APPLIED INTELLECT

Data Gaps Site Characterization Report

Rolling Knolls Landfill

Great Swamp National Wildlife Refuge
Morris County, New Jersey

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ACRONYMS

AI	Applied Intellect, LLC
APC	Areas of Particular Concern
ARAR	Applicable or Relevant and Appropriate Requirements
ASTM	American Society for Testing and Materials
AVS	acid-volatile sulfide
BERA	Baseline Ecological Risk Assessment
bgs	below ground surface
BHHRA	Baseline Human Health Risk Assessment
CCP	Comprehensive Conservation Plan
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
COC	constituents of concern
COPC	chemicals of potential concern
COPEC	contaminants of potential ecological concern
CSM	conceptual site model
DGSC	Data Gap Site Characterization
DO	Dissolved Oxygen
DOC	Dissolved Organic Carbon
DPT	direct-push technology
DQO	Data Quality Objective
DU	Decision Units
EcoSSL	Ecological Soil Screening Level
EPA	United States Environmental Protection Agency
EPC	Exposure Point Concentration
ESC	New Jersey Department of Environmental Protection - Ecological Screening Criteria
ESV	Ecological Screening Values
ETA	Eurofins/TestAmerica
FS	Feasibility Study
FSP	Field Sampling Plan
ft	feet
FWS	United States Fish and Wildlife Service
GPS	Global Positioning System
GSNWR	Great Swamp National Wildlife Refuge
GWQS	Ground Water Quality Standards
ID	identification
in^3	cubic inches
ITRC	Interstate Technology and Regulatory Council
LCS	laboratory control sample
LCSD	laboratory control sample duplicate
LDC	Laboratory Data Consultants
LEL	lowest effect level

MDL	method detection limit
mg/kg	milligrams per kilogram
mg/L	micrograms per liter
MNA	monitored natural attenuation
MS/MSD	matrix spike/matrix spike duplicate
MW	Monitoring Well
NJDEP	New Jersey Department of Environmental Protection
NPL	National Priority List
NPS	National Park Service
OCP	organochlorine pesticides
ORP	oxidation reduction potential
PAH	polycyclic aromatic hydrocarbons
PBT	persistent, bioaccumulative, and toxic
PCB	polychlorinated biphenyl
PCDD	polychlorinated dibenzodioxins
PCDF	polychlorinated dibenzofurans
PFAS	polyfluorinated alkyl substances
PFNA	perfluorononanoic acid
PFOA	perfluorooctanoic acid
PFOS	perfluoro octane sulfonate
pg/g	picograms per gram
PRG	preliminary remediation goals
PRP	potentially responsible party
QA/QC	quality assurance/quality control
QAPP	Quality Assurance Project Plan
Refuge	Great Swamp National Wildlife Refuge
RBSL	Risk-Based Screening Level
RCRA	Resource and Conservation and Recovery Act
RI	Remedial Investigation
RI/FS	Remedial Investigation/Feasibility Study
RL	reporting limit
RPD	Relative Percent Difference
SAP	Sampling and Analysis Plan
SAT	Site Assessment Team
SEM	simultaneously extracted metals
SI	Site Inspection
SLERA	Screening Level Ecological Risk Assessment
SOP	Standard Operating Procedure
SRS	Soil Remediation Standards
SWQS	Surface Water Quality Standards
SU	Sampling Unit
SVOC	semi-volatile organic compounds
TAL	Target Analyte List
TCBH	Township of Chatham Board of Health

TCDD	tetrachlorodibenzo-p-dioxin
TCL	target compound list
TEF	toxic equivalency factor
TEQ	toxic equivalency
TOC	total organic carbon
UFP-QAPP	Uniform Federal Policy Quality Assurance Project Plan
µg/kg	micrograms per kilogram
µg/L	micrograms per liter
µmol/g	micromoles per gram
VOC	volatile organic compounds
WP	Work Plan

EXECUTVE SUMMARY

Applied Intellect, LLC (AI) was contracted by the United States Fish and Wildlife Service (FWS) to provide technical services for ongoing involvement with the United States Environmental Protection Agency's (EPA's) investigation and cleanup activities at the Rolling Knolls Landfill Site, a portion of which lies within the Great Swamp National Wildlife Refuge (GSNWR). The scope for these services was divided into three phases:

- *Phase 1 – Document Review and Project Planning* – Included the review of Remedial Investigation / Feasibility Study (RI/FS) documentation, perform a preliminary site inspection, development of Sampling and Analysis Plan/Work Plan (SAP/WP) and Quality Assurance Project Plan (QAPP). These tasks have already been completed and reported to FWS.
- *Phase 2 – Data Gap Site Characterization* – Conduct site characterization activities, which included sampling of: surface and subsurface soils for chemical analysis; subsurface soils for geotechnical analysis; sediments, pore water and surface water for chemical analysis. This Data Gap Site Characterization (DGSC) report summarizes the results of these site activities.
- *Phase 3 – Remedial Alternatives Analysis* – Develop recommendations for a remedial strategy for the Site, and conduct a more detailed evaluation of FWS Alternative 6 which involves the removal of waste and contaminated soils from the 35 acres of the Site located within the Refuge. Activities for this Phase have yet to be completed.

The objectives of DGSC are to provide additional information that can be used to evaluate threats to the Refuge from hazardous substances released from Rolling Knolls Landfill, and define the extent of contamination on the Refuge in accordance with the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) and regulations of the New Jersey Department of Environmental Protection (NJDEP).

The purpose of this report is to summarize the results of the DGSC activities. This DGSC included sampling and analysis of surface soils, subsurface soils, sediment samples, pore water samples and surface water samples. Samples were analyzed for volatile organic compounds (VOCs), semi-volatile organic compounds (SVOCs), polychlorinated biphenyls (PCBs), pesticides, dioxins/furans, polyfluoroalkyl substances (PFAS), metals, cyanide, and simultaneously extracted metals/acid-volatile sulfide (SEM/AVS).

Analytical results for surface soils, subsurface soils, sediment samples, pore water samples and surface water samples were compared to ecological screening criteria (ESC) from NJDEP and other relevant ecological risk-based screening values. In addition, surface soil and subsurface soil sample analytical results were also compared to NJDEP Soil Remediation Standards (SRS) for Residential (ingestion-dermal) to evaluate the potential for effects to passive recreational users at the Refuge.

The results of these evaluations are described below in greater detail.

Surface and Subsurface Soil Sampling

Thirty-one boreholes were completed, with collection of 31 surface soil samples (and three duplicate samples), and 55 subsurface soil samples (and eight duplicate samples). Surface and subsurface samples were analyzed for VOCs, SVOCs including polycyclic aromatic hydrocarbons (PAHs), PCB Aroclors, PCB congeners, pesticides, dioxins/furans, metals (23 total), and cyanide.

Detections of constituents were compared to ESC. Results indicated the following constituents were detected at concentrations above ESC:

Acetone	N-Nitrosodiphenylamine	Total TCDD
Xylenes	Pentachlorophenol	Σ PCB TEQ
1,2,4,5-Tetrachlorobenzene	Naphthalene	Σ PCDD TEQ
2,3,4,6-Tetrachlorophenol	Benzo[a]anthracene	Σ PCDF TEQ
2,4-Dimethylphenol	Benzo[a]pyrene	Σ TEQ (PCB+PCDD+PCDF)
2,4-Dinitrophenol	Chrysene	Aluminum
2,4-Dinitrotoluene	PAHs (High Molecular Weight)	Antimony
2-Chloronaphthalene	4,4'-DDD	Arsenic
2-Methylnaphthalene	4,4'-DDT	Barium
2-Nitroaniline	Aldrin	Cadmium
2-Nitrophenol	beta-BHC	Chromium
3,3'-Dichlorobenzidine	Chlordane	Cobalt
3-Nitroaniline	Dieldrin	Copper
4-Chloroaniline	Endrin	Lead
4-Nitrophenol	Endrin aldehyde	Manganese
Bis(2-ethylhexyl) phthalate	gamma-BHC (Lindane)	Nickel
Butyl benzyl phthalate	Heptachlor	Selenium
Dibenzofuran	Toxaphene	Silver
Di-n-butyl phthalate	Aroclor 1242	Thalium
Di-n-octyl phthalate	Aroclor 1248	Vandium
Hexachlorobenzene	Aroclor 1254	Zinc
Hexachlorobutadiene	PCB, Total (Aroclors)	Mercury
Hexachlorocyclopentadiene	PCB, Total (congeners)	Cyanide, Total
Hexachloroethane	2,3,7,8-TCDD	

All 31 of the surface soil samples and 55 of the subsurface samples had detected concentrations of constituents that exceeded ESC.

Detections of constituents were compared to SRSs. Results indicated the following constituents were detected at concentrations above SRSs:

3,3'-Dichlorobenzidine	Benzo[a]pyrene	Antimony
4-Chloroaniline	Benzo[b]fluoranthene	Arsenic
Bis(2-chloroethyl)ether	Dibenz(a,h)anthracene	Cadmium
Bis(2-ethylhexyl) phthalate	4,4'-DDD	Cobalt
Hexachlorobenzene	Chlordane	Copper
N-Nitrosodi-n-propylamine	Dieldrin	Lead
Pentachlorophenol	PCB, Total (Aroclors)	Mercury
Benzo[a]anthracene	PCB, Total (congeners)	

Twenty-five (25) of the 31 surface soil samples and 35 of the 55 subsurface samples had detected concentrations of constituents that exceeded SRSs.

Geotechnical Sampling

Ten geotechnical samples were collected from boreholes, seven of which were collocated with surface/subsurface borehole locations. Geotechnical samples were analyzed for: compaction (ASTM D698), moisture content (ASTM D2216), permeability (ASTM D5084), consolidation (ASTM D2435), unconsolidated undrained triaxial shear test (ASTM D2850), density (ASTM D7263), and Atterberg Limits (ASTM-D4318). Results for these analyses are presented in this report because the samples and analysis were included as part of these site activities. The results can be used to evaluate remedial alternatives for the Site, including effects of loading cover material on settlement, ability of the underlying clay material to function as an impermeable layer to inhibit vertical migration of contaminants, and whether the underling clay material could be used as a borrow source for capping and covering the overburden contaminated soils and wastes. An analysis of the soil properties, relative to these potential functions, is beyond the scope of this report.

Sediment Sampling

Twenty-one sediment samples (plus two duplicates) were collected from within the study area. Samples were analyzed for: VOCs, SVOCs including PAHs, PCB Aroclors, PCB congeners, pesticides, dioxins/furans, metals, SEM/AVS, total cyanide, and chemical and geotechnical properties. Detections of constituents were compared to the Freshwater Lowest Effect Level (LEL) ESC. The following constituents had detected concentrations above ESC:

Acetone	Benzo[k]fluoranthene	4,4'-DDE
Carbon disulfide	Chrysene	Chlordane
2-Methylnaphthalene	Dibenz(a,h)anthracene	Aluminum
Bis(2-ethylhexyl) phthalate	Fluoranthene	Arsenic
Butyl benzyl phthalate	Indeno[1,2,3-cd]pyrene	Barium
Hexachlorobenzene	Pyrene	Cadmium
2-Methylnaphthalene	Total PAHs	Chromium
Bis(2-ethylhexyl) phthalate	Aroclor 1248	Copper
Butyl benzyl phthalate	Aroclor 1260	Lead
Hexachlorobenzene	PCB, Total (Aroclors)	Manganese
Acenaphthene	PCB, Total (congeners)	Nickel
Acenaphthylene	2,3,7,8-TCDD	Selenium
Anthracene	Total TCDD	Silver
Naphthalene	Σ PCB TEQ	Zinc
Phenanthrene	Σ PCDD TEQ	Mercury
Benzo[a]anthracene	Σ PCDF TEQ	Cyanide, Total
Benzo[a]pyrene	ΣTEQ PCB+PCDD+PCDF)	
Benzo[g,h,i]perylene	4,4'-DDD	

Results indicate that ESC were exceeded in all 21 sediment samples. Sediment samples were also analyzed for SEM/AVS as a metric for potential benthic toxicity and bioavailability of divalent

metals. The following sediment samples indicated some potential for metals bioavailability and toxicity to benthic organisms based on the SEM/AVS results: SD01, SD03, SD05, SD10, SD14, and SD20.

Pore Water Sampling

Forty-eight pore water samples (and four duplicates) were collected from within the study area. Samples were analyzed for: VOCs, SVOCs including PAHs, pesticides, polyfluorinated alkyl substances (PFAS), total and dissolved metals (23 total), total cyanide, and chemical properties. Field parameters that were measured for select samples included pH, turbidity, temperature, oxidation-reduction potential (ORP), dissolved oxygen (DO), and conductivity. Detections were compared to the Freshwater Chronic ESC for aquatic life. In the case of PFAS, pore water samples were compared to Recommended Water Quality Risk Based Screening Levels (RWQ RBSL) for Pore Water. Results indicated exceedances of the following constituents above ESC:

Bis(2-ethylhexyl) phthalate	Chrysene	Barium (Dissolved)
Anthracene	Dibenz(a,h)anthracene	Iron (Dissolved)
Benzo[a]anthracene	Barium (Total)	Manganese (Dissolved)
Benzo[a]pyrene	Silver (Total)	
Benzo[k]fluoranthene	Cyanide, Total	

Results indicate that exceedances occurred in 47 of the 48 pore water samples.

In addition, PFAS, perfluorooctanoic acid (PFOA), and perfluorononanoic acid (PFNA) concentrations were compared against NJDEP Ground Water Quality Standards (GWQS) for seven of the pore water samples. Results indicate exceedance of PFAS and PFOA standards for all seven of the pore water samples.

Surface Water Sampling

Eight samples (and one duplicate) were collected from within the study area. Samples were analyzed for: VOCs, SVOCs including PAHs, pesticides, total and dissolved metals, total cyanide, and chemical properties. Detections of constituents were compared to Chronic Freshwater ESC. Results indicated exceedances of the following constituents above ESC:

4,4'-DDT	Silver (Total)	Barium (Dissolved)
Barium (Total)	Vanadium (Total)	Iron (Dissolved)
Chromium (Total)	Cyanide, Total	Manganese (Dissolved)

Results indicate that exceedances occurred in seven of the eight surface water samples.

Data Quality

A data quality assessment was performed on the analytical data collected during this site characterization. A third-party data validation contractor was used to perform validation of the data using EPA guidelines. As a result of the data validation process, several data qualifiers were modified as a result of constituents detected in the blank samples that are typically associated with laboratory contaminants. In some cases, analytical detections limits exceed ESC, in which

case the frequency of exceedances should be considered. The only data rejected by the validation process were for contaminants known not to exist at the Site, a low-level cyanide detection in one sample, or mercury in SEM/AVS analyses, which was determined inconsequential due to excessively low mercury detections relative to other detected SEM/AVS metal constituents. The data quality objectives (DQOs) were met sufficiently to answer the study questions developed in the SAP (AI 2021).

Conceptual Site Model

The data collected during these site characterization activities were used to update the conceptual site model (CSM). Observations regarding the nature and extent of landfill wastes and cover confirmed widespread landfill debris extending onto Refuge lands, and cap and cover of the material, if any, not meeting Resource Conservation and Recovery Act (RCRA) and New Jersey landfill requirements.

The CSM must also consider geochemical processes that govern the fate and transport of constituents within the landfill leachate. Plumes emanating from the landfill would typically be most affected by the reducing conditions (i.e., anoxic) at the core, which shift towards more oxidizing conditions at the fringe and beyond. Pore water collected at the Site is consistent with iron reducing conditions along the fringe of the landfill, as indicated by reduced forms of arsenic, manganese and iron. In addition, dissolved organic carbon concentrations (DOC) in pore water samples are sufficient to maintain reducing conditions along the fringe of the plume and metals will remain mobile until they are carried by groundwater into the more oxygenated sediment. While EPA has directed that groundwater alternatives be removed from the pending feasibility study and evaluated as a separate operable unit, the fate and transport of constituents from the landfill to the groundwater is an integral part of the evaluation of alternatives for the landfill.

These geochemical facies affect the fate and transport of constituents. The presence of the landfill has significantly increased the mobility of many of the metals by altering the geochemical environment, as evidenced in the water quality observed in pore water and sediment samples. Groundwater characterization was not within the scope of this study and a reliable assessment of groundwater fate and transport is not currently possible, given the incomplete geochemical characterization performed during historical investigations.

Consideration of ecosystems in developing the CSM include wetland, upland (terrestrial), and aquatic environments. The Refuge provides critical habitat for state and federally designated or proposed endangered and threatened animal species and is also a designated National Natural Landmark and Wilderness Area. The GSNWR provides habitat for protected species, including: the Federally Threatened bog turtle, the Federally Endangered Indiana bat, the State Threatened wood turtle, and the State Endangered blue-spotted salamander. These “environmentally sensitive areas” (N.J.A.C. 7:1E-1.8) are considered most likely to be adversely affected by the discharge of hazardous substances.

Conclusions and Recommendations

The results of this DGSC have confirmed that landfill debris and contamination from the Rolling Knolls Landfill has extended into the GSNWR. Landfill debris was not only observed above ground surface throughout the study area, but also in the subsurface as encountered in 26 of the 31 boreholes. Samples collected from surface soil, subsurface soil, sediment, pore water and surface water indicated concentrations of Constituents of Concern in excess of ESC emanating south and east from the landfill boundary. These ESC exceedances occurred in soil, sediment, pore water and surface water samples for 71 total constituents. In addition, SRS exceedances occurred in soil samples for 24 total constituents.

Geochemical analysis also confirmed oxidation-reduction conditions that affect the fate and transport of constituents within the landfill leachate. Geochemical conditions at the landfill have significantly increased the mobility of many of the metals.

The presence of landfill debris on the Refuge, and contaminants detected at concentrations that exceed ESC and SRSs in this data gap investigation indicate the potential for adverse ecological effects from exposure to landfill contaminants and debris. The sediment SEM/AVS analysis and the presence of dissolved metals in pore water suggest some metals may be in bioavailable forms.

Based on these findings, the following recommendations have been developed:

- Comprehensive Groundwater Assessment – a comprehensive groundwater assessment should be conducted to better understand the fate and transport of contaminants from the Site, hydraulic gradient and underlying water quality, and provide sufficient understanding of upgradient, onsite, and downgradient conditions. This information is required to ensure that EPA selects from the pending remedial alternatives one that not only isolates the wastes from infiltration derived from precipitation directly onto the cap but also from groundwater migrating through and beneath the landfill from upgradient locations.
- Geochemical Assessment – collect spatially distributed geochemical data (e.g., nitrate, sulfate, methane, ammonium, carbonate, bicarbonate and DOC) to delineate redox zones and better understand the processes controlling the fate and transport of metals under current and future conditions. An understanding of the geochemistry will allow EPA's evaluation of the pending alternatives to include technologies that would prevent landfill wastes and underlying soil from continuing to leach metals to the groundwater.
- Comparison to Background Concentrations – determine the extent to which constituents observed in the landfill are also present in upgradient media and adjacent water bodies, and whether regional groundwater contains higher concentrations of trace elements.
- Revised Risk Assessment – supplement the historical site data with data collected from this DGSC and complete a more comprehensive ecological and human health risk assessment.
- Remedial Alternatives Assessment – complete the scope set forth for Phase 3 of these services and develop recommendations for an additional remedial strategy for the Site.

1. INTRODUCTION

AI was contracted by the United States Fish and Wildlife Service (FWS) to provide technical services for ongoing involvement with the United States Environmental Protection Agency's (EPA's) investigation and cleanup activities at the Rolling Knolls Landfill Superfund Site. These services included evaluation of the nature and extent of debris and chemicals of potential concern (COPCs) that are located on the adjacent Great Swamp National Wildlife Refuge (GSNWR or the Refuge) portion of the Rolling Knolls Landfill Site (the Site). The scope for these services was divided into three phases: Phase 1 consisted of review of project information and planning; Phase 2 consisted of an additional field investigation and reporting (and is the basis of this report); and, Phase 3 is to provide a more detailed analysis of remedial strategies based on data collection. The tasks for each of these respective phases include:

Phase 1 – Document Review and Project Planning

The tasks completed under this phase were predominantly a desktop exercise and included:

- Review the Remedial Investigation / Feasibility Study (RI/FS) documentation developed by the potentially responsible parties (PRPs), with a specific focus on information related to hydrology (including groundwater and surface water contaminant fate and transport), contamination at depth within the landfill, the vertical extent of landfill wastes, and potential data gaps related to the specific focus areas that are necessary to better inform remedy selection. A technical memorandum was submitted to FWS on September 29, 2020 summarizing the findings of this review.
- Perform a preliminary site visit for reconnaissance of field conditions for Phase 2 activities.
- Develop a SAP and QAPP that outline investigation activities necessary to fill data gaps that were identified within the Refuge portion of the Site. The Uniform Federal Policy (UFP) QAPP, which included the SAP, was submitted to FWS on April 22, 2021.

Phase 2 – Data Gap Site Characterization

The tasks under this phase involved implementation and reporting on the field activities proposed in Phase 1, and included the following:

- Conduct site characterization activities following methods/protocols identified in the SAP and QAPP, which included:
    - Completion of 31 boreholes using direct-push technology for logging and collection of 31 discrete surface soil samples, and 55 subsurface soil samples;
    - Completion of 10 boreholes using hollow-stemmed auger (HSA) technology for collection of 10 geotechnical samples to evaluate the underlying clay layer;
    - Collection of sediment samples from 21 locations;
    - Collection of 48 pore water samples; and
    - Collection of 10 surface water samples.

These activities were conducted in April and May of 2021.

- Complete the DGSC report to summarize the results of the field investigations and evaluations. This report fulfills the obligation of this task.

Phase 3 – Remedial Alternatives Analysis

The tasks associated with this phase include:

- Develop recommendations for a remedial strategy for the Site, which may include engineering controls to intercept or isolate hazardous substances from groundwater and surface water flowing from any landfill waste that remains on the privately-owned portion of the Site onto the Refuge.
- Conduct a detailed evaluation of FWS Alternative 6, which involves the removal of waste and contaminated soils from the 35 acres of the Site located within the Refuge, in terms of costs and logistics.

This phase will be completed upon finalization of the DGSC report.

This report summarizes the results of the DGSC activities conducted under Phase 2. The objectives of the DGSC are to evaluate the threat to the Refuge from chemicals that have been released into the environment from Rolling Knolls Landfill activities, and to define the extent of contamination on the Refuge in accordance with the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) and regulations of the New Jersey Department of Environmental Protection (NJDEP).

This report is organized into the following Sections:

- **Section 1 Introduction** – provides the basis and purpose of the DGSC activities.
- **Section 2 Background** – includes a description of the site history and summary of previous investigations conducted at the Site.
- **Section 3 Environmental Setting** – includes a description of site conditions, including: climate, topography, drainage, geology, hydrology and the historical Conceptual Site Model.
- **Section 4 Data Gap Evaluation** – presents the DGSC Data Quality Objectives (DQOs), usability of historical data, delineates study boundaries, and describes the approach for these DGSC activities.
- **Section 5 Data Gap Investigation Summary of Field Activities and Result** – provides a summary of the soil, sediment, pore water, and surface water sampling that was conducted as part of this DGSC, including comparison to ESC and SRS (where applicable).
- **Section 6 Data Quality Assessment** – provides an assessment of the quality of data collected during this DGSC.

- **Section 7 Environmental Evaluation** – includes an analysis of results compared to ESC, and summary of ecological evaluations conducted at the Site. Results were also compared to SRS.
- **Section 8 Updated Conceptual Site Model** – updates the CSM based on the results of this DGSC, including extent of contamination and landfill waste, geochemistry and its effects on contaminant fate and transport, and a description of the ecosystems and ecological receptors at the Site.
- **Section 9 Summary and Conclusions** – includes a discussion of the nature and extent of contamination, what is known about ecological receptors' exposures at the Site, potential for adverse effects to passive recreational users, a summary of the DGSC data limitations, and provides recommendations for future assessment activities.
- **Section 10 References** – contains a list of references used in preparation of this report.

2. BACKGROUND

2.1 Site Description and History

The Rolling Knolls Landfill Superfund Site (the Site) is located in Chatham Township, New Jersey at the south end of Britten Road in the Green Village community (Figure 2.1). The Site consists of an approximately 140-acre municipal solid waste landfill and a roughly 30-acre area of additional surface debris (i.e., the Surface Debris Area) spread along the landfill's western edge (Figure 2.2). The official National Priorities List (NPL) Site boundaries were delineated based on the extent of observable waste material across the landfill's footprint; however, previous studies, including the 2018 Remedial Investigation (RI) conducted by Geosyntec (2018a), have documented Site-related contaminants beyond the landfill footprint (i.e., outside of the currently designated Site boundaries).

The Site is bordered on the north by a ballfield and shooting range owned by the Green Village Fire Department. The central and western portions of the landfill are owned by a Trust created by the Last Will and Testament of Angelo J. Miele, who was the former landfill operator. The current Trustee is Paul J. Miele (Geosyntec 2018b). The Refuge (Figure 2.1), owned by the United States Government and managed by the FWS, covers 7,768 acres. The Refuge borders the Site to the east, south, and southwest (Figure 2.2) and approximately 35 acres of the Site (as the Site is currently defined) lie within the Refuge boundary (Figure 2.2). The Refuge-portions of the Site and the Refuge area east and south of the Site are federally designated as Wilderness Areas (Wilderness Act 16 U.S.C. §§ 1131 – 1136).

The landfill received municipal and industrial wastes from Chatham Township and surrounding communities from the 1930s until approximately 1968 (Geosyntec 2018b). Previous investigations revealed that much of the waste consists of municipal solid wastes along with smaller areas of industrial waste. Foster Wheeler (2000) reported that Township of Chatham Board of Health (TCBH) records indicated that the municipal wastes included household refuse, residential septage wastes, construction and demolition debris, landscaping wastes, scrap metal, and tires. Homeowners and private trash haulers also reportedly brought household wastes to the landfill. Further documentation by Foster Wheeler (2000) indicates that municipalities were disposing of sewage on top of the landfill, which was restricted to the Township of Chatham by the mid-1960s.

Between 1955 and 1975 the TCBH required mosquito and rodent control measures, including surface water drainage and applications of minimal daily cover, which consisted of "swamp muck" obtained from the edges of the landfill (Foster Wheeler 2000). TCBH records from 1962 indicate that landfill management also required the application of herbicides for weed control, the application of oil on the landfill roads for dust suppression, and that dead animals were also disposed of in the landfill. Geosyntec (2018b) reports that the Refuge-portion of the landfill was never properly covered after the landfill was closed in 1968. Empirical reports (Geosyntec 2018a) indicate that much of the waste is still exposed at the surface and only a thin layer of soil covers other portions of the landfill, which confirms that the entire landfill was never properly closed.

Accessibility concerns raised after a 1974 wildfire at the Site prompted the landfill owner (the Trust) to construct a series of raised fire roads between 1979 and 1982. The Trust was issued a citation in 1979 for using unpermitted waste materials (reported as construction and demolition debris) in the construction of the fire roads.

2.2 Previous Investigations

This section describes the previous environmental investigations that have been conducted at the Site. For details regarding the investigation activities and results, refer to the relevant, cited reports.

A CERCLA Site Inspection (SI) was initiated in 1985 by EPA Region II in response to reports of uncharacterized process wastes at the Site. Under that investigation, one surface soil and four sediment samples were collected on the landfill and on Refuge property where landfill material reportedly did not exist (Foster Wheeler 2000). The samples were analyzed for volatile organic compounds (VOCs), semi-volatile organic compounds (SVOCs), PCBs, organochlorine pesticides (OCPs), and metals. EPA conducted a follow-up investigation in 1986, during which they sought to define the landfill depth, nature of soil contamination, and evaluate potential dioxin soil contamination. Eight borings were advanced and environmental samples were collected from multiple depths and analyzed for VOCs, SVOCs, PCBs, OCPs, metals, and dioxin (NUS Corporation 1986).

The FWS conducted a fish tissue and sediment survey in 1988 (FWS 1991). The study evaluated metals and polycyclic aromatic hydrocarbons (PAHs) present in fish tissue, and metals, OCPs, and PAHs present in sediment. The sampling locations were reportedly biased around potential source areas and roadways.

In 1989, the FWS and U.S. Geological Survey conducted a joint investigation of Loantaka Brook and the perimeter of the landfill (the location of the perimeter investigation has not been verified). Surface water, sediment, and groundwater samples were collected and analyzed for metals, VOCs, and SVOCs.

EPA conducted a current conditions investigation in 1999 (Foster Wheeler 2000). Seven soil borings were advanced, and two monitoring wells were installed. Additionally, 21 surface water, 10 groundwater, 21 sediment, and 15 soil samples were collected and analyzed for VOCs, SVOCs, PCBs, OCPs, and metals. A follow up sampling event was conducted in 2000 to collect additional data.

The FWS conducted a 10-year follow-up investigation in 1999 relative to its 1988 investigation (FWS 2005). The objectives of this investigation were to:

- Quantify the concentrations of metals, OCPs, and PAHs in Refuge sediment, and metals and OCP concentrations in fish tissue;
- Compare those data to the data from the 1988 fish tissue and sediment survey; and,

- Identify the potential change in sediment and fish tissue concentrations between the two sampling events.

All of the samples were collected within the Refuge boundaries because FWS was not granted access by surrounding property owners.

During two field events in 2003, the EPA Region II Site Assessment Team (SAT) conducted phased investigations at the Site:

- Phase I involved the collection of soil and sediment samples, which were screened for PCBs;
- Phase II involved the collection of soil and sediment samples for laboratory confirmation of the Phase I screening results; and
- Additional sediment and soil samples were collected from locations where drums or other visual indications of possible source material were observed.

The additional samples were analyzed for Target Compound List (TCL) and Target Analyte List (TAL) (excluding cyanide) constituents. Additional sample volumes were collected at the sediment sampling locations and analyzed for total organic carbon (TOC) and particle size (Weston Solutions Inc. 2003a, 2003b and 2003c). Subsequently, the SAT issued a Hazard Ranking System package in April 2003 and on September 29 of the same year, the Site was listed on the NPL - Site ID NJD980505192.

Subsequent to a potentially responsible party (PRP) search, a number of PRPs were identified as contributors to the hazardous substances found in the landfill. The EPA signed an Administrative Settlement Agreement and Order on Consent (Agreement; CERCLA-02-2005-2034) with Chevron Environmental Management Company, Alcatel Lucent USA Inc., and Novartis Pharmaceuticals Corporation (collectively, the Group) on September 30, 2005. Subsequent to the Agreement, the Group conducted investigations under EPA oversight.

A Phase I Remedial Investigation (RI) was initiated by the Group in 2005 with a second phase conducted in 2014 and 2015. The objectives of Phase I RI included:

- Characterizing the Site's geology and hydrogeology;
- Characterizing landfill waste;
- Defining chemicals of potential concern (COPCs) and environmental media; and,
- Providing data to support risk assessments and remedy selection.

The results of the Phase I RI were reported in the Site Characterization Summary Report (Arcadis 2012) and the results were used to generate a Baseline Human Health Risk Assessment (BHHRA; CDM 2014) and Screening-Level Ecological Risk Assessment (SLERA, Arcadis 2013) for the Site. The sample locations from the RI and Baseline Ecological Risk Assessment (BERA) are illustrated on Figure 2.3. A number of data gaps were identified after the Phase I RI was completed and a

data gaps investigation was conducted between November 2014 and January 2015 to further define the nature and extent of contamination at the Site, and to provide additional data to support a BERA and remedial alternative evaluations for the Feasibility Study (FS). The data gaps analysis investigation results were reported in the Data Gaps Technical Memorandum (Geosyntec 2016). The data gaps investigation also involved the collection of data used to evaluate the efficacy of monitored natural attenuation (MNA) at the Site, which was reported in the Supplemental Groundwater and Baseline Monitored Natural Attenuation Investigation Report (Geosyntec 2017).

Additional samples were collected in 2016, specifically to support the BERA (Integral 2016). The BERA report was completed in the same year.

To evaluate Site-specific, reuse-related considerations for the identification of reasonably anticipated future Site uses, the Group conducted a reuse assessment. The results were provided in the Reuse Assessment Report (TRC 2017a) and supplemented in a Reuse Assessment Addendum (TRC 2017b). The conclusions of the Reuse Assessment Addendum were that "the potential reuse of the Site is limited by:

1. The presence of extensive state- and federally-regulated areas that limit development;
2. The environmentally-sensitive nature of the surrounding area;
3. State, county, and local planning documents that discourage development in environmentally-sensitive areas away from established centers and focus on protection of the [Refuge];
4. The lack of available infrastructure and associated Site accessibility issues; and
5. The presence of buried waste which complicates construction and makes it costlier."

A Final RI Report was submitted in January 2018 (Geosyntec 2018a). A Revised Draft FS Report was submitted in July 2018 (Geosyntec 2018b) and the Draft FS was revised again in March 2021 (Geosyntec 2021). The Draft FS proposes remedial alternatives for soil. Groundwater will be addressed in a future decision document (Geosyntec 2021).

A summary of the Revised Draft FS alternatives with their key feature(s) relative to the impacts on the Refuge portion of the Site is provided below:

Alternative	**Key Features Relative to Impacts on the Refuge [a]**
Landfill 1[b]	No Action
Landfill 2	Site controls (i.e., Institutional Controls, fencing and signage, land use restrictions);
Landfill 3	Capping of selected areas to reduce overall risk, remediation of "Areas of Particular Concern (APCs)", and remediation of non-vegetated areas of soil contamination above remediation goals.

	(Note: only one APC was identified in the Refuge, associated with soil sample SS-118 in the south part of the landfill.)
Landfill 4	Excavation and off-site disposal of selected areas to reduce overall risk, remediation of APCs, and remediation of non-vegetated areas of soil contamination above remediation goals. (Note: only one APC was identified in the Refuge, associated with soil sample SS-118.)
Landfill 5	Capping of all landfill material (including the Refuge portion of the Site).

[a] To address the area of the Refuge significantly impacted by the Site/landfill, and to comply with the Refuge Comprehensive Conservation Plan, the Department of the Interior Environmental Compliance Memoranda (DOI ECM), and all other applicable or relevant and appropriate requirements.

[b] The Revised Draft FS refers to these alternatives as "Soil" alternatives; however, they address the source landfill waste as well as the soils contaminated by the landfill waste and are more appropriately labeled as "landfill" alternatives.

A critical review of the Draft FS conducted by KMPower (2019) on behalf of FWS concluded that significant areas of the Refuge contain surface soils contaminated from landfill waste that pose an elevated risk to wildlife and recreational users. KMPower (2019) also concluded that the preliminary remediation goals (PRGs) proposed in the Revised Draft FS (Geosyntec 2018b) were likely not adequate to protect certain wildlife receptors or recreational visitors, including children, at the Refuge.

The KMPower (2019) review further determined that remedial alternatives that would allow landfill waste to remain on the Refuge and the adjacent portions of the Site without containment are not adequately supported by the existing characterization of contamination and associated impacts; this presents a data gap that limits risk management decision making. Groundwater contaminants were also reported at the Site at concentrations in excess of promulgated New Jersey groundwater quality standards, which are applicable or relevant and appropriate requirements (ARARs) for the Site (KMPower, 2019). Only one remedial alternative in the Revised Draft FS (Alternative 5, capping of the 140-acre landfilled area and capping and/or excavation of additional areas that exceed PRGs) has the potential to prevent further migration of contaminants from the landfill into groundwater. The remaining alternatives allow landfill waste to remain onsite without containment. The Draft FS also did not address current groundwater contamination, citing conclusions from the MNA study (Geosyntec 2017).

However, several of the conclusions from the Geosyntec (2017) MNA study regarding groundwater contamination are not substantiated. The text states (p. 10, Section 3.2.1), "The data show that both dissolved and total metals concentrations in groundwater fluctuate but have generally been stable over time since 2007. This indicates that natural processes upgradient, downgradient and within the landfill are immobilizing and sequestering the metals in the soil matrix." The presence of relatively stable concentrations of dissolved metals in groundwater from all monitoring wells indicates that metals are readily available to migrate via groundwater. These dissolved metals will likely continue to migrate into the Refuge wetlands until, either their source(s) are depleted, or geochemical conditions change to those more favorable for sequestering the metals. As described in Section 5, the DGSC pore water, sediment and surface

water sampling results clearly demonstrate that metals are mobile in the groundwater until they encounter more oxidizing conditions present in the sediment and surface water.

The Geosyntec (2017) MNA study text also states that (p. ix), “Metals are mostly not detected in filtered groundwater samples, indicating that metals concentrations are present in colloidal fractions, which are not readily transported with groundwater.” This is contradicted by the fact that, as described above dissolved metals have been detected at concentrations that exceed New Jersey’s Groundwater Quality Standards in every monitoring well.

The decision to not include groundwater contamination in the FS based on the assumptions that dissolved metals are mostly not detected in the groundwater, that the metals are immobilized and sequestered in the soil matrix, and that implementation of a soil remedy will address elevated concentrations of contaminants in groundwater is not supported by the existing data. As described in Section 8.2 (Geochemical Facies), the metals are present and mobile in the groundwater, as reflected by the elevated concentrations detected in the pore water sampled as part of this DGSC.

3. ENVIRONMENTAL SETTING

This section describes the environmental setting for the Site and surrounding area.

3.1 Climate

The climate of the Chatham Township, New Jersey area is classified as humid continental, consisting of cold winters and warm summers. The mean annual temperature is approximately 51°F, with the coldest average temperature of 29°F occurring in January and the warmest average temperature of 73°F occurring in July. The coldest mean daily temperatures (below 40°F) occur between December and March (Rutgers, 2016a).

The mean monthly precipitation ranges from 3.06 to 4.65 inches, with an annual total mean precipitation of approximately 47 inches. Rainfall is spread throughout the year, with the wettest months being July and August (Rutgers, 2016b).

The prevailing wind is from the southwest in the summer and from the northwest during the remainder of the year. Average wind speeds range from 9 to 17 miles per hour (USA.com, 2016).

3.2 Topography

The topography at the Site is relatively flat, consisting mostly of low-lying areas including the Refuge wetlands (Gill and Vecchioli, 1965). The Site's topography is illustrated on Figure 3.1. The Site and the surrounding area lie at an elevation of approximately 240 feet above mean sea level (amsl; Geosyntec, 2018a). Survey data from the RI Report (Geosyntec, 2018a) soil borings indicate that the ground elevations throughout the Site and in the adjacent lower areas range from 227 to 250 feet amsl (Geosyntec, 2018a). The fire roads built across the Site are elevated approximately four feet above the surrounding landscape.

3.3 Surface Water Drainage

The Site is relatively flat and poorly drained with some saturated areas and wetlands existing on the Site itself; however, the Site is somewhat elevated above the surrounding wetlands due to landfilling. Precipitation that does not evapotranspire or infiltrate through landfill wastes to groundwater is expected to runoff into the on-Site ponds and surrounding wetlands.

Drainage from the landfill flows into Black Brook, which flows from north to south near the eastern boundary of the Site. Though portions of Black Brook are channelized, the majority of the surface water flow is un-channelized, low energy flow through dense wooded, scrub-shrub, and emergent wetlands. Loantaka Brook, which flows to the south, is located to the west of the landfill.

3.4 Soils

Though the thin soil layer over the landfill is discontinuous, most of the landfill soils are classified as Udorthents, Refuse Substratum. The soil is characterized as silty loam that is spread over organic material and is classified as well drained and does not frequently flood (USDA 1976). A second soil type called Carlisle Muck is reportedly present in the southern part of the landfill (Geosyntec, 2018a). That soil type is characterized as very poorly drained and frequently flooded. It is typically found in floodplains and is composed of herbaceous and/or woody organic material (USDA 1976).

3.5 Geology

3.5.1 Regional Geology

The Site lies within a former glacial lake called Lake Passaic, which was formed during the Wisconsin Glaciation (Geosyntec 2018a). Sediments deposited within the lake include till and glaciolacustrine sand and gravel, silt, and clay. Regionally, thick deposits of the Wisconsin Glaciation terminal moraine lie to the northeast of the landfill and the third basalt sheet, locally known as Long Hill, lies directly to the south (Gill and Vecchioli, 1965). See Geosyntec (2018a) map showing local surficial geology on and near the landfill. Two overburden units are mapped within the landfill and include stream terrace deposits and swamp and marsh deposits. In general, the landfill is underlain by post-glacial swamp deposits interbedded with silt and sand. Coarser material was deposited directly from the ice and finer sediments were deposited at slower rates from remnant lakes following the retreat of glacial ice. Peat was deposited from shoreline vegetation of these remnant lakes and continues to be deposited throughout the heavily vegetated low-lying areas (Minard 1967).

3.5.2 Local Geology

The most significant unconsolidated glacial sediments in the area of the landfill are the glacial lake clay deposits. The glacial lake clay is characterized as medium to light gray and grayish-red to pale-red plastic clay containing intermixed silt. The clay forms a thick deposit that underlies the entire area and is reportedly more than 100 feet thick (Minard 1967).

3.6 Hydrogeology

The hydrostratigraphic units at the Site generally consist of silt, peat and other organic materials, overlying stratified drift and sand channels (where present), beneath which lies a thick clay unit acting as an aquiclude (Geosyntec 2018a). The clay layer is located at depths of less than 20 ft below ground surface (bgs) across the Site. Groundwater is found at or within approximately five feet of the ground's surface across the Site. A groundwater contour map is included as Figure 3.2.

3.7 Ecosystems and Protected Species

Ecosystems at the Site were described in detail in the 2014 USFWS Great Swamp National Wildlife Refuge Comprehensive Conservation Plan (CCP), the 2013 Screening-Level Ecological Risk Assessment (Arcadis 2013), and the 2016 BERA (Integral 2016). Appendix D of the BERA provides a detailed Ecological Habitat Assessment and habitat mapping for the Site. The information presented here is summarized from these documents. Detailed information on specific plant and wildlife species that occur at the site can be obtained from these documents. Wetland delineation and previous habitat assessments were presented as part of the Site Characterization Study Report (Arcadis 2012) and a bog turtle habitat assessment was performed in 2008 (Amy S. Greene Environmental Consultants, Inc. 2008).

The following "environmentally sensitive areas" (N.J.A.C. 7:1E-1.8) occur at GSNWR: surface waters, wetlands and wetland transition areas, critical wildlife habitats (e.g., wintering and breeding areas, migratory stopovers), submerged vegetation habitat, forest areas, habitat for federal and state endangered or threatened plants and animals, and federal and state wilderness areas. These areas are considered most likely to be adversely affected by the discharge of hazardous substances.

The Site includes wetland, upland (terrestrial), and aquatic environments. Terrestrial habitats include shrub-scrub, wooded, open field, and barren/disturbed areas. Wetland habitats include palustrine wooded, shrub-scrub, and emergent wetlands (predominantly cattail marsh). Aquatic habitat includes two flowing surface water bodies, Loantaka and Black Brooks, and three non-flowing (lentic) habitats (ponds). Cover types on the Refuge are shown in Figure 3.3, reproduced from the Refuge CCP. The habitat map from the 2016 BERA is also provided as Figure 3.4.

The landfill is bordered by the GSNWR to the east, south, and west. Loantaka Brook, which flows to the south, is located to the west of the landfill, and there are residential areas to north and northwest. Drainage from the landfill flows into Black Brook, which flows south and west. Loantaka and Black Brooks are perennial streams, which are part of the Upper Passaic River watershed. They have been designated as Outstanding Resource Waters of the State within GSNWR and are protected under state antidegradation policies. These brooks exhibit meandering, suburban stream morphology. Anthropogenic activities have altered portions of the stream channels. Black Brook maintains a similar character to Loantaka Brook upstream of the Site, but loses its channel morphology as it flows through GSNWR, where it exhibits overland flow through a scrub-shrub wetland community (Arcadis 2013).

Approximately 30 acres of the Site overlap the Refuge to the east and south of the landfill. GSNWR lies within the Piedmont Plains ecoregion. The refuge provides breeding, nesting, feeding, and resting habitat for a variety of migratory bird species, and the Refuge's forested and emergent wetlands and upland communities provide habitat for a diverse array of wildlife species, including several threatened and endangered species. Threatened and Endangered and candidate species occurring at the Site and Refuge include (USFWS 2014, 2021; NJ Division of Fish & Wildlife 2012):

- Bog turtle (*Glyptemys muhlenbergii*), SE/FT
- Wood turtle (*Glyptemys insculpta*), ST
- Indiana bat (*Myotis sodalis*), SE/FE
- Northern long-eared bat (*Myotis septentrionalis*), FT
- Blue-spotted salamander (*Ambystoma laterale*), SE
- Barred owl (*Strix varia*), ST, SE*
- Red-shouldered hawk (*Buteo lineatus*), SE*
- Northern goshawk (*Accipter gentilis*), SE*
- Broad-winged hawk (*Buteo platypterus*), SC
- American kestrel (*Falco sparverius*), ST
- American bittern (*Botaurus lentiginosus*), SE*
- Northern harrier (*Circus hudsonius*), SE*
- Red-headed woodpecker (*Melanerpes erythrocephalus*), ST
- Bobolink (*Dolichonyx oryzivorus*), ST*
- Monarch butterfly (*Danaus plexippus*), FC

Notes:
SC: State Special Concern; SE: State Endangered; ST: State Threatened;
FC: Federal Candidate; FE: Federally Endangered; FT Federally Threatened
*Breeding population

Forested bottomlands including floodplains and riparian habitats as well as vernal pool habitats are the most dominant cover types at the Refuge (USFWS 2014). These forests are important to protected species including the Indiana bat, and migrating songbirds and raptors. Upland forests support high priority bird species including warblers and neotropical migrants, as well as raptors, including the protected barred owl. Cattail marshes provide habitat for the federally protected bog turtle as well as the state-listed wood turtle. Marshes and adjacent waters are important habitats for migrating waterfowl. Successional wet meadows/grassland habitats are utilized by prioritized bird species, such as bobolink, woodcock, Northern harrier, and Eastern meadowlark (USFWS 2014).

The Refuge provides critical habitat for state and federally designated or proposed endangered and threatened animal species and is also a designated National Natural Landmark (USFWS 2014). Considerations for protected species include:

- The northern population of the federally threatened bog turtle is managed at the Refuge as a priority species; 46 acres of potential bog turtle habitat were identified at the landfill and adjacent areas (Amy S. Greene Environmental Consultants, Inc. 2008);
- The federally endangered Indiana bat is a priority species for the Refuge; maternity colonies were discovered at GSNWR in 2005;
- The state threatened Wood turtle is a priority species for the Refuge; and
- The state endangered blue-spotted salamander is another priority species, which was observed at the Site as part of the field activities conducted in support of the BERA.

3.8 Preliminary Conceptual Site Model

3.8.1 Sources of Known or Suspected Hazardous Waste

Several known and potential sources of hazardous substances have been documented for the Site. As discussed in Section 2.1, the landfill received municipal solid wastes and septic wastes from municipalities, private haulers, and homeowners from the 1930s to the late 1960s. Industrial wastes were also reportedly disposed of in the landfill and the observations of drums containing such wastes appear to confirm those reports (Geosyntec 2018a; see also Section 5.2 for additional drum observations from this DGSC study). Pesticides, herbicides, and oil were used to control rodents, mosquitoes, and dust as part of the landfill's operation. The landfill closed in December 1968. Though not confirmed by previous investigations, other potential contaminant sources include skeet shooting activities (i.e., PAHs from clay pigeon fragments and lead from shot) at the north end of the Site, lead (shot) from on-Site hunting activities, petroleum hydrocarbons from the storage and maintenance of vehicles and landscaping equipment, and unauthorized dumping (Geosyntec 2018a). The unpermitted construction and demolition debris that was imported to build fire roads across the Site may also have introduced contaminants.

The 2018 RI Report also documented a number of potential upgradient sources of contaminants that could possibly contribute to surface water and sediment contamination within Loantaka Brook and Black Brook. The potential upgradient sources included greenhouses, sewage treatment plants, runoff from roadways and golf courses, and a shooting range (see Section 2.1, and Geosyntec 2018a).

3.8.2 Known or Suspected Contaminants

The specific COPCs for risks to human health were identified in the 2014 BHHRA (CDM 2014). The COPCs for the Site for soils by class include VOCs, SVOCs, pesticides, PCBs, dioxins/furans, and metals. The COPCs for the Site for surface water by class include SVOCs, PCBs, and metals. The COPCs for the Site for sediment by class include VOCs, SVOCs, pesticides, PCBs, dioxins/furans, and metals. The COPCs for the Site for groundwater by class include VOCs, SVOCs, and metals.

The specific contaminants of potential ecological concern (COPECs) for ecological receptors were identified in the 2013 SLERA (Arcadis 2013) and 2016 BERA (Integral Consulting 2016). The COPECs for the Site by class include SVOCs, pesticides, PCBs, dioxins/furans, and metals.

3.8.3 Release and Transport Mechanisms

Hazardous substances including VOCs, SVOCs, PCBs, pesticides, dioxins/furans, and metals are found in surface and subsurface soils across the Site. Many of the same contaminants have been detected in surface water, sediment, and groundwater across the Site and adjacent to the Site in the Refuge. Much of the landfill waste is exposed at the surface, or only covered by a thin layer of soil (Geosyntec 2018a). The precipitation that falls on the landfill that does not evapotranspire back into the atmosphere either infiltrates through the landfill material and into the shallow

groundwater or runs off into the onsite ponds and adjacent wetlands, including those on the Refuge. The meteoric water infiltrating through the waste material could mobilize contaminants from the waste and into the groundwater below. Runoff can mobilize waste material and contaminated soil into the adjacent waterways and wetlands, contaminating both sediment and surface water.

Groundwater is in contact with the waste material across the Site, which has resulted in some contaminants in groundwater (Geosyntec 2018a). The groundwater redox conditions are highly reducing beneath the Site, which can further mobilize metal contaminants from the waste material that would otherwise not be soluble. A confining clay layer is present at depths of generally less than 20 feet ft bgs across the Site, which is expected to limit the potential vertical migration of contaminated groundwater. As previously mentioned, groundwater is at or near the ground surface across the Site and in hydraulic communication with surrounding surface water bodies, including the Refuge's wetlands (Geosyntec 2018a) and associated surface water. Therefore, contaminated groundwater could result in discharge of contaminants to surface water and sediment at and downstream/downgradient from the groundwater-surface water interface. As the redox conditions change when groundwater leaves the Site, contaminants with solubilities that were redox-dependent (e.g., some dissolved metals) would be expected to precipitate out of solution, potentially leading to higher contaminant concentrations at those redox inflection points, either within the subsurface soils or in sediments at the surface water discharge location.

With respect to the influence that redox reactions have on the speciation and mobility of heavy metals, the conceptualization is explained by Geosyntec (2017, p. 11) which states that, "*Groundwater at well MW-7, located in the middle of the landfill, is highly reducing and methanogenic; it also has relatively high concentrations of total and dissolved organic carbon. The groundwater geochemistry at well MW-1 is similar to well MW-7, it is methanogenic with high concentrations of total and dissolved organic carbon. Due to the heterogeneous nature of landfills, these conditions may not be consistent across the entire site. The groundwater sample from downgradient well X-3* [Figure 2.3] *is oxidizing with a positive [oxidation reduction potential (ORP)], and there is no evidence of methane and total or dissolved organic carbon. There is no nitrate, and the data suggest some manganese reduction, but overall, it is the most oxidizing of the four sample locations."* As shown in Figure 2.3, monitoring well MW-2 is located between MW-1 and X-3. At MW-2, dissolved arsenic, manganese, thallium and iron concentrations have been detected above New Jersey Groundwater Quality Standards indicative of reducing conditions (Geosyntec 2017, Figure 4-2). Therefore, between MW-2 and X-3 there is a geochemical transition zone in which conditions become more oxidizing and metals precipitate out of solution. It is not known to what degree the metals precipitate within the aquifer matrix, pore water, sediment, or surface water. If the metals precipitate out of the groundwater at greater depths, they should not result in adverse ecological impacts. However, if the metals remain in solution until entering shallower more oxidizing environments (e.g., pore water, sediment, surface water), they could result in ecological impacts and potential human exposures. Furthermore, these dissolved metals could be bioconcentrated within the pore water and sediment due to 1) evapotranspiration removing the water but leaving the metals behind, and 2) bioaccumulation within wetland plants during the growing season and subsequent release and

bioconcentration within the detritus following the plants death. The geochemical transition zone between reducing and more oxidizing conditions likely forms a relatively narrow band, starting near the interface between the upland terrestrial system and the wetlands and ending several hundred feet downgradient within the wetlands.

For the purposes of this investigation, pore water is defined as the water that occurs in the spaces between soil/sediment particles within the zone affected by evapotranspiration, and potentially discharging to surface water.

Dissolved metals have been detected in the seven monitoring wells located along the geochemical transition zone on the Refuge property (i.e., MW-2, MW-4, MW-12, MW-14, MW 19, X-1 and X-2; Figure 2.3). Dissolved metals would be expected to continue to migrate into the wetlands until either their source(s) is depleted, or geochemical conditions change.

3.8.4 Potential Receptors and Exposure Pathways

Sources of contaminants include landfill waste, runoff from the landfill surface, migration of contaminated groundwater and discharge to surface water and wetlands. In addition, the presence of landfill debris in most soil borings collected as part of this DGSC is evidence of landfill impacts on the Refuge.

Relative to human health, receptors on the Refuge portion of the Site are expected to be recreational users, because land use is public passive recreation. The potential routes for human receptors to be exposed to contaminated media at the Refuge include incidental ingestion and direct (dermal) contact with soil, surface water, and sediment, and inhalation of particulates from fugitive dust. The groundwater aquifer constitutes a potential potable water source.

Relative to ecological exposures, receptors on the Refuge portion of the Site include terrestrial and wetland birds and mammals, semi-aquatic birds and mammals, amphibians, reptiles, terrestrial and aquatic invertebrates, and aquatic vertebrates (fish). Detailed ecological CSMs for upland, open water, and wetland habitats were provided in the BERA (Integral 2016). In terrestrial habitats, ecological receptors can be exposed to contaminants in soil via direct contact and incidental ingestion during feeding, burrowing, and grooming. Contaminants in soil can also be taken up by plants, soil invertebrates, reptiles, and small mammals, leading to food chain exposures for higher trophic level wildlife receptors. Ecological receptors can be exposed to contaminants in wetland soils, pore water, and sediment via incidental ingestion and direct contact. Chemicals in wetland soils, pore water, and sediment can bioaccumulate into wetland plants, aquatic invertebrates, amphibians, reptiles, soil invertebrates, and small mammals, which can lead to food chain exposures.

Runoff and leaching from the landfill are potential sources of contaminants to Loantaka and Black Brooks. Groundwater discharge at the surface water interface can introduce contaminants into wetland pore water and surface water. Aquatic receptors can be exposed to contaminants in surface water and sediment via direct contact, and direct and incidental ingestion. Aquatic food

chain exposures can occur when contaminants bioaccumulate into aquatic plants, amphibians, aquatic and benthic invertebrates, and fish, which are then eaten by higher trophic level receptors.

Forage fish, tadpoles, soil invertebrates, small mammals, and aquatic vegetation were collected for chemical analysis as part of the BERA field studies to quantify food chain exposures for higher trophic level receptors (Integral 2016). Pesticides, PCBs, and metals were detected in fish and tadpole tissues. Metals, PAHs, PCBs, and dioxins were detected in small mammal samples. Pesticides and metals were detected in aquatic plant samples. PAHs, PCBs, dioxins, pesticides, and metals were detected in soil invertebrates including earthworms. These data show that some contaminants are entering the food chain.

3.8.5 Land Use Considerations

As the Refuge portion of the Site and the adjacent wetlands are a designated Wilderness Area, land use is public passive recreation.

A portion of the Site outside of the Refuge called the 'laydown area' is used by two waste hauling companies (Chatham Disposal and South Orange Disposal) for storing and staging solid waste roll-off bins. The ballfield and shooting range located at the northern edge of the Site are occasionally used for recreational purposes.

Recent land uses that are no longer conducted:

- Two landscaping companies rented portions of the landfill and surface debris areas for equipment storage and maintenance activities. These landscaping companies no longer rent this land.
- A small building located in the surface debris area, called the Hunt Club, was occasionally used for social functions. This activity is not currently taking place.

4. DATA GAP EVALUATION

4.1 Project Data Quality Objectives Summary

This section presents a summary of the project DQOs, which were developed through the EPA Guidance for Systematic Planning Using the DQO Process (EPA 2006). The DQO process specifies anticipated project decisions, specific data types needed, the data quality required to support decisions, data collection requirements, and analytical techniques necessary to generate the specified data quality. The process also ensures that the resources required to generate the data are justified.

The DQO process consists of the following seven steps:

1. State the Problem.
2. Identify the Goal of the Investigation.
3. Identify the Information Inputs.
4. Define the Boundaries of the Investigation.
5. Develop the Analytic Approach.
6. Specify Performance or Acceptance Criteria.
7. Develop the Plan for Obtaining Data.

4.1.1 State the Problem

The existing data are insufficient to determine the extent of contamination and to evaluate the potential effectiveness of the proposed remedial alternatives with regard to the Refuge. This DGSC investigation was conducted to supplement the existing data sets and fill data gaps.

4.1.2 Goals of the Study

The environmental samples and data that were collected under this study are intended to address several existing data gaps surrounding the nature and extent of contamination on the Refuge and for the development of a remedial alternative that is consistent with the Refuge's CCP and Refuge-specific ARARs.

Therefore, the main goals of this project are to answer the following study questions:

1. What are the distributions and concentrations of sediment contaminants on, and adjacent to the Refuge portion of the Site in uncharacterized areas?
2. What are the distributions and concentrations of surface water contaminants on, and adjacent to the Refuge portion of the Site in uncharacterized areas?
3. What are the distributions and concentrations of contaminants within pore water and sediment at the potential groundwater to surface water interface adjacent to the Refuge portion of the Site in uncharacterized areas?

