SO-MW-04-16.5-18.5-022420	
			Sample Depth (feet bgs)	15 – 16		30 – 32		40 – 41.5		0 – 0.17		10 - 12		35 - 37		45 - 47		0 – 0.17		16.5 - 18.5	
			Sample Date	2/17/2020		2/17/2020		2/17/2020		2/19/2020		2/20/2020		2/20/2020		2/20/2020		2/20/2020		2/24/2020	
			Sample Type	N		N		N		N		N		N		N		N		N	
			Parent Sample Code																		
Chemical Name	**CAS No.**	**Unit**		Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q
2-(N-methyl perfluorooctanesulfonamido) acetic acid	2355-31-9	µg/kg		2.05	U	2.27	U	2.38	U	2	U	1.98	U	2.36	U	2.35	U	1.93	U	1.91	U
N-Ethyl-N-((heptadecafluorooctyl)sulphonyl) glycine	2991-50-6	µg/kg		**23.5**		**6.6**		**0.59**	**J**	2	U	1.98	U	2.36	U	2.35	U	1.93	U	1.91	U
Perfluorobutanesulfonic acid	375-73-5	µg/kg		0.21	U	0.23	U	0.24	U	0.2	U	0.2	U	0.24	U	0.23	U	0.19	U	0.19	U
Perfluorodecanoic acid (PFDA)	335-76-2	µg/kg		0.21	U	0.23	U	0.24	U	**0.032**	**J**	0.2	U	0.24	U	0.23	U	**0.054**	**J**	0.19	U
Perfluorododecanoic acid (PFDoA)	307-55-1	µg/kg		0.21	U	0.23	U	0.24	U	**0.07**	**J**	0.2	U	0.24	U	0.23	U	**0.07**	**J**	0.19	U
Perfluoroheptanoic Acid (PFHpA)	375-85-9	µg/kg		0.21	U	0.23	U	0.24	U	0.2	U	0.2	U	0.24	U	0.23	U	0.19	U	0.19	U
Perfluorohexanesulfonic acid	355-46-4	µg/kg		0.21	U	0.23	U	0.24	U	0.2	U	0.2	U	0.24	U	0.23	U	0.19	U	0.19	U
Perfluorohexanoic acid (PFHxA)	307-24-4	µg/kg		0.21	U	0.23	U	0.24	U	0.2	U	0.2	U	0.24	U	0.23	U	0.19	U	0.19	U
Perfluorononanoic acid	375-95-1	µg/kg		0.21	U	0.23	U	0.24	U	0.2	U	0.2	U	0.24	U	0.23	U	0.19	U	0.19	U
Perfluorooctane sulfonic acid (PFOS)	1763-23-1	µg/kg		**0.88**	**B**	**2.31**	**B**	0.6	U	**0.53**		0.5	U	0.59	U	0.59	U	**0.64**		0.48	U
Perfluorooctanoic acid (PFOA)	335-67-1	µg/kg		**0.22**		**0.11**	**J**	0.24	U	0.2	U	0.2	U	0.24	U	0.23	U	0.19	U	**0.22**	
Perfluorotetradecanoic acid (PFTeA)	376-06-7	µg/kg		0.21	U	0.23	U	0.24	U	0.2	U	0.2	U	0.24	U	0.23	U	0.19	U	0.19	U
Perfluorotridecanoic acid (PFTriA)	72629-94-8	µg/kg		0.21	U	0.23	U	0.24	U	**0.079**	**J**	0.2	U	0.24	U	0.23	U	**0.061**	**J**	0.19	U
Perfluoroundecanoic acid (PFUnA)	2058-94-8	µg/kg		0.21	U	0.23	U	0.24	U	**0.13**	**J**	0.2	U	0.24	U	0.23	U	**0.15**	**J**	0.19	U
TOTAL PFAS	N/A	µg/kg		**24.6**		**9.02**		**0.59**		**0.841**								**0.975**		**0.22**	

Notes:

	> 1 µg/kg (indicative of needing testing Sf
Bold	Detection

Acronyms:

B - analyte detected in the blank	NC - no criteria listed
BJ - analyte detected in the blank, estimated	NYSDEC - New York State Department of I
CAS - chemical abstract service	PFAS - per- and polyfluoroalkyl substanc
EMPC - estimated maximum possible concentration	R - result rejected
FD - field duplicate	SPLP - synthetic precipitation leaching pro
ID - identification	U - nondetect
J - estimated	µg/kg - micrograms per kilogram
N - normal sample	

Table 3-3b
Soil Analytical Results - PFAS
Quiogue Landfill, NYSDEC Site No. 152061
Quiogue, Southampton, New York

			Location ID		MW-04		MW-04		MW-05		MW-05		MW-05		MW-05	
			Sample ID		SO-MW-04-30-32-022420		SO-MW-04-40-42-022420		SS-MW-05-021720		SO-MW-05-5-7-021720		SO-MW-05-25-27-021720		SO-MW-05-30-31-021720	
			Sample Depth (feet bgs)		30 - 32		40 - 42		0 – 0.17		5 - 7		25 - 27		30 -31	
			Sample Date		2/24/2020		2/24/2020		2/17/2020		2/17/2020		2/17/2020		2/17/2020	
			Sample Type		N		N		N		N		N		N	
			Parent Sample Code													
Chemical Name	**CAS No.**	**Unit**	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q		
2-(N-methyl perfluorooctanesulfonamido) acetic acid	2355-31-9	µg/kg	2.07	U	2.23	U	2.06	U	1.91	U	2.32	U	2.5	U		
N-Ethyl-N-((heptadecafluorooctyl)sulphonyl) glycine	2991-50-6	µg/kg	2.07	U	2.23	U	**0.41**	**J**	**2.44**		**3.53**		**0.47**	**J**		
Perfluorobutanesulfonic acid	375-73-5	µg/kg	0.21	U	0.22	U	0.21	U	0.19	U	0.23	U	0.25	U		
Perfluorodecanoic acid (PFDA)	335-76-2	µg/kg	0.21	U	0.22	U	**0.062**	**J**	**0.13**	**J**	0.23	U	0.25	U		
Perfluorododecanoic acid (PFDoA)	307-55-1	µg/kg	0.21	U	0.22	U	0.21	U	0.19	U	0.23	U	0.25	U		
Perfluoroheptanoic Acid (PFHpA)	375-85-9	µg/kg	0.21	U	0.22	U	0.21	U	0.19	U	0.23	U	0.25	U		
Perfluorohexanesulfonic acid	355-46-4	µg/kg	0.21	U	0.22	U	0.21	U	0.19	U	0.23	U	0.25	U		
Perfluorohexanoic acid (PFHxA)	307-24-4	µg/kg	0.21	U	0.22	U	0.21	U	0.19	U	0.23	U	0.25	U		
Perfluorononanoic acid	375-95-1	µg/kg	0.21	U	0.22	U	**0.043**	**J**	**0.06**	**J**	0.23	U	0.25	U		
Perfluorooctane sulfonic acid (PFOS)	1763-23-1	µg/kg	0.52	U	0.56	U	**1.87**	**B**	**2.43**	**B**	**0.3**	**BJ**	0.63	U		
Perfluorooctanoic acid (PFOA)	335-67-1	µg/kg	0.21	U	0.22	U	0.21	U	**0.37**		0.23	U	0.25	U		
Perfluorotetradecanoic acid (PFTeA)	376-06-7	µg/kg	0.21	U	0.22	U	0.21	U	0.19	U	0.23	U	0.25	U		
Perfluorotridecanoic acid (PFTriA)	72629-94-8	µg/kg	0.21	U	0.22	U	**0.091**	**J**	0.19	U	0.23	U	0.25	U		
Perfluoroundecanoic acid (PFUnA)	2058-94-8	µg/kg	0.21	U	0.22	U	**0.17**	**J**	0.19	U	0.23	U	0.25	U		
TOTAL PFAS	N/A	µg/kg					**2.65**		**5.43**		**3.83**					

Notes:

	> 1 µg/kg (indicative of needing testing SF
Bold	Detection

Acronyms:

B - analyte detected in the blank	NC - no criteria listed
BJ - analyte detected in the blank, estimated	NYSDEC - New York State Department of I
CAS - chemical abstract service	PFAS - per- and polyfluoroalkyl substance
EMPC - estimated maximum possible concentration	R - result rejected
FD - field duplicate	SPLP - synthetic precipitation leaching pro
ID - identification	U - nondetect
J - estimated	µg/kg - micrograms per kilogram
N - normal sample	

Table 3-4a
Groundwater Analytical Result - VOCs, SVOCs, Pesticides, Herbicides, PCBs, Metals, Mercury, Cyanide, and 1,4-Dioxane
Quiogue Landfill, NYSDEC Site No. 152061
Quiogue, Southampton, New York

				Location ID	MW-01		MW-02		MW-02		MW-03		MW-03		MW-03		MW-04	
				Sample ID	MW-01-031620		MW-02-031720		MW-102-031720		MW-03-40-031720		MW-03-60-031820		MW-03-80-031820		MW-04-35-031820	
				Sample Interval (feet bgs)	43.7		45		45		40		60		80		35	
				Sample Date	3/16/2020		3/17/2020		3/17/2020		3/17/2020		3/18/2020		3/18/2020		3/18/2020	
				Sample Type	N		N		FD		N		N		N		N	
				Parent Sample Code					MW-02-031720									
Chemical Name	**CAS No.**	**Unit**	**NYSDEC TOGS 1.1.1**		Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q
1,1,1-Trichloroethane	71-55-6	µg/L	5		1	U	1	U	1	U	1	U	1	U	1	U	1	U
1,1,2,2-Tetrachloroethane	79-34-5	µg/L	5		1	U	1	U	1	U	1	U	1	U	1	U	1	U
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	µg/L	5		1	U	1	U	1	U	1	U	1	U	1	U	1	U
1,1,2-Trichloroethane	79-00-5	µg/L	1		1	U	1	U	1	U	1	U	1	U	1	U	1	U
1,1-Dichloroethane	75-34-3	µg/L	5		1	U	1	U	1	U	1	U	1	U	1	U	1	U
1,1-Dichloroethene	75-35-4	µg/L	5		1	U	1	U	1	U	1	U	1	U	1	U	1	U
1,2,4-Trichlorobenzene	120-82-1	µg/L	5		1	U	1	U	1	U	1	U	1	U	1	U	1	U
1,2-Dibromo-3-Chloropropane	96-12-8	µg/L	0.04		1	U	1	U	1	U	1	U	1	U	1	U	1	U
1,2-Dibromoethane (Ethylene Dibromide)	106-93-4	µg/L	0.0006		1	U	1	U	1	U	1	U	1	U	1	U	1	U
1,2-Dichlorobenzene	95-50-1	µg/L	3		**1.3**		1	U	1	U	1	U	1	U	1	U	1	U
1,2-Dichloroethane	107-06-2	µg/L	0.6		1	U	1	U	1	U	1	U	1	U	1	U	1	U
1,2-Dichloropropane	78-87-5	µg/L	1		1	U	1	U	1	U	1	U	1	U	1	U	1	U
1,3-Dichlorobenzene	541-73-1	µg/L	3		1	U	1	U	1	U	1	U	1	U	1	U	1	U
1,4-Dichlorobenzene	106-46-7	µg/L	3		**6.3**		1	U	1	U	1	U	1	U	1	U	1	U
1,4-Dioxane (P-Dioxane)	123-91-1	µg/L	NC		0.4	UJ	0.4	U	0.4	U	0.4	U	0.4	U	0.4	U	0.4	U
2,4,5-Trichlorophenol	95-95-4	µg/L	NC		10	U	10	U	10	U	10	U	10	U	10	U	10	U
2,4,6-Trichlorophenol	88-06-2	µg/L	NC		10	U	10	U	10	U	10	U	10	U	10	U	10	U
2,4-D (Dichlorophenoxyacetic Acid)	94-75-7	µg/L	5		1.2	U	1.2	U	1.2	U	1.2	U	1.2	U	1.2	U	1.2	U
2,4-Dichlorophenol	120-83-2	µg/L	5		10	U	10	U	10	U	10	U	10	U	10	U	10	U
2,4-Dimethylphenol	105-67-9	µg/L	5		10	U	10	U	10	U	10	U	10	U	10	U	10	U
2,4-Dinitrophenol	51-28-5	µg/L	1		20	U	20	U	20	U	20	U	20	U	20	U	20	U
2,4-Dinitrotoluene	121-14-2	µg/L	5		2	U	2	U	2	U	2	U	2	U	2	U	2	U
2,6-Dinitrotoluene	606-20-2	µg/L	5		2	U	2	U	2	U	2	U	2	U	2	U	2	U
2-Chloronaphthalene	91-58-7	µg/L	1		10	U	10	U	10	U	10	U	10	U	10	U	10	U
2-Chlorophenol	95-57-8	µg/L	NC		10	U	10	U	10	U	10	U	10	U	10	U	10	U
2-Hexanone	591-78-6	µg/L	50		5	U	5	U	5	U	5	U	5	U	5	U	5	U
2-Methylnaphthalene	91-57-6	µg/L	NC		**19**		10	U	10	U	**7.4**	**J**	10	U	10	U	10	U
2-Methylphenol (O-Cresol)	95-48-7	µg/L	NC		10	U	10	U	10	U	10	U	10	U	10	U	10	U
2-Nitroaniline	88-74-4	µg/L	5		10	U	10	U	10	U	10	U	10	U	10	U	10	U
2-Nitrophenol	88-75-5	µg/L	NC		10	U	10	U	10	U	10	U	10	U	10	U	10	U
3,3'-Dichlorobenzidine	91-94-1	µg/L	5		10	UJ	10	U	10	U	10	U	10	U	10	U	10	U
3-Nitroaniline	99-09-2	µg/L	5		10	U	10	U	10	U	10	U	10	U	10	U	10	U
4,6-Dinitro-2-Methylphenol	534-52-1	µg/L	NC		20	U	20	U	20	U	20	U	20	U	20	U	20	U
4-Bromophenyl Phenyl Ether	101-55-3	µg/L	NC		10	U	10	U	10	U	10	U	10	U	10	U	10	U
4-Chloro-3-Methylphenol	59-50-7	µg/L	NC		10	U	10	U	10	U	10	U	10	U	10	U	10	U
4-Chloroaniline	106-47-8	µg/L	5		10	U	10	U	10	U	10	U	10	U	10	U	10	U
4-Chlorophenyl Phenyl Ether	7005-72-3	µg/L	NC		10	U	10	U	10	U	10	U	10	U	10	U	10	U
4-Methylphenol (P-Cresol)	106-44-5	µg/L	NC		10	U	10	U	10	U	10	U	10	U	10	U	10	U
4-Nitroaniline	100-01-6	µg/L	5		10	U	10	U	10	U	10	U	10	U	10	U	10	U
4-Nitrophenol	100-02-7	µg/L	NC		20	U	20	U	20	U	20	U	20	U	20	U	20	U
Acenaphthene	83-32-9	µg/L	2		10	U	10	U	10	U	10	U	10	U	10	U	10	U
Acenaphthylene	208-96-8	µg/L	NC		10	U	10	U	10	U	10	U	10	U	10	U	10	U
Acetic acid, (2,4,5-trichlorophenoxy)-	93-76-5	µg/L	35		1.2	U	1.2	U	1.2	U	1.2	U	1.2	U	1.2	U	1.2	U
Acetone	67-64-1	µg/L	50		**6**		5	U	5	U	**5.7**		5	U	5	U	5	U
Acetophenone	98-86-2	µg/L	NC		10	U	10	U	10	U	**19**		10	U	10	U	10	U
Aldrin	309-00-2	µg/L	NC		0.02	U	0.02	U	0.02	U	0.02	U	0.02	U	0.02	U	0.02	U

Table 3-4a
Groundwater Analytical Result - VOCs, SVOCs, Pesticides, Herbicides, PCBs, Metals, Mercury, Cyanide, and 1,4-Dioxane
Quiogue Landfill, NYSDEC Site No. 152061
Quiogue, Southampton, New York

				Location ID		MW-01		MW-02		MW-02		MW-03		MW-03		MW-03		MW-04	
				Sample ID		MW-01-031620		MW-02-031720		MW-102-031720		MW-03-40-031720		MW-03-60-031820		MW-03-80-031820		MW-04-35-031820	
				Sample Interval (feet bgs)		43.7		45		45		40		60		80		35	
				Sample Date		3/16/2020		3/17/2020		3/17/2020		3/17/2020		3/18/2020		3/18/2020		3/18/2020	
				Sample Type		N		N		FD		N		N		N		N	
				Parent Sample Code						MW-02-031720									
Chemical Name	**CAS No.**	**Unit**	**NYSDEC TOGS 1.1.1**	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q
Alpha Bhc (Alpha Hexachlorocyclohexane)	319-84-6	µg/L	0.01	0.02	U	0.02	U	0.02	U	0.02	U	0.02	U	0.02	U	0.02	U	0.02	U
Alpha Endosulfan	959-98-8	µg/L	NC	0.02	U	0.02	U	0.02	U	0.02	U	0.02	U	0.02	U	0.02	U	0.02	U
Aluminum	7429-90-5	µg/L	NC	200	U	**425**		**420**		**3430**		**84.5**	**J**	**2220**		200	U		
Anthracene	120-12-7	µg/L	5	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U
Antimony	7440-36-0	µg/L	3	20	U	20	U	20	U	20	U	20	U	20	U	20	U	20	U
Arsenic	7440-38-2	µg/L	25	**6.4**	**J**	15	U	15	U	15	U	15	U	15	U	15	U	15	U
Atrazine	1912-24-9	µg/L	7.5	2	UJ	2	R	2	R	2	R	2	R	2	R	2	R	2	U
Barium	7440-39-3	µg/L	1000	81.6	J	37.9	J	37.7	J	119	J	200	U	45.7	J	200	U		
Benzaldehyde	100-52-7	µg/L	NC	10	UT	10	U	10	U	10	U	10	U	10	U	10	U	10	U
Benzene	71-43-2	µg/L	1	**3.1**		1	U	1	U	1	U	1	U	1	U	1	U	1	U
Benzo(A)Anthracene	56-55-3	µg/L	0.002	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	UT
Benzo(A)Pyrene	50-32-8	µg/L	NC	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	UJ
Benzo(B)Fluoranthene	205-99-2	µg/L	0.002	2	U	2	U	2	U	2	U	2	U	2	U	2	U	2	U
Benzo(G,H,I)Perylene	191-24-2	µg/L	NC	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U
Benzo(K)Fluoranthene	207-08-9	µg/L	0.002	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
Benzyl Butyl Phthalate	85-68-7	µg/L	5	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U
Beryllium	7440-41-7	µg/L	3	2	U	2	U	2	U	2	U	2	U	2	U	2	U	2	U
Beta Bhc (Beta Hexachlorocyclohexane)	319-85-7	µg/L	0.04	0.02	U	0.02	U	0.02	U	0.02	U	0.02	U	0.02	U	0.02	U	0.02	U
Beta Endosulfan	33213-65-9	µg/L	NC	0.02	U	0.02	U	0.02	U	0.02	U	0.02	U	0.02	U	0.02	U	0.02	U
Biphenyl (Diphenyl)	92-52-4	µg/L	5	10	U	10	U	10	U	**1.3**	**J**	10	U	10	U	10	U	10	U
Bis(2-Chloroethoxy) Methane	111-91-1	µg/L	5	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U
Bis(2-Chloroethyl) Ether (2-Chloroethyl Ether)	111-44-4	µg/L	1	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
Bis(2-Chloroisopropyl) Ether	108-60-1	µg/L	5	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U
Bis(2-Ethylhexyl) Phthalate	117-81-7	µg/L	5	2	U	2	U	2	U	2	U	2	U	2	U	2	U	2	U
Bromodichloromethane	75-27-4	µg/L	50	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
Bromoform	75-25-2	µg/L	50	1	U	1	UJ	1	UJ	1	UJ	1	UJ	1	UJ	1	UJ	1	UJ
Bromomethane	74-83-9	µg/L	5	1	U	1	UJ	1	UJ	1	UJ	1	UJ	1	UJ	1	UJ	1	UJ
Cadmium	7440-43-9	µg/L	5	4	U	**0.34**	**J**	4	U	4	U	4	U	4	U	4	U	4	U
Calcium	7440-70-2	µg/L	NC	**65400**		**5160**		**5270**		**2680**	**J**	**4070**	**J**	**5910**		**2560**	**J**		
Caprolactam	105-60-2	µg/L	NC	10	UT	10	R	10	R	10	R	10	R	10	R	10	R	10	U
Carbazole	86-74-8	µg/L	NC	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U
Carbon Disulfide	75-15-0	µg/L	60	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
Carbon Tetrachloride	56-23-5	µg/L	5	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
Chlordane (Technical)	12789-03-6	µg/L	NC	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Chlorobenzene	108-90-7	µg/L	5	**37**		1	U	1	U	1	U	1	U	1	U	1	U	1	U
Chloroethane	75-00-3	µg/L	5	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
Chloroform	67-66-3	µg/L	7	1	U	**0.68**	**J**	**0.83**	**J**	**0.9**	**J**	1	U	1	U	**2.5**			
Chloromethane	74-87-3	µg/L	5	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
Chromium, Total	7440-47-3	µg/L	50	10	U	10	U	10	U	9.2	J	10	U	7.2	J	10	U		
Chrysene	218-01-9	µg/L	0.002	2	U	2	U	2	U	2	U	2	U	2	U	2	U	2	U
Cis-1,2-Dichloroethylene	156-59-2	µg/L	5	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
Cis-1,3-Dichloropropene	10061-01-5	µg/L	0.4	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
Cobalt	7440-48-4	µg/L	NC	50	U	**5.9**	**J**	**5.8**	**J**	**10.3**	**J**	50	U	**2.3**	**J**	50	U		
Copper	7440-50-8	µg/L	200	25	U	25	U	25	U	7.2	J	25	U	25	U	25	U		
Cyanide	57-12-5	µg/L	0.002	0.01	U	0.01	U	0.01	U	0.01	U	0.01	UT	0.01	UT	0.01	UT		
Cyclohexane	110-82-7	µg/L	NC	**24**		1	U	1	U	**11**		1	U	1	U	1	U		

Table 3-4a
Groundwater Analytical Result - VOCs, SVOCs, Pesticides, Herbicides, PCBs, Metals, Mercury, Cyanide, and 1,4-Dioxane
Quiogue Landfill, NYSDEC Site No. 152061
Quiogue, Southampton, New York

				Location ID	MW-01		MW-02		MW-02		MW-03		MW-03		MW-03		MW-04	
				Sample ID	MW-01-031620		MW-02-031720		MW-102-031720		MW-03-40-031720		MW-03-60-031820		MW-03-80-031820		MW-04-35-031820	
				Sample Interval (feet bgs)	43.7		45		45		40		60		80		35	
				Sample Date	3/16/2020		3/17/2020		3/17/2020		3/17/2020		3/18/2020		3/18/2020		3/18/2020	
				Sample Type	N		N		FD		N		N		N		N	
				Parent Sample Code					MW-02-031720									
Chemical Name	**CAS No.**	**Unit**	**NYSDEC TOGS 1.1.1**		Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q
Delta BHC (Delta Hexachlorocyclohexane)	319-86-8	µg/L	0.04		0.02	U	0.02	U	0.02	U	0.02	U	0.02	U	0.02	U	0.02	U
Dibenz(A,H)Anthracene	53-70-3	µg/L	NC		1	U	1	U	1	U	1	U	1	U	1	U	1	U
Dibenzofuran	132-64-9	µg/L	NC		10	U	10	U	10	U	10	U	10	U	10	U	10	U
Dibromochloromethane	124-48-1	µg/L	50		1	U	1	U	1	U	1	U	1	U	1	U	1	U
Dichlorodifluoromethane	75-71-8	µg/L	5		1	U	1	U	1	U	1	U	1	U	1	U	1	U
Dieldrin	60-57-1	µg/L	0.004		0.02	U	0.02	U	0.02	U	0.02	U	0.02	U	0.02	U	0.02	U
Diethyl Phthalate	84-66-2	µg/L	5		10	U	10	U	10	U	10	U	10	U	10	U	10	U
Dimethyl Phthalate	131-11-3	µg/L	5		10	U	10	U	10	U	10	U	10	U	10	U	10	U
Di-N-Butyl Phthalate	84-74-2	µg/L	5		10	U	10	U	10	U	10	U	10	U	10	U	10	U
Di-N-Octylphthalate	117-84-0	µg/L	5		10	U	10	U	10	U	10	U	10	U	10	U	10	U
Endosulfan Sulfate	1031-07-8	µg/L	NC		0.02	U	0.02	U	0.02	U	0.02	U	0.02	U	0.02	U	0.02	U
Endrin	72-20-8	µg/L	NC		0.02	U	0.02	U	0.02	U	0.02	U	0.02	U	0.02	U	0.02	U
Endrin Aldehyde	7421-93-4	µg/L	5		0.02	U	0.02	U	0.02	U	0.02	U	0.02	U	0.02	U	0.02	U
Endrin Ketone	53494-70-5	µg/L	5		0.02	U	0.02	U	0.02	U	0.02	U	0.02	U	0.02	U	0.02	U
Ethylbenzene	100-41-4	µg/L	5		1	U	1	U	1	U	**1.9**		1	U	1	U	1	U
Fluoranthene	206-44-0	µg/L	5		10	U	10	U	10	U	10	U	10	U	10	U	10	U
Fluorene	86-73-7	µg/L	5		10	U	10	U	10	U	10	U	10	U	10	U	10	U
Gamma Bhc (Lindane)	58-89-9	µg/L	0.05		0.02	U	0.02	U	0.02	U	0.02	U	0.02	U	0.02	U	0.02	U
Heptachlor	76-44-8	µg/L	0.04		0.02	U	0.02	U	0.02	U	0.02	U	0.02	U	0.02	U	0.02	U
Heptachlor Epoxide	1024-57-3	µg/L	0.03		0.02	U	0.02	U	0.02	U	0.02	U	0.02	U	0.02	U	0.02	U
Hexachlorobenzene	118-74-1	µg/L	0.04		1	U	1	U	1	U	1	U	1	U	1	U	1	U
Hexachlorobutadiene	87-68-3	µg/L	0.5		1	U	1	U	1	U	1	U	1	U	1	U	1	U
Hexachlorocyclopentadiene	77-47-4	µg/L	5		10	U	10	U	10	U	10	U	10	U	10	U	10	U
Hexachloroethane	67-72-1	µg/L	5		2	U	2	U	2	U	2	U	2	U	2	U	2	U
Indeno(1,2,3-C,D)Pyrene	193-39-5	µg/L	0.002		2	U	2	U	2	U	2	U	2	U	2	U	2	U
Iron	7439-89-6	µg/L	300		**55700**		**341**		**354**		**5800**		191		**4010**		150	U
Isophorone	78-59-1	µg/L	5		10	U	10	U	10	U	10	U	10	U	10	U	10	U
Isopropylbenzene (Cumene)	98-82-8	µg/L	5		**33**		1	U	1	U	**19**		1	U	1	U	1	U
Lead	7439-92-1	µg/L	25		**7.2**	**J**	10	U	10	U	**5.8**	**J**	10	U	**3.1**	**J**	10	U
Magnesium	7439-95-4	µg/L	35000		6530		1700	J	1730	J	1340	J	919	J	1190	J	979	J
Manganese	7439-96-5	µg/L	300		**389**		34.3		34.5		261		15.9		228		10.7	J
Mercury	7439-97-6	µg/L	0.7		**0.12**	**J**	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U
Methoxychlor	72-43-5	µg/L	35		0.02	U	0.02	U	0.02	U	0.02	U	0.02	U	0.02	U	0.02	U
Methyl Acetate	79-20-9	µg/L	NC		5	U	5	U	5	U	5	U	5	U	5	U	5	U
Methyl Ethyl Ketone (2-Butanone)	78-93-3	µg/L	50		5	U	5	U	5	U	5	U	5	U	5	U	5	U
Methyl Isobutyl Ketone (4-Methyl-2-Pentanone)	108-10-1	µg/L	NC		5	U	5	U	5	U	5	U	5	U	5	U	5	U
Methylcyclohexane	108-87-2	µg/L	NC		**41**		1	U	1	U	**110**		1	U	1	U	1	U
Methylene Chloride	75-09-2	µg/L	5		1	U	1	U	1	U	1	U	1	U	1	U	1	U
Naphthalene	91-20-3	µg/L	1		**32**		2	U	2	U	**1.2**	**J**	2	U	2	U	2	U
Nickel	7440-02-0	µg/L	100		40	U	40	U	40	U	9.4	J	40	U	40	U	40	U
Nitrobenzene	98-95-3	µg/L	0.4		1	U	1	U	1	U	1	U	1	U	1	U	1	U
N-Nitrosodiphenylamine	86-30-6	µg/L	5		10	U	10	U	10	U	10	U	10	U	10	U	10	U
P,P'-DDD	72-54-8	µg/L	0.3		0.02	U	0.02	U	0.02	U	0.02	U	0.02	U	0.02	U	0.02	U
P,P'-DDE	72-55-9	µg/L	0.2		0.02	U	0.02	U	0.02	U	0.02	U	0.02	U	0.02	U	0.02	U
P,P'-DDT	50-29-3	µg/L	0.2		0.02	U	0.02	U	0.02	U	0.02	U	0.02	U	0.02	U	0.02	U
PCB-1016 (Aroclor 1016)	12674-11-2	µg/L	0.09		0.4	U	0.4	U	0.4	U	0.4	U	0.4	U	0.4	U	0.4	U

Table 3-4a
Groundwater Analytical Result - VOCs, SVOCs, Pesticides, Herbicides, PCBs, Metals, Mercury, Cyanide, and 1,4-Dioxane
Quiogue Landfill, NYSDEC Site No. 152061
Quiogue, Southampton, New York

				Location ID	MW-01		MW-02		MW-02		MW-03		MW-03		MW-03		MW-04	
				Sample ID	MW-01-031620		MW-02-031720		MW-102-031720		MW-03-40-031720		MW-03-60-031820		MW-03-80-031820		MW-04-35-031820	
				Sample Interval (feet bgs)	43.7		45		45		40		60		80		35	
				Sample Date	3/16/2020		3/17/2020		3/17/2020		3/17/2020		3/18/2020		3/18/2020		3/18/2020	
				Sample Type	N		N		FD		N		N		N		N	
				Parent Sample Code					MW-02-031720									
Chemical Name	**CAS No.**	**Unit**	**NYSDEC TOGS 1.1.1**	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q
PCB-1221 (Aroclor 1221)	11104-28-2	µg/L	0.09	0.4	U	0.4	U	0.4	U	0.4	U	0.4	U	0.4	U	0.4	U
PCB-1232 (Aroclor 1232)	11141-16-5	µg/L	0.09	0.4	U	0.4	U	0.4	U	0.4	U	0.4	U	0.4	U	0.4	U
PCB-1242 (Aroclor 1242)	53469-21-9	µg/L	0.09	0.4	U	0.4	U	0.4	U	0.4	U	0.4	U	0.4	U	0.4	U
PCB-1248 (Aroclor 1248)	12672-29-6	µg/L	0.09	0.4	U	0.4	U	0.4	U	0.4	U	0.4	U	0.4	U	0.4	U
PCB-1254 (Aroclor 1254)	11097-69-1	µg/L	0.09	0.4	U	0.4	U	0.4	U	0.4	U	0.4	U	0.4	U	0.4	U
PCB-1260 (Aroclor 1260)	11096-82-5	µg/L	0.09	0.4	U	0.4	U	0.4	U	0.4	U	0.4	U	0.4	U	0.4	U
Pentachlorophenol	87-86-5	µg/L	1	20	U	20	U	20	U	20	U	20	U	20	U	20	U
Phenanthrene	85-01-8	µg/L	5	10	U	10	U	10	U	10	U	10	U	10	U	10	U
Phenol	108-95-2	µg/L	1	10	U	10	U	10	U	10	U	10	U	10	U	10	U
Potassium	7440-09-7	µg/L	NC	**2670**	**BJ**	**879**	**J**	**844**	**J**	**1200**	**J**	**506**	**J**	**1360**	**J**	**600**	**J**
Pyrene	129-00-0	µg/L	5	10	U	10	U	10	U	10	U	10	U	10	U	10	U
Selenium	7782-49-2	µg/L	10	20	U	20	U	20	U	20	U	20	U	20	U	20	U
Silver	7440-22-4	µg/L	50	10	U	10	U	10	U	10	U	10	U	10	U	10	U
Silvex (2,4,5-TP)	93-72-1	µg/L	0.26	1.2	U	1.2	U	1.2	U	1.2	U	1.2	U	1.2	U	1.2	U
Sodium	7440-23-5	µg/L	20000	14400		14700		14900		18800		4350	J	3270	J	10500	
Styrene	100-42-5	µg/L	5	1	U	1	U	1	U	1	U	1	U	1	U	1	U
Tert-Butyl Methyl Ether	1634-04-4	µg/L	10	1	U	1	U	1	U	1	U	1	U	1	U	1	U
Tetrachloroethylene (PCE)	127-18-4	µg/L	5	1	U	1	U	1	U	1	U	1	U	1	U	1	U
Thallium	7440-28-0	µg/L	0.5	20	U	20	U	20	U	20	U	20	U	20	U	20	U
Toluene	108-88-3	µg/L	5	1	U	1	U	1	U	1	U	1	U	1	U	1	U
Toxaphene	8001-35-2	µg/L	0.06	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Trans-1,2-Dichloroethene	156-60-5	µg/L	5	1	U	1	U	1	U	1	U	1	U	1	U	1	U
Trans-1,3-Dichloropropene	10061-02-6	µg/L	0.4	1	U	1	U	1	U	1	U	1	U	1	U	1	U
Trichloroethylene (TCE)	79-01-6	µg/L	5	1	U	1	U	1	U	1	U	1	U	1	U	1	U
Trichlorofluoromethane	75-69-4	µg/L	5	1	U	1	U	1	U	1	U	1	U	1	U	1	U
Vanadium	7440-62-2	µg/L	NC	50	U	50	U	50	U	**12**	**J**	50	U	50	U	50	U
Vinyl Chloride	75-01-4	µg/L	2	1	U	1	U	1	U	1	U	1	U	1	U	1	U
Xylenes	1330-20-7	µg/L	5	2	U	2	U	2	U	**13**		2	U	2	U	2	U
Zinc	7440-66-6	µg/L	2000	3	J	7.2	J	7.5	J	19.3	J	6.6	J	12.7	J	3.8	J

Notes:

1 - NYSDEC. June 1998. TOGS 1.1.1. Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations. Includes April 2000 and June 2004 Addendum values. (http://www.dec.ny.gov/docs/water_pdf/togs111.pdf), downloaded November 8, 2017.