4. What are the distributions and concentrations of pore water (shallow groundwater) contaminants on, and adjacent to the Refuge portion of the Site in uncharacterized areas?
5. What are the distributions and concentrations of soil contaminants on the Refuge portion of the Site in uncharacterized areas?
    a. Large areas of surficial soils near previously identified hotspots have not been chemically characterized (See AI 2021, Figures 6a and 6b); therefore, additional surface soil samples are required to:
        i. Evaluate exposure point concentrations (EPCs) of contaminants in select areas; and
        ii. Determine whether surface soils from on-Site portions of the Refuge could act as source areas.
    b. A primary data gap surrounding the Refuge portion of the Site is the lack of environmental samples collected at depth within the landfill. These data are needed to identify potential hotspots within the landfill waste, to understand the leaching potential of the landfill waste (now and after it may be disturbed), and to generate a potential remedial alternative consistent with the Refuge's CCP and Refuge-specific ARARs.
6. What are the chemical properties of the soil between the landfill wastes and the underlying clay layer on the Refuge portion of the Site (i.e., have contaminants migrated from the overlying landfill into the native soils beneath)?

The possible alternative outcomes of study questions 1-5(a) include:

- The data confirm releases of Site-related contaminants into the environment, and specifically, the Refuge; and
- The data confirm releases of Site-related contaminants into the Refuge with EPCs that indicate the need for further investigations and possibly response action(s).
- The data confirm there are no releases of Site-related contaminants into the Refuge.

The decision statement for study questions 1-5 is: Use the supplemental data collected under this study, in conjunction with previously collected Site data (that meets the study's DQOs) to determine the need for, or extent of remediation required to reduce risks to human health and ecological receptors on the Refuge and to prevent future Site-related contaminant releases to off-Site portions of the Refuge.

The possible alternative outcomes of study questions 5(b) and 6 include:

- The data are sufficient to support the development and implementation of a remedial alternative that removes all landfill wastes from the Refuge portion of the Site; and
- The data are insufficient to support the development and implementation of a remedial alternative that removes all landfill wastes from the Refuge portion of the Site.

The decision statement for study questions 5(b) and 6 is: Use the supplemental data collected under this study, in conjunction with previously collected Site data (that meets the study's DQOs)

to design a potential remedial alternative consistent with the Refuge's CCP and Refuge-specific ARARs.

4.1.3 Information Inputs

This section specifies the types of data that are required to address the data gaps relative to the CSM associated with the Refuge portion of the Site and adjacent areas of the Refuge.

4.1.3.1 Previous Data Usability

As detailed in Section 2.2, previous investigations have been conducted at the Site under EPA oversight, which produced data that may be useful for this study.

The initial investigations that were used to define the Site were conducted between 1985 and 2003 (Geosyntec, 2018a; Geosyntec, 2018b). Subsequently, the Group conducted an RI between 2005 and 2015 with an RI report released in 2018 (Geosyntec 2018a). Supplemental data intended specifically for a BERA were collected in 2016 (Integral, 2017). The data from the RI and BERA reports were available for review and were compared to the DQOs developed for this study.

The data collected as part of the RI and BERA were approved for their intended uses by EPA. A subset of those data are from the Refuge portion of the Site and are deemed of sufficient quality to inform the placement of locations for this study and in the evaluation of this study's investigation-derived data. Groundwater will also be evaluated on a Site-wide basis using existing datasets. The usable data from previous studies includes:

- 59 soil samples (56 include surface soils);
- 28 sediment samples;
- 7 surface water samples;
- 2 pore water samples;
- Groundwater samples from 27 monitoring wells and 9 temporary well points, Site-wide (includes multiple rounds of sampling between 2007 and 2015);
- Groundwater elevations from 27 monitoring wells, Site-wide;
- Soil boring logs from 9 locations; and
- Test pit logs from 29 locations.

The distinction between soil and sediment samples in the RI is confusing because some samples identified as "soil" were submerged under water at the time of collection (e.g., SS-162), and some samples identified in the RI as "sediment" were not submerged at the time of collection (e.g., SD-61). It is unclear exactly how these samples were used to characterize the Site within the RI. For the purposes of this study and to evaluate the potential areal extent of contamination on the study area, the surface soil samples within the study area that were re-classified as a sediment matrix (e.g., SS-162) will be evaluated with the other soil matrix samples; this use is also

consistent with the approach taken in the RI for other areas of the Site (Geosyntec Consulting 2018b, Section 4.9.2).

The locations for these previously collected data are illustrated in Figure 2.3.

4.1.3.2 Data Collected Under the Current Investigation

Table 4.1 (below) lists the data requirements for the study and how each type of data will be used to help answer the investigation questions. Quality control samples are discussed in Section 10.6 of the UFP-QAPP. The Field Sampling Plan (FSP) including the sampling design and rationale is detailed in Section 17 Worksheet #17 of the SAP (AI, 2021).

Table 4.1 – Data/Samples Required

Data Type	Data Purpose
Sediment contaminant concentrations collected from open surface water bodies and/or surface water drainage swales within the Refuge portion of the Site and adjacent Refuge property.	Evaluation of potential migration pathways, and the spatial extent and relative concentrations of Site-related contaminants.
Sediment contaminant concentrations from upgradient of the Refuge portion of the Site.	Evaluation of potential upgradient sediment contaminant contributions.
Survey to identify potential groundwater discharge points within the Refuge portion of the Site and adjacent Refuge property.	Evaluation of potential groundwater discharge points to surface water and to optimize pore water/sediment/surface water sampling locations.
Sediment pore water and collocated sediment contaminant concentrations from areas adjacent to the Site where contaminated groundwater is expected to discharge.	Evaluation of contaminated groundwater potentially discharging into Refuge wetlands.
Surface water contaminant concentrations from within the Refuge portion of the Site and adjacent Refuge property.	Evaluation of potential migration pathways, and the spatial extent and relative concentrations of Site-related contaminants.
Surface water contaminant concentrations from upgradient of the Refuge portion of the Site.	Evaluation of potential upgradient surface water contaminant contributions.
Surface water flow measurements from the Refuge portion of the Site and adjacent Refuge property.	Evaluation of the relative contributions of groundwater to surface water flow.
Pore water (shallow groundwater) contaminant concentrations from within the Refuge portion of the Site and adjacent Refuge property.	Evaluation of potential migration pathways, and the spatial extent and relative concentrations of Site-related contaminants in pore water and where contaminated pore water might be discharging into surface water.

Data Type	Data Purpose
Pore water quality parameters from within the Refuge portion of the Site and adjacent Refuge property.	Evaluation of overall pore water quality and provides an indication of the presence of, and types of contaminants potentially present in pore water. This information will also enable pre-remedial implementation baseline conditions to be established.
Speciation of metals (specifically Fe and Mn) in pore water from within the Refuge portion of the Site and adjacent Refuge property.	Provides an indication of the ORP of pore water flowing through the landfill wastes and of the implications of changing that environment through implementation of a remedial alternative.
Surface soil contaminant concentrations from within the Refuge portion of the Site.	Evaluation of potential hotspots/source areas, migration pathways, and the spatial extent and relative concentrations of Site-related contaminants.
Subsurface soil and waste contaminant concentrations and fraction of organic carbon from within the Refuge portion of the Site (i.e., the landfill on the Refuge portion of the Site).	Determine physical, chemical, and geotechnical properties of the soil and wastes to evaluate fate and transport of contaminants and the leaching potential of the landfill wastes, and identify potential hotspots/source areas, and provide information necessary for remedial design and implementation.
Subsurface soil contaminant concentrations below the landfill in the Refuge portion of the Site to the upper bound of the underlying clay layer.	Determine whether the soils beneath the landfill wastes have been contaminated and whether they would be classified as a hazardous waste.
GPS coordinates of sample locations	Documentation of sample locations and evaluation of the spatial distribution of contamination across the Site.
Visual descriptions of soils at soil boring locations	Provides a potential visual indication of waste material and mineral speciation (i.e., color associated with oxidation/reduction) and for saturated intervals indicating groundwater contact with material. Also provides information for the estimation of potential volumes of contaminated material.
Topography/geomorphology	Evaluation of potential migration pathways from on-Site source areas. (e.g., drainage patterns, drainage areas, pooling areas, etc.)
Aerial and satellite imagery	Allows remote identification of possible surface water pooling areas and flow regimes, vegetation changes, and optimization of sample placement planning and access to sample locations.

4.1.4 Study Boundaries

The objective of this step is to define the temporal and spatial boundaries of the investigation and to identify its sampling units (SUs) and decision units (DUs). Figure 2.2 depicts the horizontal boundaries of the study area.

4.1.4.1 Temporal Boundaries

A FS has already been drafted for the Site by the PRP Group and FWS intends for the data generated under this study to supplement the RI and the Draft FS. Therefore, this study was conducted under an accelerated timeframe. The Draft report for this study was scheduled for delivery in Fall 2021 and field work would be difficult during the winter months after the ground freezes. Sufficient time was required to conduct data validation and evaluations after the field work was complete. Therefore, the available timeframe to conduct the field work was during the Spring of 2021.

4.1.4.2 Spatial Boundaries

This section describes the spatial boundaries of the area that were sampled.

The areal boundaries of the study area are illustrated on Figure 2.2 and were defined to investigate the Refuge portions of the Site where landfill waste is found in the subsurface and where data gaps exist. This includes both the on-Refuge portion of the Site and the adjacent Refuge property as the preliminary CSM indicates that Site-related contaminants may have migrated into the wetlands adjacent to the landfill boundaries. The study's areal extent also incorporates the need to more clearly evaluate potential upgradient sources of contaminants to sediment and surface water. The total DGSC study area encompasses approximately 179 acres lying entirely within the Refuge boundary. Approximately 35 acres of the study area are covered with landfill material extending to depths of up to 16 ft bgs.

To remain consistent with previous studies (specifically the BERA [Integral, 2016]) the vertical boundary of soils classified as surface soils within the study area is defined as soils from the ground's surface to 0.5 ft bgs.

The goals of the study require the chemical and physical characterization of the landfill material to its full depth, which has been documented to as deep as 16 ft bgs on the Refuge portion of the Site (Geosyntec, 2018). Furthermore, a subset of samples from the clay layer underlying the landfill are needed for physical, chemical, and geotechnical analyses to support potential remedial alternative development. Cross-sections illustrating the geology across the landfill portions of the study area are included as Figures 5.3A through 5.3E.

4.1.4.3 Sampling Units

This section details the SUs for this study. Worksheet #19 of the SAP detailed the sample volumes required by the analytical laboratory for each sample type (AI, 2021). The sampling methodology for each media/sample type were described in Worksheet #18 of the SAP (AI, 2021). The sample designs, rationale, and methodologies for each media are presented in Worksheet #17 of the SAP (AI, 2021).

Surface and Subsurface Soil Samples: Surface and subsurface soil samples were collected across the study area. A description of field activities, including sample locations is presented in Section 5.3.1.

Sediment Samples: Discrete sediment samples were to be collected at select locations collocated with surface water samples across the study area. A description of field activities, including sample locations is presented in Section 5.5.1.

Sediment Pore water Samples: Discrete pore water samples were collected at select locations collocated with sediment samples and surface water samples. A description of field activities, including sample locations is presented in Section 5.6.1.

Surface Water Samples: Discrete surface water samples were collected at select locations collocated with sediment samples. A description of field activities, including sample locations is presented in Section 5.7.1.

4.1.4.4 Decision Units

DUs are the smallest user-defined areas for which a decision will be made based on sampling. As the study's goal is to determine the nature and extent of contamination across the Site and not to make decisions regarding specific areas within the study boundary, the DU for this study is the entire DGSC study area (Figure 2.2).

4.1.5 Analytic Approach

The purpose of this section is to define the analytic or evaluation approach that will be used to answer the principal study questions.

4.1.5.1 Decision Rules

The data generated under this study are meant to supplement the Site characterization data collected to date in order to address data gaps identified by FWS (AI 2021, Section 10.7.9), and to provide the data necessary for remedial design relative to a proposed remedy that would remove all landfill wastes from the Refuge portion of the Site.

The subset of data collected for development and/or evaluation of remedial alternatives does not include applicable decision rules. This data will be evaluated as usable and complete — or not complete — for the purposes of remedial design.

4.1.5.2 Sample Analytical Parameters and Methods

The analytical parameters for each data type were included in the SAP (AI, 2021), Worksheet #18 and the analytical methods were identified in the SAP (AI, 2021), Worksheet #23.

4.1.6 Performance or Acceptance Criteria

The purpose of this step is to establish the criteria needed to maximize the ability of the investigation to obtain the data needed to answer the principal investigation question accurately and with confidence.

There are two types of decision errors: sampling design errors and measurement errors. Sampling design errors are a function of the selection of sample locations or analytical methods used to characterize the Site. Measurement errors are a function of the procedures used to collect and analyze the samples. The possible decision errors are presented below:

- Concluding that a contaminant is present in an environmental media when it is not actually present. This error results in investigating or cleaning up a non-impacted site.
- Concluding that a contaminant is not present when it is actually present. This error results in incomplete characterization or incorrectly concluding that a response action is unnecessary at an impacted site.

The following will reduce the uncertainty associated with these errors:

- The sampling design was based on historical and current Site reconnaissance, previous investigations, and a well-developed CSM for the Site.
- Procedures for all field and reporting activities followed Standard Operating Procedures (SOPs) included as Appendix B of the SAP (AI, 2021).
- At a minimum, the analytical laboratories were certified under the State of New Jersey Environmental Laboratory Certification Program.
- All definitive data were compared to the measurement performance criteria specified in Worksheet #12 of the SAP (AI, 2021) to determine acceptability of analytical laboratory results.
- QA/QC procedures were applied throughout the study process as detailed in the project SAP (AI, 2021).

4.1.7 Plan for Obtaining the Data

The sampling design and rationale were detailed in the project SAP (AI, 2021). See AI (2021) Worksheet #17 for the detailed sampling design and rationale for each location. AI (2021) Worksheets #19, #20, #24-28, and #30 specify the analysis design requirements.

5. DATA GAP INVESTIGATION SUMMARY OF FIELD ACTIVITIES AND RESULTS

5.1 Introduction

The field activities conducted for this DGSC were completed in April and May of 2021, and included:

- Site reconnaissance activities;
- Completion of 31 boreholes using direct-push technology for logging and collection of 31 discrete surface soil samples, and 55 subsurface soil samples;
- Completion of 10 boreholes using hollow-stemmed auger (HSA) technology for collection of 10 geotechnical samples to evaluate the underlying clay layer;
- Collection of sediment samples from 21 locations;
- Collection of 48 pore water samples; and
- Collection of 10 surface water samples.

The analytical results from these sampling activities were compared to ESC. In accordance with N.J.A.C. 7:26E-4.8 *Remedial Investigation of Ecological Receptors*, if contaminant concentrations in the contaminant migration pathway or environmentally sensitive natural resources exceed any ecological screening criterion or any aquatic surface water quality standard, then the responsible party shall delineate the horizontal and vertical extent of contaminant concentrations in the contaminant migration pathway or environmentally sensitive natural resource and conduct an ecological risk assessment, including the development of ecological risk-based remediation goals and risk management strategies to be implemented. Environmentally sensitive natural resources include (N.J.A.C. 7:1E-1.8) surface waters, wetlands and wetland transition areas, critical wildlife habitats, submerged vegetation habitat, forest areas, habitat for federal and state endangered or threatened plants and animals, and federal and state wilderness areas, all of which occur at GSNWR (refer to Section 3.7).

Analytical results were also compared to NJDEP Soil Remediation Standards (SRS) for the Residential Ingestion-Dermal Exposure Pathway (N.J.A.C. 7:26D), the NJ Surface Water Quality Standards (SWQS, N.J.A.C. 7:9B) chronic aquatic life criteria, and the N.J.A.C 7:9C Ground Water Quality Standards (GWQS). Where ESC or water quality standards for aquatic life were not available, other ecological risk-based screening values were used such as the National Park Service (NPS) 2018 Screening Level Ecological Risk Assessment (SLERA) Ecological Screening Values (ESVs), the EPA Region 5 RCRA Ecological Screening Levels, and the Aquatic Life Chronic Recommended Water Quality Risk-Based Screening Levels (RBSLs) for per- and polyfluoroalkyl substances (PFAS) (Divine et al. 2020).

The results of the sample analyses and comparison to ESC are discussed below, and organized by media and analyte group.

5.2 General Site Conditions and Observations

Conditions at the Site during the sample collection activities were relatively dry due to the lack of precipitation that had occurred prior to the field teams mobilizing to the Site. The dry conditions facilitated the identification of perennial water bodies and sediment sample locations, and therefore sample placement and collection. The dry conditions also facilitated access to areas of the Site that would have been difficult during more wet periods, and in the observations of potential indicators of contamination and contaminant sources. Photographic logs documenting observations from the sample collection and site conditions are provided in Appendix E.

Drums were observed across the Site in areas where the vegetation was less dense or where the pathways that were cut to provide sampling access revealed their presence. The locations of the drums observed during this DGSC are depicted in Figure 5.1. For examples of the drums see Appendix A.1, photos 7, 9, 19, 20, 21, and 22, Appendix E.2, Photo 4, and Appendix A.3, photos 12, 16, and 33. Landfill debris and abandoned vehicles were also observed at ground surface throughout the study area, as depicted in Appendix E.1 Photos 1, 2, 4, 12, 13, and Appendix E.3, Photo 38.

The ability to access the edges of the landfill also allowed the field team to empirically identify locations where landfill leachate is apparently being discharged from the landfill and into the surrounding wetlands. From the northeastern to the southwestern border between the landfill and the Refuge the sediment was stained orange extending from the landfill's edge and into the adjacent wetlands for up to approximately 30 feet. Orange-stained water and sediments were also observed where standing water was visible within the boundaries of the landfill. The orange-stained sediments suggest iron deposition, which is an indicator of landfill leachate and changing redox conditions (i.e., dissolved iron precipitates out of the groundwater when it is exposed to oxygen; Ran Yu 2010). Further discussion regarding the iron staining observed in sediments surrounding the landfill is provided in Section 8. For examples of the orange-stained water and sediments that were observed in and around the landfill see Appendix A.1, photo 13 and Appendix A.3, photos 1, 2, 4, 5, 6, 11, 13, 15, 17, 19, and 31. Aquatic plants that were growing in the orange-stained sediment in places also appeared to be affected (see Appendix A.3, photos 20 and 21). Flocculated iron (iron oxide) can present a physical stressor for plants and also benthic inverts (Kotalik et al. 2019). In contrast, no orange staining was observed north of the Site (see Appendix A.3, photos 18 and 32) where the hydraulic gradient indicates that groundwater does not flow from the landfill and into the surrounding wetlands (Geosyntec 2018a; 2018b).

5.3 Surface Soil Results

AI mobilized from April 28 through May 14, 2021, to conduct field activities that included the collection of surface and sub-surface soil samples per the UFP-QAPP, Part 1 of the Work Plan for the DGSC.

5.3.1 Description

AI personnel collected 31 discrete surface soil samples, and 55 subsurface soil samples. The locations of the surface and subsurface soil samples are depicted in Figure 5.4. Discrete surface soil samples were collected utilizing a hand auger from the surface to 6 inches bgs. The composite subsurface soil samples were collected from the surface to the total depth of the landfill material. Attempts were made to collect composite subsurface soil samples utilizing a Geoprobe 7822DT equipped with HSA and direct-push technology (DPT) to advance 2.25-inch diameter Marcro-Core® acetate sleeves (where conditions permitted drill rig access); however, due to the presence of landfill debris, soil was not recovered at most locations utilizing this method. Therefore, a hand auger was utilized to collect the majority of composite subsurface soil samples from within the landfill interval. The majority of subsurface soil samples collected from the native material were collected utilizing DPT/Macro-Core® acetate sleeves (where conditions permitted drill rig access).

AI utilized Terra Core® plungers to collect approximately 5 grams of soil to be placed directly into three (3) 40-milliliter (mL) pre-weighed, pre-preserved (one [1] with 10 mL methanol and two [2] with 10mL of deionized water) volatile organic analysis (VOA) vials for volatile organic compounds (VOCs) analysis and one (1) 125-mL poly container for moisture determination and immediately placed on ice in a cooler to prevent volatilization and maintain sample integrity. Once the VOCs sample was collected, soil was placed into five (5) pre-cleaned, laboratory provided 4-ounce soil jars equipped with Teflon™ seal lids and placed on ice in a cooler for the remaining analyses. The surface and subsurface soil samples were submitted to Eurofins TestAmerica of Edison, New Jersey, under strict chain-of-custody protocol via Eurofins TestAmerica courier for laboratory analysis of:

- VOCs per SW-846 Method 8260D;
- Semi-VOCs (S-VOCs) per SW-846 Method 8270D;
- Pesticides by SW-846 Method 8081B;
- Polychlorinated biphenyls (PCBs [Aroclor]) per SW-846 8082A;
- Target analyte list (TAL) metals per SW-846 8020B (mercury per SW-846 7471B); and
- Cyanide per SW-846 9012B.

PCB congeners per SW-846 1668A 209 (full list) and dioxins/furans per SW-846 8081B were analyzed for select samples. Soil samples collected from the SS27/DP27 were selected for PCB congeners and dioxin/furan analysis due to field observations that indicated that tire burning had potentially occurred in the vicinity.

Field quality control samples included:

- Three (3) duplicate surface soil samples, three (3) duplicate composite subsurface (landfill interval) soil samples, and two (2) duplicate discrete subsurface (native interval)

soil samples (collected from areas that were suspected to be contaminated) to be analyzed for all methods;

- Triple volume was collected for two (2) surface soil samples, two (2) composite subsurface (landfill interval) soil samples, and two (2) discrete subsurface (native interval) soil samples from areas suspected to be relatively clean as matrix spike (MS)/matrix spike duplicate (MSD); and
- Ten (10) equipment blank samples were collected by pouring laboratory provided deionized water over soil sample collection equipment (hand auger, trowel, or putty knife) into six (6) 250-mL amber glass containers, one (1) 250-mL nitric acid (HNO_3)-preserved poly container, one (1) sodium hydroxide (NaOH)-preserved poly container, and three (3) hydrochloric acid (HCl)-preserved VOA vials provided by the laboratory. Equipment blank samples were immediately placed on ice in a cooler.

Soil borings shallower than 25 feet bgs were abandoned utilizing hydrated bentonite chips from the total depth of the soil boring to 1-foot bgs and capped with cuttings. Soil borings greater than 25 feet were grouted utilizing a Portland cement mix from the total depth of the soil boring to 1-foot bgs and capped with soil cuttings.

All soil and the depths in which soil changes were encountered were documented on soil boring logs (Appendix A). These boring logs were utilized to create Geological Cross Sections A-A' through E-E', for which the transects are presented in Figure 5.2 and sections are presented in Figures 5.3A through 5.3E. The cross sections generally depict fill material (including landfill trash and debris) resting atop a layer of silty sand, with an underlying layer of clay.

In addition, a photo log of surface soil and subsurface soil sampling activities are presented in Appendix E.2.

Laboratory analytical results for soil (both surface and subsurface samples) were compared to:

- The NJDEP Site Remediation Program ESC to identify chemical concentrations in soil that exceed thresholds for effects to ecological receptors.
- Where no NJDEP ESC was available, other ecological risk-based screening values were used as ESC according to the following hierarchy:
    - The National Park Service (NPS) 2018 Screening Level Ecological Risk Assessment (SLERA) Ecological Screening Values (ESVs),
    - The EPA Region 5 RCRA Ecological Screening Levels; and
- The N.J.A.C. 7:26D SRS for Residential Ingestion-Dermal Exposure Pathway for human health.

The NJDEP ESC for soil are based on the EPA Ecological Soil Screening Levels (EcoSSLs). Detected concentrations were compared to the lowest ESC for soil, which is analogous to the lowest of the EcoSSLs for plants, soil invertebrates, birds, and mammals. Where no EcoSSL value was available, the NJ Wildlife Preliminary Remediation Goals (PRGs) were used as the soil screening values.

Potential effects to passive recreational users were conservatively evaluated using the N.J.A.C. 7:26D SRS for Residential Ingestion-Dermal Exposure Pathway for human health. Residential soil cleanup standards are risk based ARARs that are protective of unrestricted use of the Refuge. Residential soil exposures assume direct contact with soil 350 days per year for 30 years, which is more conservative than the exposure parameters for a landfill trespasser or Refuge visitor.

For comparative purposes, the ESC and SRS for soil are included in the summary Tables 5.1 through 5.8. Table 5.8 provides a summary of the constituents with soil concentrations above the method detection limit (MDL) that exceeded screening values. Detected concentrations (not flagged as "U" or undetected) that exceed screening values are discussed below in greater detail and also in Section 7, the Environmental Evaluation. Constituents that are essential nutrients (i.e., calcium, magnesium, potassium, and sodium) are excluded from this discussion.

5.3.2 Metals and Cyanide

Laboratory analytical results for metals and cyanide in surface soils are summarized in Table 5.1, and are depicted in Figure 5.5 for select metals. Table 5.8 provides the comparison of soil concentrations and screening values (i.e., summary of screening value exceedances).

Aluminum
Laboratory analytical results show aluminum concentrations in surface soil ranged from 3,920 milligrams per kilogram (mg/kg) in sample SS24 to 51,300 mg/kg (SS01). Aluminum was detected in all surface soil samples at concentrations that exceeded the 50 mg/kg ESC for effects to plants.

According to EPA (2003), the measurement of total aluminum in soils is not considered suitable or reliable for the prediction of potential toxicity and bioaccumulation and aluminum is only considered a COPEC at sites where the soil pH is less than 5.5. pH was not measured in soil as part of the DGSC; however, surface soil samples collected for the BERA had pH ranging from 3.71 to 7.26 (Integral 2016). This suggests that aluminum may be available for uptake by biota in some areas of the site and Refuge where pH is less than 5.5.

No surface soil samples had aluminum concentrations that exceeded the 78,000 mg/kg SRS for human health.

Antimony
Antimony was detected in 29 of the 31 surface soil samples with concentrations ranging from 0.39 mg/kg (SS26) to 260 mg/kg (SS16). All 29 detected concentrations of antimony exceeded the 0.27 mg/kg ESC for ecological effects. Three samples had concentrations that exceeded the 31 mg/kg SRS for human health.

Arsenic
Arsenic was detected in all 31 surface soil samples. Concentrations ranged from 3.2 mg/kg (SS26) to 135 mg/kg (SS28). Arsenic was detected in 17 surface soil samples at concentrations that

exceeded the 18 mg/kg ESC. Sixteen samples had concentrations that exceeded the 19 mg/kg SRS for human health.

Barium
Barium was detected in all 31 surface soil samples at concentrations ranging from 27.6 mg/kg (SS25) to 1,190 mg/kg (SS07). Barium was detected in eleven surface soil samples at concentrations that exceeded the 330 mg/kg ESC. No surface soil samples had barium concentrations that exceeded the SRS for human health.

Cadmium
Cadmium was detected in 30 of the 31 surface soil samples at concentrations ranging from 0.17 mg/kg (SS31) to 131 mg/kg (SS30). Cadmium concentrations exceeded the 0.36 mg/kg ESC in 28 samples. One sample exceeded the 71 mg/kg SRS for human health.

Chromium
Chromium was detected in all 31 surface soil samples; concentrations ranged from 9.7 mg/kg (SS12) to 688 mg/kg (SS30). The 0.4 mg/kg ESC was exceeded in all samples. There is no human health-based SRS for chromium.

Cobalt
Cobalt was detected in 30 of the 31 surface soil samples with concentrations ranging from 2.9 mg/kg (SS08 and SS31) to 54.3 mg/kg (SS29). Cobalt concentrations exceeded the 13 mg/kg ESC in 18 surface soil samples and seven samples exceeded the 23 mg/kg human health-based SRS.

Copper
Copper was detected in all 31 surface soil samples with concentrations ranging from 8.1 mg/kg (SS31) to 12,400 mg/kg (SS13). Copper concentrations exceeded the 28 mg/kg ESC for ecological effects in 29 samples. Three samples had copper concentrations that exceeded the 3,100 mg/kg SRS for human health.

Iron
Iron was detected in all 31 surface soil samples; concentrations ranged from 13,300 mg/kg (SS31) to 530,000 mg/kg (SS14). Iron does not have an associated ESC or SRS.

Lead
Lead was detected in all 31 surface soil samples with concentrations ranging from 20.6 mg/kg (SS31) to 6,000 mg/kg (SS10). Lead concentrations exceeded the 11 mg/kg ESC for ecological effects in all surface soil samples. Twenty-four samples had lead concentrations that exceeded the 400 mg/kg SRS for human health.

Manganese
Manganese was detected in all 31 surface soil samples with concentrations ranging from 73.1 mg/kg (SS31) to 1,850 mg/kg (SS10). The 220 mg/kg ESC for ecological effects was exceeded

in 26 surface soil samples. No samples had manganese concentrations that exceeded the 1,900 mg/kg SRS for human health.

Nickel
Nickel was detected in all 31 surface soil samples with concentrations ranging from 6.4 mg/kg (SS31) to 295 mg/kg (SS16). Nickel concentrations exceeded the 38 mg/kg ESC for ecological effects in 25 surface soil samples. No surface soil samples had nickel concentration in excess of the 1,600 mg/kg SRS for human health.

Selenium
Selenium was detected in 29 of the 31 surface soil samples with concentrations ranging from 0.28 mg/kg (SS26) to 68.1 mg/kg (SS03). Selenium concentrations exceeded the 0.52 mg/kg ESC in 26 surface soil samples. No samples had concentrations that exceeded the 390 mg/kg human health-based SRS.

Silver
Silver was detected in 28 of the 31 surface soil samples at concentrations ranging from 0.34 mg/kg (SS20) to 89.6 mg/kg (SS16). Silver concentrations exceeded the 4.2 mg/kg ESC for ecological effects in 19 samples. No samples had silver concentrations that exceeded the 390 mg/kg SRS for human health.

Thallium
Thallium was detected in 9 of the 31 surface soil samples with concentrations ranging from 0.078 mg/kg (SS25) to 2.3 mg/kg (SS05). Surface soil samples SS04 (2.1 mg/kg) and SS05 (2.3 mg/kg) exceeded the 1 mg/kg ESC. There is no human health-based SRS for thallium.

Vanadium
Vanadium was detected in all 31 surface soil samples; concentrations ranged from 14.1 mg/kg (SS06) to 211 mg/kg (SS07). All surface soil samples had vanadium concentrations that exceeded the 7.8 mg/kg ESC. No samples exceeded the 390 mg/kg SRS for human health.

Zinc
Zinc was detected in all 31 surface soil samples with concentrations ranging from 29.6 mg/kg (SS31) to 3,380 mg/kg (SS14). All surface soil samples had zinc concentrations that exceeded the 46 mg/kg ESC, with the exception of SS31 (29.6 mg/kg). No samples had zinc concentrations that exceeded the 23,000 mg/kg SRS for human health.

Mercury
Mercury was detected in all 31 surface soil samples with concentrations ranging from 0.061 mg/kg (SS31) to 1,770 mg/kg (SS29). All samples had mercury concentrations that exceeded the 0.00051 mg/kg ESC for the protection of wildlife. Four samples had mercury concentrations that exceeded the 23 mg/kg SRS for human health.

Cyanide
Cyanide was detected in 27 of the 31 surface soil samples with concentrations ranging from 0.31 mg/kg (SS27) to 71.8 mg/kg (SS29). Eighteen samples had cyanide concentrations that exceeded the 1.33 mg/kg ESC for ecological effects. One sample had a cyanide concentration that exceeded the 47 mg/kg SRS for human health.

5.3.3 Volatile Organic Compounds (VOCs)

Laboratory analytical results for VOCs are summarized in Table 5.2. Acetone was the only VOC that exceeded an ESC. Acetone was detected in two surface soil samples at concentrations in excess of the 1,200 µg/kg ESC (SS23 at a concentration of 1,600 µg/kg and SS25 at 1,300 µg/kg). No samples had VOC concentrations that exceeded any SRS for human health.

5.3.4 Semi-Volatile Organic Compounds (SVOCs)

Laboratory analytical results for SVOCs are summarized in Table 5.3.

Bis(2-ethylhexyl) phthalate
Bis(2-ethylhexyl) phthalate was detected in 24 surface soil samples with concentrations ranging from 60 µg/kg (SS20) to 140,000 µg/kg (SS14). Sixteen samples had concentrations that exceeded the 925 µg/kg ESC. One sample exceeded the 39,000 µg/kg SRS for human health.

Butyl benzyl phthalate
Butyl benzyl phthalate was detected in 14 surface soil samples at concentrations ranging from 38 µg/kg (SS13) to 40,000 µg/kg (SS14). Five samples had butyl benzyl phthalate concentrations that exceeded the 239 µg/kg ESC for the protection of wildlife. The SRS for human health was not exceeded.

Di-n-butyl phthalate
Di-n-butyl phthalate was detected in surface soil at concentrations ranging from 43 µg/kg (SS19) to 15,000 µg/kg (SS01). Sixteen samples had concentrations of di-n-butyl phthalate that exceeded the 150 µg/kg ESC for wildlife. No samples had concentrations that exceeded the SRS for human health.

Di-n-octyl phthalate
Di-n-octyl phthalate was detected in surface soil at concentrations ranging from 290 (SS18) to 27,000 µg/kg (SS100, duplicate sample for SS01). Two samples had di-n-octyl phthalate concentrations that exceeded the 910 µg/kg wildlife ESC. No samples exceeded the SRS.

Naphthalene
Naphthalene was detected in twenty surface soil samples at concentrations ranging from 11 µg/kg (SS20) to 740 µg/kg (SS22). Nine samples had estimated naphthalene concentrations that exceeded the 99.4 µg/kg ESC for wildlife. The SRS for human health was not exceeded.

Dibenz(a,h)anthracene
Dibenz(a,h)anthracene was detected in surface soil at estimated concentrations ranging from 24 µg/kg (SS27) to 890 µg/kg (SS01). No samples had dibenz(a,h)anthracene concentrations that exceeded the ESC for ecological effects. Two samples exceeded the 510 µg/kg SRS for human health.

High Molecular Weight PAHs
High molecular weight PAHs were detected at concentrations ranging from 156.7 µg/kg (SS26) to 5,120 µg/kg (SS01). Surface soil samples SS01 (5,120 µg/kg), SS04 (1,785 µg/kg), SS18 (4,285 µg/kg), SS22 (2,071 µg/kg), SS28 (1,116 µg/kg), and SS30 (3,271 µg/kg) exceeded the 1,100 µg/kg ESC for ecological effects. There is no SRS for high molecular weight PAHs.

5.3.5 Dioxins / Furans

Laboratory analytical results for dioxins and furans are summarized in Table 5.4. Toxic equivalency factors (TEFs) were used to calculate 2,3,7,8-tetrachlorodibenzo-p-dioxin (TCDD) toxic equivalents (TEQs) for the polychlorinated dibenzo-p-dioxins (PCDDs), the polychlorinated dibenzofurans (PCDFs), and polychlorinated biphenyls (PCBs) following the approach outlined in the NJDEP (2018) Ecological Evaluation Technical Guidance. The TEQ approach is applied because dioxin and furan congeners and the twelve dioxin-like PCBs produce similar biological effects with varying potencies and act together in an additive fashion (NJDEP 2018). The more conservative avian TEFs (Van den Berg et al. 1998) were used to calculate TEQs following the NJDEP (2018) guidance. The individual congener concentrations were multiplied by their TEFs to determine the Toxicity Equivalence Concentration (TEC). The sum of all TECs is referred to as the total or sum TEQ. The individual 2,3,7,8-TCDD concentration, each of the three class-specific TEQs, and the sum total TEQ were compared with the 0.199 picograms per gram (pg/g) wildlife-based ESC for 2,3,7,8-TCDD.

2,3,7,8-TCDD
The individual 2,3,7,8-TCDD congener was detected in all surface soil samples analyzed for dioxins and furans at concentrations ranging from 3.43 pg/g (SS13) to 15.9 pg/g (SS01). All surface soil samples analyzed for dioxins and furans had detected concentrations of 2,3,7,8-TCDD that exceeded the ESC for the protection of wildlife. No samples had concentrations that exceeded the SRS for human health.

Total TCDD was also detected in all surface soil samples analyzed for dioxins and furans. Concentrations ranged from 25.1 pg/g (SS14) to 192 pg/g (SS01). All total TCDD concentrations exceeded the 0.199 pg/g wildlife-based ESC.

PCDD TEQ
The PCDD TEQ concentrations also exceeded the ESC for all surface soil samples analyzed for dioxins and furans with concentrations ranging from 10 pg/g (SS18) to 67 pg/g (SS01).

PCDF TEQ

PCDF TEQs also exceeded the ESC in all samples analyzed for dioxins and furans, with surface soil concentrations ranging from 39 pg/g (SS18) to 145 pg/g (SS01).

Total TEQ

The total or sum TEQ concentrations exceeded the wildlife ESC in all surface soil samples analyzed for dioxins and furans; concentrations ranged from 203 pg/g (SS13) to 1,739 pg/g (SS27).

5.3.6 Polychlorinated biphenyls (PCBs)

Aroclors and PCB congeners were analyzed for select soil samples. PCBs were measured as individual Aroclors, total PCBs as the sum of Aroclors, individual congeners, and total PCBs as the sum of congeners. For the dioxin-like PCB congeners, the avian TEFs were used to calculate TEQs. Laboratory analytical results for PCBs are presented in Table 5.5.

Aroclors

The individual Aroclors 1248 and 1254 had surface soil concentrations that exceeded their respective 7.3 µg/kg and 41 µg/kg ESC for ecological effects. The maximum concentration of Aroclor 1248 was 10,000 µg/kg in sample SS02. The maximum concentration of Aroclor 1254 (27,000 µg/kg) was detected in sample SS29.

Total PCBs

Laboratory analytical results show that 23 of the 31 surface soil samples had detected concentrations of total PCBs (sum of Aroclors), with concentrations ranging from 89 µg/kg (SS26) to 27,000 µg/kg (SS29). Twenty surface soil samples had total PCB concentrations that exceeded the 371 µg/kg ESC for wildlife. Twenty-one samples had total PCB concentrations that exceeded the 250 µg/kg SRS for human health.

PCB Congeners

Individual PCB congeners were analyzed for surface soil samples SS01, SS13, SS14, SS18, and SS27. Total PCB concentrations as the sum of congeners ranged from 4 mg/kg (SS18) to 9.95 mg/kg (SS27). Total PCB concentrations as the sum of congeners exceeded the 0.371 mg/kg ESC for the protection of wildlife and the 0.25 mg/kg SRS for human health in all samples.

PCB TEQs were calculated for the twelve dioxin-like PCBs using the avian TEFs as described above and were compared to the 0.199 pg/g ESC for dioxin. All surface soil samples analyzed for PCB congeners exceeded the ESC on the PCB TEQ basis. PCB TEQ concentrations ranged from 123 pg/g (SS13) to 1,659 pg/g (SS27).

5.3.7 Pesticides

Laboratory analytical results for pesticides are summarized in Table 5.6.

DDT and Metabolites
Concentrations of 4,4'-DDD and 4,4'-DDT exceeded ESC for the protection of wildlife. The highest concentrations were found in sample SS14 (1,300 µg/kg for DDD and 250 µg/kg DDT in the SS14 duplicate).

Chlordane
Chlordane was detected in eight surface soil samples with concentrations ranging from 160 µg/kg (SS14) to 13,000 µg/kg (SS28). Six samples had chlordane concentrations that exceeded the 220 µg/kg ESC and the 270 µg/kg SRS for human health.

Dieldrin
Dieldrin was detected in two of the 31 surface soil samples with concentrations of 24 (SS24) and 57 µg/kg (SS06). Concentrations in both these samples exceeded the 4.9 µg/kg ESC for ecological effects and sample SS06 also exceeded the 34 µg/kg SRS for human health.

Gamma-BHC (Lindane)
Gamma-BHC (Lindane) was detected in sample SS24 at 39 µg/kg, which exceeded the 5 µg/kg ESC.

5.3.8 Delineation of Extent

Figures 5.5 through 5.7 depict the surface soil sample locations and identify sample locations where soil screening values were exceeded.

Surface soil samples with metals concentrations that exceeded screening values were widespread across the study area (Figure 5.5). The highest concentrations of key metals were found near the southeast landfill boundary (samples SS14, SS28, and SS29) and along the eastern perimeter (samples SS10 and SS30). The highest arsenic concentration (135 mg/kg) was found in sample SS28, in the southern part of the study area. SS14 near the southern landfill boundary had the highest concentrations of iron (530,000 mg/kg) and zinc (3,380 mg/kg). SS29 near the Refuge boundary at the southern end of the landfill had the highest mercury concentration (1,770 mg/kg). The highest concentration of cadmium (131 mg/kg) was detected in sample SS30, along the eastern side of the study area near Black Brook. This sample also had the highest chromium concentration (110 mg/kg). SS10, located just to the north of SS30, had the highest lead concentration (6,000 mg/kg).

Three samples with high molecular weight PAH concentrations that exceeded screening values were found within the southern portion of the landfill and three were found near the eastern landfill perimeter (Figure 5.6). SS01 along the eastern perimeter had the highest concentration (5,120 µg/kg) of high molecular weight PAHs.

Dioxin, furan, and PCB surface soil concentrations that exceeded screening values are shown on Figure 5.7. The maximum concentration of Aroclor 1248 (10,000 µg/Kg) was found in sample SS02 along the eastern perimeter of the landfill. The maximum concentrations of Aroclor 1254 and

total PCBs as the sum of Aroclors (27,000 µg/Kg) were detected in sample SS29 near the Refuge boundary at the southeastern end of the landfill. The highest concentrations of total PCBs as the sum of congeners (9.95 mg/Kg) and total TEQ (1,739 pg/g) were found in sample SS27 also along the southeast landfill perimeter.

5.4 Subsurface Soil and Landfill Waste Results

Thirty-one boreholes were sampled using direct-push technology for collection of a total of 55 subsurface soil samples. Samples were collected from various depth intervals ranging from the surface interval (0.5-feet) to 21-feet bgs. Composite samples were collected from the surface to the total depth of the landfill material. The methodology used for collecting subsurface soil and landfill waste samples is described in Section 5.3.

5.4.1 Description

Laboratory analytical results for subsurface soil were compared to the most conservative of the ESC for soil and to the SRS for human health. For comparative purposes, the ESC and SRS for soils are included in the summary Tables 5.1 through 5.8. Table 5.8 provides a summary of the constituents with subsurface soil concentrations above the MDL that exceeded screening values. Detected concentrations (not flagged as "U" or undetected) that exceed screening values are discussed below in greater detail and also in Section 7, the Environmental Evaluation. Constituents that are essential nutrients (i.e., calcium, magnesium, potassium, and sodium) are excluded from this discussion.

5.4.2 Metals and Cyanide

Laboratory analytical results for metals and cyanide in subsurface soils are summarized in Table 5.1, and are depicted in Figure 5.8 for select metals.

Aluminum
Aluminum was detected in all discrete and composite subsurface soil samples with concentrations ranging from 3,500 mg/kg (DP21_0.5-4.0) to 109,000 mg/kg (DP07_0.5-4.5). All subsurface soil samples exceeded the 50 mg/kg ESC for effects to plants. The results for sample DP07_0.5-4.5 exceed the 78,000 mg/kg SRS for human health.

Antimony
Antimony was detected in subsurface soil at concentrations ranging from 0.55 mg/kg (DP25_1.0-1.5) to 33.9 mg/kg (DP27_0.5-3.0). Thirty-seven subsurface soil samples had antimony concentrations that exceeded the 0.27 mg/kg NJDEP EcoSSL for mammalian life. Samples DP27_0.5-3.0 and DP01_0.5-8.5 duplicate had antimony concentrations that exceed the 31 mg/kg SRS for human health.

Arsenic
Arsenic was detected in all subsurface soil samples with concentrations ranging from 0.86 mg/kg (DP24_2.5-3.0) to 69.5 mg/kg (DP11_0.5-5.0). Thirteen subsurface soil samples exceeded the 18 mg/kg ESC for ecological effects. Twelve subsurface soils samples had concentrations that exceeded the 19 mg/kg human health-based SRS for barium.

Barium
Barium was detected in all subsurface soil samples with concentrations ranging from 18.3 mg/kg (DP11_14.0-18.0) to 985 mg/kg (DP17_3.5-5.0). Twelve subsurface soil samples exceeded the 330 mg/kg ESC. No subsurface samples had barium concentrations in excess of the SRS for human health.

Cadmium
Cadmium concentrations in subsurface soil ranged from 0.15 mg/kg (DP22_3.0-5.0) to 42.2 mg/kg (DP27_0.5-3.0). Thirty-seven subsurface soil samples exceeded the 0.36 mg/kg ESC. No subsurface samples had cadmium concentrations that exceeded the SRS for human health.

Chromium
Chromium concentrations in subsurface soils ranged from 8.4 mg/kg (DP11_14.0-18.0 and DP22_3.0-5.0) to 2,480 mg/kg (DP27_0.5-3.0). All subsurface soil samples had cadmium concentrations that exceeded the 0.36 mg/kg ESC for ecological effects. There is no SRS for human health for chromium.

Cobalt
Concentrations of cobalt in subsurface soils ranged from 0.94 mg/kg (DP22_3.0-5.0) to 81.9 mg/kg (DP17_0.5-2.0). Seventeen subsurface soil samples exceeded the 13 mg/kg ESC. Ten samples had cobalt concentrations that exceeded the 23 mg/kg SRS.

Copper
Copper was detected in all subsurface soil samples with concentrations ranging from 7.7 mg/kg (DP31_0.5-5.0) to 12,800 mg/kg (DP27_0.5-3.0). Forty samples exceeded the 28 mg/kg ESC. Three samples had copper concentrations that exceeded the 3,100 mg/kg SRS for human health.

Iron
Iron was detected in all subsurface soil samples with concentrations ranging from 3,860 mg/kg (DP22_3.0-5.0) to 547,000 mg/kg (DP17_0.5-2.0). Iron does not have an associated ESC or SRS.

Lead
Lead concentrations in subsurface soil ranged from 3.7 mg/kg (DP27_8.0-10.0) to 27,900 mg/kg (DP16_0.5-4.0). Forty-five subsurface samples exceeded the 11 mg/kg ESC for ecological effects. Twenty-seven samples had lead concentrations that exceeded the 400 mg/kg SRS for human health.

Manganese
Manganese was detected in all subsurface soil samples; concentrations ranged from 29.4 mg/kg (DP24_2.5-3.0) to 1,690 mg/kg (DP17_0.5-2.0). Thirty-three subsurface soil samples exceeded the 220 mg/kg ESC. No samples had concentrations that exceeded the SRS.

Nickel
Nickel was detected in all subsurface soil samples; concentrations ranged from 4.9 mg/kg (DP22_3.0-5.0) to 1,580 mg/kg (DP27_0.5-3.0). Thirty samples had nickel concentrations that exceeded the 38 mg/kg ESC. No subsurface soil samples exceeded the SRS for nickel.

Selenium
Selenium was detected in 48 subsurface soil samples with concentrations ranging from 0.15 mg/kg (DP28_5.0-8.0) to 7.5 mg/kg (DP04_0.5-5.0). Forty samples had selenium concentrations that exceeded the 0.52 mg/kg ESC for ecological effects. No subsurface samples had selenium concentrations in excess of the human health-based SRS.

Silver
Silver was detected in 38 subsurface soil samples with concentrations ranging from 0.23 mg/kg (DP15_19.0-21.0) to 101 mg/kg (DP27_0.5-3.0). Eighteen subsurface samples had silver concentrations that exceeded the 4.2 mg/kg ESC for silver. No samples had silver concentrations that exceeded the SRS for human health.

Vanadium
Vanadium was detected in all subsurface soil samples with concentrations ranging from 9 mg/kg (DP21_0.5-4.0) to 161 mg/kg (DP26_0.5-3.5). All samples had concentrations that exceeded the 7.8 mg/kg ESC for vanadium. No samples exceeded the SRS for human health.

Zinc
Zinc was detected in all subsurface soil samples; concentrations ranged from 5 mg/kg (DP22_3.0-5.0) to 14,000 mg/kg (DP19_0.5-5.0). Forty-three subsurface soil samples exceeded the 46 mg/kg ESC. No samples had concentrations that exceeded the SRS.

Mercury
Mercury was detected in all but two subsurface soil samples; concentrations ranged from an estimated concentration of 0.0043 mg/kg (DP11_14.0-18.0) to 36.4 mg/kg (DP29_0.5-2.0). All detected concentrations of mercury exceeded the 0.00051 mg/kg ESC for the protection of wildlife. Two samples had mercury concentrations that exceeded the 23 mg/kg SRS for human health.

Cyanide
Cyanide was detected in 51 subsurface soil samples with concentrations ranging from 0.41 mg/kg (DP22_0.5-3.0) to 19.1 mg/kg (DP29_0.5-2.0). Twenty samples had cyanide concentrations that exceeded the 1.33 mg/kg ESC. No subsurface soils samples had cyanide concentrations that exceeded the SRS.

5.4.3 Volatile Organic Compounds (VOCs)

Laboratory analytical results for VOCs are summarized in Table 5.2. Acetone (maximum concentration estimated at 5,000 µg/kg in sample DP29_7.0-10.0) and m-xylene & p-xylene (6,500 µg/kg in sample DP30_7.5-8.0) are the only VOCs that have concentrations in subsurface soil in excess of ESC for ecological effects.

5.4.4 Semi-Volatile Organic Compounds (SVOCs)

Subsurface soil results are summarized in Table 5.3. Several SVOCs were detected in subsurface soil samples at concentrations that exceeded screening values. It is important to note that some of these may be lab contaminants since many of the maximum concentrations were detected in the DP01_0.5-8.5 duplicate but not the original sample:

- *2,4-Dimethylphenol* (maximum detected concentration 62 µg/kg in sample DP21_4.0-5.0) exceeded the 10 µg/kg ESC for the protection of wildlife.
- *2-Chloronaphthalene* (maximum detected concentration 44 µg/kg in sample DP19_0.5-5.0) exceeded the 12.2 µg/kg ESC.
- *2-Methylnaphthalene* (maximum detected concentration 15,000 µg/kg in sample DP28_0.5-5.0) exceeded the 3,240 µg/kg ESC.
- *Bis(2-ethylhexyl) phthalate* (maximum detected concentration 600,000 µg/kg in sample DP24_0.5-2.5) exceeded both the ESC (925 µg/kg) and SRS (39,000 µg/kg) screening values.
- *Butyl benzyl phthalate* (maximum detected concentration 2400 µg/kg in sample DP30_0.5-3.0) exceeded the 239 µg/kg ESC.
- *Di-n-butyl phthalate* (maximum detected concentration 4,600 µg/kg in sample DP28_0.5-5.0) exceeded the 150 µg/kg ESC.
- *Di-n-octyl phthalate* (maximum detected concentrations 4,600 µg/kg in sample DP01_0.5-8.5 and 4,800 µg/kg in its duplicate) exceeded the 910 µg/kg ESC.
- *N-Nitrosodiphenylamine* (maximum detected concentration 13,000 µg/kg in sample DP30_8.0-9.0) exceeded the 545 µg/kg ESC.
- *Pentachlorophenol* (maximum detected concentration 1,100 µg/kg in the duplicate for sample DP01_0.5-8.5) exceeded the 1,000 µg/kg SRS for human health.
- *Naphthalene* (maximum detected concentration 2,700 µg/kg in sample DP04_0.5-5.0) exceeded the 99.4 µg/kg ESC.
- *Benzo[a]anthracene* (maximum detected concentration 16,000 µg/kg in the duplicate sample for DP01_0.5-8.5) exceeded both the 5,210 µg/kg ESC and the 5,100 µg/kg SRS.
- *Benzo[a]pyrene* (maximum detected concentration 17,000 µg/kg in the duplicate sample for DP01_0.5-8.5) exceeded both the 1,520 µg/kg ESC and the 510 µg/kg SRS.

- *Benzo[b]fluoranthene* (maximum detected concentration 22,000 µg/kg in the duplicate sample for DP01_0.5-8.5) exceeded the 5,100 µg/kg SRS for human health.
- *Chrysene* (maximum detected concentration 17,000 µg/kg in the duplicate sample for DP01_0.5-8.5) exceeded the 4,730 µg/kg ESC.
- *Dibenz(a,h)anthracene* (maximum detected concentration 2,900 µg/kg in the duplicate sample for DP01_0.5-8.5) exceeded the 510 µg/kg SRS.
- *Indeno[1,2,3-cd]pyrene* (maximum detected concentration 10,000 µg/kg in the duplicate sample for DP01_0.5-8.5) exceeded the 5,100 µg/kg SRS.

Low and High Molecular Weight PAHs
Laboratory analytical results for low and high molecular weight PAHs are depicted in Figure 5.9. Low molecular weight PAHs were detected in subsurface soil at concentrations ranging from 45.3 µg/kg (DP11_14.0-18.0 and DP27_8.0-10.0) to 57,740 µg/kg (DP01_0.5-8.5 duplicate). Only the duplicate sample for DP01_0.5-8.5 had a concentration of low molecular weight PAHs that exceeded the 29,000 µg/kg ESC. There is no SRS for low molecular weight PAHs.

Concentrations of high molecular weight PAHs in subsurface soil ranged from 111.3 µg/kg (DP27_8.0-10.0) to 181,100 µg/kg (in the DP01_0.5-8.5 duplicate). Thirteen subsurface soil samples had high molecular weight PAH concentrations that exceeded the 1,100 µg/kg ESC. No SRS is available for high molecular weight PAHs.

5.4.5 Dioxins / Furans

Laboratory analytical results for dioxins/furans are summarized in Table 5.4. Dioxin, furan, and PCB results for subsurface soil are depicted in Figure 5.10. As was discussed in Section 5.3.5, the avian TEFs were used to calculate 2,3,7,8-TCDD TEQs for the PCDDs/PCDFs and dioxin-like PCBs following the approach outlined in the NJDEP (2018) Ecological Evaluation Technical Guidance. PCB congeners and dioxins/furans were analyzed for select subsurface soil samples.

Dioxins/furans and PCB congeners were analyzed for subsurface soil samples DP01_0.5-8.5, DP13_0.5-3.0, DP14_0.5-5.0, DP15_0.5-5.0, DP27_0.5-3.0, and DP27_8.0-10.0. DP27_0.5-3.0 and DP27_8.0-10.0 were analyzed for PCB congeners and dioxin/furans due to field observations that indicated that tire burning had potentially occurred in the vicinity.

Concentrations of 2,3,7,8-TCDD (ranging from 3.11 pg/g to 9.24 pg/g) exceeded the 0.199 pg/g ESC in all but one of the subsurface samples. Total TCDD concentrations (range 1.01 pg/g to 63.6 pg/g) exceeded the ESC in all subsurface samples analyzed for these constituents.

The PCDD TEQ concentrations in subsurface soil ranged from 0.22 pg/g (DP27_8.0-10.0) to 43 pg/g (DP13_0.5-3.0). All concentrations exceeded the 0.199 pg/g ESC for dioxin.

PCDF TEQ concentrations ranged from 0.33 pg/g (DP27_8.0-10.0) to 98 pg/g (DP27_0.5-3.0). As with the PCDD TEQs, all concentrations exceeded the 0.199 pg/g ESC.

The total TEQ concentrations in subsurface soil ranged from 2.6 pg/g (DP27_8.0-10.0) to 2,972 pg/g (DP01_0.5-8.5). All total TEQ concentrations exceeded the ESC for dioxin.

5.4.6 Polychlorinated biphenyls (PCBs)

Laboratory analytical results for PCBs in subsurface soil are summarized in Table 5.5.

Aroclors
The individual Aroclors 1242, 1248, and 1254 had subsurface soil concentrations that exceeded their individual ESC for ecological effects. The maximum detected concentration of Aroclor 1242 was 3,500 µg/kg in sample DP10_0.5-10.0. Aroclor 1248 was detected at a maximum concentration of 7,500 µg/kg in sample DP06_0.5-2.0. The maximum detected concentration of Aroclor 1254 (11,000 µg/kg) was detected in sample DP27_0.5-3.0.

Total PCBs
Total PCBs as the sum of Aroclors had subsurface soil concentrations ranging from 48 µg/kg (DP08_0.5-8.0) to 11,000 µg/kg (DP06_0.5-2.0 and DP27_0.5-3.0). Twenty-eight subsurface soil samples had total PCB concentrations that exceeded the 371 µg/kg ESC. Twenty-nine samples had total PCB concentrations that exceeded the 250 µg/kg SRS for human health.

PCB Congeners
PCBs congeners were analyzed in subsurface soil samples DP01_0.5-8.5, DP13_0.5-3.0, DP14_0.5-5.0, DP15_0.5-5.0, DP27_0.5-3.0, and DP27_8.0-10.0. Total PCBs as the sum of congeners ranged from 5.21 mg/kg (DP15_0.5-5.0) to 33.9 mg/kg (DP01_0.5-8.5). All but one of these samples had concentrations of total PCBs that exceeded both the 0.371 mg/kg ESC and the 0.250 mg/kg SRS.

PCB TEQs were calculated for the twelve dioxin-like PBCs using the avian TEFs as described earlier and were compared to the 0.199 pg/g ESC for dioxin. All detected PCB TEQ concentrations in subsurface soil exceeded the ESC. PCB TEQ concentrations ranged from 2 pg/g (DP27_8.0-10.0) to 2,856 pg/g (DP01_0.5-8.5).

5.4.7 Pesticides

Laboratory analytical results for pesticides are summarized in Table 5.6.

DDT and Metabolites
The 4,4’-DDD concentration in subsurface soil sample DP30_8.0-9.0 (4,100 µg/kg) exceeded both the 758 µg/kg ESC for ecological effects and the 2,300 µg/kg SRS for human health. The 4,4'-DDT concentration in sample DP14_0.5-5.0 (69 µg/kg) exceeded the 3.5 µg/kg ESC.

Chlordane
Chlordane was detected in six subsurface soil samples at concentrations ranging from 190 µg/kg (DP04_5.0-8.0) to 3,700 µg/kg (DP30_8.0-9.0). All but one detected concentration exceeded both the 220 µg/kg ESC and the 270 µg/kg SRS.

Dieldrin
Dieldrin was detected in five subsurface soil samples; concentrations ranged from 2.3 µg/kg (DP05_5.0-7.0) to 8.8 µg/kg (DP20_0.5-4.0). The maximum detected dieldrin concentration exceeded the 4.9 µg/kg ESC. There is no SRS for dieldrin.

5.4.8 Geotechnical

In addition to the surface and subsurface soil samples collected, ten additional boreholes were completed to collect geotechnical samples. Seven of the ten geotechnical borehole locations were collocated with the surface/subsurface soil sampling boreholes. Three geotechnical boreholes (GT04, GT07, and GT10) were collected from non-collocated locations due to access and recovery limitations. Figure 5.4 depicts the locations of the geotechnical boreholes. Lithology observations documented during the advancement of the surface/subsurface boreholes were used to identify locations where the underlying clay layer was accessible (refer to the respective borehole logs in Appendix A for lithologic description of the soils from where the geotechnical samples were collected). Boreholes were advanced to the approximate depth where the clay layer had been identified. Once drilling activities indicated the clay layer had been encountered, Shelby tubes were used to collect undisturbed geotechnical samples from the clay interval. The Shelby tubes were packaged and hand-delivered to Atlantic Testing Laboratory in Highland, New York, for analysis. The geotechnical results are summarized in Table 5.7, and laboratory reports are included as Appendix D. Results of the geotechnical analysis are discussed below.

These results can be utilized in analyzing the behavior of site soils in assessing different remedial alternatives. Comparison of the results can assist in determining the uniformity of the underlying clay layer across the study area. Regarding soil uniformity, the soil sample collected from GT05 was noted by the geotechnical laboratory to "*contain a Sand/Gravel anomaly throughout its depth*", which would have an effect on the outcome of the soil testing and is inconsistent with the other soil samples. The analysis of these alternatives is beyond the scope of this report.

5.4.8.1 Compaction (ASTM D698)

Compaction tests are used to provide the basis for determining the percent compaction and molding water content needed to achieve engineering properties, and to assure that the required compaction and water contents are achieved. Soil placed as engineering fill (e.g., embankments, impoundments, landfill liners and covers) are typically compacted to a dense state to obtain satisfactory engineering properties such as, shear strength, compressibility, or permeability. It is common practice to first determine the optimum water content and maximum dry unit weight

by means of a compaction test. Method ASTM D698 is utilized to determine these properties. Moisture density curves were developed to determine the optimum moisture content at which a soil sample would achieve maximum density.

For the ten geotechnical samples collected, the maximum dry density ranged from 101.8 pcf (GT08) to 112.8 pcf (GT07), with optimum moisture ranging from 14.0% (GT09) to 18.8% (GT08) moisture.

5.4.8.2 Moisture Content (ASTM D2216)

Moisture content plays an important role in understanding behavior of soil, including the degree of compaction, groundwater recharge and soil chemistry. The quantity of water that soil contains is expressed in its moisture content, which can range from 0 (for completely dry soils) to the value of the materials' porosity at saturation.

For the ten geotechnical samples collected, the moisture content for the native soil ranged from 21.5% (GT03) to 34.1% (GT10) moisture. A comparison of the native moisture content of the soils relative to the optimum moisture content (described above) indicates that the excessive water content of the native soils is prohibiting the soils from attaining its maximum density in its native state. The soil will require aeration/drying in order for it to achieve optimum conditions.

5.4.8.3 Permeability (ASTM D5084)

Soil permeability is the rate of the flow of water through soil materials, and it is an essential characteristic in understanding the hydrogeologic properties of soil behavior. Knowing permeability of soils is essential information for geotechnical engineering of embankments, earthen dams, flood management, effluent infiltration, and landfill liners and covers. Permeability is affected by the soil voids that create an easy path for the movement of water, and other factors like hydraulic gradient, soil type, texture, and particle size distribution. Soil permeability can be estimated in a laboratory with specific test cell apparatus, and application of ASTM D5084 test method.

For the ten geotechnical samples collected, the permeability measurements of the native soils ranged from 1.50×10^{-7} cm/sec (GT10) to 1.50×10^{-6} cm/sec (GT05). An assessment of regional continuity of the underlying clay layer would need to be performed in order to determine if the clay layer is providing a suitable barrier from the overlying contaminated soil and waste.

5.4.8.4 Consolidation (ASTM D2435)

Consolidation reflects the amount of compression or settlement that soils undergo in response to loading on the soils column. Consolidation is a time-dependent phenomenon that typically applies to clay soils, and as a result of pore water being expressed from voids thereby reducing the soil volume. Consolidation of soils is critical for geotechnical engineering in anticipating the amount of settlement that can be expected from stresses placed on a soil.

For the ten geotechnical samples collected, consolidation testing determined that Final Deformation of the native soil ranged from 0.0328 (GT07) to 0.1620 (GT09).

5.4.8.5 Unconsolidated Undrained Triaxial Shear Test (ASTM D2850)

A triaxial unconsolidated undrained compression test is used to determine the mechanical properties of soil by subjecting the soil sample to varying levels of stress and drainage conditions. The saturated specimen is subjected to confining fluid pressure in a triaxial cell. The unconsolidated-undrained shear strength is applicable in situations where load movement is assumed to happen rapidly, and that the time required for the induced pore water pressure to dissipate or for consolidation to take place during the loading period is insufficient. This means that the resulting strength depends on the pressure developed in the pore fluid during loading. The triaxial unconsolidated undrained compression test is conducted as per the American Society of Testing and Materials (ASTM) D2850-15. In the triaxial unconsolidated undrained compression test, the compressive strength of the soil is determined in terms of total stress.

For the ten geotechnical samples collected, the unconsolidated undrained triaxial shear strength for the native soil ranged from 1.7 psi (GT01 and GT05) to 9.9 psi (GT06).

5.4.8.6 Density (ASTM D7263)

Density is a key element in the phase relations, phase relationships, or mass-volume relationships of soil. Density measurements are also useful for determining degree of soil compaction, but since water content is variable, total/moist soil density can only provide an estimate the weight of native soil per unit volume.

For the ten geotechnical samples collected, the density of the native soil ranged from 88.2 pcf (GT10) to 108.6 pcf (GT07).

5.4.8.7 Atterberg Limits (ASTM-D4318)

Depending on its water content, a soil may appear in one of four states: solid, semi-solid, plastic and liquid. In each state, the consistency and behavior of a soil is different and consequently so are its engineering properties. Thus, the boundary between each state can be defined based on a change in the soil's behavior. The water content at which the soils change from one state to the other are known as consistency limits, or Atterberg's limit. Atterberg limits are a basic measure of the critical water contents of a fine-grained soil and include measurements of shrinkage limit, plastic limit, and liquid limit. The two commonly determined Atterberg Limits represent the moisture contents at which a specific soil’s behavior changes from solid to plastic (Plastic Limit) and from plastic to liquid (Liquid Limit). The numerical difference between the liquid limit (LL) and the plastic limit (PL) is called the Plasticity Index or PI which is the moisture content range over which the soil will behave in a plastic manner.

In combination, the LL and the PI are used to differentiate (classify) silts and clays of high and low plasticity. In the field, the Atterberg Limits, can be used as a guide indicating how much a soil is likely to settle or consolidate under load. If the field moisture is near the liquid limit, a lot of settlement is likely. The opposite is true if the field moisture is near or below the plastic limit.

For the ten geotechnical samples collected, the Liquid Limit of the native soil ranged from 26 (GT04) to 58 (GT10), the Plastic Limit ranged from 19 (GT03) to 28 (GT06), and the Plastic Index ranged from 6 (GT04) to 31 (GT10).

5.4.9 Delineation of Extent

Figures 5.8 through 5.10 depict the subsurface soil sample locations and identify sample locations where soil screening values were exceeded.

Figure 5.8 depicts screening value exceedances for select metals in the subsurface. Sample DP11, near the southern landfill boundary, had the highest concentration of arsenic (69.5 mg/kg). The maximum concentrations of cadmium (42.2 mg/kg) and chromium (2,480 mg/kg) were detected in sample DP27 along the southeast landfill perimeter. The maximum concentration of iron (547,000 mg/kg) was found at DP17, which is adjacent to DP27. DP16, to the west of DP17, had the highest lead concentration in subsurface soils (27,900 mg/kg). DP29, near the Refuge boundary in the southern portion of the landfill, contained the maximum detected concentration of mercury (36.4 mg/kg). The maximum concentration of zinc (14,000 mg/kg) was found in DP19, which is also in this same area along the southeast landfill perimeter.

Figure 5.9 shows the location of subsurface samples that exceeded screening values for PAHs. The duplicate for sample DP01 along the eastern perimeter of the landfill had the highest concentrations of both low molecular weight PAHs (57,740 µg/kg) and high molecular weight PAHs (181,100 µg/kg). This same location had the highest concentration of high molecular weight PAHs (5,120 µg/kg) in surface soil (Figure 5.6).

Dioxin, furan, and PCB concentrations are shown in Figure 5.10. The highest concentrations of total PCBs as the sum of Aroclors (11,000 µg/kg) were found in samples DP06 (along the eastern perimeter near Black Brook) and DP27 (along the southeastern landfill perimeter). The location of sample DP27 also had the highest concentrations of total PCBs as the sum of congeners (9.95 mg/kg) and total TEQ (1,739 pg/g) in surface soil (Figure 5.7). DP01, adjacent to DP06 along the eastern perimeter, had the highest concentrations of both total PCBs as the sum of congeners (33.9 mg/kg) and total TEQ (2,856 pg/g).

5.5 Sediment Results

5.5.1 Description

Twenty-three surface sediment samples (including two duplicates) were collected from 21 locations using either a Wildco Hand Core Sediment Sampler with a 20-in long sample barrel

equipped with disposable acetate liners or with the acetate liners themselves. When the sediment was too loose to stay within the sediment sampler, a disposable acetate liner was pushed directly into the sediment and a gloved hand was used to seal the top of the liner so that the sample could be extracted under a vacuum. As they were collected, each sediment sample aliquot was transferred to a disposable aluminum tray where the aliquots were homogenized using the acetate liner in which they were collected, and then transferred to the sample jars either using the same acetate liner or a gloved hand. Sediment sample locations are illustrated on Figure 5.11.

Sediment geochemical and physical properties are provided in Table 5.9.

Laboratory analytical results for sediment were compared to the NJDEP Freshwater Sediment Criteria; the Lowest Effects Levels (LELs) were used as the sediment ESC. For constituents that have no NJDEP ESC values, the NPS (2018) SLERA Ecological Screening Value for Freshwater Sediment was used as the ESC. Potential effects to passive recreational users exposed to sediment were conservatively evaluated using the N.J.A.C. 7:26D SRS for Residential Ingestion-Dermal Exposure Pathway for human health. The sediment ESC and SRS are included in the summary Tables 5.10 through 5.16. Table 5.16 provides a summary of the constituents with sediment concentrations above the MDL that exceeded screening values. Detected concentrations (not flagged as "U" or undetected) that exceed screening values are discussed below in greater detail and also in Section 7, the Environmental Evaluation. Constituents that are essential nutrients (i.e., calcium, magnesium, potassium, and sodium) are excluded from this discussion.

Detection frequencies, maximum, minimum, average concentrations, and screening level exceedances for specific analytes are included in the discussion below.

5.5.2 Metals and Cyanide

Sediment samples were analyzed for 23 metals and cyanide using EPA Method 6020B/7471B(Mercury) for metals and Method 9012B for cyanide. The laboratory analytical results for metals and cyanide in sediment are summarized in Table 5.10, and are depicted in Figure 5.12 for select metals and Figure 5.13 for cyanide.

Aluminum
Aluminum was detected above the MDL in all 23 sediment samples. Aluminum concentrations ranged from 2,430 mg/kg (SD21) to 26,700 mg/kg (SD16). The average aluminum concentration was 10,690 mg/kg. The aluminum concentration in SD16 (26,700 mg/kg) exceeded the 25,500 mg/kg ESC.

Antimony
Antimony was detected above the MDL in 19 of 23 sediment samples. Laboratory analytical results indicate the antimony concentration in sediments ranged from 0.38 mg/kg in sediment

sample SD18 to 27.1 mg/kg in sample SD20. The average antimony concentration was 4 mg/kg. There was no established ESC for antimony.

Arsenic
Arsenic was detected in all 23 sediment samples; concentrations ranged from 3.4 mg/kg (SD18) to 26 mg/kg (SD04). The average arsenic concentration was 9 mg/kg. Seventeen of 23 sediment samples had arsenic concentrations that exceeded the 6 mg/kg ESC.

Barium
Barium was detected all 23 sediment samples; concentrations ranged from 89.3 mg/kg (SD18) to 492 mg/kg (SD20) with an average concentration of 268 mg/kg. Twenty sediment samples had barium concentrations that exceeded the 150 mg/kg ESC.

Beryllium
Beryllium was detected in 14 of 23 sediment samples with concentrations ranging from 0.35 mg/kg (SD14) to 2.1 mg/kg (SD06). The average beryllium concentration was 0.89 mg/kg. There was no ESC established for beryllium in sediments.

Cadmium
Cadmium was detected in 21 of 23 sediment samples with concentrations ranging from 0.68 mg/kg (SD18) to 19.4 mg/kg (SD20). The average cadmium concentration was 6 mg/kg. All of the 21 sediment samples in which cadmium was detected had concentrations that exceeded the 0.6 mg/kg ESC.

Chromium
Chromium was detected in all 23 sediment samples; concentrations ranged from 12.3 mg/kg (SD07 to 213 mg/kg (SD19) with an average concentration of 42 mg/kg. Thirteen of the 23 sediment samples in which chromium was detected had concentrations that exceeded the ESC of 26 mg/kg.

Cobalt
Cobalt was detected above the MDL in all 23 sediment samples. Laboratory analytical results indicate the cobalt concentration in sediments ranged from 1.5 mg/kg in sediment sample SD11 to 15.8 mg/kg in sample SD04. The average cobalt concentration was 6 mg/kg. None of the sediment samples in which cobalt was detected exceeded the ESC of 50 mg/kg.

Copper
Copper was detected in all 23 sediment samples with concentrations ranging from 17.9 mg/kg (SD18) to 490 mg/kg (SD14). The average copper concentration was 160 mg/kg. All of the sediment samples had copper concentrations that exceeded the 16 mg/kg ESC.

Iron
Iron was detected in all 23 sediment samples; concentrations ranged from 8,510 mg/kg (SD19) to 513,000 mg/kg (SD21). The average iron concentration was 75,753 mg/kg. There are no screening values for iron.

Lead
Lead was detected in all 23 sediment samples at concentrations ranging from 37 mg/kg (SD13) to 2,000 mg/kg (SD20). The average lead concentration was 288 mg/kg. All of the sediment samples in which lead was detected had concentrations that exceeded the ESC of 31 mg/kg.

Manganese
Manganese was detected above the MDL in all 23 sediment samples. Laboratory analytical results indicate the manganese concentration in sediments ranged from 41 mg/kg in sediment sample SD19 to 2,440 mg/kg in sample SD21. The average manganese concentration was 411 mg/kg. Three of the 23 sediment samples in which manganese was detected exceeded the ESC of 630 mg/kg.

Nickel
Nickel was detected above the MDL in all 23 sediment samples. Laboratory analytical results indicate the nickel concentration in sediments ranged from 8.3 mg/kg in sediment sample SD18 to 125 mg/kg in sample SD03. The average nickel concentration was 38 mg/kg. Nineteen of the 23 sediment samples in which nickel was detected exceeded the ESC of 16 mg/kg.

Selenium
Selenium was detected in 19 of the 23 sediment samples; concentrations ranged from 0.75 mg/kg (SD18) to 4.5 mg/kg (SD06). The average selenium concentration was 2 mg/kg. All 19 samples with detected selenium concentrations were in excess of the 0.72 mg/kg ESC for ecological effects.

Silver
Silver was detected in 13 of 23 sediment samples at concentrations ranging from 0.18 mg/kg (SD18) to 6.7 mg/kg (SD01). The average silver concentration was 3 mg/kg. Eleven of the 23 sediment samples where silver was detected exceeded the ESC of 0.5 mg/kg.

Thallium
Thallium was detected in 10 of 23 sediment samples with concentrations ranging from 0.15 mg/kg (SD19) to 0.7 mg/kg (SD15). The average thallium concentration was 0.27 mg/kg. There was no ESC established for thallium in sediments.

Vanadium
Vanadium was detected in all 23 sediment samples; concentrations ranged from 12.2 mg/kg (SD02) to 61.6 mg/kg (SD15) with an average concentration of 29 mg/kg. There is no established ESC for vanadium.

Zinc
Zinc was detected in all 23 sediment samples with concentrations ranging from 76.3 mg/kg (SD08) to 3,890 mg/kg (SD20). The average zinc concentration was 730 mg/kg. Twenty of the 23 sediment samples in which zinc was detected exceeded the ESC of 120 mg/kg.

Mercury
Mercury was detected in all 23 sediment samples; concentrations ranged from 0.17 mg/kg (SD18) to 7.3 mg/kg (SD20). The average mercury concentration was 1.5 mg/kg. Twenty-one of the 23 sediment samples in which mercury was detected had concentrations that exceeded the ESC of 0.174 mg/kg.

Cyanide
Cyanide was detected in 11 of the 23 sediment samples; concentrations ranged from 0.88 mg/kg (SD07) to 9.2 mg/kg (SD16) with an average cyanide concentration of 3.2 mg/kg. All of the sediment samples in which cyanide was detected had concentrations that exceeded the 0.0001 mg/kg ESC.

5.5.3 SEM/AVS Metals

The metals analyses also included simultaneously extracted metals/acid-volatile sulfide (SEM/AVS), which were used to assess the bioavailability and potential for toxicity of specific divalent metals of interest. The specific metals evaluated include cadmium, copper, lead, mercury, nickel, and zinc. For these divalent metals, potential toxicity of sediment can be evaluated by calculating the sum of detected SEM on a molar basis (µmol/g dry weight) compared to the AVS concentration in the same units; if ΣSEM–AVS < 1 then the metals are assumed to be bound to sulfide and not bioavailable (ITRC 2011). The organic carbon-normalized difference between SEM and AVS ($[\Sigma SEM\text{-}AVS]/f_{oc}$) has been shown to reduce the variability associated with predicted sediment toxicity using the SEM/AVS method (EPA 2005 and ITRC 2011). If the $\Sigma SEM\text{-}AVS]/f_{oc}$ result is < 130 µmol/g_{OC}, toxicity to benthic organisms would not be anticipated. Six sediment samples had results that were > 130 µmol/g_{OC}, suggesting some potential for metals toxicity to benthic organisms.

The results of these analyses and the specific SEM/AVS screening calculations are presented in Table 5.10 and included on Figure 5.14. Further discussion regarding the SEM/AVS approach and results is presented in Section 7.1.2.

5.5.4 Volatile Organic Compounds (VOCs)

Twenty (including two field duplicates) of the 23 sediment samples were analyzed for VOCs. Three VOCs were detected at concentrations exceeding the ESC. Acetone, carbon disulfide, and methylene chloride are the only VOCs with sediment concentrations that exceeded screening values. Laboratory analytical results for VOCs in sediment are summarized in Table 5.11.

Acetone
Acetone was detected above the MDL in all 20 of the sediment samples. Laboratory analytical results indicate the acetone concentration in sediments ranged from 55 mg/kg in sediment sample SD07 to 610 mg/kg in sample SD12. The average acetone concentration was 320.4 mg/kg. Nineteen of the 20 sediment samples in which acetone was detected exceeded the ESC of 65 mg/kg.

Carbon Disulfide
Carbon disulfide was detected above the MDL in seven of the 20 sediment samples. Laboratory analytical results indicate the carbon disulfide concentration in sediments ranged from .061 mg/kg in sediment sample SD18 to 8.3 mg/kg in sample SD100 (field duplicate to SD01). The average carbon disulfide concentration was 4.4 mg/kg. All of the seven sediment samples in which carbon disulfide was detected exceeded the ESC of 0.42 mg/kg.

Methylene Chloride
Laboratory analytical results indicate that 3 of the 20 sediment samples analyzed for VOCs had detectable methylene chloride concentrations. However, methylene chloride was also detected in equipment blanks and trip blanks from the project (see Appendix C). Methylene chloride is a solvent that is used extensively in analytical laboratories (EPA 2014). Therefore, it is likely that the methylene chloride that was detected in these three samples (and the blank samples) was all or in part due to laboratory contamination and it was not evaluated as a potential Site-related contaminant.

5.5.5 Semi-Volatile Organic Compounds (SVOCs)

Eighteen SVOCs were detected at concentrations exceeding their ESC, including 15 PAHs. Laboratory analytical results for VOCs are summarized in Table 5.12. PAH exceedances for sediment are illustrated on Figure 5.15.

Bis(2-ethylhexyl) phthalate
Bis(2-ethylhexyl) phthalate was detected in 9 of the 23 sediment samples. Concentrations ranged from 69 µg/kg (SD101, field duplicate to SD16) to 33,000 µg/kg (SD02). Seven of the 9 sediment samples in which bis(2-ethylhexyl) phthalate was detected had concentrations that exceeded the ESC of 182 µg/kg.

Butyl benzyl phthalate
Butyl benzyl phthalate was detected in 2 of the 23 sediment samples at concentrations ranging from 110 µg/K (SD20) to 6,700 µg/kg (SD02). The concentration of bis(2-ethylhexyl) phthalate detected in sediment sample SD02 exceeded the ESC of 1,970 µg/kg.

Hexachlorobenzene
Hexachlorobenzene was detected in 1 of the 23 sediment samples (SD20) at a concentration of 370 µg/kg, which exceeded the ESC of 20 µg/kg.

2-Methylnaphthalene (PAH)
2-Methylnaphthalene was detected in 1 of the 23 sediment samples (SD100; field duplicate to SD01) at a concentration of 47 µg/kg, which exceeded the ESC of 20.2 µg/kg.

Acenaphthene (PAH)
Acenaphthene was detected in 1 of the 23 sediment samples (SD20) at a concentration of 69 µg/kg, which exceeded the ESC of 6.71 µg/kg.

Acenaphthylene (PAH)
Acenaphthylene was detected in 1 of the 23 sediment samples (SD20) at a concentration of 65 µg/kg, which exceeded the ESC of 5.87 µg/kg.

Anthracene (PAH)
Anthracene was detected in 1 of the 23 sediment samples (SD20) at a concentration of 190 µg/kg, which exceeded the ESC of 57.2 µg/kg.

Naphthalene (PAH)
Naphthalene was detected in 11 of the 23 sediment samples at concentration ranging from 31 µg/kg (SD21) to 220 µg/kg (SD13 and SD15). Concentrations of naphthalene detected in four of the sediment samples exceeded the ESC of 176 µg/kg.

Phenanthrene (PAH)
Phenanthrene was detected in 13 of the 23 sediment samples with concentrations ranging from 32 µg/kg (SD18) to 750 µg/kg (SD20). Concentrations of phenanthrene in three of the sediment samples exceeded the ESC of 204 µg/kg.

Benzo[a]anthracene (PAH)
Benzo[a]anthracene was detected in 6 of the 23 sediment samples with concentrations ranging from 27 µg/kg (SD18) to 1,600 µg/kg (SD20). The concentration of benzo[a]anthracene detected in sediment sample SD20 exceeded the ESC of 108 µg/kg.

Benzo[a]pyrene (PAH)
Benzo[a]pyrene was detected in 6 of the 23 sediment samples with concentrations ranging from 24 µg/kg (SD18) to 2,200 µg/kg (SD20). The concentration of benzo[a]pyrene detected in sediment sample SD20 exceeded the ESC of 150 µg/kg.

Benzo[g,h,i]perylene (PAH)
Benzo[g,h,i]perylene was detected in 6 of the 23 sediment samples; concentrations ranged from 20 µg/kg (SD18) to 930 µg/kg (SD20). The concentration of benzo[g,h,i]perylene detected in sediment sample SD20 exceeded the ESC of 170 µg/kg.

Benzo[k]fluoranthene (PAH)
Benzo[k]fluoranthene was detected in 3 of the 23 sediment samples with concentrations ranging from 17 µg/kg (SD18) to 1,100 µg/kg (SD20). The concentration of benzo[k]fluoranthene detected in sediment sample SD20 exceeded the ESC of 240 µg/kg.

Chrysene (PAH)
Chrysene was detected in 9 of the 23 sediment samples; concentrations ranged from 31 µg/kg (SD18) to 1,700 µg/kg (SD20). The concentration of chrysene detected in sediment sample SD20 exceeded the ESC of 166 µg/kg.

Dibenz(a,h)anthracene (PAH)
Dibenz(a,h)anthracene was detected in one sediment sample (SD20) at a concentration of 270 µg/kg, which exceeded the 33 µg/kg ESC for ecological effects.

Fluoranthene (PAH)
Fluoranthene was detected in 7 of the 23 sediment samples; concentrations ranged from 41 µg/kg (SD18) to 1,000 µg/kg (SD20). The concentration of fluoranthene detected in sediment sample SD20 exceeded the ESC of 423 µg/kg.

Indeno[1,2,3-cd]pyrene (PAH)
Indeno[1,2,3-cd]pyrene was detected in 2 of the 23 sediment samples; concentrations ranged from 50 µg/kg (SD16) to 2,200 µg/kg (SD20). The concentration of indeno[1,2,3-cd]pyrene detected in sediment sample SD20 exceeded the ESC of 200 µg/kg.

Pyrene (PAH)
Pyrene was detected in 8 of the 23 sediment samples with concentrations ranging from 42 µg/kg in (SD18) to 1,700 µg/kg (SD20). The concentration of pyrene detected in sediment sample SD20 exceeded the ESC of 195 µg/kg.

Total PAHs
The total concentration of PAHs detected in sediment sample SD20 was 16,921 µg/kg, which exceeded the 4,000 µg/kg ESC for ecological effects.

5.5.6 Dioxin / Furans

Dioxin and furan results are presented in Table 5.13. Dioxins and furans were analyzed in one sediment sample (SD02), which contained 2,3,7,8-TCDD at a concentration of 5.11 pg/g, exceeding the ESC of 0.12 pg/g. As was described earlier for soils, TEFs were used to calculate 2,3,7,8-TCDD TEQs for PCDDs/PCDFs and dioxin-like PCBs. The resulting TEQ concentrations were compared to screening values for dioxin. The PCDD TEQ (11.5 pg/g), the PCDF TEQ (41.4 pg/g), and the total TEQ (188.9 pg/g) all exceeded the ESC for dioxin.

5.5.7 Polychlorinated Biphenyls (PCBs)

Laboratory analytical results for PCBs are summarized in Table 5.14. Twenty-one sediment samples were analyzed for Aroclors. Four samples were analyzed for PCB congeners. PCB exceedances are illustrated on Figure 5.16.

Aroclor 1248
Aroclor 1248 was detected in 5 of the 21 sediment samples that were analyzed for PCBs. Concentrations ranged from 340 µg/kg (SD16) to 1,300 µg/kg (field duplicate of SD01). The concentration of Aroclor 1248 detected in all 5 sediment samples exceeded the ESC of 30 µg/kg. There are no human health-based SRS for individual Aroclors.

Aroclor 1260
Aroclor 1260 was detected in one sample (the field duplicate of SD01) at a concentration of 240 µg/kg, which exceeded the ESC of 5 µg/kg.

Total PCBs
PCBs were detected in 5 of the 21 sediment samples. Total PCBs as the sum of Aroclors had concentrations that ranged from 340 µg/kg (SD16) to 1,540 µg/kg (in the field duplicate of SD01). Total PCB concentrations in all 5 sediment samples exceeded the 59.8 µg/kg ESC for ecological effects.

Total PCB Congeners
PCB congeners were analyzed and detected in four sediments samples. Total PCBs as the sum of congeners ranged from 1,710.5 µg/kg (SD02) to 7,532.3 µg/kg (SD03). All detected concentrations exceed the ESC of 59.8 µg/kg.

TEFs were used to calculate 2,3,7,8-TCDD TEQs for the dioxin-like PCBs. PCB TEQ concentrations in sediment ranged from 136 pg/g (SD02) to 803 pg/g (SD20). All PCB TEQ concentrations exceeded the 0.12 pg/g ESC for dioxin.

5.5.8 Pesticides

Laboratory analytical results for pesticides are summarized in Table 5.15. Three pesticides were detected in sediment at concentrations exceeding their ESC.

DDT and Metabolites
4,4'-DDD was detected in six of the sediment samples; concentrations ranged from 5.9 µg/kg (SD18) to 32 µg/kg (SD01). The concentration of 4,4'-DDD detected in all six sediment samples exceeded the ESC of 4.88 µg/kg.

4,4'-DDE was also detected in six of the sediment samples with concentrations ranging from 3.3 µg/kg (SD18) to 18 µg/kg (SD15). The concentration of 4,4'-DDE detected in all six sediment samples exceeded the 3.16 µg/kg ESC.

Chlordane
Chlordane was detected in one sediment sample (SD20) at a concentration of 410 µg/kg, which exceeded the 3.24 µg/kg ESC.

5.5.9 Delineation of Extent

There were metals ESC exceedances for every sediment sample that was collected (Table 5.16). The samples that exceeded screening criteria for the fewest metals, and typically at the lowest concentrations, were located in the most upgradient areas to the northeast (Figure 5.12). The most frequent ESC exceedances across the Study Area were for arsenic, cadmium, chromium, lead, zinc, and mercury. Iron concentrations (for which there is no sediment ESC) were also included on Figure 5.12 because it is correlated closely with where landfill leachate would be expected to impact sediments and where orange sediment staining was observed (see Sections 5.2 and 8.2). The lowest concentrations of iron were detected in the most upgradient sediment sample (SD08) and the sample that was collected farthest from the landfill to the southwest (SD19). The highest concentrations of iron (up to two orders of magnitude greater) were measured in the sediment samples that were collected within or directly adjacent to the landfill boundary.

The highest concentration of lead was measured on the northwestern area of the Refuge-portion of the Site near the boundary of the area proposed for remediation under FS Alternatives 3 and 4 (Geosyntec 2021; and see SD20, Figure 5.12). Relatively high lead concentrations were also measured in sediment samples collected from, and near, the water body located on the central-eastern area of the Refuge-portion of the Site (Figure 5.12). The areas where high lead were measured also correlated with the highest arsenic concentrations measured at the Site, with the exception of SD04 located in the southwestern area of the Refuge-portion of the Site, which contained the highest arsenic concentration that was measured in sediments (26 mg/kg). In addition to arsenic, the samples in which high lead were detected typically also contained the highest measured zinc and mercury concentrations (see Figure 5.12).

Cyanide ESC exceedances are illustrated on Figure 5.13. Two of the six sediment samples collected in the southern area exceeded the cyanide ESC, with further exceedances in samples from the water body located in the central-eastern area of the Refuge-portion of the Site (Figure 5.13). The highest cyanide concentrations that were measured in sediments came from the northeastern area of the Refuge-portion of the Site (Figure 5.13), including the upgradient, off-Site sediment sample (SD08).

Of the VOCs, acetone exceedances were relatively ubiquitous across the Refuge-portion of the Site (Table 5.16); however, there was no acetone detected in the sediment samples that were collected most upgradient of the Site (e.g., SD08, SD09, and SD10; Figure 5.11). Carbon disulfide was detected at concentrations exceeding ESCs in samples collected from, and near, the water body located in the central-eastern area of the Refuge-portion of the Site (SD01, SD02, SD03, and SD14; Figure 5.11), which is the same area where high lead and other metals were detected.

Bis(2-ethylhexyl) phthalate was the most widespread SVOC that was detected in sediments at concentrations exceeding the ESC. The ESC exceedances were detected in three of the four samples that were collected on the southern area of the Refuge-portion of the Site (SD04, SD06, and SD11), as well as the sediment samples from, and near, the water body located in the central-eastern area of the Refuge-portion of the Site (SD01, SD02, and SD14; Figure 5.11). An additional ESC exceedance for bis(2-ethylhexyl) phthalate was measured in a sample from the northwestern area of the Refuge-portion of the Site (SD20), which is also where the highest sediment lead concentration occurred. The ESC exceedances for other SVOCs (i.e., 2-methylnaphthalene, butyl benzyl phthalate, and hexachlorobenzene) were less frequent, but correlated with samples where bis(2-ethylhexyl) phthalate was also detected above the ESC (Table 5.16).

Dioxin and furan ESC were exceeded in SD02, which is also from the water body located in the central-eastern area of the Refuge-portion of the Site (Figure 5.16).

The ESCs for individual PAHs were exceeded in sediment samples from, and near, the water body located in the central-eastern area of the Refuge-portion of the Site (SD100 [field duplicate for SD01], SD14, and SD15; see Table 5.16 and Figure 5.11) as well as the sample located at the northwestern area of the Refuge-portion of the Site (SD20), which is also where the total PAH concentration exceeded that ESC (Figure 15).

The sediment ESC exceedances for PCBs occurred in samples collected from the water body located in the central-eastern area of the Refuge-portion of the Site (SD01, SD02, and SD03; Figure 5.16) and from the northwestern area of the Refuge-portion of the Site (Figure 5.16).

The sediment pesticide exceedances were disbursed across the Study Area, including one location in the south (SD07), one location from the water body located in the central-eastern area of the Refuge-portion of the Site (Figure 5.11), and five locations in the northern area. The highest sediment pesticide concentrations were measured in the sample from the northwestern area of the Refuge-portion of the Site (SD20), which consistently exhibited the highest concentrations for many of the constituents that exceeded ESCs (Table 5.16).

5.6 Pore Water Results

This section presents a summary of the pore water sampling and the pore water analytical results.

5.6.1 Description

Fifty-two pore water samples (including four duplicate samples) were collected from 48 locations within and surrounding the Refuge portion of the Site. Pore water sample locations are illustrated on Figure 5.17. Access to the pore water sample transects was facilitated by paths through the vegetation that were cut by FWS personnel using a mower deck mounted on a Marsh Master. Professional judgement and environmental indicators of groundwater discharge areas were used to determine a majority of the pore water sample locations. Environmental indicators of

groundwater discharge areas primarily included vegetation changes and orange-stained sediments. The orange-stained sediments suggest iron deposition, which is an indicator of landfill leachate and changing redox conditions (i.e., dissolved iron precipitates out of the groundwater when it is exposed to air; Ran Yu 2010). Further discussion regarding the iron staining observed in sediments surrounding the landfill is provided in Section 8.

The pore water samples were collected using a Solinst model 615 drive point piezometer fitted with a one ft long, screened stainless steel piezometer tip that had been previously decontaminated. The piezometer tip was driven by hand to below the sediment/surface water interface with the top of the piezometer screen driven to depths between 0.1 and 1.5 feet below the sediment. The depth of the piezometer, and therefore the sample depth intervals, were determined based on professional judgement and the consolidation/density of the sediment at each sample location. For example, in very loose/unconsolidated sediment the piezometer tip was driven deeper to impede surface water intrusion into the sample.

A section of 3/16" low-density polyethylene (LDPE) disposable tubing was fed through the piezometer into the piezometer tip and hooked up to a Geotech Geopump II peristaltic pump using disposable silicone tubing. The piezometer was then developed by backflushing approximate ½ gallons of DI water into the piezometer and then removing at least 1.5 gallons of water from the piezometer prior to sample collection. Prior to sample collection and if the sample point flow was sufficient, an aliquot of pore water was collected and tested for Fe^{+2} concentration using a Hach Ferrous Iron Test Kit (IR-18C). Dissolved fractions were collected by filtering the samples through disposable, 0.45 µm, in-line, high-capacity filters provided by the analytical laboratory. When sample points produced very low flow, the dissolved fraction samples were prioritized, starting with metals.

When sufficient flow could be established, water quality parameters were collected in a flow-through cell using either a Horiba U-50 series water quality meter or a YSI Pro Quatro water quality meter.

Pore water data were compared to the promulgated NJ Surface Water Quality Standards (SWQS) chronic aquatic life criteria. In accordance with NJDEP (2018) guidance, where SWQS do not exist for a contaminant, the analytical data were compared to the ESC for freshwater.

5.6.2 Water Quality Parameters

Pore water quality parameters and chemical properties were measured in the field and in the laboratory using EPA Methods 9060A (DOC/TOC) and SM 2320B. The water quality parameter and chemical property data for pore water samples are included in Table 5.17.

5.6.3 Metals

Pore water samples were analyzed for 23 metals using EPA Method 6020B/7471B(Mercury). The laboratory analytical results for metals in pore water are summarized in Table 5.18, and are

depicted in Figure 5.18 for select metals. When sufficient sample volume could be obtained, both a total and dissolved metals sample were submitted for analysis. The dissolved sample was prioritized if the sample point was not producing sufficient volume. Therefore, only a dissolved metals sample was submitted for sample locations PW04, PW10, PW25, PW28, PW38, and PW40. The pore water metals concentrations exceeded the ESC for freshwater for the following metals.

Barium

Total barium concentrations were detected above the MDL in all 45 of the pore water samples that were submitted for total metals analysis. Barium concentrations ranged from 50 micrograms per liter (µg/L) in PW44 to 634 µg/L in PW39. Total barium concentrations exceed the NJDEP chronic ESC for freshwater of 220 µg/L in 37 samples.

Dissolved barium concentrations were detected in all 52 of the pore water samples that were submitted for dissolved metals analysis. The dissolved barium concentrations ranged from 46.2 µg/L in PW44 to 849 µg/L in PW38. Dissolved barium concentrations exceeded the NJDEP chronic ESC for freshwater of 220 µg/L in 42 samples.

Iron

Dissolved iron concentrations exceeded the 158 µg/L freshwater ESC in all pore water samples except PW03 and PW04, where dissolved iron was not detected. Detected dissolved iron concentrations ranged from 325 µg/L (PW10) to 89,600 µg/L (PW14).

Total iron concentrations were detected above the MDL in all 45 of the pore water samples that were submitted for total metals analysis. The total iron concentrations ranged from 1980 µg/L in PW03 to 97,700 µg/L in PW39. There is no ESC for freshwater established for total iron in pore water.

Dissolved iron concentrations were detected above the MDL in 50 of the 52 pore water samples that were submitted for dissolved metals analysis. The dissolved iron concentrations ranged from 325 µg/L in PW10 to 89,600 µg/L in PW14. Dissolved iron concentrations exceeded the ESC for freshwater of 150 µg/L in all 50 of the samples where dissolved iron was detected.

Manganese

Total manganese concentrations were detected above the MDL in all 45 of the pore water samples that were submitted for total metals analysis. The total manganese concentrations ranged from 95.5 µg/L in PW44 to 1,260 µg/L in PW47. There is no ESC for freshwater established for total manganese in pore water.

Dissolved manganese concentrations were detected above the MDL in 50 of the 52 pore water samples that were submitted for dissolved metals analysis. The dissolved manganese concentrations ranged from 1.6 µg/L in PW10 to 2,030 µg/L in PW38. Dissolved manganese concentrations exceeded the ESC for freshwater of 112 µg/L in 48 of 52 samples (exceptions being PW03, PW04, PW10, and PW44).

Silver
Total silver concentrations were detected above the MDL in one of the pore water samples that were submitted for total metals analysis (PW47). The total silver concentration of 0.38 µg/L exceeded the NJDEP chronic ESC for freshwater of 0.12 µg/L.

Dissolved silver was not detected above the MDL in any of the pore water samples.

Lead
Total lead concentrations were detected above the MDL in 17 of the 45 pore water samples that were submitted for total metals analysis. Total lead concentrations ranged from 0.9 µg/L in PW35 to 22.2 µg/L in PW42. The chronic freshwater ESC established for lead is based on dissolved concentrations.

Dissolved lead concentrations were detected above the MDL in 5 of the 52 pore water samples that were submitted for dissolved metals analysis. Dissolved lead concentrations ranged from 0.87 µg/L in PW21 to 10.4 µg/L in PW28. Dissolved lead concentrations exceeded the 5.4 µg/L chronic ESC for freshwater in two samples (PW28 and PW46).

Cyanide
Pore water samples were analyzed for cyanide using EPA Method 9012B. The laboratory analytical results for cyanide in pore water are summarized in Table 5.18, and are depicted in Figure 5.18. Cyanide analysis was only conducted for the unfiltered (total) pore water samples. Cyanide was detected above the MDL in five pore water samples with concentrations ranging from 0.0096 mg/L in PW23 to 0.032 mg/L in PW03. All cyanide detections exceeded the 0.0052 mg/L chronic ESC for freshwater.

5.6.4 Volatile Organic Compounds (VOCs)

Pore water samples were analyzed for VOCs using EPA Method 8260D. The laboratory analytical results for VOCs in pore water are summarized in Table 5.19. There were no VOCs detected above the ESC for freshwater.

5.6.5 Semi-Volatile Organic Compounds (SVOCs)

Pore water samples were analyzed for SVOCs using EPA Method 8270E. The laboratory analytical results for SVOCs in pore water are summarized in Table 5.20. Seven SVOCs were detected at concentrations exceeding their NJDEP chronic ESC for freshwater, which includes six PAHs.

Bis(2-ethylhexyl) phthalate
Bis(2-ethylhexyl) phthalate was detected above the MDL in sample PW14 at a concentration of 0.0018 mg/L, which exceeded the NJDEP chronic ESC for freshwater of 0.0003 mg/L.

Anthracene
Anthracene was detected above the MDL in four pore water samples; concentrations ranged from 0.000025 mg/L (PW27) to 0.000091 mg/L (duplicate to PW22). Anthracene concentrations exceeded the NJDEP chronic ESC for freshwater of 0.000035 mg/L in three of the four samples.

Benzo[a]anthracene
Benzo[a]anthracene was detected above the MDL in two pore water samples with concentrations ranging from 0.000043 mg/L (PW20) to 0.000094 mg/L (duplicate to PW22). Benzo[a]anthracene concentrations in both samples exceeded the 0.000025 mg/L chronic ESC for freshwater.

Benzo[a]pyrene
Benzo[a]pyrene was detected above the MDL in 2 pore water samples. The concentrations of Benzo[a]pyrene measured in pore water samples ranged from 0.000034 mg/L in PW20 to 0.00011 mg/L in PW102 (a duplicate to PW22). The Benzo[a]pyrene concentrations in both of the samples exceeded the NJDEP chronic ESC for freshwater of 0.000014 mg/L.

Benzo[k]fluoranthene
Benzo[k]fluoranthene was detected in two pore water samples at concentrations ranging from 0.000054 mg/L (PW20) to 0.000093 mg/L (PW22_0.1-1.1 duplicate). These concentrations exceeded the 0.0000041 mg/L ESC.

Chrysene
Chrysene was detected in samples PW20 (0.000054 mg/L) and the duplicate of PW22 (0.000092 mg/L) at concentrations that exceeded the 0.0000018 mg/L ESC.

Dibenz(a,h)anthracene
Dibenz(a,h)anthracene was detected in two pore water samples at concentrations ranging from 0.000061 mg/L (PW20) to 0.000094 mg/L (PW22_0.1-1.1 duplicate). These concentrations exceeded the 0.0000034 mg/L ESC for dibenz(a,h)anthracene.

5.6.6 Pesticides

Pore water samples were analyzed for pesticides using EPA Method 8081B. The laboratory analytical results for pesticides in surface water are summarized in Table 5.21. There were no pesticides detected above the chronic ESC for freshwater.

5.6.7 PFOA/PFAS

A subset of 7 pore water samples (including 2 duplicate samples) were analyzed for PFOA/PFAS using EPA Method 528, 529, 530, 531, 532, 533, 534, 535, 536, and 537. The laboratory analytical results for PFOA/PFAS in pore water are summarized in Table 5.22. The pore water data for PFOA/PFAS were compared to the Divine et al. (2020) Aquatic Life Chronic Recommended Water

Quality Risk Based Screening Levels (RWQ RBSL). Although PFOA/PFAS constituents were detected in all 7 pore water samples, there were no PFOA/PFAS constituents detected above the RBSLs (see Table 5.22).

PFAS/PFOA analytical results were also compared to NJDEP GWQS per N.J.A.C. 7:9C. Results indicated that all seven samples exceeded the 13 ng/L and 14 ng/L GWQS for PFAS and PFOA, respectively (see Table 5.22).

5.6.8 Delineation of Extent

Of the ESC exceedances for metals, dissolved iron was the most widespread with exceedances in every sample but one (PW04; see Table 5.23 and Figure 5.18). There was no apparent geographical trend in the distribution of iron concentrations. The ESC exceedances for both total and dissolved barium, as well as dissolved manganese, were also widespread (Table 5.23), with no apparent geographical trend. Dissolved lead was detected above the ESC at two pore water sample locations, PW28 and PW46 (Figure 5.18). Dissolved aluminum concentrations exceeded the ESC at one location (PW36), which is located in the northwest edge of the Refuge-portion of the Site. The ESC for cyanide was exceeded in all five samples in which it was detected (see Table 5.23 and Figure 5.19). Two of the cyanide exceedances are located in the southwest area of the Refuge-portion of the Site, one is located in the southeast Refuge-portion of the Site, and two of the samples are from near the water body located in the central-eastern area of the Refuge-portion of the Site (Figure 5.19).

One SVOC, bis(2-ethylhexyl) phthalate, was detected above the ESC at one pore water sample location (PW14), which is located off of the southeastern edge of the Refuge-portion of the Site (see Table 5.23 and Figure 5.17).

Six PAHs were detected above their ESCs in two pore water samples (PW20 and PW102 [a field duplicate to PW22]), which were located on adjacent transects off of the southeastern edge of the Refuge-portion of the Site (see Table 5.23 and Figure 5.17).

5.7 Surface Water Results

This section presents a summary of the surface water sampling and analytical results.

5.7.1 Description

Nine surface water samples (including one duplicate) were collected from eight locations by submerging the sample bottle with a gloved hand to collect the sample. All surface water samples were filtered in the analytical laboratory. Surface water sample locations are illustrated on Figure 5.14.

5.7.2 Geochemistry

Surface water chemical properties were measured in the laboratory using EPA Methods 9060A (DOC/TOC) and SM 2320B. The chemical property data for surface water samples are summarized in Table 5.24

5.7.3 Metals

Surface water samples were analyzed for 23 metals using EPA Method 6020B/7471B(Mercury). The laboratory analytical results for metals in surface water are summarized in Table 5.25, and are depicted in Figure 5.20 for select metals. Only a total metals (unfiltered) sample was analyzed for SWO5. The surface water metals concentrations exceeded NJDEP chronic ESC for freshwater for the following metals.

Barium
Total barium concentrations were detected above the MDL in 7 of the 9 surface water samples that were submitted for total metals analysis. The total barium concentrations ranged from 171 µg/L in SW06 to 3,920 µg/L in SW04. Total barium concentrations exceeded the NJDEP chronic ESC for freshwater of 220 µg/L in six samples.

Dissolved Barium concentrations were detected above the MDL in 7 of the 9 surface water samples that were submitted for dissolved metals analysis. The dissolved barium concentrations ranged from 106 µg/L in SW06 to 464 µg/L in SW04. Dissolved barium concentrations exceeded the NJDEP chronic ESC for freshwater of 220 µg/L in six samples.

Chromium
Total chromium concentrations were detected above the MDL in 3 of the 7 surface water samples that were submitted for total metals analysis. Total chromium concentrations ranged from 3 µg/L in SW06 to 49.5 µg/L in SW04. Total chromium concentrations exceeded the NJDEP chronic ESC for freshwater of 42 µg/L in SW04.

Dissolved chromium was not detected above the MDL in any of the surface water samples.

Iron
Dissolved iron concentrations were detected in one surface water sample, SW07 at a concentration of 310 µg/L, which exceeds the surface water 158 µg/L ESC.

Manganese
Total manganese concentrations were detected above the MDL in all of the surface water samples that were submitted for total metals analysis. The total manganese concentrations ranged from 540 µg/L in SW08 to 1,310 µg/L in SW04. There is no NJDEP chronic ESC for manganese in freshwater.

Dissolved manganese concentrations were detected above the MDL in 6 of the 9 surface water samples that were submitted for dissolved metals analysis. The dissolved manganese concentrations ranged from 1.9 µg/L in SW100 (field duplicate to SW01) to 214 µg/L in SW08. Dissolved manganese concentrations exceeded the NJDEP chronic ESC for freshwater of 112 µg/L in SW02 and SW08.

Silver
Total silver concentrations were detected above the MDL in two of the surface water samples that were submitted for total metals analysis; concentrations were 9.5 µg/L (SW04) and 0.46 µg/L (SW06). Both concentrations exceeded the NJDEP chronic ESC for freshwater of 0.12 µg/L.

Dissolved silver was not detected above the MDL in any of the surface water samples.

Vanadium
Total vanadium concentrations were detected above the MDL in 6 of the 9 surface water samples that were submitted for total metals analysis. The total vanadium concentrations ranged from 1.1 µg/L in SW02 to 31.4 µg/L in SW04. Total vanadium concentrations exceeded the NJDEP chronic ESC for freshwater of 12 µg/L in SW04.

Dissolved vanadium was not detected above the MDL in any of the surface water samples.

Cyanide
Surface water samples were analyzed for cyanide using EPA Method 9012B. The laboratory analytical results for cyanide in surface water are summarized in Table 5.25, and are depicted in Figure 5.21. Cyanide analysis was only conducted for the unfiltered (total) surface water samples. Cyanide was detected above the MDL in three surface water samples with concentrations ranging from 0.0065 mg/L in SW03 to 0.011 mg/L in SW08. All of the cyanide detections exceeded the NJDEP chronic ESC for freshwater of 0.0052 mg/L.

5.7.4 Volatile Organic Compounds (VOCs)

Three surface water samples were analyzed for VOCs using EPA Method 8260D. The laboratory analytical results for VOCs in surface water are summarized in Table 5.26. There were no VOCs detected above the ESC for freshwater.

5.7.5 Semi-Volatile Organic Compounds (SVOCs)

Surface water samples were analyzed for SVOCs using EPA Method 8270E. The laboratory analytical results for SVOCs in surface water are summarized in Table 5.27. There were no SVOCs detected above the ESC for freshwater.

5.7.6 Pesticides

Surface water samples were analyzed for pesticides using EPA Method 8081B. The laboratory analytical results for pesticides in surface water are summarized in Table 5.28. The pesticide 4,4'-DDT was detected above the MDL in 2 of the 9 surface water samples (SW01 and its duplicate). The concentrations of 4,4'-DDT measured in these samples were 0.025 µg/L and 0.088 µg/L respectively, which both exceeded the NJDEP chronic ESC for freshwater of 0.001 µg/L.

5.7.7 Delineation of Extent

Several metals were detected in surface water that exceeded their respective ESCs (see Table 5.29 and Figure 5.20). There were no metals detected above their ESCs in the most upgradient (i.e., northernmost) surface water sample (SW05; Figure 5.20). Of the exceedances, barium was the most frequent and widespread, for both the total and dissolved fractions, which included exceedances on the southern and central-eastern areas of the Refuge-portion of the Site (Figure 5.20). The most individual metal ESC exceedances were measured in surface water sample SW04 (Figure 5.20, located in the southern area of the Refuge-portion of the Site. The ESCs for barium (total and dissolved), total chromium, total silver, and total vanadium were all exceeded in SW04. Other surface water metals ESC exceedances included dissolved iron in SW07 located off of the central-eastern area, dissolved manganese in SW02 and SW08, located on the southwestern and off of the central-eastern areas respectively, and total silver in SW06, located off the northeastern area of the Refuge-portion of the Site (Figure 5.20).

The ESC for total cyanide was exceeded in samples SW03, SW04, and SW08, which were located on the southwestern, south/southwestern, and off of the central-eastern areas of the Refuge-portion of the Site respectively (Figure 5.20).

One pesticide, 4,4'-DDT, was detected above the ESC in one surface water sample (including its field duplicate sample; SW01 and SW100), which was collected from the water body at the central-eastern area of the Refuge-portion of the Site (Figure 5.20). Surface water sample SW01 is from an area with many and significant exceedances for ESC across all media that were collected there (see Table 5.29 and Section 5 Figures).

6. DATA QUALITY ASSESSMENT

This section presents a summary of the data validation conducted for the study's analytical data and an evaluation of whether the study's DQOs were met.

6.1 Data Validation

A third-party data validation was conducted on all of the study's laboratory data by Laboratory Data Consultants, Inc. (LDC).

The data validation was performed under Stage 2B & 4 validation guidelines and the analyses were validated using the following documents and variances (as applicable to each analytical method):

- Final Uniform Federal Policy Quality Assurance Project Plan for the Data Gaps Investigation at Rolling Knolls Landfill, Great Swamp National Wildlife Refuge, Morris County, New Jersey (April 2021);
- EPA National Functional Guidelines for Organic Superfund Methods Data Review (January 2017);
- EPA National Functional Guidelines for High Resolution Superfund Methods Data Review (April 2016);
- EPA National Functional Guidelines for Inorganic Superfund Methods Data Review (January 2017); and,
- EPA SW 846, Third Edition, Test Methods for Evaluating Solid Waste, update 1, (July 1992); update IIA (August 1993); update II (September 1994); update IIB (January 1995); update III (December 1996); update IIIA (April 1998); update IIIB (November 2004); update IV (February 2007); update V (July 2014).

The data quality validation reports are included in Appendix C.

As a result of the data validation process, sample detections for several constituents were changed to estimated (but still usable) values and others were changed to non-detect because they were also detected in blank samples. The resulting data qualifiers determined by LDC, and laboratory reporting limits (RL) and MDL are presented in the data summary tables Table 5.1 through 5.6 and Tables 5.8 through 5.29. Most of the constituents detected in the blank samples are also known laboratory contaminants such as methylene chloride, acetone, and 2-butanone (EPA 2014).

The only rejected data consisted of the following:

- All acid compound non-detects in equipment rinsate blank sample GS-37-EB. The rejection was due to poor recovery of Phenol-d5 in a laboratory matrix spike. The acid compounds that Phenol-d5 is used as a surrogate to evaluate are in the SVOA analyte suite and are not contaminants that are known to exist at elevated concentration at the Site;
- A low-level cyanide detection (at the RL) in sediment sample SD03 due to poor MS/MSD recovery; and,
- Mercury results for all SEM/AVS samples due to holding time exceedances.

The data rejections appear inconsequential to the study's conclusions due to the constituents that were rejected, the low-level detections for the rejected detections, and in the case of the Mercury SEM/AVS data, because the low Mercury detections have little effect on the two ΣSEM-

AVS and [ΣSEM-AVS]/foc calculations in which they are used (see also Section 7.1.2 for an expanded discussion regarding Mercury in these calculations).

6.2 Data Quality Objectives Assessment

This section provides an assessment of the study's measurement performance criteria as defined in the project SAP (AI 2021, Worksheet #12).

6.2.1 Precision

Calculations regarding the data's precision were performed by the data validation contractor and are included in the data validation reports presented in Appendix C. Where the calculations (e.g., relative percent difference [RPD] for duplicate pairs) indicated a non-conformance with the measurement performance criteria identified in the SAP (AI 2021, Worksheet #12), the result was flagged with an appropriate data qualifier and the change was documented in the relative data validation report (see Appendix C). A summary of the data validation results is presented in Section 6.1.

6.2.2 Accuracy / Bias Contamination

The data validation results of the accuracy/bias contamination evaluations are presented in Appendix C. Where sample data or laboratory quality control samples did not meet the measurement performance criteria (AI 2021, Worksheet #12) the result was flagged with an appropriate data qualifier and the change was documented in the relative data validation report (see Appendix C). A summary of the data validation results is presented in Section 6.1.

6.2.3 Representativeness

The sample collection activities followed the standard operating procedures identified in the SAP (AI 2021). The precision calculations for field and laboratory duplicate samples are presented in the data validation reports included as Appendix C. Where the calculations (e.g., RPD for duplicate pairs) indicated a non-conformance with the measurement performance criteria identified in the SAP (AI 2021, Worksheet #12), the result was flagged with an appropriate data qualifier and the change was documented in the relative data validation report (see Appendix C). There were no data that were rejected based on RPD evaluations. A summary of the data validation results is presented in Section 6.1.

6.2.4 Comparability

This study used analytical methods that are consistent with the analytical methods that were used for previous studies at the Site in order to promote comparability between the data sets.

6.2.5 Completeness

As presented in Section 6.1, the only rejected data consisted of the following:

- All acid compound non-detects in equipment rinsate blank sample GS-37-EB, which was due to poor recovery of Phenol-d5 in a matrix spike;
- A low-level cyanide detection (at the RL) in sediment sample SD03 due to poor matrix spike/matrix spike duplicate (MS/MSD) recovery; and,
- Mercury results for all SEM/AVS samples due to holding time exceedances.

Completeness can also be measured as the number of samples and/or sample locations relative to those proposed in the SAP. The four, northernmost (i.e., upgradient) sediment sample locations could not be accessed due to deep sediments that made access technically infeasible. The sampling team was able to access the remaining upgradient sample locations within the pond located at the northeast edge of the study area (e.g., locations SD08; Figure 5.11) which also include surface water sample SW05 (Figure 5.17; collocated with SD09). Pore water sample transects were generally placed where they were planned within the SAP; however, the specific sample point locations were chosen in the field based on locations that were physically accessible and where pore water collection was technically feasible. Soil sample locations were adjusted or eliminated based on field conditions, including the presence of standing water and conditions that prohibited Geoprobe access. When physically accessible, a sediment sample was collected from the areas that were planned for soil sampling but were inaccessible due to the presence of standing water.

6.2.6 Sensitivity

The laboratory control sample/laboratory control sample duplicate (LCS/LCSD) evaluations are presented in the data validation reports included as Appendix C. Where the LCS/LCSD evaluations indicated a non-conformance with the measurement performance criteria identified in the SAP (AI 2021, Worksheet #15), the result was flagged with an appropriate data qualifier and the change was documented in the relative data validation report (see Appendix C). A summary of the data validation results is presented in Section 6.1.