	> NYSDEC TOGS 1.1.1
Bold	Detection

Acronyms:

CAS - chemical abstract service	NC - no criteria listed
FD - field duplicate	NYSDEC - New York State Department of Environmental Conservation
ID - identification	R - result rejected
J - estimated	U - nondetect
N - normal sample	µg/L - micrograms per liter

Table 3-4a
Groundwater Analytical Result - VOCs, SVOCs, Pesticides, Herbicides, PCBs, Metals, Mercury, Cyanide, and 1,4-Dioxane
Quiogue Landfill, NYSDEC Site No. 152061
Quiogue, Southampton, New York

				Location ID		MW-04		MW-04		MW-05		MW-05		MW-05	
				Sample ID		MW-04-60-031820		MW-04-80-031820		MW-05-35-031620		MW-05-60-031720		MW-05-80-031720	
				Sample Interval (feet bgs)		60		80		40		60		80	
				Sample Date		3/18/2020		3/18/2020		3/16/2020		3/17/2020		3/17/2020	
				Sample Type		N		N		N		N		N	
				Parent Sample Code											
Chemical Name	**CAS No.**	**Unit**	**NYSDEC TOGS 1.1.1**	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q
1,1,1-Trichloroethane	71-55-6	µg/L	5	1	U	1	U	1	U	1	U	1	U
1,1,2,2-Tetrachloroethane	79-34-5	µg/L	5	1	U	1	U	1	U	1	U	1	U
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	µg/L	5	1	U	1	U	1	U	1	U	1	U
1,1,2-Trichloroethane	79-00-5	µg/L	1	1	U	1	U	1	U	1	U	1	U
1,1-Dichloroethane	75-34-3	µg/L	5	1	U	1	U	1	U	1	U	1	U
1,1-Dichloroethene	75-35-4	µg/L	5	1	U	1	U	1	U	1	U	1	U
1,2,4-Trichlorobenzene	120-82-1	µg/L	5	1	U	1	U	1	U	1	U	1	U
1,2-Dibromo-3-Chloropropane	96-12-8	µg/L	0.04	1	U	1	U	1	U	1	U	1	U
1,2-Dibromoethane (Ethylene Dibromide)	106-93-4	µg/L	0.0006	1	U	1	U	1	U	1	U	1	U
1,2-Dichlorobenzene	95-50-1	µg/L	3	1	U	1	U	**0.66**	**J**	1	U	1	U
1,2-Dichloroethane	107-06-2	µg/L	0.6	1	U	1	U	1	U	1	U	1	U
1,2-Dichloropropane	78-87-5	µg/L	1	1	U	1	U	1	U	1	U	1	U
1,3-Dichlorobenzene	541-73-1	µg/L	3	1	U	1	U	1	U	1	U	1	U
1,4-Dichlorobenzene	106-46-7	µg/L	3	1	U	1	U	**3.6**		1	U	1	U
1,4-Dioxane (P-Dioxane)	123-91-1	µg/L	NC	0.4	U	0.4	U	0.4	UJ	0.4	U	0.4	U
2,4,5-Trichlorophenol	95-95-4	µg/L	NC	10	U	10	U	10	U	10	U	10	U
2,4,6-Trichlorophenol	88-06-2	µg/L	NC	10	U	10	U	10	U	10	U	10	U
2,4-D (Dichlorophenoxyacetic Acid)	94-75-7	µg/L	5	1.2	U	1.2	U	1.2	U	1.2	U	1.2	U
2,4-Dichlorophenol	120-83-2	µg/L	5	10	U	10	U	10	U	10	U	10	U
2,4-Dimethylphenol	105-67-9	µg/L	5	10	U	10	U	10	U	10	U	10	U
2,4-Dinitrophenol	51-28-5	µg/L	1	20	U	20	U	20	U	20	U	20	U
2,4-Dinitrotoluene	121-14-2	µg/L	5	2	U	2	U	2	U	2	U	2	U
2,6-Dinitrotoluene	606-20-2	µg/L	5	2	U	2	U	2	U	2	U	2	U
2-Chloronaphthalene	91-58-7	µg/L	1	10	U	10	U	10	U	10	U	10	U
2-Chlorophenol	95-57-8	µg/L	NC	10	U	10	U	10	U	10	U	10	U
2-Hexanone	591-78-6	µg/L	50	5	U	5	U	5	U	5	U	5	U
2-Methylnaphthalene	91-57-6	µg/L	NC	10	U	10	U	10	U	10	U	10	U
2-Methylphenol (O-Cresol)	95-48-7	µg/L	NC	10	U	10	U	10	U	10	U	10	U
2-Nitroaniline	88-74-4	µg/L	5	10	U	10	U	10	U	10	U	10	U
2-Nitrophenol	88-75-5	µg/L	NC	10	U	10	U	10	U	10	U	10	U
3,3'-Dichlorobenzidine	91-94-1	µg/L	5	10	U	10	U	10	U	10	U	10	U
3-Nitroaniline	99-09-2	µg/L	5	10	U	10	U	10	U	10	U	10	U
4,6-Dinitro-2-Methylphenol	534-52-1	µg/L	NC	20	U	20	U	20	U	20	U	20	U
4-Bromophenyl Phenyl Ether	101-55-3	µg/L	NC	10	U	10	U	10	U	10	U	10	U
4-Chloro-3-Methylphenol	59-50-7	µg/L	NC	10	U	10	U	10	U	10	U	10	U
4-Chloroaniline	106-47-8	µg/L	5	10	U	10	U	10	U	10	U	10	U
4-Chlorophenyl Phenyl Ether	7005-72-3	µg/L	NC	10	U	10	U	10	U	10	U	10	U
4-Methylphenol (P-Cresol)	106-44-5	µg/L	NC	10	U	10	U	10	U	10	U	10	U
4-Nitroaniline	100-01-6	µg/L	5	10	U	10	U	10	U	10	U	10	U
4-Nitrophenol	100-02-7	µg/L	NC	20	U	20	U	20	U	20	U	20	U
Acenaphthene	83-32-9	µg/L	2	10	U	10	U	10	U	10	U	10	U
Acenaphthylene	208-96-8	µg/L	NC	10	U	10	U	10	U	10	U	10	U
Acetic acid, (2,4,5-trichlorophenoxy)-	93-76-5	µg/L	35	1.2	U	1.2	U	1.2	U	1.2	U	1.2	U
Acetone	67-64-1	µg/L	50	**5.4**		5	U	5	U	5	U	**5.5**	
Acetophenone	98-86-2	µg/L	NC	10	U	10	U	10	U	10	U	10	U
Aldrin	309-00-2	µg/L	NC	0.02	U	0.02	U	0.02	U	0.02	U	0.02	U

Table 3-4a
Groundwater Analytical Result - VOCs, SVOCs, Pesticides, Herbicides, PCBs, Metals, Mercury, Cyanide, and 1,4-Dioxane
Quiogue Landfill, NYSDEC Site No. 152061
Quiogue, Southampton, New York

			Location ID	MW-04		MW-04		MW-05		MW-05		MW-05	
			Sample ID	MW-04-60-031820		MW-04-80-031820		MW-05-35-031620		MW-05-60-031720		MW-05-80-031720	
			Sample Interval (feet bgs)	60		80		40		60		80	
			Sample Date	3/18/2020		3/18/2020		3/16/2020		3/17/2020		3/17/2020	
			Sample Type	N		N		N		N		N	
			Parent Sample Code										
Chemical Name	**CAS No.**	**Unit**	**NYSDEC TOGS 1.1.1**	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q
Alpha Bhc (Alpha Hexachlorocyclohexane)	319-84-6	µg/L	0.01	0.02	U	0.02	U	0.02	U	0.02	U	0.02	U
Alpha Endosulfan	959-98-8	µg/L	NC	0.02	U	0.02	U	0.02	U	0.02	U	0.02	U
Aluminum	7429-90-5	µg/L	NC	**2360**		**1970**		**2670**		**1140**		**5550**	
Anthracene	120-12-7	µg/L	5	10	U	10	U	10	U	10	U	10	U
Antimony	7440-36-0	µg/L	3	20	U	20	U	20	U	20	U	**7**	**J**
Arsenic	7440-38-2	µg/L	25	15	U	15	U	15	U	15	U	15	U
Atrazine	1912-24-9	µg/L	7.5	2	R	2	R	2	UJ	2	R	2	R
Barium	7440-39-3	µg/L	1000	45.4	J	37.8	J	44.3	J	200	U	66.8	J
Benzaldehyde	100-52-7	µg/L	NC	10	U	10	U	10	UT	10	U	10	U
Benzene	71-43-2	µg/L	1	1	U	1	U	**2.8**		1	U	1	U
Benzo(A)Anthracene	56-55-3	µg/L	0.002	1	U	1	U	1	U	1	U	1	U
Benzo(A)Pyrene	50-32-8	µg/L	NC	1	U	1	U	1	U	1	U	1	U
Benzo(B)Fluoranthene	205-99-2	µg/L	0.002	2	U	2	U	2	U	2	U	2	U
Benzo(G,H,I)Perylene	191-24-2	µg/L	NC	10	U	10	U	10	U	10	U	10	U
Benzo(K)Fluoranthene	207-08-9	µg/L	0.002	1	U	1	U	1	U	1	U	1	U
Benzyl Butyl Phthalate	85-68-7	µg/L	5	10	U	10	U	10	U	10	U	10	U
Beryllium	7440-41-7	µg/L	3	2	U	2	U	2	U	2	U	2	U
Beta Bhc (Beta Hexachlorocyclohexane)	319-85-7	µg/L	0.04	0.02	U	0.02	U	0.02	U	0.02	U	0.02	U
Beta Endosulfan	33213-65-9	µg/L	NC	0.02	U	0.02	U	0.02	U	0.02	U	0.02	U
Biphenyl (Diphenyl)	92-52-4	µg/L	5	10	U	10	U	10	U	10	U	10	U
Bis(2-Chloroethoxy) Methane	111-91-1	µg/L	5	10	U	10	U	10	U	10	U	10	U
Bis(2-Chloroethyl) Ether (2-Chloroethyl Ether)	111-44-4	µg/L	1	1	U	1	U	1	U	1	U	1	U
Bis(2-Chloroisopropyl) Ether	108-60-1	µg/L	5	10	U	10	U	10	U	10	U	10	U
Bis(2-Ethylhexyl) Phthalate	117-81-7	µg/L	5	2	U	2	U	2	U	2	U	2	U
Bromodichloromethane	75-27-4	µg/L	50	1	U	1	U	1	U	1	U	1	U
Bromoform	75-25-2	µg/L	50	1	UJ	1	UJ	1	U	1	UJ	1	UJ
Bromomethane	74-83-9	µg/L	5	1	UJ	1	UJ	1	U	1	UJ	1	UJ
Cadmium	7440-43-9	µg/L	5	4	U	4	U	4	U	4	U	**0.91**	**J**
Calcium	7440-70-2	µg/L	NC	**5260**		**3510**	**J**	**101000**		**6280**		**16600**	
Caprolactam	105-60-2	µg/L	NC	10	R	10	R	10	UT	10	R	10	R
Carbazole	86-74-8	µg/L	NC	10	U	10	U	10	U	10	U	10	U
Carbon Disulfide	75-15-0	µg/L	60	1	U	1	U	1	U	1	U	1	U
Carbon Tetrachloride	56-23-5	µg/L	5	1	U	1	U	1	U	1	U	1	U
Chlordane (Technical)	12789-03-6	µg/L	NC	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Chlorobenzene	108-90-7	µg/L	5	1	U	1	U	**21**		1	U	1	U
Chloroethane	75-00-3	µg/L	5	1	U	1	U	1	U	1	U	1	U
Chloroform	67-66-3	µg/L	7	1	U	1	U	1	U	1	U	1	U
Chloromethane	74-87-3	µg/L	5	1	U	1	U	1	U	1	U	1	U
Chromium, Total	7440-47-3	µg/L	50	5.1	J	7.6	J	14.2		10	U	**101**	
Chrysene	218-01-9	µg/L	0.002	2	U	2	U	2	U	2	U	2	U
Cis-1,2-Dichloroethylene	156-59-2	µg/L	5	1	U	1	U	1	U	1	U	1	U
Cis-1,3-Dichloropropene	10061-01-5	µg/L	0.4	1	U	1	U	1	U	1	U	1	U
Cobalt	7440-48-4	µg/L	NC	**2.4**	**J**	**2.5**	**J**	**2.6**	**J**	50	U	**6**	**J**
Copper	7440-50-8	µg/L	200	25	U	25	U	8.4	J	7.2	J	39	
Cyanide	57-12-5	µg/L	0.002	0.01	UT	0.01	UT	0.01	U	0.01	U	0.01	U
Cyclohexane	110-82-7	µg/L	NC	1	U	1	U	**1.4**		1	U	1	U

Table 3-4a
Groundwater Analytical Result - VOCs, SVOCs, Pesticides, Herbicides, PCBs, Metals, Mercury, Cyanide, and 1,4-Dioxane
Quiogue Landfill, NYSDEC Site No. 152061
Quiogue, Southampton, New York

				Location ID		MW-04		MW-04		MW-05		MW-05		MW-05	
				Sample ID		MW-04-60-031820		MW-04-80-031820		MW-05-35-031620		MW-05-60-031720		MW-05-80-031720	
				Sample Interval (feet bgs)		60		80		40		60		80	
				Sample Date		3/18/2020		3/18/2020		3/16/2020		3/17/2020		3/17/2020	
				Sample Type		N		N		N		N		N	
				Parent Sample Code											
Chemical Name	**CAS No.**	**Unit**	**NYSDEC TOGS 1.1.1**	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q
Delta BHC (Delta Hexachlorocyclohexane)	319-86-8	µg/L	0.04	0.02	U	0.02	U	0.02	U	0.02	U	0.02	U
Dibenz(A,H)Anthracene	53-70-3	µg/L	NC	1	U	1	U	1	U	1	U	1	U
Dibenzofuran	132-64-9	µg/L	NC	10	U	10	U	10	U	10	U	10	U
Dibromochloromethane	124-48-1	µg/L	50	1	U	1	U	1	U	1	U	1	U
Dichlorodifluoromethane	75-71-8	µg/L	5	1	U	1	U	1	U	1	U	1	U
Dieldrin	60-57-1	µg/L	0.004	0.02	U	0.02	U	0.02	U	0.02	U	0.02	U
Diethyl Phthalate	84-66-2	µg/L	5	10	U	10	U	10	U	10	U	10	U
Dimethyl Phthalate	131-11-3	µg/L	5	10	U	10	U	10	U	10	U	10	U
Di-N-Butyl Phthalate	84-74-2	µg/L	5	10	U	10	U	10	U	10	U	10	U
Di-N-Octylphthalate	117-84-0	µg/L	5	10	U	10	U	10	U	10	U	10	U
Endosulfan Sulfate	1031-07-8	µg/L	NC	0.02	U	0.02	U	0.02	U	0.02	U	0.02	U
Endrin	72-20-8	µg/L	NC	0.02	U	0.02	U	0.02	U	0.02	U	0.02	U
Endrin Aldehyde	7421-93-4	µg/L	5	0.02	U	0.02	U	0.02	U	0.02	U	0.02	U
Endrin Ketone	53494-70-5	µg/L	5	0.02	U	0.02	U	0.02	U	0.02	U	0.02	U
Ethylbenzene	100-41-4	µg/L	5	1	U	1	U	1	U	1	U	1	U
Fluoranthene	206-44-0	µg/L	5	10	U	10	U	10	U	10	U	10	U
Fluorene	86-73-7	µg/L	5	10	U	10	U	10	U	10	U	10	U
Gamma Bhc (Lindane)	58-89-9	µg/L	0.05	0.02	U	0.02	U	0.02	U	0.02	U	0.02	U
Heptachlor	76-44-8	µg/L	0.04	0.02	U	0.02	U	0.02	U	0.02	U	0.02	U
Heptachlor Epoxide	1024-57-3	µg/L	0.03	0.02	U	0.02	U	0.02	U	0.02	U	0.02	U
Hexachlorobenzene	118-74-1	µg/L	0.04	1	U	1	U	1	U	1	U	1	U
Hexachlorobutadiene	87-68-3	µg/L	0.5	1	U	1	U	1	U	1	U	1	U
Hexachlorocyclopentadiene	77-47-4	µg/L	5	10	U	10	U	10	U	10	U	10	U
Hexachloroethane	67-72-1	µg/L	5	2	U	2	U	2	U	2	U	2	U
Indeno(1,2,3-C,D)Pyrene	193-39-5	µg/L	0.002	2	U	2	U	2	U	2	U	2	U
Iron	7439-89-6	µg/L	300	**3790**		**3300**		**51700**		**2610**		**33700**	
Isophorone	78-59-1	µg/L	5	10	U	10	U	10	U	10	U	10	U
Isopropylbenzene (Cumene)	98-82-8	µg/L	5	1	U	1	U	**1.4**		1	U	1	U
Lead	7439-92-1	µg/L	25	**4.4**	**J**	**3.5**	**J**	**4.9**	**J**	**2.8**	**J**	**25**	
Magnesium	7439-95-4	µg/L	35000	1420	J	874	J	6450		1080	J	2790	J
Manganese	7439-96-5	µg/L	300	314		247		476		38.5		257	
Mercury	7439-97-6	µg/L	0.7	0.2	U	0.2	U	0.2	U	0.2	U	**0.21**	
Methoxychlor	72-43-5	µg/L	35	0.02	U	0.02	U	0.02	U	0.02	U	0.02	U
Methyl Acetate	79-20-9	µg/L	NC	5	U	5	U	5	UT	5	U	5	U
Methyl Ethyl Ketone (2-Butanone)	78-93-3	µg/L	50	5	U	5	U	5	U	5	U	5	U
Methyl Isobutyl Ketone (4-Methyl-2-Pentanone)	108-10-1	µg/L	NC	5	U	5	U	5	U	5	U	5	U
Methylcyclohexane	108-87-2	µg/L	NC	1	U	1	U	**1.7**		1	U	1	U
Methylene Chloride	75-09-2	µg/L	5	1	U	1	U	1	U	1	U	1	U
Naphthalene	91-20-3	µg/L	1	2	U	2	U	**5.2**		2	U	2	U
Nickel	7440-02-0	µg/L	100	40	U	40	U	40	U	40	U	30.8	J
Nitrobenzene	98-95-3	µg/L	0.4	1	U	1	U	1	U	1	U	1	U
N-Nitrosodiphenylamine	86-30-6	µg/L	5	10	U	10	U	10	U	10	U	10	U
P,P'-DDD	72-54-8	µg/L	0.3	0.02	U	0.02	U	0.02	U	0.02	U	0.02	U
P,P'-DDE	72-55-9	µg/L	0.2	0.02	U	0.02	U	0.02	U	0.02	U	0.02	U
P,P'-DDT	50-29-3	µg/L	0.2	0.02	U	0.02	U	0.02	U	0.02	U	0.02	U
PCB-1016 (Aroclor 1016)	12674-11-2	µg/L	0.09	0.4	U	0.4	U	0.4	U	0.4	U	0.4	U

Table 3-4a
Groundwater Analytical Result - VOCs, SVOCs, Pesticides, Herbicides, PCBs, Metals, Mercury, Cyanide, and 1,4-Dioxane
Quiogue Landfill, NYSDEC Site No. 152061
Quiogue, Southampton, New York

			Location ID	MW-04		MW-04		MW-05		MW-05		MW-05			
			Sample ID	MW-04-60-031820		MW-04-80-031820		MW-05-35-031620		MW-05-60-031720		MW-05-80-031720			
			Sample Interval (feet bgs)	60		80		40		60		80			
			Sample Date	3/18/2020		3/18/2020		3/16/2020		3/17/2020		3/17/2020			
			Sample Type	N		N		N		N		N			
			Parent Sample Code												
Chemical Name	**CAS No.**	**Unit**	**NYSDEC TOGS 1.1.1**	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q		
PCB-1221 (Aroclor 1221)	11104-28-2	µg/L	0.09	0.4	U	0.4	U	0.4	U	0.4	U	0.4	U		
PCB-1232 (Aroclor 1232)	11141-16-5	µg/L	0.09	0.4	U	0.4	U	0.4	U	0.4	U	0.4	U		
PCB-1242 (Aroclor 1242)	53469-21-9	µg/L	0.09	0.4	U	0.4	U	0.4	U	0.4	U	0.4	U		
PCB-1248 (Aroclor 1248)	12672-29-6	µg/L	0.09	0.4	U	0.4	U	0.4	U	0.4	U	0.4	U		
PCB-1254 (Aroclor 1254)	11097-69-1	µg/L	0.09	0.4	U	0.4	U	0.4	U	0.4	U	0.4	U		
PCB-1260 (Aroclor 1260)	11096-82-5	µg/L	0.09	0.4	U	0.4	U	0.4	U	0.4	U	0.4	U		
Pentachlorophenol	87-86-5	µg/L	1	20	U	20	U	20	U	20	U	20	U		
Phenanthrene	85-01-8	µg/L	5	10	U	10	U	10	U	10	U	10	U		
Phenol	108-95-2	µg/L	1	10	U	10	U	10	U	10	U	10	U		
Potassium	7440-09-7	µg/L	NC	**1250**	**J**	**1260**	**J**	**5500**		**1200**	**J**	**2650**	**J**		
Pyrene	129-00-0	µg/L	5	10	U	10	U	10	U	10	U	10	U		
Selenium	7782-49-2	µg/L	10	20	U	20	U	20	U	20	U	20	U		
Silver	7440-22-4	µg/L	50	10	U	10	U	10	U	10	U	10	U		
Silvex (2,4,5-TP)	93-72-1	µg/L	0.26	1.2	U	1.2	U	1.2	U	1.2	U	1.2	U		
Sodium	7440-23-5	µg/L	20000	6100		2170	J	12500		10700		3010	J		
Styrene	100-42-5	µg/L	5	1	U	1	U	1	U	1	U	1	U		
Tert-Butyl Methyl Ether	1634-04-4	µg/L	10	1	U	1	U	1	U	1	U	1	U		
Tetrachloroethylene (PCE)	127-18-4	µg/L	5	1	U	1	U	1	U	1	U	1	U		
Thallium	7440-28-0	µg/L	0.5	20	U	20	U	20	U	20	U	20	U		
Toluene	108-88-3	µg/L	5	1	U	1	U	1	U	1	U	1	U		
Toxaphene	8001-35-2	µg/L	0.06	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U		
Trans-1,2-Dichloroethene	156-60-5	µg/L	5	1	U	1	U	1	U	1	U	1	U		
Trans-1,3-Dichloropropene	10061-02-6	µg/L	0.4	1	U	1	U	1	U	1	U	1	U		
Trichloroethylene (TCE)	79-01-6	µg/L	5	1	U	1	U	1	U	1	U	1	U		
Trichlorofluoromethane	75-69-4	µg/L	5	1	U	1	U	1	U	1	U	1	U		
Vanadium	7440-62-2	µg/L	NC	50	U	50	U	**10**	**J**	50	U	**20.2**	**J**		
Vinyl Chloride	75-01-4	µg/L	2	1	U	1	U	1	U	1	U	1	U		
Xylenes	1330-20-7	µg/L	5	2	U	2	U	2	U	2	U	2	U		
Zinc	7440-66-6	µg/L	2000	33		10.3	J	63		12.6	J	274			

Notes:

1 - NYSDEC. June 1998. TOGS 1.1.1. Ambient Water Quality Standards and Guidance Values and Groundwater Effluent values. (http://www.dec.ny.gov/docs/water_pdf/togs111.pdf), downloaded November 8, 2017.

	> NYSDEC TOGS 1.1.1
Bold	Detection

Acronyms:

CAS - chemical abstract service	NC - no criteria listed
FD - field duplicate	NYSDEC - New York State Department of Environmental
ID - identification	R - result rejected
J - estimated	U - nondetect
N - normal sample	µg/L - micrograms per liter

Table 3-4a
Groundwater Analytical Result - VOCs, SVOCs, Pesticides, Herbicides, PCBs, Metals, Mercury, Cyanide, and 1,4-Dioxane
Quiogue Landfill, NYSDEC Site No. 152061
Quiogue, Southampton, New York

			Location ID	MW-A35		MW-A46		MW-DEC-16			
			Sample ID	MW-A35-031620		MW-A46-031620		MW-DEC-16-031720			
			Sample Interval (feet bgs)	36.8		47.4		46			
			Sample Date	3/16/2020		3/16/2020		3/17/2020			
			Sample Type	N		N		N			
			Parent Sample Code								
Chemical Name	**CAS No.**	**Unit**	**NYSDEC TOGS 1.1.1**	Result	Q	Result	Q	Result	Q		
1,1,1-Trichloroethane	71-55-6	µg/L	5	1	U	1	U	1	U		
1,1,2,2-Tetrachloroethane	79-34-5	µg/L	5	1	U	1	U	1	U		
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	µg/L	5	1	U	1	U	1	U		
1,1,2-Trichloroethane	79-00-5	µg/L	1	1	U	1	U	1	U		
1,1-Dichloroethane	75-34-3	µg/L	5	1	U	1	U	1	U		
1,1-Dichloroethene	75-35-4	µg/L	5	1	U	1	U	1	U		
1,2,4-Trichlorobenzene	120-82-1	µg/L	5	1	U	1	U	1	U		
1,2-Dibromo-3-Chloropropane	96-12-8	µg/L	0.04	1	U	1	U	1	U		
1,2-Dibromoethane (Ethylene Dibromide)	106-93-4	µg/L	0.0006	1	U	1	U	1	U		
1,2-Dichlorobenzene	95-50-1	µg/L	3	1	U	1	U	1	U		
1,2-Dichloroethane	107-06-2	µg/L	0.6	1	U	1	U	1	U		
1,2-Dichloropropane	78-87-5	µg/L	1	1	U	1	U	1	U		
1,3-Dichlorobenzene	541-73-1	µg/L	3	1	U	1	U	1	U		
1,4-Dichlorobenzene	106-46-7	µg/L	3	**1.6**		1	U	1	U		
1,4-Dioxane (P-Dioxane)	123-91-1	µg/L	NC	0.4	UJ	0.4	UJ	0.4	UJ		
2,4,5-Trichlorophenol	95-95-4	µg/L	NC	10	U	10	U	10	U		
2,4,6-Trichlorophenol	88-06-2	µg/L	NC	10	U	10	U	10	U		
2,4-D (Dichlorophenoxyacetic Acid)	94-75-7	µg/L	5	1.2	U	1.2	U	1.2	U		
2,4-Dichlorophenol	120-83-2	µg/L	5	10	U	10	U	10	U		
2,4-Dimethylphenol	105-67-9	µg/L	5	10	U	10	U	10	U		
2,4-Dinitrophenol	51-28-5	µg/L	1	20	U	20	U	20	U		
2,4-Dinitrotoluene	121-14-2	µg/L	5	2	U	2	U	2	U		
2,6-Dinitrotoluene	606-20-2	µg/L	5	2	U	2	U	2	U		
2-Chloronaphthalene	91-58-7	µg/L	1	10	U	10	U	10	U		
2-Chlorophenol	95-57-8	µg/L	NC	10	U	10	U	10	U		
2-Hexanone	591-78-6	µg/L	50	5	U	5	U	5	U		
2-Methylnaphthalene	91-57-6	µg/L	NC	10	U	10	U	10	U		
2-Methylphenol (O-Cresol)	95-48-7	µg/L	NC	10	U	10	U	10	U		
2-Nitroaniline	88-74-4	µg/L	5	10	U	10	U	10	U		
2-Nitrophenol	88-75-5	µg/L	NC	10	U	10	U	10	U		
3,3'-Dichlorobenzidine	91-94-1	µg/L	5	10	U	10	U	10	U		
3-Nitroaniline	99-09-2	µg/L	5	10	U	10	U	10	U		
4,6-Dinitro-2-Methylphenol	534-52-1	µg/L	NC	20	U	20	U	20	U		
4-Bromophenyl Phenyl Ether	101-55-3	µg/L	NC	10	U	10	U	10	U		
4-Chloro-3-Methylphenol	59-50-7	µg/L	NC	10	U	10	U	10	U		
4-Chloroaniline	106-47-8	µg/L	5	10	U	10	U	10	U		
4-Chlorophenyl Phenyl Ether	7005-72-3	µg/L	NC	10	U	10	U	10	U		
4-Methylphenol (P-Cresol)	106-44-5	µg/L	NC	10	U	10	U	10	U		
4-Nitroaniline	100-01-6	µg/L	5	10	U	10	U	10	U		
4-Nitrophenol	100-02-7	µg/L	NC	20	U	20	U	20	U		
Acenaphthene	83-32-9	µg/L	2	10	U	10	U	10	U		
Acenaphthylene	208-96-8	µg/L	NC	10	U	10	U	10	U		
Acetic acid, (2,4,5-trichlorophenoxy)-	93-76-5	µg/L	35	1.2	U	1.2	U	1.2	U		
Acetone	67-64-1	µg/L	50	5	U	**6**		5	U		
Acetophenone	98-86-2	µg/L	NC	10	U	10	U	10	U		
Aldrin	309-00-2	µg/L	NC	0.02	U	0.02	U	0.02	U		

Table 3-4a
Groundwater Analytical Result - VOCs, SVOCs, Pesticides, Herbicides, PCBs, Metals, Mercury, Cyanide, and 1,4-Dioxane
Quiogue Landfill, NYSDEC Site No. 152061
Quiogue, Southampton, New York

			Location ID	MW-A35		MW-A46		MW-DEC-16	
			Sample ID	MW-A35-031620		MW-A46-031620		MW-DEC-16-031720	
			Sample Interval (feet bgs)	36.8		47.4		46	
			Sample Date	3/16/2020		3/16/2020		3/17/2020	
			Sample Type	N		N		N	
			Parent Sample Code						
Chemical Name	**CAS No.**	**Unit**	**NYSDEC TOGS 1.1.1**	Result	Q	Result	Q	Result	Q
Alpha Bhc (Alpha Hexachlorocyclohexane)	319-84-6	µg/L	0.01	0.02	U	0.02	U	0.02	U
Alpha Endosulfan	959-98-8	µg/L	NC	0.02	U	0.02	U	0.02	U
Aluminum	7429-90-5	µg/L	NC	**388**		**1240**		**116**	**J**
Anthracene	120-12-7	µg/L	5	10	U	10	U	10	U
Antimony	7440-36-0	µg/L	3	20	U	20	U	20	U
Arsenic	7440-38-2	µg/L	25	15	U	**3.4**	**J**	15	U
Atrazine	1912-24-9	µg/L	7.5	2	UJ	2	UJ	2	UJ
Barium	7440-39-3	µg/L	1000	88.9	J	23.8	J	29.1	J
Benzaldehyde	100-52-7	µg/L	NC	10	UT	10	UT	10	UT
Benzene	71-43-2	µg/L	1	**1.4**		1	U	1	U
Benzo(A)Anthracene	56-55-3	µg/L	0.002	1	U	1	U	1	U
Benzo(A)Pyrene	50-32-8	µg/L	NC	1	U	1	U	1	U
Benzo(B)Fluoranthene	205-99-2	µg/L	0.002	2	U	2	U	2	U
Benzo(G,H,I)Perylene	191-24-2	µg/L	NC	10	U	10	U	10	U
Benzo(K)Fluoranthene	207-08-9	µg/L	0.002	1	U	1	U	1	U
Benzyl Butyl Phthalate	85-68-7	µg/L	5	10	U	10	U	10	U
Beryllium	7440-41-7	µg/L	3	**0.43**	**J**	**0.67**	**J**	2	U
Beta Bhc (Beta Hexachlorocyclohexane)	319-85-7	µg/L	0.04	0.02	U	0.02	U	0.02	U
Beta Endosulfan	33213-65-9	µg/L	NC	0.02	U	0.02	U	0.02	U
Biphenyl (Diphenyl)	92-52-4	µg/L	5	10	U	10	U	10	U
Bis(2-Chloroethoxy) Methane	111-91-1	µg/L	5	10	U	10	U	10	U
Bis(2-Chloroethyl) Ether (2-Chloroethyl Ether)	111-44-4	µg/L	1	1	U	1	U	1	U
Bis(2-Chloroisopropyl) Ether	108-60-1	µg/L	5	10	U	10	U	10	U
Bis(2-Ethylhexyl) Phthalate	117-81-7	µg/L	5	2	U	2	U	2	U
Bromodichloromethane	75-27-4	µg/L	50	1	U	1	U	1	U
Bromoform	75-25-2	µg/L	50	1	U	1	U	1	U
Bromomethane	74-83-9	µg/L	5	1	U	1	U	1	U
Cadmium	7440-43-9	µg/L	5	4	U	**0.36**	**J**	4	U
Calcium	7440-70-2	µg/L	NC	**42200**		**111000**		**73900**	
Caprolactam	105-60-2	µg/L	NC	10	UT	10	UT	10	UT
Carbazole	86-74-8	µg/L	NC	10	U	10	U	10	U
Carbon Disulfide	75-15-0	µg/L	60	1	U	1	U	1	U
Carbon Tetrachloride	56-23-5	µg/L	5	1	U	1	U	1	U
Chlordane (Technical)	12789-03-6	µg/L	NC	0.5	U	0.5	U	0.5	U
Chlorobenzene	108-90-7	µg/L	5	**14**		1	U	1	U
Chloroethane	75-00-3	µg/L	5	1	U	1	U	1	U
Chloroform	67-66-3	µg/L	7	1	U	1	U	1	U
Chloromethane	74-87-3	µg/L	5	1	U	1	U	1	U
Chromium, Total	7440-47-3	µg/L	50	10	U	10	U	20.2	
Chrysene	218-01-9	µg/L	0.002	2	U	2	U	2	U
Cis-1,2-Dichloroethylene	156-59-2	µg/L	5	**0.68**	**J**	1	U	1	U
Cis-1,3-Dichloropropene	10061-01-5	µg/L	0.4	1	U	1	U	1	U
Cobalt	7440-48-4	µg/L	NC	**12.9**	**J**	**16.7**	**J**	50	U
Copper	7440-50-8	µg/L	200	**607**		25	U	25	U
Cyanide	57-12-5	µg/L	0.002	0.01	U	0.01	U	0.01	U
Cyclohexane	110-82-7	µg/L	NC	**2.4**		1	U	**12**	