Site evaluation and water quality parameter data were collected in the field for pore water samples only and are presented in Table 5.17. These data were also only collected when a constant flow from the sample point could be established. It should also be noted that where collected, the DO data are biased high in most of the samples because a constant flow through the flow-through cell could not be achieved due to the low production volumes from most sample points. The resultant bubbling through the flow-through cells would have oxygenated the water volume being measured. However, samples for analytical analysis were not collected through the flow-through cell, they were collected directly from the sample hose after it was disconnected from the flow-through cell.

6.2.7 Study Goals Evaluation

The study's goals and questions were detailed in the SAP (AI 2021, Section 7.2) and are summarized in Section 4.1.2 of this report. The environmental samples and data collected under this study were intended to address several data gaps surrounding the nature and extent of contamination on the Refuge and for the development of a remedial alternative that is consistent with the Refuge's CCP and Refuge-specific ARARs.

The study questions and their relative answers – based on the analytical results – can be summarized as follows:

- What are the distributions and concentrations of contaminants in environmental media on, and adjacent to the Refuge portion of the Site in uncharacterized areas and depths?

  Based on the contamination in the environmental samples that were collected under this study (as presented in Section 5), and an evaluation of the completeness of the data set relative to the SAP (AI 2021), the study's questions have been answered sufficiently to warrant further evaluation of the risks that the Site-related contamination presents to human health and the environment. Further discussion regarding recommendations for further action at the Refuge-portion of the Site is presented in Section 9.

A secondary study goal was to collect sufficient data to support the development and implementation of a remedial alternative that removes all landfill wastes from the Refuge portion of the Site. The additional remedial alternative evaluation that will be conducted as part of the Phase 3 portion of this Scope of Work will be presented in a separate report.

6.2.8 Data Quality Assessment Conclusions

The third-party data validation review added data qualifiers to any data that did not conform with the measurement performance criteria identified in the SAP (AI 2021). Other detections were changed to non-detect because they were also detected in blank samples. Most of the constituents detected in the blank samples are also known laboratory contaminants such as methylene chloride, acetone, and 2-butanone (EPA 2014). Of the qualified data, the subset of rejected data affected two analytes in sediment (all SEM/AVS mercury data, and a low-level cyanide detection in SD03), and all of the non-detected acid compounds in the SVOA range in equipment rinsate blank GS-37-EB, which are not contaminants that are known to exist at elevated concentration at the Site.

The DQOs were met sufficiently to answer the study questions developed in the SAP (AI 2021).

7. ENVIRONMENTAL EVALUATION

7.1 Environmental Screening Analysis

The data from this data gap investigation were compared to ESC and the N.J.A.C. 7:26D SRS for Residential Ingestion-Dermal Exposure Pathway in an environmental screening analysis. ESC are developed as concentrations of contaminants in environmental media that are protective of ecological receptors, with the exception of the NJ Surface Water Quality Standards, which are promulgated. Refer to Section 5.3.1 for more information on the sources of ESC used in the screening exercise. Potential effects to passive recreational users were conservatively evaluated using the SRS for Residential Ingestion-Dermal Exposure Pathway for human health.

The results of the environmental screening analysis were used to:

- Identify chemical concentrations in soil, water, and sediment that exceed thresholds for effects to ecological and human receptors;
- Identify COPECs/COPCs that may require further evaluation;
- Determine if there are any trends in the geographical locations of screening value exceedances; and
- Determine if additional site-specific studies or risk assessment may be needed for remedial decision-making.

For some analytes that may be of ecological concern due to their persistence, bioaccumulation potential, and toxicity (PBT contaminants), toxicity data are insufficient to complete the screening analysis (e.g., there are no ESC). Some VOCs, SVOCs, organochlorine pesticides (OCPs), individual PCB and dioxin/furan congeners, and some Aroclors do not have ESC values. Some of these constituents are known PBT chemicals that may warrant further investigation.

In some cases, the analytical detection limits exceed ESC. In these cases, frequency of detection could be considered, or comparisons could be made to background or reference site concentrations. These are considerations for future use of these data.

7.1.1 Surface and Subsurface Soils

Laboratory analytical results for soil (both surface and subsurface samples) were compared to:

- The NJDEP Site Remediation Program ESC to identify chemical concentrations in soil that exceed thresholds for effects to ecological receptors.
- Where no NJDEP ESC was available, other ecological risk-based screening values were used as ESC according to the following hierarchy:
    - The National Park Service (NPS) 2018 Screening Level Ecological Risk Assessment (SLERA) Ecological Screening Values (ESVs),
    - The EPA Region 5 RCRA Ecological Screening Levels; and

- The N.J.A.C. 7:26D SRS for Residential Ingestion-Dermal Exposure Pathway for human health to evaluate potential effects to passive recreational users.

Detections of constituents in soil were compared to ESC. The following soil constituents were detected at concentrations above ESC (Table 5.8):

Acetone	N-Nitrosodiphenylamine	Total TCDD
Xylenes	Pentachlorophenol	Σ PCB TEQ
1,2,4,5-Tetrachlorobenzene	Naphthalene	Σ PCDD TEQ
2,3,4,6-Tetrachlorophenol	Benzo[a]anthracene	Σ PCDF TEQ
2,4-Dimethylphenol	Benzo[a]pyrene	Σ TEQ (PCB+PCDD+PCDF)
2,4-Dinitrophenol	Chrysene	Aluminum
2,4-Dinitrotoluene	PAHs (High Molecular Weight)	Antimony
2-Chloronaphthalene	4,4'-DDD	Arsenic
2-Methylnaphthalene	4,4'-DDT	Barium
2-Nitroaniline	Aldrin	Cadmium
2-Nitrophenol	beta-BHC	Chromium
3,3'-Dichlorobenzidine	Chlordane	Cobalt
3-Nitroaniline	Dieldrin	Copper
4-Chloroaniline	Endrin	Lead
4-Nitrophenol	Endrin aldehyde	Manganese
Bis(2-ethylhexyl) phthalate	gamma-BHC (Lindane)	Nickel
Butyl benzyl phthalate	Heptachlor	Selenium
Dibenzofuran	Toxaphene	Silver
Di-n-butyl phthalate	Aroclor 1242	Thalium
Di-n-octyl phthalate	Aroclor 1248	Vandium
Hexachlorobenzene	Aroclor 1254	Zinc
Hexachlorobutadiene	PCB, Total (Aroclors)	Mercury
Hexachlorocyclopentadiene	PCB, Total (congeners)	Cyanide, Total
Hexachloroethane	2,3,7,8-TCDD	

All 31 of the surface soil samples and 55 of the subsurface samples had detected concentrations of constituents that exceeded ESC.

Detections of constituents in soil were also compared to SRS for human health. The following constituents were detected at concentrations above SRS:

3,3'-Dichlorobenzidine	Benzo[a]pyrene	Antimony
4-Chloroaniline	Benzo[b]fluoranthene	Arsenic
Bis(2-chloroethyl)ether	Dibenz(a,h)anthracene	Cadmium
Bis(2-ethylhexyl) phthalate	4,4'-DDD	Cobalt
Hexachlorobenzene	Chlordane	Copper
N-Nitrosodi-n-propylamine	Dieldrin	Lead
Pentachlorophenol	PCB, Total (Aroclors)	Mercury
Benzo[a]anthracene	PCB, Total (congeners)	

Patterns in the geographic locations of soil samples that exceeded screening values were discussed in Sections 5.3.8 for surface soil and 5.4.9 for subsurface soil.

7.1.2 Sediments

According to the NJDEP (2018) Ecological Evaluation Technical Guidance, media in a wetland can be characterized as soil or sediment. Where there is constant standing or flowing water, the medium should be considered sediment and sediment ESC apply. In wetlands where standing or flowing water are not present, the substrate should be considered soil and the soil ESC apply. In areas that are periodically or seasonally flooded, if the area supports benthos for part of the year or is adjacent to a surface water body and can support aquatic organisms that move into the area during times of flooding, such as in the wetlands adjacent to the landfill, then the substrate is considered sediment and sediment ESC apply (NJDEP 2018).

The analytical results for sediment were compared to the ESC for freshwater sediment. Where both an LEL (Lowest Effects Level) and SEL (Severe Effects Level) are available, the LEL was used for screening. The LELs represent concentrations at which adverse impacts may begin to occur in benthic organisms. Organisms in the water column and wildlife may be at potential risk (via food chain exposures) if site-related sediment concentrations of PCBs, organochlorine pesticides (OCPs), or mercury are at or above the LEL (NJDEP 2018).

The following constituents had detected concentrations in sediment above ESC (Table 5.16):

Acetone	Benzo[k]fluoranthene	4,4'-DDE
Carbon disulfide	Chrysene	Chlordane
2-Methylnaphthalene	Dibenz(a,h)anthracene	Aluminum
Bis(2-ethylhexyl) phthalate	Fluoranthene	Arsenic
Butyl benzyl phthalate	Indeno[1,2,3-cd]pyrene	Barium
Hexachlorobenzene	Pyrene	Cadmium
2-Methylnaphthalene	Total PAHs	Chromium
Bis(2-ethylhexyl) phthalate	Aroclor 1248	Copper
Butyl benzyl phthalate	Aroclor 1260	Lead
Hexachlorobenzene	PCB, Total (Aroclors)	Manganese
Acenaphthene	PCB, Total (congeners)	Nickel
Acenaphthylene	2,3,7,8-TCDD	Selenium
Anthracene	Total TCDD	Silver
Naphthalene	Σ PCB TEQ	Zinc
Phenanthrene	Σ PCDD TEQ	Mercury
Benzo[a]anthracene	Σ PCDF TEQ	Cyanide, Total
Benzo[a]pyrene	Σ TEQ (PCB+PCDD+PCDF)	
Benzo[g,h,i]perylene	4,4'-DDD	

Results indicate that ESC were exceeded in all 21 sediment samples.

Total PCB concentrations in sediment calculated by the sum of detected congeners exceed the total PCB concentrations calculated as the sum of detected Aroclors. This indicates that some of the congeners detected in sediment do not conform to an Aroclor mixture or represent weathered Aroclors, which is not surprising given the history of contamination at the site. These results suggest that PCB congeners provide a better estimate of total PCB concentrations for sediments at the site and future sediment investigations should include PCB congener analyses.

Sediment AVS, grain size, and TOC have been shown to influence contaminant mobility, bioavailability, and therefore toxicity. For divalent metals, potential toxicity of sediment can be evaluated by calculating the sum of detected SEM on a molar basis (µmol/g dry weight) compared to the AVS concentration in the same units; if ΣSEM–AVS < 1 then metals are assumed to be bound to sulfide and not bioavailable (ITRC 2011). This relies on the hypothesis that metals will react with the sulfide in sediment to form insoluble compounds that are not bioavailable to benthic organisms (U.S. EPA 2007). Therefore, for those samples where ΣSEM–AVS>1, there is a higher probability that those sediments will be toxic to benthic organisms. Results of this investigation show that more than half of the sediment samples collected indicate metal toxicity to benthic organisms based on the AVS/SEM analyses (Table 5.10).

Mercury was included in the SEM/AVS analysis because it usually exists as a divalent cation in sediments. However, mercury bioavailability and toxicity are complex and there is some controversy over using the SEM/AVS approach for mercury. Mercury SEM was generally very low (ND to 0.0014 µmol/g or 0.27 mg/kg); therefore, including mercury in the ΣSEM is not expected to affect the outcome of the analysis.

Organic carbon normalization of SEM/AVS ([ΣSEM-AVS]/f_{oc}) has been shown to reduce the variability associated with predicted sediment toxicity using the AVS SEM method (where f_{oc} is the fraction of organic carbon). Both the difference between the ΣSEM and AVS [ΣSEM–AVS] and the organic carbon-normalized difference between SEM and AVS ([ΣSEM-AVS]/f_{oc}) models were used as parameters to evaluate potential bioavailability of metals in sediment. In accordance with U.S. EPA (2005) and ITRC (2011):

- Sediment samples in which (ΣSEM-AVS)/f_{OC} < 130 µmol/g_{OC} are considered to pose a low risk of adverse biological effects due to cadmium, copper, lead, nickel, or zinc;
- Sediment samples in which (ΣSEM-AVS)/f_{OC} is between 130 µmol/g_{OC} and 3,000 µmol/g_{OC} may have some potential for adverse biological effects due to cadmium, copper, lead, nickel, or zinc (i.e., toxicity is uncertain); and
- Sediment samples where (ΣSEM-AVS)/f_{OC} > 3,000 µmol/g_{OC} are likely to cause adverse biological effects due to cadmium, copper, lead, nickel, or zinc.

If the result is < 130 µmol/g_{OC} toxicity to benthic organisms would not be anticipated. The screening identified the following sediment samples where (ΣSEM-AVS)/f_{OC} > 130 µmol/g_{OC}, indicating some potential for adverse effects to benthic organisms: SD01, SD03, SD05, SD10, SD14, and SD20. No samples had (ΣSEM-AVS)/f_{OC} > 3,000 µmol/g_{OC}, where adverse effects would be considered likely. Figure 5.14 depicts the results of the SEM-AVS analysis for sediment.

While SEM/AVS provides a prediction of the bioavailability and potential toxicity of these metals in sediment, toxicity cannot be confirmed without site-specific sediment toxicity tests. Standard acute toxicity tests using *Hyalella* and *Chironomus* were conducted as part of the 2016 BERA

conducted by Integral for the Rolling Knolls Group. These tests did not show acute toxicity from exposure to sediment collected from the southwestern landfill perimeter.

Section 5.5.9 provides an analysis of extent of sediment contamination based on those constituents that exceeded screening values.

7.1.3 Surface Water

The NJ SWQS N.J.A.C. 7:9B are promulgated standards that were used for comparison to the Site surface water data. The chronic aquatic life criteria were used in the ecological screening analysis. In accordance with NJDEP (2018) guidance, where SWQS do not exist for a contaminant, the analytical data were compared to the NJDEP chronic ESC for freshwater. For constituents with no SWQS or freshwater ESC, the NPS (2018) SLERA Freshwater Chronic Ecological Screening Values for Aquatic Receptors were used as the ESC.

Freshwater aquatic criteria for cadmium, chromium (III), copper, nickel, silver, and zinc are expressed as a function of water hardness. The equations available in the ESC table were used to calculate the criteria for these metals. Sample-specific criteria were calculated using the measured hardness values for individual surface water samples (hardness as mg/L calcium carbonate). For samples where hardness was not measured, the mean hardness value was used in the criteria calculations. The following constituents had surface water concentrations that exceeded ESC (Table 5.29):

4,4'-DDT	Silver (Total)	Barium (Dissolved)
Barium (Total)	Vanadium (Total)	Iron (Dissolved)
Chromium (Total)	Cyanide, Total	Manganese (Dissolved)

Results indicate that exceedances occurred in seven of the eight surface water samples. The extent of contamination in surface water was discussed in Section 5.7.7.

7.1.4 Pore Water

The pore water samples were used to determine locations where contaminated groundwater possibly discharges to the wetlands and to evaluate the potential bioavailability and effects of contaminants discharging to surface water. Equilibrium partitioning (EqP) theory states that nonionic chemicals in sediment partition between sediment organic carbon, interstitial (pore) water, and benthic organisms. This assumes that the bioavailable concentration of a chemical is best determined (either by direct measurement or modeling) by the concentration of freely dissolved chemical in interstitial water (U.S. EPA 2012).

As with surface water, the NJ SWQS and NJDEP freshwater chronic surface water ESC for the protection of aquatic life were used in the ecological screening for pore water, including the hardness calculations for those metals that have criteria which are hardness-dependent (as

discussed above for surface water). The constituents with pore water concentrations that exceeded SWQS or ESC are (Table 5.23):

Bis(2-ethylhexyl) phthalate	Chrysene	Barium (Dissolved)
Anthracene	Dibenz(a,h)anthracene	Iron (Dissolved)
Benzo[a]anthracene	Barium (Total)	Manganese (Dissolved)
Benzo[a]pyrene	Silver (Total)	
Benzo[k]fluoranthene	Cyanide, Total	

Results indicate that exceedances occurred in 47 of the 48 pore water samples.

In addition, PFAS, PFOA, and PFNA concentrations in pore water were compared against NJDEP GWQS. Results indicate exceedance of PFAS and PFOA standards for all seven of the pore water samples.

Section 5.6.8 provides a discussion on the extent of contamination in porewater.

7.2 Environmental Evaluation Summary and Conclusions

This data gap analysis has identified chemical concentrations in soil, water, and sediment that exceed thresholds for effects (i.e., ESC) to ecological receptors, primarily for metals, PAHs, cyanide, OCPs, and PCBs. Some of these include PBT chemicals that generally pose a greater potential for adverse ecological effects due to food chain exposures and the potential for biomagnification (e.g., PCBs, mercury, lead, among others). Many of these constituents are the same COPECs that were identified in the 2016 BERA. In addition, comparisons of the DGSC soil data to the N.J.A.C. 7:26D SRS for Residential Ingestion-Dermal Exposure Pathway showed that a number of constituents, including metals, OCPs, PAHs, and PCBs among other contaminants, exceed thresholds established for unrestricted use of the Site (i.e., residential use), which would also protect passive recreational users.

The previous investigations had eight RI soil samples, six co-located biota and soil samples, eight sediment samples, two samples for sediment acute toxicity, and four surface water samples that were collected within the Refuge. This data gap investigation provides additional sampling coverage for the Refuge including: 31 discrete surface soil samples, 55 subsurface soil samples, 10 geotechnical samples, 21 sediment samples, 47 pore water samples, and 10 surface water samples.

The 2016 BERA showed risks (based on Lowest-Adverse-Effect-Level Hazard Quotients>1) to vermivorous birds, vermivorous mammals, plants, benthic invertebrates, piscivorous mammals, insectivorous mammals, herbivorous mammals, and possibly amphibians and reptiles. However, despite Hazard Quotients (HQs)>1 that are indicative of the potential for adverse ecological effects, the BERA concluded, "*the results of the BERA indicate that exposures to COPECs in the environmental media at the Site do not pose an ecological concern for most of the evaluated receptors, and that there is a low potential risk for short-tailed shrews and American robin.*"

No remedial goals were developed to specifically address ecological risk (Geosyntec 2021). The draft FS suggests that remedial goals to address human health would be sufficiently protective of ecological receptors, though this is unlikely because ecological receptors are often more sensitive than human receptors. The draft FS echoes the BERA and states: "*The results of the ecological risk assessment indicate that exposures to constituents in the environmental media at the Site do not pose an ecological concern for most of the evaluated receptors, and that there is a low potential risk for vermivorous birds (e.g., American robins) and mammals (e.g., short-tailed shrew) through exposure to PCBs and certain metals in soil.*" (Geosyntec 2018b). The results of the 2016 BERA and this environmental screening analysis suggest a potential for adverse ecological effects that may warrant further investigation.

When evaluating the data from this and the earlier studies, in addition to the exceedance of screening values, including those for PBT chemicals, other important ecological considerations for the Refuge include the presence of these "environmentally sensitive areas" (N.J.A.C. 7:1E-1.8) at GSNWR:

- Loantaka and Black Brooks, which are designated as Outstanding Resource Waters of the State within GSNWR and are protected under state antidegradation policies;
- Wetlands and wetland transition areas;
- Critical wildlife habitats (e.g., wintering and breeding areas, migratory stopovers);
- Submerged aquatic vegetation habitat;
- Forested areas;
- A federal Wilderness Area;
- Habitat for and the occurrence of protected species and habitats, including:
    - Habitat for the federally listed bog turtle in the vicinity of North Ponds #1 and #2;
    - Breeding colonies and potential roosting sites for the federally listed endangered Indiana bat on GSNWR;
    - Habitat for wood turtle, a state-threatened, priority species;
    - Habitat for the state-endangered blue-spotted salamander, which was observed onsite; and
    - Habitat for other state-threatened and endangered species (refer to Sections 3.7 for more information on protected species at the site).

These sensitive environments are considered most likely to be adversely affected by the discharge of hazardous substances.

8. UPDATED CONCEPTUAL SITE MODEL

8.1 Nature and Extent of Landfill Wastes and Cover

The study confirmed the Geosyntec (2018a) observation that the landfill materials have remained almost entirely uncovered since landfilling activities ended in the late 1960s. What could be described as cover material was only observed in one soil boring (DP20). The New Jersey Administrative Code (N.J.A.C.) has established requirements for solid waste management and landfill closure, which specify that a minimum of two feet of final cover that is designed to "completely isolate the landfilled solid waste from the surrounding environment" are required for final closure (N.J.A.C. 7:26-2A.7(i)). RCRA regulations also prescribe minimum requirements for landfill closures, which include a requirement for landfill covers (ITRC 2003). The minimum design regulations under Subtitle D for non-hazardous solid waste landfills require at least 18 inches of earthen material (ITRC 2003). The Site has clearly not met either the N.J.A.C. or the RCRA standard. Landfill covers are primarily designed to: "1) limit the infiltration of rainwater to the waste so as to minimize generation of leachate that could possibly escape to ground-water sources, 2) ensure controlled removal of the landfill gas, and 3) provide the foundation for an aesthetic landscape and allow vegetation of the site (or restore the site to the required beneficial afteruse)" (EPA 2001).

The wide-extent of landfilling across the Refuge-portion of the Site was also better revealed through the subsurface investigation. Landfill debris was observed in all but 4 of the 31 soil borings. The soil boring logs are included in Appendix A and cross-sections illustrating the subsurface material are included as Figures 5.3A through 5.3E (cross-section locations are illustrated on Figure 5.2). Among the waste that was observed throughout the Site were a number of drum carcasses that may not have been documented in previous studies (see photographs described in Section 5.2 and Figure 5.1). Among the drum observations, multiple drums were observed together at several locations, which included the southern (near pore water location PW06.1 [Figure 5.17]) and eastern (near sediment sample SD14 [Figure 5.11]) portions of the Refuge-portion of the Site, as well as off of the defined landfill footprint in the southwest (near sediment location SD19 [Figure 5.11]). The presence of multiple drums in one location may indicate the disposal of industrial wastes and therefore potential contaminant source areas.

8.2 Geochemical Facies

Municipal solid waste landfills have well-documented effects on groundwater quality (Apgar and Langmuir, 1972; Baedecker and Back, 1979; Nicholson et al., 1982). Among the typical effects of landfills on the chemistry of groundwater are the following:

- Substantially elevated total dissolved solids (TDS) because of the ionic strength of landfill leachate;
- Elevated bicarbonate alkalinity related to dissolved carbon dioxide in water originating from respiration of microbes degrading refuse in the landfill;

- Elevated sodium and chloride concentrations because of the prevalence of materials containing these ions in municipal solid waste refuse;
- An increase in hardness from ion exchange processes where monovalent ions (especially sodium and, to a lesser extent, potassium) are exchanged on clay minerals for divalent ions (specifically, calcium and magnesium); and
- Geochemically reduced groundwater, as indicated by the following factors:
    - Depressed or negative redox values.
    - Elevated concentrations of dissolved (ferrous) iron.
    - Depressed or below-reporting-limit values for oxidized anions such as sulfate and nitrate, as the sulfur and nitrate in these forms are converted to sulfide and ammonium.

It is important to understand the processes governing the fate and transport of those constituents that may pose a risk to human health and the environment. In cases where landfill leachate enters surface water bodies or wetlands, the ecological risk drivers often include dissolved organic carbon (DOC), metals, and ammonium due to oxygen depletion, eutrophication, and toxic effects (Lorah et al. 2009).

Constituent Behavior and Redox Facies

Shallow aquifers below landfills are often aerobic before the landfill leachate, rich in reduced DOC (typically in the mg/L range), reaches the groundwater. Microorganisms will use the organic carbon as a growth substrate and electron donor by oxidation with the available electron acceptors in the aquifer (Christensen et al. 2000, 2001).

Oxidation is when an atom loses electrons. Oxidation usually occurs in an oxidation-reduction (or "redox") reaction. All that means is that an oxidizer (e.g., oxygen) takes electrons from the atom. Reduction is the opposite of oxidation. When an oxidizer like oxygen takes electrons from the oxidant, those negatively-charged electrons (e^-) *reduce* the charge of the oxidizer. A number of metals are readily oxidized, for example iron (Fe) is an easily oxidized metal because it does not hold its electrons with a very strong bond. When something like oxygen (O_2) or water (H_2O) encounters it, iron tends to lose electrons rapidly. In this case, iron is the reducing agent, because it loses electrons. Oxygen or water is the oxidizing agent, because it gains electrons (i.e., electron acceptor).

The most oxidized electron acceptors in the landfill leachate will be used first, and the plume will develop a core, which becomes more and more reduced toward the center. Thus, a zonation of the plume is formed, typically in the following sequence from the outer edge: aerobic (oxygen), denitrifying (nitrate), manganese-reducing, iron-reducing, and sulfate-reducing (corresponding to the ladder of energy yield from the electron acceptors). Finally, under strictly anaerobic conditions, methanogenic conditions develop in the core beneath the landfill when all other electron acceptors are depleted (Christensen et al. 2001). The fringe is characterized by diffusion and mixing processes, creating, on one hand, steep concentration gradients between the organic carbon and the reduced species formed in the core of the plume, and, on the other hand, oxidized electron acceptors-mainly oxygen and nitrate-that mix and react with the reduced species. The

fringe is often very narrow and vertically shallow (Tuxen et al. 2006). Various redox reactions may occur at the fringe of a landfill leachate plume, involving oxidation of DOC, methane (CH_4), iron (Fe^{2+}), manganese (Mn^{2+}), and ammonium (NH_4) from leachate and reduction of oxygen (O_2) nitrate (NO_3) and sulfate (SO_4) from pristine groundwater.

When nitrate is consumed during denitrification, free nitrogen (N_2) may be formed. However, in some cases other N-species (dinitrogen oxide, N_2O, or ammonium, NH_4^+) accumulate in the water phase. After depletion of the more oxidized electron acceptors such as oxygen and nitrate, sediment-associated electron acceptors such as manganese and iron oxides are used, resulting in the formation of dissolved Mn^{2+} and Fe^{2+}, which can form a range of precipitates with carbonates and sulfides. The mobilized reduced species can then migrate, and if they reach the fringe of the plume, they will be re-oxidized either microbiologically or chemically. Thus, they will consume oxidizing agents from the environment surrounding the plume, and in this way maintain and shelter the reduced plume core. Furthermore, the core can also be preserved in a reduced state through the accumulation of precipitated reduced redox products, for example, iron sulfides.

In summary, the DOC and the reduced inorganic species create and stabilize the redox zonation of the plume with a strongly reduced core and an oxidizing fringe. This therefore controls the environment governing the transformation of the organic pollutants and metals in the plume. However, the full suite of redox zones will not develop if the leachate is weak or if the content of, for example, iron or manganese oxides in the sediment is low, although the plume will still reduce the aquifer developing a plume core and a clear fringe (Tuxen et at. 2006).

The redox conditions of groundwater strongly affect the mobility and persistence of many contaminants in groundwater. Redox conditions determine whether some chemical constituents, like arsenic and manganese, are released from the soil, landfill wastes and sediments into the groundwater.

Pore water collected at the Site is consistent with geochemically reducing conditions along the fringe of the landfill, as indicated by reduced forms of arsenic, manganese and iron (Figure 5.18 and Table 5.18). Conclusions based on the pore water transect data include the following:

- Dissolved and total concentrations for arsenic, chromium, iron, lead, manganese, zinc and mercury are very similar in the non-filtered and filtered samples indicating that these metals are in the dissolved and mobile forms, which are likely more bioavailable.
- Dissolved iron concentrations are very high in most all of the pore water samples indicating that the transition zone to aerobic conditions is at least as wide as the length of the transects.
- Iron staining of the soil and sediment, along the length of the transects, correlated well to high dissolved iron and other metals concentrations in the pore water and sediment indicating that metals were mobile in the groundwater until they entered a more oxygenated environment.

- DOC concentrations are sufficient to maintain reducing conditions along the fringe of the plume and metals will remain mobile (Table 5.17).
- DOC and total organic carbon (TOC) concentrations are very similar indicating that most of the organic carbon is in the dissolved form (Table 5.17).
- Bicarbonate alkalinity is elevated indicating concentrations of dissolved carbon dioxide in water originating from respiration of microbes degrading refuse in the landfill (Table 5.17). Microbial respiration consumes oxygen and generates carbon dioxide which also contributes to a more reducing environment.
- Hardness concentrations suggest ion exchange processes are active where monovalent ions (especially sodium and, to a lesser extent, potassium) are exchanged on clay minerals for divalent ions (specifically, calcium and magnesium) (Table 5.17).

The observations described above are consistent with those that would be expected at the fringe of the plume, before the pore water enters a more oxygenated environment. Once the pore water encounters greater concentrations of oxygen, metals will precipitate out of solution as evidenced by the numerous metals ESC exceedances observed within the sediment (Figure 5.12). The role of oxidation-reduction reactions in predicting metals mobility was also described in the RI (Geosyntec, 2018a) which states (p. 88);

> *"Generally, the concentrations of arsenic, iron, and manganese were similar in non-filtered and filtered samples from the same wells. This indicates that most of the arsenic, iron, and manganese in groundwater beneath or near the landfill is in dissolved form, likely because of reducing conditions in the groundwater in the shallow-water bearing zone. These metals typically stay in solution until the groundwater discharges to surface water where oxidizing conditions prevail. In well X-3, located in the wetlands approximately 1,000 feet south and downgradient of the landfill, the concentrations of dissolved arsenic, iron, and manganese (filtered sample) are less than half as high as the total concentrations (unfiltered sample). This indicates that as ground water moves away from the landfill, iron and manganese become less soluble and more associated with the colloid fraction in the groundwater.*
>
> *Groundwater within this region of New Jersey typically has higher concentrations of trace elements such as aluminum, arsenic, iron and manganese (New Jersey Geological and Water Survey, 2016) due to their abundant presence in the parent rocks from which the surficial soils have originated."*

The implications for metals mobility being very sensitive to the prevailing redox conditions means that the landfill needs to be properly closed to isolate the potential impacts of altering the geochemistry.

8.3 Fate and Transport of Constituents

As described in Section 8.2, the fate and transport of many of the metals will be controlled by oxidation-reduction reactions. The RI (Geosystec (2018a) provides very generic descriptions of fate and transport mechanisms that may or may not be occurring at the landfill in Sections 5.1.2.2 and 6.2.2.3. A number of these conclusions need to be reconsidered and updated based on available data, or confirmed by collecting additional data. Specific examples include;

The RI (Geosyntec 2018a, p. 111) states *"Surface water and sediments from the water bodies on and adjacent to the landfill contain some constituents identified at the landfill, however, many of these constituents are also found in the same media upstream of the landfill. The presence of these constituents, therefore, is at least partially due to up-gradient sources."*

The implication for this statement appears to be, that since many of the constituents are found in the same media upstream the contribution from the landfill is less important. As evidenced by the pore water and sediment samples the presence of the landfill has significantly increased the mobility of many of the metals by altering the geochemical environment. Furthermore, as noted in the RI (Geosyntec 2018a, p. 88) *"Groundwater within this region of New Jersey typically has higher concentrations of trace elements such as aluminum, arsenic, iron and manganese (New Jersey Geological and Water Survey, 2016) due to their abundant presence in the parent rocks from which the surficial soils have originated."* Therefore, in addition to any metals leached from the landfill wastes, the soil intermixed within and below the landfill wastes will act as a continuous source of metals contamination that under reducing conditions will migrate with the groundwater and ultimately precipitate in the sediment at groundwater discharge points. It is therefore important to ensure that the landfill wastes are properly isolated (see Section 8.1), not only from infiltration derived from precipitation directly onto the cap but also from groundwater migrating through and beneath the landfill from upgradient locations.

With respect to groundwater, the RI (Geosyntec 2018a, p. 130) states that, *"There are also potential sources upgradient of the landfill, as discussed in Section 6.2.1, particularly for inorganic constituents".*

Based on the potentiometric surface map presented as Figure 3.2 (Geosyntec, 2018a), it is not possible to conclude that areas northwest of the landfill are upgradient. Potentiometric contours shown through this area are either dashed or non-existent. In fact, the large ponds located on the north side of the landfill (shown on Figure 3.2) may be creating radial flow including flow to the north, northeast and northwest away from the landfill. As discussed above, groundwater migrating beneath and through the landfill from upgradient locations could transport metals to groundwater discharge points. Without knowing groundwater gradients and flow directions upgradient of the landfill the groundwater volume and velocities flowing horizontally through the landfill cannot be estimated. Understanding groundwater flow is an important consideration for evaluating EPA's pending remedial alternatives that mitigate this potential pathway to the accessible environment.

The RI (Geosyntec 2018a, p. 133) states that, "*Additionally, the fate and transport of inorganic constituents is a function of geochemical conditions that can create environments that limit or enhance their mobility".*

Although the geochemistry is recognized as a critical consideration in understanding the mobility of metals, very little data has been collected from which actual Site conditions can be determined. For example, concentrations of nitrate, sulfate, methane, ammonium, carbonate, bicarbonate and DOC can be used to infer prevailing geochemical conditions in order to better understand current release and migration mechanisms and how those conditions may be altered under various remedial alternatives.

Section 6.4 of the RI (Geosyntec 2018), recognizes that understanding of the geochemistry is a data gap and states that more data need is to, "*Develop a better understanding of aquifer geochemistry and evaluate the potential for metals in groundwater to adsorb to or precipitate onto the aquifer material. Soil samples will be collected near existing monitoring [wells? sic] and will be analyzed using the Synthetic Precipitation Leaching Procedure, Sequential Extraction Procedure, and other methods.*" These types of analyses may provide useful information for those contaminants for which solubility and sorption are directly related to pH. For instance, zinc, cadmium and lead obey a "cationic leaching pattern", where solubility and sorption are less acidic environments due to lower positive surface sites of metal hydroxides. However, the fate and transport of several constituents (e.g., arsenic, manganese, thallium, iron) are strongly influenced by redox conditions. Therefore, since these types of analyses would not consider redox conditions within the landfill, they would do very little to provide the in-depth understanding of the landfill geochemistry required to determine whether the pending alternatives being considered by EPA would prevent landfill waste and soil from continuing to leach metals to the groundwater.

9. SUMMARY AND CONCLUSIONS

9.1 Nature and Extent of Contamination

The results of this DGSC have confirmed, through observation and laboratory analysis of collected samples, that landfill debris and contamination from the Rolling Knolls Landfill extends into the GSNWR.

Landfill debris was observed throughout the study area, including: 55-gallon drums (integrity compromised), abandoned vehicles, batteries, broken glass containers, oxidized metals, and household wastes. The waste materials were generally scattered across the ground surface, within root balls of uprooted trees, and in subsurface soil samples. Of the 31 boreholes completed in the study area, 26 of them contained identifiable waste materials.

Samples collected from surface soil, subsurface soil, sediment, pore water and surface water indicated concentrations of COCs in excess of ESC emanating south and east from the landfill boundary. These exceedances occurred in soil, sediment, pore water and surface water samples, and include the following constituents, some of which are known persistent, bioaccumulative, and toxic (PBT) chemicals:

- Acetone
- Xylenes
- 1,2,4,5-Tetrachlorobenzene
- 2,3,4,6-Tetrachlorophenol
- 2,4-Dimethylphenol
- 2,4-Dinitrophenol
- 2,4-Dinitrotoluene
- 2-Chloronaphthalene
- 2-Methylnaphthalene
- 2-Nitroaniline
- 2-Nitrophenol
- 3,3'-Dichlorobenzidine
- 3-Nitroaniline
- 4-Chloroaniline
- 4-Nitrophenol
- Acenaphthene
- Acenaphthylene
- Anthracene
- Bis(2-ethylhexyl) phthalate
- Butyl benzyl phthalate
- Carbon disulfide
- Dibenzofuran
- Di-n-butyl phthalate
- Di-n-octyl phthalate
- Hexachlorobenzene
- Hexachlorobutadiene
- Hexachlorocyclopentadiene
- Hexachloroethane
- N-Nitrosodiphenylamine
- Pentachlorophenol
- Naphthalene
- Phenanthrene
- Benzo[a]anthracene
- Benzo[a]pyrene
- Benzo[g,h,i]perylene
- Benzo[k]fluoranthene
- Chrysene
- Dibenz(a,h)anthracene
- Fluoranthene
- Indeno[1,2,3-cd]pyrene
- Pyrene
- PAHs (High Molecular Weight)
- Total PAHs
- 4,4'-DDD
- 4,4'-DDT
- Aldrin
- beta-BHC
- Chlordane
- Dieldrin
- Endrin
- Endrin aldehyde
- gamma-BHC (Lindane)
- Heptachlor
- Toxaphene
- Aroclor 1242
- Aroclor 1248
- Aroclor 1254
- Aroclor 1260
- PCB, Total (Aroclors)
- PCB, Total (congeners)
- 2,3,7,8-TCDD
- Total TCDD
- Σ PCB TEQ
- Σ PCDD TEQ
- Σ PCDF TEQ
- Σ TEQ (PCB+PCDD+PCDF)
- Aluminum
- Antimony
- Arsenic
- Barium
- Cadmium
- Chromium
- Cobalt
- Copper
- Lead
- Manganese
- Nickel
- Selenium
- Silver
- Thalium
- Vandium
- Zinc
- Mercury
- Cyanide, Total
- metals bioavailability base on AVS results

In addition, the following constituents were detected at concentrations above SRSs, which suggests the potential for adverse effects to passive recreational users at GSNWR:

3,3'-Dichlorobenzidine	Benzo[a]anthracene	Antimony
4-Chloroaniline	Benzo[a]pyrene	Arsenic
Bis(2-chloroethyl)ether	Benzo[b]fluoranthene	Cadmium
Bis(2-ethylhexyl) phthalate	Dibenz(a,h)anthracene	Cobalt
Hexachlorobenzene	4,4'-DDD	Copper
N-Nitrosodi-n-propylamine	Chlordane	Lead
Pentachlorophenol	Dieldrin	Mercury
	PCB, Total (Aroclors)	
	PCB, Total (congeners)	

Overall, the data gaps that were identified under the SAP (AI 2021) were addressed and the results of this investigation, consistent with the RI (Geosyntec 2018a), confirmed the presence of widespread contamination of environmental media within the Refuge-portion of the Site by metals, including lead, arsenic, cadmium, chromium, zinc, and mercury. Cyanide concentrations exceeding the ESC were measured in surface soils, sediments, pore water, and surface water across the Refuge-portion of the Site. The identification of elevated PCB contamination in soils and sediments was also consistent with the RI (Geosyntec 2018a), as was significantly elevated PAH contamination.

Vertical contamination trends within the landfill wastes/soils were not obvious. i.e., metals concentrations between surface and subsurface soils were not consistently high or low for the same sample location. Spatially there do appear to be areas of more concentrated ESC exceedances for multiple contaminants. Specifically, the central-eastern area of the Refuge-portion of the Site, which includes the water body where a sediment sample with high concentrations of COCs was also collected during the BERA (see data for sediment sample SED007, Integral, 2016). Some of the highest concentrations of COCs were measured in soils (including the highest surface soil lead concentration of 6,000 mg/kg), sediments, and surface water from this area. See Figure 5.11, sediment samples SD01, SD02, and SD03 locations, as well as contaminant ESC exceedance figures for Section 5 and Tables 5.8, 5.16, 5.23, and 5.29. The sediment sample located in the northwestern area of the Refuge-portion of the Site near (but not included in) the area recommended for remediation under FS Alternatives 3 and 4 (Geosyntec, 2021) also exhibited the most consistently high COC concentrations for any sediment sample. Specifically, see the data for sediment sample SD20 (Figures 5.12-5.16 and Table 5.16). The surface soils surrounding the SD20 location also contained consistently high metals contamination, including lead, arsenic, and mercury (Figure 5.5). Surface soil contamination exceeding ESCs in the southern area of the Refuge-portion of the Site appears to be consistently higher towards the eastern half of that area, particularly for metals (Figure 5.5).

Of note are the results of the PFOA/PFAS analyses in a subset of pore water samples (see Table 5.22 and Section 5.6.7). PFOA/PFAS constituents were detected in all of the 7 samples that were analyzed for these contaminants in excess of GWQS. This class of EPA emerging contaminants

has not been sampled for previously at the Site and its presence in all of the 7 samples suggests that it is ubiquitous in the shallow groundwater that is flowing beneath and from the Site.

Geochemical analysis confirmed oxidation-reduction conditions resulting from geochemical processes that govern the fate and transport of constituents within the landfill leachate. Pore water collected at the Site is consistent with geochemically reducing conditions along the fringe of the landfill, as indicated by reduced forms of arsenic, manganese and iron. The presence of the landfill has significantly increased the mobility of many of the metals by altering the geochemical environment, as evidenced in the water quality observed in pore water sediment and surface water samples. In addition, DOC concentrations in pore water samples are sufficient to maintain reducing conditions along the fringe of the plume and metals will remain mobile. In general:

- The soils within and beneath the landfill wastes are naturally high in a number of metals (e.g., manganese, arsenic, barium). These soils will provide a continuous source of metals to groundwater under certain geochemical conditions.
- The pore water and sediment sampling indicate that many of the metals are currently being mobilized beneath the landfill, migrating with the groundwater to discharge areas, and precipitating within the sediment. There is insufficient information from which to estimate how the constant introduction of metals will impact future metals concentrations in soil.
- Redox reactions are critically important in understanding the fate and transport of the redox sensitive metals. There is very little Site-specific geochemical data available, however, from which to evaluate potential impacts during the remedial alternative development or to provide a baseline from which future impacts can be evaluated once one of the remedial alternatives is implemented.
- Groundwater flow directions northwest of the landfill are not well defined and there is insufficient information from which the volume of water moving through the landfill can be determined.

9.2 Environmental Exposures

The confirmation of contaminants in biota and HQs>1 from the BERA, the presence of landfill debris on the Refuge, and contaminants detected at concentrations that exceed ESC and SRS in this data gap investigation indicate the potential for adverse environmental effects from exposure to landfill contaminants and debris. The sediment SEM/AVS analysis and the presence of dissolved metals in pore water suggest some metals may be in bioavailable forms. Additional analyses of these data such as in an updated ecological and human health risk assessment may be warranted to better understand these exposures and potential impacts to human and ecological receptors on the Refuge.

9.3 Data Limitations

A third-party data validation was conducted against the study's measurement performance criteria and EPA National Functional Guidelines. The third-party data validation review added data qualifiers to any data that did not conform with the measurement performance criteria identified in the SAP (AI 2021). Other detections were changed to non-detect because they were also detected in blank samples. Most of the constituents detected in the blank samples are also known laboratory contaminants such as methylene chloride, acetone, and 2-butanone (EPA 2014). Of the qualified data, the subset of rejected data affected two analytes in sediment (all SEM/AVS Mercury data, and a low-level cyanide detection in SD03), and all of the non-detected acid compounds in the SVOC range in equipment rinsate blank GS-37-EB, which are not contaminants that are known to exist at elevated concentration at the Site.

The DQOs were met sufficiently to answer the study questions developed in the SAP (AI 2021).

9.4 Recommendations

AI has developed the following recommendations:

- *Comprehensive Groundwater Assessment* – A reliable assessment of groundwater fate and transport is not currently possible, given the inadequate hydrologic characterization performed during the RI and other historic investigations. To better understand the fate and transport of contaminants from the Site, hydraulic gradient and underlying water quality, the existing network of monitoring wells should be evaluated and expanded to provide sufficient understanding of upgradient, onsite, and downgradient conditions (e.g., installation of a shallow monitoring well approximately 300 feet northwest of the ball field along Britton Road). This information is required to ensure that EPA selects from the pending remedial alternatives one that not only isolates the wastes from infiltration derived from precipitation directly onto the cap but also from groundwater migrating through and beneath the landfill from upgradient locations.
- *Geochemical Assessment* – To further evaluate the location and conditions of the reduction-oxidation core and fringe emanating from the landfill, collect spatially distributed geochemical data (e.g., nitrate, sulfate, methane, ammonium, carbonate, bicarbonate and DOC) to delineate redox zones and better understand the processes controlling fate and transport of the metals under current and future conditions. An understanding of the geochemistry will allow EPA's evaluation of the pending alternatives to include technologies that would prevent landfill wastes and underlying soil from continuing to leach metals to the groundwater.
- *Comparison to Background Concentrations* – In consideration of the suggestion that constituents observed in the landfill are also present in upgradient media and adjacent water bodies, and that regional groundwater contains higher concentrations of trace elements, a more detailed assessment of the results from this DGSC and further studies should be conducted in comparison to background concentrations.

- *Revised Risk Assessment* - Data generated from this DGSC should be added to historical site data to conduct a more comprehensive and reliable ecological and human health risk assessment.
- *Remedial Alternatives Assessment* – Consistent with the scope set forth for Phase 3 of these services, develop recommendations for a remedial strategy for the Site, including a more detailed evaluation of FWS Alternative 6, which involves the removal of waste and contaminated soils from the 35 acres of the Site located within the Refuge, in terms of costs and logistics.

10. REFERENCES

Apgar, M.A. and D. Langmuir. 1972. Ground-Water Pollution Potential of a Landfill Above the Water Table. Ground Water, v. 9, no. 6, p.76-94. November-December.

Applied Intellect, LLC 2021. *Final Uniform Federal Policy Quality Assurance Project Plan, Data ap Investigation, Rolling Knolls Landfill, Great Swamp National Wildlife Refuge, Morris County, New Jersey*. April 2012.

Arcadis U.S., Inc. 2012. *Site Characterization Summary Report. Rolling Knolls Landfill Superfund Site, Chatham, New Jersey.* February.

Baedecker, M.J. and W. Back. 1979. Hydrogeological Processes and Chemical Reactions at a Landfill. 1979. *Ground Water* v. 17 no. 5, p 429-437. September-October.

CDM Federal Programs Corporation. 2014. *Baseline Human Health Risk Assessment, Rolling Knolls Landfill Superfund Site, Chatham, New Jersey*. June.

Christensen, T.H., P. Kjeldsen, P.L. Bjerg, D.L. Jensen, J.B. Christensen, A Baun, H.-I. Albrechtsen, and G. Heron. 2001. Biogeochemistry of landfill leachate plumes. *Applied Geochemistry* 16, no. 7-8: 659-718.

Christensen, T.H., P.L. Bjerg, S. Banwart, R. Jakobsen, G. Heron, and H.-J. Albrechtsen. 2000. Characterization of redox conditions in ground water contaminant plumes. *Journal of Contaminant Hydrology* 45, no. 3-4: 165-241

Divine, C., Zodrow, J., Frenchmeyer, M., Dally, K., Osborn, E., and P. Anderson. 2020. Approach for Assessing PFAS Risk to Threatened and Endangered Species. Final Report. SERDP Project ER18-1653. March.

Foster Wheeler. 2000. *Expanded Site Inspection Report: Rolling Knolls Landfill, Green Village, Chatham Township, Morris County, New Jersey*.

Geosyntec Consultants (Geosyntec). 2016. *Technical Memorandum, Data Gaps Sampling and Analysis Plan Results, Rolling Knolls Landfill Superfund Site*. April.

Geosyntec. 2017. *Supplemental Groundwater and Baseline Monitored Natural Attenuation Investigation Report, Rolling Knolls Landfill Superfund Site*. August.

Geosyntec. 2018a. *Remedial Investigation Report, Rolling Knolls Landfill Superfund Site*. January.

Geosyntec. 2018b. Revised Draft Feasibility Study Report, Rolling Knolls Landfill Superfund Site. July.

Geosyntec. 2021. Revised Draft Feasibility Study Report, Rolling Knolls Landfill Superfund Site. March.

Gill, H.E. and J. Vecchioli. 1965. *Availability of Ground Water in Morris County, New Jersey:* New Jersey Department of Conservation and Economic Development Special Report 25.

Integral Consulting. 2016. *Baseline Ecological Risk Assessment, Rolling Knolls Landfill Superfund Site, Chatham, New Jersey*. September.

Integral Consulting Inc. 2016. *Baseline Ecological Risk Assessment, Rolling Knolls Landfill, Chatham, New Jersey*. Prepared for Rolling Knolls Group, Roseland, New Jersey. December, Final.

Interstate Technology Regulatory Council (ITRC). 2003. Technical and Regulatory Guidance for Design, Installation, and Monitoring of Alternative Final Landfill Covers. December.

ITRC. 2011. Incorporating Bioavailability Considerations into the Evaluation of Contaminated Sediment Sites. The Interstate Technology & Regulatory Council Contaminated Sediments Team. February. https://projects.itrcweb.org/contseds-bioavailability/cs_1.pdf.

KMPower Consulting, Inc. 2019. *Rolling Knolls Landfill Superfund Site Feasibility Study Assessment*. April.

Kotalik, C., Cadmus, P., and W. Clements. 2019). Indirect effects of iron oxide on stream benthic communities: Capturing ecological complexity with controlled mesocosm experiments. Environmental Science & Technology. 53. 10.1021/acs.est.9b04236.

Lorah, M.M., I.M. Cozzarelli, and I.K Bohlke. 2009. Biogeochemistry at a wetland sediment-alluvial aquifer interface in a landfill leachate plume. *Journal of Contaminant Hydrology* 105, no. 3-4: 99-117.

Minard, J.P. 1967. *Summary Report on the Geology and Mineral resources of the Great Swamp National Wildlife Refuge New Jersey*. Geological Survey Bulletin, 1260-E.

Nicholson, R.V. J.A. Cherry, and E.J. Reardon, 1983. Migration of Constituents at a Landfill: A Case Study Volume 6: Hydrogeochemistry. 1983. *Journal of Hydrology*. Vol. 63.

National Park Service (NPS). 2018. NPS Protocol for the Selection and Use of Ecological Screening Values for Non-Radiological Analytes, Revision 3. Environmental Compliance and Response Branch, Contaminated Sites Program. November. Available on the NPS website, CSPortal.

NJDEP. 2018. Ecological Evaluation Technical Guidance. New Jersey Department of Environmental Protection, Site Remediation and Water Management Program. August.

Version 2.0. Accessed September 28, 2021 at http://www.nj.gov/dep/srp/guidance/srra/ecological_evaluation.pdf.

NUS Corporation. 1986. *Report of Soil Sampling and Drilling Program at the Green Village Disposal Site.*

Ran Yu, et. al. 2010. *Presence, distribution, and diversity of iron-oxidizing bacteria at a landfill leachate-impacted groundwater surface water interface*. FEMS Microbial Ecology. 72, pp. 260-271.

Rutgers University. 2016a. Monthly mean temperatures in Northern New Jersey (Division 1) from 1895-2016. Updated July 2016. Available from http://climate.rutgers.edu/stateclim_v1/data/north_njhisttemp.html.

Rutgers University. 2016b. Monthly precipitation in Northern New Jersey (Division 1) from 1895-2016. Updated July 2016. Available from http://climate.rutgers.edu/stateclim_v1/data/north_njhistprecip.html.

TRC. 2017a. *Reuse Assessment Report, Rolling Knolls Landfill Superfund Site, Chatham Township, New Jersey*. February.

TRC. 2017b. *Reuse Assessment Addendum Report, Rolling Knolls Landfill Superfund Site, Chatham Township, New Jersey*. April.

Tuxen N, Reitzel LA, Albrechtsen HJ, Bjerg PL. Oxygen-enhanced biodegradation of phenoxy acids in ground water at contaminated sites. Ground Water. 2006 Mar-Apr;44(2):256-65

United States Department of Agriculture Soil Conservation Service. 1976. Soil Survey of Morris County.

United States Fish & Wildlife Service. 1991. *Contaminants in Fish and Sediments of the Great Swamp National Wildlife Refuge, Morris County, New Jersey*. New Jersey Field Office, Pleasantville, NJ.

USA.com. 2016. Summit, NJ weather. Available at http://www.usa.com/summit-nj- weather.htm.

U.S. Environmental Protection Agency (EPA). 1997. *Ecological Risk Assessment Guidance for Superfund: Process for Designing and Conducting Ecological Risk Assessments*. EPA 540-R-97-006. June. Accessed September 27, 2021 at http://semspub.epa.gov/work/HQ/157941.pdf.

EPA. 2001. Technical Memorandum: Revised Alternative Cap Design Guidance Proposed for Unlined, Hazardous Waste Landfills in the EPA Region 1. February 5.

EPA. 2003. Ecological Soil Screening Level for Aluminum. Interim Final. OSWER Directive 9285.7-60. https://www.epa.gov/sites/default/files/2015-09/documents/eco-ssl_aluminum.pdf.

EPA. 2005. *Ecological Soil Screening Levels. U.S. Environmental Protection Agency, Office of Solid Waste and Emergency Response*. http://www.epa.gov/ecotox/ecossl/.

EPA. 2006. Guidance on Systematic Planning Using the Data Quality Objectives Process. EPA/240/B-06/001. February.

EPA. 2007. *Framework for Metals Risk Assessment. U.S. Environmental Protection Agency, Office of the Science Advisor, Risk Assessment Forum*. EPA 120/R-07/001. March. Accessed September 22, 2021 at https://www.epa.gov/sites/default/files/2013-09/documents/metals-risk-assessment-final.pdf.

EPA. 2012. *Equilibrium Partitioning Sediment Benchmarks (ESBs) for the Protection of Benthic Organisms: Procedures for the Determination of the Freely Dissolved Interstitial Water Concentrations of Nonionic Organics*. U.S. Environmental Protection Agency. EPA/600/R-02/012. December.

EPA. 2014. Laboratory Data Review for the Non-Chemist. EPA, Region 9. October.

Van den Berg, M., Birnbaum, L., Bosveld, A.T.C., Brunström, B., Cook, P., Feeley, M., Giesy, J.P., Hanberg, A., Hasegawa, R., Kennedy, S.W., Kubiak, T., Larsen, J.C., van Leeuwen, F.X.R., Liem, A.K.D., Nolt, C., Peterson, R.E., Poellinger, L., Safe, S., Schrenk, D., Tillitt, D., Tysklind, M., Younes, M., Wærn, F., Zacharewski, T. 1998. Toxic Equivalency Factors (TEFs) for PCBs, PCDDs, PCDFs for Humans and Wildlife. Environmental Health Perspectives, 106(12): 775-792.

Weston Solutions Inc. 2003a. *CLP Analytical Data of Soil and Sediment Samples; Rolling Knolls Landfill, Green Village, Chatham Township, Morris County, New Jersey*.

Weston Solutions Inc. 2003b. *PCB Field Screening Analytical Data of Soil and Sediment Samples; Rolling Knolls Landfill, Green Village, Chatham, Morris County, New Jersey*.

Weston Solutions Inc. 2003c. *Sampling Trip Report - Rolling Knolls Landfill*.