Table 3-4a
Groundwater Analytical Result - VOCs, SVOCs, Pesticides, Herbicides, PCBs, Metals, Mercury, Cyanide, and 1,4-Dioxane
Quiogue Landfill, NYSDEC Site No. 152061
Quiogue, Southampton, New York

			Location ID	MW-A35		MW-A46		MW-DEC-16	
			Sample ID	MW-A35-031620		MW-A46-031620		MW-DEC-16-031720	
			Sample Interval (feet bgs)	36.8		47.4		46	
			Sample Date	3/16/2020		3/16/2020		3/17/2020	
			Sample Type	N		N		N	
			Parent Sample Code						
Chemical Name	**CAS No.**	**Unit**	**NYSDEC TOGS 1.1.1**	Result	Q	Result	Q	Result	Q
Delta BHC (Delta Hexachlorocyclohexane)	319-86-8	µg/L	0.04	0.02	U	0.02	U	0.02	U
Dibenz(A,H)Anthracene	53-70-3	µg/L	NC	1	U	1	U	1	U
Dibenzofuran	132-64-9	µg/L	NC	10	U	10	U	10	U
Dibromochloromethane	124-48-1	µg/L	50	1	U	1	U	1	U
Dichlorodifluoromethane	75-71-8	µg/L	5	1	U	1	U	1	U
Dieldrin	60-57-1	µg/L	0.004	0.02	U	0.02	U	0.02	U
Diethyl Phthalate	84-66-2	µg/L	5	10	U	10	U	10	U
Dimethyl Phthalate	131-11-3	µg/L	5	10	U	10	U	10	U
Di-N-Butyl Phthalate	84-74-2	µg/L	5	10	U	10	U	10	U
Di-N-Octylphthalate	117-84-0	µg/L	5	10	U	10	U	10	U
Endosulfan Sulfate	1031-07-8	µg/L	NC	0.02	U	0.02	U	0.02	U
Endrin	72-20-8	µg/L	NC	0.02	U	0.02	U	0.02	U
Endrin Aldehyde	7421-93-4	µg/L	5	0.02	U	0.02	U	0.02	U
Endrin Ketone	53494-70-5	µg/L	5	0.02	U	0.02	U	0.02	U
Ethylbenzene	100-41-4	µg/L	5	1	U	**36**		**19**	
Fluoranthene	206-44-0	µg/L	5	10	U	10	U	10	U
Fluorene	86-73-7	µg/L	5	10	U	10	U	10	U
Gamma Bhc (Lindane)	58-89-9	µg/L	0.05	0.02	U	0.02	U	0.02	U
Heptachlor	76-44-8	µg/L	0.04	0.02	U	0.02	U	0.02	U
Heptachlor Epoxide	1024-57-3	µg/L	0.03	0.02	U	0.02	U	0.02	U
Hexachlorobenzene	118-74-1	µg/L	0.04	1	U	1	U	1	U
Hexachlorobutadiene	87-68-3	µg/L	0.5	1	U	1	U	1	U
Hexachlorocyclopentadiene	77-47-4	µg/L	5	10	U	10	U	10	U
Hexachloroethane	67-72-1	µg/L	5	2	U	2	U	2	U
Indeno(1,2,3-C,D)Pyrene	193-39-5	µg/L	0.002	2	U	2	U	2	U
Iron	7439-89-6	µg/L	300	**30400**		**5380**		**3150**	
Isophorone	78-59-1	µg/L	5	10	U	10	U	10	U
Isopropylbenzene (Cumene)	98-82-8	µg/L	5	**1.8**		**31**		**65**	
Lead	7439-92-1	µg/L	25	**34.8**		10	U	10	U
Magnesium	7439-95-4	µg/L	35000	4580	J	6670		6100	
Manganese	7439-96-5	µg/L	300	**345**		258		38.9	
Mercury	7439-97-6	µg/L	0.7	0.2	U	0.2	U	0.2	U
Methoxychlor	72-43-5	µg/L	35	0.02	U	0.02	U	0.02	U
Methyl Acetate	79-20-9	µg/L	NC	5	UT	5	UT	5	U
Methyl Ethyl Ketone (2-Butanone)	78-93-3	µg/L	50	5	U	5	U	5	U
Methyl Isobutyl Ketone (4-Methyl-2-Pentanone)	108-10-1	µg/L	NC	5	U	5	U	5	U
Methylcyclohexane	108-87-2	µg/L	NC	**0.92**	**J**	**5.3**		**1.3**	
Methylene Chloride	75-09-2	µg/L	5	1	U	1	U	1	U
Naphthalene	91-20-3	µg/L	1	2	U	2	U	2	U
Nickel	7440-02-0	µg/L	100	40	U	8.7	J	14.4	J
Nitrobenzene	98-95-3	µg/L	0.4	1	U	1	U	1	U
N-Nitrosodiphenylamine	86-30-6	µg/L	5	10	U	10	U	10	U
P,P'-DDD	72-54-8	µg/L	0.3	0.02	U	0.02	U	0.02	U
P,P'-DDE	72-55-9	µg/L	0.2	0.02	U	0.02	U	0.02	U
P,P'-DDT	50-29-3	µg/L	0.2	0.02	U	0.02	U	0.02	U
PCB-1016 (Aroclor 1016)	12674-11-2	µg/L	0.09	0.4	U	0.4	U	0.4	U

Table 3-4a
Groundwater Analytical Result - VOCs, SVOCs, Pesticides, Herbicides, PCBs, Metals, Mercury, Cyanide, and 1,4-Dioxane
Quiogue Landfill, NYSDEC Site No. 152061
Quiogue, Southampton, New York

			Location ID	MW-A35		MW-A46		MW-DEC-16	
			Sample ID	MW-A35-031620		MW-A46-031620		MW-DEC-16-031720	
			Sample Interval (feet bgs)	36.8		47.4		46	
			Sample Date	3/16/2020		3/16/2020		3/17/2020	
			Sample Type	N		N		N	
			Parent Sample Code						
Chemical Name	**CAS No.**	**Unit**	**NYSDEC TOGS 1.1.1**	Result	Q	Result	Q	Result	Q
PCB-1221 (Aroclor 1221)	11104-28-2	µg/L	0.09	0.4	U	0.4	U	0.4	U
PCB-1232 (Aroclor 1232)	11141-16-5	µg/L	0.09	0.4	U	0.4	U	0.4	U
PCB-1242 (Aroclor 1242)	53469-21-9	µg/L	0.09	0.4	U	0.4	U	0.4	U
PCB-1248 (Aroclor 1248)	12672-29-6	µg/L	0.09	0.4	U	0.4	U	0.4	U
PCB-1254 (Aroclor 1254)	11097-69-1	µg/L	0.09	0.4	U	0.4	U	0.4	U
PCB-1260 (Aroclor 1260)	11096-82-5	µg/L	0.09	0.4	U	0.4	U	0.4	U
Pentachlorophenol	87-86-5	µg/L	1	20	U	20	U	20	U
Phenanthrene	85-01-8	µg/L	5	10	U	10	U	10	U
Phenol	108-95-2	µg/L	1	10	U	10	U	10	U
Potassium	7440-09-7	µg/L	NC	**3230**	**J**	**4310**	**J**	**7330**	**B**
Pyrene	129-00-0	µg/L	5	10	U	10	U	10	U
Selenium	7782-49-2	µg/L	10	20	U	20	U	20	U
Silver	7440-22-4	µg/L	50	10	U	10	U	10	U
Silvex (2,4,5-TP)	93-72-1	µg/L	0.26	1.2	U	1.2	U	1.2	U
Sodium	7440-23-5	µg/L	20000	15600		**36500**		**24700**	
Styrene	100-42-5	µg/L	5	1	U	1	U	1	U
Tert-Butyl Methyl Ether	1634-04-4	µg/L	10	1	U	1	U	1	U
Tetrachloroethylene (PCE)	127-18-4	µg/L	5	1	U	1	U	1	U
Thallium	7440-28-0	µg/L	0.5	20	U	20	U	20	U
Toluene	108-88-3	µg/L	5	1	U	1	U	1	U
Toxaphene	8001-35-2	µg/L	0.06	0.5	U	0.5	U	0.5	U
Trans-1,2-Dichloroethene	156-60-5	µg/L	5	1	U	1	U	1	U
Trans-1,3-Dichloropropene	10061-02-6	µg/L	0.4	1	U	1	U	1	U
Trichloroethylene (TCE)	79-01-6	µg/L	5	1	U	1	U	1	U
Trichlorofluoromethane	75-69-4	µg/L	5	1	U	1	U	1	U
Vanadium	7440-62-2	µg/L	NC	50	U	50	U	50	U
Vinyl Chloride	75-01-4	µg/L	2	1	U	1	U	1	U
Xylenes	1330-20-7	µg/L	5	2	U	**22**		**28**	
Zinc	7440-66-6	µg/L	2000	123		136		13	J

Notes:

1 - NYSDEC. June 1998. TOGS 1.1.1. Ambient Water Quality Standards and Guidance Values and Groundwater Effluent values. (http://www.dec.ny.gov/docs/water_pdf/togs111.pdf), downloaded November 8, 2017.

> NYSDEC TOGS 1.1.1

Bold Detection

Acronyms:

CAS - chemical abstract service
FD - field duplicate
ID - identification
J - estimated
N - normal sample
NC - no criteria listed
NYSDEC - New York State Department of Environmental
R - result rejected
U - nondetect
µg/L - micrograms per liter

Table 3-4b
Groundwater Analytical Results - PFAS
Quiogue Landfill, NYSDEC Site No. 152061
Quiogue, Southampton, New York

			Location ID	MW-01		MW-02		MW-02		MW-03		MW-03	
			Sample ID	MW-01-031620		MW-02-031720		MW-102-031720		MW-03-40-031720		MW-03-60-031820	
			Sample Interval (feet bgs)	43.7		45		45		40		60	
			Sample Date	3/16/2020		3/17/2020		3/17/2020		3/17/2020		3/18/2020	
			Sample Type	N		N		FD		N		N	
			Parent Sample Code					MW-02-031720					
Chemical Name	**CAS No.**	**Unit**	**NYSDEC PFAS Criteria[1]**	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q
2-(N-methyl perfluorooctanesulfonamido) acetic acid	2355-31-9	ng/L	100	17.6	U	18.9	U	18.3	U	18.6	U	18.2	U
N-Ethyl-N-((heptadecafluorooctyl)sulphonyl) glycine	2991-50-6	ng/L	100	**15.5**	**J**	18.9	U	18.3	U	18.6	U	18.2	U
Perfluorobutanesulfonic acid	375-73-5	ng/L	100	**4.56**		**0.93**	**J**	**0.9**	**J**	**1.57**	**EMPC**	**0.63**	**J**
Perfluorodecanoic acid (PFDA)	335-76-2	ng/L	100	**0.61**	**J**	1.89	U	1.83	U	1.86	U	1.82	U
Perfluorododecanoic acid (PFDoA)	307-55-1	ng/L	100	1.76	U	1.89	U	1.83	U	1.86	U	1.82	U
Perfluoroheptanoic Acid (PFHpA)	375-85-9	ng/L	100	**19.6**		**3.16**		**2.87**		**1.4**	**J**	**0.42**	**J**
Perfluorohexanesulfonic acid	355-46-4	ng/L	100	**68.1**	**B**	**33.2**	**B**	**33.2**	**B**	**45.3**	**B**	**6.07**	**B**
Perfluorohexanoic acid (PFHxA)	307-24-4	ng/L	100	**43.7**		**6.82**		**7.02**		**4.32**		**1.18**	**J**
Perfluorononanoic acid	375-95-1	ng/L	100	**2.36**		**1.07**	**J**	**1.03**	**J**	1.86	U	1.82	U
Perfluorooctane sulfonic acid (PFOS)	1763-23-1	ng/L	10	**85.1**		**454**		**455**		**7.62**		**2.08**	
Perfluorooctanoic acid (PFOA)	335-67-1	ng/L	10	**35.6**		**7.8**		**7.95**		**1.48**	**J**	1.82	U
Perfluorotetradecanoic acid (PFTeA)	376-06-7	ng/L	100	1.76	U	1.89	U	1.83	U	1.86	U	**0.34**	**J**
Perfluorotridecanoic acid (PFTriA)	72629-94-8	ng/L	100	1.76	U	1.89	U	1.83	U	1.86	U	1.82	U
Perfluoroundecanoic acid (PFUnA)	2058-94-8	ng/L	100	1.76	U	1.89	U	1.83	U	1.86	U	1.82	U
TOTAL PFAS	N/A	ng/L	500	**275**		**507**		**508**		**61.7**		**10.7**	

Notes:
1 - NYSDEC. January 2020. Guidelines for Sampling and Analysis of PFAS, NYSDEC Under NYDEC's Part 375 Remedial Programs
Individual PFAS exceeding screening level requires further evaluation
Total PFAS exceeding 500 ng/L requires further evaluation

	> NYSDEC PFAS Criteria
Bold	Detection

Acronyms

B - analyte detected in the blank	N - normal sample
CAS - chemical abstract service	NC - no criteria listed
EMPC - estimated maximum possible concentration	ng/L - nanograms per liter
FD - field duplicate	NYSDEC - New York State Department of Environmental Conservation
ID - identification	R - result rejected
J - estimated	U - nondetct
PFAS - per- and polyfluoroalkyl substances	

Table 3-4b
Groundwater Analytical Results - PFAS
Quiogue Landfill, NYSDEC Site No. 152061
Quiogue, Southampton, New York

			Location ID	MW-03		MW-04		MW-04		MW-04		MW-05	
			Sample ID	MW-03-80-031820		MW-04-35-031820		MW-04-60-031820		MW-04-80-031820		MW-05-35-031620	
			Sample Interval (feet bgs)	80		35		60		80		40	
			Sample Date	3/18/2020		3/18/2020		3/18/2020		3/18/2020		3/16/2020	
			Sample Type	N		N		N		N		N	
			Parent Sample Code										
Chemical Name	**CAS No.**	**Unit**	**NYSDEC PFAS Criteria[1]**	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q
2-(N-methyl perfluorooctanesulfonamido) acetic acid	2355-31-9	ng/L	100	17.2	U	17.9	U	17.5	U	17.9	U	**3.19**	**J**
N-Ethyl-N-((heptadecafluorooctyl)sulphonyl) glycine	2991-50-6	ng/L	100	17.2	U	17.9	U	17.5	U	179	U	**39**	
Perfluorobutanesulfonic acid	375-73-5	ng/L	100	**1.96**		1.79	U	**0.46**	**J**	**0.39**	**J**	**2.54**	
Perfluorodecanoic acid (PFDA)	335-76-2	ng/L	100	1.72	U	1.79	U	1.75	U	1.79	U	1.84	U
Perfluorododecanoic acid (PFDoA)	307-55-1	ng/L	100	1.72	U	1.79	U	1.75	U	17.9	U	1.84	U
Perfluoroheptanoic Acid (PFHpA)	375-85-9	ng/L	100	**0.98**	**J**	**0.7**	**J**	**0.38**	**J**	**1.59**	**J**	**16.2**	
Perfluorohexanesulfonic acid	355-46-4	ng/L	100	**74**	**B**	1.79	U	**3.08**	**B**	**3.29**	**B**	**24.1**	**B**
Perfluorohexanoic acid (PFHxA)	307-24-4	ng/L	100	**7.3**		**1.31**	**J**	**1.03**	**J**	**4.02**		**22.7**	
Perfluorononanoic acid	375-95-1	ng/L	100	1.72	U	1.79	U	1.75	U	1.79	U	**2.73**	
Perfluorooctane sulfonic acid (PFOS)	1763-23-1	ng/L	10	**248**		**3.07**		**1.07**	**J**	**3.62**		**85.6**	**EMPC**
Perfluorooctanoic acid (PFOA)	335-67-1	ng/L	10	**3.32**		1.79	U	1.75	U	**2.77**		**97.8**	
Perfluorotetradecanoic acid (PFTeA)	376-06-7	ng/L	100	**0.33**	**J**	1.79	U	**0.25**	**J**	1.79	U	1.84	U
Perfluorotridecanoic acid (PFTriA)	72629-94-8	ng/L	100	1.72	U	1.79	U	1.75	U	17.9	U	1.84	U
Perfluoroundecanoic acid (PFUnA)	2058-94-8	ng/L	100	1.72	U	1.79	U	1.75	U	17.9	U	1.84	U
TOTAL PFAS	N/A	ng/L	500	**336**		**5.1**		**6.3**		**15.7**		**294**	

Notes:
1 - NYSDEC. January 2020. Guidelines for Sampling and Analysis of PFAS, NYSDEC Under NYDEC's Part 375 Remedial Programs
Individual PFAS exceeding screening level requires further evaluation
Total PFAS exceeding 500 ng/L requires further evaluation

	> NYSDEC PFAS Criteria
Bold	Detection

Acronyms

B - analyte detected in the blank	N - normal sample
CAS - chemical abstract service	NC - no criteria listed
EMPC - estimated maximum possible concentration	ng/L - nanograms per liter
FD - field duplicate	NYSDEC - New York State Department of Environmental
ID - identification	R - result rejected
J - estimated	U - nondetct
PFAS - per- and polyfluoroalkyl substances	

Table 3-4b
Groundwater Analytical Results - PFAS
Quiogue Landfill, NYSDEC Site No. 152061
Quiogue, Southampton, New York

			Location ID	MW-05		MW-05		MW-A35		MW-A46		MW-DEC-16	
			Sample ID	MW-05-60-031720		MW-05-80-031720		MW-A35-031620		MW-A46-031620		MW-DEC-16-031720	
			Sample Interval (feet bgs)	60		80		36.8		47.4		46	
			Sample Date	3/17/2020		3/17/2020		3/16/2020		3/16/2020		3/17/2020	
			Sample Type	N		N		N		N		N	
			Parent Sample Code										
Chemical Name	**CAS No.**	**Unit**	**NYSDEC PFAS Criteria[1]**	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q
2-(N-methyl perfluorooctanesulfonamido) acetic acid	2355-31-9	ng/L	100	18.7	U	19.1	U	18.4	U	18.1	U	17.4	U
N-Ethyl-N-((heptadecafluorooctyl)sulphonyl) glycine	2991-50-6	ng/L	100	18.7	U	**7.13**	**J**	18.4	U	18.1	U	17.4	U
Perfluorobutanesulfonic acid	375-73-5	ng/L	100	**1.13**	**J**	**2.21**		**4.6**		**3.17**		**3.59**	
Perfluorodecanoic acid (PFDA)	335-76-2	ng/L	100	1.87	U	1.91	U	1.84	U	1.81	U	1.74	U
Perfluorododecanoic acid (PFDoA)	307-55-1	ng/L	100	1.87	U	1.91	U	1.84	U	1.81	U	1.74	U
Perfluoroheptanoic Acid (PFHpA)	375-85-9	ng/L	100	**1.25**	**J**	**1.58**	**J**	**11.4**		**7.06**		**36.7**	
Perfluorohexanesulfonic acid	355-46-4	ng/L	100	**10.3**	**B**	**12.8**	**B**	**70.5**	**B**	**49.5**	**B**	**137**	**B**
Perfluorohexanoic acid (PFHxA)	307-24-4	ng/L	100	**2.91**		**7.08**		**22.6**		**7.42**		**47.4**	
Perfluorononanoic acid	375-95-1	ng/L	100	1.87	U	1.91	U	**1.73**	**J**	**1.19**	**J**	**3.59**	
Perfluorooctane sulfonic acid (PFOS)	1763-23-1	ng/L	10	**9.14**		**2.49**		**89.8**		**68.8**		**55.3**	
Perfluorooctanoic acid (PFOA)	335-67-1	ng/L	10	**1.98**		**4.64**		**41.9**		**22.6**		**45.9**	
Perfluorotetradecanoic acid (PFTeA)	376-06-7	ng/L	100	1.87	U	1.91	U	1.84	U	1.81	U	1.74	U
Perfluorotridecanoic acid (PFTriA)	72629-94-8	ng/L	100	1.87	U	1.91	U	1.84	U	1.81	U	1.74	U
Perfluoroundecanoic acid (PFUnA)	2058-94-8	ng/L	100	1.87	U	1.91	U	1.84	U	1.81	U	1.74	U
TOTAL PFAS	N/A	ng/L	500	**26.7**		**37.9**		**243**		**160**		**329**	

Notes:
1 - NYSDEC. January 2020. Guidelines for Sampling and Analysis of PFAS, NYSDEC Under NYDEC's Part 375 Remedial Programs
Individual PFAS exceeding screening level requires further evaluation
Total PFAS exceeding 500 ng/L requires further evaluation

	> NYSDEC PFAS Criteria
Bold	Detection

Acronyms

B - analyte detected in the blank	N - normal sample
CAS - chemical abstract service	NC - no criteria listed
EMPC - estimated maximum possible concentration	ng/L - nanograms per liter
FD - field duplicate	NYSDEC - New York State Department of Environmental
ID - identification	R - result rejected
J - estimated	U - nondetct
PFAS - per- and polyfluoroalkyl substances	

Appendix A

Geophysical Survey Report

DELTA Geophysics Inc.

GEOPHYSICAL INVESTIGATION REPORT

SITE LOCATION:

Quiogue Landfill
Westhampton, NY

PREPARED FOR:

CDM Smith
14 Wall Street, Suite 1702
New York, NY

PREPARED BY:

Benjamin Rimler
Delta Geophysics Inc.
738 Front Street
Catasauqua, PA 18032

March 12, 2020

Delta Geophysics, Inc. (Delta) is pleased to provide the results of the geophysical survey conducted at Quiogue Landfill, Westhampton, New York.

1.0 INTRODUCTION

On February 10, 2020 Delta Geophysics personnel performed a limited geophysical investigation at Quiogue Landfill, Westhampton, New York. The area of interest was client specified test boring locations. Surface conditions consisted of sand, and grass. Subsurface conditions were unknown at time of survey.

2.0 SCOPE OF WORK

The survey was conducted to investigate the subsurface for anomalies consistent with USTs and/or excavation, and any other unknown anomalous features. A secondary objective was to locate and mark all underground utilities in close proximity to client proposed borings.

3.0 METHODOLOGY

Selection of survey equipment is dependent site conditions and project objectives. For this project the technician utilized the following equipment to survey the area of concern:

- Geophysical Survey Systems Inc. SIR-3000 cart-mounted Ground Penetrating Radar (GPR) unit with a 400 Mhz antenna.
- Radiodetection RD7000 precision utility locator.
- Fisher M-Scope TW-6 pipe and cable locator.

Ground penetrating radar (commonly called GPR) is a geophysical method that has been developed over the past thirty years for shallow, high-resolution, subsurface investigations of the earth. GPR uses high frequency pulsed electromagnetic waves (generally 10 MHz to 1,000 MHz) to acquire subsurface information. Energy is propagated downward into the ground and is reflected back to the surface from boundaries at which there are electrical property contrasts. GPR is a method that is commonly used for environmental, engineering, archeological, and other shallow investigations.

The GSSI SIR-3000 GPR can accept a wide variety of antennas which provide various depths of penetration and levels of resolution. The 400 MHz antenna can achieve depths of penetration up to about 20 feet, but this depth may be greatly reduced due to site-specific conditions. Signal penetration decreases with increased soil conductivity. Conductive materials attenuate or absorb the GPR signal. As depth increases the return signal becomes weaker. Penetration is the greatest in unsaturated sands and fine gravels. Clayey, highly saline or saturated soils, areas covered by steel reinforced concrete, foundry slag, of other highly conductive materials significantly reduces GPR depth of penetration.

The GPR was configured to transmit to a depth of approximately 10 feet below the subsurface, but actual signal penetration was limited to approximately 4-7 feet below ground surface (bgs). The limiting factor was signal attenuation from near surface soils.

The RD7000 precision utility locator uses radio emission to trace the location of metal bearing utilities. This radio emission can be active or passive. Active tracing requires the attachment of a

radio transmitter to the utility, passive tracing uses radio emissions that are present on the utility. Underground electrical utilities typically emit radio signals that this device can detect.

The TW-6 is designed to find pipes, cables and other metallic objects such as underground storage tanks. One surveyor can carry both the transmitter and receiver together, making it ideally suited for exploration type searches of ferrous metal masses. Metal detectors of this type operate by generating a magnetic field at the transmitter which causes metallic objects in the subsurface to generate a secondary magnetic field. The induced secondary field is detected by the receiver, which generates an audible tone equal to the strength of the secondary field.

4.0 SURVEY FINDINGS

All accessible areas of the property were examined during this investigation. Each location was examined with the RD7000 for potential subsurface utilities then surveyed with GPR and TW-6 for other potential anomalies.

Delta personnel surveyed an area approximately 20 feet by 20 feet around each boring location. No subsurface anomalous features consistent with USTs, excavations, or other anomalous features were detected. Near surface metal was detected throughout the site, borings were adjusted to avoid near surface metal.

Utility Survey

Delta performed a limited utility survey across the client specified area. No utilities were identified within close proximity to client proposed borings: Detectable utilities were marked onsite with appropriate colors. Anomalous features and unknown utilities were marked onsite in pink paint.

A site map (021020) is included with all located subsurface features.

5.0 SURVEY LIMITATIONS

GPR depth of penetration was limited to approximately 4-7 feet bgs. The limiting factor was due to conductive soils.

6.0 WARRANTIES AND DISCLAIMER

As with any geophysical method, it must be stressed that caution be used during any excavation or intrusive testing in proximity to any anomalies indicated in this report. In addition, the absence of detected signatures does not preclude the possibility that targets may exist. To the extent the client desires more definitive conclusions than are warranted by the currently available facts; it is specifically Delta's intent that the conclusions stated herein will be intended as guidance.

This report is based upon the application of scientific principles and professional judgment to certain facts with resultant subjective interpretations. Professional judgments expressed herein are based on the facts currently available within the limit or scope of work, budget and schedule. Delta represents that the services were performed in a manner consistent with currently accepted professional practices employed by geophysical/geological consultants under similar circumstances. No other representations to Client, express or implied, and no warranty or guarantee is included or intended in this agreement, or in any report, document, or otherwise.

This report was prepared pursuant to the contract Delta has with the Client. That contractual relationship included an exchange of information about the property that was unique and between

Delta and its client and serves as the basis upon which this report was prepared. Because of the importance of the understandings between Delta and its client, reliance or any use of this report by anyone other than the Client, for whom it was prepared, is prohibited and therefore not foreseeable to Delta.

Reliance or use by any such third party without explicit authorization in the report does not make said third party a third party beneficiary to Delta's contract with the Client. Any such unauthorized reliance on or use of this report, including any of its information or conclusions, will be at the third party's risk. For the same reasons, no warranties or representations, expressed or implied in this report, are made to any such third party.

LANDFILL

JUNKYARD

JENNIFERS PATH

DEBORAH DRIVE

LEGEND

RAIL TRACK

FENCE

BORING LOCATION

NOTES:

This site plan was produced from data positioned by differential GPS measurments collected in the field. Due to the errors normally present in DGPS data, this document is not intended or represented to be of survey precision. Caution should be used in all field measurments based on this site plan.

As with any geophysical method, it must be stressed that caution be used during any excavation or intrusive testing in proximity of any anomalies indicated in this document The absence of detected signatures does not preclude the possibility that targets exist. The geophysical data and results presented in this site plan are based upon the application of scientific principles and professional judgements to certain facts with resultant subjective interpretations. Professional judgements expressed herein are based on the facts currently available within the limits of the existing data, scope of work, budget, and schedule.

Reliance or use by any such third party without explicit authorization in the document does not make said third party a third party beneficiary to Delta's contract with the client. Any such unauthorized reliance on or use of this document, including any of its information or conclusions, will be at the third party's risk. For the same reasons, no warranties or representations, expressed or implied in this document, are made to any such third party.

0 25 50 100 150

GRAPHIC SCALE IN FEET

PROJECT NO.

SHEET NO. 1 OF 1

DRAWING NO. 021020

SCALE 1" = 50'

DATE 03-12-20

CHECKED BY

DRAWN BY BENJAMIN RIMLER

GEOPHYSICAL INVESTIGATION
QUIOGUE LANDFILL, WESTHAMPTON, NY

FOR

CDM SMITH

DELTA Geophysics Inc.
738 Front Street, Catasauqua, PA 18032
Phone: (610) 231-73012

DATE	DESCRIPTION	REV.
	REVISIONS	

Appendix B

Soil Boring Logs

BORING #: SB-01

LOG OF BORING

Project Quiogue Landfill | Location Quiogue, NY | Permit #:
Date Drilled 2/13/2020 | Drilling Co.: ADT | Job #:
Total Depth 35' | Method Used: Macro-core
Inspector L. Estrada | Organic Vapor Inst: MiniRae PID | Water elev: N/A

Depth (feet)	Sample No.	Sample Inter.	Adv/Rec (feet) (unless otherwise noted)	Org. Vap (ppm)	Sample Description	Strata Change	Remarks (time)
5	1		5.0 1.5	0.0 0.0	0-0.5' Roots/vegetation, loamy sand topsoil w/ some decaying leaves/debris, moist 0.5'-1.5': Fine (F) SAND w/ interbedded paper debris and loose glass, dry @ 1.5': Medium (M) to Coarse (C), pale brown SAND, moist		
10	2	5'-7'	5.0 2.5	2.5 0.5	5'-5.5': Loose brown Very Fine (VF)-F SAND w/ some silt, glass debris throughout, dry 5.5-7.5': Dense black, silty M SAND w/ woody debris throughout, moist		11:30
15	3		5.0 7"	0.0	10'-10.5': Dense M brown silty SAND, moist 10.5-10'7": Solid wood timber		
20	4		5.0 1"	0.0	SAA, solid chunks of timber		
25	5		5.0 3.0	1.5 2.7 1.8	20'-21': Gray-brown F-M-C SAND w/ trace F angular gravel w/ plastics interbedded (trash- M dense), dry 21'-22.5': Light gray M SAND, poorly graded (pg), loose plastic throughout 22.5'-23': White-light gray M-coarse SAND, moist		

CDM Smith

Depth (feet)	Sample No.	Sample Inter.	Adv/Rec (feet) (unless otherwise noted)	Org. Vap (ppm)	Sample Description	Strata Change	Remarks (time)
30	6	25'-26'	5.0 1.0	18.7	25'-26': Gray-white M-C SAND w/ trace fine rounded gravel, loose, moist/wet (ADT pushed macro twice) @ 25': Woody debris		14:45
35	7		5.0 8"	0.0	Burned/charred wood/timber No sample could be collected due to the type of material.		
40	SB-01 boring terminated @ 35' BGS. Hit significant woody debris.						
45							

BORING # SB-02

LOG OF BORING

Project Quiogue Landfill | Location Quiogue, NY | Permit #:
Date Drilled 2/14/2020 | Drilling Co.: ADT | Job #:
Total Depth 45' | Method Used: Macro-core
Inspector L. Estrada | Organic Vapor Inst: MiniRae PID | Water elev: 31.5'

Depth (feet)	Sample No.	Sample Inter.	Adv/Rec (feet) (unless otherwise noted)	Org. Vap (ppm)	Sample Description	Strata Change	Remarks (time)
5	1		5.0 2'10"	0.0 0.0	0-10" Loamy, sandy topsoil, Medium brown VF-F SAND, vegetation roots throughout, moist, loose. 10" - 2'10": Pale brown F-M SAND w/ trace F-M angular gravel plastics/debris throughout M dense, dry		
10	2		5.0 4		5'-8.5': SAA, no observed debris/trash; quartz gravel is more coarse and rounded, loose, dry 8.5'-9': Silty-F SAND strong brown-woody debris trhoughout, possibly charcoal, loose, dry.		
15	3	10-11.5	5.0 2.2		10'-10.4" SAA, plastics throughout, (caution tape); brick piece at the bottom of the liner Redo of 10-15: 10-10.5' - SAA 10.5'-11.5' - dark gray-black SAND 11.5-12.2' - dense pulp-timber, F-M SAND trace silt, almost like ash, moist		10:00
20	4		5.0 2.0	5.6	15'-15.5' - black-red 15.5'-17': timber/pulp and darkened woody debris, possibly treated wood from old railroad treated lumber, petroleum odor top of wood had PID reading of 1.6 PPM		
25	5		5.0 1.0	5.6	20'-21': brick, wood, glass w/ some F-M SAND, M brown loose, moist organic odor.		

CDM Smith

Depth (feet)	Sample No.	Sample Inter.	Adv/Rec (feet) (unless otherwise noted)	Org. Vap (ppm)	Sample Description	Strata Change	Remarks (time)
30	6		5.0 2.0	5.4 1.9	25'-26': SAA, dry organic ordor 26'-27' White VF-F clean SAND w/ trace medium, rounded gravel, loose, moist-dry		
35	7	30-32	5.0 3.0	6.8 2.1 0.0	30' - 30.5': Timber, woody debris w/ some medium-brown m SAND slight petroleum odor 30.5'-31.5' Grayish white, pale brown VF-MF clean SAND, medium dense moist 31.5'-33': M-C clean SAND, dark gray-pale brown medium dense, wet		11:30
40	8	35-36	5.0 1.0	0.0	35'-36': saturated F-M SAND, loose. Some woody debris trash pieces throughout trace F-C rounded gravel		11:45
45	SB-02 boring terminated @ 40' BGS.						

BORING #: SB-03

LOG OF BORING

Project Quiogue Landfill | Location Quiogue, NY | Permit #:
Date Drilled 2/12/2020 | Drilling Co.: ADT | Job #:
Total Depth 50' | Method Used: Macro-core
Inspector L. Estrada | Organic Vapor Inst: MiniRae PID | Water elev: ~27

Depth (feet)	Sample No.	Sample Inter.	Adv/Rec (feet) (unless otherwise noted)	Org. Vap (ppm)	Sample Description	Strata Change	Remarks (time)
				0.0	0-1': M brown, VF-F SAND w/ plastic and debris throughout, loose, moist		
			5.0				
	1		1.5	0.0	1'-1.5': light/pale brown orange vf-f SAND w/ plastic and debris throughout, moist, loose.		
5							
				0.5	5-5.8': Light brown VF-F SAND, medium, dense, dry pg, w/ some glass throughout.		
			5.0				
	2	5-6.5	1'10"	23	5.8-6.8' white VF-F SAND w/ lots of trash, plastic debris and glass, dry, loose		14:00
10							
			5.0	1.9	Poor recovery, trash, debris, green fake turf carpet/fabric (auger		
	3		2"		cuttings pulled up colorful rags)		
15							
			5.0		No recovery - rugs.		
	4		0.0				
20							
				99.8	20'-20.5': M-C SAND black-dark gray, SAT, M dense		
			5.0				
	5		2.0	0.0	20.5'-21.5': VF-M SAND tan, dry, dense; trace silt and some debris		
				0.5	21.5'-22': debris, trash, book pieces then clean, fine white SAND		
25							

Depth (feet)	Sample No.	Sample Inter.	Adv/Rec (feet) (unless otherwise noted)	Org. Vap (ppm)	Sample Description	Strata Change	Remarks (time)
				1.8	25'-25.25': trash, plastic debris, tire shreds		
				1.5	25.25'-25.75' M dense, moist, pg and SAND, pale brown white		
	6	26-27.5	5.0 2.5				15:10
30				1.4	25.75'-27.5': dark gray, medium brown F-M SAND w/ trace coarse gravel and silt, saturated @ 2.7'		
	7		5.0 2.5	0.0	30'-32.5': pale brown clean F-M pg SAND		
35							
	8	36-37	5.0 2.0	0.0	35'-37': SAA, some debris, trash (plastic) present		15:45
40							
	9		5.0 1'8"	0.0	40'-41.7': SAA		
45							
	10		5.0 2.0	0.0	40'-41.7': SAA		
50	SB-03 boring terminated @ 50' BGS.						

BORING #: SB-04

LOG OF BORING

Project: Quiogue Landfill | Location: Quiogue, NY | Permit #:
Date Drilled: 2/11/2020 | Drilling Co.: ADT | Job #:
Total Depth: 50' | Method Used: Macro-core
Inspector: L. Estrada | Organic Vapor Inst: MiniRae PID | Water elev: 30.5'

Depth (feet)	Sample No.	Sample Inter.	Adv/Rec (feet) (unless otherwise noted)	Org. Vap (ppm)	Sample Description	Strata Change	Remarks (time)
5	1		5.0 1.0	0.0	Top 2": top soil, loose 2"-1': F-M light brown SAND w/ trace rounded gravel, moist 2'-4': no recovery 4'-5': pulled out w/ shovel; M brown SAND w/ trace gravel, moist w/ lots of trash/debris, loose @ 5': piece of plywood		
10	2		5.0 1.5	0.0	5'-5.5': M-F loose light brown SAND w/ trace M gravel 5.5'-6.5': medium VF-F SAND strong brown w/ some silt and trace red medium gravel, dry 6.5'-10': No recovery		
15	3		5.0 1.0	0.0	10'-11': VF-F SAND, medium brown w/ trace silt and subrounded (SR)-subangular (SA) medium gravel, dense, moist		
20	4		5.0 2.0	0.0 0.0 0.0	15'-15.5': Silty VF SAND, strong brown, dry, loose 15.5'-16.5': moist, F-M SAND w/ trace gravel and some debris/garbage 16.5'-17'- wood/timber		
25	5	24-25	5.0 1.0	1.6 25.6 12.5	From auger cuttings @ 2.0' dark brown-black med-c SAND w/ lots of trash/debris Poor recovery trace med-brown f-m SAND w/ angular gravel, moist-wet, med-dense, petroleum odor (depth of sample is unclear (24-25') @ end of core lots of plastic		08:55

Depth (feet)	Sample No.	Sample Inter.	Adv/Rec (feet) (unless otherwise noted)	Org. Vap (ppm)	Sample Description	Strata Change	Remarks (time)
30	6		5.0 1'1"	14.5 9.8	25'-26': SAA, w/ trace silt plastic debris trash throughout - petroleum odor, decaying trash odor, moist-wet, dense		
35	7	30-31	5.0 1.0	0.0	30'-30.5': grayish brown M-C SAND, loose, saturated 30.5'-31': SAA, grayish white		09:55
40	8		5.0 1'9"	0.0	35'-35.5': white-grayish white VF-F SAND, loose, saturated 35.5-36.75': grayish white M-C SAND, loose, Saturated w/ few rounded gravel		
45	9	40-41	5.0 1.5	0.0	40'-41.5': grayish-white M-C SAND w/ some F-M round gravel, loose, saturated		10:20
50	10		5.0 1'7"	0.0	45'-46.6': SAA		
	SB-04 boring terminated @ 50' BGS.						

BORING #: SB-05

LOG OF BORING

Project Quiogue Landfill | Location Quiogue, NY | Permit #:
Date Drilled 2/17/2020 | Drilling Co.: ADT | Job #:
Total Depth 45' | Method Used: Macro-core
Inspector L. Estrada | Organic Vapor Inst: MiniRae PID | Water elev: ~30'

Depth (feet)	Sample No.	Sample Inter.	Adv/Rec (feet) (unless otherwise noted)	Org. Vap (ppm)	Sample Description	Strata Change	Remarks (time)
5	1		5.0 3'3"	0.0	0-3'3": VF-F SAND, light brown w/ trace F-C rounded gravel med dense, dry to moist		
10	2	5'-7'	5.0 2.0	0.8 4.3	5'-6.5': SAA, moist w/ some woody debris 6.5'-7': black silty fine SAND w/ woody debris, glass, trash, wet, loose		09:15
15	3		5.0 1.0	1.2	10'-11': Woody debris, plastics, glass and little white M-C SAND, loose, wet		
20	4	15-16	5.0 1.0	0.9 34.9	15'-15.25': textiles, black sediment stained some SAND dry and brown silt clumps 15.25'-16': M-C white SAND w/ glass and trash throughout strong chlorinated odor		10:00
25	5		5.0 2.0	6.7 13.7	20'-20.5': Woody debris and rags- black sediments, stained, no odor 20.5'-22': F-VF SAND, white, no silt, dense, moist/wet. Observed petroleum odor.		

CDM Smith

Depth (feet)	Sample No.	Sample Inter.	Adv/Rec (feet) (unless otherwise noted)	Org. Vap (ppm)	Sample Description	Strata Change	Remarks (time)
30	6		5.0 1.0	6.5	25'-26' SAA, petroleum odor, dry-moist @25': 2" silty M SAND, moist		
35	7	30'-32'	5.0 2.0	188.0	30'-32': Saturated, gray M-C SAND w/ some med-dense rounded gravel Very strong petroleum odor		10:15
40	8		5.0 1.0	109.5	35'-36': SAA, still strong petroleum odor, will continue boring past 40 feet bgs.		
45	9	40'-41.5'	5.0 1.5	11.5 6.5	40'-41.5': SAA rainbow sheen petroleum odor- less pungent		10:40
50	SB-05 boring terminated @ 45' BGS.						

LOG OF BORING

BORING #: MW-03
Page 1 of 1
Permit #:
Job #:

Project Quiogue Landfill
Location Quiogue, NY
Date Drilled 2/19/2020
Drilling Co.: ADT
Total Depth 5'
Method Used: Macro-core

Inspector L. Estrada
Organic Vapor Inst: MiniRae PID
Water elev: N/A

Depth (feet)	Sample No.	Sample Inter.	Adv/Rec (feet) (unless otherwise noted)	Org. Vap (ppm)	Sample Description	Strata Change	Remarks (time)
				0.3	0-8": loamy, F-M SAND with F silt topsoil moist, loose		
			5.0	0.0	8"-1': F-M clean sand, pale brown, moist, M dense		
	1		4.0				
				0.0	1'-3.5': ash-like fill black, angular gravel, coal-like, dry, dense		
					3.5'-4' VF-F SAND brown-light, moist, M dense		
5					@ 5' hit refusal - potentially steel. Will move 5' to the north.		
	MW-03 attempt 1 boring terminated @ 5' BGS. Hit refusal.						
10							

BORING #: MW-03

LOG OF BORING

Project: Quiogue Landfill | Location: Quiogue, NY | Permit #:
Date Drilled: 2/20/2020 | Drilling Co.: ADT | Job #:
Total Depth: 50' | Method Used: Macro-core
Inspector: L. Estrada | Organic Vapor Inst: MiniRae PID | Water elev: ~35'

Depth (feet)	Sample No.	Sample Inter.	Adv/Rec (feet) (unless otherwise noted)	Org. Vap (ppm)	Sample Description	Strata Change	Remarks (time)
5	1		5.0 4'4"	0.0 0.1 0.0 0.0	0-4" Loamy, sandy topsoil, brown. Loose, moist. 4"-10" - F-M SAND. Clean, moist, M dense. 10"-12" - silty sand, dark brown ash-like (similar to 1st attempt). Cool-like gravel within 1' - 4'4" - VF-F-M clean SAND. Pale brown. Moist. Dense. Trace coarse quartz. Sub angular gravel.		
10	2		5.0 3.5	0.0 0.0	5' - 5.5' M Brown. Silty-fine SAND (non-plastic) (1" of coal-ash like material @ ~5'3" 5.5 - 8.5' F-M clean SAND, white, moist because easier, M dense at 8.5'		
15	3	10-12	5.0 3.5	0.7 0.0	10 - 13.5' F-M SAND. Dry-moist M dense. With some medium-coarse. Angular sub-angular gravel (quartz) 10.5-13' - White pale brown 13' - 13.5' Pale orange		09:00
20	4		5.0 3.0	0.0	15-18' - White-pale brown-orange mottling. F-M SAND w/ trace coarse angular gravel.		
25	5		5.0 3'8"	0.0 0.0	20 - 20'8" Pale brown, F-M clean SAND 20'8" - 23'8" White-pale brown F-M SAND clean med-dense, moist @ 2' layer of VF-SAND @ 23' M-C SAND		

CDM Smith

Depth (feet)	Sample No.	Sample Inter.	Adv/Rec (feet) (unless otherwise noted)	Org. Vap (ppm)	Sample Description	Strata Change	Remarks (time)
30	6		5.0 2.5'	0.0	25 - 27.5' - F-M clean SAND. M, dense, moist, w/ some F-M SR-SA gravel quartz. Pale brown (but brown @ 25-25.5')		
35	7		5.0 2.0	0.0 0.7 @ 32.5'	30' - 32.5' F-M, clean SAND. Moist, M dense with some F-M, moist. SR-SA gravel, quartz. Pale brown - pale orange.		
40	8	35-37	5.0 2'	90.2 @ 35' 403.5 @ 36' 143.2 @ 37'	35'-37': Saturated SAA, brown, very strong petroleum odor, staining on water.		10:00
45	9		5.0 3.25	37.6 @ 40.5 1.8 @ 41.5' 0.8 @ 42.5	40' - 43.25' F (75%) - M (25%) SAND, saturated, M dense w/ some fine rounded and some M - SR - SA gravel. -minimal petroleum odor		
50	10	45-47	5.0 2.0	129.2 @ 45' 20.5 @ 46' 12.8 @47'	45 - 47' - SAA, saturated - More pronounced petroleum odor		10:40
	MW-03 attempt 2 boring terminated @ 50' BGS.						

BORING #: MW-05

LOG OF BORING

Project: Quiogue Landfill | Location: Quiogue, NY | Permit #:
Date Drilled: 2/24/2020 | Drilling Co.: ADT | Job #:
Total Depth: 45' | Method Used: Macro-core
Inspector: M.Yam | Organic Vapor Inst: MiniRae PID | Water elev: 27'8"

Depth (feet)	Sample No.	Sample Inter.	Adv/Rec (feet) (unless otherwise noted)	Org. Vap (ppm)	Sample Description	Strata Change	Remarks (time)
				0.0	0-1'3" Very dark brown, fine grained organic soil		
				0.0	1'3" - 1'5" Glass shards mixed w/ very dark brown m-f sand		
			5.0				
	1		2'8"	0.0	1'5" - 1'7" M-F sand, 1'7" - 1'9" Roots with glass debris		
				0.0	1'9"-2'8" M-F Sand		
5							
				0.0	5' - 5'8" M-F brown SAND		
				0.0	5'8" - 6'0" Tree root and dark brown M-F sand		
			5.0				
	2		2'3"	0.0	6'0" - 6'4" Tree root		
				0.0	6'4"-7'3" M-F sand		
10							
				0.0	10'-10'11" Loose very dark brown, M-F sand with subrounded stones		
			5.0				
	3		5.0				
				0.0	10'11" - 12'3" Compact M-F sand. Note-yellow area between 11'10" - 12'0".		
15							
			5.0	0.0	15' - 15'4" Brown M-F sand mixed w/ small rocks		
	4	16'5" - 18'5"	3'5"				9:30
				0.0	15'4" - 18'5" M-F compact sand		
20							
				0.0	20'0" - 20'5" Compact M-F sand		
			5.0	0.0	20'5" - 22'10" Mix of light and dark brown F-M sand.		
	5		2'10"				
				0.0			
25				0.0			

Depth (feet)	Sample No.	Sample Inter.	Adv/Rec (feet) (unless otherwise noted)	Org. Vap (ppm)	Sample Description	Strata Change	Remarks (time)
30	6		5.0 3'7"	0.0 0.0	25'0" - 27'8" F-M white sand Water table @ 27'8" 27'8" - 28'7" white F-M sand, moist		
35	7	30'-32'	5.0 2'5"	0.0 0.0 0.0	30' - 30'5" F-M Sand 30'5" - 30'9" Coarse sand with small pebbles (rounded) 30'9" - 32'5" White F-M sand w/ larger white rounded rocks		10:15
40	8		5.0 3'8"	0.0	35' - 38'8" M-F white sand small clear plastic debris throughout		
45	9	40'-42'	5.0 3'10"		40' - 41'8" F-M sand 41'8" - 43'10" white F-M sand w/ white stones and small pebbles		11:00
50	MW-04 boring terminated @ 45' BGS.						

BORING #: MW-05

LOG OF BORING

Project Quiogue Landfill | Location Quiogue, NY | Permit #:
Date Drilled 2/17/2020 | Drilling Co.: ADT | Job #:
Total Depth 50' | Method Used: Macro-core
Inspector L. Estrada | Organic Vapor Inst: MiniRae PID | Water elev: 25

Depth (feet)	Sample No.	Sample Inter.	Adv/Rec (feet) (unless otherwise noted)	Org. Vap (ppm)	Sample Description	Strata Change	Remarks (time)
				0.0	0-6" Loamy, F sandy topsoil, some plastics within moist. 6" - 8" M SAND white loose, dry		
			5.0				
	1		1.5	0.0	8" - 18" trash, book pieces, plastics, paper w/ some loose pale brown SAND, dry		
5							
				1.8	5' - 6' VF-F SAND, grayish brown to medium dense, moist. M brown trash/plastics within first 6 inches w/ trace silt.		
			5.0				
	2	5'-7'	2.0	2.1	6-7' F-M SAND w/ trace rounded gravel. Moist-wet. M dense.		13:30
10							
			5.0	0.5	10 - 10'5" F-M SAND, M brown. Loose, dry. Trash, paper/newspaper throughout		
	3		5"				
15							
			5.0	2.0	15 - 15'8" F-M SAND with trace silt M brown. Loose moist plastics, book pieces, decaying, trash throughout.		
	4		8"				
20							
			5.0	1.0	20' - 20'8" glass, paper, plastics, dry, some M SAND, loose.		
	5		8"				
25							

CDM Smith

Depth (feet)	Sample No.	Sample Inter.	Adv/Rec (feet) (unless otherwise noted)	Org. Vap (ppm)	Sample Description	Strata Change	Remarks (time)
30	6	25'-27'	5.0 2.0	6.1 0.7	@25' plastics/paper fine, trash, ~3" brown, loose, M SAND, moist. 25-27' M-C, pale brown-white SAND, M dense, wet/saturated		14:30
35	7	30'-31'	5.0 13"	2.8	30'-31'- 1" VF-F-M SAND, brown, saturated, loose. w/ glass, plastics throughout. Trace, fine gravel, decaying, Garbage odor.		15:00
40	8		5.0 16"	0.3	35' - 36'4" SAA, pale brown, trace metal scraps and plastics		
45	9		5.0 8"	1.5	40' - 40'8" - SAA, plastics/glass noted, no odor.		
50	MW-05 boring terminated @ 45' BGS.						

Appendix C

Daily Summary Reports

Bennett, Tonya

From: Estrada, Lia
Sent: Wednesday, February 12, 2020 9:32 PM
To: Beattie, Jessica
Cc: Bennett, Tonya
Subject: NYSDEC Quiogue Landfill -- Daily Summaries 2/10 through 2/12

Hi Ladies – see the daily reports for the last few days. Sorry for the delay.

Monday, Feb 10, 2020
Below includes the details of the activities performed at the site on 2/10/2020.

CDM Smith Personnel Onsite: L. Estrada and J. Beattie
Delta Personnel Onsite: Ben Rimmler
ADT Personnel Onsite: Rob Allegrezza and Pat MaGill
Purpose: To clear all five boring locations and all three monitoring well locations. To brush hog any required pathways to boring/monitoring well locations.
Weather: Light Rain, 45 Degrees F
Activities:

- A daily health and safety talk was performed prior to the commencement of activities at the Site.
- Delta utilized the GPR and EM wand to determine if any underground utilities or anomalies would impact the proposed boring and monitoring well locations. All proposed locations were clear of obstructions.
- J. Beattie, L. Estrada, and B. Rimmler performed a site walk of all the cleared locations to confirm they were in the appropriate locations as per the NYSDEC approved sample location plan. One location, MW-05 was moved approximately 50 feet to the east to be in line with MW-04. This moved location was cleared by Delta, as well. C. Heller (NYSDEC) later confirmed the more eastern location for MW-05 would be the most beneficial.
- ADT mobilized their skid steer, drill rig and tooling to the site.
- The ADT crew utilized a skid steer to clear downed branches, clear brush, and to level areas surrounding the cleared locations.
- The ADT crew spoke with the employees of J&V Auto Salvage to ask if they could use the water spicket in the northwestern corner of their lot to fill up their totes. They agreed.

Tuesday, Feb 11, 2020
Below includes the details of the activities performed at the site on 2/11/2020.

CDM Smith Personnel Onsite: L. Estrada
ADT Personnel Onsite: Rob Allegrezza and Pat MaGill
Purpose: To begin drilling at the soil boring locations.
Weather: Rain, 45 Degrees F
Activities:

- A daily health and safety talk was performed prior to the commencement of activities at the Site.
- ADT set up the HSA rig at SB-04. The crew was able to advance to 10 feet below ground surface (bgs) however, due to the significant rain event the surface sand became very soft. Due to the soft surface material, the rig had difficulty maintaining stability. In addition, a large portion of the material encountered down to 10 feet bgs was characterized by debris and trash which may have caused additional stability issues. During ADTs attempts to stabilize the rig, they noted one of the drill rigs tracks was not spinning. The crew called their mechanic to fix the track and bring additional wood planks to stabilize the rig.
- After, the track was fixed and the rig was stabilized, SB-04 was advanced to 20 feet bgs. No samples were collected on Feb 11, 2020.

Wednesday, Feb 12, 2020
Below includes the details of the activities performed at the site on 2/12/2020.

CDM Smith Personnel Onsite: L. Estrada
ADT Personnel Onsite: Rob Allegrezza and Pat MaGill
Purpose: Continue advancing at SB-04 and mobing to the next soil boring location.
Weather: Partly Cloudy, 38 Degrees F
Activities:

- A daily health and safety talk was performed prior to the commencement of activities at the Site.
- SB-04 was advanced 30 feet on Feb 12, 2020 to 50 feet bgs. A total of three subsurface soil samples were collected at SB-04 and one co-located surface soil sample. The sample summary table details the samples collected on Feb 12, 2020 below. Casing and augers were deconned in a temporary decon pad prior to mobilizing to the next boring location, SB-03.
- SB-03 was advanced to 50 feet bgs. A total of three subsurface soil samples were collected at SB-03 and one co-located surface soil sample. The sample summary table details the samples collected on Feb 12, 2020 below.
- A field blank of the material utilized to collect the soil samples was collected on February 12, 2020. All samples were packed in coolers and stored on ice. They will be picked up by the Test America courier tomorrow, February 13, 2020.

Sample Summary Table

Sample Location	Sample ID	Time Sample Collected	Depth Interval (feet unless otherwise stated)	Laboratory Analyses Collected	PID Reading (ppm)
SB-04	SB-04-24-25-021220	0855	24 - 25	VOCs, SVOCs + SIM (1,4-dioxane), PFAS, PCBs, Metals + Hg, Pesticides, Herbicides, Cyanide	25.6
SB-04	SB-04-30-31-021220	0955	30 - 31		0.0
SB-04	SB-04-40-41-021220	1020	40– 41		0.0
SS-04	SS-04-021220	1100	0 – 2”		0.0
SB-03	SB-03-5-6.5-021220	1400	5 – 6.5		2.3
SB-03	SB-03-26-27.5-021220	1510	26 – 27.5		1.8
SB-03	SB-03-36-37-021220	1545	36 - 37		0.0
SS-03	SS-03-021220	1300	0 – 2”		0.0
Field Blank	FB-01-021220	1200	NA		NA

Thank you!!

Best,
Lia Estrada
Environmental Engineering
CDM Smith Inc.| 11 British American Blvd. Latham, NY 12110
estradal@cdmsmith.com |Work: 518-782-4541 | Cell: 631-455-3701

Bennett, Tonya

From: Estrada, Lia
Sent: Thursday, February 13, 2020 10:19 PM
To: Beattie, Jessica
Cc: Bennett, Tonya
Subject: NYSDEC Quiogue Landfill -- Daily Summary 2/13

All,

Thursday, Feb 13, 2020
Below includes the details of the activities performed at the site on 2/13/2020.

CDM Smith Personnel Onsite: L. Estrada
ADT Personnel Onsite: Rob Allegrezza and Pat MaGill
Purpose: Continue advancing at soil boring locations.
Weather: Rain, 40 Degrees F
Activities:

- A daily health and safety talk was performed prior to the commencement of activities at the Site.
- SB-01 was advanced to 35 feet bgs. A total of two subsurface soil samples were collected at SB-01. The boring consisted mainly of fine to medium-coarsed sand with interbedded plastic debris and wood. Solid wood timbers were noted in the 30 to 35 foot interval. Soil boring, SB-01 was terminated at 35 feet bgs due the presence of significant woody debris and/or several solid wood timbers starting in 25 to 30 foot bgs interval. Recovery was very poor in the 30 to 35 interval and consisted entirely of wood shreds. The same was expected for the 35 to 40 foot interval. No sample was able to be collected below the water table which was observed at roughly 26 feet bgs.
- One surface soil sample and one field duplicate were collected at sample location SS-05, co-located with soil boring location SB-05. The sample summary table details the samples collected on Feb 13, 2020 below.
- A field blank of the material utilized to collect the soil samples was collected on February 13, 2020. All samples were packed in coolers and stored on ice. The Test America courier picked up all samples with the exception of SB-01-25-26-021320 which was collected after the courier arrived onsite. This sample in addition to any samples collected tomorrow will be picked up by the Test America courier tomorrow, February 14, 2020.

Sample Summary Table

Sample Location	Sample ID	Time Sample Collected	Depth Interval (feet unless otherwise stated)	Laboratory Analyses Collected	PID Reading (ppm)
SB-01	SB-01-5-7-021320	1130	5 - 7	VOCs, SVOCs + SIM (1,4-dioxane), PFAS, PCBs, Metals + Hg, Pesticides, Herbicides, Cyanide	2.5
SB-01	SB-101-5-7-021320	1145	5 – 7		2.5
SB-01	SB-01-25-26-021320	1445	25 – 26		18.5
SS-05	SS-05-021320	0830	0 – 2”		0.0
SS-05	SS-105-021320	0845	0 – 2”		0.0
Field Blank	FB-02-021320	1000	NA		NA

Best,
Lia Estrada
Environmental Engineering

CDM Smith Inc.| 11 British American Blvd. Latham, NY 12110
estradal@cdmsmith.com |Work: 518-782-4541 | Cell: 631-455-3701

From: Estrada, Lia
Sent: Wednesday, February 12, 2020 9:32 PM
To: Beattie, Jessica <BeattieJR@cdmsmith.com>
Cc: Bennett, Tonya <BennettTM@cdmsmith.com>
Subject: NYSDEC Quiogue Landfill -- Daily Summaries 2/10 through 2/12

Hi Ladies – see the daily reports for the last few days. Sorry for the delay.

Monday, Feb 10, 2020
Below includes the details of the activities performed at the site on 2/10/2020.

CDM Smith Personnel Onsite: L. Estrada and J. Beattie
Delta Personnel Onsite: Ben Rimmler
ADT Personnel Onsite: Rob Allegrezza and Pat MaGill
Purpose: To clear all five boring locations and all three monitoring well locations. To brush hog any required pathways to boring/monitoring well locations.
Weather: Light Rain, 45 Degrees F
Activities:

- A daily health and safety talk was performed prior to the commencement of activities at the Site.
- Delta utilized the GPR and EM wand to determine if any underground utilities or anomalies would impact the proposed boring and monitoring well locations. All proposed locations were clear of obstructions.
- J. Beattie, L. Estrada, and B. Rimmler performed a site walk of all the cleared locations to confirm they were in the appropriate locations as per the NYSDEC approved sample location plan. One location, MW-05 was moved approximately 50 feet to the east to be in line with MW-04. This moved location was cleared by Delta, as well. C. Heller (NYSDEC) later confirmed the more eastern location for MW-05 would be the most beneficial.
- ADT mobilized their skid steer, drill rig and tooling to the site.
- The ADT crew utilized a skid steer to clear downed branches, clear brush, and to level areas surrounding the cleared locations.
- The ADT crew spoke with the employees of J&V Auto Salvage to ask if they could use the water spicket in the northwestern corner of their lot to fill up their totes. They agreed.

Tuesday, Feb 11, 2020
Below includes the details of the activities performed at the site on 2/11/2020.

CDM Smith Personnel Onsite: L. Estrada
ADT Personnel Onsite: Rob Allegrezza and Pat MaGill
Purpose: To begin drilling at the soil boring locations.
Weather: Rain, 45 Degrees F
Activities:

- A daily health and safety talk was performed prior to the commencement of activities at the Site.
- ADT set up the HSA rig at SB-04. The crew was able to advance to 10 feet below ground surface (bgs) however, due to the significant rain event the surface sand became very soft. Due to the soft surface material, the rig had difficulty maintaining stability. In addition, a large portion of the material encountered down to 10 feet bgs was characterized by debris and trash which may have caused additional stability issues. During ADTs attempts to stabilize the rig, they noted one of the drill rigs tracks was not spinning. The crew called their mechanic to fix the track and bring additional wood planks to stabilize the rig.

- After, the track was fixed and the rig was stabilized, SB-04 was advanced to 20 feet bgs. No samples were collected on Feb 11, 2020.

Wednesday, Feb 12, 2020
Below includes the details of the activities performed at the site on 2/12/2020.

CDM Smith Personnel Onsite: L. Estrada
ADT Personnel Onsite: Rob Allegrezza and Pat MaGill
Purpose: Continue advancing at SB-04 and mobing to the next soil boring location.
Weather: Partly Cloudy, 38 Degrees F
Activities:

- A daily health and safety talk was performed prior to the commencement of activities at the Site.
- SB-04 was advanced 30 feet on Feb 12, 2020 to 50 feet bgs. A total of three subsurface soil samples were collected at SB-04 and one co-located surface soil sample. The sample summary table details the samples collected on Feb 12, 2020 below. Casing and augers were deconned in a temporary decon pad prior to mobilizing to the next boring location, SB-03.
- SB-03 was advanced to 50 feet bgs. A total of three subsurface soil samples were collected at SB-03 and one co-located surface soil sample. The sample summary table details the samples collected on Feb 12, 2020 below.
- A field blank of the material utilized to collect the soil samples was collected on February 12, 2020. All samples were packed in coolers and stored on ice. They will be picked up by the Test America courier tomorrow, February 13, 2020.

Sample Summary Table

Sample Location	Sample ID	Time Sample Collected	Depth Interval (feet unless otherwise stated)	Laboratory Analyses Collected	PID Reading (ppm)
SB-04	SB-04-24-25-021220	0855	24 - 25	VOCs, SVOCs + SIM (1,4-dioxane), PFAS, PCBs, Metals + Hg, Pesticides, Herbicides, Cyanide	25.6
SB-04	SB-04-30-31-021220	0955	30 - 31		0.0
SB-04	SB-04-40-41-021220	1020	40– 41		0.0
SS-04	SS-04-021220	1100	0 – 2”		0.0
SB-03	SB-03-5-6.5-021220	1400	5 – 6.5		2.3
SB-03	SB-03-26-27.5-021220	1510	26 – 27.5		1.8
SB-03	SB-03-36-37-021220	1545	36 - 37		0.0
SS-03	SS-03-021220	1300	0 – 2”		0.0
Field Blank	FB-01-021220	1200	NA		NA

Thank you!!

Best,
Lia Estrada
Environmental Engineering
CDM Smith Inc.| 11 British American Blvd. Latham, NY 12110
estradal@cdmsmith.com |Work: 518-782-4541 | Cell: 631-455-3701

Bennett, Tonya

From: Beattie, Jessica
Sent: Tuesday, February 18, 2020 12:17 PM
To: Christopher Heller (chris.heller@dec.ny.gov)
Subject: Quigue Landfill - Daily Field Summary 02-14-2020

Hi Chris –

Following is a summary of the field activities performed on Friday, 2/14/20.

Friday, Feb 14, 2020

CDM Smith Personnel Onsite: L. Estrada
ADT Personnel Onsite: Rob Allegrezza and Pat MaGill
Purpose: Continue advancing at soil boring locations.
Weather: Overcast, Very Windy, 35 Degrees F
Activities:

- A daily health and safety talk was performed prior to the commencement of activities at the Site.
- SB-02:
    - SB-02 was advanced to 40 feet bgs.
    - The boring consisted mainly of fine to medium-coarsed sand with interbedded plastic debris, brick and wood. Significant solid wood timber was noted from approximately 15 to 30 feet bgs. Petroleum odor was noted within some of the woody debris and specifically at the woody debris noted directly above the water table, observed at roughly 31.5 feet bgs.
    - A total of three subsurface soil samples were collected at SB-02 from depth intervals 10-11.5 ft bgs, 30-32 feet bgs and 35-36 feet bgs. A sample was not collected from the 5 to 6 ft bgs interval because the material at this depth was observed to be a clean sand with no PID reading. The 10 to 11.5 ft interval has a PID reading of 0.5 ppm and had a petroleum odor.
- A surface soil was collected at both SB-01 and SB-02 on February 14, 2020. Samples were names, SS-01-021420 and SS-02-021420, respectively. The sample summary table details the samples collected on Feb 14, 2020 below.
- A field blank of the sampling equipment utilized to collect the soil samples was collected on February 14, 2020. No field duplicates is MS/MSDs were collected on Feb. 14, 2020. All samples were packed in coolers and stored on ice. The Test America courier picked up all samples for shipment on Feb. 14, 2020.

Sample Summary Table

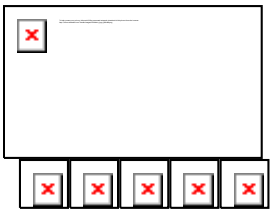
Sample Location	Sample ID	Time Sample Collected	Depth Interval (feet unless otherwise stated)	Laboratory Analyses Collected	PID Reading (ppm)
SB-02	SB-02-10-11.5-021420	1000	10 - 11.5	VOCs, SVOCs + SIM (1,4-dioxane), PFAS, PCBs, Metals + Hg, Pesticides,	0.5
SB-02	SB-02-30-32-021420	1130	30 - 32		6.8
SB-02	SB-02-35-36-021420	1145	35 – 36		0.0
SS-01	SS-01-021420	0820	0 – 2”		0.0
SS-02	SS-02-021420	1030	0 – 2”		0.0

Field Blank	FB-021420	1200	NA	Herbicides, Cyanide	NA

Please let me know if you have any questions.

Thanks,
Jess

Jessica R. Beattie, PG, PMP, ENV SP
Principal Senior Project Manager
CDM Smith
110 Fieldcrest Ave, #8, 6th Floor, Edison, NJ 08837
732.590.4609 (office)
201.424.4931 (cell)
cdmsmith.com



Bennett, Tonya

From: Estrada, Lia
Sent: Monday, February 17, 2020 8:42 PM
To: Bennett, Tonya; Beattie, Jessica
Subject: NYSDEC Quiogue Landfill -- Daily Summary 2/17

Categories: Red Category

All,

Monday, Feb 17, 2020
Below includes the details of the activities performed at the site on 2/17/2020.

CDM Smith Personnel Onsite: L. Estrada
ADT Personnel Onsite: Rob Allegrezza and Pat MaGill
Purpose: Finish advancing soil borings and begin advancing borings as well locations.
Weather: Partly Cloudy, 49 Degrees F
Activities:

- A daily health and safety talk was performed prior to the commencement of activities at the Site.
- SB-05 was advanced to 45 feet bgs. A total of four subsurface soil samples were collected at SB-05. The boring consisted mainly of fine to medium to coarse sand with interbedded plastic debris, woody debris, fabric, and glass. Perched water was noted in the 6.5 to 11 foot bgs interval-likely due to wood/plastics holding water. A sample was collected from the 5 to 7 foot interval above the perched water. A second sample was collected above the water table at SB-05 due to the presence of high PID readings and a strong petroleum odor. This sample was collected from the 15 to 16 foot interval and was characterized by a significant amount of silty sand trash and trash including plastics, wood and glass. The water table was observed at roughly 30 feet bgs. A sample was able to be collected from the 30 to 32 foot interval. A very strong petroleum odor was noted at this interval, with a maximum PID reading of 188 ppm. A strong petroleum odor was noted in the 35 to 40 foot interval therefore, a field call was made to continue down to 45 feet bgs. Little to no odor was noted in the 40 to 45 foot interval. A sample was collected from 40 to 41.5 feet bgs.
- MW-05 was advanced to 45 feet bgs. A total of three subsurface soil samples were collected at MW-05. The boring consisted mainly of fine to medium to coarse sand with interbedded plastic debris, woody debris, and glass. The three samples were collected from the following intervals 5 to 7 feet bgs, 25 to 27 feet bgs, and 30 to 31 feet bgs. The water table is estimated to be at 25 feet bgs at MW-05. After discussions with J. Beattie and ADT, the soil will not be logged past 45 feet bgs due to wash out of the sand at MW-05. ADT will advance to 80 feet bgs tomorrow at MW-05 to begin setting the CMT well.
- One surface soil sample was collected at sample location MW-05, SS-MW-05-021720. The surface soil sample collected at SB-05 was collected last week on Thursday, February 13, 2020. The sample summary table details all the samples collected on Feb 17, 2020 below.
- A field blank of the sampling equipment utilized to collect the soil samples was collected on February 17, 2020. All samples were packed in coolers and stored on ice. The Eurofins Test America courier will pick up the samples tomorrow on February 18, 2020.