TABLES

Table 5.1 - Soil: Metals and Cyanide Analytical Results

Rolling Knolls Landfill

Sample Name				ESC's	NJAC 7:26D	SS01				SS100 (SS01 duplicate)				SS02				SS03				SS04				SS05				SS06			
Sample Date/Time						05/11/2021 08:35				05/11/2021 12:00				05/11/2021 10:10				05/11/2021 13:45				04/29/2021 10:20				04/29/2021 16:20				05/13/2021 09:00			
Latitude				Screening Criteria	(8) Soil Remediation Standards (Ing.-Derm.) - Residential	40.7297321				40.7297321				40.7303542				40.7288473				40.7304704				40.7300494				40.729803			
Longitude						-74.4419101				-74.4419101				-74.4418002				-74.441059				-74.4414832				-74.4418444				-74.441428			
Lab Sample Name						GS-N-SS01				GS-N-SS100				GS-N-SS02				GS-N-SS03				GS-N-SS04				GS-N-SS05				GS-N-SS06			
Lab Sample Number						460-234161-1				460-234161-9				460-234186-1				460-234161-3				460-233312-1				460-233312-4				460-234436-1			
Lab Report Number(s)						460-234161-1 / 460-234161-2				460-234161-1				460-234186-1				460-234161-1				460-233312-1				460-233312-1				460-234436-1			
Analyte	**CAS**	**Method**	**Units**			**Result**	**LDC Flag**	**RL**	**MDL (EDL)**	**Result**	**LDC Flag**	**RL**	**MDL (EDL)**	**Result**	**LDC Flag**	**RL**	**MDL (EDL)**	**Result**	**LDC Flag**	**RL**	**MDL (EDL)**	**Result**	**LDC Flag**	**RL**	**MDL (EDL)**	**Result**	**LDC Flag**	**RL**	**MDL (EDL)**	**Result**	**LDC Flag**	**RL**	**MDL (EDL)**
Aluminum	7429-90-5	6020B	mg/Kg	50 (7)	78000	51300		183	23.8	23300		171	22.2	13700		33.8	4.4	20400		156	20.3	10600		107	13.9	7340		113	14.6	7120		42.3	5.5
Antimony	7440-36-0	6020B	mg/Kg	0.27 (4)	31	16.4		9.1	1.3	26.9		8.5	1.2	18.3		1.7	0.25	8.2		7.8	1.1	164		17.9	2.6	20.6		5.6	0.82	3.6		2.1	0.31
Arsenic	7440-38-2	6020B	mg/Kg	18 (1)	19	35.6		9.1	0.91	26.7		8.5	0.85	21.9		1.7	0.17	22.6		7.8	0.78	8.4		5.4	0.54	57.9		5.6	0.56	8.5		2.1	0.21
Barium	7440-39-3	6020B	mg/Kg	330 (2)	16000	210		18.3	1.3	237		17.1	1.7	550	J	3.4	0.24	305		15.6	1.1	171		10.7	0.78	590		11.3	0.82	212		4.2	0.31
Beryllium	7440-41-7	6020B	mg/Kg	21 (4)	160	0.52	U	3.7	0.52	0.49	U	3.4	0.49	0.33	J	0.67	0.096	1.5	J	3.1	0.44	2.1	U	2.1	0.31	2.3	U	2.3	0.32	0.14	J	0.85	0.12
Cadmium	7440-43-9	6020B	mg/Kg	0.36 (4)	71	26		9.1	1	15.8		8.5	0.97	13.4		1.7	0.19	21.6		7.8	0.88	13.5		5.4	0.61	37.5		5.6	0.64	7.4		2.1	0.24
Calcium	7440-70-2	6020B	mg/Kg			4410		914	155	4310		854	145	7610		169	28.7	5100		780	133	2350		536	91.1	4630		563	95.7	5850		211	36
Chromium	7440-47-3	6020B	mg/Kg	0.4 (5)		357		18.3	1.6	267		17.1	1.5	90.2		3.4	0.29	154		15.6	1.4	136		10.7	0.93	307		11.3	0.98	105		4.2	0.37
Cobalt	7440-48-4	6020B	mg/Kg	13 (1)	23	14.2	J	18.3	1.4	14.8	J	17.1	1.3	13.2		3.4	0.25	16.9		15.6	1.2	10.7	U	10.7	0.79	47.3		11.3	0.83	8.9		4.2	0.31
Copper	7440-50-8	6020B	mg/Kg	28 (3)	3100	3740		18.3	2	4180		17.1	1.9	743	J	3.4	0.37	1060		15.6	1.7	702		10.7	1.2	568		11.3	1.2	236		4.2	0.47
Iron	7439-89-6	6020B	mg/Kg			152000		548	185	174000		513	173	130000		203	68.2	315000		468	158	126000		321	108	445000		1130	379	149000		634	214
Lead	7439-92-1	6020B	mg/Kg	11 (3)	400	1630		5.5	1.8	1590		5.1	1.7	1430	J	1	0.34	1050		4.7	1.6	1060		3.2	1.1	2430		3.4	1.1	1090		1.3	0.42
Magnesium	7439-95-4	6020B	mg/Kg			786	J	914	93.2	688	J	854	87.1	1580		169	17.2	2170		780	79.5	828		536	54.6	668		563	57.4	678		211	21.6
Manganese	7439-96-5	6020B	mg/Kg	220 (1)	1900	1050		36.6	3.7	1080		34.2	3.4	814		6.7	0.68	989		31.2	3.1	582		21.4	2.2	1850		22.5	2.3	471		8.5	0.85
Nickel	7440-02-0	6020B	mg/Kg	38 (1)	1600	151		18.3	1.8	115		17.1	1.7	68.6	J	3.4	0.33	112		15.6	1.5	65.2		10.7	1	131		11.3	1.1	53.8		4.2	0.41
Potassium	7440-09-7	6020B	mg/Kg			153	J	914	102	153	J	854	95.7	512		169	18.9	144	J	780	87.3	536	U	536	60	563	U	563	63	126	J	211	23.7
Selenium	7782-49-2	6020B	mg/Kg	0.52 (1)	390	1.9	J	11.4	1.1	1	U	10.7	1	1.2	J	2.1	0.2	3	J	9.7	0.92	6.7	U	6.7	0.63	7	U	7	0.66	0.78	J	2.6	0.25
Silver	7440-22-4	6020B	mg/Kg	4.2 (3)	390	4.2	J	9.1	0.81	5.4	J	8.5	0.76	9.8		1.7	0.15	89.6		15.6	1.4	5.4	U	5.4	0.48	5.6	U	5.6	0.5	2.8		2.1	0.19
Sodium	7440-23-5	6020B	mg/Kg			143	U	914	143	133	U	854	133	89.8	J	169	26.3	122	U	780	122	536	U	536	83.6	563	U	563	87.8	61.2	U	211	33
Thallium	7440-28-0	6020B	mg/Kg	1 (5)		0.37	U	3.7	0.37	0.35	U	3.4	0.35	0.069	U	0.67	0.069	0.32	U	3.1	0.32	2.1	U	2.1	0.22	2.3	U	2.3	0.23	0.087	U	0.85	0.087
Vanadium	7440-62-2	6020B	mg/Kg	7.8 (3)	390	84		18.3	1.9	90.1		17.1	1.8	29.1		3.4	0.35	20		15.6	1.6	18.2		10.7	1.1	27.3		11.3	1.2	14.1		4.2	0.44
Zinc	7440-66-6	6020B	mg/Kg	46 (3)	23000	1300		73.1	20.9	1310		68.3	19.6	1200		13.5	3.9	2430		62.4	17.9	1850		42.9	12.3	1320		45	12.9	1050		16.9	4.8
Mercury	7439-97-6	7471B	mg/Kg	0.00051 (5)	23	37.6		1.9	0.45	34		1.1	0.27	4		0.26	0.06	2.9		0.57	0.13	3		0.15	0.036	5.5		0.15	0.034	2.5		0.19	0.045
Cyanide, Total	57-12-5	9012B	mg/Kg	1.33 (5)	47	11.5		1	0.37	23		0.97	0.35	4.2	J	0.79	0.29	1.1		0.83	0.3	4.3	J	0.38	0.2	10.9	J	0.39	0.21	1.9		1.1	0.4

Table 5.1 - Soil: Metals and Cyanide Analytical Results

(continued)

Rolling Knolls Landfill

Sample Name				ESC's	NJAC 7:26D	SS07				SS08				SS09				SS10				SS11				SS12				SS13			
Sample Date/Time						04/28/2021 00:00				05/11/2021 12:30				05/13/2021 11:10				05/13/2021 14:10				05/03/2021 10:00				05/10/2021 10:45				05/10/2021 12:10			
Latitude				Screening Criteria	(8) Soil Remediation Standards (Ing.-Derm.) - Residential	40.7293038				40.72928382				40.7285174				40.7272947				40.7220743				40.7218276				40.7221319			
Longitude						-74.4416064				-74.44108891				-74.4407729				-74.440092				-74.4442957				-74.4445596				-74.4453061			
Lab Sample Name						GS-N-SS07				GS-N-SS08				GS-N-SS09				GS-N-SS10				GS-S-SS11				GS-S-SS12				GS-S-SS13			
Lab Sample Number						460-233313-1				460-234161-6				460-234435-4				460-234436-9				460-233488-1				460-234082-1				460-234082-3			
Lab Report Number(s)						460-233313-1				460-234161-1				460-234435-1				460-234436-1				460-233488-1				460-234082-1				460-234082-1 / 460-234082-2			
Analyte	CAS	Method	Units			Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)
Aluminum	7429-90-5	6020B	mg/Kg	50 (7)	78000	11900		83	10.8	8360		48	6.2	4460		38.6	5	10000		46.5	6	4430		69.6	9.1	4240		609	79.1	5370		26.4	3.4
Antimony	7440-36-0	6020B	mg/Kg	0.27 (4)	31	7		4.1	0.61	0.82	J	2.4	0.35	0.8	J	1.9	0.28	26.9		2.3	0.34	4.6		3.5	0.51	4.4	U	30.4	4.4	77.4		13.2	1.9
Arsenic	7440-38-2	6020B	mg/Kg	18 (1)	19	21.4		4.1	0.41	3.9		2.4	0.24	3.9		1.9	0.19	35.5		2.3	0.23	38.4		3.5	0.35	4.2	J	30.4	3	19.5		1.3	0.13
Barium	7440-39-3	6020B	mg/Kg	330 (2)	16000	1190		8.3	0.6	104		4.8	0.35	154		3.9	0.28	304		4.6	0.34	232		7	0.5	209		60.9	4.4	213		2.6	0.19
Beryllium	7440-41-7	6020B	mg/Kg	21 (4)	160	0.87	J	1.7	0.24	0.18	J	0.96	0.14	0.14	J	0.77	0.11	0.25	J	0.93	0.13	0.26	J	1.4	0.2	1.7	U	12.2	1.7	0.17	J	0.53	0.075
Cadmium	7440-43-9	6020B	mg/Kg	0.36 (4)	71	6.9		4.1	0.47	1.3	J	2.4	0.27	4		1.9	0.22	11.6		2.3	0.26	8.6		3.5	0.39	3.4	U	30.4	3.4	6		1.3	0.15
Calcium	7440-70-2	6020B	mg/Kg			3620		415	70.5	3140		240	40.8	4290		193	32.8	6170		232	39.5	6590		348	59.2	15200		3040	517	5480		132	22.4
Chromium	7440-47-3	6020B	mg/Kg	0.4 (5)		74.6		8.3	0.72	19.5		4.8	0.42	13.4		3.9	0.34	110		4.6	0.4	63.5		7	0.61	9.7	J	60.9	5.3	92		2.6	0.23
Cobalt	7440-48-4	6020B	mg/Kg	13 (1)	23	12.2		8.3	0.61	2.9	J	4.8	0.36	3.5	J	3.9	0.29	17.7		4.6	0.34	20.1		7	0.52	4.5	U	60.9	4.5	16.3		2.6	0.2
Copper	7440-50-8	6020B	mg/Kg	28 (3)	3100	787		8.3	0.91	69.2		4.8	0.53	96.9		3.9	0.42	674		4.6	0.51	581		7	0.77	47.9	J	60.9	6.7	12400		26.4	2.9
Iron	7439-89-6	6020B	mg/Kg			86900		249	83.8	34300		144	48.5	92300		116	39	312000		697	235	292000		1040	352	27000		1830	615	221000		792	267
Lead	7439-92-1	6020B	mg/Kg	11 (3)	400	1270		2.5	0.83	122		1.4	0.48	82.6		1.2	0.39	6000		7	2.3	595		2.1	0.7	102		18.3	6.1	4740		7.9	2.6
Magnesium	7439-95-4	6020B	mg/Kg			1270		415	42.3	745		240	24.5	424		193	19.7	458		232	23.7	889		348	35.5	887	J	3040	310	902		132	13.5
Manganese	7439-96-5	6020B	mg/Kg	220 (1)	1900	870		16.6	1.7	90.2		9.6	0.97	195		7.7	0.78	754		9.3	0.94	1140		13.9	1.4	157		122	12.3	1030		5.3	0.53
Nickel	7440-02-0	6020B	mg/Kg	38 (1)	1600	89.9		8.3	0.8	51.3		4.8	0.47	30.7		3.9	0.37	120		4.6	0.45	50		7	0.68	13	J	60.9	5.9	89.8		2.6	0.26
Potassium	7440-09-7	6020B	mg/Kg			336	J	415	46.5	154	J	240	26.9	124	U	193	21.6	167	J	232	26	279	J	348	39	390	J	3040	341	223		132	14.8
Selenium	7782-49-2	6020B	mg/Kg	0.52 (1)	390	0.8	J	5.2	0.49	0.66	J	3	0.28	0.61	J	2.4	0.23	0.46	J	2.9	0.27	1.5	J	4.4	0.41	3.6	U	38	3.6	1.4	J	1.6	0.16
Silver	7440-22-4	6020B	mg/Kg	4.2 (3)	390	13.4		4.1	0.37	0.57	J	2.4	0.21	1	J	1.9	0.17	6		2.3	0.21	5.2		3.5	0.31	2.7	U	30.4	2.7	7.1		1.3	0.12
Sodium	7440-23-5	6020B	mg/Kg			107	J	415	64.7	58.5	J	240	37.4	64.8	U	193	30.1	87	U	232	36.2	78.9	U	348	54.3	475	U	3040	475	61.6	J	132	20.6
Thallium	7440-28-0	6020B	mg/Kg	1 (5)		0.17	U	1.7	0.17	0.098	U	0.96	0.098	0.079	U	0.77	0.079	0.13	J	0.93	0.095	0.14	U	1.4	0.14	1.2	U	12.2	1.2	0.099	J	0.53	0.054
Vanadium	7440-62-2	6020B	mg/Kg	7.8 (3)	390	211		8.3	0.85	25.7		4.8	0.49	21.7		3.9	0.4	18.2		4.6	0.48	27.6		7	0.72	26.7	J	60.9	6.3	37.3		2.6	0.27
Zinc	7440-66-6	6020B	mg/Kg	46 (3)	23000	673		33.2	9.5	159		19.2	5.5	794		15.4	4.4	2020		18.6	5.3	1560		27.9	8	133	J	244	69.7	991		10.6	3
Mercury	7439-97-6	7471B	mg/Kg	0.00051 (5)	23	5.4		0.19	0.045	0.61		0.046	0.011	0.38		0.037	0.0087	2.8		0.21	0.049	3		0.062	0.015	0.32		0.11	0.027	4.2		0.14	0.033
Cyanide, Total	57-12-5	9012B	mg/Kg	1.33 (5)	47	9.7		0.54	0.29	0.87	J	1.4	0.51	0.78	J	1.1	0.4	0.71	J	1.2	0.43	9.6		0.76	0.41	1.3	U	3.6	1.3	0.87		0.84	0.3

Table 5.1 - Soil: Metals and Cyanide Analytical Results

(continued)

Rolling Knolls Landfill

Sample Name				ESC's	NJAC 7:26D	SS14				SS102 (SS14 duplicate)				SS15				SS16				SS17				SS18				SS19			
Sample Date/Time						05/03/2021 10:40				05/03/2021 10:40				05/03/2021 15:30				05/04/2021 09:40				05/05/2021 10:05				05/10/2021 13:30				05/10/2021 08:30			
Latitude				Screening Criteria	(8) Soil Remediation Standards (Ing.-Derm.) - Residential	40.7222989				40.7222989				40.7226573				40.7229083				40.723173				40.7226388				40.7236522			
Longitude						-74.4446187				-74.4446187				-74.4446863				-74.445227				-74.443727				-74.4459762				-74.4437257			
Lab Sample Name						GS-S-SS14				GS-S-SS102				GS-S-SS15				GS-S-SS16				GS-S-SS17				GS-S-SS18				GS-S-SS19			
Lab Sample Number						460-233488-4				460-233506-1				460-233506-3				460-233704-1				460-233715-1				460-234084-1				460-234080-1			
Lab Report Number(s)						460-233488-1 / 460-233488-2				460-233506-1				460-233506-1 / 460-233506-2				460-233704-1				460-233715-1				460-234084-1				460-234080-1			
Analyte	CAS	Method	Units			Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)
Aluminum	7429-90-5	6020B	mg/Kg	50 (7)	78000	5050		44.3	5.8	3850		40.5	5.3	4550		35.6	4.6	4340		142	18.5	8100		173	22.5	4680		135	17.5	6640		42.2	5.5
Antimony	7440-36-0	6020B	mg/Kg	0.27 (4)	31	7.5		2.2	0.32	12		2	0.3	7		1.8	0.26	260		71	10.4	3.7	J	8.7	1.3	18.4		6.7	0.98	2.1		2.1	0.31
Arsenic	7440-38-2	6020B	mg/Kg	18 (1)	19	51.4		2.2	0.22	55		2	0.2	17.4		1.8	0.18	19.5		7.1	0.71	15.7		8.7	0.87	51.8	J	6.7	0.67	8.3	J	2.1	0.21
Barium	7440-39-3	6020B	mg/Kg	330 (2)	16000	446		4.4	0.32	330		4	0.29	211		3.6	0.26	206		14.2	1	422		17.3	1.3	360		13.5	0.98	181		4.2	0.31
Beryllium	7440-41-7	6020B	mg/Kg	21 (4)	160	0.22	J	0.89	0.13	0.17	J	0.81	0.12	0.29	J	0.71	0.1	0.4	U	2.8	0.4	0.49	U	3.5	0.49	0.38	U	2.7	0.38	0.43	J	0.84	0.12
Cadmium	7440-43-9	6020B	mg/Kg	0.36 (4)	71	24.2		2.2	0.25	11.8		2	0.23	5.6		1.8	0.2	8.8		7.1	0.8	7.9	J	8.7	0.98	20.6		6.7	0.76	5		2.1	0.24
Calcium	7440-70-2	6020B	mg/Kg			5370		221	37.6	3600		202	34.4	6470		178	30.3	7050		710	121	5970		866	147	17800		674	115	8800		211	35.9
Chromium	7440-47-3	6020B	mg/Kg	0.4 (5)		233		4.4	0.39	248		4	0.35	61.9		3.6	0.31	65.8		14.2	1.2	81.2		17.3	1.5	112		13.5	1.2	56.9		4.2	0.37
Cobalt	7440-48-4	6020B	mg/Kg	13 (1)	23	54.1		4.4	0.33	36.2		4	0.3	19.1		3.6	0.26	12.5	J	14.2	1.1	15.4	J	17.3	1.3	23.1		13.5	1	10.9		4.2	0.31
Copper	7440-50-8	6020B	mg/Kg	28 (3)	3100	1050		4.4	0.49	1540		4	0.45	155		3.6	0.39	2740		14.2	1.6	333		17.3	1.9	804		13.5	1.5	360	J	4.2	0.46
Iron	7439-89-6	6020B	mg/Kg			530000		664	224	401000		1210	409	134000		535	180	98500		426	143	143000		520	175	178000	J	405	136	59400		127	42.6
Lead	7439-92-1	6020B	mg/Kg	11 (3)	400	1570		1.3	0.44	8370		6.1	2	2840		1.1	0.36	3600		4.3	1.4	1020		5.2	1.7	1290		4	1.3	529	J	1.3	0.42
Magnesium	7439-95-4	6020B	mg/Kg			707		221	22.6	508		202	20.7	562		178	18.2	1350		710	72.5	1170		866	88.4	1340		674	68.8	1920		211	21.5
Manganese	7439-96-5	6020B	mg/Kg	220 (1)	1900	1690		8.9	0.89	1640		8.1	0.82	1160		7.1	0.72	588		28.4	2.9	718		34.7	3.5	457	J	27	2.7	523		8.4	0.85
Nickel	7440-02-0	6020B	mg/Kg	38 (1)	1600	185		4.4	0.43	211		4	0.39	65.8		3.6	0.35	295		14.2	1.4	86.6		17.3	1.7	152		13.5	1.3	46		4.2	0.41
Potassium	7440-09-7	6020B	mg/Kg			138	J	221	24.8	123	J	202	22.7	188		178	20	143	J	710	79.6	435	U	866	97	325	J	674	75.5	497		211	23.6
Selenium	7782-49-2	6020B	mg/Kg	0.52 (1)	390	0.72	J	2.8	0.26	0.49	J	2.5	0.24	1	J	2.2	0.21	68.1		8.9	0.84	1	U	10.8	1	2.9	J	8.4	0.8	1.4	J	2.6	0.25
Silver	7440-22-4	6020B	mg/Kg	4.2 (3)	390	12.8		2.2	0.2	10.6		2	0.18	1.9		1.8	0.16	4.1	J	7.1	0.63	2.4	J	8.7	0.77	6.8		6.7	0.6	4.7		2.1	0.19
Sodium	7440-23-5	6020B	mg/Kg			37.5	U	221	34.5	89.9	U	202	31.6	76	U	178	27.8	111	U	710	111	135	U	866	135	160	J	674	105	40.8	J	211	32.9
Thallium	7440-28-0	6020B	mg/Kg	1 (5)		0.16	J	0.89	0.091	0.083	U	0.81	0.083	0.073	U	0.71	0.073	0.29	U	2.8	0.29	0.36	U	3.5	0.36	0.28	U	2.7	0.28	0.086	U	0.84	0.086
Vanadium	7440-62-2	6020B	mg/Kg	7.8 (3)	390	36.4		4.4	0.46	25.7		4	0.42	17.2		3.6	0.37	20.1		14.2	1.5	28.4		17.3	1.8	29.9		13.5	1.4	97.5		4.2	0.43
Zinc	7440-66-6	6020B	mg/Kg	46 (3)	23000	3380		17.7	5.1	1770		16.2	4.6	1640		14.3	4.1	1260		56.8	16.3	1400		69.3	19.8	3220		53.9	15.4	874		16.9	4.8
Mercury	7439-97-6	7471B	mg/Kg	0.00051 (5)	23	7.4		0.4	0.093	6.4		0.18	0.043	2.5		0.15	0.035	30.2		0.82	0.19	4.8		0.59	0.14	5.5		0.13	0.031	3.4		0.2	0.046
Cyanide, Total	57-12-5	9012B	mg/Kg	1.33 (5)	47	3		0.49	0.27	0.24	U	0.44	0.24	3.9		0.38	0.21	0.31	U	0.56	0.31	8.7		0.39	0.21	2.5	J	4.2	1.5	1.2	J	1.1	0.41

Table 5.1 - Soil: Metals and Cyanide Analytical Results

(continued)

Rolling Knolls Landfill

Sample Name				ESC's	NJAC 7:26D	SS20				SS21				SS101 (SS21 duplicate)				SS22				SS23				SS24				SS25			
Sample Date/Time						05/04/2021 12:45				05/07/2021 10:30				05/07/2021 10:30				05/04/2021 10:55				05/10/2021 15:40				05/14/2021 10:00				05/06/2021 14:55			
Latitude				Screening Criteria	(8) Soil Remediation Standards (Ing.-Derm.) - Residential	40.722731				40.7238344				40.7238344				40.7234467				40.7234761				40.7234047				40.7234932			
Longitude						-74.443907				-74.445655				-74.445655				-74.4453029				-74.4461556				-74.4467553				-74.4473376			
Lab Sample Name						GS-S-SS20				GS-S-SS21				GS-S-SS101				GS-S-SS22				GS-S-SS23				GS-S-SS24				GS-S-SS25			
Lab Sample Number						460-233704-4				460-233940-4				460-233940-5				460-233706-1				460-234080-4				460-234442-1				460-233899-5			
Lab Report Number(s)						460-233704-1				460-233940-1				460-233940-1				460-233706-1				460-234080-1				460-234442-1				460-233899-1			
Analyte	CAS	Method	Units			Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)
Aluminum	7429-90-5	6020B	mg/Kg	50 (7)	78000	9640		23.4	3	11600		68.4	8.9	8130		72.7	9.5	6860		62.1	8.1	4480		218	28.3	3920		49.6	6.5	11600		26.8	3.5
Antimony	7440-36-0	6020B	mg/Kg	0.27 (4)	31	4.3		1.2	0.17	4.5		3.4	0.5	6.5		3.6	0.53	5.6		3.1	0.45	7.5	J	10.9	1.6	4.7		2.5	0.36	0.62	J	1.3	0.2
Arsenic	7440-38-2	6020B	mg/Kg	18 (1)	19	26.2		1.2	0.12	23.4		3.4	0.34	19.2		3.6	0.36	18		3.1	0.31	12.3	J	10.9	1.1	12.1		2.5	0.25	3.7		1.3	0.13
Barium	7440-39-3	6020B	mg/Kg	330 (2)	16000	68.6		2.3	0.17	931		6.8	0.5	2030		7.3	0.53	245		6.2	0.45	881		21.8	1.6	400		5	0.36	27.6		2.7	0.19
Beryllium	7440-41-7	6020B	mg/Kg	21 (4)	160	0.39	J	0.47	0.067	0.25	J	1.4	0.19	0.32	J	1.5	0.21	0.21	J	1.2	0.18	0.62	U	4.4	0.62	0.14	U	0.99	0.14	0.34	J	0.54	0.076
Cadmium	7440-43-9	6020B	mg/Kg	0.36 (4)	71	1.2		1.2	0.13	7.8		3.4	0.39	7.6		3.6	0.41	5.2		3.1	0.35	7.5	J	10.9	1.2	6.5		2.5	0.28	0.28	J	1.3	0.15
Calcium	7440-70-2	6020B	mg/Kg			7970		117	19.9	9510	J	342	58.1	21100	J	364	61.8	13000		310	52.7	12300		1090	185	12500		248	42.2	732		134	22.8
Chromium	7440-47-3	6020B	mg/Kg	0.4 (5)		19		2.3	0.2	181	J	6.8	0.6	185	J	7.3	0.63	464		6.2	0.54	89.4		21.8	1.9	87		5	0.43	23		2.7	0.23
Cobalt	7440-48-4	6020B	mg/Kg	13 (1)	23	6.8		2.3	0.17	14		6.8	0.51	14.4		7.3	0.54	36.4		6.2	0.46	12.9	J	21.8	1.6	14		5	0.37	4.3		2.7	0.2
Copper	7440-50-8	6020B	mg/Kg	28 (3)	3100	108		2.3	0.26	548		6.8	0.75	466		7.3	0.8	470		6.2	0.68	425	J	21.8	2.4	685		5	0.55	17.4		2.7	0.3
Iron	7439-89-6	6020B	mg/Kg			17800		70.1	23.6	136000	J	205	69.1	138000	J	218	73.5	118000		186	62.7	206000		654	220	170000		744	251	20700		80.5	27.1
Lead	7439-92-1	6020B	mg/Kg	11 (3)	400	179		0.7	0.23	1830		2.1	0.68	4250		2.2	0.73	2220		1.9	0.62	2960	J	6.5	2.2	1650		1.5	0.5	112		0.8	0.27
Magnesium	7439-95-4	6020B	mg/Kg			3380		117	11.9	1380		342	34.9	884		364	37.1	1930		310	31.6	721	J	1090	111	766		248	25.3	1510		134	13.7
Manganese	7439-96-5	6020B	mg/Kg	220 (1)	1900	249		4.7	0.47	760		13.7	1.4	783		14.5	1.5	432		12.4	1.3	800		43.6	4.4	498		9.9	1	88.7		5.4	0.54
Nickel	7440-02-0	6020B	mg/Kg	38 (1)	1600	19.2		2.3	0.23	90.2	J	6.8	0.66	88.9	J	7.3	0.71	261		6.2	0.6	53.7		21.8	2.1	84.9		5	0.48	11.7		2.7	0.26
Potassium	7440-09-7	6020B	mg/Kg			401		117	13.1	333	J	342	38.3	326	J	364	40.7	691		310	34.8	191	J	1090	122	201	J	248	27.8	411		134	15
Selenium	7782-49-2	6020B	mg/Kg	0.52 (1)	390	0.61	J	1.5	0.14	1.4	J	4.3	0.4	1.2	J	4.5	0.43	0.89	J	3.9	0.37	1.6	J	13.6	1.3	0.77	J	3.1	0.29	0.54	J	1.7	0.16
Silver	7440-22-4	6020B	mg/Kg	4.2 (3)	390	0.34	J	1.2	0.1	7.8		3.4	0.3	8.4		3.6	0.32	6.6		3.1	0.28	6.7	J	10.9	0.97	10.9		2.5	0.22	0.12	J	1.3	0.12
Sodium	7440-23-5	6020B	mg/Kg			240		117	18.2	82.3	U	342	53.3	172	U	364	56.7	131	U	310	48.4	170	U	1090	170	109	J	248	38.7	53.2	J	134	20.9
Thallium	7440-28-0	6020B	mg/Kg	1 (5)		0.093	J	0.47	0.048	0.14	U	1.4	0.14	0.15	U	1.5	0.15	0.13	U	1.2	0.13	0.45	U	4.4	0.45	0.1	U	0.99	0.1	0.078	J	0.54	0.055
Vanadium	7440-62-2	6020B	mg/Kg	7.8 (3)	390	26.7		2.3	0.24	18.7		6.8	0.7	19.7		7.3	0.75	31.4		6.2	0.64	40.2		21.8	2.2	70.6		5	0.51	33.2		2.7	0.28
Zinc	7440-66-6	6020B	mg/Kg	46 (3)	23000	159		9.4	2.7	1490		27.4	7.8	3970		29.1	8.3	1050		24.8	7.1	2280		87.2	24.9	1550		19.8	5.7	53.5		10.7	3.1
Mercury	7439-97-6	7471B	mg/Kg	0.00051 (5)	23	0.37		0.02	0.0046	4.3		0.3	0.071	4.7		0.32	0.075	5.6		0.28	0.066	4.2		0.24	0.057	3.9		0.22	0.052	0.098		0.023	0.0055
Cyanide, Total	57-12-5	9012B	mg/Kg	1.33 (5)	47	0.52	J	0.25	0.14	18.1	J	4.1	1.5	5.9	J	0.92	0.33	1.8		0.7	0.38	3.3	J	1.6	0.57	3.8		1.4	0.51	0.25	U	0.69	0.25

Table 5.1 - Soil: Metals and Cyanide Analytical Results

(continued)

Rolling Knolls Landfill

Sample Name				ESC's	NJAC 7:26D	SS26				SS27				SS28				SS29				SS30				SS31				DP01_0.5-8.5			
Sample Date/Time						05/07/2021 08:30				05/05/2021 13:30				05/05/2021 08:20				05/06/2021 11:25				05/13/2021 15:20				05/14/2021 08:45				05/11/2021 09:10			
Latitude				Screening Criteria	(8) Soil Remediation Standards (Ing.-Derm.) - Residential	40.7240722				40.7231759				40.7240805				40.7248365				40.7266724				40.7237372				40.7297321			
Longitude						-74.4463803				-74.4437423				-74.4443078				-74.4434245				-74.4405011				-74.4477876				-74.4419101			
Lab Sample Name						GS-S-SS26				GS-S-SS27				GS-S-SS28				GS-S-SS29				GS-S-SS30				GS-S-SS31				GS-N-DPT01-SC-0.5-8.5			
Lab Sample Number						460-233940-1				460-233708-4				460-233708-1				460-233899-2				460-234436-4				460-234442-4				460-234161-2			
Lab Report Number(s)						460-233940-1				460-233708-1 / 460-233708-2				460-233708-1				460-233899-1				460-234436-1				460-234442-1				460-234161-1 / 460-234161-2			
Analyte	CAS	Method	Units			Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)
Aluminum	7429-90-5	6020B	mg/Kg	50 (7)	78000	10400		30.1	3.9	6230		85.3	11.1	5410		112	14.6	12400		66.3	8.6	7400		38.2	5	9850		25.7	3.3	11300		40.9	5.3
Antimony	7440-36-0	6020B	mg/Kg	0.27 (4)	31	0.39	J	1.5	0.22	8.2		4.3	0.62	20.9		5.6	0.82	4.9		3.3	0.48	9.7		1.9	0.28	0.19	U	1.3	0.19	14.8		2	0.3
Arsenic	7440-38-2	6020B	mg/Kg	18 (1)	19	3.2		1.5	0.15	24.6		4.3	0.43	135		5.6	0.56	29.6		3.3	0.33	16.8		1.9	0.19	3.7		1.3	0.13	44.2		2	0.2
Barium	7440-39-3	6020B	mg/Kg	330 (2)	16000	61.1		3	0.22	422		8.5	0.67	520		11.2	0.82	314		6.6	0.48	608		3.8	0.28	29.8		2.6	0.19	221		4.1	0.3
Beryllium	7440-41-7	6020B	mg/Kg	21 (4)	160	0.59	J	0.6	0.086	0.3	J	1.7	0.24	0.32	U	2.2	0.32	0.78	J	1.3	0.19	0.46	J	0.76	0.11	0.32	J	0.51	0.073	0.14	J	0.82	0.12
Cadmium	7440-43-9	6020B	mg/Kg	0.36 (4)	71	0.86	J	1.5	0.17	14.6		4.3	0.48	9.6		5.6	0.64	11.6		3.3	0.37	131		1.9	0.22	0.17	J	1.3	0.14	23		2	0.23
Calcium	7440-70-2	6020B	mg/Kg			4440	J	151	25.6	2840		426	72.5	7030		562	95.6	7280		332	56.4	8140		191	32.5	344		128	21.8	6670		204	34.8
Chromium	7440-47-3	6020B	mg/Kg	0.4 (5)		28	J	3	0.26	88.7		8.5	0.74	371		11.2	0.98	138		6.6	0.58	688		3.8	0.33	11.1		2.6	0.22	129		4.1	0.36
Cobalt	7440-48-4	6020B	mg/Kg	13 (1)	23	8.3		3	0.22	41.5		8.5	0.63	39.6		11.2	0.83	54.3		6.6	0.49	14.3		3.8	0.28	2.9		2.6	0.19	13		4.1	0.3
Copper	7440-50-8	6020B	mg/Kg	28 (3)	3100	108		3	0.33	875		8.5	0.94	639		11.2	1.2	4980		6.6	0.73	501		3.8	0.42	8.1		2.6	0.28	3620		4.1	0.45
Iron	7439-89-6	6020B	mg/Kg			28000	J	90.4	30.4	229000		768	258	352000		1010	341	45200		199	67	108000		574	193	13300		77	25.9	207000		613	206
Lead	7439-92-1	6020B	mg/Kg	11 (3)	400	126		0.9	0.3	1280		2.6	0.85	1060		3.4	1.1	3620		2	0.66	922		1.1	0.38	20.6		0.77	0.26	1710		6.1	2
Magnesium	7439-95-4	6020B	mg/Kg			4270		151	15.4	774		426	43.5	831		562	57.3	21600		332	33.8	958		191	19.5	889		128	13.1	827		204	20.9
Manganese	7439-96-5	6020B	mg/Kg	220 (1)	1900	393		6	0.61	1150		17.1	1.7	1720		22.5	2.3	759		13.3	1.3	669		7.6	0.77	73.1		5.1	0.52	925		8.2	0.82
Nickel	7440-02-0	6020B	mg/Kg	38 (1)	1600	18	J	3	0.29	115		8.5	0.83	170		11.2	1.1	265		6.6	0.64	233		3.8	0.37	6.4		2.6	0.25	98.5		4.1	0.4
Potassium	7440-09-7	6020B	mg/Kg			1310		151	16.9	229	U	426	47.8	319	U	562	63	353		332	37.1	210		191	21.4	294		128	14.4	139	J	204	22.9
Selenium	7782-49-2	6020B	mg/Kg	0.52 (1)	390	0.28	J	1.9	0.18	0.89	J	5.3	0.5	1.1	J	7	0.66	1	J	4.1	0.39	10.9		2.4	0.23	0.47	J	1.6	0.15	1.2	J	2.6	0.24
Silver	7440-22-4	6020B	mg/Kg	4.2 (3)	390	0.81	J	1.5	0.13	14.4		4.3	0.38	5.4	J	5.6	0.5	21.1		3.3	0.3	9.1		1.9	0.17	0.11	U	1.3	0.11	5.6		2	0.18
Sodium	7440-23-5	6020B	mg/Kg			131	U	151	23.5	66.5	U	426	66.5	106	J	562	87.7	117	J	332	51.7	109	U	191	29.8	35.5	J	128	20	69	J	204	31.9
Thallium	7440-28-0	6020B	mg/Kg	1 (5)		0.086	J	0.6	0.062	0.17	U	1.7	0.17	0.23	U	2.2	0.23	0.14	U	1.3	0.14	0.078	U	0.76	0.078	0.092	J	0.51	0.053	0.42	U	4.1	0.42
Vanadium	7440-62-2	6020B	mg/Kg	7.8 (3)	390	36.8		3	0.31	122		8.5	0.88	22.3		11.2	1.2	17.3		6.6	0.68	30.8		3.8	0.39	24.5		2.6	0.26	62.4		4.1	0.42
Zinc	7440-66-6	6020B	mg/Kg	46 (3)	23000	150		12.1	3.5	830		34.1	9.8	2250		45	12.9	2220		26.5	7.6	1740		15.3	4.4	29.6		10.3	2.9	3270		16.4	4.7
Mercury	7439-97-6	7471B	mg/Kg	0.00051 (5)	23	1		0.024	0.0057	18		0.98	0.23	4.5		0.3	0.07	1770		467	110	23.1		0.85	0.2	0.061		0.022	0.0051	5		0.75	0.18
Cyanide, Total	57-12-5	9012B	mg/Kg	1.33 (5)	47	0.58	J	0.75	0.27	0.31	J	0.34	0.19	1.8	J	0.46	0.25	71.8		1.8	0.63	16.2		1.1	0.4	0.24	U	0.66	0.24	0.84	J	1.1	0.4

Table 5.1 - Soil: Metals and Cyanide Analytical Results

(continued)

Rolling Knolls Landfill

Sample Name				ESC's	NJAC 7:26D	DP100_0.5-8.5 (DP01_0.5-8.5 duplicate)			DP02_0.5-8.5			DP02_8.5-10.0			DP03_0.5-3.5			DP03_3.5-4.0			DP04_0.5-5.0			DP04_5.0-8.0		
Sample Date/Time						05/11/2021 12:00			05/11/2021 10:40			05/11/2021 11:15			05/11/2021 14:05			05/11/2021 14:15			04/29/2021 12:50			04/29/2021 10:35		
Latitude				Screening Criteria	(8) Soil Remediation Standards (Ing.-Derm.) - Residential	40.7297321			40.7303542			40.7303542			40.7288473			40.7288473			40.7304704			40.7304704		
Longitude						-74.4419101			-74.4418002			-74.4418002			-74.4410590			-74.4410590			-74.4414832			-74.4414832		
Lab Sample Name						GS-N-DPT100-SC-0.5-8.5			GS-N-DPT02-SC-0.5-8.5			GS-N-DPT02-SB-8.5-10.0			GS-N-DPT03-SC-0.5-3.5			GS-N-DPT03-SB-3.5-4.0			GS-N-DPT04-SC-0.5-5			GS-N-DPT04--SB-5-8		
Lab Sample Number						460-234161-8			460-234186-2			460-234186-3			460-234161-4			460-234161-5			460-233312-2			460-233312-3		
Lab Report Number(s)						460-234161-1			460-234186-1			460-234186-1			460-234161-1			460-234161-1			460-233312-1			460-233312-1		
Analyte	**CAS**	**Method**	**Units**			**Result**	**LDC Flag**	**RL**	**MDL (EDL)**	**Result**	**LDC Flag**	**RL**	**MDL (EDL)**	**Result**	**LDC Flag**	**RL**	**MDL (EDL)**	**Result**	**LDC Flag**	**RL**	**MDL (EDL)**	**Result**	**LDC Flag**	**RL**	**MDL (EDL)**	**Result**	**LDC Flag**	**RL**	**MDL (EDL)**
Aluminum	7429-90-5	6020B	mg/Kg	50 (7)	78000	16800		156	20.2	10600		153	19.8	7790		23.3	3	17800		32.9	4.3	13500		21	2.7	6760		119	15.5	4910		23.3	3
Antimony	7440-36-0	6020B	mg/Kg	0.27 (4)	31	852		77.8	11.4	7	J	7.6	1.1	0.17	U	1.2	0.17	3.3		1.6	0.24	0.15	U	1	0.15	20.4		6	0.87	6		1.2	0.17
Arsenic	7440-38-2	6020B	mg/Kg	18 (1)	19	57.8		7.8	0.78	18.3		7.6	0.76	1.4		1.2	0.12	11.9		1.6	0.16	1.3		1	0.1	16.1		6	0.6	8.8		1.2	0.12
Barium	7440-39-3	6020B	mg/Kg	330 (2)	16000	295		15.6	1.1	254		15.3	1.1	46.7		2.3	0.17	206		3.3	0.24	77.4		2.1	0.15	206		11.9	0.86	141		2.3	0.17
Beryllium	7440-41-7	6020B	mg/Kg	21 (4)	160	0.44	U	3.1	0.44	0.43	U	3.1	0.43	0.62		0.47	0.066	1.4		0.66	0.094	0.74		0.42	0.06	2.4	U	2.4	0.34	0.62		0.47	0.066
Cadmium	7440-43-9	6020B	mg/Kg	0.36 (4)	71	22		7.8	0.88	9.8		7.6	0.86	0.13	U	1.2	0.13	8.5		1.6	0.19	0.12	U	1	0.12	9.9		6	0.67	1.2	U	1.2	0.13
Calcium	7440-70-2	6020B	mg/Kg			8140		778	132	6480		763	130	1320		116	19.8	5150		165	28	1210		105	17.8	4620		596	101	2870		117	19.8
Chromium	7440-47-3	6020B	mg/Kg	0.4 (5)		96		15.6	1.4	65.1	J	15.3	1.3	18.1		2.3	0.2	72.6		3.3	0.29	21		2.1	0.18	79.2		11.9	1	27.5		2.3	0.2
Cobalt	7440-48-4	6020B	mg/Kg	13 (1)	23	15.8		15.6	1.2	9.5	J	15.3	1.1	8.3		2.3	0.17	22.1		3.3	0.24	5.4		2.1	0.16	18.7		11.9	0.88	10.3		2.3	0.17
Copper	7440-50-8	6020B	mg/Kg	28 (3)	3100	757		15.6	1.7	342		15.3	1.7	21.1		2.3	0.26	346		3.3	0.36	11.4		2.1	0.23	252		11.9	1.3	209		2.3	0.26
Iron	7439-89-6	6020B	mg/Kg			153000		467	157	156000		458	154	12800		69.8	23.5	185000		494	166	12900		63	21.2	238000		358	120	25100		69.9	23.5
Lead	7439-92-1	6020B	mg/Kg	11 (3)	400	2340		4.7	1.6	478		4.6	1.5	7.7		0.7	0.23	852		0.99	0.33	11.2		0.63	0.21	852		3.6	1.2	150		0.7	0.23
Magnesium	7439-95-4	6020B	mg/Kg			893		778	79.3	952	J	763	77.8	2760		116	11.9	1450		165	16.8	2370		105	10.7	1420		596	60.8	2380		117	11.9
Manganese	7439-96-5	6020B	mg/Kg	220 (1)	1900	708		31.1	3.1	520	J	30.5	3.1	86		4.7	0.47	582		6.6	0.66	81.7		4.2	0.42	1060		23.8	2.4	305		4.7	0.47
Nickel	7440-02-0	6020B	mg/Kg	38 (1)	1600	90.9		15.6	1.5	64.9	J	15.3	1.5	14.9		2.3	0.23	74.8		3.3	0.32	13.9		2.1	0.2	58.2		11.9	1.2	52.7		2.3	0.23
Potassium	7440-09-7	6020B	mg/Kg			152	J	778	87.1	210	J	763	85.4	429		116	13	419		165	18.4	474		105	11.8	596	U	596	66.8	589		117	13.1
Selenium	7782-49-2	6020B	mg/Kg	0.52 (1)	390	1.2	J	9.7	0.92	0.99	J	9.5	0.9	0.14	U	1.5	0.14	1.1	J	2.1	0.19	0.19	J	1.3	0.12	7.5	U	7.5	0.7	1.5	U	1.5	0.14
Silver	7440-22-4	6020B	mg/Kg	4.2 (3)	390	6.2	J	7.8	0.69	6	J	7.6	0.68	0.1	U	1.2	0.1	4.7		1.6	0.15	0.093	U	1	0.093	6.7		6	0.53	1.2	U	1.2	0.1
Sodium	7440-23-5	6020B	mg/Kg			121	U	778	121	119	U	763	119	107	J	116	18.2	87.6	J	165	25.7	66.5	J	105	16.4	596	U	596	93	165		117	18.2
Thallium	7440-28-0	6020B	mg/Kg	1 (5)		0.32	U	3.1	0.32	0.31	U	3.1	0.31	0.07	J	0.47	0.048	0.12	J	0.66	0.068	0.11	J	0.42	0.043	2.4	U	2.4	0.24	0.47	U	0.47	0.048
Vanadium	7440-62-2	6020B	mg/Kg	7.8 (3)	390	40.2		15.6	1.6	22.4		15.3	1.6	31.5		2.3	0.24	25.4		3.3	0.34	37.3		2.1	0.22	14.6		11.9	1.2	24.2		2.3	0.24
Zinc	7440-66-6	6020B	mg/Kg	46 (3)	23000	2280		62.2	17.8	2060		61	17.5	34		9.3	2.7	1080		13.2	3.8	27.5		8.4	2.4	1360		47.7	13.7	435		9.3	2.7
Mercury	7439-97-6	7471B	mg/Kg	0.00051 (5)	23	6		0.75	0.18	5.7		0.44	0.1	0.035		0.02	0.0046	3.2		0.58	0.14	0.033		0.021	0.0049	4.3		0.17	0.041	0.21		0.019	0.0045
Cyanide, Total	57-12-5	9012B	mg/Kg	1.33 (5)	47	1.4		1.2	0.43	7	J	1.5	0.54	0.22	U	0.62	0.22	0.33	U	0.91	0.33	0.21	U	0.59	0.21	10.5		2.1	1.1	0.25	UJ	0.25	0.14

Table 5.1 - Soil: Metals and Cyanide Analytical Results

(continued)

Rolling Knolls Landfill

Sample Name				ESC's	NJAC 7:26D	DP05_0.5-5.0				DP05_5.0-7.0				DP06_0.5-2.0				DP06_2.5-3.0				DP100_2.5-3.0 (DP06_2.5-3.0 duplicate)				DP07_0.5-4.5				DP07_5.0-8.0			
Sample Date/Time						04/29/2021 16:40				04/29/2021 15:50				05/13/2021 09:30				05/13/2021 09:55				05/13/2021 12:00				05/13/2021 13:10				04/28/2021 00:00			
Latitude				Screening Criteria	(8) Soil Remediation Standards (Ing.-Derm.) - Residential	40.7300494				40.7300494				40.7298030				40.7298030				40.7298030				40.7293038				40.7293038			
Longitude						-74.4418444				-74.4418444				-74.4414280				-74.4414280				-74.4414280				-74.4416064				-74.4416064			
Lab Sample Name						GS-N-DPT05--SC-0.5-5				GS-N-DPT05--SB-5-7				GS-N-DPT06-SC-0.5-2.0				GS-N-DPT06-SB-2.5-3.0				GS-N-DPT100-SB-2.5-3.0				GS-N-DPT07-SC-0.5-4.5				GS-N-DPT07-SB-5-8			
Lab Sample Number						460-233312-5				460-233312-6				460-234436-2				460-234436-3				460-234436-8				460-234435-2				460-233313-2			
Lab Report Number(s)						460-233312-1				460-233312-1				460-234436-1				460-234436-1				460-234436-1				460-234435-1				460-233313-1			
Analyte	CAS	Method	Units			Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)
Aluminum	7429-90-5	6020B	mg/Kg	50 (7)	78000	14000		115	15	4590		21.8	2.8	9990		57	7.4	8230		20.6	2.7	9490		23.3	3	109000		155	20.1	5480		22.1	2.9
Antimony	7440-36-0	6020B	mg/Kg	0.27 (4)	31	17.2		5.8	0.84	1.1	U	1.1	0.16	2.2	J	2.9	0.42	0.15	U	1	0.15	0.17	U	1.2	0.17	2.9		1.5	0.23	0.16	U	1.1	0.16
Arsenic	7440-38-2	6020B	mg/Kg	18 (1)	19	23.4		5.8	0.58	1.1		1.1	0.11	16.2		2.9	0.29	1.4		1	0.1	1.4		1.2	0.12	12.5		1.5	0.15	2.6		1.1	0.11
Barium	7440-39-3	6020B	mg/Kg	330 (2)	16000	295		11.5	0.84	20.7		2.2	0.16	297		5.7	0.41	50.8		2.1	0.15	52.5		2.3	0.17	165		3.1	0.22	26.9		2.2	0.16
Beryllium	7440-41-7	6020B	mg/Kg	21 (4)	160	2.3	U	2.3	0.33	0.44	U	0.44	0.062	0.55	J	1.1	0.16	0.55		0.41	0.059	0.59		0.47	0.066	0.18	J	0.62	0.088	0.37	J	0.44	0.063
Cadmium	7440-43-9	6020B	mg/Kg	0.36 (4)	71	27.3		5.8	0.65	1.1	U	1.1	0.17	8.5		2.9	0.32	0.34	J	1	0.12	0.13	U	1.2	0.13	10.1		1.5	0.17	0.12	U	1.1	0.12
Calcium	7440-70-2	6020B	mg/Kg			7480		577	98.1	1260		109	18.5	9510		285	48.5	1040		103	17.5	1090		117	19.3	5210		155	26.3	1430		110	18.8
Chromium	7440-47-3	6020B	mg/Kg	0.4 (5)		96.8		11.5	1	12.3		2.2	0.19	66		5.7	0.5	17.5		2.1	0.18	18.8		2.3	0.2	57.5		3.1	0.27	14.3		2.2	0.19
Cobalt	7440-48-4	6020B	mg/Kg	13 (1)	23	17.7		11.5	0.85	4.9		2.2	0.16	9.9		5.7	0.42	4		2.1	0.15	5.8		2.3	0.17	9.4		3.1	0.23	6.2		2.2	0.16
Copper	7440-50-8	6020B	mg/Kg	28 (3)	3100	960		11.5	1.3	19.4		2.2	0.24	226		5.7	0.63	20.1		2.1	0.23	14.6		2.3	0.26	321		3.1	0.34	13.1		2.2	0.24
Iron	7439-89-6	6020B	mg/Kg			167000		346	117	8890		65.5	22	156000		856	288	14700		61.8	20.8	16100		70	23.6	104000		464	156	12100		66.3	22.3
Lead	7439-92-1	6020B	mg/Kg	11 (3)	400	1510		3.5	1.2	20.8		0.65	0.22	405		1.7	0.57	22.7		0.62	0.21	12.1		0.7	0.23	647		0.93	0.31	5.3		0.66	0.22
Magnesium	7439-95-4	6020B	mg/Kg			735		577	58.8	2100		109	11.1	715		285	29.1	1550		103	10.5	2100		117	11.9	464		155	15.8	2490		110	11.3
Manganese	7439-96-5	6020B	mg/Kg	220 (1)	1900	769		23.1	2.3	65.3		4.4	0.44	529		11.4	1.1	59.1		4.1	0.41	65.1		4.7	0.47	1520		6.2	0.62	80.5		4.4	0.45
Nickel	7440-02-0	6020B	mg/Kg	38 (1)	1600	85.1		11.5	1.1	11.5		2.2	0.21	56.6		5.7	0.55	10.3		2.1	0.2	12		2.3	0.23	108		3.1	0.3	10.1		2.2	0.21
Potassium	7440-09-7	6020B	mg/Kg			577	U	577	64.6	485		109	12.2	334		285	31.9	371		103	11.5	506		117	13.1	141	U	155	17.3	608		110	12.4
Selenium	7782-49-2	6020B	mg/Kg	0.52 (1)	390	7.2	U	7.2	0.68	1.4	U	1.4	0.13	0.66	J	3.6	0.34	0.17	J	1.3	0.12	0.14	U	1.5	0.14	0.55	J	1.9	0.18	0.34	J	1.4	0.13
Silver	7440-22-4	6020B	mg/Kg	4.2 (3)	390	15.1		5.8	0.51	1.1	U	1.1	0.097	3.8		2.9	0.25	0.45	J	1	0.092	0.12	J	1.2	0.1	1.9		1.5	0.14	0.098	U	1.1	0.098
Sodium	7440-23-5	6020B	mg/Kg			577	U	577	90	109	U	109	17	139	U	285	44.5	43.3	U	103	16.1	50.3	U	117	18.2	112	U	155	24.1	143		110	17.2
Thallium	7440-28-0	6020B	mg/Kg	1 (5)		2.3	U	2.3	0.24	0.44	U	0.44	0.045	0.12	U	1.1	0.12	0.062	J	0.41	0.042	0.063	J	0.47	0.048	0.063	U	0.62	0.063	0.051	J	0.44	0.045
Vanadium	7440-62-2	6020B	mg/Kg	7.8 (3)	390	24.6		11.5	1.2	21.6		2.2	0.22	31.8		5.7	0.59	31.4		2.1	0.21	34.6		2.3	0.24	14		3.1	0.32	28.5		2.2	0.23
Zinc	7440-66-6	6020B	mg/Kg	46 (3)	23000	1800		46.1	13.2	39.1		8.7	2.5	996		22.8	6.5	50.8		8.2	2.4	34.3		9.3	2.7	1130		12.4	3.5	26.6		8.8	2.5
Mercury	7439-97-6	7471B	mg/Kg	0.00051 (5)	23	4.9		0.17	0.04	0.19		0.019	0.0046	8.3		0.26	0.062	0.092		0.02	0.0047	0.042		0.021	0.0049	0.31		0.026	0.0061	0.012	J	0.02	0.0046
Cyanide, Total	57-12-5	9012B	mg/Kg	1.33 (5)	47	0.71	J	0.43	0.24	0.25	UJ	0.25	0.13	3.5		1.5	0.54	0.49	J	0.59	0.21	0.22	U	0.6	0.22	0.74	J	0.87	0.31	0.13	U	0.25	0.13

Table 5.1 - Soil: Metals and Cyanide Analytical Results

(continued)

Rolling Knolls Landfill

	Sample Name			ESC's	NJAC 7:26D	DP08_0.5-8.0				DP09_1.5-3.0				DP10_0.5-10.0				DP11_0.5-5.0				DP11_14.0-18.0				DP12_0.5-4.0				DP13_0.5-3.0			
	Sample Date/Time					05/11/2021 13:15				05/13/2021 11:35				05/13/2021 14:30				05/03/2021 10:10				05/03/2021 09:30				05/10/2021 11:20				05/10/2021 12:20			
	Latitude					40.7292838				40.7285174				40.7272947				40.7220743				40.7220743				40.7218276				40.7221319			
	Longitude					-74.4410889				-74.4407729				-74.4400920				-74.4442957				-74.4442957				-74.4445596				-74.4453061			
	Lab Sample Name					GS-N-DPT08-SB-0.5-8.0				GS-N-DPT09-SB-1.5-3.0				GS-N-DPT10-SC-0.5-10.0				GS-S-DPT11-SC-0.5-5				GS-S-DPT11-SB-14-18				GS-S-DPT12-SB-0.5-4.0				GS-S-DPT13-SC-0.5-3.0			
	Lab Sample Number					460-234161-7				460-234435-5				460-234436-10				460-233488-2				460-233488-3				460-234082-2				460-234082-4			
	Lab Report Number(s)					460-234161-1				460-234435-1				460-234436-1				460-233488-1				460-233488-1				460-234082-1				460-234082-1 / 460-234082-2			
Analyte	CAS	Method	Units	Screening Criteria	(8) Soil Remediation Standards (Ing.-Derm.) - Residential	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)
Aluminum	7429-90-5	6020B	mg/Kg	50 (7)	78000	37800		86	11.2	7430		18.1	2.4	5890		46.1	6	3980		51.1	6.6	4210		21.6	2.3	4570		519	67.5	20700		40.7	5.3
Antimony	7440-36-0	6020B	mg/Kg	0.27 (4)	31	3.7	J	4.3	0.63	0.13	UJ	0.9	0.13	14.1		2.3	0.34	10.7		2.6	0.37	0.16	U	1.1	0.16	3.8	U	26	3.8	7.2		2	0.3
Arsenic	7440-38-2	6020B	mg/Kg	18 (1)	19	16.6		4.3	0.43	1.1		0.9	0.09	33.1		2.3	0.23	69.5		2.6	0.26	1.6		1.1	0.11	5.7	J	26	2.6	22.5		2	0.2
Barium	7440-39-3	6020B	mg/Kg	330 (2)	16000	325		8.6	0.62	21.2		1.8	0.13	159		4.6	0.33	289		5.1	0.37	18.3		2.2	0.16	197		51.9	3.8	371		4.1	0.29
Beryllium	7440-41-7	6020B	mg/Kg	21 (4)	160	1.4	J	1.7	0.25	0.32	J	0.36	0.052	0.23	J	0.92	0.13	0.15	U	1	0.15	0.25	J	0.43	0.061	1.5	U	10.4	1.5	0.23	J	0.81	0.12
Cadmium	7440-43-9	6020B	mg/Kg	0.36 (4)	71	4.1	J	4.3	0.49	0.1	U	0.9	0.1	6.8		2.3	0.26	5.7		2.6	0.29	0.12	U	1.1	0.12	2.9	U	26	2.9	9.7		2	0.23
Calcium	7440-70-2	6020B	mg/Kg			10600		430	73.1	632		90.5	15.4	5250		231	39.2	5910		255	43.4	1350		108	18.3	18500		2600	441	8450		203	34.6
Chromium	7440-47-3	6020B	mg/Kg	0.4 (5)		158		8.6	0.75	12.2		1.8	0.16	82.3		4.6	0.4	82.9		5.1	0.44	8.4		2.2	0.19	9.1	J	51.9	4.5	233		4.1	0.35
Cobalt	7440-48-4	6020B	mg/Kg	13 (1)	23	26.5		8.6	0.64	4		1.8	0.13	25.3		4.6	0.34	23.2		5.1	0.38	5.3		2.2	0.16	3.8	U	51.9	3.8	16		4.1	0.3
Copper	7440-50-8	6020B	mg/Kg	28 (3)	3100	227		8.6	0.95	8.5		1.8	0.2	609		4.6	0.51	426		5.1	0.56	12.2		2.2	0.24	45.1	J	51.9	5.7	1430		4.1	0.45
Iron	7439-89-6	6020B	mg/Kg			90600		258	86.9	11000		54.3	18.3	167000		692	233	299000		766	258	12100		64.7	21.8	21300		1560	525	219000		610	205
Lead	7439-92-1	6020B	mg/Kg	11 (3)	400	164		2.6	0.86	3.8		0.54	0.18	958		1.4	0.46	797		1.5	0.51	5.1		0.65	0.22	59.8		15.6	5.2	2250		1.2	0.41
Magnesium	7439-95-4	6020B	mg/Kg			805		430	43.9	1630	J	90.5	9.2	360		231	23.5	460		255	26	2450		108	11	1580	J	2600	265	1510		203	20.7
Manganese	7439-96-5	6020B	mg/Kg	220 (1)	1900	597		17.2	1.7	57.2		3.6	0.36	655		9.2	0.93	897		10.2	1	152		4.3	0.43	133		104	10.5	695		8.1	0.82
Nickel	7440-02-0	6020B	mg/Kg	38 (1)	1600	163		8.6	0.83	8.9		1.8	0.18	200		4.6	0.45	93.8		5.1	0.5	9.2		2.2	0.21	12.9	J	51.9	5	119		4.1	0.39
Potassium	7440-09-7	6020B	mg/Kg			206	J	430	48.2	283		90.5	10.1	79.9	J	231	25.8	104	J	255	28.6	492		108	12.1	291	U	2600	291	552		203	22.8
Selenium	7782-49-2	6020B	mg/Kg	0.52 (1)	390	2.1	J	5.4	0.51	0.21	J	1.1	0.11	0.33	J	2.9	0.27	0.77	J	3.2	0.3	0.13	U	1.3	0.13	3.1	J	32.5	3.1	1.4	J	2.5	0.24
Silver	7440-22-4	6020B	mg/Kg	4.2 (3)	390	5.7		4.3	0.38	0.081	U	0.9	0.081	3.2		2.3	0.21	3.7		2.6	0.23	0.096	U	1.1	0.096	2.3	U	26	2.3	3		2	0.18
Sodium	7440-23-5	6020B	mg/Kg			97.2	J	430	67.1	56.6	U	90.5	14.1	60.4	U	231	36	52.1	U	255	39.8	91.3	U	108	16.8	405	U	2600	405	101	J	203	31.7
Thallium	7440-28-0	6020B	mg/Kg	1 (5)		0.18	U	1.7	0.18	0.037	U	0.36	0.037	0.14	J	0.92	0.095	0.1	U	1	0.1	0.045	J	0.43	0.044	1.1	U	10.4	1.1	0.11	J	0.81	0.083
Vanadium	7440-62-2	6020B	mg/Kg	7.8 (3)	390	66.6		8.6	0.89	25.8		1.8	0.19	12.8		4.6	0.48	14.9		5.1	0.53	18.7		2.2	0.22	30.2	J	51.9	5.3	33.7		4.1	0.42
Zinc	7440-66-6	6020B	mg/Kg	46 (3)	23000	704		34.4	9.9	18.9		7.2	2.1	1710		18.5	5.3	1360		20.4	5.8	26.9		8.6	2.5	144	J	208	59.5	2040		16.3	4.7
Mercury	7439-97-6	7471B	mg/Kg	0.00051 (5)	23	1.2		0.085	0.02	0.0047	U	0.02	0.0047	2		0.052	0.012	3.9		0.21	0.049	0.0043	J	0.017	0.0041	0.38		0.13	0.03	6.8		0.19	0.044
Cyanide, Total	57-12-5	9012B	mg/Kg	1.33 (5)	47	0.93	U	2.6	0.93	0.21	U	0.58	0.21	1.7		1.5	0.54	2.5		0.59	0.32	0.13	U	0.25	0.13	1.4	U	4	1.4	3.9		1.1	0.4

Table 5.1 - Soil: Metals and Cyanide Analytical Results

(continued)

Rolling Knolls Landfill

Sample Name				ESC's	NJAC 7:26D	DP13_3.0-4.0				DP14_0.5-5.0				DP101_0.5-5.0 (DP14_0.5-5.0 duplicate)				DP15_0.5-5.0				DP15_19.0-21.0				DP16_0.5-4.0				DP16_4.0-7.0			
Sample Date/Time						05/10/2021 12:30				05/03/2021 11:10				05/03/2021 11:10				05/03/2021 15:55				05/03/2021 15:05				05/04/2021 10:10				05/04/2021 09:55			
Latitude						40.7221319				40.7222989				40.7222989				40.7226573				40.7226573				40.7229083				40.7229083			
Longitude						-74.4453061				-74.4446187				-74.4446187				-74.4446863				-74.4446863				-74.4452270				-74.4452270			
Lab Sample Name						GS-S-DPT13-SB-3.0-4.0				GS-S-DPT14-SC-0.5-5				GS-S-DPT101-SC-0.5-5				GS-S-DPT15-SC-0.5-5				GS-S-DPT15-SB-19-21				GS-S-DPT16-SC-0.5-4				GS-S-DPT16-SB-4-7			
Lab Sample Number						460-234082-5				460-233488-5				460-233506-2				460-233506-4				460-233506-5				460-233704-2				460-233704-3			
Lab Report Number(s)						460-234082-1				460-233488-1 / 460-233488-2				460-233506-1				460-233506-1 / 460-233506-2				460-233506-1				460-233704-1				460-233704-1			
Analyte	CAS	Method	Units	Screening Criteria	(8) Soil Remediation Standards (Ing.-Derm.) - Residential	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)
Aluminum	7429-90-5	6020B	mg/Kg	50 (7)	78000	14000		418	54.4	6520		44	5.7	780		41	5.3	4860		108	14.1	12400		25.6	3.3	23000		249	32.3	17900		98	12.7
Antimony	7440-36-0	6020B	mg/Kg	0.27 (4)	31	3.1	U	20.9	3.1	11.7		2.2	0.32	2.4		2.1	0.3	1.8	J	5.4	0.79	0.19	U	1.3	0.19	30.7		12.4	1.8	7.9		4.9	0.72
Arsenic	7440-38-2	6020B	mg/Kg	18 (1)	19	7.4	J	20.9	2.1	26		2.2	0.22	10.8		2.1	0.21	11		5.4	0.54	22.1		1.3	0.13	23.2		12.4	1.2	19.7		4.9	0.49
Barium	7440-39-3	6020B	mg/Kg	330 (2)	16000	177		41.8	3	676		4.4	0.37	67.5		4.1	0.3	301		10.8	0.78	75.8		2.6	0.19	337		24.9	1.8	725		9.8	0.71
Beryllium	7440-41-7	6020B	mg/Kg	21 (4)	160	1.2	U	8.4	1.2	0.35	J	0.88	0.13	0.12	U	0.82	0.12	0.52	J	2.2	0.31	0.82		0.51	0.073	1.3	J	5	0.71	0.47	J	2	0.28
Cadmium	7440-43-9	6020B	mg/Kg	0.36 (4)	71	2.4	U	20.9	2.4	15.6		2.2	0.25	2.4		2.1	0.23	2.5	J	5.4	0.61	0.24	J	1.3	0.14	9.5	J	12.4	1.4	7.1		4.9	0.55
Calcium	7440-70-2	6020B	mg/Kg			14600		2090	356	4670		220	37.4	767		205	34.9	11500		541	91.9	5420		128	21.8	21500		1240	211	10500		490	83.3
Chromium	7440-47-3	6020B	mg/Kg	0.4 (5)		38.3	J	41.8	3.6	125		4.4	0.38	49.9		4.1	0.36	31		10.8	0.94	25.3		2.6	0.22	149		24.9	2.2	62.7		9.8	0.85
Cobalt	7440-48-4	6020B	mg/Kg	13 (1)	23	6	J	41.8	3.1	27.3		4.4	0.33	7.4		4.1	0.3	10.2	J	10.8	0.8	15.1		2.6	0.19	30.6		24.9	1.8	20.5		9.8	0.73
Copper	7440-50-8	6020B	mg/Kg	28 (3)	3100	131		41.8	4.6	1230		4.4	0.48	316		4.1	0.45	135		10.8	1.2	32.2		2.6	0.28	480		24.9	2.7	608		9.8	1.1
Iron	7439-89-6	6020B	mg/Kg			46200		1260	423	235000		659	222	82000		123	41.4	60200		324	109	35000		76.9	25.9	342000		746	251	91800		294	99
Lead	7439-92-1	6020B	mg/Kg	11 (3)	400	510		12.6	4.2	3260		1.3	0.44	2220		1.2	0.41	319		3.2	1.1	46.9		0.77	0.26	27900		74.6	24.9	835		2.9	0.98
Magnesium	7439-95-4	6020B	mg/Kg			1640	J	2090	213	595		220	22.4	104	J	205	20.9	1440		541	55.1	6820		128	13.1	6600		1240	127	2950		490	50
Manganese	7439-96-5	6020B	mg/Kg	220 (1)	1900	221		83.7	8.4	988		8.8	0.89	332		8.2	0.83	370		21.6	2.2	458		5.1	0.52	1460		49.7	5	688		19.6	2
Nickel	7440-02-0	6020B	mg/Kg	38 (1)	1600	33.9	J	41.8	4.1	125		4.4	0.43	42.8		4.1	0.4	62.3		10.8	1	27.6		2.6	0.25	91.4		24.9	2.4	90.9		9.8	0.95
Potassium	7440-09-7	6020B	mg/Kg			518	J	2090	234	142	J	220	24.6	23	U	205	23	315	J	541	60.5	1620		128	14.3	1990		1240	139	652		490	54.9
Selenium	7782-49-2	6020B	mg/Kg	0.52 (1)	390	3.6	J	26.2	2.5	0.85	J	2.7	0.26	0.24	U	2.6	0.24	2	J	6.8	0.64	0.15	U	1.6	0.15	1.9	J	15.5	1.5	0.72	J	6.1	0.58
Silver	7440-22-4	6020B	mg/Kg	4.2 (3)	390	1.9	U	20.9	1.9	39.4		11	0.98	2.2		2.1	0.18	6.4		5.4	0.48	0.23	J	1.3	0.11	3.7	J	12.4	1.1	20.5		4.9	0.44
Sodium	7440-23-5	6020B	mg/Kg			326	U	2090	326	44.6	U	220	34.3	32	U	205	32	194	U	541	84.3	216		128	20	427	U	1240	194	152	U	490	76.4
Thallium	7440-28-0	6020B	mg/Kg	1 (5)		0.86	U	8.4	0.86	0.09	U	0.88	0.09	0.084	U	0.82	0.084	0.22	U	2.2	0.22	0.12	J	0.51	0.053	0.51	U	5	0.51	0.2	U	2	0.2
Vanadium	7440-62-2	6020B	mg/Kg	7.8 (3)	390	51		41.8	4.3	34		4.4	0.45	4.7		4.1	0.42	30.9		10.8	1.1	38		2.6	0.26	65.7		24.9	2.6	51.5		9.8	1
Zinc	7440-66-6	6020B	mg/Kg	46 (3)	23000	297		167	47.9	2700		17.6	5	362		16.4	4.7	1170		43.2	12.4	77.7		10.2	2.9	1290		99.4	28.5	2310		39.2	11.2
Mercury	7439-97-6	7471B	mg/Kg	0.00051 (5)	23	1.6		0.072	0.017	7		0.37	0.086	5.6		0.19	0.044	0.8		0.092	0.022	0.033		0.022	0.0051	26.3		1.4	0.32	2.6		0.13	0.03
Cyanide, Total	57-12-5	9012B	mg/Kg	1.33 (5)	47	0.79	U	2.2	0.79	1.6		0.51	0.28	3.1		0.47	0.26	2.7		1.2	0.68	0.17	J	0.31	0.17	3.3	J	0.92	0.5	0.51	J	0.56	0.31

Table 5.1 - Soil: Metals and Cyanide Analytical Results

(continued)

Rolling Knolls Landfill

Sample Name				ESC's	NJAC 7:26D	DP17_0.5-2.0				DP17_3.5-5.0				DP102_3.5-5.0 (DP17_3.5-5.0 duplicate)				DP18_3.5-5.0				DP19_0.5-5.0				DP19_5.0-9.0				DP20_0.5-4.0			
Sample Date/Time						05/05/2021 10:45				05/05/2021 11:40				05/05/2021 11:40				05/10/2021 14:05				05/10/2021 09:00				05/10/2021 09:50				05/04/2021 13:25			
Latitude				Screening Criteria	(8) Soil Remediation Standards (Ing.-Derm.) - Residential	40.7231730				40.7231730				40.7231730				40.7226388				40.7236522				40.7236522				40.7227310			
Longitude						-74.4437270				-74.4437270				-74.4437270				-74.4459762				-74.4437257				-74.4437257				-74.4439070			
Lab Sample Name						GS-S-DPT17-SC-0.5-2				GS-S-DPT17-SB-3.5-5				GS-S-DP102-SB-3.5-5				GS-S-DPT13-SB-3.5-5.0				GS-S-DPT19-SC-0.5-5.0				GS-S-DPT19-SB-5.0-9.0				GS-S-DPT20-SC-0.5-4			
Lab Sample Number						460-233715-2				460-233715-3				460-233708-6				460-234082-6				460-234080-2				460-234080-3				460-233704-5			
Lab Report Number(s)						460-233715-1				460-233715-1				460-233708-1				460-234082-1				460-234080-1				460-234080-1				460-233704-1			
Analyte	CAS	Method	Units			Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)
Aluminum	7429-90-5	6020B	mg/Kg	50 (7)	78000	11700		279	36.2	6350		317	41.3	7320		386	50.2	9170		42.5	5.5	5400		39.3	5.1	8090		68.3	8.9	9130		100	13.1
Antimony	7440-36-0	6020B	mg/Kg	0.27 (4)	31	6.1	J	13.9	2	3.1	J	15.9	2.3	2.8	J	19.3	2.8	0.31	U	2.1	0.31	7.8		2	0.29	1.1	J	3.4	0.5	5.4		5	0.73
Arsenic	7440-38-2	6020B	mg/Kg	18 (1)	19	15.1		13.9	1.4	12.7	J	15.9	1.6	17.3	J	19.3	1.9	1.9	J	2.1	0.21	33.6	J	2	0.2	7.4	J	3.4	0.34	15.1		5	0.5
Barium	7440-39-3	6020B	mg/Kg	330 (2)	16000	489		27.9	2	985		31.7	2.3	589		38.6	2.8	62.3		4.2	0.31	479		3.9	0.28	221		6.8	0.5	617		10	0.73
Beryllium	7440-41-7	6020B	mg/Kg	21 (4)	160	0.79	U	5.6	0.79	0.9	U	6.3	0.9	1.1	U	7.7	1.1	0.56	J	0.85	0.12	0.19	J	0.79	0.11	0.51	J	1.4	0.19	0.35	J	2	0.29
Cadmium	7440-43-9	6020B	mg/Kg	0.36 (4)	71	23.9		13.9	1.6	5.3	J	15.9	1.8	5	J	19.3	2.2	0.33	J	2.1	0.24	9.1		2	0.22	4		3.4	0.39	5.8		5	0.57
Calcium	7440-70-2	6020B	mg/Kg			15200		1390	237	7910		1590	270	12100		1930	328	3500		212	36.1	18900		196	33.4	9800		342	58.1	6450		502	85.4
Chromium	7440-47-3	6020B	mg/Kg	0.4 (5)		103		27.9	2.4	56.9		31.7	2.8	72.9		38.6	3.4	19.7		4.2	0.37	52.2		3.9	0.34	36.8		6.8	0.59	46.3		10	0.87
Cobalt	7440-48-4	6020B	mg/Kg	13 (1)	23	81.9		27.9	2.1	11.5	J	31.7	2.3	15.5	J	38.6	2.9	4.3		4.2	0.31	12.1		3.9	0.29	10.1		6.8	0.51	11.8		10	0.74
Copper	7440-50-8	6020B	mg/Kg	28 (3)	3100	866		27.9	3.1	321		31.7	3.5	366		38.6	4.2	21.9		4.2	0.47	519	J	3.9	0.43	106	J	6.8	0.75	290		10	1.1
Iron	7439-89-6	6020B	mg/Kg			547000		836	282	112000		952	320	129000		1160	390	8590		127	42.9	86300		118	39.6	53200		205	69	90700		301	101
Lead	7439-92-1	6020B	mg/Kg	11 (3)	400	744		8.4	2.8	649		9.5	3.2	623		11.6	3.9	8		1.3	0.42	3370	J	1.2	0.39	162	J	2	0.68	715		3	1
Magnesium	7439-95-4	6020B	mg/Kg			1290	J	1390	142	982	J	1590	162	1290	J	1930	197	2630		212	21.7	2290		196	20	2800		342	34.8	1970		502	51.2
Manganese	7439-96-5	6020B	mg/Kg	220 (1)	1900	1690		55.8	5.6	716		63.5	6.4	729		77.2	7.8	71.6		8.5	0.86	401		7.9	0.79	296		13.7	1.4	619		20.1	2
Nickel	7440-02-0	6020B	mg/Kg	38 (1)	1600	574		27.9	2.7	75.1		31.7	3.1	83.1		38.6	3.7	11.7		4.2	0.41	41.4		3.9	0.38	32.4		6.8	0.66	82.2		10	0.97
Potassium	7440-09-7	6020B	mg/Kg			238	U	1390	156	203	U	1590	178	263	U	1930	216	641		212	23.8	192	J	196	22	563		342	38.3	543		502	56.2
Selenium	7782-49-2	6020B	mg/Kg	0.52 (1)	390	1.7	J	17.4	1.6	1.9	U	19.8	1.9	2.3	U	24.1	2.3	0.62	J	2.7	0.25	0.78	J	2.5	0.23	1.9	J	4.3	0.4	0.59	U	6.3	0.59
Silver	7440-22-4	6020B	mg/Kg	4.2 (3)	390	4.8	J	13.9	1.2	1.4	U	15.9	1.4	1.7	U	19.3	1.7	0.19	U	2.1	0.19	37.5		9.8	0.87	1.9	J	3.4	0.3	10.1		5	0.45
Sodium	7440-23-5	6020B	mg/Kg			217	U	1390	217	248	U	1590	248	301	U	1930	301	89.8	J	212	33.1	56.9	J	196	30.6	209	J	342	53.3	95.8	U	502	78.3
Thallium	7440-28-0	6020B	mg/Kg	1 (5)		0.57	U	5.6	0.57	0.65	U	6.3	0.65	0.79	U	7.7	0.79	0.087	U	0.85	0.087	0.08	U	0.79	0.08	0.14	U	1.4	0.14	0.21	U	2	0.21
Vanadium	7440-62-2	6020B	mg/Kg	7.8 (3)	390	29.7		27.9	2.9	17.4	J	31.7	3.3	25.3	J	38.6	4	36.8		4.2	0.44	105		3.9	0.4	43.7		6.8	0.7	43.6		10	1
Zinc	7440-66-6	6020B	mg/Kg	46 (3)	23000	4200		112	31.9	1300		127	36.3	962		154	44.2	36.4		17	4.9	14000		78.5	22.5	701		27.3	7.8	4150		40.2	11.5
Mercury	7439-97-6	7471B	mg/Kg	0.00051 (5)	23	5.5		1.1	0.25	3.2		1.2	0.29	3.4		1.3	0.3	0.05		0.042	0.0099	5.2		0.2	0.047	0.49	J	0.061	0.014	5		0.58	0.14
Cyanide, Total	57-12-5	9012B	mg/Kg	1.33 (5)	47	3.6		0.63	0.34	0.46	U	0.83	0.46	1.4	J	0.85	0.47	0.48	U	1.3	0.48	0.61	J	1.2	0.43	0.72	UJ	2	0.72	3.3	J	0.38	0.21

Table 5.1 - Soil: Metals and Cyanide Analytical Results

(continued)

Rolling Knolls Landfill

	Sample Name			ESC's	NJAC 7:26D	DP20_10.0-13.0				DP21_0.5-4.0				DP21_4.0-5.0				DP22_0.5-3.0				DP102_0.5-3.0 (DP22_0.5-3.0 duplicate)				DP22_3.0-5.0				DP23_0.5-2.5			
	Sample Date/Time					05/04/2021 13:00				05/07/2021 11:05				05/07/2021 11:50				05/04/2021 11:35				05/04/2021 11:35				05/04/2021 11:00				05/10/2021 16:05			
	Latitude					40.7227310				40.7238344				40.7238344				40.7234467				40.7234467				40.7234467				40.7234761			
	Longitude					-74.4439070				-74.4456550				-74.4456550				-74.4453029				-74.4453029				-74.4453029				-74.4461556			
	Lab Sample Name					GS-S-DPT-20-SB-10-13				GS-S-DPT21-SC-0.5-4				GS-S-DPT21-SB-4-5				GS-S-DPT22-SC-0.5-3				GS-S-DPT102-SC-0.5-3				GS-S-DPT22-SB-3-5				GS-S-DPT23-SC-0.5-2.5			
	Lab Sample Number					460-233704-6				460-233940-6				460-233940-7				460-233706-2				460-233704-7				460-233706-3				460-234080-5			
	Lab Report Number(s)			Screening Criteria	(8) Soil Remediation Standards (Ing.-Derm.) - Residential	460-233704-1				460-233940-1				460-233940-1				460-233706-1				460-233704-1				460-233706-1				460-234080-1			
Analyte	CAS	Method	Units			Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)
Aluminum	7429-90-5	6020B	mg/Kg	50 (7)	78000	7340		120	15.6	3500		68.6	8.9	8430		61.4	8	5220		47.9	6.2	9340		40.7	5.3	4530		23.5	3.1	6060		87.4	11.4
Antimony	7440-36-0	6020B	mg/Kg	0.27 (4)	31	0.87	U	6	0.87	3.5		3.4	0.5	5.1		3.1	0.45	4.1		2.4	0.35	4.6		2	0.3	0.17	U	1.2	0.17	3.4	J	4.4	0.64
Arsenic	7440-38-2	6020B	mg/Kg	18 (1)	19	4.3	J	6	0.6	9.7		3.4	0.34	18.1		3.1	0.31	9.3		2.4	0.24	10		2	0.2	1.3		1.2	0.12	12.2	J	4.4	0.44
Barium	7440-39-3	6020B	mg/Kg	330 (2)	16000	182		12	0.87	326		6.9	0.5	447		6.1	0.45	136		4.8	0.35	114		4.1	0.3	45.3		2.3	0.17	285		8.7	0.63
Beryllium	7440-41-7	6020B	mg/Kg	21 (4)	160	0.61	J	2.4	0.34	0.2	U	1.4	0.2	0.29	J	1.2	0.17	0.35	J	0.96	0.14	0.58	J	0.81	0.12	0.42	J	0.47	0.067	0.42	J	1.7	0.25
Cadmium	7440-43-9	6020B	mg/Kg	0.36 (4)	71	1.6	J	6	0.68	3.2	J	3.4	0.39	4.6		3.1	0.35	2.7		2.4	0.27	1.8	J	2	0.23	0.15	J	1.2	0.13	4.3	J	4.4	0.49
Calcium	7440-70-2	6020B	mg/Kg			6630		599	102	6220	J	343	58.4	13600	J	307	52.2	8930		240	40.7	5360		204	34.6	3980		117	19.9	17700		437	74.3
Chromium	7440-47-3	6020B	mg/Kg	0.4 (5)		16.7		12	1	75.8	J	6.9	0.6	164	J	6.1	0.53	52.8		4.8	0.42	44.7		4.1	0.35	8.4		2.3	0.2	64.9		8.7	0.76
Cobalt	7440-48-4	6020B	mg/Kg	13 (1)	23	3.8	J	12	0.89	8.8		6.9	0.51	12.3		6.1	0.45	9.6		4.8	0.35	28.1		4.1	0.3	0.94	J	2.3	0.17	12.1		8.7	0.65
Copper	7440-50-8	6020B	mg/Kg	28 (3)	3100	35		12	1.3	177		6.9	0.76	400		6.1	0.68	224		4.8	0.53	182		4.1	0.45	14.3		2.3	0.26	189	J	8.7	0.96
Iron	7439-89-6	6020B	mg/Kg			13700		360	121	88000	J	206	69.3	99100	J	184	62	54400		144	48.4	55200		122	41.1	3860		70.4	23.7	135000		262	88.3
Lead	7439-92-1	6020B	mg/Kg	11 (3)	400	16.5		3.6	1.2	1310		2.1	0.69	511		1.8	0.61	399		1.4	0.48	185		1.2	0.41	4.9		0.7	0.23	1250	J	2.6	0.87
Magnesium	7439-95-4	6020B	mg/Kg			2020		599	61.1	436		343	35	843		307	31.3	709		240	24.4	1810		204	20.8	683		117	12	1240		437	44.6
Manganese	7439-96-5	6020B	mg/Kg	220 (1)	1900	159		24	2.4	400		13.7	1.4	512		12.3	1.2	180		9.6	0.97	185		8.1	0.82	33.7		4.7	0.47	471		17.5	1.8
Nickel	7440-02-0	6020B	mg/Kg	38 (1)	1600	12		12	1.2	43	J	6.9	0.67	64.6	J	6.1	0.6	32.3		4.8	0.46	40		4.1	0.39	4.9		2.3	0.23	45.7		8.7	0.85
Potassium	7440-09-7	6020B	mg/Kg			587	J	599	67.1	89.8	J	343	38.4	174	J	307	34.4	256		240	26.8	522		204	22.8	242		117	13.1	211	J	437	49
Selenium	7782-49-2	6020B	mg/Kg	0.52 (1)	390	0.89	J	7.5	0.71	0.88	J	4.3	0.41	1.4	J	3.8	0.36	1.2	J	3	0.28	0.6	J	2.5	0.24	0.6	J	1.5	0.14	2.2	J	5.5	0.52
Silver	7440-22-4	6020B	mg/Kg	4.2 (3)	390	0.53	U	6	0.53	2.2	J	3.4	0.31	2.3	J	3.1	0.27	1.7	J	2.4	0.21	0.87	J	2	0.18	0.1	U	1.2	0.1	2.6	J	4.4	0.39
Sodium	7440-23-5	6020B	mg/Kg			255	U	599	93.5	60.7	U	343	53.5	244	U	307	47.9	84	U	240	37.4	98.9	U	204	31.8	64	U	117	18.3	105	J	437	68.2
Thallium	7440-28-0	6020B	mg/Kg	1 (5)		0.25	U	2.4	0.25	0.14	U	1.4	0.14	0.13	U	1.2	0.13	0.098	U	0.96	0.098	0.13	J	0.81	0.083	0.053	J	0.47	0.048	0.18	U	1.7	0.18
Vanadium	7440-62-2	6020B	mg/Kg	7.8 (3)	390	36.2		12	1.2	9		6.9	0.71	15.1		6.1	0.63	21.3		4.8	0.49	30.1		4.1	0.42	20.3		2.3	0.24	37.7		8.7	0.9
Zinc	7440-66-6	6020B	mg/Kg	46 (3)	23000	82.1		47.9	13.7	1010		27.5	7.9	1250		24.6	7	530		19.2	5.5	230		16.3	4.7	5	J	9.4	2.7	1470		35	10
Mercury	7439-97-6	7471B	mg/Kg	0.00051 (5)	23	0.025	U	0.11	0.025	6.2		0.56	0.13	1.4		0.051	0.012	0.84		0.041	0.0096	0.52		0.034	0.0081	0.0096	J	0.021	0.005	2		0.077	0.018
Cyanide, Total	57-12-5	9012B	mg/Kg	1.33 (5)	47	0.75	U	1.4	0.75	1.6	J	1.8	0.65	0.73	J	1.6	0.58	0.41	J	0.55	0.3	0.53	J	0.49	0.27	0.15	U	0.27	0.15	0.86	UJ	2.4	0.86

Table 5.1 - Soil: Metals and Cyanide Analytical Results

(continued)

Rolling Knolls Landfill

Sample Name				ESC's	NJAC 7:26D	DP23_2.5-3.0				DP24_0.5-2.5				DP24_2.5-3.0				DP25_1.0-1.5				DP26_0.5-3.5				DP26_3.5-4.0				DP27_0.5-3.0			
Sample Date/Time						05/10/2021 16:20				05/14/2021 10:10				05/14/2021 10:15				05/06/2021 15:20				05/07/2021 08:45				05/07/2021 09:00				05/05/2021 14:00			
Latitude				Screening Criteria	(8) Soil Remediation Standards (Ing.-Derm.) - Residential	40.7234761				40.7234047				40.7234047				40.7234932				40.7240722				40.7240722				40.7231759			
Longitude						-74.4461556				-74.4467553				-74.4467553				-74.4473376				-74.4463803				-74.4463803				-74.4437423			
Lab Sample Name						GS-S-DPT23-SB-2.5-3.0				GS-S-DPT24-SC-0.5-2.5				GS-S-DPT24-SB-2.5-3.0				GS-S-DPT25-SB-1-1.5				GS-S-DPT26-SC-0.5-3.5				GS-S-DPT26-SB-3.5-4				GS-S-DPT27-SC-0.5-3			
Lab Sample Number						460-234080-6				460-234442-2				460-234442-3				460-233899-6				460-233940-2				460-233940-3				460-233708-5			
Lab Report Number(s)						460-234080-1				460-234442-1				460-234442-1				460-233899-1				460-233940-1				460-233940-1				460-233708-1 / 460-233708-2			
Analyte	CAS	Method	Units			Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)
Aluminum	7429-90-5	6020B	mg/Kg	50 (7)	78000	12400		40.5	5.3	5310		57.4	7.5	7070		21.1	2.7	12400		31.5	4.1	9640		83.1	10.3	9460		42.3	5.5	4510		107	13.9
Antimony	7440-36-0	6020B	mg/Kg	0.27 (4)	31	0.3	U	2	0.3	1.1	J	2.9	0.42	0.15	U	1.1	0.15	0.55	J	1.6	0.23	3.9	J	4.2	0.61	0.59	J	2.1	0.31	33.9		5.4	0.78
Arsenic	7440-38-2	6020B	mg/Kg	18 (1)	19	2.2	J	2	0.2	5.6		2.9	0.29	0.86	J	1.1	0.11	5.6		1.6	0.16	20.8		4.2	0.42	4.4		2.1	0.21	52.9		5.4	0.54
Barium	7440-39-3	6020B	mg/Kg	330 (2)	16000	80.1		4	0.29	141		5.7	0.47	49		2.1	0.15	94.3		3.2	0.23	931		8.3	0.6	200		4.2	0.31	239		10.7	0.78
Beryllium	7440-41-7	6020B	mg/Kg	21 (4)	160	0.55	J	0.81	0.12	0.4	J	1.1	0.16	0.41	J	0.42	0.06	0.44	J	0.63	0.09	0.55	J	1.7	0.24	0.94		0.85	0.12	0.31	U	2.1	0.31
Cadmium	7440-43-9	6020B	mg/Kg	0.36 (4)	71	0.4	J	2	0.23	2.2	J	2.9	0.37	0.12	U	1.1	0.12	2.5		1.6	0.18	5		4.2	0.47	0.93	J	2.1	0.24	42.2		5.4	0.61
Calcium	7440-70-2	6020B	mg/Kg			3810		202	34.4	6190		287	48.8	1760		106	17.9	2470		158	26.8	9790	J	415	70.6	7700	J	211	35.9	3800		536	91.1
Chromium	7440-47-3	6020B	mg/Kg	0.4 (5)		24.3		4	0.35	22.4		5.7	0.5	11.4		2.1	0.18	155		3.2	0.27	142	J	8.3	0.72	33.3	J	4.2	0.37	2480		10.7	0.93
Cobalt	7440-48-4	6020B	mg/Kg	13 (1)	23	3.7	J	4	0.3	4.5	J	5.7	0.43	2.7		2.1	0.16	6.2		3.2	0.23	21.5		8.3	0.61	4.8		4.2	0.31	61.8		10.7	0.79
Copper	7440-50-8	6020B	mg/Kg	28 (3)	3100	24.5	J	4	0.45	247		5.7	0.63	9.9		2.1	0.23	80.7		3.2	0.35	772		8.3	0.91	101		4.2	0.47	12800		32.1	3.5
Iron	7439-89-6	6020B	mg/Kg			9220		121	40.9	29200		172	58	5760		63.3	21.3	28000		94.5	31.8	109000	J	249	83.9	22400	J	127	42.7	250000		321	108
Lead	7439-92-1	6020B	mg/Kg	11 (3)	400	15.4	J	1.2	0.4	396		1.7	0.57	8.8		0.63	0.21	140		0.95	0.32	812		2.5	0.83	187		1.3	0.42	11300		9.6	3.2
Magnesium	7439-95-4	6020B	mg/Kg			2680		202	20.6	455		287	29.3	1060		106	10.8	1290		158	16.1	1560		415	42.4	1910		211	21.6	446	J	536	54.6
Manganese	7439-96-5	6020B	mg/Kg	220 (1)	1900	84.8		8.1	0.82	82.8		11.5	1.2	29.4		4.2	0.43	197		6.3	0.63	687		16.6	1.7	167		8.5	0.85	1440		21.4	2.2
Nickel	7440-02-0	6020B	mg/Kg	38 (1)	1600	13.3		4	0.39	41.7		5.7	0.56	7		2.1	0.2	23.6		3.2	0.31	117	J	8.3	0.81	23	J	4.2	0.41	1580		10.7	1
Potassium	7440-09-7	6020B	mg/Kg			710		202	22.7	278	J	287	32.2	249		106	11.8	366		158	17.6	503		415	46.5	767		211	23.7	114	U	536	60
Selenium	7782-49-2	6020B	mg/Kg	0.52 (1)	390	0.74	J	2.5	0.24	0.97	J	3.6	0.34	0.18	J	1.3	0.12	0.65	J	2	0.19	1.3	J	5.2	0.49	1.8	J	2.6	0.25	0.82	J	6.7	0.63
Silver	7440-22-4	6020B	mg/Kg	4.2 (3)	390	0.18	U	2	0.18	0.7	J	2.9	0.26	0.094	U	1.1	0.094	0.34	J	1.6	0.14	4.3		4.2	0.37	0.47	J	2.1	0.19	101		16.1	1.4
Sodium	7440-23-5	6020B	mg/Kg			90.4	J	202	31.6	184	J	287	44.8	70.6	J	106	16.5	64.6	J	158	24.6	157	U	415	64.8	459		211	33	83.6	U	536	83.6
Thallium	7440-28-0	6020B	mg/Kg	1 (5)		0.083	U	0.81	0.083	0.13	J	1.1	0.12	0.056	J	0.42	0.043	0.12	J	0.63	0.065	0.17	U	1.7	0.17	0.087	U	0.85	0.087	0.22	U	2.1	0.22
Vanadium	7440-62-2	6020B	mg/Kg	7.8 (3)	390	40.9		4	0.42	27.2		5.7	0.59	24.4		2.1	0.22	32.4		3.2	0.32	161		8.3	0.86	51.9		4.2	0.44	50.6		10.7	1.1
Zinc	7440-66-6	6020B	mg/Kg	46 (3)	23000	34.8		16.2	4.6	628		23	6.6	13.6		8.4	2.4	443		12.6	3.6	1510		33.2	9.5	151		16.9	4.8	6930		42.9	12.3
Mercury	7439-97-6	7471B	mg/Kg	0.00051 (5)	23	0.048		0.037	0.0088	1.3		0.054	0.013	0.015	J	0.021	0.0049	0.28		0.027	0.0063	12.5		0.76	0.18	0.88		0.039	0.0092	11.4		0.6	0.14
Cyanide, Total	57-12-5	9012B	mg/Kg	1.33 (5)	47	0.43	UJ	1.2	0.43	0.69	J	1.6	0.59	0.21	U	0.59	0.21	0.28	U	0.79	0.28	3.6	J	1.2	0.43	0.67	J	1.2	0.44	3.6	J	0.43	0.23

Table 5.1 - Soil: Metals and Cyanide Analytical Results

(continued)

Rolling Knolls Landfill

	Sample Name			ESC's	NJAC 7:26D	DP27_8.0-10.0				DP28_0.5-5.0				DP28_5.0-8.0				DP29_0.5-2.0				DP29_7.0-10.0				DP30_0.5-3.0				DP30_7.5-8.0			
	Sample Date/Time					05/06/2021 10:15				05/05/2021 09:10				05/05/2021 08:40				05/06/2021 12:00				05/06/2021 12:45				05/13/2021 15:40				05/13/2021 16:20			
	Latitude					40.7231759				40.7240805				40.7240805				40.7248365				40.7248365				40.7266724				40.7266724			
	Longitude					-74.4437423				-74.4443078				-74.4443078				-74.4434245				-74.4434245				-74.4405011				-74.4405011			
	Lab Sample Name					GS-S-DPT27-SB-8-10				GS-S-DPT28-SC-0.5-5				GS-S-DPT28-SB-5-8				GS-S-DPT29-SC-0.5-2				GS-S-DPT29-SB-7-10				GS-S-DPT30-SC-0.5-3.0				GS-S-DPT30-SO-7.5-8.0			
	Lab Sample Number					460-233899-1				460-233708-2				460-233708-3				460-233899-3				460-233899-4				460-234436-5				460-234436-6			
	Lab Report Number(s)					460-233899-1 / 460-233899-2				460-233708-1				460-233708-1				460-233899-1				460-233899-1				460-234436-1				460-234436-1			
Analyte	CAS	Method	Units	Screening Criteria	(8) Soil Remediation Standards (Ing.-Derm.) - Residential	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)
Aluminum	7429-90-5	6020B	mg/Kg	50 (7)	78000	4400		22.1	2.9	8890		305	39.6	7030		22.6	2.9	6570		60.2	7.8	6750		126	16.4	39400		189	24.5	4230		64.9	8.4
Antimony	7440-36-0	6020B	mg/Kg	0.27 (4)	31	0.16	U	1.1	0.16	2.7	J	15.2	2.2	0.17	U	1.1	0.17	4.7		3	0.44	2.5	J	6.3	0.92	4.9		1.9	0.28	2	J	3.2	0.47
Arsenic	7440-38-2	6020B	mg/Kg	18 (1)	19	2.7		1.1	0.11	12.4	J	15.2	1.5	2.4		1.1	0.11	10.7		3	0.3	10		6.3	0.63	16.8		1.9	0.19	7.3		3.2	0.32
Barium	7440-39-3	6020B	mg/Kg	330 (2)	16000	21.3		2.2	0.16	672		30.5	2.7	35.3		2.3	0.16	534		6	0.44	165		12.6	0.92	297		3.8	0.27	101		6.5	0.47
Beryllium	7440-41-7	6020B	mg/Kg	21 (4)	160	0.28	J	0.44	0.063	0.87	U	6.1	0.87	0.42	J	0.45	0.065	0.27	J	1.2	0.17	0.68	J	2.5	0.36	0.37	J	0.76	0.11	0.51	J	1.3	0.18
Cadmium	7440-43-9	6020B	mg/Kg	0.36 (4)	71	0.13	U	1.1	0.13	7.1	J	15.2	1.7	0.31	J	1.1	0.13	20.9		3	0.34	1.9	J	6.3	0.71	26		1.9	0.21	1.6	J	3.2	0.37
Calcium	7440-70-2	6020B	mg/Kg			1130		111	18.8	9200		1520	259	1360		113	19.2	11700		301	51.2	17600		631	107	7370		189	32.1	9330		324	55.2
Chromium	7440-47-3	6020B	mg/Kg	0.4 (5)		9		2.2	0.19	47.6		30.5	2.7	14.4		2.3	0.2	104		6	0.52	47.3		12.6	1.1	270		3.8	0.33	20		6.5	0.56
Cobalt	7440-48-4	6020B	mg/Kg	13 (1)	23	4.5		2.2	0.16	7.5	J	30.5	2.3	8		2.3	0.17	37.1		6	0.45	7	J	12.6	0.93	23.1		3.8	0.28	1.8	J	6.5	0.48
Copper	7440-50-8	6020B	mg/Kg	28 (3)	3100	14.1		2.2	0.24	421		30.5	3.4	20.7		2.3	0.25	3630		6	0.66	135		12.6	1.4	1970		3.8	0.42	67		6.5	0.71
Iron	7439-89-6	6020B	mg/Kg			9740		66.4	22.4	91000		914	308	14200		67.9	22.9	87800		181	60.8	47200		379	127	161000		566	191	12400		195	65.5
Lead	7439-92-1	6020B	mg/Kg	11 (3)	400	3.7		0.66	0.22	615		9.1	3	10.2		0.68	0.23	976		1.8	0.6	188		3.8	1.3	458		1.1	0.38	102		1.9	0.65
Magnesium	7439-95-4	6020B	mg/Kg			1950		111	11.3	759	J	1520	155	2690		113	11.5	813		301	30.7	2760		631	64.4	23500		189	19.3	1620		324	33.1
Manganese	7439-96-5	6020B	mg/Kg	220 (1)	1900	63.4		4.4	0.45	796		61	6.1	86.6		4.5	0.46	1190		12	1.2	356		25.2	2.5	487		7.6	0.76	98.6		13	1.3
Nickel	7440-02-0	6020B	mg/Kg	38 (1)	1600	8.9		2.2	0.21	45.9		30.5	3	14.7		2.3	0.22	90.1		6	0.58	35.1		12.6	1.2	398		3.8	0.37	17.4		6.5	0.63
Potassium	7440-09-7	6020B	mg/Kg			492		111	12.4	458	U	1520	171	676		113	12.7	230	J	301	33.7	639		631	70.7	66.7	J	189	21.1	347		324	36.3
Selenium	7782-49-2	6020B	mg/Kg	0.52 (1)	390	0.13	U	1.4	0.13	4.2	J	19	1.8	0.15	J	1.4	0.13	1.8	J	3.8	0.36	3.1	J	7.9	0.74	1.1	J	2.4	0.22	3.3	J	4.1	0.38
Silver	7440-22-4	6020B	mg/Kg	4.2 (3)	390	0.099	U	1.1	0.099	6.5	J	15.2	1.4	0.1	U	1.1	0.1	11.5		3	0.27	1.1	J	6.3	0.56	17.5		1.9	0.17	0.78	J	3.2	0.29
Sodium	7440-23-5	6020B	mg/Kg			101	J	111	17.3	238	U	1520	238	152		113	17.7	140	J	301	47	637		631	98.5	42.9	U	189	29.4	214	U	324	50.6
Thallium	7440-28-0	6020B	mg/Kg	1 (5)		0.045	U	0.44	0.045	0.62	U	6.1	0.62	0.053	J	0.45	0.046	0.12	U	1.2	0.12	0.26	U	2.5	0.26	0.077	U	0.76	0.077	0.13	U	1.3	0.13
Vanadium	7440-62-2	6020B	mg/Kg	7.8 (3)	390	16.9		2.2	0.23	17.9	J	30.5	3.1	26.5		2.3	0.23	15		6	0.62	37.6		12.6	1.3	16.5		3.8	0.39	17.8		6.5	0.67
Zinc	7440-66-6	6020B	mg/Kg	46 (3)	23000	20.9		8.9	2.5	1690		122	34.9	46.1		9.1	2.6	2200		24.1	6.9	310		50.5	14.5	3280		15.1	4.3	133		26	7.4
Mercury	7439-97-6	7471B	mg/Kg	0.00051 (5)	23	0.0089	J	0.019	0.0044	5		0.51	0.12	0.09		0.019	0.0045	36.4		20.9	4.9	1.2		0.11	0.023	10.6		0.57	0.13	0.83		0.063	0.015
Cyanide, Total	57-12-5	9012B	mg/Kg	1.33 (5)	47	0.2	U	0.57	0.2	1.9	J	0.68	0.37	0.14	U	0.26	0.14	19.1		1.6	0.58	1.1	U	3.2	1.1	1.8		1.1	0.4	1.1	J	2	0.73

Table 5.1 - Soil: Metals and Cyanide Analytical Results (continued)

Rolling Knolls Landfill

	Sample Name			ESC's	NJAC 7:26D	DP30_8.0-9.0				DP31_0.5-5.0			
	Sample Date/Time					05/13/2021 16:20				05/14/2021 09:10			
	Latitude			Screening Criteria	(8) Soil Remediation Standards (Ing.-Derm.) - Residential	40.7266724				40.7237372			
	Longitude					-74.4405011				-74.4477876			
	Lab Sample Name					GS-N-DPT30-SB-8.0-9.0				GS-S-DPT31-SC-0.5-5.0			
	Lab Sample Number					460-234436-7				460-234442-5			
	Lab Report Number(s)					460-234436-1				460-234442-1			
Analyte	CAS	Method	Units			Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)
Aluminum	7429-90-5	6020B	mg/Kg	50 (7)	78000	4800		71.5	9.3	9830		22.5	2.9
Antimony	7440-36-0	6020B	mg/Kg	0.27 (4)	31	6.3		3.6	0.52	0.16	U	1.1	0.16
Arsenic	7440-38-2	6020B	mg/Kg	18 (1)	19	13.4		3.6	0.36	7		1.1	0.11
Barium	7440-39-3	6020B	mg/Kg	330 (2)	16000	212		7.2	0.52	32.1		2.3	0.16
Beryllium	7440-41-7	6020B	mg/Kg	21 (4)	160	0.41	J	1.4	0.2	0.42	J	0.45	0.064
Cadmium	7440-43-9	6020B	mg/Kg	0.36 (4)	71	20.6		3.6	0.4	0.13	U	1.1	0.13
Calcium	7440-70-2	6020B	mg/Kg			7110		358	60.8	624		113	19.1
Chromium	7440-47-3	6020B	mg/Kg	0.4 (5)		185		7.2	0.62	11.9		2.3	0.2
Cobalt	7440-48-4	6020B	mg/Kg	13 (1)	23	7.6		7.2	0.53	3.1		2.3	0.17
Copper	7440-50-8	6020B	mg/Kg	28 (3)	3100	427		7.2	0.79	7.7		2.3	0.25
Iron	7439-89-6	6020B	mg/Kg			61300		215	72.2	22900		67.5	22.7
Lead	7439-92-1	6020B	mg/Kg	11 (3)	400	776		2.1	0.72	20.5		0.68	0.23
Magnesium	7439-95-4	6020B	mg/Kg			2210		358	36.5	1030		113	11.5
Manganese	7439-96-5	6020B	mg/Kg	220 (1)	1900	245		14.3	1.4	50.4		4.5	0.45
Nickel	7440-02-0	6020B	mg/Kg	38 (1)	1600	123		7.2	0.69	6		2.3	0.22
Potassium	7440-09-7	6020B	mg/Kg			205	J	358	40.1	242		113	12.6
Selenium	7782-49-2	6020B	mg/Kg	0.52 (1)	390	2.7	J	4.5	0.42	0.51	J	1.4	0.13
Silver	7440-22-4	6020B	mg/Kg	4.2 (3)	390	7.2		3.6	0.32	0.1	U	1.1	0.1
Sodium	7440-23-5	6020B	mg/Kg			489		358	55.8	324		113	17.6
Thallium	7440-28-0	6020B	mg/Kg	1 (5)		0.15	U	1.4	0.15	0.078	J	0.45	0.046
Vanadium	7440-62-2	6020B	mg/Kg	7.8 (3)	390	18.8		7.2	0.74	27		2.3	0.23
Zinc	7440-66-6	6020B	mg/Kg	46 (3)	23000	1060		28.6	8.2	24.7		9	2.6
Mercury	7439-97-6	7471B	mg/Kg	0.00051 (5)	23	6.1		0.29	0.068	0.05		0.021	0.0048
Cyanide, Total	57-12-5	9012B	mg/Kg	1.33 (5)	47	3.7		1.8	0.66	0.22	U	0.61	0.22

Table 5.2 - Soil: Volatile Organic Compounds (VOCs) Analytical Results

Rolling Knolls Landfill

Sample Name				ESC's	NJAC 7:26D	SS01				SS100 (SS01 duplicate)				SS02				SS03				SS04				SS05				SS06			
Sample Date/Time						05/11/2021 08:35				05/11/2021 12:00				05/11/2021 10:10				05/11/2021 13:45				04/29/2021 10:20				04/29/2021 16:20				05/13/2021 09:00			
Latitude						40.7297321				40.7297321				40.7303542				40.7288473				40.7304704				40.7300494				40.729803			
Longitude				Screening Criteria	(8) Soil Remediation Standards (Ing.-Derm.) - Residential	-74.4419101				-74.4419101				-74.4418002				-74.441059				-74.4414832				-74.4418444				-74.441428			
Lab Sample Name						GS-N-SS01				GS-N-SS100				GS-N-SS02				GS-N-SS03				GS-N-SS04				GS-N-SS05				GS-N-SS06			
Lab Sample Number						460-234161-1				460-234161-9				460-234186-1				460-234161-3				460-233312-1				460-233312-4				460-234436-1			
Lab Report Number(s)						460-234161-1 / 460-234161-2				460-234161-1				460-234186-1				460-234161-1				460-233312-1				460-233312-1				460-234436-1			
Analyte	CAS	Method	Units			Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)
1,1,1,2-Tetrachloroethane	630-20-6	8260D	µg/Kg	225000 (6)		0.4 U		2.1	0.4	0.39 U		2.1	0.39	0.26 UJ		1.4	0.26	0.25 U		1.3	0.25	1.7 U		1.7	0.33	1.9 U		1.9	0.35	0.44 U		2.3	0.44
1,1,1-Trichloroethane	71-55-6	8260D	µg/Kg	29800 (5)	160000000	0.49 U		2.1	0.49	0.48 U		2.1	0.48	0.32 UJ		1.4	0.32	0.31 U		1.3	0.31	1.7 U		1.7	0.41	1.9 U		1.9	0.43	0.54 U		2.3	0.54
1,1,2,2-Tetrachloroethane	79-34-5	8260D	µg/Kg	127 (5)	3500	0.45 U		2.1	0.45	0.44 U		2.1	0.44	0.3 UJ		1.4	0.3	0.29 U		1.3	0.29	1.7 U		1.7	0.37	1.9 U		1.9	0.4	0.49 U		2.3	0.49
1,1,2-Trichloro-1,2,2-trifluoroethane	76-13-1	8260D	µg/Kg			0.63 U		2.1	0.63	0.62 U		2.1	0.62	0.42 U		1.4	0.42	0.4 U		1.3	0.4	1.7 U		1.7	0.52	1.9 U		1.9	0.56	0.69 UJ		2.3	0.69
1,1,2-Trichloroethane	79-00-5	8260D	µg/Kg	28600 (5)	12000	0.37 U		2.1	0.37	0.37 U		2.1	0.37	0.25 UJ		1.4	0.25	0.24 U		1.3	0.24	1.7 U		1.7	0.33	1.9 U		1.9	0.33	0.41 U		2.3	0.41
1,1-Dichloroethane	75-34-3	8260D	µg/Kg	20100 (6)	120000	0.43 U		2.1	0.43	0.43 U		2.1	0.43	0.28 UJ		1.4	0.28	0.28 U		1.3	0.28	1.7 U		1.7	0.36	1.9 U		1.9	0.38	0.47 U		2.3	0.47
1,1-Dichloroethene	75-35-4	8260D	µg/Kg	8280 (5)	11000	0.47 U		2.1	0.47	0.46 U		2.1	0.46	0.31 U		1.4	0.31	0.3 U		1.3	0.3	1.7 U		1.7	0.39	1.9 U		1.9	0.42	0.52 U		2.3	0.52
1,2,3-Trichlorobenzene	87-61-6	8260D	µg/Kg	20000 (5)		0.38 U		2.1	0.38	0.37 U		2.1	0.37	0.25 UJ		1.4	0.25	0.24 U		1.3	0.24	1.7 U		1.7	0.32	1.9 U		1.9	0.34	0.42 U		2.3	0.42
1,2,4-Trichlorobenzene	120-82-1	8260D	µg/Kg	20000 (5)	780000	0.75 U		2.1	0.75	0.74 U		2.1	0.74	0.49 UJ		1.4	0.49	0.48 U		1.3	0.48	1.7 U		1.7	0.62	1.9 U		1.9	0.66	0.82 U		2.3	0.82
1,2-Dibromo-3-Chloropropane	96-12-8	8260D	µg/Kg	35.2 (6)	870	0.97 U		2.1	0.97	0.95 U		2.1	0.95	0.64 UJ		1.4	0.64	0.62 U		1.3	0.62	1.7 UJ		1.7	0.8	1.9 UJ		1.9	0.85	1.1 U		2.3	1.1
1,2-Dichlorobenzene	95-50-1	8260D	µg/Kg	2960 (5)	6700000	0.76 U		2.1	0.76	0.74 U		2.1	0.74	0.5 UJ		1.4	0.5	0.48 U		1.3	0.48	1.7 U		1.7	0.63	1.9 U		1.9	0.67	0.83 U		2.3	0.83
1,2-Dichloroethane	107-06-2	8260D	µg/Kg	21200 (5)	5800	0.62 U		2.1	0.62	0.61 U		2.1	0.61	0.41 UJ		1.4	0.41	0.4 U		1.3	0.4	1.7 U		1.7	0.52	1.9 U		1.9	0.55	0.68 U		2.3	0.68
1,2-Dichloropropane	78-87-5	8260D	µg/Kg	32700 (5)	19000	0.89 U		2.1	0.89	0.87 U		2.1	0.87	0.58 UJ		1.4	0.58	0.57 U		1.3	0.57	1.7 U		1.7	0.74	1.9 U		1.9	0.78	0.97 U		2.3	0.97
1,3-Dichlorobenzene	541-73-1	8260D	µg/Kg	37700 (5)	6700000	0.77 U		2.1	0.77	0.75 U		2.1	0.75	0.5 UJ		1.4	0.5	0.49 U		1.3	0.49	1.7 U		1.7	0.64	1.9 U		1.9	0.68	0.84 U		2.3	0.84
1,4-Dichlorobenzene	106-46-7	8260D	µg/Kg	546 (5)	780000	0.47 U		2.1	0.47	0.46 U		2.1	0.46	0.31 UJ		1.4	0.31	0.3 U		1.3	0.3	1.7 U		1.7	0.39	1.9 U		1.9	0.42	0.52 U		2.3	0.52
2-Butanone (MEK)	78-93-3	8260D	µg/Kg	350000 (7)	47000000	0.77 U		11	0.77	0.76 U		10	0.76	7 J		6.9	0.51	0.49 U		6.7	0.49	22		8.7	0.64	9.3 U		9.3	0.68	0.85 U		11	0.85
2-Hexanone	591-78-6	8260D	µg/Kg	12600 (6)	390000	3.6 U		11	3.6	3.5 U		10	3.5	2.4 UJ		6.9	2.4	2.3 U		6.7	2.3	8.7 U		8.7	3	9.3 U		9.3	3.2	3.9 U		11	3.9
2-Methyl-2-propanol	75-65-0	8260D	µg/Kg		1400000	16 U		21	16	16 U		21	16	11 U		14	11	11 U		13	11	**17** U		17	14	**19** U		19	15	18 U		23	18
4-Methyl-2-pentanone (MIBK)	108-10-1	8260D	µg/Kg	443000 (6)		3.3 U		11	3.3	3.2 U		10	3.2	2.1 UJ		6.9	2.1	2.1 U		6.7	2.1	8.7 U		8.7	2.7	9.3 U		9.3	2.9	3.6 U		11	3.6
Acetone	67-64-1	8260D	µg/Kg	1200 (7)	70000000	12 J		13	12	12 U		12	12	170 J		8.3	7.9	8.4		8	7.7	91		10	10	30		11	11	22		14	13
Benzene	71-43-2	8260D	µg/Kg	255 (5)	3000	0.54 U		2.1	0.54	0.53 U		2.1	0.53	0.36 UJ		1.4	0.36	0.35 U		1.3	0.35	1.7 U		1.7	0.45	1.9 U		1.9	0.48	0.59 U		2.3	0.59
Bromoform	75-25-2	8260D	µg/Kg	15900 (5)	88000	0.89 U		2.1	0.89	0.88 U		2.1	0.88	0.59 UJ		1.4	0.59	0.57 U		1.3	0.57	1.7 UJ		1.7	0.74	1.9 UJ		1.9	0.79	0.98 U		2.3	0.98
Bromomethane	74-83-9	8260D	µg/Kg	235 (5)	110000	2.1 UJ		4.2	2.1	2.1 UJ		4.1	2.1	1.4 U		2.8	1.4	1.3 UJ		2.7	1.3	3.5 U		3.5	1.7	3.7 U		3.7	1.9	2.3 UJ		4.6	2.3
Carbon disulfide	75-15-0	8260D	µg/Kg	810 (7)		0.56 U		2.1	0.56	0.55 U		2.1	0.55	0.37 U		1.4	0.37	0.36 U		1.3	0.36	1.7 U		1.7	0.46	1.9 U		1.9	0.49	0.61 U		2.3	0.61
Carbon tetrachloride	56-23-5	8260D	µg/Kg	2980 (5)	7600	0.81 U		2.1	0.81	0.8 U		2.1	0.8	0.53 UJ		1.4	0.53	0.52 U		1.3	0.52	1.7 U		1.7	0.67	1.9 U		1.9	0.72	0.89 U		2.3	0.89
Chlorobenzene	108-90-7	8260D	µg/Kg	13100 (5)	510000	0.37 U		2.1	0.37	0.37 U		2.1	0.37	0.24 UJ		1.4	0.24	0.24 U		1.3	0.24	0.89 J		1.7	0.33	1.9 U		1.9	0.33	0.41 U		2.3	0.41
Chlorobromomethane	74-97-5	8260D	µg/Kg			0.59 U		2.1	0.59	0.58 U		2.1	0.58	0.39 U		1.4	0.39	0.38 U		1.3	0.38	1.7 U		1.7	0.49	1.9 U		1.9	0.52	0.65 U		2.3	0.65
Chlorodibromomethane	124-48-1	8260D	µg/Kg	2050 (5)	8300	0.41 U		2.1	0.41	0.4 U		2.1	0.4	0.27 U		1.4	0.27	0.26 U		1.3	0.26	1.7 UJ		1.7	0.34	1.9 UJ		1.9	0.36	0.45 U		2.3	0.45
Chloroethane	75-00-3	8260D	µg/Kg			1.1 U		2.1	1.1	1.1 U		2.1	1.1	0.72 U		1.4	0.72	0.7 U		1.3	0.7	1.7 U		1.7	0.91	1.9 U		1.9	0.97	1.2 U		2.3	1.2
Chloroform	67-66-3	8260D	µg/Kg	1190 (5)	780000	2 U		2.1	2	2 U		2.1	2	1.3 UJ		1.4	1.3	1.3 U		1.3	1.3	1.7 U		1.7	1.7	1.9 U		1.9	1.8	2.2 U		2.3	2.2
Chloromethane	74-87-3	8260D	µg/Kg			0.91 U		2.1	0.91	0.9 U		2.1	0.9	0.6 U		1.4	0.6	0.58 U		1.3	0.58	1.7 U		1.7	0.76	1.9 U		1.9	0.81	1 U		2.3	1
cis-1,2-Dichloroethene	156-59-2	8260D	µg/Kg	89600 (7)	780000	0.75 U		2.1	0.75	0.74 U		2.1	0.74	0.49 UJ		1.4	0.49	0.48 U		1.3	0.48	1.7 U		1.7	0.62	1.9 U		1.9	0.66	0.82 U		2.3	0.82
cis-1,3-Dichloropropene	10061-01-5	8260D	µg/Kg	398 (6)		0.57 U		2.1	0.57	0.56 U		2.1	0.56	0.38 UJ		1.4	0.38	0.37 U		1.3	0.37	1.7 U		1.7	0.48	1.9 U		1.9	0.51	0.63 U		2.3	0.63
Cyclohexane	110-82-7	8260D	µg/Kg			0.46 U		2.1	0.46	0.46 U		2.1	0.46	0.31 UJ		1.4	0.31	0.3 U		1.3	0.3	1.7 U		1.7	0.38	1.9 U		1.9	0.41	0.51 UJ		2.3	0.51
Dichlorobromomethane	75-27-4	8260D	µg/Kg	540 (5)	11000	0.54 U		2.1	0.54	0.53 U		2.1	0.53	0.35 UJ		1.4	0.35	0.34 U		1.3	0.34	1.7 U		1.7	0.45	1.9 U		1.9	0.48	0.59 U		2.3	0.59
Dichlorodifluoromethane	75-71-8	8260D	µg/Kg	39500 (6)	16000000	0.71 U		2.1	0.71	0.7 U		2.1	0.7	0.47 U		1.4	0.47	0.45 U		1.3	0.45	1.7 U		1.7	0.59	1.9 U		1.9	0.63	0.78 U		2.3	0.78
Ethylbenzene	100-41-4	8260D	µg/Kg	5160 (5)	7800000	0.42 U		2.1	0.42	0.41 U		2.1	0.41	0.27 UJ		1.4	0.27	0.27 U		1.3	0.27	1.7 U		1.7	0.35	1.9 U		1.9	0.37	0.46 U		2.3	0.46
Ethylene Dibromide	106-93-4	8260D	µg/Kg		350	0.38 U		2.1	0.38	0.37 U		2.1	0.37	0.25 UJ		1.4	0.25	0.24 U		1.3	0.24	1.7 U		1.7	0.31	1.9 U		1.9	0.33	0.41 U		2.3	0.41
Isopropylbenzene	98-82-8	8260D	µg/Kg		7800000	0.6 U		2.1	0.6	0.59 U		2.1	0.59	0.39 UJ		1.4	0.39	0.38 U		1.3	0.38	1.7 U		1.7	0.5	1.9 U		1.9	0.53	0.65 U		2.3	0.65
Methyl acetate	79-20-9	8260D	µg/Kg		78000000	9 U		11	9	8.9 U		10	8.9	5.9 U		6.9	5.9	5.8 U		6.7	5.8	8.7 U		8.7	7.5	9.3 U		9.3	8	9.9 U		11	9.9
Methyl tert-butyl ether	1634-04-4	8260D	µg/Kg		780000	1.1 U		2.1	1.1	1.1 U		2.1	1.1	0.71 U		1.4	0.71	0.69 U		1.3	0.69	1.7 U		1.7	0.89	1.9 U		1.9	0.95	1.2 U		2.3	1.2
Methylcyclohexane	108-87-2	8260D	µg/Kg			1 U		2.1	1	1 U		2.1	1	0.69 UJ		1.4	0.69	0.67 U		1.3	0.67	1.7 U		1.7	0.87	1.9 U		1.9	0.92	1.1 UJ		2.3	1.1
Methylene Chloride	75-09-2	8260D	µg/Kg	4050 (5)	50000	2.4 U		4.2	2.4	2.4 U		4.1	2.4	1.6 U		2.8	1.6	1.5 U		2.7	1.5	3.5 U		3.5	2	3.7 U		3.7	2.1	2.6 U		4.6	2.6
m-Xylene & p-Xylene	179601-23-1	8260D	µg/Kg	4162 (7)	12000000	0.37 U		2.1	0.37	0.36 U		2.1	0.36	0.24 UJ		1.4	0.24	0.23 U		1.3	0.23	1.7 U		1.7	0.3	1.9 U		1.9	0.32	0.4 U		2.3	0.4
o-Xylene	95-47-6	8260D	µg/Kg	4162 (7)	12000000	0.41 U		2.1	0.41	0.4 U		2.1	0.4	0.27 UJ		1.4	0.27	0.26 U		1.3	0.26	1.7 U		1.7	0.34	1.9 U		1.9	0.36	0.45 U		2.3	0.45
Styrene	100-42-5	8260D	µg/Kg	4690 (5)	16000000	0.58 U		2.1	0.58	0.57 U		2.1	0.57	0.38 UJ		1.4	0.38	0.37 U		1.3	0.37	1.7 U		1.7	0.48	1.9 U		1.9	0.51	0.64 U		2.3	0.64
Tetrachloroethene	127-18-4	8260D	µg/Kg	9920 (5)	330000	0.64 U		2.1	0.64	0.63 U		2.1	0.63	0.42 UJ		1.4	0.42	0.41 U		1.3	0.41	1.7 U		1.7	0.53	1.9 U		1.9	0.56	0.7 U		2.3	0.7
Toluene	108-88-3	8260D	µg/Kg	200000 (5)	6300000	0.49 U		2.1	0.49	0.48 U		2.1	0.48	0.32 UJ		1.4	0.32	0.31 U		1.3	0.31	3.5		1.7	0.41	1.9 U		1.9	0.43	0.54 U		2.3	0.54
trans-1,2-Dichloroethene	156-60-5	8260D	µg/Kg	784 (5)	1300000	0.52 U		2.1	0.52	0.51 U		2.1	0.51	0.34 UJ		1.4	0.34	0.33 U		1.3	0.33	1.7 U		1.7	0.43	1.9 U		1.9	0.46	0.56 U		2.3	0.56
trans-1,3-Dichloropropene	10061-02-6	8260D	µg/Kg	398 (6)		0.56 U		2.1	0.56	0.55 U		2.1	0.55	0.37 UJ		1.4	0.37	0.36 U		1.3	0.36	1.7 U		1.7	0.46	1.9 U		1.9	0.49	0.61 U		2.3	0.61
Trichloroethene	79-01-6	8260D	µg/Kg	12400 (5)	15000	0.67 U		2.1	0.67	0.66 U		2.1	0.66	0.44 UJ		1.4	0.44	0.43 U		1.3	0.43	1.7 U		1.7	0.56	1.9 U		1.9	0.59	0.74 U		2.3	0.74
Trichlorofluoromethane	75-69-4	8260D	µg/Kg	52000 (7)	23000000	0.85 U		2.1	0.85	0.84 U		2.1	0.84	0.56 UJ		1.4	0.56	0.54 U		1.3	0.54	1.7 U		1.7	0.71	1.9 U		1.9	0.75	0.93 U		2.3	0.93
Vinyl chloride	75-01-4	8260D	µg/Kg	646 (5)	970	1.1 U		2.1	1.1	1.1 U		2.1	1.1	0.75 U		1.4	0.75	0.73 U		1.3	0.73	1.7 U		1.7	0.95	1.9 U		1.9		1.3 U		2.3	1.3