Sample Summary Table

Sample Location	Sample ID	Time Sample Collected	Depth Interval (feet unless otherwise stated)	Laboratory Analyses Collected	PID Reading (ppm)

SB-05	SB-05-5-7-021720	0915	5 - 7	VOCs, SVOCs + SIM (1,4-dioxane), PFAS, PCBs, Metals + Hg, Pesticides, Herbicides, Cyanide	4.3
SB-05	SB-05-15-16-021720	1000	15 – 16		34.9
SB-05	SB-05-30-32-021720	1015	30 – 32		188.0
SB-05	SB-05-40-41.5-021720	1040	40 – 41.5		11.5
MW-05	SS-MW-05-021720	1230	0 – 2”		0.0
MW-05	SB-MW-05-5-7-021720	1330	5 – 7		2.1
MW-05	SB-MW-05-25-27-021720	1430	25 – 27		6.1
MW-05	SB-MW-05-30-31-021720	1500	30 – 31		2.8
Field Blank	FB-021720	1300	NA		NA

Best,
Lia Estrada
Environmental Engineering
CDM Smith Inc.| 11 British American Blvd. Latham, NY 12110
estradal@cdmsmith.com |Work: 518-782-4541 | Cell: 631-455-3701

From: Estrada, Lia
Sent: Monday, February 17, 2020 7:50 AM
To: Bennett, Tonya <BennettTM@cdmsmith.com>; Bennett, Tonya <BennettTM@cdmsmith.com>
Subject: NYSDEC Quiogue Landfill -- Daily Summary 2/14

Sorry for his formatting is all weird. I tried to do this from my phone so please feel free to address anything before you send to Chris or can I do it when I get back to my computer. Thanks.

All,

Friday, Feb 14, 2020

Below includes the details of the activities performed at the site on 2/13/2020.

CDM Smith Personnel Onsite: L. Estrada

ADT Personnel Onsite: Rob Allegrezza and Pat MaGill

Purpose: Continue advancing at soil boring locations.

Weather: Overcast, Very Windy, 35 Degrees F

Activities:

- A daily health and safety talk was performed prior to the commencement of activities at the Site.
- SB-02 was advanced to 40 feet bgs. A total of three subsurface soil samples were collected at SB-02 from depth intervals 10-11.5 ft bgs, 30-32 feet bgs and 35-36 feet bgs. A sample was not collected from the 5 to 6 ft bgs interval because the material at this depth was observed to be a clean sand with no PID reading. The 10 to 11.5 ft interval has a PID reading of 0.5 ppm and had a

petroleum odor. The boring consisted mainly of fine to medium-coarsed sand with interbedded plastic debris, brick and wood. Significant solid wood timber was noted from approximately 15 to 30 feet bgs. Petroleum odor was noted within some of the woody debris and specifically at the woody debris noted directly above the water table, observed at roughly 31.5 feet bgs.

- A surface soil was collected at both SB-01 and SB-02 on February 14, 2020. Samples were names, SS-01-021420 and SS-02-021420, respectively. The sample summary table details the samples collected on Feb 14, 2020 below.
- A field blank of the sampling equipment utilized to collect the soil samples was collected on February 14, 2020. No field duplicates is MS/MSDs were collected on Feb. 14, 2020. All samples were packed in coolers and stored on ice. The Test America courier picked up all samples for shipment on Feb. 14, 2020.

Sample Summary Table

Sample Location	Sample ID	Time Sample Collected	Depth Interval (feet unless otherwise stated)	Laboratory Analyses Collected	PID Reading (p
SB-02	SB-02-10-11.5-021420	1000	10 - 11.5	VOCs, SVOCs + SIM (1,4-dioxane), PFAS, PCBs, Metals + Hg, Pesticides, Herbicides, Cyanide	0.5
SB-02	SB-02-30-32-021420	1130	30 - 32		6.8
SB-02	SB-02-35-36-021420	1145	35 – 36		0.0
SS-01	SS-01-021420	0820	0 – 2”		0.0
SS-02	SS-02-021420	1030	0 – 2”		0.0
Field Blank	FB-021420	1200	NA		NA

Best,
Lia

Sent from my iPhone

Begin forwarded message:

From: "Estrada, Lia" <estradal@cdmsmith.com>
Date: February 13, 2020 at 22:18:00 EST
To: "Beattie, Jessica" <BeattieJR@cdmsmith.com>
Cc: "Bennett, Tonya" <BennettTM@cdmsmith.com>
Subject: NYSDEC Quiogue Landfill -- Daily Summary 2/13

All,

Thursday, Feb 13, 2020
Below includes the details of the activities performed at the site on 2/13/2020.

CDM Smith Personnel Onsite: L. Estrada
ADT Personnel Onsite: Rob Allegrezza and Pat MaGill
Purpose: Continue advancing at soil boring locations.
Weather: Rain, 40 Degrees F
Activities:

- A daily health and safety talk was performed prior to the commencement of activities at the Site.
- SB-01 was advanced to 35 feet bgs. A total of two subsurface soil samples were collected at SB-01. The boring consisted mainly of fine to medium-coarsed sand with interbedded plastic debris and wood. Solid wood timbers were noted in the 30 to 35 foot interval. Soil boring, SB-01 was terminated at 35 feet bgs due the presence of significant woody debris and/or several solid wood timbers starting in 25 to 30 foot bgs interval. Recovery was very poor in the 30 to 35 interval and consisted entirely of wood shreds. The same was expected for the 35 to 40 foot interval. No sample was able to be collected below the water table which was observed at roughly 26 feet bgs.
- One surface soil sample and one field duplicate were collected at sample location SS-05, co-located with soil boring location SB-05. The sample summary table details the samples collected on Feb 13, 2020 below.
- A field blank of the material utilized to collect the soil samples was collected on February 13, 2020. All samples were packed in coolers and stored on ice. The Test America courier picked up all samples with the exception of SB-01-25-26-021320 which was collected after the courier arrived onsite. This sample in addition to any samples collected tomorrow will be picked up by the Test America courier tomorrow, February 14, 2020.

Sample Summary Table

Sample Location	Sample ID	Time Sample Collected	Depth Interval (feet unless otherwise stated)	Laboratory Analyses Collected	PID Reading (p
SB-01	SB-01-5-7-021320	1130	5 - 7	VOCs, SVOCs + SIM (1,4-dioxane), PFAS, PCBs, Metals + Hg, Pesticides, Herbicides, Cyanide	2.5
SB-01	SB-101-5-7-021320	1145	5 – 7		2.5
SB-01	SB-01-25-26-021320	1445	25 – 26		18.5
SS-05	SS-05-021320	0830	0 – 2”		0.0
SS-05	SS-105-021320	0845	0 – 2”		0.0
Field Blank	FB-02-021320	1000	NA		NA

Best,
Lia Estrada
Environmental Engineering
CDM Smith Inc.| 11 British American Blvd. Latham, NY 12110
estradal@cdmsmith.com |Work: 518-782-4541 | Cell: 631-455-3701

From: Estrada, Lia
Sent: Wednesday, February 12, 2020 9:32 PM
To: Beattie, Jessica <BeattieJR@cdmsmith.com>
Cc: Bennett, Tonya <BennettTM@cdmsmith.com>
Subject: NYSDEC Quiogue Landfill -- Daily Summaries 2/10 through 2/12

Hi Ladies – see the daily reports for the last few days. Sorry for the delay.

Monday, Feb 10, 2020
Below includes the details of the activities performed at the site on 2/10/2020.

CDM Smith Personnel Onsite: L. Estrada and J. Beattie
Delta Personnel Onsite: Ben Rimmler
ADT Personnel Onsite: Rob Allegrezza and Pat MaGill
Purpose: To clear all five boring locations and all three monitoring well locations. To brush hog any required pathways to boring/monitoring well locations.
Weather: Light Rain, 45 Degrees F
Activities:

- A daily health and safety talk was performed prior to the commencement of activities at the Site.
- Delta utilized the GPR and EM wand to determine if any underground utilities or anomalies would impact the proposed boring and monitoring well locations. All proposed locations were clear of obstructions.
- J. Beattie, L. Estrada, and B. Rimmler performed a site walk of all the cleared locations to confirm they were in the appropriate locations as per the NYSDEC approved sample location plan. One location, MW-05 was moved approximately 50 feet to the east to be in line with MW-04. This moved location was cleared by Delta, as well. C. Heller (NYSDEC) later confirmed the more eastern location for MW-05 would be the most beneficial.
- ADT mobilized their skid steer, drill rig and tooling to the site.
- The ADT crew utilized a skid steer to clear downed branches, clear brush, and to level areas surrounding the cleared locations.
- The ADT crew spoke with the employees of J&V Auto Salvage to ask if they could use the water spicket in the northwestern corner of their lot to fill up their totes. They agreed.

Tuesday, Feb 11, 2020
Below includes the details of the activities performed at the site on 2/11/2020.

CDM Smith Personnel Onsite: L. Estrada
ADT Personnel Onsite: Rob Allegrezza and Pat MaGill
Purpose: To begin drilling at the soil boring locations.
Weather: Rain, 45 Degrees F
Activities:

- A daily health and safety talk was performed prior to the commencement of activities at the Site.
- ADT set up the HSA rig at SB-04. The crew was able to advance to 10 feet below ground surface (bgs) however, due to the significant rain event the surface sand became very soft. Due to the soft surface material, the rig had difficulty maintaining stability. In addition, a large portion of the material encountered down to 10 feet bgs was characterized by debris and trash which may have caused additional stability issues. During ADTs attempts to stabilize the rig, they noted one of the drill rigs tracks was not spinning. The crew called their mechanic to fix the track and bring additional wood planks to stabilize the rig.
- After, the track was fixed and the rig was stabilized, SB-04 was advanced to 20 feet bgs. No samples were collected on Feb 11, 2020.

Wednesday, Feb 12, 2020
Below includes the details of the activities performed at the site on 2/12/2020.

CDM Smith Personnel Onsite: L. Estrada
ADT Personnel Onsite: Rob Allegrezza and Pat MaGill
Purpose: Continue advancing at SB-04 and mobing to the next soil boring location.
Weather: Partly Cloudy, 38 Degrees F
Activities:

- A daily health and safety talk was performed prior to the commencement of activities at the Site.
- SB-04 was advanced 30 feet on Feb 12, 2020 to 50 feet bgs. A total of three subsurface soil samples were collected at SB-04 and one co-located surface soil sample. The sample summary table details the samples collected on Feb 12, 2020 below. Casing and augers were deconned in a temporary decon pad prior to mobilizing to the next boring location, SB-03.
- SB-03 was advanced to 50 feet bgs. A total of three subsurface soil samples were collected at SB-03 and one co-located surface soil sample. The sample summary table details the samples collected on Feb 12, 2020 below.
- A field blank of the material utilized to collect the soil samples was collected on February 12, 2020. All samples were packed in coolers and stored on ice. They will be picked up by the Test America courier tomorrow, February 13, 2020.

Sample Summary Table

Sample Location	Sample ID	Time Sample Collected	Depth Interval (feet unless otherwise stated)	Laboratory Analyses Collected	PID Reading (p
SB-04	SB-04-24-25-021220	0855	24 - 25	VOCs, SVOCs + SIM (1,4-dioxane), PFAS, PCBs, Metals + Hg, Pesticides, Herbicides, Cyanide	25.6
SB-04	SB-04-30-31-021220	0955	30 - 31		0.0
SB-04	SB-04-40-41-021220	1020	40– 41		0.0
SS-04	SS-04-021220	1100	0 – 2”		0.0
SB-03	SB-03-5-6.5-021220	1400	5 – 6.5		2.3
SB-03	SB-03-26-27.5-021220	1510	26 – 27.5		1.8
SB-03	SB-03-36-37-021220	1545	36 - 37		0.0
SS-03	SS-03-021220	1300	0 – 2”		0.0
Field Blank	FB-01-021220	1200	NA		NA

Thank you!!

Best,
Lia Estrada
Environmental Engineering
CDM Smith Inc.| 11 British American Blvd. Latham, NY 12110
estradal@cdmsmith.com |Work: 518-782-4541 | Cell: 631-455-3701

Bennett, Tonya

From: Estrada, Lia
Sent: Tuesday, February 18, 2020 7:22 PM
To: Bennett, Tonya; Beattie, Jessica
Subject: NYSDEC Quiogue Landfill -- Daily Summary 2/18
Attachments: MW-05-CMT-Packer Beneath Intake at 30 feet.jpg; MW-05-CMT-Screen at 30 feet.jpg; MW-05-CMT-Cut Channel at 30 feet.jpg

All,

Tuesday, Feb 18, 2020
Below includes the details of the activities performed at the site on 2/18/2020.

CDM Smith Personnel Onsite: L. Estrada
ADT Personnel Onsite: Rob Allegrezza, Pat Magill, Sean Miller, and Joey
Purpose: Assemble CMT well for MW-05 and begin installation of well.
Weather: Rain, 45 Degrees F
Activities:

- A daily health and safety talk was performed prior to the commencement of activities at the Site.
- The ADT crew attempted to start the skid steer, that had maintenance performed on it the day prior, and the interior of the machine began to smoke. A small interior fire (possibly electrical) was noted within the machine and a fire extinguisher was quickly utilized to put out the fire. No personnel were injured or affected by this occurrence. The HERC rental company was called to coordinate the arrival of a new skid steer.
- As the skid steer is needed to transport water totes to the drilling locations, there was some delay in continuing the installation of MW-05. However, the ADT crew was able to utilize this time to assemble the CMT well and advance casing to the water table in preparation for the actual well installation.
- The CMT well was assembled with three sampling ports set at 30 feet bgs, 60 feet bgs and 80 feet bgs. The water table was estimated to be at roughly 25 feet bgs at MW-05.
- ADT advanced casing to 30 feet bgs--they did not want to advance casing any deeper in to the water table as water would fill the augers overnight. In addition, water from the totes will be used to clear the borehole during the installation of the well.
- The Eurofins Test America courier arrived onsite on February 18, 2020 to pick up samples collected on February 17, 2020. All samples were packed in coolers and stored on ice prior to relinquishing them to the courier.

Best,
Lia Estrada
Environmental Engineering
CDM Smith Inc.| 11 British American Blvd. Latham, NY 12110
estradal@cdmsmith.com |Work: 518-782-4541 | Cell: 631-455-3701

From: Estrada, Lia
Sent: Monday, February 17, 2020 8:42 PM
To: Bennett, Tonya <BennettTM@cdmsmith.com>; Beattie, Jessica <BeattieJR@cdmsmith.com>
Subject: NYSDEC Quiogue Landfill -- Daily Summary 2/17

All,

Monday, Feb 17, 2020
Below includes the details of the activities performed at the site on 2/17/2020.

CDM Smith Personnel Onsite: L. Estrada
ADT Personnel Onsite: Rob Allegrezza and Pat MaGill
Purpose: Finish advancing soil borings and begin advancing borings as well locations.
Weather: Partly Cloudy, 49 Degrees F
Activities:

- A daily health and safety talk was performed prior to the commencement of activities at the Site.
- SB-05 was advanced to 45 feet bgs. A total of four subsurface soil samples were collected at SB-05. The boring consisted mainly of fine to medium to coarse sand with interbedded plastic debris, woody debris, fabric, and glass. Perched water was noted in the 6.5 to 11 foot bgs interval-likely due to wood/plastics holding water. A sample was collected from the 5 to 7 foot interval above the perched water. A second sample was collected above the water table at SB-05 due to the presence of high PID readings and a strong petroleum odor. This sample was collected from the 15 to 16 foot interval and was characterized by a significant amount of silty sand trash and trash including plastics, wood and glass. The water table was observed at roughly 30 feet bgs. A sample was able to be collected from the 30 to 32 foot interval. A very strong petroleum odor was noted at this interval, with a maximum PID reading of 188 ppm. A strong petroleum odor was noted in the 35 to 40 foot interval therefore, a field call was made to continue down to 45 feet bgs. Little to no odor was noted in the 40 to 45 foot interval. A sample was collected from 40 to 41.5 feet bgs.
- MW-05 was advanced to 45 feet bgs. A total of three subsurface soil samples were collected at MW-05. The boring consisted mainly of fine to medium to coarse sand with interbedded plastic debris, woody debris, and glass. The three samples were collected from the following intervals 5 to 7 feet bgs, 25 to 27 feet bgs, and 30 to 31 feet bgs. The water table is estimated to be at 25 feet bgs at MW-05. After discussions with J. Beattie and ADT, the soil will not be logged past 45 feet bgs due to wash out of the sand at MW-05. ADT will advance to 80 feet bgs tomorrow at MW-05 to begin setting the CMT well.
- One surface soil sample was collected at sample location MW-05, SS-MW-05-021720. The surface soil sample collected at SB-05 was collected last week on Thursday, February 13, 2020. The sample summary table details all the samples collected on Feb 17, 2020 below.
- A field blank of the sampling equipment utilized to collect the soil samples was collected on February 17, 2020. All samples were packed in coolers and stored on ice. The Eurofins Test America courier will pick up the samples tomorrow on February 18, 2020.

Sample Summary Table

Sample Location	Sample ID	Time Sample Collected	Depth Interval (feet unless otherwise stated)	Laboratory Analyses Collected	PID Reading (ppm)
SB-05	SB-05-5-7-021720	0915	5 - 7	VOCs, SVOCs + SIM (1,4-dioxane), PFAS, PCBs, Metals + Hg, Pesticides, Herbicides, Cyanide	4.3
SB-05	SB-05-15-16-021720	1000	15 – 16		34.9
SB-05	SB-05-30-32-021720	1015	30 – 32		188.0
SB-05	SB-05-40-41.5-021720	1040	40 – 41.5		11.5
MW-05	SS-MW-05-021720	1230	0 – 2”		0.0
MW-05	SB-MW-05-5-7-021720	1330	5 – 7		2.1
MW-05	SB-MW-05-25-27-021720	1430	25 – 27		6.1
MW-05	SB-MW-05-30-31-021720	1500	30 – 31		2.8
Field Blank	FB-021720	1300	NA		NA

Best,

Lia Estrada
Environmental Engineering
CDM Smith Inc.| 11 British American Blvd. Latham, NY 12110
estradal@cdmsmith.com |Work: 518-782-4541 | Cell: 631-455-3701

From: Estrada, Lia
Sent: Monday, February 17, 2020 7:50 AM
To: Bennett, Tonya <BennettTM@cdmsmith.com>; Bennett, Tonya <BennettTM@cdmsmith.com>
Subject: NYSDEC Quiogue Landfill -- Daily Summary 2/14

Sorry for his formatting is all weird. I tried to do this from my phone so please feel free to address anything before you send to Chris or can I do it when I get back to my computer. Thanks.

All,

Friday, Feb 14, 2020

Below includes the details of the activities performed at the site on 2/13/2020.

CDM Smith Personnel Onsite: L. Estrada

ADT Personnel Onsite: Rob Allegrezza and Pat MaGill

Purpose: Continue advancing at soil boring locations.

Weather: Overcast, Very Windy, 35 Degrees F

Activities:

- A daily health and safety talk was performed prior to the commencement of activities at the Site.
- SB-02 was advanced to 40 feet bgs. A total of three subsurface soil samples were collected at SB-02 from depth intervals 10-11.5 ft bgs, 30-32 feet bgs and 35-36 feet bgs. A sample was not collected from the 5 to 6 ft bgs interval because the material at this depth was observed to be a clean sand with no PID reading. The 10 to 11.5 ft interval has a PID reading of 0.5 ppm and had a petroleum odor. The boring consisted mainly of fine to medium-coarsed sand with interbedded plastic debris, brick and wood. Significant solid wood timber was noted from approximately 15 to 30 feet bgs. Petroleum odor was noted within some of the woody debris and specifically at the woody debris noted directly above the water table, observed at roughly 31.5 feet bgs.
- A surface soil was collected at both SB-01 and SB-02 on February 14, 2020. Samples were names, SS-01-021420 and SS-02-021420, respectively. The sample summary table details the samples collected on Feb 14, 2020 below.
- A field blank of the sampling equipment utilized to collect the soil samples was collected on February 14, 2020. No field duplicates is MS/MSDs were collected on Feb. 14, 2020. All samples were packed in coolers and stored on ice. The Test America courier picked up all samples for shipment on Feb. 14, 2020.

Sample Summary Table

Sample Location	Sample ID	Time Sample Collected	Depth Interval (feet unless otherwise stated)	Laboratory Analyses Collected	PID Reading (p
SB-02	SB-02-10-11.5-021420	1000	10 - 11.5	VOCs, SVOCs + SIM (1,4-dioxane), PFAS, PCBs, Metals + Hg, Pesticides, Herbicides, Cyanide	0.5
SB-02	SB-02-30-32-021420	1130	30 - 32		6.8
SB-02	SB-02-35-36-021420	1145	35 – 36		0.0
SS-01	SS-01-021420	0820	0 – 2"		0.0
SS-02	SS-02-021420	1030	0 – 2"		0.0
Field Blank	FB-021420	1200	NA		NA

Best,
Lia

Sent from my iPhone

Begin forwarded message:

From: "Estrada, Lia" <estradal@cdmsmith.com>
Date: February 13, 2020 at 22:18:00 EST
To: "Beattie, Jessica" <BeattieJR@cdmsmith.com>
Cc: "Bennett, Tonya" <BennettTM@cdmsmith.com>
Subject: NYSDEC Quiogue Landfill -- Daily Summary 2/13

All,

Thursday, Feb 13, 2020
Below includes the details of the activities performed at the site on 2/13/2020.

CDM Smith Personnel Onsite: L. Estrada
ADT Personnel Onsite: Rob Allegrezza and Pat MaGill
Purpose: Continue advancing at soil boring locations.
Weather: Rain, 40 Degrees F
Activities:

- A daily health and safety talk was performed prior to the commencement of activities at the Site.
- SB-01 was advanced to 35 feet bgs. A total of two subsurface soil samples were collected at SB-01. The boring consisted mainly of fine to medium-coarsed sand with interbedded plastic debris and wood. Solid wood timbers were noted in the 30 to 35 foot interval. Soil boring, SB-01 was terminated at 35 feet bgs due the presence of significant woody debris and/or several solid wood timbers starting in 25 to 30 foot bgs interval. Recovery was very poor in the 30 to 35 interval and consisted entirely of wood shreds. The same was expected for the 35 to 40 foot

interval. No sample was able to be collected below the water table which was observed at roughly 26 feet bgs.

- One surface soil sample and one field duplicate were collected at sample location SS-05, co-located with soil boring location SB-05. The sample summary table details the samples collected on Feb 13, 2020 below.
- A field blank of the material utilized to collect the soil samples was collected on February 13, 2020. All samples were packed in coolers and stored on ice. The Test America courier picked up all samples with the exception of SB-01-25-26-021320 which was collected after the courier arrived onsite. This sample in addition to any samples collected tomorrow will be picked up by the Test America courier tomorrow, February 14, 2020.

Sample Summary Table

Sample Location	Sample ID	Time Sample Collected	Depth Interval (feet unless otherwise stated)	Laboratory Analyses Collected	PID Reading (p
SB-01	SB-01-5-7-021320	1130	5 - 7	VOCs, SVOCs + SIM (1,4-dioxane), PFAS, PCBs, Metals + Hg, Pesticides, Herbicides, Cyanide	2.5
SB-01	SB-101-5-7-021320	1145	5 – 7		2.5
SB-01	SB-01-25-26-021320	1445	25 – 26		18.5
SS-05	SS-05-021320	0830	0 – 2”		0.0
SS-05	SS-105-021320	0845	0 – 2”		0.0
Field Blank	FB-02-021320	1000	NA		NA

Best,
Lia Estrada
Environmental Engineering
CDM Smith Inc.| 11 British American Blvd. Latham, NY 12110
estradal@cdmsmith.com |Work: 518-782-4541 | Cell: 631-455-3701

From: Estrada, Lia
Sent: Wednesday, February 12, 2020 9:32 PM
To: Beattie, Jessica <BeattieJR@cdmsmith.com>
Cc: Bennett, Tonya <BennettTM@cdmsmith.com>
Subject: NYSDEC Quiogue Landfill -- Daily Summaries 2/10 through 2/12

Hi Ladies – see the daily reports for the last few days. Sorry for the delay.

Monday, Feb 10, 2020
Below includes the details of the activities performed at the site on 2/10/2020.

CDM Smith Personnel Onsite: L. Estrada and J. Beattie
Delta Personnel Onsite: Ben Rimmler
ADT Personnel Onsite: Rob Allegrezza and Pat MaGill
Purpose: To clear all five boring locations and all three monitoring well locations. To brush hog any required pathways to boring/monitoring well locations.
Weather: Light Rain, 45 Degrees F
Activities:

- A daily health and safety talk was performed prior to the commencement of activities at the Site.
- Delta utilized the GPR and EM wand to determine if any underground utilities or anomalies would impact the proposed boring and monitoring well locations. All proposed locations were clear of obstructions.
- J. Beattie, L. Estrada, and B. Rimmler performed a site walk of all the cleared locations to confirm they were in the appropriate locations as per the NYSDEC approved sample location plan. One location, MW-05 was moved approximately 50 feet to the east to be in line with MW-04. This moved location was cleared by Delta, as well. C. Heller (NYSDEC) later confirmed the more eastern location for MW-05 would be the most beneficial.
- ADT mobilized their skid steer, drill rig and tooling to the site.
- The ADT crew utilized a skid steer to clear downed branches, clear brush, and to level areas surrounding the cleared locations.
- The ADT crew spoke with the employees of J&V Auto Salvage to ask if they could use the water spicket in the northwestern corner of their lot to fill up their totes. They agreed.

Tuesday, Feb 11, 2020
Below includes the details of the activities performed at the site on 2/11/2020.

CDM Smith Personnel Onsite: L. Estrada
ADT Personnel Onsite: Rob Allegrezza and Pat MaGill
Purpose: To begin drilling at the soil boring locations.
Weather: Rain, 45 Degrees F
Activities:

- A daily health and safety talk was performed prior to the commencement of activities at the Site.
- ADT set up the HSA rig at SB-04. The crew was able to advance to 10 feet below ground surface (bgs) however, due to the significant rain event the surface sand became very soft. Due to the soft surface material, the rig had difficulty maintaining stability. In addition, a large portion of the material encountered down to 10 feet bgs was characterized by debris and trash which may have caused additional stability issues. During ADTs attempts to stabilize the rig, they noted one of the drill rigs tracks was not spinning. The crew called their mechanic to fix the track and bring additional wood planks to stabilize the rig.
- After, the track was fixed and the rig was stabilized, SB-04 was advanced to 20 feet bgs. No samples were collected on Feb 11, 2020.

Wednesday, Feb 12, 2020
Below includes the details of the activities performed at the site on 2/12/2020.

CDM Smith Personnel Onsite: L. Estrada
ADT Personnel Onsite: Rob Allegrezza and Pat MaGill
Purpose: Continue advancing at SB-04 and mobing to the next soil boring location.
Weather: Partly Cloudy, 38 Degrees F
Activities:

- A daily health and safety talk was performed prior to the commencement of activities at the Site.
- SB-04 was advanced 30 feet on Feb 12, 2020 to 50 feet bgs. A total of three subsurface soil samples were collected at SB-04 and one co-located surface soil sample. The sample summary table details the samples collected on Feb 12, 2020 below. Casing and augers were deconned in a temporary decon pad prior to mobilizing to the next boring location, SB-03.

- SB-03 was advanced to 50 feet bgs. A total of three subsurface soil samples were collected at SB-03 and one co-located surface soil sample. The sample summary table details the samples collected on Feb 12, 2020 below.
- A field blank of the material utilized to collect the soil samples was collected on February 12, 2020. All samples were packed in coolers and stored on ice. They will be picked up by the Test America courier tomorrow, February 13, 2020.

Sample Summary Table

Sample Location	Sample ID	Time Sample Collected	Depth Interval (feet unless otherwise stated)	Laboratory Analyses Collected	PID Reading (p
SB-04	SB-04-24-25-021220	0855	24 - 25	VOCs, SVOCs + SIM (1,4-dioxane), PFAS, PCBs, Metals + Hg, Pesticides, Herbicides, Cyanide	25.6
SB-04	SB-04-30-31-021220	0955	30 - 31		0.0
SB-04	SB-04-40-41-021220	1020	40– 41		0.0
SS-04	SS-04-021220	1100	0 – 2”		0.0
SB-03	SB-03-5-6.5-021220	1400	5 – 6.5		2.3
SB-03	SB-03-26-27.5-021220	1510	26 – 27.5		1.8
SB-03	SB-03-36-37-021220	1545	36 - 37		0.0
SS-03	SS-03-021220	1300	0 – 2”		0.0
Field Blank	FB-01-021220	1200	NA		NA

Thank you!!

Best,
Lia Estrada
Environmental Engineering
CDM Smith Inc.| 11 British American Blvd. Latham, NY 12110
estradal@cdmsmith.com |Work: 518-782-4541 | Cell: 631-455-3701

Bennett, Tonya

From: Estrada, Lia
Sent: Wednesday, February 19, 2020 7:07 PM
To: Bennett, Tonya; Beattie, Jessica
Cc: Yam, Michelle H.
Subject: NYSDEC Quiogue Landfill -- Daily Summary 2/19

All,

Wednesday, Feb 19, 2020
Below includes the details of the activities performed at the site on 2/19/2020.

CDM Smith Personnel Onsite: L. Estrada
ADT Personnel Onsite: Rob Allegrezza, Pat Magill
NYSDEC Personnel Onsite: Chris Heller
Purpose: Install CMT well for MW-05 and mobilize to MW-03.
Weather: Clear, 46 Degrees F
Activities:

- A daily health and safety talk was performed prior to the commencement of activities at the Site.
- The HERC rental company was back onsite to switch out the broken skid steer with a functioning machine.
- Mr. Chris Heller from NYSDEC was onsite today to observe field activities at the site.
- ADT advanced casing to 80 feet bgs to begin installation of the multi interval CMT well. The ADT crew did face some difficulties getting the well down the 80 foot depth due infiltration of sand and water in to the bottom of the casing. Through the use of the auto hammer and the inner rods, they were able to set the well. Ports are set at 30 (Channel 4), 60 (Channel 1) and 80 feet (Center Channel). Their associated channels for the CMT well are noted in parenthesis.
- The ADT mobilized to MW-03 to being drilling. The rig and equipment were set up on the location, however drilling at this location will commence on February 20, 20.
- One surface soil sample was collected at sample location MW-03, SS-MW-03-021920. The sample summary table details all the samples collected on Feb 19, 2020 below.
- A field blank of the sampling equipment utilized to collect the soil sample that was collected on February 19, 2020. All samples were packed in coolers and stored on ice. The Eurofins Test America courier will be onsite tomorrow to pick up the coolers.

Sample Summary Table

Sample Location	Sample ID	Time Sample Collected	Depth Interval (feet unless otherwise stated)	Laboratory Analyses Collected	PID Reading (ppm)
MW-03	SS-MW-03-021920	0800	0 - 2”	VOCs, SVOCs + SIM (1,4-dioxane), PFAS, PCBs, Metals + Hg, Pesticides, Herbicides, Cyanide	NA
Field Blank	FB-021920	1200	NA		NA

Best,
Lia Estrada
Environmental Engineering
CDM Smith Inc.| 11 British American Blvd. Latham, NY 12110
estradal@cdmsmith.com |Work: 518-782-4541 | Cell: 631-455-3701

From: Estrada, Lia
Sent: Monday, February 17, 2020 8:42 PM
To: Bennett, Tonya <BennettTM@cdmsmith.com>; Beattie, Jessica <BeattieJR@cdmsmith.com>
Subject: NYSDEC Quiogue Landfill -- Daily Summary 2/17

All,

Monday, Feb 17, 2020
Below includes the details of the activities performed at the site on 2/17/2020.

CDM Smith Personnel Onsite: L. Estrada
ADT Personnel Onsite: Rob Allegrezza and Pat MaGill
Purpose: Finish advancing soil borings and begin advancing borings as well locations.
Weather: Partly Cloudy, 49 Degrees F
Activities:

- A daily health and safety talk was performed prior to the commencement of activities at the Site.
- SB-05 was advanced to 45 feet bgs. A total of four subsurface soil samples were collected at SB-05. The boring consisted mainly of fine to medium to coarse sand with interbedded plastic debris, woody debris, fabric, and glass. Perched water was noted in the 6.5 to 11 foot bgs interval-likely due to wood/plastics holding water. A sample was collected from the 5 to 7 foot interval above the perched water. A second sample was collected above the water table at SB-05 due to the presence of high PID readings and a strong petroleum odor. This sample was collected from the 15 to 16 foot interval and was characterized by a significant amount of silty sand trash and trash including plastics, wood and glass. The water table was observed at roughly 30 feet bgs. A sample was able to be collected from the 30 to 32 foot interval. A very strong petroleum odor was noted at this interval, with a maximum PID reading of 188 ppm. A strong petroleum odor was noted in the 35 to 40 foot interval therefore, a field call was made to continue down to 45 feet bgs. Little to no odor was noted in the 40 to 45 foot interval. A sample was collected from 40 to 41.5 feet bgs.
- MW-05 was advanced to 45 feet bgs. A total of three subsurface soil samples were collected at MW-05. The boring consisted mainly of fine to medium to coarse sand with interbedded plastic debris, woody debris, and glass. The three samples were collected from the following intervals 5 to 7 feet bgs, 25 to 27 feet bgs, and 30 to 31 feet bgs. The water table is estimated to be at 25 feet bgs at MW-05. After discussions with J. Beattie and ADT, the soil will not be logged past 45 feet bgs due to wash out of the sand at MW-05. ADT will advance to 80 feet bgs tomorrow at MW-05 to begin setting the CMT well.
- One surface soil sample was collected at sample location MW-05, SS-MW-05-021720. The surface soil sample collected at SB-05 was collected last week on Thursday, February 13, 2020. The sample summary table details all the samples collected on Feb 17, 2020 below.
- A field blank of the sampling equipment utilized to collect the soil samples was collected on February 17, 2020. All samples were packed in coolers and stored on ice. The Eurofins Test America courier will pick up the samples tomorrow on February 18, 2020.

Sample Summary Table

Sample Location	Sample ID				PID Reading (ppm)

		Time Sample Collected	Depth Interval (feet unless otherwise stated)	Laboratory Analyses Collected	
SB-05	SB-05-5-7-021720	0915	5 - 7	VOCs, SVOCs + SIM (1,4-dioxane), PFAS, PCBs, Metals + Hg, Pesticides, Herbicides, Cyanide	4.3
SB-05	SB-05-15-16-021720	1000	15 – 16		34.9
SB-05	SB-05-30-32-021720	1015	30 – 32		188.0
SB-05	SB-05-40-41.5-021720	1040	40 – 41.5		11.5
MW-05	SS-MW-05-021720	1230	0 – 2”		0.0
MW-05	SB-MW-05-5-7-021720	1330	5 – 7		2.1
MW-05	SB-MW-05-25-27-021720	1430	25 – 27		6.1
MW-05	SB-MW-05-30-31-021720	1500	30 – 31		2.8
Field Blank	FB-021720	1300	NA		NA

Best,
Lia Estrada
Environmental Engineering
CDM Smith Inc.| 11 British American Blvd. Latham, NY 12110
estradal@cdmsmith.com |Work: 518-782-4541 | Cell: 631-455-3701

From: Estrada, Lia
Sent: Monday, February 17, 2020 7:50 AM
To: Bennett, Tonya <BennettTM@cdmsmith.com>; Bennett, Tonya <BennettTM@cdmsmith.com>
Subject: NYSDEC Quiogue Landfill -- Daily Summary 2/14

Sorry for his formatting is all weird. I tried to do this from my phone so please feel free to address anything before you send to Chris or can I do it when I get back to my computer. Thanks.

All,

Friday, Feb 14, 2020

Below includes the details of the activities performed at the site on 2/13/2020.

CDM Smith Personnel Onsite: L. Estrada

ADT Personnel Onsite: Rob Allegrezza and Pat MaGill

Purpose: Continue advancing at soil boring locations.

Weather: Overcast, Very Windy, 35 Degrees F

Activities:

- A daily health and safety talk was performed prior to the commencement of activities at the Site.

- SB-02 was advanced to 40 feet bgs. A total of three subsurface soil samples were collected at SB-02 from depth intervals 10-11.5 ft bgs, 30-32 feet bgs and 35-36 feet bgs. A sample was not collected from the 5 to 6 ft bgs interval because the material at this depth was observed to be a clean sand with no PID reading. The 10 to 11.5 ft interval has a PID reading of 0.5 ppm and had a petroleum odor. The boring consisted mainly of fine to medium-coarsed sand with interbedded plastic debris, brick and wood. Significant solid wood timber was noted from approximately 15 to 30 feet bgs. Petroleum odor was noted within some of the woody debris and specifically at the woody debris noted directly above the water table, observed at roughly 31.5 feet bgs.
- A surface soil was collected at both SB-01 and SB-02 on February 14, 2020. Samples were names, SS-01-021420 and SS-02-021420, respectively. The sample summary table details the samples collected on Feb 14, 2020 below.
- A field blank of the sampling equipment utilized to collect the soil samples was collected on February 14, 2020. No field duplicates is MS/MSDs were collected on Feb. 14, 2020. All samples were packed in coolers and stored on ice. The Test America courier picked up all samples for shipment on Feb. 14, 2020.

Sample Summary Table

Sample Location	Sample ID	Time Sample Collected	Depth Interval (feet unless otherwise stated)	Laboratory Analyses Collected	PID Reading (p
SB-02	SB-02-10-11.5-021420	1000	10 - 11.5	VOCs, SVOCs + SIM (1,4-dioxane), PFAS, PCBs, Metals + Hg, Pesticides, Herbicides, Cyanide	0.5
SB-02	SB-02-30-32-021420	1130	30 - 32		6.8
SB-02	SB-02-35-36-021420	1145	35 – 36		0.0
SS-01	SS-01-021420	0820	0 – 2”		0.0
SS-02	SS-02-021420	1030	0 – 2”		0.0
Field Blank	FB-021420	1200	NA		NA

Best,
Lia

Sent from my iPhone

Begin forwarded message:

From: "Estrada, Lia" <estradal@cdmsmith.com>
Date: February 13, 2020 at 22:18:00 EST
To: "Beattie, Jessica" <BeattieJR@cdmsmith.com>
Cc: "Bennett, Tonya" <BennettTM@cdmsmith.com>
Subject: NYSDEC Quiogue Landfill -- Daily Summary 2/13

All,

Thursday, Feb 13, 2020
Below includes the details of the activities performed at the site on 2/13/2020.

CDM Smith Personnel Onsite: L. Estrada
ADT Personnel Onsite: Rob Allegrezza and Pat MaGill
Purpose: Continue advancing at soil boring locations.
Weather: Rain, 40 Degrees F
Activities:

- A daily health and safety talk was performed prior to the commencement of activities at the Site.
- SB-01 was advanced to 35 feet bgs. A total of two subsurface soil samples were collected at SB-01. The boring consisted mainly of fine to medium-coarsed sand with interbedded plastic debris and wood. Solid wood timbers were noted in the 30 to 35 foot interval. Soil boring, SB-01 was terminated at 35 feet bgs due the presence of significant woody debris and/or several solid wood timbers starting in 25 to 30 foot bgs interval. Recovery was very poor in the 30 to 35 interval and consisted entirely of wood shreds. The same was expected for the 35 to 40 foot interval. No sample was able to be collected below the water table which was observed at roughly 26 feet bgs.
- One surface soil sample and one field duplicate were collected at sample location SS-05, co-located with soil boring location SB-05. The sample summary table details the samples collected on Feb 13, 2020 below.
- A field blank of the material utilized to collect the soil samples was collected on February 13, 2020. All samples were packed in coolers and stored on ice. The Test America courier picked up all samples with the exception of SB-01-25-26-021320 which was collected after the courier arrived onsite. This sample in addition to any samples collected tomorrow will be picked up by the Test America courier tomorrow, February 14, 2020.

Sample Summary Table

Sample Location	Sample ID	Time Sample Collected	Depth Interval (feet unless otherwise stated)	Laboratory Analyses Collected	PID Reading (p
SB-01	SB-01-5-7-021320	1130	5 - 7	VOCs, SVOCs + SIM (1,4-dioxane), PFAS, PCBs, Metals + Hg, Pesticides, Herbicides, Cyanide	2.5
SB-01	SB-101-5-7-021320	1145	5 – 7		2.5
SB-01	SB-01-25-26-021320	1445	25 – 26		18.5
SS-05	SS-05-021320	0830	0 – 2”		0.0
SS-05	SS-105-021320	0845	0 – 2”		0.0
Field Blank	FB-02-021320	1000	NA		NA

Best,
Lia Estrada
Environmental Engineering
CDM Smith Inc.| 11 British American Blvd. Latham, NY 12110
estradal@cdmsmith.com |Work: 518-782-4541 | Cell: 631-455-3701

From: Estrada, Lia
Sent: Wednesday, February 12, 2020 9:32 PM
To: Beattie, Jessica <BeattieJR@cdmsmith.com>
Cc: Bennett, Tonya <BennettTM@cdmsmith.com>
Subject: NYSDEC Quiogue Landfill -- Daily Summaries 2/10 through 2/12

Hi Ladies – see the daily reports for the last few days. Sorry for the delay.

Monday, Feb 10, 2020
Below includes the details of the activities performed at the site on 2/10/2020.

CDM Smith Personnel Onsite: L. Estrada and J. Beattie
Delta Personnel Onsite: Ben Rimmler
ADT Personnel Onsite: Rob Allegrezza and Pat MaGill
Purpose: To clear all five boring locations and all three monitoring well locations. To brush hog any required pathways to boring/monitoring well locations.
Weather: Light Rain, 45 Degrees F
Activities:

- A daily health and safety talk was performed prior to the commencement of activities at the Site.
- Delta utilized the GPR and EM wand to determine if any underground utilities or anomalies would impact the proposed boring and monitoring well locations. All proposed locations were clear of obstructions.
- J. Beattie, L. Estrada, and B. Rimmler performed a site walk of all the cleared locations to confirm they were in the appropriate locations as per the NYSDEC approved sample location plan. One location, MW-05 was moved approximately 50 feet to the east to be in line with MW-04. This moved location was cleared by Delta, as well. C. Heller (NYSDEC) later confirmed the more eastern location for MW-05 would be the most beneficial.
- ADT mobilized their skid steer, drill rig and tooling to the site.
- The ADT crew utilized a skid steer to clear downed branches, clear brush, and to level areas surrounding the cleared locations.
- The ADT crew spoke with the employees of J&V Auto Salvage to ask if they could use the water spicket in the northwestern corner of their lot to fill up their totes. They agreed.

Tuesday, Feb 11, 2020
Below includes the details of the activities performed at the site on 2/11/2020.

CDM Smith Personnel Onsite: L. Estrada
ADT Personnel Onsite: Rob Allegrezza and Pat MaGill
Purpose: To begin drilling at the soil boring locations.
Weather: Rain, 45 Degrees F
Activities:

- A daily health and safety talk was performed prior to the commencement of activities at the Site.
- ADT set up the HSA rig at SB-04. The crew was able to advance to 10 feet below ground surface (bgs) however, due to the significant rain event the surface sand became very soft. Due to the soft surface material, the rig had difficulty maintaining stability. In addition, a large portion of the material encountered down to 10 feet bgs was characterized by debris and trash which may have caused additional stability issues. During ADTs attempts to stabilize the rig, they noted one of the drill rigs tracks was not spinning. The crew called their mechanic to fix the track and bring additional wood planks to stabilize the rig.

- After, the track was fixed and the rig was stabilized, SB-04 was advanced to 20 feet bgs. No samples were collected on Feb 11, 2020.

Wednesday, Feb 12, 2020
Below includes the details of the activities performed at the site on 2/12/2020.

CDM Smith Personnel Onsite: L. Estrada
ADT Personnel Onsite: Rob Allegrezza and Pat MaGill
Purpose: Continue advancing at SB-04 and mobing to the next soil boring location.
Weather: Partly Cloudy, 38 Degrees F
Activities:

- A daily health and safety talk was performed prior to the commencement of activities at the Site.
- SB-04 was advanced 30 feet on Feb 12, 2020 to 50 feet bgs. A total of three subsurface soil samples were collected at SB-04 and one co-located surface soil sample. The sample summary table details the samples collected on Feb 12, 2020 below. Casing and augers were deconned in a temporary decon pad prior to mobilizing to the next boring location, SB-03.
- SB-03 was advanced to 50 feet bgs. A total of three subsurface soil samples were collected at SB-03 and one co-located surface soil sample. The sample summary table details the samples collected on Feb 12, 2020 below.
- A field blank of the material utilized to collect the soil samples was collected on February 12, 2020. All samples were packed in coolers and stored on ice. They will be picked up by the Test America courier tomorrow, February 13, 2020.

Sample Summary Table

Sample Location	Sample ID	Time Sample Collected	Depth Interval (feet unless otherwise stated)	Laboratory Analyses Collected	PID Reading (p
SB-04	SB-04-24-25-021220	0855	24 - 25	VOCs, SVOCs + SIM (1,4-dioxane), PFAS, PCBs, Metals + Hg, Pesticides, Herbicides, Cyanide	25.6
SB-04	SB-04-30-31-021220	0955	30 - 31		0.0
SB-04	SB-04-40-41-021220	1020	40– 41		0.0
SS-04	SS-04-021220	1100	0 – 2”		0.0
SB-03	SB-03-5-6.5-021220	1400	5 – 6.5		2.3
SB-03	SB-03-26-27.5-021220	1510	26 – 27.5		1.8
SB-03	SB-03-36-37-021220	1545	36 - 37		0.0
SS-03	SS-03-021220	1300	0 – 2”		0.0
Field Blank	FB-01-021220	1200	NA		NA

Thank you!!

Best,
Lia Estrada
Environmental Engineering
CDM Smith Inc.| 11 British American Blvd. Latham, NY 12110
estradal@cdmsmith.com |Work: 518-782-4541 | Cell: 631-455-3701

Bennett, Tonya

From: Estrada, Lia
Sent: Thursday, February 20, 2020 7:44 PM
To: Bennett, Tonya; Beattie, Jessica
Cc: Yam, Michelle H.
Subject: NYSDEC Quiogue Landfill -- Daily Summary 2/20

All,

Thursday, Feb 20, 2020
Below includes the details of the activities performed at the site on 2/20/2020.

CDM Smith Personnel Onsite: L. Estrada
ADT Personnel Onsite: Rob Allegrezza, Pat Magill
NYSDEC Personnel Onsite: Chris Heller
Purpose: Begin drilling at MW-03 and assemble the CMT well for MW-03.
Weather: Clear, 33 Degrees F
Activities:

- A daily health and safety talk was performed prior to the commencement of activities at the Site.
- Mr. Chris Heller from NYSDEC was onsite today to observe field activities at the site.
- MW-03 was advanced to 50 feet bgs. A total of three subsurface soil samples were collected at MW-03. The boring consisted mainly of fine to medium clean sand. The three samples were collected from the following intervals 10 to 12 feet bgs, 35 to 37 feet bgs, and 45 to 47 feet bgs. The water table is estimated to be at 35 feet bgs at MW-05. A very strong fuel/petroleum odor and high PID readings (max of 404 ppm) were observed at the water table. ADT re-advanced the casing to 40 feet bgs and will advance to 80 feet bgs tomorrow at MW-03 to begin attempting to set the CMT well.
- ADT assembled the CMT well for MW-03. Ports are set at 40 (Channel 4), 60 (Channel 1) and 80 feet (Center Channel). Their associated channels for the CMT well are noted in parenthesis.
- One surface soil sample was collected at sample location MW-04, SS-MW-04-022020. The sample summary table details all the samples collected on Feb 20, 2020 below.
- All samples were packed in coolers and stored on ice. The Eurofins Test America courier was onsite on February 20, 20 to pick up the coolers for shipment to the appropriate laboratories.

Sample Summary Table

Sample Location	Sample ID	Time Sample Collected	Depth Interval (feet unless otherwise stated)	Laboratory Analyses Collected	PID Reading (ppm)
MW-03	SO-MW-03-10-12-022020	0900	10 - 12	VOCs, SVOCs + SIM (1,4-dioxane), PFAS, PCBs, Metals + Hg, Pesticides, Herbicides, Cyanide	0.7
MW-03	SO-MW-03-35-37-022020	1000	35 - 37		403.5
MW-03	SO-MW-03-45-47-022020	1040	45 - 47		129.2
MW-04	SS-MW-04-022020	1130	0 - 2”		0.0

Best,

Lia Estrada
Environmental Engineering
CDM Smith Inc.| 11 British American Blvd. Latham, NY 12110
estradal@cdmsmith.com |Work: 518-782-4541 | Cell: 631-455-3701

From: Estrada, Lia
Sent: Monday, February 17, 2020 8:42 PM
To: Bennett, Tonya <BennettTM@cdmsmith.com>; Beattie, Jessica <BeattieJR@cdmsmith.com>
Subject: NYSDEC Quiogue Landfill -- Daily Summary 2/17

All,

Monday, Feb 17, 2020
Below includes the details of the activities performed at the site on 2/17/2020.

CDM Smith Personnel Onsite: L. Estrada
ADT Personnel Onsite: Rob Allegrezza and Pat MaGill
Purpose: Finish advancing soil borings and begin advancing borings as well locations.
Weather: Partly Cloudy, 49 Degrees F
Activities:

- A daily health and safety talk was performed prior to the commencement of activities at the Site.
- SB-05 was advanced to 45 feet bgs. A total of four subsurface soil samples were collected at SB-05. The boring consisted mainly of fine to medium to coarse sand with interbedded plastic debris, woody debris, fabric, and glass. Perched water was noted in the 6.5 to 11 foot bgs interval-likely due to wood/plastics holding water. A sample was collected from the 5 to 7 foot interval above the perched water. A second sample was collected above the water table at SB-05 due to the presence of high PID readings and a strong petroleum odor. This sample was collected from the 15 to 16 foot interval and was characterized by a significant amount of silty sand trash and trash including plastics, wood and glass. The water table was observed at roughly 30 feet bgs. A sample was able to be collected from the 30 to 32 foot interval. A very strong petroleum odor was noted at this interval, with a maximum PID reading of 188 ppm. A strong petroleum odor was noted in the 35 to 40 foot interval therefore, a field call was made to continue down to 45 feet bgs. Little to no odor was noted in the 40 to 45 foot interval. A sample was collected from 40 to 41.5 feet bgs.
- MW-05 was advanced to 45 feet bgs. A total of three subsurface soil samples were collected at MW-05. The boring consisted mainly of fine to medium to coarse sand with interbedded plastic debris, woody debris, and glass. The three samples were collected from the following intervals 5 to 7 feet bgs, 25 to 27 feet bgs, and 30 to 31 feet bgs. The water table is estimated to be at 25 feet bgs at MW-05. After discussions with J. Beattie and ADT, the soil will not be logged past 45 feet bgs due to wash out of the sand at MW-05. ADT will advance to 80 feet bgs tomorrow at MW-05 to begin setting the CMT well.
- One surface soil sample was collected at sample location MW-05, SS-MW-05-021720. The surface soil sample collected at SB-05 was collected last week on Thursday, February 13, 2020. The sample summary table details all the samples collected on Feb 17, 2020 below.
- A field blank of the sampling equipment utilized to collect the soil samples was collected on February 17, 2020. All samples were packed in coolers and stored on ice. The Eurofins Test America courier will pick up the samples tomorrow on February 18, 2020.

Sample Summary Table

Sample Location	Sample ID				PID Reading (ppm)

		Time Sample Collected	Depth Interval (feet unless otherwise stated)	Laboratory Analyses Collected	
SB-05	SB-05-5-7-021720	0915	5 - 7	VOCs, SVOCs + SIM (1,4-dioxane), PFAS, PCBs, Metals + Hg, Pesticides, Herbicides, Cyanide	4.3
SB-05	SB-05-15-16-021720	1000	15 – 16		34.9
SB-05	SB-05-30-32-021720	1015	30 – 32		188.0
SB-05	SB-05-40-41.5-021720	1040	40 – 41.5		11.5
MW-05	SS-MW-05-021720	1230	0 – 2”		0.0
MW-05	SB-MW-05-5-7-021720	1330	5 – 7		2.1
MW-05	SB-MW-05-25-27-021720	1430	25 – 27		6.1
MW-05	SB-MW-05-30-31-021720	1500	30 – 31		2.8
Field Blank	FB-021720	1300	NA		NA

Best,
Lia Estrada
Environmental Engineering
CDM Smith Inc.| 11 British American Blvd. Latham, NY 12110
estradal@cdmsmith.com |Work: 518-782-4541 | Cell: 631-455-3701

From: Estrada, Lia
Sent: Monday, February 17, 2020 7:50 AM
To: Bennett, Tonya <BennettTM@cdmsmith.com>; Bennett, Tonya <BennettTM@cdmsmith.com>
Subject: NYSDEC Quiogue Landfill -- Daily Summary 2/14

Sorry for his formatting is all weird. I tried to do this from my phone so please feel free to address anything before you send to Chris or can I do it when I get back to my computer. Thanks.

All,

Friday, Feb 14, 2020

Below includes the details of the activities performed at the site on 2/13/2020.

CDM Smith Personnel Onsite: L. Estrada

ADT Personnel Onsite: Rob Allegrezza and Pat MaGill

Purpose: Continue advancing at soil boring locations.

Weather: Overcast, Very Windy, 35 Degrees F

Activities:

- A daily health and safety talk was performed prior to the commencement of activities at the Site.

- SB-02 was advanced to 40 feet bgs. A total of three subsurface soil samples were collected at SB-02 from depth intervals 10-11.5 ft bgs, 30-32 feet bgs and 35-36 feet bgs. A sample was not collected from the 5 to 6 ft bgs interval because the material at this depth was observed to be a clean sand with no PID reading. The 10 to 11.5 ft interval has a PID reading of 0.5 ppm and had a petroleum odor. The boring consisted mainly of fine to medium-coarsed sand with interbedded plastic debris, brick and wood. Significant solid wood timber was noted from approximately 15 to 30 feet bgs. Petroleum odor was noted within some of the woody debris and specifically at the woody debris noted directly above the water table, observed at roughly 31.5 feet bgs.
- A surface soil was collected at both SB-01 and SB-02 on February 14, 2020. Samples were names, SS-01-021420 and SS-02-021420, respectively. The sample summary table details the samples collected on Feb 14, 2020 below.
- A field blank of the sampling equipment utilized to collect the soil samples was collected on February 14, 2020. No field duplicates is MS/MSDs were collected on Feb. 14, 2020. All samples were packed in coolers and stored on ice. The Test America courier picked up all samples for shipment on Feb. 14, 2020.

Sample Summary Table

Sample Location	Sample ID	Time Sample Collected	Depth Interval (feet unless otherwise stated)	Laboratory Analyses Collected	PID Reading (p
SB-02	SB-02-10-11.5-021420	1000	10 - 11.5	VOCs, SVOCs + SIM (1,4-dioxane), PFAS, PCBs, Metals + Hg, Pesticides, Herbicides, Cyanide	0.5
SB-02	SB-02-30-32-021420	1130	30 - 32		6.8
SB-02	SB-02-35-36-021420	1145	35 – 36		0.0
SS-01	SS-01-021420	0820	0 – 2”		0.0
SS-02	SS-02-021420	1030	0 – 2”		0.0
Field Blank	FB-021420	1200	NA		NA

Best,
Lia

Sent from my iPhone

Begin forwarded message:

From: "Estrada, Lia" <estradal@cdmsmith.com>
Date: February 13, 2020 at 22:18:00 EST
To: "Beattie, Jessica" <BeattieJR@cdmsmith.com>
Cc: "Bennett, Tonya" <BennettTM@cdmsmith.com>
Subject: NYSDEC Quiogue Landfill -- Daily Summary 2/13

All,

Thursday, Feb 13, 2020
Below includes the details of the activities performed at the site on 2/13/2020.

CDM Smith Personnel Onsite: L. Estrada
ADT Personnel Onsite: Rob Allegrezza and Pat MaGill
Purpose: Continue advancing at soil boring locations.
Weather: Rain, 40 Degrees F
Activities:

- A daily health and safety talk was performed prior to the commencement of activities at the Site.
- SB-01 was advanced to 35 feet bgs. A total of two subsurface soil samples were collected at SB-01. The boring consisted mainly of fine to medium-coarsed sand with interbedded plastic debris and wood. Solid wood timbers were noted in the 30 to 35 foot interval. Soil boring, SB-01 was terminated at 35 feet bgs due the presence of significant woody debris and/or several solid wood timbers starting in 25 to 30 foot bgs interval. Recovery was very poor in the 30 to 35 interval and consisted entirely of wood shreds. The same was expected for the 35 to 40 foot interval. No sample was able to be collected below the water table which was observed at roughly 26 feet bgs.
- One surface soil sample and one field duplicate were collected at sample location SS-05, co-located with soil boring location SB-05. The sample summary table details the samples collected on Feb 13, 2020 below.
- A field blank of the material utilized to collect the soil samples was collected on February 13, 2020. All samples were packed in coolers and stored on ice. The Test America courier picked up all samples with the exception of SB-01-25-26-021320 which was collected after the courier arrived onsite. This sample in addition to any samples collected tomorrow will be picked up by the Test America courier tomorrow, February 14, 2020.

Sample Summary Table

Sample Location	Sample ID	Time Sample Collected	Depth Interval (feet unless otherwise stated)	Laboratory Analyses Collected	PID Reading (p
SB-01	SB-01-5-7-021320	1130	5 - 7	VOCs, SVOCs + SIM (1,4-dioxane), PFAS, PCBs, Metals + Hg, Pesticides, Herbicides, Cyanide	2.5
SB-01	SB-101-5-7-021320	1145	5 – 7		2.5
SB-01	SB-01-25-26-021320	1445	25 – 26		18.5
SS-05	SS-05-021320	0830	0 – 2”		0.0
SS-05	SS-105-021320	0845	0 – 2”		0.0
Field Blank	FB-02-021320	1000	NA		NA

Best,
Lia Estrada
Environmental Engineering
CDM Smith Inc.| 11 British American Blvd. Latham, NY 12110
estradal@cdmsmith.com |Work: 518-782-4541 | Cell: 631-455-3701

From: Estrada, Lia
Sent: Wednesday, February 12, 2020 9:32 PM
To: Beattie, Jessica <BeattieJR@cdmsmith.com>
Cc: Bennett, Tonya <BennettTM@cdmsmith.com>
Subject: NYSDEC Quiogue Landfill -- Daily Summaries 2/10 through 2/12

Hi Ladies – see the daily reports for the last few days. Sorry for the delay.

Monday, Feb 10, 2020
Below includes the details of the activities performed at the site on 2/10/2020.

CDM Smith Personnel Onsite: L. Estrada and J. Beattie
Delta Personnel Onsite: Ben Rimmler
ADT Personnel Onsite: Rob Allegrezza and Pat MaGill
Purpose: To clear all five boring locations and all three monitoring well locations. To brush hog any required pathways to boring/monitoring well locations.
Weather: Light Rain, 45 Degrees F
Activities:

- A daily health and safety talk was performed prior to the commencement of activities at the Site.
- Delta utilized the GPR and EM wand to determine if any underground utilities or anomalies would impact the proposed boring and monitoring well locations. All proposed locations were clear of obstructions.
- J. Beattie, L. Estrada, and B. Rimmler performed a site walk of all the cleared locations to confirm they were in the appropriate locations as per the NYSDEC approved sample location plan. One location, MW-05 was moved approximately 50 feet to the east to be in line with MW-04. This moved location was cleared by Delta, as well. C. Heller (NYSDEC) later confirmed the more eastern location for MW-05 would be the most beneficial.
- ADT mobilized their skid steer, drill rig and tooling to the site.
- The ADT crew utilized a skid steer to clear downed branches, clear brush, and to level areas surrounding the cleared locations.
- The ADT crew spoke with the employees of J&V Auto Salvage to ask if they could use the water spicket in the northwestern corner of their lot to fill up their totes. They agreed.

Tuesday, Feb 11, 2020
Below includes the details of the activities performed at the site on 2/11/2020.

CDM Smith Personnel Onsite: L. Estrada
ADT Personnel Onsite: Rob Allegrezza and Pat MaGill
Purpose: To begin drilling at the soil boring locations.
Weather: Rain, 45 Degrees F
Activities:

- A daily health and safety talk was performed prior to the commencement of activities at the Site.
- ADT set up the HSA rig at SB-04. The crew was able to advance to 10 feet below ground surface (bgs) however, due to the significant rain event the surface sand became very soft. Due to the soft surface material, the rig had difficulty maintaining stability. In addition, a large portion of the material encountered down to 10 feet bgs was characterized by debris and trash which may have caused additional stability issues. During ADTs attempts to stabilize the rig, they noted one of the drill rigs tracks was not spinning. The crew called their mechanic to fix the track and bring additional wood planks to stabilize the rig.

- After, the track was fixed and the rig was stabilized, SB-04 was advanced to 20 feet bgs. No samples were collected on Feb 11, 2020.

Wednesday, Feb 12, 2020
Below includes the details of the activities performed at the site on 2/12/2020.

CDM Smith Personnel Onsite: L. Estrada
ADT Personnel Onsite: Rob Allegrezza and Pat MaGill
Purpose: Continue advancing at SB-04 and mobing to the next soil boring location.
Weather: Partly Cloudy, 38 Degrees F
Activities:

- A daily health and safety talk was performed prior to the commencement of activities at the Site.
- SB-04 was advanced 30 feet on Feb 12, 2020 to 50 feet bgs. A total of three subsurface soil samples were collected at SB-04 and one co-located surface soil sample. The sample summary table details the samples collected on Feb 12, 2020 below. Casing and augers were deconned in a temporary decon pad prior to mobilizing to the next boring location, SB-03.
- SB-03 was advanced to 50 feet bgs. A total of three subsurface soil samples were collected at SB-03 and one co-located surface soil sample. The sample summary table details the samples collected on Feb 12, 2020 below.
- A field blank of the material utilized to collect the soil samples was collected on February 12, 2020. All samples were packed in coolers and stored on ice. They will be picked up by the Test America courier tomorrow, February 13, 2020.

Sample Summary Table

Sample Location	Sample ID	Time Sample Collected	Depth Interval (feet unless otherwise stated)	Laboratory Analyses Collected	PID Reading (p
SB-04	SB-04-24-25-021220	0855	24 - 25	VOCs, SVOCs + SIM (1,4-dioxane), PFAS, PCBs, Metals + Hg, Pesticides, Herbicides, Cyanide	25.6
SB-04	SB-04-30-31-021220	0955	30 - 31		0.0
SB-04	SB-04-40-41-021220	1020	40– 41		0.0
SS-04	SS-04-021220	1100	0 – 2”		0.0
SB-03	SB-03-5-6.5-021220	1400	5 – 6.5		2.3
SB-03	SB-03-26-27.5-021220	1510	26 – 27.5		1.8
SB-03	SB-03-36-37-021220	1545	36 - 37		0.0
SS-03	SS-03-021220	1300	0 – 2”		0.0
Field Blank	FB-01-021220	1200	NA		NA

Thank you!!

Best,
Lia Estrada
Environmental Engineering
CDM Smith Inc.| 11 British American Blvd. Latham, NY 12110
estradal@cdmsmith.com |Work: 518-782-4541 | Cell: 631-455-3701

Bennett, Tonya

From: Estrada, Lia
Sent: Tuesday, February 25, 2020 5:31 PM
To: Beattie, Jessica; Bennett, Tonya
Subject: RE: NYSDEC Quiogue Landfill -- Daily Summary 2/21
Attachments: Sample_Location_Map.pdf

Hi! Sorry for the delay. See the attached sample location map and the updated daily report. Thanks. Let me know if you need anything else.

From: Beattie, Jessica <BeattieJR@cdmsmith.com>
Sent: Tuesday, February 25, 2020 4:00 PM
To: Estrada, Lia <estradal@cdmsmith.com>; Bennett, Tonya <BennettTM@cdmsmith.com>
Subject: RE: NYSDEC Quiogue Landfill -- Daily Summary 2/21

Thanks! Can you also send the map where you marked where those other wells were?

Thanks,
Jessica Beattie

From: Estrada, Lia <estradal@cdmsmith.com>
Sent: Tuesday, February 25, 2020 3:59 PM
To: Bennett, Tonya <BennettTM@cdmsmith.com>; Beattie, Jessica <BeattieJR@cdmsmith.com>
Subject: NYSDEC Quiogue Landfill -- Daily Summary 2/21

Sorry here you go!

All,

Friday, Feb 21, 2020
Below includes the details of the activities performed at the site on 2/21/2020.

CDM Smith Personnel Onsite: L. Estrada
ADT Personnel Onsite: Rob Allegrezza, Pat Magill
Purpose: Install the CMT well for MW-03 and install stand pipes at MW-03 and MW-05.
Weather: Clear, 32 Degrees F
Activities:

- A daily health and safety talk was performed prior to the commencement of activities at the Site.
- MW-03 was advanced back down to 80 feet bgs. The CMT well was installed down to 80 feet bgs. Ports are set at 40 (Channel 4), 60 (Channel 1) and 80 feet (Center Channel). Their associated channels for the CMT well are noted in parenthesis.
- The stand pipe steel outer casings were installed at both MW-03 and MW-05. The stand pipes are enameled in high visibility yellow paint and fixed with keyed locks. The ADT crew secured wood stakes to the upper portion of the CMT inner casing to assist in preventing the flexible polyethene CMT well from bending to one side of the outer casing. They were successful in centering the inner casing so the dial cap for the CMT well can be removed properly. The concrete pad was poured for both MW-03 and MW-05, as well.
- A total of five monitoring wells (in addition to the existing monitoring wells identified on the Sample Locations figure in the SOW, temporarily labeled as MW-UNK-1 through MW-UNK-5) were located at the Quiogue Landfill

site along the western boundary of the property. A total of four of the five wells based on visual inspection look to be in good condition. One (MW-UNK-4) of the five wells had the stand pipe broken off and was open to ambient conditions. In addition, while the casing generally looked to be in good condition, MW-UNK-2 had a hole cut in the casing at the back of the well. Locks were noted on the caps of all wells. The four wells with the casing fully intact were gauged and sounded. The well that had the hole in the back of the casing did seem to have sediment and debris at the base of the well. In general, all four of these unknown existing wells had a petroleum odor similar to that of samples collected at MW-03 and SB-05. A map is attached including the approximate locations of all existing wells located at the site and all locations sampled during the February 2020 sampling event.

- No samples were collected on February 21, 2020. Sampling will continue on Monday, February 25, 2020.

Best,
Lia Estrada
Environmental Engineering
CDM Smith Inc.| 11 British American Blvd. Latham, NY 12110
estradal@cdmsmith.com |Work: 518-782-4541 | Cell: 631-455-3701

From: Estrada, Lia
Sent: Thursday, February 20, 2020 7:44 PM
To: Bennett, Tonya <BennettTM@cdmsmith.com>; Beattie, Jessica <BeattieJR@cdmsmith.com>
Cc: Yam, Michelle H. <yammh@cdmsmith.com>
Subject: NYSDEC Quiogue Landfill -- Daily Summary 2/20

All,

Thursday, Feb 20, 2020
Below includes the details of the activities performed at the site on 2/20/2020.

CDM Smith Personnel Onsite: L. Estrada
ADT Personnel Onsite: Rob Allegrezza, Pat Magill
NYSDEC Personnel Onsite: Chris Heller
Purpose: Begin drilling at MW-03 and assemble the CMT well for MW-03.
Weather: Clear, 33 Degrees F
Activities:

- A daily health and safety talk was performed prior to the commencement of activities at the Site.
- Mr. Chris Heller from NYSDEC was onsite today to observe field activities at the site.
- MW-03 was advanced to 50 feet bgs. A total of three subsurface soil samples were collected at MW-03. The boring consisted mainly of fine to medium clean sand. The three samples were collected from the following intervals 10 to 12 feet bgs, 35 to 37 feet bgs, and 45 to 47 feet bgs. The water table is estimated to be at 35 feet bgs at MW-05. A very strong fuel/petroleum odor and high PID readings (max of 404 ppm) were observed at the water table. ADT re-advanced the casing to 40 feet bgs and will advance to 80 feet bgs tomorrow at MW-03 to begin attempting to set the CMT well.
- ADT assembled the CMT well for MW-03. Ports are set at 40 (Channel 4), 60 (Channel 1) and 80 feet (Center Channel). Their associated channels for the CMT well are noted in parenthesis.
- One surface soil sample was collected at sample location MW-04, SS-MW-04-022020. The sample summary table details all the samples collected on Feb 20, 2020 below.
- All samples were packed in coolers and stored on ice. The Eurofins Test America courier was onsite on February 20, 20 to pick up the coolers for shipment to the appropriate laboratories.