Table 5.2 - Soil: Volatile Organic Compounds (VOCs) Analytical Results

(continued)

Rolling Knolls Landfill

Sample Name				ESC's	NJAC 7:26D	SS07				SS08				SS09				SS10				SS11				SS12				SS13			
Sample Date/Time						05/13/2021 12:55				05/11/2021 12:30				05/13/2021 11:10				05/13/2021 14:10				05/03/2021 10:00				05/10/2021 10:45				05/10/2021 12:10			
Latitude				Screening Criteria	(8) Soil Remediation Standards (Ing.-Derm.) - Residential	40.7293038				40.72928382				40.7285174				40.7272947				40.7220743				40.7218276				40.7221319			
Longitude						-74.4416064				-74.44108891				-74.4407729				-74.440092				-74.4442957				-74.4445596				-74.4453061			
Lab Sample Name						GS-N-SS07				GS-N-SS08				GS-N-SS09				GS-N-SS10				GS-S-SS11				GS-S-SS12				GS-S-SS13			
Lab Sample Number						460-234435-1				460-234161-6				460-234435-4				460-234436-9				460-233488-1				460-234082-1				460-234082-3			
Lab Report Number(s)						460-234435-1				460-234161-1				460-234435-1				460-234436-1				460-233488-1				460-234082-1				460-234082-1 / 460-234082-2			
Analyte	CAS	Method	Units			Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)
1,1,1,2-Tetrachloroethane	630-20-6	8260D	µg/Kg	225000 (6)		0.32	U	1.7	0.32	0.54	U	2.9	0.54	0.4	U	2.1	0.4	0.54	U	2.8	0.54	0.69	UJ	3.6	0.69	1.4	U	7.1	1.4	0.42	U	2.2	0.42
1,1,1-Trichloroethane	71-55-6	8260D	µg/Kg	29800 (5)	160000000	0.39	U	1.7	0.39	0.67	U	2.9	0.67	0.49	U	2.1	0.49	0.66	U	2.8	0.66	0.85	U	3.6	0.85	1.7	U	7.1	1.7	0.51	U	2.2	0.51
1,1,2,2-Tetrachloroethane	79-34-5	8260D	µg/Kg	127 (5)	3500	0.36	UJ	1.7	0.36	0.61	U	2.9	0.61	0.45	U	2.1	0.45	0.61	U	2.8	0.61	0.78	U	3.6	0.78	1.5	UJ	7.1	1.5	0.47	U	2.2	0.47
1,1,2-Trichloro-1,2,2-trifluoroethane	76-13-1	8260D	µg/Kg			0.5	U	1.7	0.5	0.86	U	2.9	0.86	0.64	U	2.1	0.64	0.85	UJ	2.8	0.85	1.1	U	3.6	1.1	2.1	U	7.1	2.1	0.66	U	2.2	0.66
1,1,2-Trichloroethane	79-00-5	8260D	µg/Kg	28600 (5)	12000	0.3	U	1.7	0.3	0.51	U	2.9	0.51	0.38	U	2.1	0.38	0.5	U	2.8	0.5	0.65	U	3.6	0.65	1.3	U	7.1	1.3	0.39	U	2.2	0.39
1,1-Dichloroethane	75-34-3	8260D	µg/Kg	20100 (6)	120000	0.34	U	1.7	0.34	0.59	U	2.9	0.59	0.43	U	2.1	0.43	0.58	U	2.8	0.58	0.75	U	3.6	0.75	1.5	U	7.1	1.5	0.45	U	2.2	0.45
1,1-Dichloroethene	75-35-4	8260D	µg/Kg	8280 (5)	11000	0.37	U	1.7	0.37	0.64	U	2.9	0.64	0.47	U	2.1	0.47	0.64	U	2.8	0.64	0.82	U	3.6	0.82	1.6	U	7.1	1.6	0.5	U	2.2	0.5
1,2,3-Trichlorobenzene	87-61-6	8260D	µg/Kg	20000 (5)		0.3	UJ	1.7	0.3	0.52	U	2.9	0.52	0.38	U	2.1	0.38	0.51	U	2.8	0.51	0.66	U	3.6	0.66	1.3	UJ	7.1	1.3	0.4	U	2.2	0.4
1,2,4-Trichlorobenzene	120-82-1	8260D	µg/Kg	20000 (5)	780000	0.6	UJ	1.7	0.6	1	U	2.9	1	0.76	U	2.1	0.76	1	U	2.8	1	1.3	U	3.6	1.3	2.6	UJ	7.1	2.6	0.79	U	2.2	0.79
1,2-Dibromo-3-Chloropropane	96-12-8	8260D	µg/Kg	35.2 (6)	870	0.77	UJ	1.7	0.77	1.3	U	2.9	1.3	0.97	U	2.1	0.97	1.3	U	2.8	1.3	1.7	UJ	3.6	1.7	3.3	UJ	7.1	3.3	1	U	2.2	1
1,2-Dichlorobenzene	95-50-1	8260D	µg/Kg	2960 (5)	6700000	0.6	UJ	1.7	0.6	1	U	2.9	1	0.76	U	2.1	0.76	1	U	2.8	1	1.3	U	3.6	1.3	2.6	UJ	7.1	2.6	0.8	U	2.2	0.8
1,2-Dichloroethane	107-06-2	8260D	µg/Kg	21200 (5)	5800	0.49	U	1.7	0.49	0.85	U	2.9	0.85	0.62	U	2.1	0.62	0.84	U	2.8	0.84	1.1	U	3.6	1.1	2.1	U	7.1	2.1	0.65	U	2.2	0.65
1,2-Dichloropropane	78-87-5	8260D	µg/Kg	32700 (5)	19000	0.7	U	1.7	0.7	1.2	U	2.9	1.2	0.89	U	2.1	0.89	1.2	U	2.8	1.2	1.5	U	3.6	1.5	3	U	7.1	3	0.93	U	2.2	0.93
1,3-Dichlorobenzene	541-73-1	8260D	µg/Kg	37700 (5)	6700000	0.61	UJ	1.7	0.61	1	U	2.9	1	0.77	U	2.1	0.77	1	U	2.8	1	1.3	U	3.6	1.3	2.6	UJ	7.1	2.6	0.8	U	2.2	0.8
1,4-Dichlorobenzene	106-46-7	8260D	µg/Kg	546 (5)	780000	0.37	UJ	1.7	0.37	1.2	J	2.9	0.64	2.3	J	2.1	0.47	1.7	J	2.8	0.64	0.82	U	3.6	0.82	1.6	UJ	7.1	1.6	0.5	U	2.2	0.5
2-Butanone (MEK)	78-93-3	8260D	µg/Kg	350000 (7)	47000000	74	J	8.3	0.61	1.1	U	14	1.1	61	J	11	0.78	13	J	14	1	50		18	1.3	230		36	2.6	21		11	0.81
2-Hexanone	591-78-6	8260D	µg/Kg	12600 (6)	390000	2.9	U	8.3	2.9	4.9	U	14	4.9	3.6	U	11	3.6	4.8	U	14	4.8	6.2	U	18	6.2	12	U	36	12	3.8	U	11	3.8
2-Methyl-2-propanol	75-65-0	8260D	µg/Kg		1400000	13	U	17	13	22	U	29	22	17	U	21	17	22	U	28	22	28	U	36	28	56	U	71	56	17	U	22	17
4-Methyl-2-pentanone (MIBK)	108-10-1	8260D	µg/Kg	443000 (6)		2.6	U	8.3	2.6	4.5	U	14	4.5	3.3	U	11	3.3	4.4	U	14	4.4	5.6	U	18	5.6	11	U	36	11	3.4	U	11	3.4
Acetone	67-64-1	8260D	µg/Kg	1200 (7)	70000000	720	J	10	9.5	30		17	16	180	J	13	12	130		17	16	190		22	21	930		43	41	400		13	13
Benzene	71-43-2	8260D	µg/Kg	255 (5)	3000	0.43	U	1.7	0.43	0.74	U	2.9	0.74	0.54	U	2.1	0.54	0.73	U	2.8	0.73	0.94	U	3.6	0.94	1.8	U	7.1	1.8	0.57	U	2.2	0.57
Bromoform	75-25-2	8260D	µg/Kg	15900 (5)	88000	0.71	U	1.7	0.71	1.2	U	2.9	1.2	0.9	U	2.1	0.9	1.2	U	2.8	1.2	1.5	UJ	3.6	1.5	3	U	7.1	3	0.94	U	2.2	0.94
Bromomethane	74-83-9	8260D	µg/Kg	235 (5)	110000	1.7	U	3.3	1.7	2.9	UJ	5.7	2.9	2.1	U	4.2	2.1	2.8	UJ	5.7	2.8	3.6	U	7.3	3.6	7.1	UJ	14	7.1	2.2	UJ	4.4	2.2
Carbon disulfide	75-15-0	8260D	µg/Kg	810 (7)		0.44	U	1.7	0.44	0.76	U	2.9	0.76	0.57	J	2.1	0.56	0.75	U	2.8	0.75	0.97	U	3.6	0.97	2.5	J	7.1	1.9	0.59	U	2.2	0.59
Carbon tetrachloride	56-23-5	8260D	µg/Kg	2980 (5)	7600	0.64	U	1.7	0.64	1.1	U	2.9	1.1	0.82	U	2.1	0.82	1.1	U	2.8	1.1	1.4	UJ	3.6	1.4	2.8	U	7.1	2.8	0.85	U	2.2	0.85
Chlorobenzene	108-90-7	8260D	µg/Kg	13100 (5)	510000	0.29	U	1.7	0.29	0.51	U	2.9	0.51	0.37	U	2.1	0.37	2.4	J	2.8	0.5	0.64	U	3.6	0.64	1.3	U	7.1	1.3	0.39	U	2.2	0.39
Chlorobromomethane	74-97-5	8260D	µg/Kg			0.47	U	1.7	0.47	0.8	U	2.9	0.8	0.59	U	2.1	0.59	0.8	U	2.8	0.8	1	U	3.6	1	2	U	7.1	2	0.62	U	2.2	0.62
Chlorodibromomethane	124-48-1	8260D	µg/Kg	2050 (5)	8300	0.32	U	1.7	0.32	0.56	U	2.9	0.56	0.41	U	2.1	0.41	0.55	U	2.8	0.55	0.7	UJ	3.6	0.7	1.4	U	7.1	1.4	0.43	U	2.2	0.43
Chloroethane	75-00-3	8260D	µg/Kg			0.87	U	1.7	0.87	1.5	U	2.9	1.5	1.1	U	2.1	1.1	1.5	U	2.8	1.5	1.9	U	3.6	1.9	3.7	U	7.1	3.7	1.2	U	2.2	1.2
Chloroform	67-66-3	8260D	µg/Kg	1190 (5)	780000	1.6	U	1.7	1.6	2.8	U	2.9	2.8	2	U	2.1	2	2.7	U	2.8	2.7	3.5	U	3.6	3.5	6.9	U	7.1	6.9	2.1	U	2.2	2.1
Chloromethane	74-87-3	8260D	µg/Kg			0.72	U	1.7	0.72	1.2	U	2.9	1.2	0.92	U	2.1	0.92	1.2	U	2.8	1.2	1.6	U	3.6	1.6	3.1	U	7.1	3.1	0.96	U	2.2	0.96
cis-1,2-Dichloroethene	156-59-2	8260D	µg/Kg	89600 (7)	780000	0.6	U	1.7	0.6	1	U	2.9	1	0.76	U	2.1	0.76	1	U	2.8	1	1.3	U	3.6	1.3	2.6	U	7.1	2.6	0.79	U	2.2	0.79
cis-1,3-Dichloropropene	10061-01-5	8260D	µg/Kg	398 (6)		0.45	U	1.7	0.45	0.78	U	2.9	0.78	0.58	U	2.1	0.58	0.77	U	2.8	0.77	0.99	UJ	3.6	0.99	1.9	U	7.1	1.9	0.6	U	2.2	0.6
Cyclohexane	110-82-7	8260D	µg/Kg			0.37	U	1.7	0.37	0.63	U	2.9	0.63	0.47	U	2.1	0.47	0.63	UJ	2.8	0.63	0.8	U	3.6	0.8	1.6	U	7.1	1.6	0.49	U	2.2	0.49
Dichlorobromomethane	75-27-4	8260D	µg/Kg	540 (5)	11000	0.43	U	1.7	0.43	0.74	U	2.9	0.74	0.54	U	2.1	0.54	0.73	U	2.8	0.73	0.93	UJ	3.6	0.93	1.8	U	7.1	1.8	0.57	U	2.2	0.57
Dichlorodifluoromethane	75-71-8	8260D	µg/Kg	39500 (6)	16000000	0.56	UJ	1.7	0.56	0.97	U	2.9	0.97	0.71	UJ	2.1	0.71	0.96	U	2.8	0.96	1.2	U	3.6	1.2	2.4	U	7.1	2.4	0.74	U	2.2	0.74
Ethylbenzene	100-41-4	8260D	µg/Kg	5160 (5)	7800000	0.33	U	1.7	0.33	0.57	U	2.9	0.57	0.42	U	2.1	0.42	0.56	U	2.8	0.56	0.72	U	3.6	0.72	1.4	U	7.1	1.4	0.44	U	2.2	0.44
Ethylene Dibromide	106-93-4	8260D	µg/Kg		350	0.3	U	1.7	0.3	0.52	U	2.9	0.52	0.38	U	2.1	0.38	0.51	U	2.8	0.51	0.65	U	3.6	0.65	1.3	U	7.1	1.3	0.4	U	2.2	0.4
Isopropylbenzene	98-82-8	8260D	µg/Kg		7800000	0.47	U	1.7	0.47	0.82	U	2.9	0.82	0.6	U	2.1	0.6	0.81	U	2.8	0.81	1	U	3.6	1	2	U	7.1	2	0.63	U	2.2	0.63
Methyl acetate	79-20-9	8260D	µg/Kg		78000000	7.2	U	8.3	7.2	12	U	14	12	9.1	U	11	9.1	12	U	14	12	16	U	18	16	31	U	36	31	9.5	U	11	9.5
Methyl tert-butyl ether	1634-04-4	8260D	µg/Kg		780000	0.85	U	1.7	0.85	1.5	U	2.9	1.5	1.1	U	2.1	1.1	1.4	U	2.8	1.4	1.9	U	3.6	1.9	3.6	U	7.1	3.6	1.1	U	2.2	1.1
Methylcyclohexane	108-87-2	8260D	µg/Kg			0.83	U	1.7	0.83	1.4	U	2.9	1.4	1.1	U	2.1	1.1	1.4	UJ	2.8	1.4	1.8	U	3.6	1.8	3.6	U	7.1	3.6	1.1	U	2.2	1.1
Methylene Chloride	75-09-2	8260D	µg/Kg	4050 (5)	50000	1.9	U	3.3	1.9	3.3	U	5.7	3.3	2.4	U	4.2	2.4	3.2	U	5.7	3.2	5	U	7.3	4.2	8.2	U	14	8.2	2.5	U	4.4	2.5
m-Xylene & p-Xylene	179601-23-1	8260D	µg/Kg	4162 (7)	12000000	0.29	U	1.7	0.29	0.5	U	2.9	0.5	0.37	U	2.1	0.37	0.49	U	2.8	0.49	0.63	U	3.6	0.63	1.2	U	7.1	1.2	0.38	U	2.2	0.38
o-Xylene	95-47-6	8260D	µg/Kg	4162 (7)	12000000	0.32	U	1.7	0.32	0.56	U	2.9	0.56	0.41	U	2.1	0.41	0.55	U	2.8	0.55	0.7	U	3.6	0.7	1.4	U	7.1	1.4	0.43	U	2.2	0.43
Styrene	100-42-5	8260D	µg/Kg	4690 (5)	16000000	0.46	U	1.7	0.46	0.8	U	2.9	0.8	0.59	U	2.1	0.59	0.79	U	2.8	0.79	1	U	3.6	1	2	U	7.1	2	0.61	U	2.2	0.61
Tetrachloroethene	127-18-4	8260D	µg/Kg	9920 (5)	330000	0.63	J	1.7	0.51	0.87	U	2.9	0.87	0.64	U	2.1	0.64	0.86	U	2.8	0.86	1.1	U	3.6	1.1	2.2	U	7.1	2.2	0.67	U	2.2	0.67
Toluene	108-88-3	8260D	µg/Kg	200000 (5)	6300000	0.39	U	1.7	0.39	0.67	U	2.9	0.67	0.82	J	2.1	0.49	0.66	U	2.8	0.66	1.4	J	3.6	0.85	2.8	J	7.1	1.7	0.52	U	2.2	0.52
trans-1,2-Dichloroethene	156-60-5	8260D	µg/Kg	784 (5)	1300000	0.41	U	1.7	0.41	0.7	U	2.9	0.7	0.52	U	2.1	0.52	0.7	U	2.8	0.7	0.89	U	3.6	0.89	1.8	U	7.1	1.8	0.54	U	2.2	0.54
trans-1,3-Dichloropropene	10061-02-6	8260D	µg/Kg	398 (6)		0.44	U	1.7	0.44	0.76	U	2.9	0.76	0.56	U	2.1	0.56	0.75	U	2.8	0.75	0.97	UJ	3.6	0.97	1.9	U	7.1	1.9	0.59	U	2.2	0.59
Trichloroethene	79-01-6	8260D	µg/Kg	12400 (5)	15000	0.53	U	1.7	0.53	0.92	U	2.9	0.92	0.68	U	2.1	0.68	0.91	U	2.8	0.91	1.2	U	3.6	1.2	2.3	U	7.1	2.3	0.71	U	2.2	0.71
Trichlorofluoromethane	75-69-4	8260D	µg/Kg	52000 (7)	23000000	0.68	U	1.7	0.68	1.2	U	2.9	1.2	0.86	U	2.1	0.86	1.1	U	2.8	1.1	1.5	U	3.6	1.5	2.9	U	7.1	2.9	0.89	U	2.2	0.89
Vinyl chloride	75-01-4	8260D	µg/Kg	646 (5)	970	0.91	U	1.7	0.91	1.6	U	2.9	1.6	1.2	U	2.1	1.2	1.5	U	2.8	1.5	2	U	3.6	2	3.9	U	7.1	3.9	1.2	U	2.2	1.2

Table 5.2 - Soil: Volatile Organic Compounds (VOCs) Analytical Results

(continued)

Rolling Knolls Landfill

	Sample Name			ESC's	NJAC 7:26D	SS14				SS102 (SS14 duplicate)				SS15				SS16				SS17				SS18				SS19			
	Sample Date/Time					05/03/2021 10:40				05/03/2021 10:40				05/03/2021 15:30				05/04/2021 09:40				05/05/2021 10:05				05/10/2021 13:30				05/10/2021 08:30			
	Latitude					40.7222989				40.7222989				40.7226573				40.7229083				40.723173				40.7226388				40.7236522			
	Longitude					-74.4446187				-74.4446187				-74.4446863				-74.445227				-74.443727				-74.4459762				-74.4437257			
	Lab Sample Name			Screening Criteria	(8) Soil Remediation Standards (Ing.-Derm.) - Residential	GS-S-SS14				GS-S-SS102				GS-S-SS15				GS-S-SS16				GS-S-SS17				GS-S-SS18				GS-S-SS19			
	Lab Sample Number					460-233488-4				460-233506-1				460-233506-3				460-233704-1				460-233715-1				460-234084-1				460-234080-1			
	Lab Report Number(s)					460-233488-1 / 460-233488-2				460-233506-1				460-233506-1 / 460-233506-2				460-233704-1				460-233715-1				460-234084-1				460-234080-1			
Analyte	CAS	Method	Units			Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)
1,1,1,2-Tetrachloroethane	630-20-6	8260D	µg/Kg	225000 (6)		0.61	UJ	3.2	0.61	0.34	U	1.8	0.34	0.36	U	1.9	0.36	0.43	U	2.2	0.43	0.34	UJ	1.8	0.34	1.7	UJ	9.2	1.7	0.44	U	2.3	0.44
1,1,1-Trichloroethane	71-55-6	8260D	µg/Kg	29800 (5)	160000000	0.75	U	3.2	0.75	0.41	U	1.8	0.41	0.44	U	1.9	0.44	0.52	U	2.2	0.52	0.41	UJ	1.8	0.41	2.1	U	9.2	2.1	0.54	U	2.3	0.54
1,1,2,2-Tetrachloroethane	79-34-5	8260D	µg/Kg	127 (5)	3500	0.69	U	3.2	0.69	0.38	U	1.8	0.38	0.41	U	1.9	0.41	0.48	U	2.2	0.48	0.38	UJ	1.8	0.38	2	UJ	9.2	2	0.49	U	2.3	0.49
1,1,2-Trichloro-1,2,2-trifluoroethane	76-13-1	8260D	µg/Kg			0.97	U	3.2	0.97	0.53	U	1.8	0.53	0.57	U	1.9	0.57	0.67	U	2.2	0.67	0.53	UJ	1.8	0.53	2.8	U	9.2	2.8	0.69	U	2.3	0.69
1,1,2-Trichloroethane	79-00-5	8260D	µg/Kg	28600 (5)	12000	0.57	U	3.2	0.57	0.31	U	1.8	0.31	0.34	U	1.9	0.34	0.4	U	2.2	0.4	0.31	UJ	1.8	0.31	1.6	U	9.2	1.6	0.41	U	2.3	0.41
1,1-Dichloroethane	75-34-3	8260D	µg/Kg	20100 (6)	120000	0.66	U	3.2	0.66	0.36	U	1.8	0.36	0.39	U	1.9	0.39	0.46	U	2.2	0.46	0.36	UJ	1.8	0.36	1.9	U	9.2	1.9	0.48	U	2.3	0.48
1,1-Dichloroethene	75-35-4	8260D	µg/Kg	8280 (5)	11000	0.72	U	3.2	0.72	0.4	U	1.8	0.4	0.43	U	1.9	0.43	0.5	U	2.2	0.5	0.4	UJ	1.8	0.4	2.1	U	9.2	2.1	0.52	U	2.3	0.52
1,2,3-Trichlorobenzene	87-61-6	8260D	µg/Kg	20000 (5)		0.58	U	3.2	0.58	0.32	U	1.8	0.32	0.34	U	1.9	0.34	0.41	U	2.2	0.41	0.32	UJ	1.8	0.32	1.7	UJ	9.2	1.7	0.42	U	2.3	0.42
1,2,4-Trichlorobenzene	120-82-1	8260D	µg/Kg	20000 (5)	780000	1.2	U	3.2	1.2	0.63	U	1.8	0.63	0.68	U	1.9	0.68	0.8	U	2.2	0.8	0.63	UJ	1.8	0.63	3.3	UJ	9.2	3.3	0.83	U	2.3	0.83
1,2-Dibromo-3-Chloropropane	96-12-8	8260D	µg/Kg	35.2 (6)	870	1.5	UJ	3.2	1.5	0.81	U	1.8	0.81	0.87	U	1.9	0.87	1	U	2.2	1	0.81	UJ	1.8	0.81	4.2	UJ	9.2	4.2	1.1	UJ	2.3	1.1
1,2-Dichlorobenzene	95-50-1	8260D	µg/Kg	2960 (5)	6700000	1.2	U	3.2	1.2	0.64	U	1.8	0.64	0.69	U	1.9	0.69	0.81	U	2.2	0.81	0.64	UJ	1.8	0.64	3.3	UJ	9.2	3.3	0.83	U	2.3	0.83
1,2-Dichloroethane	107-06-2	8260D	µg/Kg	21200 (5)	5800	0.95	U	3.2	0.95	0.52	U	1.8	0.52	0.56	U	1.9	0.56	0.66	U	2.2	0.66	0.52	UJ	1.8	0.52	2.7	U	9.2	2.7	0.68	U	2.3	0.68
1,2-Dichloropropane	78-87-5	8260D	µg/Kg	32700 (5)	19000	1.4	U	3.2	1.4	0.75	U	1.8	0.75	0.8	U	1.9	0.8	0.95	U	2.2	0.95	0.75	UJ	1.8	0.75	3.9	U	9.2	3.9	0.98	U	2.3	0.98
1,3-Dichlorobenzene	541-73-1	8260D	µg/Kg	37700 (5)	6700000	1.2	U	3.2	1.2	0.64	U	1.8	0.64	0.69	U	1.9	0.69	0.82	U	2.2	0.82	0.65	UJ	1.8	0.65	3.3	UJ	9.2	3.3	0.84	U	2.3	0.84
1,4-Dichlorobenzene	106-46-7	8260D	µg/Kg	546 (5)	780000	0.72	U	3.2	0.72	1.4	J	1.8	0.4	0.43	U	1.9	0.43	0.5	U	2.2	0.5	0.4	UJ	1.8	0.4	23	J	9.2	2.1	0.52	U	2.3	0.52
2-Butanone (MEK)	78-93-3	8260D	µg/Kg	350000 (7)	47000000	64		16	1.2	29		8.8	0.65	5.2	J	9.5	0.7	17		11	0.82	0.65	UJ	8.8	0.65	250		46	3.4	25		12	0.85
2-Hexanone	591-78-6	8260D	µg/Kg	12600 (6)	390000	5.5	U	16	5.5	3	U	8.8	3	3.3	U	9.5	3.3	3.8	U	11	3.8	3	UJ	8.8	3	16	U	46	16	3.9	UJ	12	3.9
2-Methyl-2-propanol	75-65-0	8260D	µg/Kg		1400000	25	U	32	25	14	U	18	14	15	U	19	15	18	U	22	18	14	UJ	18	14	72	U	92	72	18	UJ	23	18
4-Methyl-2-pentanone (MIBK)	108-10-1	8260D	µg/Kg	443000 (6)		5	U	16	5	2.7	U	8.8	2.7	3	U	9.5	3	3.5	U	11	3.5	2.7	UJ	8.8	2.7	14	U	46	14	3.6	U	12	3.6
Acetone	67-64-1	8260D	µg/Kg	1200 (7)	70000000	250		19	18	170		11	10	46		11	11	82		13	13	15	J	11	10	820	J	55	52	150		14	13
Benzene	71-43-2	8260D	µg/Kg	255 (5)	3000	0.83	U	3.2	0.83	0.46	U	1.8	0.46	0.49	U	1.9	0.49	0.58	U	2.2	0.58	0.46	UJ	1.8	0.46	2.4	U	9.2	2.4	0.6	U	2.3	0.6
Bromoform	75-25-2	8260D	µg/Kg	15900 (5)	88000	1.4	UJ	3.2	1.4	0.75	U	1.8	0.75	0.81	U	1.9	0.81	0.95	U	2.2	0.95	0.75	UJ	1.8	0.75	3.9	U	9.2	3.9	0.98	UJ	2.3	0.98
Bromomethane	74-83-9	8260D	µg/Kg	235 (5)	110000	3.2	U	6.4	3.2	1.8	UJ	3.5	1.8	1.9	UJ	3.8	1.9	2.2	UJ	4.5	2.2	1.8	UJ	3.5	1.8	9.2	U	18	9.2	2.3	U	4.6	2.3
Carbon disulfide	75-15-0	8260D	µg/Kg	810 (7)		0.86	U	3.2	0.86	0.47	U	1.8	0.47	0.51	U	1.9	0.51	1.2	J	2.2	0.6	0.47	UJ	1.8	0.47	2.8	J	9.2	2.4	0.61	U	2.3	0.61
Carbon tetrachloride	56-23-5	8260D	µg/Kg	2980 (5)	7600	1.2	UJ	3.2	1.2	0.68	U	1.8	0.68	0.74	U	1.9	0.74	0.87	U	2.2	0.87	0.68	UJ	1.8	0.68	3.5	UJ	9.2	3.5	0.89	U	2.3	0.89
Chlorobenzene	108-90-7	8260D	µg/Kg	13100 (5)	510000	2.7	J	3.2	0.57	2.3		1.8	0.31	0.34	U	1.9	0.34	0.4	U	2.2	0.4	0.31	UJ	1.8	0.31	1.6	U	9.2	1.6	0.41	U	2.3	0.41
Chlorobromomethane	74-97-5	8260D	µg/Kg			0.91	U	3.2	0.91	0.5	U	1.8	0.5	0.53	U	1.9	0.53	0.63	U	2.2	0.63	0.5	UJ	1.8	0.5	2.6	U	9.2	2.6	0.65	U	2.3	0.65
Chlorodibromomethane	124-48-1	8260D	µg/Kg	2050 (5)	8300	0.62	UJ	3.2	0.62	0.34	U	1.8	0.34	0.37	U	1.9	0.37	0.43	U	2.2	0.43	0.34	UJ	1.8	0.34	1.8	U	9.2	1.8	0.45	UJ	2.3	0.45
Chloroethane	75-00-3	8260D	µg/Kg			1.7	U	3.2	1.7	0.92	U	1.8	0.92	0.99	U	1.9	0.99	1.2	U	2.2	1.2	0.92	UJ	1.8	0.92	4.8	U	9.2	4.8	1.2	U	2.3	1.2
Chloroform	67-66-3	8260D	µg/Kg	1190 (5)	780000	3.1	U	3.2	3.1	1.7	U	1.8	1.7	1.8	U	1.9	1.8	2.2	U	2.2	2.2	1.7	UJ	1.8	1.7	8.9	U	9.2	8.9	2.2	U	2.3	2.2
Chloromethane	74-87-3	8260D	µg/Kg			1.4	U	3.2	1.4	0.77	U	1.8	0.77	0.83	U	1.9	0.83	0.98	U	2.2	0.98	0.77	UJ	1.8	0.77	4	U	9.2	4	1	UJ	2.3	1
cis-1,2-Dichloroethene	156-59-2	8260D	µg/Kg	89600 (7)	780000	1.2	U	3.2	1.2	0.63	U	1.8	0.63	0.68	U	1.9	0.68	0.8	U	2.2	0.8	0.63	UJ	1.8	0.63	3.3	U	9.2	3.3	0.83	U	2.3	0.83
cis-1,3-Dichloropropene	10061-01-5	8260D	µg/Kg	398 (6)		0.88	UJ	3.2	0.88	0.48	U	1.8	0.48	0.52	U	1.9	0.52	0.61	U	2.2	0.61	0.48	UJ	1.8	0.48	2.5	U	9.2	2.5	0.63	UJ	2.3	0.63
Cyclohexane	110-82-7	8260D	µg/Kg			0.71	U	3.2	0.71	0.39	U	1.8	0.39	0.42	U	1.9	0.42	0.5	U	2.2	0.5	0.39	UJ	1.8	0.39	2	UJ	9.2	2	0.51	U	2.3	0.51
Dichlorobromomethane	75-27-4	8260D	µg/Kg	540 (5)	11000	0.83	UJ	3.2	0.83	0.45	U	1.8	0.45	0.49	U	1.9	0.49	0.58	U	2.2	0.58	0.45	UJ	1.8	0.45	2.4	UJ	9.2	2.4	0.59	U	2.3	0.59
Dichlorodifluoromethane	75-71-8	8260D	µg/Kg	39500 (6)	16000000	1.1	U	3.2	1.1	0.6	U	1.8	0.6	0.64	U	1.9	0.64	0.76	U	2.2	0.76	0.6	UJ	1.8	0.6	3.1	UJ	9.2	3.1	0.78	U	2.3	0.78
Ethylbenzene	100-41-4	8260D	µg/Kg	5160 (5)	7800000	0.64	U	3.2	0.64	0.4	J	1.8	0.35	0.38	U	1.9	0.38	0.45	U	2.2	0.45	0.35	UJ	1.8	0.35	1.8	U	9.2	1.8	0.46	U	2.3	0.46
Ethylene Dibromide	106-93-4	8260D	µg/Kg		350	0.58	U	3.2	0.58	0.32	U	1.8	0.32	0.34	U	1.9	0.34	0.4	U	2.2	0.4	0.32	UJ	1.8	0.32	1.6	UJ	9.2	1.6	0.42	U	2.3	0.42
Isopropylbenzene	98-82-8	8260D	µg/Kg		7800000	0.92	U	3.2	0.92	0.5	U	1.8	0.5	0.54	U	1.9	0.54	0.64	U	2.2	0.64	0.5	UJ	1.8	0.5	2.6	UJ	9.2	2.6	0.66	U	2.3	0.66
Methyl acetate	79-20-9	8260D	µg/Kg		78000000	14	U	16	14	7.6	U	8.8	7.6	8.2	U	9.5	8.2	9.6	UJ	11	9.6	7.6	UJ	8.8	7.6	39	UJ	46	39	9.9	U	12	9.9
Methyl tert-butyl ether	1634-04-4	8260D	µg/Kg		780000	1.6	U	3.2	1.6	0.9	U	1.8	0.9	0.97	U	1.9	0.97	1.1	U	2.2	1.1	0.91	UJ	1.8	0.91	4.7	U	9.2	4.7	1.2	U	2.3	1.2
Methylcyclohexane	108-87-2	8260D	µg/Kg			1.6	U	3.2	1.6	1.1	J	1.8	0.88	0.95	U	1.9	0.95	1.1	U	2.2	1.1	0.88	UJ	1.8	0.88	4.6	UJ	9.2	4.6	1.2	U	2.3	1.2
Methylene Chloride	75-09-2	8260D	µg/Kg	4050 (5)	50000	3.7	U	6.4	3.7	2	U	3.5	2	2.2	U	3.8	2.2	2.6	U	4.5	2.6	2	UJ	3.5	2	10	U	18	10	2.6	U	4.6	2.6
m-Xylene & p-Xylene	179601-23-1	8260D	µg/Kg	4162 (7)	12000000	0.56	U	3.2	0.56	0.31	U	1.8	0.31	0.33	U	1.9	0.33	0.39	U	2.2	0.39	0.31	UJ	1.8	0.31	3.4	UJ	9.2	1.6	0.4	U	2.3	0.4
o-Xylene	95-47-6	8260D	µg/Kg	4162 (7)	12000000	0.62	U	3.2	0.62	0.34	U	1.8	0.34	0.37	U	1.9	0.37	0.43	U	2.2	0.43	0.34	UJ	1.8	0.34	1.9	UJ	9.2	1.8	0.45	U	2.3	0.45
Styrene	100-42-5	8260D	µg/Kg	4690 (5)	16000000	0.9	U	3.2	0.9	0.49	U	1.8	0.49	0.53	U	1.9	0.53	0.62	U	2.2	0.62	0.49	UJ	1.8	0.49	2.5	UJ	9.2	2.5	0.64	U	2.3	0.64
Tetrachloroethene	127-18-4	8260D	µg/Kg	9920 (5)	330000	0.98	U	3.2	0.98	0.54	U	1.8	0.54	0.58	U	1.9	0.58	0.68	U	2.2	0.68	0.54	UJ	1.8	0.54	2.8	UJ	9.2	2.8	0.7	U	2.3	0.7
Toluene	108-88-3	8260D	µg/Kg	200000 (5)	6300000	0.92	J	3.2	0.75	0.97	J	1.8	0.41	0.44	U	1.9	0.44	6		2.2	0.52	0.41	UJ	1.8	0.41	2.1	U	9.2	2.1	0.54	U	2.3	0.54
trans-1,2-Dichloroethene	156-60-5	8260D	µg/Kg	784 (5)	1300000	0.79	U	3.2	0.79	0.43	U	1.8	0.43	0.47	U	1.9	0.47	0.55	U	2.2	0.55	0.44	UJ	1.8	0.44	2.3	U	9.2	2.3	0.57	U	2.3	0.57
trans-1,3-Dichloropropene	10061-02-6	8260D	µg/Kg	398 (6)		0.86	UJ	3.2	0.86	0.47	U	1.8	0.47	0.51	U	1.9	0.51	0.6	U	2.2	0.6	0.47	UJ	1.8	0.47	2.4	U	9.2	2.4	0.61	UJ	2.3	0.61
Trichloroethene	79-01-6	8260D	µg/Kg	12400 (5)	15000	1	U	3.2	1	0.57	U	1.8	0.57	0.61	U	1.9	0.61	0.78	J	2.2	0.72	0.57	UJ	1.8	0.57	2.9	UJ	9.2	2.9	0.74	U	2.3	0.74
Trichlorofluoromethane	75-69-4	8260D	µg/Kg	52000 (7)	23000000	1.3	U	3.2	1.3	0.72	U	1.8	0.72	0.77	U	1.9	0.77	0.91	U	2.2	0.91	0.72	UJ	1.8	0.72	3.7	UJ	9.2	3.7	0.94	U	2.3	0.94
Vinyl chloride	75-01-4	8260D	µg/Kg	646 (5)	970	1.8	U	3.2	1.8	0.96	U	1.8	0.96	1	U	1.9	1	1.2	U	2.2	1.2	0.97	UJ	1.8	0.97	5	U	9.2	5	1.3	U	2.3	1.3

Table 5.2 - Soil: Volatile Organic Compounds (VOCs) Analytical Results

(continued)

Rolling Knolls Landfill

Sample Name				ESC's	NJAC 7:26D	SS20				SS21				SS101 (SS21 duplicate)				SS22				SS23				SS24				SS25			
Sample Date/Time						05/04/2021 12:45				05/07/2021 10:30				05/07/2021 10:30				05/04/2021 10:55				05/10/2021 15:40				05/14/2021 10:00				05/06/2021 14:55			
Latitude						40.722731				40.7238344				40.7238344				40.7234467				40.7234761				40.7234047				40.7234932			
Longitude				Screening Criteria	(8) Soil Remediation Standards (Ing.-Derm.) - Residential	-74.443907				-74.445655				-74.445655				-74.4453029				-74.4461556				-74.4467553				-74.4473376			
Lab Sample Name						GS-S-SS20				GS-S-SS21				GS-S-SS101				GS-S-SS22				GS-S-SS23				GS-S-SS24				GS-S-SS25			
Lab Sample Number						460-233704-4				460-233940-4				460-233940-5				460-233706-1				460-234080-4				460-234442-1				460-233899-5			
Lab Report Number(s)						460-233704-1				460-233940-1				460-233940-1				460-233706-1				460-234080-1				460-234442-1				460-233899-1			
Analyte	CAS	Method	Units			Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)
1,1,1,2-Tetrachloroethane	630-20-6	8260D	µg/Kg	225000 (6)		0.19	U	0.97	0.19	0.47	U	2.5	0.47	0.45	U	2.4	0.45	0.71	U	3.7	0.71	0.63	U	3.3	0.63	0.45	U	2.4	0.45	0.18	U	0.96	0.18
1,1,1-Trichloroethane	71-55-6	8260D	µg/Kg	29800 (5)	160000000	0.23	U	0.97	0.23	0.58	U	2.5	0.58	0.55	U	2.4	0.55	0.87	U	3.7	0.87	0.78	U	3.3	0.78	0.56	U	2.4	0.56	0.22	U	0.96	0.22
1,1,2,2-Tetrachloroethane	79-34-5	8260D	µg/Kg	127 (5)	3500	0.21	U	0.97	0.21	0.53	U	2.5	0.53	0.51	U	2.4	0.51	0.8	U	3.7	0.8	0.72	U	3.3	0.72	0.51	U	2.4	0.51	0.2	UJ	0.96	0.2
1,1,2-Trichloro-1,2,2-trifluoroethane	76-13-1	8260D	µg/Kg			0.29	U	0.97	0.29	0.75	UJ	2.5	0.75	0.71	U	2.4	0.71	1.1	U	3.7	1.1	1	U	3.3	1	0.72	U	2.4	0.72	0.29	U	0.96	0.29
1,1,2-Trichloroethane	79-00-5	8260D	µg/Kg	28600 (5)	12000	0.17	U	0.97	0.17	0.44	U	2.5	0.44	0.42	U	2.4	0.42	0.66	U	3.7	0.66	0.59	U	3.3	0.59	0.43	U	2.4	0.43	0.17	U	0.96	0.17
1,1-Dichloroethane	75-34-3	8260D	µg/Kg	20100 (6)	120000	0.2	U	0.97	0.2	0.51	U	2.5	0.51	0.49	U	2.4	0.49	0.77	U	3.7	0.77	0.69	U	3.3	0.69	0.49	U	2.4	0.49	0.2	U	0.96	0.2
1,1-Dichloroethene	75-35-4	8260D	µg/Kg	8280 (5)	11000	0.22	U	0.97	0.22	0.56	U	2.5	0.56	0.53	U	2.4	0.53	0.84	U	3.7	0.84	0.75	U	3.3	0.75	0.54	U	2.4	0.54	0.22	U	0.96	0.22
1,2,3-Trichlorobenzene	87-61-6	8260D	µg/Kg	20000 (5)		0.18	U	0.97	0.18	0.45	U	2.5	0.45	0.43	U	2.4	0.43	0.68	U	3.7	0.68	0.6	U	3.3	0.6	0.43	U	2.4	0.43	0.17	U	0.96	0.17
1,2,4-Trichlorobenzene	120-82-1	8260D	µg/Kg	20000 (5)	780000	0.35	U	0.97	0.35	0.89	U	2.5	0.89	0.85	U	2.4	0.85	1.3	U	3.7	1.3	1.2	U	3.3	1.2	0.86	U	2.4	0.86	0.34	U	0.96	0.34
1,2-Dibromo-3-Chloropropane	96-12-8	8260D	µg/Kg	35.2 (6)	870	0.45	U	0.97	0.45	1.1	UJ	2.5	1.1	1.1	U	2.4	1.1	1.7	U	3.7	1.7	1.5	UJ	3.3	1.5	1.1	UJ	2.4	1.1	0.44	U	0.96	0.44
1,2-Dichlorobenzene	95-50-1	8260D	µg/Kg	2960 (5)	6700000	0.35	U	0.97	0.35	0.9	U	2.5	0.9	0.86	U	2.4	0.86	1.3	U	3.7	1.3	1.2	U	3.3	1.2	0.86	U	2.4	0.86	0.35	U	0.96	0.35
1,2-Dichloroethane	107-06-2	8260D	µg/Kg	21200 (5)	5800	0.29	U	0.97	0.29	0.74	U	2.5	0.74	0.7	U	2.4	0.7	1.1	U	3.7	1.1	0.99	U	3.3	0.99	0.71	U	2.4	0.71	0.28	U	0.96	0.28
1,2-Dichloropropane	78-87-5	8260D	µg/Kg	32700 (5)	19000	0.41	U	0.97	0.41	1.1	U	2.5	1.1	1	U	2.4	1	1.6	U	3.7	1.6	1.4	U	3.3	1.4	1	U	2.4	1	0.41	U	0.96	0.41
1,3-Dichlorobenzene	541-73-1	8260D	µg/Kg	37700 (5)	6700000	0.36	U	0.97	0.36	0.91	U	2.5	0.91	0.86	U	2.4	0.86	1.4	U	3.7	1.4	1.2	U	3.3	1.2	0.87	U	2.4	0.87	0.35	U	0.96	0.35
1,4-Dichlorobenzene	106-46-7	8260D	µg/Kg	546 (5)	780000	0.22	U	0.97	0.22	0.56	U	2.5	0.56	0.53	U	2.4	0.53	0.84	U	3.7	0.84	0.75	U	3.3	0.75	0.54	U	2.4	0.54	0.22	U	0.96	0.22
2-Butanone (MEK)	78-93-3	8260D	µg/Kg	350000 (7)	47000000	0.36	U	4.9	0.36	0.92	UJ	12	0.92	14		12	0.87	34		19	1.4	100		17	1.2	10	J	12	0.88	43		4.8	0.35
2-Hexanone	591-78-6	8260D	µg/Kg	12600 (6)	390000	1.7	U	4.9	1.7	4.3	U	12	4.3	4.1	U	12	4.1	6.4	U	19	6.4	5.7	UJ	17	5.7	4.1	U	12	4.1	1.6	UJ	4.8	1.6
2-Methyl-2-propanol	75-65-0	8260D	µg/Kg		1400000	14		9.7	7.6	20	U	25	20	19	U	24	19	29	U	37	29	400	J	33	26	19	U	24	19	7.5	U	9.6	7.5
4-Methyl-2-pentanone (MIBK)	108-10-1	8260D	µg/Kg	443000 (6)		1.5	U	4.9	1.5	3.9	U	12	3.9	3.7	U	12	3.7	5.8	U	19	5.8	5.2	U	17	5.2	3.7	U	12	3.7	1.5	UJ	4.8	1.5
Acetone	67-64-1	8260D	µg/Kg	1200 (7)	70000000	5.6	U	5.8	5.6	31		15	14	120		14	14	220		22	21	1600		20	19	32	J	14	14	1300		5.7	5.5
Benzene	71-43-2	8260D	µg/Kg	255 (5)	3000	0.25	U	0.97	0.25	0.64	U	2.5	0.64	0.61	U	2.4	0.61	0.96	U	3.7	0.96	0.86	U	3.3	0.86	0.62	U	2.4	0.62	0.25	U	0.96	0.25
Bromoform	75-25-2	8260D	µg/Kg	15900 (5)	88000	0.41	U	0.97	0.41	1.1	UJ	2.5	1.1	1	U	2.4	1	1.6	U	3.7	1.6	1.4	UJ	3.3	1.4	1	UJ	2.4	1	0.41	UJ	0.96	0.41
Bromomethane	74-83-9	8260D	µg/Kg	235 (5)	110000	0.97	UJ	1.9	0.97	2.5	U	5	2.5	2.4	U	4.7	2.4	3.7	UJ	7.5	3.7	3.3	U	6.7	3.3	2.4	U	4.8	2.4	0.96	U	1.9	0.96
Carbon disulfide	75-15-0	8260D	µg/Kg	810 (7)		0.26	U	0.97	0.26	0.66	U	2.5	0.66	0.63	U	2.4	0.63	0.99	U	3.7	0.99	0.89	U	3.3	0.89	0.64	U	2.4	0.64	0.25	U	0.96	0.25
Carbon tetrachloride	56-23-5	8260D	µg/Kg	2980 (5)	7600	0.38	U	0.97	0.38	0.96	U	2.5	0.96	0.92	U	2.4	0.92	1.4	U	3.7	1.4	1.3	U	3.3	1.3	0.93	U	2.4	0.93	0.37	U	0.96	0.37
Chlorobenzene	108-90-7	8260D	µg/Kg	13100 (5)	510000	0.17	U	0.97	0.17	0.44	U	2.5	0.44	0.42	U	2.4	0.42	0.66	U	3.7	0.66	0.59	U	3.3	0.59	0.42	U	2.4	0.42	0.17	U	0.96	0.17
Chlorobromomethane	74-97-5	8260D	µg/Kg			0.27	U	0.97	0.27	0.7	U	2.5	0.7	0.67	U	2.4	0.67	1	U	3.7	1	0.94	U	3.3	0.94	0.67	U	2.4	0.67	0.27	U	0.96	0.27
Chlorodibromomethane	124-48-1	8260D	µg/Kg	2050 (5)	8300	0.19	U	0.97	0.19	0.48	UJ	2.5	0.48	0.46	U	2.4	0.46	0.72	U	3.7	0.72	0.65	UJ	3.3	0.65	0.46	U	2.4	0.46	0.19	U	0.96	0.19
Chloroethane	75-00-3	8260D	µg/Kg			0.51	U	0.97	0.51	1.3	U	2.5	1.3	1.2	U	2.4	1.2	1.9	U	3.7	1.9	1.7	U	3.3	1.7	1.2	U	2.4	1.2	0.5	U	0.96	0.5
Chloroform	67-66-3	8260D	µg/Kg	1190 (5)	780000	0.95	U	0.97	0.95	2.4	U	2.5	2.4	2.3	U	2.4	2.3	3.6	U	3.7	3.6	3.2	U	3.3	3.2	2.3	U	2.4	2.3	0.93	U	0.96	0.93
Chloromethane	74-87-3	8260D	µg/Kg			0.42	U	0.97	0.42	1.1	U	2.5	1.1	1	U	2.4	1	1.6	U	3.7	1.6	1.5	UJ	3.3	1.5	1	U	2.4	1	0.42	UJ	0.96	0.42
cis-1,2-Dichloroethene	156-59-2	8260D	µg/Kg	89600 (7)	780000	0.35	U	0.97	0.35	0.89	U	2.5	0.89	0.85	U	2.4	0.85	1.3	U	3.7	1.3	1.2	U	3.3	1.2	0.86	U	2.4	0.86	0.34	U	0.96	0.34
cis-1,3-Dichloropropene	10061-01-5	8260D	µg/Kg	398 (6)		0.27	U	0.97	0.27	0.68	U	2.5	0.68	0.65	U	2.4	0.65	1	U	3.7	1	0.91	UJ	3.3	0.91	0.65	UJ	2.4	0.65	0.26	U	0.96	0.26
Cyclohexane	110-82-7	8260D	µg/Kg			0.22	U	0.97	0.22	0.55	U	2.5	0.55	0.52	U	2.4	0.52	0.83	U	3.7	0.83	0.74	U	3.3	0.74	0.53	U	2.4	0.53	0.21	U	0.96	0.21
Dichlorobromomethane	75-27-4	8260D	µg/Kg	540 (5)	11000	0.25	U	0.97	0.25	0.64	U	2.5	0.64	0.61	U	2.4	0.61	0.96	U	3.7	0.96	0.86	U	3.3	0.86	0.61	UJ	2.4	0.61	0.25	U	0.96	0.25
Dichlorodifluoromethane	75-71-8	8260D	µg/Kg	39500 (6)	16000000	0.33	U	0.97	0.33	0.84	U	2.5	0.84	0.8	U	2.4	0.8	1.3	U	3.7	1.3	1.1	U	3.3	1.1	0.81	U	2.4	0.81	0.32	UJ	0.96	0.32
Ethylbenzene	100-41-4	8260D	µg/Kg	5160 (5)	7800000	0.19	U	0.97	0.19	0.5	U	2.5	0.5	0.47	U	2.4	0.47	0.74	U	3.7	0.74	0.66	U	3.3	0.66	0.48	U	2.4	0.48	0.19	U	0.96	0.19
Ethylene Dibromide	106-93-4	8260D	µg/Kg		350	0.18	U	0.97	0.18	0.45	U	2.5	0.45	0.43	U	2.4	0.43	0.67	U	3.7	0.67	0.6	U	3.3	0.6	0.43	U	2.4	0.43	0.17	U	0.96	0.17
Isopropylbenzene	98-82-8	8260D	µg/Kg		7800000	0.28	U	0.97	0.28	0.71	U	2.5	0.71	0.68	U	2.4	0.68	1.1	U	3.7	1.1	0.95	U	3.3	0.95	0.68	U	2.4	0.68	0.27	U	0.96	0.27
Methyl acetate	79-20-9	8260D	µg/Kg		78000000	4.2	UJ	4.9	4.2	11	U	12	11	10	U	12	10	16	UJ	19	16	14	U	17	14	10	U	12	10	4.1	U	4.8	4.1
Methyl tert-butyl ether	1634-04-4	8260D	µg/Kg		780000	0.5	U	0.97	0.5	1.3	U	2.5	1.3	1.2	U	2.4	1.2	1.9	U	3.7	1.9	1.7	U	3.3	1.7	1.2	U	2.4	1.2	0.49	U	0.96	0.49
Methylcyclohexane	108-87-2	8260D	µg/Kg			0.49	U	0.97	0.49	1.2	U	2.5	1.2	1.2	U	2.4	1.2	1.9	U	3.7	1.9	1.7	U	3.3	1.7	1.2	U	2.4	1.2	0.48	U	0.96	0.48
Methylene Chloride	75-09-2	8260D	µg/Kg	4050 (5)	50000	1.3	U	1.9	1.1	2.9	U	5	2.9	2.7	U	4.7	2.7	4.3	U	7.5	4.3	18		6.7	3.8	2.7	U	4.8	2.7	2.4		1.9	1.1
m-Xylene & p-Xylene	179601-23-1	8260D	µg/Kg	4162 (7)	12000000	0.17	U	0.97	0.17	0.43	U	2.5	0.43	0.41	U	2.4	0.41	0.65	U	3.7	0.65	1.3	J	3.3	0.58	0.42	U	2.4	0.42	0.17	U	0.96	0.17
o-Xylene	95-47-6	8260D	µg/Kg	4162 (7)	12000000	0.19	U	0.97	0.19	0.48	U	2.5	0.48	0.46	U	2.4	0.46	0.72	U	3.7	0.72	0.93	J	3.3	0.65	0.46	U	2.4	0.46	0.19	U	0.96	0.19
Styrene	100-42-5	8260D	µg/Kg	4690 (5)	16000000	0.27	U	0.97	0.27	0.69	U	2.5	0.69	0.66	U	2.4	0.66	1	U	3.7	1	2.9	J	3.3	0.93	0.67	U	2.4	0.67	0.27	U	0.96	0.27
Tetrachloroethene	127-18-4	8260D	µg/Kg	9920 (5)	330000	0.3	U	0.97	0.3	0.76	U	2.5	0.76	0.72	U	2.4	0.72	1.1	U	3.7	1.1	2	J	3.3	1	0.73	U	2.4	0.73	0.29	U	0.96	0.29
Toluene	108-88-3	8260D	µg/Kg	200000 (5)	6300000	0.23	U	0.97	0.23	0.58	U	2.5	0.58	0.55	U	2.4	0.55	0.87	U	3.7	0.87	1.7	J	3.3	0.78	0.56	U	2.4	0.56	0.22	U	0.96	0.22
trans-1,2-Dichloroethene	156-60-5	8260D	µg/Kg	784 (5)	1300000	0.24	U	0.97	0.24	0.61	U	2.5	0.61	0.58	U	2.4	0.58	0.92	U	3.7	0.92	0.82	U	3.3	0.82	0.59	U	2.4	0.59	0.24	U	0.96	0.24
trans-1,3-Dichloropropene	10061-02-6	8260D	µg/Kg	398 (6)		0.26	U	0.97	0.26	0.66	UJ	2.5	0.66	0.63	U	2.4	0.63	0.99	U	3.7	0.99	0.89	UJ	3.3	0.89	0.64	UJ	2.4	0.64	0.25	U	0.96	0.25
Trichloroethene	79-01-6	8260D	µg/Kg	12400 (5)	15000	0.31	U	0.97	0.31	0.8	U	2.5	0.8	0.76	U	2.4	0.76	1.2	U	3.7	1.2	1.1	U	3.3	1.1	0.77	U	2.4	0.77	0.31	U	0.96	0.31
Trichlorofluoromethane	75-69-4	8260D	µg/Kg	52000 (7)	23000000	0.4	U	0.97	0.4	1	U	2.5	1	0.96	U	2.4	0.96	1.5	U	3.7	1.5	1.4	U	3.3	1.4	0.97	U	2.4	0.97	0.39	U	0.96	0.39
Vinyl chloride	75-01-4	8260D	µg/Kg	646 (5)	970	0.53	U	0.97	0.53	1.4	U	2.5	1.4	1.3	U	2.4	1.3	2	U	3.7	2	1.8	U	3.3	1.8	1.3	U	2.4	1.3	0.52	U	0.96	0.52