Sample Summary Table

Sample Location	Sample ID	Time Sample Collected	Depth Interval (feet unless otherwise stated)	Laboratory Analyses Collected	PID Reading (ppm)
MW-03	SO-MW-03-10-12-022020	0900	10 - 12	VOCs, SVOCs + SIM (1,4-dioxane), PFAS, PCBs, Metals + Hg, Pesticides, Herbicides, Cyanide	0.7
MW-03	SO-MW-03-35-37-022020	1000	35 - 37		403.5
MW-03	SO-MW-03-45-47-022020	1040	45 - 47		129.2
MW-04	SS-MW-04-022020	1130	0 - 2"		0.0

Best,
Lia Estrada
Environmental Engineering
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estradal@cdmsmith.com |Work: 518-782-4541 | Cell: 631-455-3701

From: Estrada, Lia
Sent: Monday, February 17, 2020 8:42 PM
To: Bennett, Tonya <BennettTM@cdmsmith.com>; Beattie, Jessica <BeattieJR@cdmsmith.com>
Subject: NYSDEC Quiogue Landfill -- Daily Summary 2/17

All,

Monday, Feb 17, 2020
Below includes the details of the activities performed at the site on 2/17/2020.

CDM Smith Personnel Onsite: L. Estrada
ADT Personnel Onsite: Rob Allegrezza and Pat MaGill
Purpose: Finish advancing soil borings and begin advancing borings as well locations.
Weather: Partly Cloudy, 49 Degrees F
Activities:

- A daily health and safety talk was performed prior to the commencement of activities at the Site.
- SB-05 was advanced to 45 feet bgs. A total of four subsurface soil samples were collected at SB-05. The boring consisted mainly of fine to medium to coarse sand with interbedded plastic debris, woody debris, fabric, and glass. Perched water was noted in the 6.5 to 11 foot bgs interval-likely due to wood/plastics holding water. A sample was collected from the 5 to 7 foot interval above the perched water. A second sample was collected above the water table at SB-05 due to the presence of high PID readings and a strong petroleum odor. This sample was collected from the 15 to 16 foot interval and was characterized by a significant amount of silty sand trash and trash including plastics, wood and glass. The water table was observed at roughly 30 feet bgs. A sample was able to be collected from the 30 to 32 foot interval. A very strong petroleum odor was noted at this interval, with a maximum PID reading of 188 ppm. A strong petroleum odor was noted in the 35 to 40 foot interval therefore, a field call was made to continue down to 45 feet bgs. Little to no odor was noted in the 40 to 45 foot interval. A sample was collected from 40 to 41.5 feet bgs.
- MW-05 was advanced to 45 feet bgs. A total of three subsurface soil samples were collected at MW-05. The boring consisted mainly of fine to medium to coarse sand with interbedded plastic debris, woody debris, and glass. The three samples were collected from the following intervals 5 to 7 feet bgs, 25 to 27 feet bgs, and 30 to

31 feet bgs. The water table is estimated to be at 25 feet bgs at MW-05. After discussions with J. Beattie and ADT, the soil will not be logged past 45 feet bgs due to wash out of the sand at MW-05. ADT will advance to 80 feet bgs tomorrow at MW-05 to begin setting the CMT well.

- One surface soil sample was collected at sample location MW-05, SS-MW-05-021720. The surface soil sample collected at SB-05 was collected last week on Thursday, February 13, 2020. The sample summary table details all the samples collected on Feb 17, 2020 below.
- A field blank of the sampling equipment utilized to collect the soil samples was collected on February 17, 2020. All samples were packed in coolers and stored on ice. The Eurofins Test America courier will pick up the samples tomorrow on February 18, 2020.

Sample Summary Table

Sample Location	Sample ID	Time Sample Collected	Depth Interval (feet unless otherwise stated)	Laboratory Analyses Collected	PID Reading (ppm)
SB-05	SB-05-5-7-021720	0915	5 - 7	VOCs, SVOCs + SIM (1,4-dioxane), PFAS, PCBs, Metals + Hg, Pesticides, Herbicides, Cyanide	4.3
SB-05	SB-05-15-16-021720	1000	15 – 16		34.9
SB-05	SB-05-30-32-021720	1015	30 – 32		188.0
SB-05	SB-05-40-41.5-021720	1040	40 – 41.5		11.5
MW-05	SS-MW-05-021720	1230	0 – 2”		0.0
MW-05	SB-MW-05-5-7-021720	1330	5 – 7		2.1
MW-05	SB-MW-05-25-27-021720	1430	25 – 27		6.1
MW-05	SB-MW-05-30-31-021720	1500	30 – 31		2.8
Field Blank	FB-021720	1300	NA		NA

Best,
Lia Estrada
Environmental Engineering
CDM Smith Inc.| 11 British American Blvd. Latham, NY 12110
estradal@cdmsmith.com |Work: 518-782-4541 | Cell: 631-455-3701

From: Estrada, Lia
Sent: Monday, February 17, 2020 7:50 AM
To: Bennett, Tonya <BennettTM@cdmsmith.com>; Bennett, Tonya <BennettTM@cdmsmith.com>
Subject: NYSDEC Quiogue Landfill -- Daily Summary 2/14

Sorry for his formatting is all weird. I tried to do this from my phone so please feel free to address anything before you send to Chris or can I do it when I get back to my computer. Thanks.

All,

Friday, Feb 14, 2020

Below includes the details of the activities performed at the site on 2/13/2020.

CDM Smith Personnel Onsite: L. Estrada

ADT Personnel Onsite: Rob Allegrezza and Pat MaGill

Purpose: Continue advancing at soil boring locations.

Weather: Overcast, Very Windy, 35 Degrees F

Activities:

- A daily health and safety talk was performed prior to the commencement of activities at the Site.
- SB-02 was advanced to 40 feet bgs. A total of three subsurface soil samples were collected at SB-02 from depth intervals 10-11.5 ft bgs, 30-32 feet bgs and 35-36 feet bgs. A sample was not collected from the 5 to 6 ft bgs interval because the material at this depth was observed to be a clean sand with no PID reading. The 10 to 11.5 ft interval has a PID reading of 0.5 ppm and had a petroleum odor. The boring consisted mainly of fine to medium-coarsed sand with interbedded plastic debris, brick and wood. Significant solid wood timber was noted from approximately 15 to 30 feet bgs. Petroleum odor was noted within some of the woody debris and specifically at the woody debris noted directly above the water table, observed at roughly 31.5 feet bgs.
- A surface soil was collected at both SB-01 and SB-02 on February 14, 2020. Samples were names, SS-01-021420 and SS-02-021420, respectively. The sample summary table details the samples collected on Feb 14, 2020 below.
- A field blank of the sampling equipment utilized to collect the soil samples was collected on February 14, 2020. No field duplicates is MS/MSDs were collected on Feb. 14, 2020. All samples were packed in coolers and stored on ice. The Test America courier picked up all samples for shipment on Feb. 14, 2020.

Sample Summary Table

Sample Location	Sample ID	Time Sample Collected	Depth Interval (feet unless otherwise stated)	Laboratory Analyses Collected	PID Reading (p
SB-02	SB-02-10-11.5-021420	1000	10 - 11.5	VOCs, SVOCs + SIM (1,4-dioxane), PFAS, PCBs, Metals + Hg, Pesticides, Herbicides, Cyanide	0.5
SB-02	SB-02-30-32-021420	1130	30 - 32		6.8
SB-02	SB-02-35-36-021420	1145	35 – 36		0.0
SS-01	SS-01-021420	0820	0 – 2”		0.0
SS-02	SS-02-021420	1030	0 – 2”		0.0
Field Blank	FB-021420	1200	NA		NA

Best,
Lia

Sent from my iPhone

Begin forwarded message:

From: "Estrada, Lia" <estradal@cdmsmith.com>
Date: February 13, 2020 at 22:18:00 EST
To: "Beattie, Jessica" <BeattieJR@cdmsmith.com>
Cc: "Bennett, Tonya" <BennettTM@cdmsmith.com>
Subject: NYSDEC Quiogue Landfill -- Daily Summary 2/13

All,

Thursday, Feb 13, 2020
Below includes the details of the activities performed at the site on 2/13/2020.

CDM Smith Personnel Onsite: L. Estrada
ADT Personnel Onsite: Rob Allegrezza and Pat MaGill
Purpose: Continue advancing at soil boring locations.
Weather: Rain, 40 Degrees F
Activities:

- A daily health and safety talk was performed prior to the commencement of activities at the Site.
- SB-01 was advanced to 35 feet bgs. A total of two subsurface soil samples were collected at SB-01. The boring consisted mainly of fine to medium-coarsed sand with interbedded plastic debris and wood. Solid wood timbers were noted in the 30 to 35 foot interval. Soil boring, SB-01 was terminated at 35 feet bgs due the presence of significant woody debris and/or several solid wood timbers starting in 25 to 30 foot bgs interval. Recovery was very poor in the 30 to 35 interval and consisted entirely of wood shreds. The same was expected for the 35 to 40 foot interval. No sample was able to be collected below the water table which was observed at roughly 26 feet bgs.
- One surface soil sample and one field duplicate were collected at sample location SS-05, co-located with soil boring location SB-05. The sample summary table details the samples collected on Feb 13, 2020 below.
- A field blank of the material utilized to collect the soil samples was collected on February 13, 2020. All samples were packed in coolers and stored on ice. The Test America courier picked up all samples with the exception of SB-01-25-26-021320 which was collected after the courier arrived onsite. This sample in addition to any samples collected tomorrow will be picked up by the Test America courier tomorrow, February 14, 2020.

Sample Summary Table

Sample Location	Sample ID	Time Sample Collected	Depth Interval (feet unless otherwise stated)	Laboratory Analyses Collected	PID Reading (p
SB-01	SB-01-5-7-021320	1130	5 - 7	VOCs, SVOCs + SIM (1,4-dioxane), PFAS, PCBs, Metals + Hg, Pesticides,	2.5
SB-01	SB-101-5-7-021320	1145	5 – 7		2.5
SB-01	SB-01-25-26-021320	1445	25 – 26		18.5
SS-05	SS-05-021320	0830	0 – 2”		0.0
SS-05	SS-105-021320	0845	0 – 2”		0.0

Field Blank	FB-02-021320	1000	NA	Herbicides, Cyanide	NA

Best,
Lia Estrada
Environmental Engineering
CDM Smith Inc.| 11 British American Blvd. Latham, NY 12110
estradal@cdmsmith.com |Work: 518-782-4541 | Cell: 631-455-3701

From: Estrada, Lia
Sent: Wednesday, February 12, 2020 9:32 PM
To: Beattie, Jessica <BeattieJR@cdmsmith.com>
Cc: Bennett, Tonya <BennettTM@cdmsmith.com>
Subject: NYSDEC Quiogue Landfill -- Daily Summaries 2/10 through 2/12

Hi Ladies – see the daily reports for the last few days. Sorry for the delay.

Monday, Feb 10, 2020
Below includes the details of the activities performed at the site on 2/10/2020.

CDM Smith Personnel Onsite: L. Estrada and J. Beattie
Delta Personnel Onsite: Ben Rimmler
ADT Personnel Onsite: Rob Allegrezza and Pat MaGill
Purpose: To clear all five boring locations and all three monitoring well locations. To brush hog any required pathways to boring/monitoring well locations.
Weather: Light Rain, 45 Degrees F
Activities:

- A daily health and safety talk was performed prior to the commencement of activities at the Site.
- Delta utilized the GPR and EM wand to determine if any underground utilities or anomalies would impact the proposed boring and monitoring well locations. All proposed locations were clear of obstructions.
- J. Beattie, L. Estrada, and B. Rimmler performed a site walk of all the cleared locations to confirm they were in the appropriate locations as per the NYSDEC approved sample location plan. One location, MW-05 was moved approximately 50 feet to the east to be in line with MW-04. This moved location was cleared by Delta, as well. C. Heller (NYSDEC) later confirmed the more eastern location for MW-05 would be the most beneficial.
- ADT mobilized their skid steer, drill rig and tooling to the site.
- The ADT crew utilized a skid steer to clear downed branches, clear brush, and to level areas surrounding the cleared locations.
- The ADT crew spoke with the employees of J&V Auto Salvage to ask if they could use the water spicket in the northwestern corner of their lot to fill up their totes. They agreed.

Tuesday, Feb 11, 2020
Below includes the details of the activities performed at the site on 2/11/2020.

CDM Smith Personnel Onsite: L. Estrada
ADT Personnel Onsite: Rob Allegrezza and Pat MaGill
Purpose: To begin drilling at the soil boring locations.
Weather: Rain, 45 Degrees F

Activities:

- A daily health and safety talk was performed prior to the commencement of activities at the Site.
- ADT set up the HSA rig at SB-04. The crew was able to advance to 10 feet below ground surface (bgs) however, due to the significant rain event the surface sand became very soft. Due to the soft surface material, the rig had difficulty maintaining stability. In addition, a large portion of the material encountered down to 10 feet bgs was characterized by debris and trash which may have caused additional stability issues. During ADTs attempts to stabilize the rig, they noted one of the drill rigs tracks was not spinning. The crew called their mechanic to fix the track and bring additional wood planks to stabilize the rig.
- After, the track was fixed and the rig was stabilized, SB-04 was advanced to 20 feet bgs. No samples were collected on Feb 11, 2020.

Wednesday, Feb 12, 2020

Below includes the details of the activities performed at the site on 2/12/2020.

CDM Smith Personnel Onsite: L. Estrada
ADT Personnel Onsite: Rob Allegrezza and Pat MaGill
Purpose: Continue advancing at SB-04 and mobing to the next soil boring location.
Weather: Partly Cloudy, 38 Degrees F
Activities:

- A daily health and safety talk was performed prior to the commencement of activities at the Site.
- SB-04 was advanced 30 feet on Feb 12, 2020 to 50 feet bgs. A total of three subsurface soil samples were collected at SB-04 and one co-located surface soil sample. The sample summary table details the samples collected on Feb 12, 2020 below. Casing and augers were deconned in a temporary decon pad prior to mobilizing to the next boring location, SB-03.
- SB-03 was advanced to 50 feet bgs. A total of three subsurface soil samples were collected at SB-03 and one co-located surface soil sample. The sample summary table details the samples collected on Feb 12, 2020 below.
- A field blank of the material utilized to collect the soil samples was collected on February 12, 2020. All samples were packed in coolers and stored on ice. They will be picked up by the Test America courier tomorrow, February 13, 2020.

Sample Summary Table

Sample Location	Sample ID	Time Sample Collected	Depth Interval (feet unless otherwise stated)	Laboratory Analyses Collected	PID Reading (p
SB-04	SB-04-24-25-021220	0855	24 - 25	VOCs, SVOCs + SIM (1,4-dioxane), PFAS, PCBs, Metals + Hg, Pesticides, Herbicides, Cyanide	25.6
SB-04	SB-04-30-31-021220	0955	30 - 31		0.0
SB-04	SB-04-40-41-021220	1020	40– 41		0.0
SS-04	SS-04-021220	1100	0 – 2”		0.0
SB-03	SB-03-5-6.5-021220	1400	5 – 6.5		2.3
SB-03	SB-03-26-27.5-021220	1510	26 – 27.5		1.8
SB-03	SB-03-36-37-021220	1545	36 - 37		0.0
SS-03	SS-03-021220	1300	0 – 2”		0.0
Field Blank	FB-01-021220	1200	NA		NA

Thank you!!

Best,
Lia Estrada
Environmental Engineering
CDM Smith Inc.| 11 British American Blvd. Latham, NY 12110
estradal@cdmsmith.com |Work: 518-782-4541 | Cell: 631-455-3701

Bennett, Tonya

From: Harrold, Amanda M.
Sent: Monday, March 16, 2020 8:44 PM
To: Beattie, Jessica; Bennett, Tonya
Cc: Estrada, Lia
Subject: NYSDEC Quiogue Landfill - Daily Summary 3/16

All,

Monday, March 16, 2020
Below includes the details of the activities performed at the site on 3/16/2020.

CDM Smith Personnel Onsite: L. Estrada & A. Harrold
Drucker Land Surveying Personnel Onsite: Brian Drucker
Purpose: Survey monitoring well and soil boring locations, collected a synoptic round of groundwater level measurements, and begin sampling monitoring wells.
Weather: Partly cloudy, 30 – 40 Degrees F
Activities:

- A daily health and safety talk was performed prior to the commencement of activities at the Site.
- The survey of monitoring well and soil boring locations was completed.
- A full synoptic round of groundwater level measurements was completed. MW-DEC-18, MW-DEC-13, and MW-A38 were dry therefore MW-DEC-13 will not be sampled.
- Attempted to sample CMT well MW-05. Encountered challenges inserting the required footvalve into the HDPE tubing as well as using the Wattera pump with the small diameter tubing. Hand purged 3 well volumes (approximately 0.3 gallons) and sampled the 35 ft bgs interval. No low-flow parameters were collected. The field team is currently evaluating possible options to insert the footvalues in order to try to sample the rest of the CMT wells tomorrow (3/17/20).
- Samples were collected from MW-01(MS/MSD), MW-05 (35 ft bgs interval), MW-A35, and MW-A46 for PFAS, 1,4-Dioxane, VOCs, SVOCs, Pesticides, Herbicides, PCBs, Metals including Hg, and Cyanide. A field blank (FB-031620) and trip blank (TB-01) were also collected. See table below for sample collection summary.
- All samples collected were packed into coolers with ice and will be shipped tomorrow (3/17/20) via courier service.

Sample Location	Time Sample Collected	Screened Interval (feet)	Laboratory Analyses Collected
MW-05	09:45	35	PFAS, 1,4-Dioxane, VOCs, SVOCs, Pesticides, Herbicides, PCBs, Metals + Hg, Cyanide
MW-A35	13:45	unknown	
MW-01 (MS/MSD collected)	15:15	unknown	
MW-A46	17:30	unknown	
FB-031620	20:00	NA	
TB-01	08:00	NA	VOCs

Please let me know if you have any questions.

Thank you,
Amanda
--
Amanda Harrold | Environmental Engineer

CDM Smith | 11 British American Blvd. Suite 200 | Latham, NY 12110
o. 518-782-4535 | c. 518-698-9167 | e. harroldam@cdmsmith.com

Bennett, Tonya

From: Harrold, Amanda M.
Sent: Tuesday, March 17, 2020 7:41 PM
To: Beattie, Jessica; Bennett, Tonya
Cc: Estrada, Lia
Subject: RE: NYSDEC Quiogue Landfill - Daily Summary 3/17

All,

Tuesday, March 17, 2020
Below includes the details of the activities performed at the site on 3/17/2020.

CDM Smith Personnel Onsite: L. Estrada & A. Harrold
Purpose: Continue sampling monitoring wells.
Weather: Rain, 40 – 50 Degrees F
Activities:

- A daily health and safety talk was performed prior to the commencement of activities at the Site.
- Continued challenges using the Wattera pump with the small diameter tubing for the CMT wells. Instead of collecting low-flow parameters through the YSI, for all CMT wells 3 well volumes were purged prior to sampling.
- Samples were collected from MW-02(Field duplicate MW-102), MW-DEC-16, MW-03 (40 ft bgs interval), and MW-05 (60 ft bgs interval and 80 ft bgs interval) for PFAS, 1,4-Dioxane, VOCs, SVOCs, Pesticides, Herbicides, PCBs, Metals including Hg, and Cyanide. A field blank (FB-031720) and trip blank (TB-02) were also collected. See table below for sample collection summary.
- Samples collected on 3/16/20 and MW-DEC-16 were packed into coolers with ice and shipped via courier service. All other samples were packed into coolers with ice and will be dropped off at a service center.
- Back note: On 3/16/20 the shallow interval for MW-05 was noted to be 35 feet bgs. This interval is actually 40 feet bgs.

Sample Location	Time Sample Collected	Screened Interval (feet)	Laboratory Analyses Collected
MW-DEC-16	09:25	unknown	PFAS, 1,4-Dioxane, VOCs, SVOCs, Pesticides, Herbicides, PCBs, Metals + Hg, Cyanide
MW-02	10:30	unknown	
MW-102 (Field duplicate of MW-02)	10:35	unknown	
MW-05	13:30	60	
MW-05	14:20	80	
MW-03	16:40	40	
FB-031720	19:30	NA	
TB-02	08:00	NA	VOCs

Please let me know if you have any questions.

Thank you,
Amanda
--
Amanda Harrold | Environmental Engineer
CDM Smith | 11 British American Blvd. Suite 200 | Latham, NY 12110
o. 518-782-4535 | c. 518-698-9167 | e. harroldam@cdmsmith.com

Bennett, Tonya

From: Harrold, Amanda M.
Sent: Wednesday, March 18, 2020 7:47 PM
To: Beattie, Jessica; Bennett, Tonya
Cc: Estrada, Lia
Subject: NYSDEC Quiogue Landfill - Daily Summary 3/18

All,

Wednesday, March 18, 2020
Below includes the details of the activities performed at the site on 3/18/2020.

CDM Smith Personnel Onsite: L. Estrada & A. Harrold
Purpose: Complete sampling of monitoring wells.
Weather: Sunny, 40 – 50 Degrees F
Activities:

- A daily health and safety talk was performed prior to the commencement of activities at the Site.
- Continued challenges using the Wattera pump with the small diameter tubing for the CMT wells. Instead of collecting low-flow parameters through the YSI, for all CMT wells 3 well volumes were purged prior to sampling.
- Samples were collected from MW-03 (60 and 80 ft bgs intervals) and MW-04 (35, 60, and 80 ft bgs intervals) for PFAS, 1,4-Dioxane, VOCs, SVOCs, Pesticides, Herbicides, PCBs, Metals including Hg, and Cyanide. A field blank (FB-031820) was also collected. VOC samples were packed into the same cooler as previous samples so an additional trip blank was not needed. See table below for sample collection summary.
- IDW sample collected for SVOCs, 1,4-Dioxane, VOCs, PCBs, Herbicides, PFAS, Cyanide, Reactive cyanide, Reactive sulfide, RCRA characteristics, Metals, and Mercury.
- All samples were packed into coolers with ice and will be dropped off at the Albany service center tomorrow.
- Monitoring well sampling event completed.

Sample Location	Time Sample Collected	Screened Interval (feet)	Laboratory Analyses Collected
MW-04	09:30	35	PFAS, 1,4-Dioxane, VOCs, SVOCs, Pesticides, Herbicides, PCBs, Metals + Hg, Cyanide
MW-04	10:15	60	
MW-04	11:00	80	
MW-03	13:30	60	
MW-03	14:30	80	
FB-031820	17:00	NA	
IDW-031820	12:00	NA	SVOCs, 1,4-Dioxane, VOCs, PCBs, Herbicides, PFAS, Cyanide, Reactive cyanide, Reactive sulfide, RCRA characteristics, Metals, Mercury

Please let me know if you have any questions.

Thank you,

Amanda

--

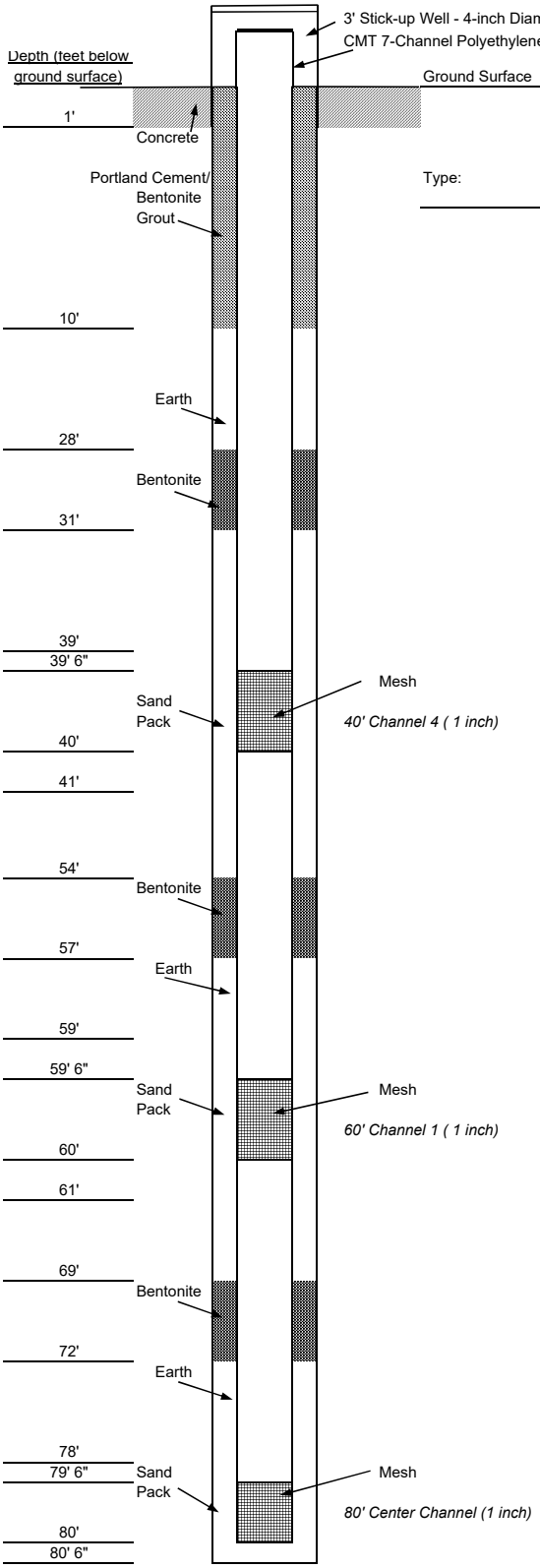
Amanda Harrold | Environmental Engineer
CDM Smith | 11 British American Blvd. Suite 200 | Latham, NY 12110
o. 518-782-4535 | c. 518-698-9167 | e. harroldam@cdmsmith.com

Appendix D

Well Construction Summaries

WELL CONSTRUCTION SUMMARY

Project: Quiogue Landfill | Location: Quiogue, New York | Well No.: MW-03 | Permit No.:



Type: CMT Well

DRILLING SUMMARY

Drilling Company:	ADT	Drillers:	Patrick McGill
Drill Rig/Model:	Hollow Stem Auger LM6U69		Rob Allegruez
Borehole Diameters:	4 inches	Drilling Fluid:	Potable Water
Bits/Depths:	5 feet		
Total Depth:	80'	Depth To Water:	~35 feet
Supervisor Engineer:	L. Estrada		

WELL DESIGN

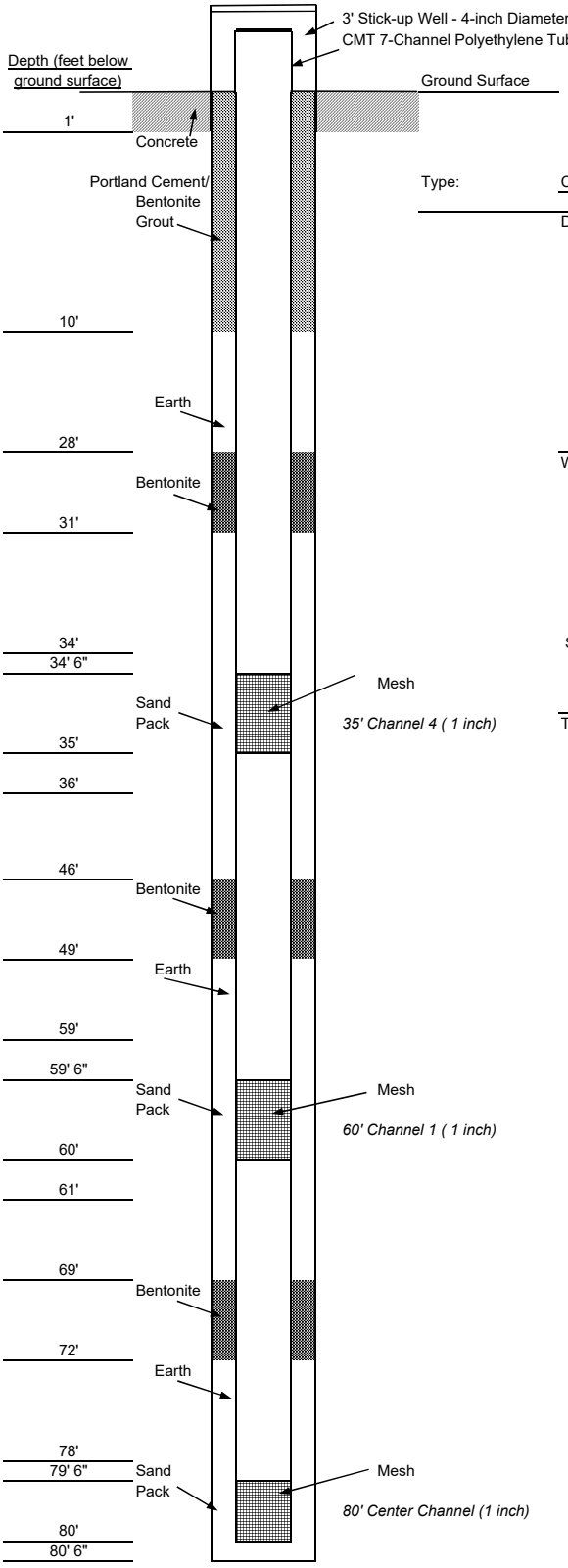
Casing Material:	Medium Density Polyethylene	Diameter:	1.7 inches
Screen Material:	Steel Mesh	Diameter:	Total - 1.7 inches, Channel - 0.25 inch
Slot Size:	100 Mesh (1 inch opening)	Setting:	39' 6" - 40', 59' 6" - 60', 79' 6" - 80'
Filter Material:	#1 Sand	Setting:	39' - 41', 59' - 61', 78' - 80' 6"
Seals Material:	Bentonite (Benseal)	Setting:	28' - 31', 54 - 57', 69' - 72'
Grout:	Portland Cement/Benseal	Setting:	1' - 10'
Surface Casing Material:	Steel	Setting:	2' bgs to 3' ags

TIME LOG

	Started	Completed
Drilling:	02/19/20	02/21/20
Installation:	02/21/20	02/21/20
Development:	Not Applicable	

WELL CONSTRUCTION SUMMARY

Project: Quiogue Landfill | Location: Quiogue, New York | Well No.: MW-04 | Permit No.:



Type: CMT Well

DRILLING SUMMARY

Drilling Company:	ADT	Drillers:	Patrick McGill
Drill Rig/Model:	Hollow Stem Auger LM6U69		Rob Allegruez
Borehole Diameters:	4 inches	Drilling Fluid:	Potable Water
Bits/Depths:	5 feet		
Total Depth:	80'	Depth To Water:	~27 feet
Supervisor Engineer:	L. Estrada		

WELL DESIGN

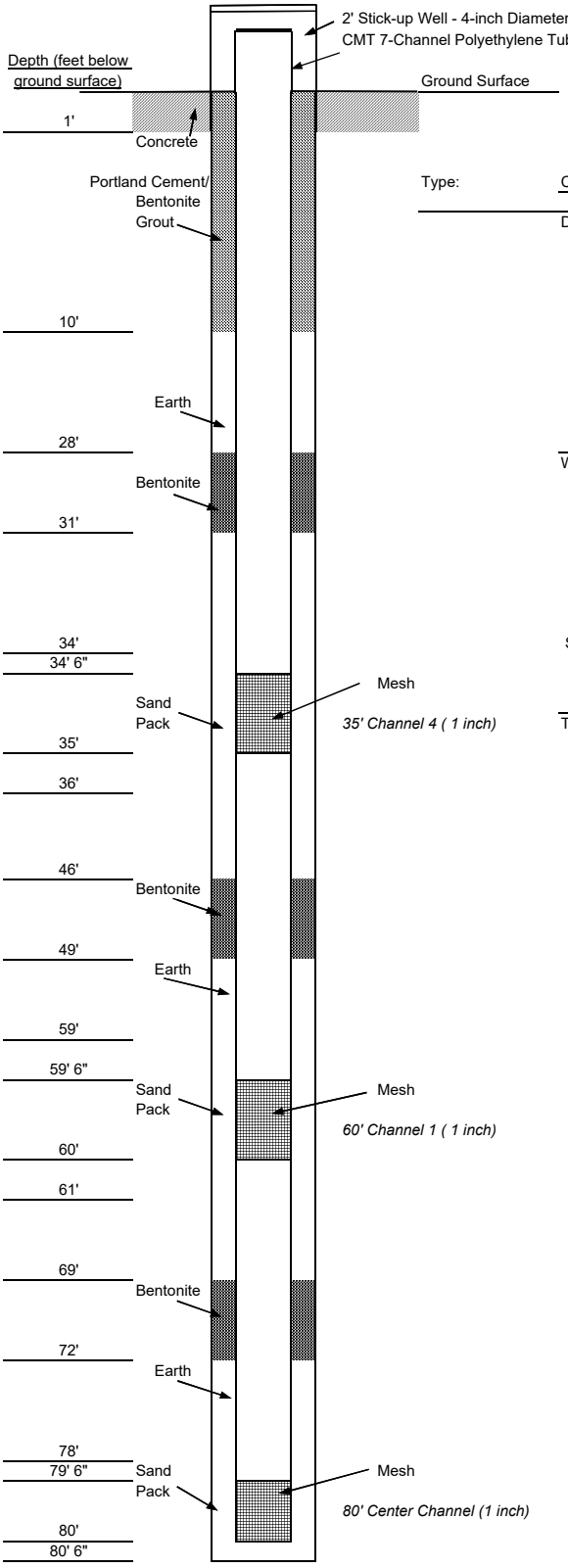
Casing Material:	Medium Density Polyethylene	Diameter:	1.7 inches
Screen Material:	Steel Mesh	Diameter:	Total - 1.7 inches, Channel - 0.25 inch
Slot Size:	100 Mesh (1 inch opening)	Setting:	34' 6" - 35', 59' 6" - 60', 79' 6" - 80'
Filter Material:	#1 Sand	Setting:	34' - 36', 59' - 61', 78' - 80' 6"
Seals Material:	Bentonite (Benseal)	Setting:	28' - 31', 46 - 49', 69' - 72'
Grout:	Portland Cement/Benseal	Setting:	1' - 10'
Surface Casing Material:	Steel	Setting:	2' bgs to 3' ags

TIME LOG

	Started	Completed
Drilling:	02/25/20	02/26/20
Installation:	02/26/20	02/26/20
Development:	Not Applicable	

WELL CONSTRUCTION SUMMARY

Project: Quiogue Landfill | Location: Quiogue, New York | Well No.: MW-05 | Permit No.:



Type: CMT Well

DRILLING SUMMARY

Drilling Company:	ADT	Drillers:	Patrick McGill
Drill Rig/Model:	Hollow Stem Auger LM6U69		Rob Allegruez
Borehole Diameters:	4 inches	Drilling Fluid:	Potable Water
Bits/Depths:	5 feet		
Total Depth:	80'	Depth To Water:	~25 feet
Supervisor Engineer:	L. Estrada		

WELL DESIGN

Casing Material:	Medium Density Polyethylene	Diameter:	1.7 inches
Screen Material:	Steel Mesh	Diameter:	Total - 1.7 inches, Channel - 0.25 inch
Slot Size:	100 Mesh (1 inch opening)	Setting:	34' 6" - 35', 59' 6" - 60', 79' 6" - 80'
Filter Material:	#1 Sand	Setting:	34' - 36', 59' - 61', 78' - 80' 6"
Seals Material:	Bentonite (Benseal)	Setting:	28' - 31', 46 - 49', 69' - 72'
Grout:	Portland Cement/Benseal	Setting:	1' - 10'
Surface Casing Material:	Steel	Setting:	2' bgs to 3' ags

TIME LOG

	Started	Completed
Drilling:	02/17/20	02/18/20
Installation:	02/18/20	02/19/20
Development:	Not Applicable	

Appendix E

Low Flow Forms

LOW FLOW SAMPLING SHEETS

SITE NAME: Quiogue Landfill

- Biosheen
- H_2S smell, some rainbow sheen

DATE: 3/16/20

WELL #: MW-01

SAMPLE TIME: 1515

DEPTH OF PUMP: 39 FT TIC

WEATHER CONDITIONS: 47 °F sunny

SAMPLERS: LE

TIME	VOLUME PURGED (GALS)	DEPTH TO WATER (FT TIC)	FLOW RATE (ml/min)	DRAWDOWN FEET	TEMP °C (+/- 10%)	ph (+/- 0.1 SU)	REDOX POTENTIAL mV (+/- 10 mv)	SPECIFIC COND. mS/cm (+/- 3%)	TURBIDITY NTUs (+/- 10%)	DISSOLVED OXYGEN mg/L (+/- 10%)
1430		34.97			12.4	5.96	-40.3	0.608	9.97	2.44
1435					12.5	5.92	-49.7	0.608	8.50	1.97
1440					12.8	5.91	-58.7	0.606	8.44	1.58
1445					12.7	5.89	-64.2	0.609	4.16	0.73
1450					13.2	5.87	-67.1	0.611	3.79	0.55
1455					12.7	5.87	-71.2	0.612	3.59	0.45
1500					12.8	5.87	-73.2	0.612	2.39	0.44
1505					12.9	5.87	-74.5	0.612	2.37	0.43
1510					13.0	5.87	-74.9	0.613	2.38	0.43
1515			SAMPLE COLLECTED							

The well is considered stabilized and ready for sampling when the indicator parameters have stabilized for three consecutive readings by the measurements indicated in parenthesis.

LOW FLOW SA[illegible]LING SHEETS

SITE NAME: Quiogue Landfill

DATE: 3/17/20 WELL #: MW-02 + DUP

SAMPLE TIME: 1030 DEPTH OF PUMP: 40 ~~FT BTOC~~

WEATHER CONDITIONS: rain, 45°F SAMPLERS: LE

TIME	VOLUME PURGED (GALS)	DEPTH TO WATER (FT TIC)	FLOW RATE (ml/min)	DRAWDOWN FEET	TEMP °C (+/- 10%)	ph (+/- 0.1 SU)	REDOX POTENTIAL mV (+/- 10 mv)	SPECIFIC COND. mS/cm (+/- 3%)	TURBIDITY NTUs (+/- 10%)	DISSOLVED OXYGEN mg/L (+/- 10%)
0950					11.2	6.07	58.9	0.123	62.76	1.08
0955					11.2	5.88	87.9	0.121	38.71 ~~68.4~~	9.18
1000					11.2	5.87	95.7	0.121	81.71	9.22
1005					11.2	5.90	101.2	0.122	23.73	9.20
1010					11.2	5.87	106.7	0.122	22.40	9.19
1015					11.2	5.88	107.2	0.122	22.01	9.19
1020					11.2	5.88	108.9	0.122	21.43	9.20
1025					11.2	5.89	108.2	0.122	20.21	9.19
1030	——	SAMPLE COLLECTED			——	——	——	——	——	9

The well is considered stabilized and ready for sampling when the indicator parameters have stabilized for three consecutive readings by the measurements indicated in parenthesis.

LOW FLOW SAMPLING SHEETS

SITE NAME: QUIOGUE LANDFILL

DATE: 16 MARCH 2020 WELL #: A35

SAMPLE TIME: 1345 DEPTH OF PUMP: 34[illegible] FT TIC

WEATHER CONDITIONS: 40s PARTLY CLOUDY SAMPLERS: A. HARRAD

TIME	VOLUME PURGED (GALS)	DEPTH TO WATER (FT TIC)	FLOW RATE (ml/min)	DRAWDOWN FEET	TEMP °C (+/- 10%)	ph (+/- 0.1 SU)	REDOX POTENTIAL mV (+/- 10 mv)	SPECIFIC COND. mS/cm (+/- 3%)	TURBIDITY NTUs (+/- 10%)	DISSOLVED OXYGEN mg/L (+/- 10%)
1245		31.91			12.5	11.06	-100.5	0.457	695.39	0.93
1250					12.3	6.18	416.84	0.450	415.82	0.50
1255					11.6	6.03	-73.5	0.445	345.42	0.46
1300					11.7	5.98	-69.0	0.442	287.01	0.44
1305					11.7	5.93	-63.0	0.442	244.64	0.44
1310					11.8	5.86	-57.5	0.441	196.25	0.44
1315					11.8	5.83	-52.4	0.440	128.45	0.44
1320					11.9	5.81	-50.7	0.439	116.50	044
1325					12.0	5.79	-49.5	0.438	88.70	0.48
1330					12.0	5.79	-49.4	0.438	52.08	0.46
1335					12.0	5.79	-49.1	0.438	49.83	0.46
1340		31.96			12.0	5.78	-48.9	0.437	47.89	0.45

The well is considered stabilized and ready for sampling when the indicator parameters have stabilized for three consecutive readings by the measurements indicated in parenthesis.

SAMPLE COLECTED @ 1345

LOW FLOW SAMPLING SHEETS

SITE NAME: QUIOGUE LANDFILL

STRONG PETROLEUM ODOR
SHEEN

DATE: 3/16/20 WELL #: MW-A46

SAMPLE TIME: 1730 DEPTH OF PUMP: 40 FT TIC

WEATHER CONDITIONS: 40s SUNNY SAMPLERS: A. HARRALD

TIME	VOLUME PURGED (GALS)	DEPTH TO WATER (FT TIC)	FLOW RATE (ml/min)	DRAWDOWN FEET	TEMP °C (+/- 10%)	ph (+/- 0.1 SU)	REDOX POTENTIAL mV (+/- 10 mv)	SPECIFIC COND. mS/cm (+/- 3%)	TURBIDITY NTUs (+/- 10%)	DISSOLVED OXYGEN mg/L (+/- 10%)
1630		37.11			9.8	7.27	-119.7	0.633	146.40	4.45
1635					8.5	7.00	-120.9	0.629	150.87	2.83
1640	———	CHECK	/FOOT	VALVE	CLOGGED	———				———
1650					9.2	6.76	-90.0	0.616	245.82	5.62
1655					10.7	6.77	-123.7	0.627	222.20	3.33
1700					10.8	6.71	-134.9	0.631	141.94	2.13
1705					10.8	6.69	-144.6	0.633	109.27	1.79
1710					10.5	6.69	-150.5	0.635	82.89	1.51
1715					10.4	6.66	-157.0	0.636	53.02	1.28
1720					10.4	6.66	-160.5	0.637	50.85	1.25
1725		37.16			10.4	6.66	-164.2	0.638	48.62	1.21
1730	———	———	———	SAMPLE	COLLECTED	———	———	———	———	———

The well is considered stabilized and ready for sampling when the indicator parameters have stabilized for three consecutive readings by the measurements indicated in parenthesis.

LOW FLOW SAMPLING SHEETS

SITE NAME: QUIOGUE LANDFILL

DATE: 3/17/20

WELL #: MW-DEC-16

SAMPLE TIME: 0925

DEPTH OF PUMP: 40 FT ~~TIC~~

WEATHER CONDITIONS: 40s RAIN

SAMPLERS: A HARRELD

TIME	VOLUME PURGED (GALS)	DEPTH TO WATER (FT TIC)	FLOW RATE (ml/min)	DRAWDOWN FEET	TEMP °C (+/- 10%)	ph (+/- 0.1 SU)	REDOX POTENTIAL mV (+/- 10 mv)	SPECIFIC COND. mS/cm (+/- 3%)	TURBIDITY NTUs (+/- 10%)	DISSOLVED OXYGEN mg/L (+/- 10%)
0845		34.17			11.8	7.04	-5.6	0551	25.37	3.78
0850					11.9	6.82	-171	0.537	28.09	2.32
0855					12.0	6.77	-176.4	0.528	29.89	1.83
0900					12.2	6.73	-189.6	0.515	33.79	1.32
0905					12.1	6.70	-194.4	0.507	29.54	1.09
0910					12.0	6.67	-198.3	0497	28.76	0.96
0915					11.9	6.66	-199.9	0.493	27.66	0.94
0920		34.17			11.9	6.65	-202.6	0.489	26.90	0.92

The well is considered stabilized and ready for sampling when the indicator parameters have stabilized for three consecutive readings by the measurements indicated in parenthesis. PETROLEUM ODOR

Appendix F

Laboratory Result Summaries (separate attachments)

Appendix G

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

May 9, 2020

Tonya Bennett
CDM Smith
11 British American Blvd Suite 200
Latham, NY 12110

RE: Validation of the Quiogue Landfill Site Analytical Laboratory Data
Data Usability Summary Report (DUSR)
Eurofins TA SDG No. 320-58654, 320-58733, 320-58811, 320-58935, 320-59642, 460-203166, 460-203170, 460-203296, 460-203460, 460-203732, 460-205392, 205-205605, and 460-205608

Dear Ms. Bennett:

Review has been completed for the data packages generated by Eurofins that pertain to samples collected between 02/12/20 and 03/18/20 at the site. Thirty two soil samples, fourteen aqueous samples, two soil field duplicates, and an aqueous field duplicate were analyzed for TCL volatiles, TCL semivolatiles, per- and polyfluorinated alkyl substances (PFAS), 1,4-dioxane, TCL pesticides, Aroclor PCBs, TCL herbicides, TAL metals, and total cyanide. Matrix spikes, field blanks, and trip blanks were also processed. The analytical methodologies are those of the USEPA SW846 and a modified USEPA method 537.

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 of the project QAPP of 03-27-18 and 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 Blanks
* Matrix Spike Recoveries/Duplicate Correlations
* Blind Field Duplicate Correlations
* Laboratory Control Sample (LCS)
* 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 qualification. However, the following results are rejected and not usable:

- Caprolactam and atrazine in 10 aqueous samples
- 2,4-Dinitrophenol and 4,6-dinitro-3-methylphenol in one soil sample

Data completeness, accuracy, precision, representativeness, reproducibility, sensitivity, and comparability are acceptable, with the exception of the precision of the field duplicate of the soil boring matrix.

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.

Copies of the client sample identifications are attached to this text. Also included in this report are the client EDDs with recommended qualifiers/edits applied in red.

Chains-of-Custody/Sample Receipt

SO-MW-04-16.5-18.5-022420 was reported by the laboratory for PFAS analyses as SO-MW-04-16.5-18.5-0222420.

Strikeovers and scratchouts should have been initialed and dated.

Blind Field Duplicate

The blind field duplicate evaluations were performed on SS-05-021320, SB-01-5-7-021320, and MW-02-031720.

The correlations for SB-01-5-7-021320 are very poor, with the following analytes exhibiting correlations outside validation guidelines. The field duplicate consistently shows higher concentrations than the parent sample, sometimes by two orders of magnitude. The analytes listed below have been qualified as estimated in that parent sample and its duplicate. A conservative approach would be to consider the results of the field duplicate as potentially being representative of the location. The affected analytes are acetone, 2-butanone, dieldrin, ten semivolatile analytes, Aroclor 1242, PFOS, five elements, and total cyanide.

All correlations for the other two pairings are within validation guidelines, with the exception of those for chromium and lead in the soil. Results for those two elements in SS-05-021320 and its field duplicate have been qualified as estimated in value. That field duplicate shows significantly higher concentrations for those two analytes than the parent sample. The values for chromium and lead in that parent sample and its duplicate are below the 6NYCRR Part 375 Unrestricted SCOs, and so are considered usable.

TCL Volatile Analyses by EPA 8260C

The detections of acetone in all samples reported in SDGs 460-203116, 460-203170, and 460-203296 except SB-101-5-7-021320 are considered contamination and edited to non-detection due to presence in the associated field blank.

Due to poor mass spectral quality, the following detected results are edited to reflect non-detection:

- Benzene in SB-04-30-31-021220
- 1,2-Dichlorobenzene in SB-03-5-6.5-021220 and SB-05-15-16-021720
- 1,3-Dichlorobenzene in SB-101-5-7-021320
- 1,4-Dichlorobenzene in SB-05-30-32-021720
- Cyclohexane in SB-03-36-37-021220
- Isopropylbenzene in SB-05-15-16-021720

Due to a preponderance of outlying analyte recoveries in the matrix spikes of SB-05-5-7-021720, the results for that parent sample has been qualified as estimated in value, generally with a low bias.

The matrix spikes of SS-MW-03-21920 and MW-01-031620 show recoveries and duplicate correlations that are within validation guidelines, with the exception of the following, results for which are qualified as estimated in the parent sample:

Parent Sample	Analyte	Outlying % Recoveries	Outlying %RPD
SS-MW-03-21920	1,2,4-trichlorobenzene	49,37	41
	1,2-dichlorobenzene	65,53	35
	1,3-dichlorobenzene	66,54	
	1,4-dichlorobenzene	67,52	39
	ethylbenzene	71	37
	isopropylbenzene	68	35
	methylcyclohexane	78,64	

The following results are qualified as estimated due to outlying recoveries in the associated LCSs:

- Isopropylbenzene in SB-05-5-7-021720, SS-MW-05-021720, SS-MW-05-5-7-021720, SS-MW-05-25-27-021720, and SS-05-30-31-021720
- 1,2-Dibromo-3-chloromethane in SO-MW-03-35-37-022020

Calibration standards showed acceptable responses, with the following exceptions, results for which are qualified as estimated in the indicated associated samples:

- Bromomethane (49%D and 68%D) in FB021420, FB-021720, FB-022420
- Bromoform (22%D) in samples SB-01-25-26-021320, SS-01-021420, SS-02-021420, SB-02-30-32-021420, SB-05-15-16-021720, SO-MW-03-35-37-12-022020
- Dichlorodifluoromethane and bromoform (26%D to 51%D) in samples SB-05-5-7-021720, SS-MW-05-021720, SS-MW-05-5-7-021720, SS-MW-05-25-27-021720, SS-MW-05-30-31-021720, SO-MW-03-45-47-12-022020 and SS-MW-04-022020
- Bromoform and bromomethane (30%D to 32%D) in all samples and blanks reported in SDG 460-205605

Holding times were met. Surrogate and internal standard recoveries are compliant.

Some of the samples were processed at dilution, with proportionally elevated reporting limits.

TCL Semivolatile and 1,4-Dioxane Analyses by EPA8270D (Full Scan/SIM)

The following results are rejected due to lack of recovery in the associated LCSs:

- caprolactam in FB-021720
- caprolactam and atrazine in samples and blanks reported in SDG 460-205605

The following results are qualified as estimated due to low recoveries in the associated LCSs:

Affected Samples	Analyte	Outlying % Recoveries	Outlying %RPD
FB-021420	3,3-dichlorobenzidine	43,41	
SB-05-5-7-021720, SS-MW-05-021720, SS-MW-05-5-7-021720, SS-MW-05-25-27-021720, and SS-05-30-31-021720	3-nitroaniline	27	54
	4-chloroaniline	12	74
All samples reported in SDG 460-205392	1,4-dioxane	51	35
	atrazine	9	166
MW-04-35-031829 and FB-031720	benzo(a)pyrene	66,66	

The matrix spikes of SB-05-5-7-021720 show no recovery for 2,4-dinitrophenol and 4,6-dinitro-3-methylphenol, and results for those two compounds in that parent sample are rejected and not usable. Those matrix spikes, as well as the matrix spikes of SS-MW-03-021920 and MW-01-031620 show acceptable and recoveries within validation guidelines, with the following exceptions, results for which are qualified as estimated in the indicated parent sample:

Parent Sample	Analyte	Outlying % Recoveries	Outlying %RPD
SB-05-5-7-021720	hexachloroethane	57,60	
	2-nitrophenol	37	56
	hexchlorocyclopentadiene	11	138
SS-MW-03-021920	2,4-dinitrophenol	20,28	33
	4,6-dinitro-2-methylphenol	26,35	32
	benzo(g,h,i) perylene	53,58	
	bis (2-chloroethyl) ether	58,111	62
MW-01-031620	3,3'-dichlorobenzidine	51	35

Due to very poor mass spectral quality, the following detected results are edited to reflect non-detection:

- Atrazine in SB-05-15-16-021720
- Benzaldehyde in SB-05-30-32-021720

Due to poor mass spectral quality, the detected result for dibenzofuran in SB-05-15-16-021720 is qualified as tentative identification and estimated in value.

The results for 1,4-dioxane in the samples and blanks reported in SDG 460-205392 are qualified as estimated due to outlying

Due to a preponderance of outlying analyte recoveries in the matrix spikes of SO-MW-04-16.5-18.5-022420 and SS-05-021320, the results for those parent samples have been qualified as estimated in value, generally with a low bias.

Although SIM methodology was requested on the custody form, the analysis method for 1.4-dioxane in the soil samples was performed by full scan rather than SIM.

Surrogate standard recoveries are within validation guidelines.

The results for the seven analytes in SB-02-35-36-021420 are qualified as estimated due to low response in the associated internal standard.

Calibration standards show responses within validation action levels.

TCL Pesticide, TCL Herbicides, and Aroclor PCBs by EPA 8081B, 8151A and 8082A

Many of the detected pesticide results exhibit elevated dual column quantitative correlations, and are qualified to reflect the uncertainty in identification and/or quantitation. The values have been either qualified as estimated ("J"), qualified as tentative in identification and estimated in value ("NJ"), or edited to non-detection ("U"), depending on the degree of variance. In some instances, the adjusted reporting limits are elevated over the original method reporting limits.

Due to a preponderance of outlying analyte recoveries in the pesticide matrix spikes of SB-04-24-25-021220, the pesticide results for that parent sample has been qualified as estimated in value, generally with a low bias.

Detected results in SB-01-25-26-021320 are qualified as estimated, with a high bias, due to elevated responses in the surrogate standards.

The Aroclor 1016/1260 matrix spikes of SB-04-24-25-021220, SB-05-5-7-021720, MW-01-031620, and SS-MW-03-021920, the herbicide matrix spikes of SB-05-5-7-021720, MW-01-031620, and SS-MW-03-021920, and the pesticide matrix spikes of SB-05-5-7-021720, MW-01-031620, and SS-MW-03-021920, show recoveries and correlations within validation guidelines. The laboratory reported no recovery for endosulfan I in the spikes of MW-01-031620, but inspection of the raw data shows that responses for that analyte are present, but were missed by the software and analyst.

Holding times were met, and internal standard recoveries are compliant. Calibration standard responses are within validation guidelines.

TAL Metals/CN Analyses by EPA 6020, 7470A, and 9012

The following detected results are considered external contamination and edited to reflect non-detection due to presence in the associated method blanks:

- Zinc values less than the reporting limit in samples reported in SDGs 460-203116 and 460-203460
- Cadmium in SS-MW-05-3-31-021720 and SB-05-15-16-021720
- Arsenic in samples reported in SDG 460-203170
- Beryllium value-s below the reporting limit concentrations in the samples reported in DG 460-205605

Matrix spikes/duplicate evaluations were performed on SS-05-021320, SB-05-5-7-021720, MW-01-031620, MW-02-031720, and SS-MW-03-201920. They show recoveries and correlations within validation guidelines, with the following exceptions, results for which are qualified as estimated in the indicated parent sample:

Parent Sample	Element	Outlying % Recoveries	Outlying % RPD
SB-05-5-7-021720	nickel	-8	159
	iron		39
	antimony	70	
SS-MW-03-201920	antimony	69	69

Total cyanide matrix spikes of SS-01-021420, SB-05-5-7-021720, MW-01-031620, MW-02-031720, and SS-MW-03-201920 show acceptable accuracy and precision.

The ICP serial dilution evaluations of SS-05-021320, SB-05-5-7-021720, MW-01-031620, MW-02-031720, and SS-MW-03-201920 show acceptable correlations.

Instrument performance was compliant.

PFAS by Modified EPA Method 537

PFAS compounds are identified by their common acronyms in this report. The EDDs reference both the technical names and the acronyms.

The following detected results are considered external contamination and edit ed to reflect non-detection due to presence in the associated field and/or preparation blanks:

- PFHxS in SB-01-25-26-021320, SB-05-15-16-021720, SB-05-30-32-021720, SB-05-40-41-021720, SO-MW-04-16.5-18.5-022420, MW-04-35-031820, and in all samples reported in DG 460-203116 except SB-01-5-7-021320
- PFOS in SO-MW-04-30-32-022420 and SB-02-35-36-021420
- PFTeA in MW-03-031720

Matrix spikes of MW-01-031620, SS-MW-03-021920, SB-04-24-25-021220, SB-05-5-7-021720, and MW-01-031620 show recoveries and correlations within validation guidelines.

The detected results for PFOS in MW-05-35-031620, PFBS in MW-03-031720, and PFDA in SB-05-5-7-021720 have been qualified as an Estimated Maximum Possible Concentration (EMPC) due to outlying ion ratio.

Holding times were met. Isotopic dilution standard responses are within validation guidelines.

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 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.
Project/Site: DEC - QUIOGUE LANDFILL SITE:152061

Job ID: 320-58654-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
320-58654-1	SB-01-25-26-021320	Solid	02/13/20 14:45	02/15/20 09:20	
320-58654-2	SS-01-021420	Solid	02/14/20 08:20	02/15/20 09:20	
320-58654-3	SB-02-10-11.5-021420	Solid	02/14/20 10:00	02/15/20 09:20	
320-58654-4	FB-021420	Water	02/14/20 12:00	02/15/20 09:20	
320-58654-5	SS-02-021420	Solid	02/14/20 10:30	02/15/20 09:20	
320-58654-6	SB-02-30-32-021420	Solid	02/14/20 11:30	02/15/20 09:20	
320-58654-7	SB-02-35-36-021420	Solid	02/14/20 11:45	02/15/20 09:20	

Sample Summary

Client: New York State D.E.C.
Job ID: 320-58733-1
Project/Site: DEC - QUIOGUE LANDFILL SITE:152061

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
320-58733-1	SB-05-5-7-021720	Solid	02/17/20 09:15	02/19/20 09:20	
320-58733-2	SB-05-15-16-021720	Solid	02/17/20 10:00	02/19/20 09:20	
320-58733-3	SB-05-30-32-021720	Solid	02/17/20 10:15	02/19/20 09:20	
320-58733-4	SS-MW-05-021720	Solid	02/17/20 12:30	02/19/20 09:20	
320-58733-5	FB-021720	Water	02/17/20 13:00	02/19/20 09:20	
320-58733-6	SO-MW-05-5-7-021720	Solid	02/17/20 13:30	02/19/20 09:20	
320-58733-7	SB-05-40-41.5-021720	Solid	02/17/20 10:40	02/19/20 09:20	
320-58733-8	SO-MW-05-25-27-021720	Solid	02/17/20 14:30	02/19/20 09:20	
320-58733-9	SO-MW-05-30-31-021720	Solid	02/17/20 15:00	02/19/20 09:20	

Sample Summary

Client: New York State D.E.C.
Job ID: 320-58811-1
Project/Site: DEC - QUIOGUE LANDFILL SITE:152061

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
320-58811-1	SS-MW-03-021920	Solid	02/19/20 08:00	02/21/20 09:10	
320-58811-2	FB-021920	Water	02/19/20 12:00	02/21/20 09:10	
320-58811-3	SO-MW-03-10-12-022020	Solid	02/20/20 09:00	02/21/20 09:10	
320-58811-4	SO-MW-03-35-37-022020	Solid	02/20/20 10:00	02/21/20 09:10	
320-58811-5	SO-MW-03-45-47-022020	Solid	02/20/20 10:40	02/21/20 09:10	
320-58811-6	SS-MW-04-022020	Solid	02/20/20 11:30	02/21/20 09:10	

Sample Summary

Client: New York State D.E.C.
Job ID: 320-58935-1
Project/Site: DEC - QUIOGUE LANDFILL SITE:152061

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
320-58935-1	SO-MW-04-16.5-18.5-0222420	Solid	02/24/20 09:30	02/26/20 09:00	
320-58935-2	SO-MW-04-30-32-022420	Solid	02/24/20 10:15	02/26/20 09:00	
320-58935-3	SO-MW-04-40-42-022420	Solid	02/24/20 11:00	02/26/20 09:00	
320-58935-4	FB-022420	Water	02/24/20 11:30	02/26/20 09:00	

Sample Summary

Client: New York State D.E.C.
Job ID: 460-203116-1
Project/Site: DEC - QUIOGUE LANDFILL SITE:152061

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
460-203116-1	SB-04-24-25-021220	Solid	02/12/20 08:55	02/13/20 19:30	
460-203116-2	SB-04-30-31-021220	Solid	02/12/20 09:55	02/13/20 19:30	
460-203116-3	SB-04-40-41-021220	Solid	02/12/20 10:20	02/13/20 19:30	
460-203116-4	SS-04-021220	Solid	02/12/20 11:00	02/13/20 19:30	
460-203116-5	SS-03-021220	Solid	02/12/20 13:00	02/13/20 19:30	
460-203116-6	SB-03-5-6.5-021220	Solid	02/12/20 14:00	02/13/20 19:30	
460-203116-7	SB-03-26-27.5-021220	Solid	02/12/20 15:10	02/13/20 19:30	
460-203116-8	SB-03-36-37-021220	Solid	02/12/20 15:45	02/13/20 19:30	
460-203116-9	SS-05-021320	Solid	02/13/20 08:30	02/13/20 19:30	
460-203116-10	SS-105-021320	Solid	02/13/20 08:45	02/13/20 19:30	
460-203116-11	SB-01-5-7-021320	Solid	02/13/20 11:30	02/13/20 19:30	
460-203116-12	SB-101-5-7-021320	Solid	02/13/20 11:45	02/13/20 19:30	
460-203116-13	FB-021220	Water	02/12/20 12:00	02/13/20 19:30	
460-203116-14	FB-021320	Water	02/13/20 10:00	02/13/20 19:30	

Sample Summary

Client: New York State D.E.C.
Project/Site: DEC - QUIOGUE LANDFILL SITE:152061

Job ID: 460-203170-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
460-203170-1	SB-01-25-26-021320	Solid	02/13/20 14:45	02/17/20 19:00	
460-203170-2	SS-01-021420	Solid	02/14/20 08:20	02/17/20 19:00	
460-203170-3	SB-02-10-11.5-021420	Solid	02/14/20 10:00	02/17/20 19:00	
460-203170-4	SS-02-021420	Solid	02/14/20 10:30	02/17/20 19:00	
460-203170-5	FB-021420	Water	02/14/20 12:00	02/17/20 19:00	
460-203170-6	SB-02-30-32-021420	Solid	02/14/20 11:30	02/17/20 19:00	
460-203170-7	SB-02-35-36-021420	Solid	02/14/20 11:45	02/17/20 19:00	

Sample Summary

Client: New York State D.E.C.
Project/Site: DEC - QUIOGUE LANDFILL SITE:152061

Job ID: 460-203296-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
460-203296-1	SB-05-5-7-021720	Solid	02/17/20 09:15	02/18/20 19:00	
460-203296-2	SB-05-15-16-021720	Solid	02/17/20 10:00	02/18/20 19:00	
460-203296-3	SB-05-30-32-021720	Solid	02/17/20 10:45	02/18/20 19:00	
460-203296-4	SB-05-40-41.5-021720	Solid	02/17/20 10:40	02/18/20 19:00	
460-203296-5	SS-MW-05-021720	Solid	02/17/20 12:30	02/18/20 19:00	
460-203296-6	SS-MW-05-5-7-021720	Solid	02/17/20 13:30	02/18/20 19:00	
460-203296-7	SS-MW-05-25-27-021720	Solid	02/17/20 14:30	02/18/20 19:00	
460-203296-8	SS-MW-05-30-31-021720	Solid	02/17/20 15:00	02/18/20 19:00	
460-203296-9	FB-021720	Water	02/17/20 13:00	02/18/20 19:00	

Sample Summary

Client: New York State D.E.C.
Job ID: 460-203460-1
Project/Site: DEC - QUIOGUE LANDFILL SITE:152061

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
460-203460-1	SS-MW-03-021920	Solid	02/19/20 08:00	02/20/20 18:45	
460-203460-2	FB-021920	Water	02/19/20 12:00	02/20/20 18:45	
460-203460-3	SO-MW-03-10-12-022020	Solid	02/20/20 09:00	02/20/20 18:45	
460-203460-4	SO-MW-03-35-37-12-022020	Solid	02/20/20 10:00	02/20/20 18:45	
460-203460-5	SO-MW-03-45-47-12-022020	Solid	02/20/20 10:40	02/20/20 18:45	
460-203460-6	SS-MW-04-022020	Solid	02/20/20 11:30	02/20/20 18:45	

Sample Summary

Client: New York State D.E.C.
Project/Site: DEC - QUIOGUE LANDFILL SITE:152061

Job ID: 460-203732-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
460-203732-1	SO-MW-04-16.5-18.5-022420	Solid	02/24/20 09:30	02/25/20 19:00	
460-203732-2	SO-MW-04-30-32-022420	Solid	02/24/20 10:15	02/25/20 19:00	
460-203732-3	SO-MW-04-40-42-022420	Solid	02/24/20 11:00	02/25/20 19:00	
460-203732-4	FB-022420	Water	02/24/20 11:30	02/25/20 19:00	

Sample Summary

Client: New York State D.E.C.
Job ID: 320-59642-1
Project/Site: DEC - QUIOGUE LANDFILL SITE:152061

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
320-59642-1	MW-05-35-031620	Water	03/16/20 09:45	03/18/20 10:05	
320-59642-2	MW-A35-031620	Water	03/16/20 13:45	03/18/20 10:05	
320-59642-3	MW-01-031620	Water	03/16/20 15:15	03/18/20 10:05	
320-59642-4	MW-A46-031620	Water	03/16/20 17:30	03/18/20 10:05	
320-59642-5	FB-031620	Water	03/16/20 20:00	03/18/20 10:05	
320-59642-6	MW-DEC-16-031720	Water	03/17/20 09:25	03/18/20 10:05	

Sample Summary

Client: New York State D.E.C.
Job ID: 460-205392-1
Project/Site: DEC - QUIOGUE LANDFILL SITE:152061

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
460-205392-1	MW-05-35-031620	Water	03/16/20 09:45	03/17/20 18:30	
460-205392-2	MW-A35-031620	Water	03/16/20 13:45	03/17/20 18:30	
460-205392-3	MW-01-031620	Water	03/16/20 15:15	03/17/20 18:30	
460-205392-4	MW-A46-031620	Water	03/16/20 17:30	03/17/20 18:30	
460-205392-5	FB-031620	Water	03/16/20 20:00	03/17/20 18:30	
460-205392-6	TB-01	Water	03/16/20 08:00	03/17/20 18:30	
460-205392-7	MW-DEC-16-031720	Water	03/17/20 09:25	03/17/20 18:30	

Sample Summary

Client: New York State D.E.C.
Job ID: 460-205605-1
Project/Site: DEC - QUIOGUE LANDFILL SITE:152061

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
460-205605-1	MW-02-031720	Water	03/17/20 10:30	03/20/20 11:00	
460-205605-2	MW-102-031720	Water	03/17/20 10:35	03/20/20 11:00	
460-205605-3	MW-05-60-031720	Water	03/17/20 13:30	03/20/20 11:00	
460-205605-4	MW-05-80-031720	Water	03/17/20 14:20	03/20/20 11:00	
460-205605-5	MW-03-40-031720	Water	03/17/20 16:40	03/20/20 11:00	
460-205605-6	FB-031720	Water	03/17/20 19:30	03/20/20 11:00	
460-205605-7	MW-04-35-031820	Water	03/18/20 09:30	03/20/20 11:00	
460-205605-8	MW-04-60-031820	Water	03/18/20 10:15	03/20/20 11:00	
460-205605-9	MW-04-80-031820	Water	03/18/20 11:00	03/20/20 11:00	
460-205605-10	MW-03-60-031820	Water	03/18/20 13:30	03/20/20 11:00	
460-205605-11	MW-03-80-031820	Water	03/18/20 14:30	03/20/20 11:00	
460-205605-12	FB-031820	Water	03/18/20 17:00	03/20/20 11:00	
460-205605-13	TB-02	Water	03/17/20 08:00	03/20/20 11:00	

Sample Summary

Client: New York State D.E.C.
Job ID: 460-205608-1
Project/Site: DEC - QUIOGUE LANDFILL SITE:152061

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
460-205608-1	MW-02-031720	Water	03/17/20 10:30	03/20/20 11:00	
460-205608-2	MW-102-031720	Water	03/17/20 10:35	03/20/20 11:00	
460-205608-3	MW-05-60-031720	Water	03/17/20 13:30	03/20/20 11:00	
460-205608-4	MW-05-80-031720	Water	03/17/20 14:20	03/20/20 11:00	
460-205608-5	MW-03-40-031720	Water	03/17/20 16:40	03/20/20 11:00	
460-205608-6	FB-031720	Water	03/17/20 19:30	03/20/20 11:00	
460-205608-7	MW-04-35-031820	Water	03/18/20 09:30	03/20/20 11:00	
460-205608-8	MW-04-60-031820	Water	03/18/20 10:15	03/20/20 11:00	
460-205608-9	MW-04-80-031820	Water	03/18/20 11:00	03/20/20 11:00	
460-205608-10	MW-03-60-031820	Water	03/18/20 13:30	03/20/20 11:00	
460-205608-11	MW-03-80-031820	Water	03/18/20 14:30	03/20/20 11:00	
460-205608-12	FB-031820	Water	03/18/20 17:00	03/20/20 11:00	

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