Table 5.2 - Soil: Volatile Organic Compounds (VOCs) Analytical Results

(continued)

Rolling Knolls Landfill

Sample Name				ESC's	NJAC 7:26D	SS26				SS27				SS28				SS29				SS30				SS31				DP01_0.5-8.5			
Sample Date/Time						05/07/2021 08:30				05/05/2021 13:30				05/05/2021 08:20				05/06/2021 11:25				05/13/2021 15:20				05/14/2021 08:45				05/11/2021 09:10			
Latitude						40.7240722				40.7231759				40.7240805				40.7248365				40.7266724				40.7237372				40.7297321			
Longitude						-74.4463803				-74.4437423				-74.4443078				-74.4434245				-74.4405011				-74.4477876				-74.4419101			
Lab Sample Name				Screening Criteria	(8) Soil Remediation Standards (Ing.-Derm.) - Residential	GS-S-SS26				GS-S-SS27				GS-S-SS28				GS-S-SS29				GS-S-SS30				GS-S-SS31				GS-N-DPT01-SC-0.5-8.5			
Lab Sample Number						460-233940-1				460-233708-4				460-233708-1				460-233899-2				460-234436-4				460-234442-4				460-234161-2			
Lab Report Number(s)						460-233940-1				460-233708-1 / 460-233708-2				460-233708-1				460-233899-1				460-234436-1				460-234442-1				460-234161-1 / 460-234161-2			
Analyte	CAS	Method	Units			Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)
1,1,1,2-Tetrachloroethane	630-20-6	8260D	µg/Kg	225000 (6)		0.21	U	1.1	0.21	0.28	U	1.5	0.28	0.32	U	1.7	0.32	0.7	U	3.7	0.7	0.51	U	2.7	0.51	0.24	U	1.3	0.24	0.44	U	2.3	0.44
1,1,1-Trichloroethane	71-55-6	8260D	µg/Kg	29800 (5)	160000000	0.26	U	1.1	0.26	0.34	U	1.5	0.34	0.39	U	1.7	0.39	0.86	U	3.7	0.86	0.62	U	2.7	0.62	0.29	U	1.3	0.29	0.53	U	2.3	0.53
1,1,2,2-Tetrachloroethane	79-34-5	8260D	µg/Kg	127 (5)	3500	0.24	U	1.1	0.24	0.31	UJ	1.5	0.31	0.36	UJ	1.7	0.36	0.79	UJ	3.7	0.79	0.57	U	2.7	0.57	0.27	U	1.3	0.27	0.49	U	2.3	0.49
1,1,2-Trichloro-1,2,2-trifluoroethane	76-13-1	8260D	µg/Kg			0.34	UJ	1.1	0.34	0.44	U	1.5	0.44	0.5	U	1.7	0.5	1.1	U	3.7	1.1	0.8	UJ	2.7	0.8	0.38	UJ	1.3	0.38	0.69	U	2.3	0.69
1,1,2-Trichloroethane	79-00-5	8260D	µg/Kg	28600 (5)	12000	0.2	U	1.1	0.2	0.26	U	1.5	0.26	0.3	U	1.7	0.3	0.65	U	3.7	0.65	0.48	U	2.7	0.48	0.23	U	1.3	0.23	0.41	U	2.3	0.41
1,1-Dichloroethane	75-34-3	8260D	µg/Kg	20100 (6)	120000	0.23	U	1.1	0.23	0.3	U	1.5	0.3	0.34	U	1.7	0.34	0.76	U	3.7	0.76	0.55	U	2.7	0.55	0.26	U	1.3	0.26	0.47	U	2.3	0.47
1,1-Dichloroethene	75-35-4	8260D	µg/Kg	8280 (5)	11000	0.25	U	1.1	0.25	0.33	U	1.5	0.33	0.38	U	1.7	0.38	0.83	U	3.7	0.83	0.6	U	2.7	0.6	0.28	U	1.3	0.28	0.52	U	2.3	0.52
1,2,3-Trichlorobenzene	87-61-6	8260D	µg/Kg	20000 (5)		0.2	U	1.1	0.2	0.26	UJ	1.5	0.26	0.3	UJ	1.7	0.3	0.66	UJ	3.7	0.66	0.48	U	2.7	0.48	0.23	U	1.3	0.23	0.41	U	2.3	0.41
1,2,4-Trichlorobenzene	120-82-1	8260D	µg/Kg	20000 (5)	780000	0.4	U	1.1	0.4	0.52	UJ	1.5	0.52	0.6	UJ	1.7	0.6	1.3	UJ	3.7	1.3	0.96	U	2.7	0.96	0.45	U	1.3	0.45	0.82	U	2.3	0.82
1,2-Dibromo-3-Chloropropane	96-12-8	8260D	µg/Kg	35.2 (6)	870	0.52	UJ	1.1	0.52	0.67	UJ	1.5	0.67	0.77	UJ	1.7	0.77	1.7	UJ	3.7	1.7	1.2	U	2.7	1.2	0.58	UJ	1.3	0.58	1.1	U	2.3	1.1
1,2-Dichlorobenzene	95-50-1	8260D	µg/Kg	2960 (5)	6700000	0.41	U	1.1	0.41	0.52	UJ	1.5	0.52	0.6	UJ	1.7	0.6	1.3	UJ	3.7	1.3	0.97	U	2.7	0.97	0.46	U	1.3	0.46	0.83	U	2.3	0.83
1,2-Dichloroethane	107-06-2	8260D	µg/Kg	21200 (5)	5800	0.33	U	1.1	0.33	0.43	U	1.5	0.43	0.5	U	1.7	0.5	1.1	U	3.7	1.1	0.79	U	2.7	0.79	0.37	U	1.3	0.37	0.68	U	2.3	0.68
1,2-Dichloropropane	78-87-5	8260D	µg/Kg	32700 (5)	19000	0.48	U	1.1	0.48	0.61	U	1.5	0.61	0.71	U	1.7	0.71	1.6	U	3.7	1.6	1.1	U	2.7	1.1	0.53	U	1.3	0.53	0.97	U	2.3	0.97
1,3-Dichlorobenzene	541-73-1	8260D	µg/Kg	37700 (5)	6700000	0.41	U	1.1	0.41	0.53	UJ	1.5	0.53	0.61	UJ	1.7	0.61	1.3	UJ	3.7	1.3	0.98	U	2.7	0.98	0.46	U	1.3	0.46	0.84	U	2.3	0.84
1,4-Dichlorobenzene	106-46-7	8260D	µg/Kg	546 (5)	780000	0.25	U	1.1	0.25	0.33	UJ	1.5	0.33	0.53	J	1.7	0.38	1.9	J	3.7	0.83	0.6	U	2.7	0.6	0.28	U	1.3	0.28	0.52	U	2.3	0.52
2-Butanone (MEK)	78-93-3	8260D	µg/Kg	350000 (7)	47000000	0.41	U	5.6	0.41	8.3	J	7.3	0.53	5.6	J	8.4	0.62	11	J	18	1.4	13		13	0.98	0.47	U	6.3	0.47	0.84	U	11	0.84
2-Hexanone	591-78-6	8260D	µg/Kg	12600 (6)	390000	1.9	U	5.6	1.9	2.5	UJ	7.3	2.5	2.9	UJ	8.4	2.9	6.3	UJ	18	6.3	4.6	U	13	4.6	2.2	U	6.3	2.2	3.9	U	11	3.9
2-Methyl-2-propanol	75-65-0	8260D	µg/Kg		1400000	8.8	U	11	8.8	11	U	15	11	13	U	17	13	29	U	37	29	21	U	27	21	9.9	U	13	9.9	18	U	23	18
4-Methyl-2-pentanone (MIBK)	108-10-1	8260D	µg/Kg	443000 (6)		1.7	U	5.6	1.7	2.3	UJ	7.3	2.3	2.6	UJ	8.4	2.6	5.7	UJ	18	5.7	4.2	U	13	4.2	2	U	6.3	2	3.6	U	11	3.6
Acetone	67-64-1	8260D	µg/Kg	1200 (7)	70000000	20		6.7	6.4	140	J	8.7	8.3	26		10	9.6	190		22	21	430		16	15	150		7.6	7.2	25		14	13
Benzene	71-43-2	8260D	µg/Kg	255 (5)	3000	0.29	U	1.1	0.29	0.37	U	1.5	0.37	0.43	U	1.7	0.43	0.95	U	3.7	0.95	0.69	U	2.7	0.69	0.33	U	1.3	0.33	0.59	U	2.3	0.59
Bromoform	75-25-2	8260D	µg/Kg	15900 (5)	88000	0.48	UJ	1.1	0.48	0.62	U	1.5	0.62	0.71	U	1.7	0.71	1.6	U	3.7	1.6	1.1	U	2.7	1.1	0.54	UJ	1.3	0.54	0.97	U	2.3	0.97
Bromomethane	74-83-9	8260D	µg/Kg	235 (5)	110000	1.1	U	2.2	1.1	1.5	UJ	2.9	1.5	1.7	UJ	3.3	1.7	3.7	UJ	7.3	3.7	2.7	UJ	5.3	2.7	1.3	U	2.5	1.3	2.3	UJ	4.6	2.3
Carbon disulfide	75-15-0	8260D	µg/Kg	810 (7)		0.3	U	1.1	0.3	0.39	U	1.5	0.39	0.45	U	1.7	0.45	0.98	U	3.7	0.98	0.71	U	2.7	0.71	0.34	U	1.3	0.34	0.61	U	2.3	0.61
Carbon tetrachloride	56-23-5	8260D	µg/Kg	2980 (5)	7600	0.43	U	1.1	0.43	0.56	U	1.5	0.56	0.65	U	1.7	0.65	1.4	U	3.7	1.4	1	U	2.7	1	0.49	U	1.3	0.49	0.89	U	2.3	0.89
Chlorobenzene	108-90-7	8260D	µg/Kg	13100 (5)	510000	0.2	U	1.1	0.2	0.26	U	1.5	0.26	0.3	U	1.7	0.3	2.2	J	3.7	0.65	0.47	U	2.7	0.47	0.22	U	1.3	0.22	0.41	U	2.3	0.41
Chlorobromomethane	74-97-5	8260D	µg/Kg			0.32	U	1.1	0.32	0.41	U	1.5	0.41	0.47	U	1.7	0.47	1	U	3.7	1	0.75	U	2.7	0.75	0.36	U	1.3	0.36	0.64	U	2.3	0.64
Chlorodibromomethane	124-48-1	8260D	µg/Kg	2050 (5)	8300	0.22	UJ	1.1	0.22	0.28	U	1.5	0.28	0.32	U	1.7	0.32	0.71	U	3.7	0.71	0.52	U	2.7	0.52	0.25	U	1.3	0.25	0.44	U	2.3	0.44
Chloroethane	75-00-3	8260D	µg/Kg			0.59	U	1.1	0.59	0.76	UJ	1.5	0.76	0.87	U	1.7	0.87	1.9	U	3.7	1.9	1.4	U	2.7	1.4	0.66	U	1.3	0.66	1.2	U	2.3	1.2
Chloroform	67-66-3	8260D	µg/Kg	1190 (5)	780000	1.1	U	1.1	1.1	1.4	U	1.5	1.4	1.6	U	1.7	1.6	3.6	U	3.7	3.6	2.6	U	2.7	2.6	1.2	U	1.3	1.2	2.2	U	2.3	2.2
Chloromethane	74-87-3	8260D	µg/Kg			0.49	U	1.1	0.49	0.63	UJ	1.5	0.63	0.73	UJ	1.7	0.73	1.6	UJ	3.7	1.6	1.2	U	2.7	1.2	0.55	U	1.3	0.55	1	U	2.3	1
cis-1,2-Dichloroethene	156-59-2	8260D	µg/Kg	89600 (7)	780000	0.4	U	1.1	0.4	0.52	U	1.5	0.52	0.6	U	1.7	0.6	1.3	U	3.7	1.3	0.96	U	2.7	0.96	0.45	U	1.3	0.45	0.82	U	2.3	0.82
cis-1,3-Dichloropropene	10061-01-5	8260D	µg/Kg	398 (6)		0.31	U	1.1	0.31	0.4	U	1.5	0.4	0.46	U	1.7	0.46	1	U	3.7	1	0.73	U	2.7	0.73	0.35	U	1.3	0.35	0.63	U	2.3	0.63
Cyclohexane	110-82-7	8260D	µg/Kg			0.25	U	1.1	0.25	0.32	U	1.5	0.32	0.37	U	1.7	0.37	0.81	U	3.7	0.81	0.59	UJ	2.7	0.59	0.28	U	1.3	0.28	0.51	U	2.3	0.51
Dichlorobromomethane	75-27-4	8260D	µg/Kg	540 (5)	11000	0.29	U	1.1	0.29	0.37	U	1.5	0.37	0.43	U	1.7	0.43	0.94	U	3.7	0.94	0.69	U	2.7	0.69	0.32	UJ	1.3	0.32	0.59	U	2.3	0.59
Dichlorodifluoromethane	75-71-8	8260D	µg/Kg	39500 (6)	16000000	0.38	U	1.1	0.38	0.49	UJ	1.5	0.49	0.57	UJ	1.7	0.57	1.2	UJ	3.7	1.2	0.9	U	2.7	0.9	0.43	U	1.3	0.43	0.77	U	2.3	0.77
Ethylbenzene	100-41-4	8260D	µg/Kg	5160 (5)	7800000	0.22	U	1.1	0.22	0.29	U	1.5	0.29	0.33	U	1.7	0.33	0.73	U	3.7	0.73	0.53	U	2.7	0.53	0.25	U	1.3	0.25	0.46	U	2.3	0.46
Ethylene Dibromide	106-93-4	8260D	µg/Kg		350	0.2	U	1.1	0.2	0.26	U	1.5	0.26	0.3	U	1.7	0.3	0.66	U	3.7	0.66	0.48	U	2.7	0.48	0.23	U	1.3	0.23	0.41	U	2.3	0.41
Isopropylbenzene	98-82-8	8260D	µg/Kg		7800000	0.32	U	1.1	0.32	0.41	U	1.5	0.41	0.48	U	1.7	0.48	1	U	3.7	1	0.76	U	2.7	0.76	0.36	U	1.3	0.36	0.65	U	2.3	0.65
Methyl acetate	79-20-9	8260D	µg/Kg		78000000	4.8	U	5.6	4.8	6.2	U	7.3	6.2	7.2	U	8.4	7.2	16	U	18	16	11	U	13	11	5.4	U	6.3	5.4	9.9	U	11	9.9
Methyl tert-butyl ether	1634-04-4	8260D	µg/Kg		780000	0.58	U	1.1	0.58	0.74	U	1.5	0.74	0.86	U	1.7	0.86	1.9	U	3.7	1.9	1.4	U	2.7	1.4	0.65	U	1.3	0.65	1.2	U	2.3	1.2
Methylcyclohexane	108-87-2	8260D	µg/Kg			0.56	U	1.1	0.56	0.72	U	1.5	0.72	0.83	U	1.7	0.83	1.8	U	3.7	1.8	1.3	UJ	2.7	1.3	0.63	U	1.3	0.63	1.1	U	2.3	1.1
Methylene Chloride	75-09-2	8260D	µg/Kg	4050 (5)	50000	1.3	U	2.2	1.3	1.7	U	2.9	1.7	1.9	U	3.3	1.9	4.2	U	7.3	4.2	3.1	U	5.3	3.1	1.4	U	2.5	1.4	2.6	U	4.6	2.6
m-Xylene & p-Xylene	179601-23-1	8260D	µg/Kg	4162 (7)	12000000	0.2	U	1.1	0.2	0.25	U	1.5	0.25	0.29	U	1.7	0.29	0.64	U	3.7	0.64	0.47	U	2.7	0.47	0.22	U	1.3	0.22	0.4	U	2.3	0.4
o-Xylene	95-47-6	8260D	µg/Kg	4162 (7)	12000000	0.22	U	1.1	0.22	0.28	U	1.5	0.28	0.32	U	1.7	0.32	0.71	U	3.7	0.71	0.52	U	2.7	0.52	0.25	U	1.3	0.25	0.44	U	2.3	0.44
Styrene	100-42-5	8260D	µg/Kg	4690 (5)	16000000	0.31	U	1.1	0.31	0.4	U	1.5	0.4	0.47	U	1.7	0.47	1	U	3.7	1	0.74	U	2.7	0.74	0.35	U	1.3	0.35	0.64	U	2.3	0.64
Tetrachloroethene	127-18-4	8260D	µg/Kg	9920 (5)	330000	0.34	U	1.1	0.34	0.44	U	1.5	0.44	0.51	U	1.7	0.51	1.1	U	3.7	1.1	0.82	U	2.7	0.82	0.39	U	1.3	0.39	0.7	U	2.3	0.7
Toluene	108-88-3	8260D	µg/Kg	200000 (5)	6300000	0.26	U	1.1	0.26	0.34	U	1.5	0.34	0.39	U	1.7	0.39	0.86	U	3.7	0.86	0.63	U	2.7	0.63	0.3	U	1.3	0.3	0.54	U	2.3	0.54
trans-1,2-Dichloroethene	156-60-5	8260D	µg/Kg	784 (5)	1300000	0.28	U	1.1	0.28	0.36	U	1.5	0.36	0.41	U	1.7	0.41	0.9	U	3.7	0.9	0.66	U	2.7	0.66	0.31	U	1.3	0.31	0.56	U	2.3	0.56
trans-1,3-Dichloropropene	10061-02-6	8260D	µg/Kg	398 (6)		0.3	UJ	1.1	0.3	0.39	U	1.5	0.39	0.45	U	1.7	0.45	0.98	U	3.7	0.98	0.71	U	2.7	0.71	0.34	UJ	1.3	0.34	0.61	U	2.3	0.61
Trichloroethene	79-01-6	8260D	µg/Kg	12400 (5)	15000	0.36	U	1.1	0.36	0.47	U	1.5	0.47	0.54	U	1.7	0.54	1.2	U	3.7	1.2	0.86	U	2.7	0.86	0.41	U	1.3	0.41	0.74	U	2.3	0.74
Trichlorofluoromethane	75-69-4	8260D	µg/Kg	52000 (7)	23000000	0.46	U	1.1	0.46	0.59	U	1.5	0.59	0.68	U	1.7	0.68	1.5	U	3.7	1.5	1.1	U	2.7	1.1	0.51	U	1.3	0.51	0.93	U	2.3	0.93
Vinyl chloride	75-01-4	8260D	µg/Kg	646 (5)	970	0.61	U	1.1	0.61	0.79	UJ	1.5	0.79	0.91	U	1.7	0.91	2	U	3.7	2	1.5	U	2.7	1.5	0.69	U	1.3	0.69	1.3	U	2.3	1.3

Table 5.2 - Soil: Volatile Organic Compounds (VOCs) Analytical Results

(continued)

Rolling Knolls Landfill

Sample Name				ESC's	NJAC 7:26D	DP100_0.5-8.5 (DP01_0.5-8.5 duplicate)				DP02_0.5-8.5				DP02_8.5-10.0				DP03_0.5-3.5				DP03_3.5-4.0				DP04_0.5-5.0				DP04_5.0-8.0			
Sample Date/Time						05/11/2021 12:00				05/11/2021 10:40				05/11/2021 11:15				05/11/2021 14:05				05/11/2021 14:15				04/29/2021 12:50				04/29/2021 10:35			
Latitude						40.7297321				40.7303542				40.7303542				40.7288473				40.7288473				40.7304704				40.7304704			
Longitude						-74.4419101				-74.4418002				-74.4418002				-74.4410590				-74.4410590				-74.4414832				-74.4414832			
Lab Sample Name				Screening Criteria	(8) Soil Remediation Standards (Ing.-Derm.) - Residential	GS-N-DPT100-SC-0.5-8.5				GS-N-DPT02-SC-0.5-8.5				GS-N-DPT02-SB-8.5-10.0				GS-N-DPT03-SC-0.5-3.5				GS-N-DPT03-SB-3.5-4.0				GS-N-DPT04-SC-0.5-5				GS-N-DPT04--SB-5-8			
Lab Sample Number						460-234161-8				460-234186-2				460-234186-3				460-234161-4				460-234161-5				460-233312-2				460-233312-3			
Lab Report Number(s)						460-234161-1				460-234186-1				460-234186-1				460-234161-1				460-234161-1				460-233312-1				460-233312-1			
Analyte	CAS	Method	Units			Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)
1,1,1,2-Tetrachloroethane	630-20-6	8260D	µg/Kg	225000 (6)		0.39	U	2.1	0.39	0.45	UJ	2.4	0.45	0.16	U	0.84	0.16	0.34	U	1.8	0.34	0.16	U	0.85	0.16	1.8	U	1.8	0.35	0.99	U	0.99	0.19
1,1,1-Trichloroethane	71-55-6	8260D	µg/Kg	29800 (5)	160000000	0.48	U	2.1	0.48	0.55	UJ	2.4	0.55	0.2	U	0.84	0.2	0.41	U	1.8	0.41	0.2	U	0.85	0.2	1.8	U	1.8	0.43	0.99	U	0.99	0.23
1,1,2,2-Tetrachloroethane	79-34-5	8260D	µg/Kg	127 (5)	3500	0.44	U	2.1	0.44	0.51	UJ	2.4	0.51	0.18	U	0.84	0.18	0.38	U	1.8	0.38	0.18	U	0.85	0.18	1.8	U	1.8	0.39	0.99	U	0.99	0.21
1,1,2-Trichloro-1,2,2-trifluoroethane	76-13-1	8260D	µg/Kg			0.62	U	2.1	0.62	0.71	UJ	2.4	0.71	0.25	U	0.84	0.25	0.53	U	1.8	0.53	0.26	U	0.85	0.26	1.8	U	1.8	0.56	0.99	U	0.99	0.3
1,1,2-Trichloroethane	79-00-5	8260D	µg/Kg	28600 (5)	12000	0.37	U	2.1	0.37	0.42	UJ	2.4	0.42	0.15	U	0.84	0.15	0.32	U	1.8	0.32	0.15	U	0.85	0.15	1.8	U	1.8	0.33	0.99	U	0.99	0.18
1,1-Dichloroethane	75-34-3	8260D	µg/Kg	20100 (6)	120000	0.43	U	2.1	0.43	0.49	UJ	2.4	0.49	0.17	U	0.84	0.17	0.37	U	1.8	0.37	0.17	U	0.85	0.17	1.8	U	1.8	0.38	0.99	U	0.99	0.2
1,1-Dichloroethene	75-35-4	8260D	µg/Kg	8280 (5)	11000	0.47	U	2.1	0.47	0.53	UJ	2.4	0.53	0.19	U	0.84	0.19	0.4	U	1.8	0.4	0.19	U	0.85	0.19	1.8	U	1.8	0.41	0.99	U	0.99	0.22
1,2,3-Trichlorobenzene	87-61-6	8260D	µg/Kg	20000 (5)		0.37	U	2.1	0.37	0.43	UJ	2.4	0.43	0.15	U	0.84	0.15	0.32	U	1.8	0.32	0.15	U	0.85	0.15	1.8	U	1.8	0.33	0.99	U	0.99	0.18
1,2,4-Trichlorobenzene	120-82-1	8260D	µg/Kg	20000 (5)	780000	0.74	U	2.1	0.74	0.85	UJ	2.4	0.85	0.3	U	0.84	0.3	0.64	U	1.8	0.64	0.3	U	0.85	0.3	1.8	U	1.8	0.66	0.99	U	0.99	0.35
1,2-Dibromo-3-Chloropropane	96-12-8	8260D	µg/Kg	35.2 (6)	870	0.95	U	2.1	0.95	1.1	UJ	2.4	1.1	0.39	UJ	0.84	0.39	0.82	U	1.8	0.82	0.39	U	0.85	0.39	1.8	UJ	1.8	0.85	0.99	UJ	0.99	0.46
1,2-Dichlorobenzene	95-50-1	8260D	µg/Kg	2960 (5)	6700000	0.75	U	2.1	0.75	0.85	UJ	2.4	0.85	0.3	U	0.84	0.3	0.64	U	1.8	0.64	0.31	U	0.85	0.31	1.8	U	1.8	0.67	0.99	U	0.99	0.36
1,2-Dichloroethane	107-06-2	8260D	µg/Kg	21200 (5)	5800	0.61	U	2.1	0.61	0.7	UJ	2.4	0.7	0.25	U	0.84	0.25	0.53	U	1.8	0.53	0.25	U	0.85	0.25	1.8	U	1.8	0.55	0.99	U	0.99	0.29
1,2-Dichloropropane	78-87-5	8260D	µg/Kg	32700 (5)	19000	0.87	U	2.1	0.87	1	UJ	2.4	1	0.35	U	0.84	0.35	0.75	U	1.8	0.75	0.36	U	0.85	0.36	1.8	U	1.8	0.78	0.99	U	0.99	0.42
1,3-Dichlorobenzene	541-73-1	8260D	µg/Kg	37700 (5)	6700000	0.75	U	2.1	0.75	0.86	UJ	2.4	0.86	0.31	U	0.84	0.31	0.65	U	1.8	0.65	0.31	U	0.85	0.31	1.8	U	1.8	0.67	0.99	U	0.99	0.36
1,4-Dichlorobenzene	106-46-7	8260D	µg/Kg	546 (5)	780000	0.47	U	2.1	0.47	0.53	UJ	2.4	0.53	0.19	U	0.84	0.19	0.4	U	1.8	0.4	0.19	U	0.85	0.19	1.8	U	1.8	0.41	0.99	U	0.99	0.22
2-Butanone (MEK)	78-93-3	8260D	µg/Kg	350000 (7)	47000000	0.76	U	10	0.76	0.87	UJ	12	0.87	6.5	J	4.2	0.31	0.65	U	8.9	0.65	3.9	J	4.2	0.31	7.8	J	9.2	0.68	22		4.9	0.36
2-Hexanone	591-78-6	8260D	µg/Kg	12600 (6)	390000	3.5	U	10	3.5	4	UJ	12	4	1.4	U	4.2	1.4	3	U	8.9	3	1.5	U	4.2	1.5	9.2	U	9.2	3.2	4.9	U	4.9	1.7
2-Methyl-2-propanol	75-65-0	8260D	µg/Kg		1400000	16	U	21	16	19	U	24	19	6.6	U	8.4	6.6	14	U	18	14	6.7	U	8.5	6.7	**18**	U	18	14	**9.9**	U	9.9	7.8
4-Methyl-2-pentanone (MIBK)	108-10-1	8260D	µg/Kg	443000 (6)		3.2	U	10	3.2	3.7	UJ	12	3.7	1.3	U	4.2	1.3	2.8	U	8.9	2.8	1.3	U	4.2	1.3	9.2	U	9.2	2.9	4.9	U	4.9	1.5
Acetone	67-64-1	8260D	µg/Kg	1200 (7)	70000000	25		12	12	56		14	14	30		5	4.8	10	U	11	10	26		5.1	4.9	45		11	11	82		5.9	5.7
Benzene	71-43-2	8260D	µg/Kg	255 (5)	3000	0.53	U	2.1	0.53	0.61	UJ	2.4	0.61	0.22	U	0.84	0.22	0.46	U	1.8	0.46	0.22	U	0.85	0.22	1.8	U	1.8	0.48	0.99	U	0.99	0.26
Bromoform	75-25-2	8260D	µg/Kg	15900 (5)	88000	0.88	U	2.1	0.88	1	UJ	2.4	1	0.36	UJ	0.84	0.36	0.75	U	1.8	0.75	0.36	U	0.85	0.36	1.8	UJ	1.8	0.78	0.99	UJ	0.99	0.42
Bromomethane	74-83-9	8260D	µg/Kg	235 (5)	110000	2.1	UJ	4.1	2.1	2.4	U	4.7	2.4	0.84	U	1.7	0.84	1.8	UJ	3.5	1.8	0.85	UJ	1.7	0.85	3.7	U	3.7	1.8	2	U	2	0.99
Carbon disulfide	75-15-0	8260D	µg/Kg	810 (7)		0.55	U	2.1	0.55	0.63	U	2.4	0.63	0.22	U	0.84	0.22	0.47	U	1.8	0.47	0.39	J	0.85	0.23	1.8	U	1.8	0.49	1		0.99	0.26
Carbon tetrachloride	56-23-5	8260D	µg/Kg	2980 (5)	7600	0.8	U	2.1	0.8	0.91	UJ	2.4	0.91	0.32	U	0.84	0.32	0.69	U	1.8	0.69	0.33	U	0.85	0.33	1.8	U	1.8	0.71	0.99	U	0.99	0.38
Chlorobenzene	108-90-7	8260D	µg/Kg	13100 (5)	510000	0.37	U	2.1	0.37	0.42	UJ	2.4	0.42	0.15	U	0.84	0.15	0.31	U	1.8	0.31	0.78	J	0.85	0.15	1.8	U	1.8	0.33	0.76	J	0.99	0.18
Chlorobromomethane	74-97-5	8260D	µg/Kg			0.58	U	2.1	0.58	0.66	U	2.4	0.66	0.24	U	0.84	0.24	0.5	U	1.8	0.5	0.24	U	0.85	0.24	1.8	U	1.8	0.52	0.99	U	0.99	0.28
Chlorodibromomethane	124-48-1	8260D	µg/Kg	2050 (5)	8300	0.4	U	2.1	0.4	0.46	UJ	2.4	0.46	0.16	U	0.84	0.16	0.34	U	1.8	0.34	0.16	U	0.85	0.16	1.8	UJ	1.8	0.36	0.99	UJ	0.99	0.19
Chloroethane	75-00-3	8260D	µg/Kg			1.1	U	2.1	1.1	1.2	U	2.4	1.2	0.44	U	0.84	0.44	0.93	U	1.8	0.93	0.44	U	0.85	0.44	1.8	U	1.8	0.96	0.99	U	0.99	0.52
Chloroform	67-66-3	8260D	µg/Kg	1190 (5)	780000	2	U	2.1	2	2.3	UJ	2.4	2.3	0.81	U	0.84	0.81	1.7	U	1.8	1.7	0.82	U	0.85	0.82	1.8	U	1.8	1.8	0.99	U	0.99	0.96
Chloromethane	74-87-3	8260D	µg/Kg			0.9	U	2.1	0.9	1	U	2.4	1	0.36	U	0.84	0.36	0.77	U	1.8	0.77	0.37	U	0.85	0.37	1.8	U	1.8	0.8	0.99	U	0.99	0.43
cis-1,2-Dichloroethene	156-59-2	8260D	µg/Kg	89600 (7)	780000	0.74	U	2.1	0.74	0.85	UJ	2.4	0.85	0.3	U	0.84	0.3	0.64	U	1.8	0.64	0.3	U	0.85	0.3	1.8	U	1.8	0.66	0.99	U	0.99	0.35
cis-1,3-Dichloropropene	10061-01-5	8260D	µg/Kg	398 (6)		0.56	U	2.1	0.56	0.65	UJ	2.4	0.65	0.23	UJ	0.84	0.23	0.48	U	1.8	0.48	0.23	U	0.85	0.23	1.8	U	1.8	0.5	0.99	U	0.99	0.27
Cyclohexane	110-82-7	8260D	µg/Kg			0.46	U	2.1	0.46	0.52	UJ	2.4	0.52	0.19	U	0.84	0.19	0.39	U	1.8	0.39	0.19	U	0.85	0.19	1.8	U	1.8	0.41	0.99	U	0.99	0.22
Dichlorobromomethane	75-27-4	8260D	µg/Kg	540 (5)	11000	0.53	U	2.1	0.53	0.61	UJ	2.4	0.61	0.22	UJ	0.84	0.22	0.46	U	1.8	0.46	0.22	U	0.85	0.22	1.8	U	1.8	0.47	0.99	U	0.99	0.25
Dichlorodifluoromethane	75-71-8	8260D	µg/Kg	39500 (6)	16000000	0.7	U	2.1	0.7	0.8	U	2.4	0.8	0.28	U	0.84	0.28	0.6	U	1.8	0.6	0.29	U	0.85	0.29	1.8	U	1.8	0.62	0.99	U	0.99	0.33
Ethylbenzene	100-41-4	8260D	µg/Kg	5160 (5)	7800000	0.41	U	2.1	0.41	0.47	UJ	2.4	0.47	0.17	U	0.84	0.17	0.35	U	1.8	0.35	0.17	U	0.85	0.17	1.8	U	1.8	0.37	0.99	U	0.99	0.2
Ethylene Dibromide	106-93-4	8260D	µg/Kg		350	0.37	U	2.1	0.37	0.43	UJ	2.4	0.43	0.15	U	0.84	0.15	0.32	U	1.8	0.32	0.15	U	0.85	0.15	1.8	U	1.8	0.33	0.99	U	0.99	0.18
Isopropylbenzene	98-82-8	8260D	µg/Kg		7800000	0.59	U	2.1	0.59	0.67	UJ	2.4	0.67	0.24	U	0.84	0.24	0.51	U	1.8	0.51	0.24	U	0.85	0.24	1.8	U	1.8	0.53	0.99	U	0.99	0.28
Methyl acetate	79-20-9	8260D	µg/Kg		78000000	8.9	U	10	8.9	10	U	12	10	3.6	U	4.2	3.6	7.6	U	8.9	7.6	4.1	J	4.2	3.7	9.2	U	9.2	7.9	4.9	U	4.9	4.3
Methyl tert-butyl ether	1634-04-4	8260D	µg/Kg		780000	1.1	U	2.1	1.1	1.2	UJ	2.4	1.2	0.43	U	0.84	0.43	0.91	U	1.8	0.91	0.43	U	0.85	0.43	1.8	U	1.8	0.94	0.99	U	0.99	0.51
Methylcyclohexane	108-87-2	8260D	µg/Kg			1	U	2.1	1	1.2	UJ	2.4	1.2	0.42	U	0.84	0.42	0.89	U	1.8	0.89	0.42	U	0.85	0.42	1.8	U	1.8	0.92	0.99	U	0.99	0.49
Methylene Chloride	75-09-2	8260D	µg/Kg	4050 (5)	50000	2.4	U	4.1	2.4	2.7	U	4.7	2.7	1.5	U	1.7	0.96	2	U	3.5	2	4.1		1.7	0.97	3.7	U	3.7	2.1	0.5	U	2	1.1
m-Xylene & p-Xylene	179601-23-1	8260D	µg/Kg	4162 (7)	12000000	0.36	U	2.1	0.36	0.41	UJ	2.4	0.41	0.15	U	0.84	0.15	0.31	U	1.8	0.31	0.15	U	0.85	0.15	1.8	U	1.8	0.32	0.99	U	0.99	0.17
o-Xylene	95-47-6	8260D	µg/Kg	4162 (7)	12000000	0.4	U	2.1	0.4	0.46	UJ	2.4	0.46	0.16	U	0.84	0.16	0.34	U	1.8	0.34	0.16	U	0.85	0.16	1.8	U	1.8	0.36	0.99	U	0.99	0.19
Styrene	100-42-5	8260D	µg/Kg	4690 (5)	16000000	0.57	U	2.1	0.57	0.66	UJ	2.4	0.66	0.23	U	0.84	0.23	0.49	U	1.8	0.49	0.24	U	0.85	0.24	1.8	U	1.8	0.51	0.99	U	0.99	0.28
Tetrachloroethene	127-18-4	8260D	µg/Kg	9920 (5)	330000	0.63	U	2.1	0.63	0.72	UJ	2.4	0.72	0.26	U	0.84	0.26	0.54	U	1.8	0.54	0.26	U	0.85	0.26	1.8	U	1.8	0.56	0.99	U	0.99	0.3
Toluene	108-88-3	8260D	µg/Kg	200000 (5)	6300000	0.48	U	2.1	0.48	0.55	UJ	2.4	0.55	0.2	U	0.84	0.2	0.42	U	1.8	0.42	0.2	U	0.85	0.2	0.56	J	1.8	0.43	0.99	U	0.99	0.23
trans-1,2-Dichloroethene	156-60-5	8260D	µg/Kg	784 (5)	1300000	0.51	U	2.1	0.51	0.58	UJ	2.4	0.58	0.21	U	0.84	0.21	0.44	U	1.8	0.44	0.21	U	0.85	0.21	1.8	U	1.8	0.45	0.99	U	0.99	0.24
trans-1,3-Dichloropropene	10061-02-6	8260D	µg/Kg	398 (6)		0.55	U	2.1	0.55	0.63	UJ	2.4	0.63	0.22	UJ	0.84	0.22	0.47	U	1.8	0.47	0.23	U	0.85	0.23	1.8	U	1.8	0.49	0.99	U	0.99	0.26
Trichloroethene	79-01-6	8260D	µg/Kg	12400 (5)	15000	0.66	U	2.1	0.66	0.76	UJ	2.4	0.76	0.27	U	0.84	0.27	0.57	U	1.8	0.57	0.27	U	0.85	0.27	1.8	U	1.8	0.59	0.99	U	0.99	0.32
Trichlorofluoromethane	75-69-4	8260D	µg/Kg	52000 (7)	23000000	0.84	U	2.1	0.84	0.96	UJ	2.4	0.96	0.34	U	0.84	0.34	0.72	U	1.8	0.72	0.34	U	0.85	0.34	1.8	U	1.8	0.75	0.99	U	0.99	0.4
Vinyl chloride	75-01-4	8260D	µg/Kg	646 (5)	970	1.1	U	2.1	1.1	1.3	U	2.4	1.3	0.46	U	0.84	0.46	0.97	U	1.8	0.97	0.46	U	0.85	0.46	1.8	U	1.8		0.99	U	0.99	0.54

Table 5.2 - Soil: Volatile Organic Compounds (VOCs) Analytical Results

(continued)

Rolling Knolls Landfill

Sample Name				ESC's	NJAC 7:26D	DP05_0.5-5.0				DP05_5.0-7.0				DP06_0.5-2.0				DP06_2.5-3.0				DP100_2.5-3.0 (DP06_2.5-3.0 duplicate)				DP07_0.5-4.5				DP07_4.5-5.0			
Sample Date/Time						04/29/2021 16:40				04/29/2021 15:50				05/13/2021 09:30				05/13/2021 09:55				05/13/2021 12:00				05/13/2021 13:10				05/13/2021 13:30			
Latitude						40.7300494				40.7300494				40.7298030				40.7298030				40.7298030				40.7293038				40.7293038			
Longitude						-74.4418444				-74.4418444				-74.4414280				-74.4414280				-74.4414280				-74.4416064				-74.4416064			
Lab Sample Name				Screening Criteria	(8) Soil Remediation Standards (Ing.-Derm.) - Residential	GS-N-DPT05--SC-0.5-5				GS-N-DPT05--SB-5-7				GS-N-DPT06-SC-0.5-2.0				GS-N-DPT06-SB-2.5-3.0				GS-N-DPT100-SB-2.5-3.0				GS-N-DPT07-SC-0.5-4.5				GS-N-DPT07-SB-4.5-5.0			
Lab Sample Number						460-233312-5				460-233312-6				460-234436-2				460-234436-3				460-234436-8				460-234435-2				460-234435-3			
Lab Report Number(s)						460-233312-1				460-233312-1				460-234436-1				460-234436-1				460-234436-1				460-234435-1				460-234435-1			
Analyte	CAS	Method	Units			Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)
1,1,1,2-Tetrachloroethane	630-20-6	8260D	µg/Kg	225000 (6)		2.6	U	2.6	0.49	0.74	U	0.74	0.14	0.52	U	2.7	0.52	0.17	U	0.91	0.17	0.15	U	0.8	0.15	0.32	U	1.7	0.32	0.16	U	0.82	0.16
1,1,1-Trichloroethane	71-55-6	8260D	µg/Kg	29800 (5)	160000000	2.6	U	2.6	0.6	0.74	U	0.74	0.17	0.63	U	2.7	0.63	0.21	U	0.91	0.21	0.19	U	0.8	0.19	0.39	U	1.7	0.39	0.19	U	0.82	0.19
1,1,2,2-Tetrachloroethane	79-34-5	8260D	µg/Kg	127 (5)	3500	2.6	U	2.6	0.55	0.74	U	0.74	0.16	0.58	U	2.7	0.58	0.2	U	0.91	0.2	0.17	U	0.8	0.17	0.36	U	1.7	0.36	0.18	U	0.82	0.18
1,1,2-Trichloro-1,2,2-trifluoroethane	76-13-1	8260D	µg/Kg			2.6	U	2.6	0.77	0.74	U	0.74	0.22	0.82	U	2.7	0.82	0.27	U	0.91	0.27	0.24	U	0.8	0.24	0.5	U	1.7	0.5	0.25	U	0.82	0.25
1,1,2-Trichloroethane	79-00-5	8260D	µg/Kg	28600 (5)	12000	2.6	U	2.6	0.46	0.74	U	0.74	0.13	0.48	U	2.7	0.48	0.16	U	0.91	0.16	0.14	U	0.8	0.14	0.3	U	1.7	0.3	0.15	U	0.82	0.15
1,1-Dichloroethane	75-34-3	8260D	µg/Kg	20100 (6)	120000	2.6	U	2.6	0.53	0.74	U	0.74	0.15	0.56	U	2.7	0.56	0.19	U	0.91	0.19	0.17	U	0.8	0.17	0.34	U	1.7	0.34	0.17	U	0.82	0.17
1,1-Dichloroethene	75-35-4	8260D	µg/Kg	8280 (5)	11000	2.6	U	2.6	0.58	0.74	U	0.74	0.17	0.61	U	2.7	0.61	0.21	U	0.91	0.21	0.18	U	0.8	0.18	0.38	U	1.7	0.38	0.18	U	0.82	0.18
1,2,3-Trichlorobenzene	87-61-6	8260D	µg/Kg	20000 (5)		2.6	U	2.6	0.46	0.74	U	0.74	0.13	0.49	U	2.7	0.49	0.17	U	0.91	0.17	0.15	U	0.8	0.15	0.3	U	1.7	0.3	0.15	U	0.82	0.15
1,2,4-Trichlorobenzene	120-82-1	8260D	µg/Kg	20000 (5)	780000	2.6	U	2.6	0.92	0.74	U	0.74	0.27	0.97	U	2.7	0.97	0.33	U	0.91	0.33	0.29	U	0.8	0.29	0.6	U	1.7	0.6	0.29	U	0.82	0.29
1,2-Dibromo-3-Chloropropane	96-12-8	8260D	µg/Kg	35.2 (6)	870	2.6	UJ	2.6	1.2	0.74	UJ	0.74	0.34	1.3	U	2.7	1.3	0.42	U	0.91	0.42	0.37	U	0.8	0.37	0.77	U	1.7	0.77	0.38	U	0.82	0.38
1,2-Dichlorobenzene	95-50-1	8260D	µg/Kg	2960 (5)	6700000	2.6	U	2.6	0.92	0.74	U	0.74	0.27	1.2	J	2.7	0.98	0.33	U	0.91	0.33	0.29	U	0.8	0.29	3.2		1.7	0.6	0.82		0.82	0.3
1,2-Dichloroethane	107-06-2	8260D	µg/Kg	21200 (5)	5800	2.6	U	2.6	0.76	0.74	U	0.74	0.22	0.8	U	2.7	0.8	0.27	U	0.91	0.27	0.24	U	0.8	0.24	0.49	U	1.7	0.49	0.24	U	0.82	0.24
1,2-Dichloropropane	78-87-5	8260D	µg/Kg	32700 (5)	19000	2.6	U	2.6	1.1	0.74	U	0.74	0.32	1.1	U	2.7	1.1	0.39	U	0.91	0.39	0.34	U	0.8	0.34	0.71	U	1.7	0.71	0.35	U	0.82	0.35
1,3-Dichlorobenzene	541-73-1	8260D	µg/Kg	37700 (5)	6700000	2.6	U	2.6	0.93	0.74	U	0.74	0.27	0.99	U	2.7	0.99	0.33	U	0.91	0.33	0.29	U	0.8	0.29	0.61	U	1.7	0.61	0.3	U	0.82	0.3
1,4-Dichlorobenzene	106-46-7	8260D	µg/Kg	546 (5)	780000	2.6	U	2.6	0.58	0.74	U	0.74	0.17	8		2.7	0.61	1		0.91	0.21	0.85		0.8	0.18	24		1.7	0.38	1.3		0.82	0.18
2-Butanone (MEK)	78-93-3	8260D	µg/Kg	350000 (7)	47000000	7.4	J	13	0.94	11		3.7	0.27	21		14	1	5.9		4.6	0.34	5.6		4	0.29	46		8.3	0.61	13		4.1	0.3
2-Hexanone	591-78-6	8260D	µg/Kg	12600 (6)	390000	13	U	13	4.4	3.7	U	3.7	1.3	4.6	U	14	4.6	1.6	U	4.6	1.6	1.4	U	4	1.4	2.9	U	8.3	2.9	1.4	U	4.1	1.4
2-Methyl-2-propanol	75-65-0	8260D	µg/Kg		1400000	**26**	U	26	20	**7.4**	U	7.4	5.8	21	U	27	21	7.2	U	9.1	7.2	6.3	U	8	6.3	13	U	17	13	6.4	U	8.2	6.4
4-Methyl-2-pentanone (MIBK)	108-10-1	8260D	µg/Kg	443000 (6)		13	U	13	4	3.7	U	3.7	1.2	4.2	U	14	4.2	1.4	U	4.6	1.4	1.2	U	4	1.2	2.6	U	8.3	2.6	1.3	U	4.1	1.3
Acetone	67-64-1	8260D	µg/Kg	1200 (7)	70000000	60		15	15	42		4.5	4.3	110		16	16	35		5.5	5.2	39		4.8	4.6	160		10	9.5	65		4.9	4.7
Benzene	71-43-2	8260D	µg/Kg	255 (5)	3000	2.6	U	2.6	0.66	0.74	U	0.74	0.19	0.7	U	2.7	0.7	0.24	U	0.91	0.24	0.21	U	0.8	0.21	0.61	J	1.7	0.43	0.21	U	0.82	0.21
Bromoform	75-25-2	8260D	µg/Kg	15900 (5)	88000	2.6	UJ	2.6	1.1	0.74	UJ	0.74	0.32	1.2	UJ	2.7	1.2	0.39	UJ	0.91	0.39	0.34	UJ	0.8	0.34	0.71	U	1.7	0.71	0.35	U	0.82	0.35
Bromomethane	74-83-9	8260D	µg/Kg	235 (5)	110000	5.1	U	5.1	2.6	1.5	U	1.5	0.74	2.7	UJ	5.4	2.7	0.91	UJ	1.8	0.91	0.8	UJ	1.6	0.8	1.7	U	3.3	1.7	0.82	U	1.6	0.82
Carbon disulfide	75-15-0	8260D	µg/Kg	810 (7)		2.6	U	2.6	0.68	0.57	J	0.74	0.2	0.85	J	2.7	0.72	0.24	U	0.91	0.24	0.21	U	0.8	0.21	0.77	J	1.7	0.44	0.22	U	0.82	0.22
Carbon tetrachloride	56-23-5	8260D	µg/Kg	2980 (5)	7600	2.6	U	2.6	0.99	0.74	U	0.74	0.29	1.1	U	2.7	1.1	0.35	U	0.91	0.35	0.31	U	0.8	0.31	0.65	U	1.7	0.65	0.32	U	0.82	0.32
Chlorobenzene	108-90-7	8260D	µg/Kg	13100 (5)	510000	2.6	U	2.6	0.45	0.6	J	0.74	0.13	16		2.7	0.48	0.96		0.91	0.16	0.88		0.8	0.14	8.7		1.7	0.3	0.71	J	0.82	0.14
Chlorobromomethane	74-97-5	8260D	µg/Kg			2.6	U	2.6	0.72	0.74	U	0.74	0.21	0.76	U	2.7	0.76	0.26	U	0.91	0.26	0.23	U	0.8	0.23	0.47	U	1.7	0.47	0.23	U	0.82	0.23
Chlorodibromomethane	124-48-1	8260D	µg/Kg	2050 (5)	8300	2.6	UJ	2.6	0.5	0.74	UJ	0.74	0.14	0.53	U	2.7	0.53	0.18	U	0.91	0.18	0.16	U	0.8	0.16	0.32	U	1.7	0.32	0.16	U	0.82	0.16
Chloroethane	75-00-3	8260D	µg/Kg			2.6	U	2.6	1.3	0.74	U	0.74	0.39	1.4	U	2.7	1.4	0.48	U	0.91	0.48	0.42	U	0.8	0.42	0.87	U	1.7	0.87	0.43	U	0.82	0.43
Chloroform	67-66-3	8260D	µg/Kg	1190 (5)	780000	2.6	U	2.6	2.5	0.74	U	0.74	0.72	2.6	U	2.7	2.6	0.89	U	0.91	0.89	0.78	U	0.8	0.78	1.6	U	1.7	1.6	0.8	U	0.82	0.8
Chloromethane	74-87-3	8260D	µg/Kg			2.6	U	2.6	1.1	0.74	U	0.74	0.32	1.2	U	2.7	1.2	0.4	U	0.91	0.4	0.35	U	0.8	0.35	0.73	U	1.7	0.73	0.36	U	0.82	0.36
cis-1,2-Dichloroethene	156-59-2	8260D	µg/Kg	89600 (7)	780000	2.6	U	2.6	0.92	0.74	U	0.74	0.27	0.97	U	2.7	0.97	0.33	U	0.91	0.33	0.29	U	0.8	0.29	0.6	U	1.7	0.6	0.29	U	0.82	0.29
cis-1,3-Dichloropropene	10061-01-5	8260D	µg/Kg	398 (6)		2.6	U	2.6	0.7	0.74	U	0.74	0.2	0.74	U	2.7	0.74	0.25	U	0.91	0.25	0.22	U	0.8	0.22	0.46	U	1.7	0.46	0.22	U	0.82	0.22
Cyclohexane	110-82-7	8260D	µg/Kg			2.6	U	2.6	0.57	0.74	U	0.74	0.16	0.6	U	2.7	0.6	0.2	U	0.91	0.2	0.18	U	0.8	0.18	0.37	U	1.7	0.37	0.18	U	0.82	0.18
Dichlorobromomethane	75-27-4	8260D	µg/Kg	540 (5)	11000	2.6	U	2.6	0.66	0.74	U	0.74	0.19	0.7	U	2.7	0.7	0.23	U	0.91	0.23	0.21	U	0.8	0.21	0.43	U	1.7	0.43	0.21	U	0.82	0.21
Dichlorodifluoromethane	75-71-8	8260D	µg/Kg	39500 (6)	16000000	2.6	U	2.6	0.87	0.74	U	0.74	0.25	0.92	U	2.7	0.92	0.31	U	0.91	0.31	0.27	U	0.8	0.27	0.56	UJ	1.7	0.56	0.28	UJ	0.82	0.28
Ethylbenzene	100-41-4	8260D	µg/Kg	5160 (5)	7800000	2.6	U	2.6	0.51	0.74	U	0.74	0.15	0.54	U	2.7	0.54	0.18	U	0.91	0.18	0.16	U	0.8	0.16	0.33	U	1.7	0.33	0.16	U	0.82	0.16
Ethylene Dibromide	106-93-4	8260D	µg/Kg		350	2.6	U	2.6	0.46	0.74	U	0.74	0.13	0.49	U	2.7	0.49	0.16	U	0.91	0.16	0.14	U	0.8	0.14	0.3	U	1.7	0.3	0.15	U	0.82	0.15
Isopropylbenzene	98-82-8	8260D	µg/Kg		7800000	2.6	U	2.6	0.73	0.74	U	0.74	0.21	0.77	U	2.7	0.77	0.26	U	0.91	0.26	0.23	U	0.8	0.23	0.48	U	1.7	0.48	0.23	U	0.82	0.23
Methyl acetate	79-20-9	8260D	µg/Kg		78000000	13	U	13	11	3.7	U	3.7	3.2	12	U	14	12	3.9	U	4.6	3.9	3.4	U	4	3.4	7.2	U	8.3	7.2	3.5	U	4.1	3.5
Methyl tert-butyl ether	1634-04-4	8260D	µg/Kg		780000	2.6	U	2.6	1.3	0.74	U	0.74	0.38	1.4	U	2.7	1.4	0.47	U	0.91	0.47	0.41	U	0.8	0.41	0.85	U	1.7	0.85	0.42	U	0.82	0.42
Methylcyclohexane	108-87-2	8260D	µg/Kg			2.6	U	2.6	1.3	0.74	U	0.74	0.37	1.4	U	2.7	1.4	0.46	U	0.91	0.46	0.4	U	0.8	0.4	0.91	J	1.7	0.83	0.41	U	0.82	0.41
Methylene Chloride	75-09-2	8260D	µg/Kg	4050 (5)	50000	5.1	U	5.1	2.9	0.57	U	1.5	0.85	3.1	U	5.4	3.1	1.5	U	1.8	1	0.92	U	1.6	0.92	1.9	U	3.3	1.9	2.5		1.6	0.94
m-Xylene & p-Xylene	179601-23-1	8260D	µg/Kg	4162 (7)	12000000	2.6	U	2.6	0.45	0.74	U	0.74	0.13	0.48	J	2.7	0.47	0.16	U	0.91	0.16	0.14	U	0.8	0.14	0.67	J	1.7	0.29	0.19	J	0.82	0.14
o-Xylene	95-47-6	8260D	µg/Kg	4162 (7)	12000000	2.6	U	2.6	0.5	0.74	U	0.74	0.14	0.53	U	2.7	0.53	0.18	U	0.91	0.18	0.16	U	0.8	0.16	0.49	J	1.7	0.32	0.16	U	0.82	0.16
Styrene	100-42-5	8260D	µg/Kg	4690 (5)	16000000	2.6	U	2.6	0.71	0.74	U	0.74	0.21	0.76	U	2.7	0.76	0.25	U	0.91	0.25	0.22	U	0.8	0.22	0.46	U	1.7	0.46	0.23	U	0.82	0.23
Tetrachloroethene	127-18-4	8260D	µg/Kg	9920 (5)	330000	2.6	U	2.6	0.78	0.74	U	0.74	0.23	0.83	U	2.7	0.83	0.28	U	0.91	0.28	0.24	U	0.8	0.24	0.95	J	1.7	0.51	0.25	U	0.82	0.25
Toluene	108-88-3	8260D	µg/Kg	200000 (5)	6300000	2.6	U	2.6	0.6	0.74	U	0.74	0.17	0.64	U	2.7	0.64	0.21	U	0.91	0.21	0.19	U	0.8	0.19	0.95	J	1.7	0.39	0.19	U	0.82	0.19
trans-1,2-Dichloroethene	156-60-5	8260D	µg/Kg	784 (5)	1300000	2.6	U	2.6	0.63	0.74	U	0.74	0.18	0.67	U	2.7	0.67	0.22	U	0.91	0.22	0.2	U	0.8	0.2	0.41	U	1.7	0.41	0.2	U	0.82	0.2
trans-1,3-Dichloropropene	10061-02-6	8260D	µg/Kg	398 (6)		2.6	U	2.6	0.68	0.74	U	0.74	0.2	0.72	U	2.7	0.72	0.24	U	0.91	0.24	0.21	U	0.8	0.21	0.44	U	1.7	0.44	0.22	U	0.82	0.22
Trichloroethene	79-01-6	8260D	µg/Kg	12400 (5)	15000	2.6	U	2.6	0.82	0.74	U	0.74	0.24	0.87	U	2.7	0.87	0.29	U	0.91	0.29	0.26	U	0.8	0.26	0.55	J	1.7	0.54	0.26	U	0.82	0.26
Trichlorofluoromethane	75-69-4	8260D	µg/Kg	52000 (7)	23000000	2.6	U	2.6	1	0.74	U	0.74	0.3	1.1	U	2.7	1.1	0.37	U	0.91	0.37	0.33	U	0.8	0.33	0.68	U	1.7	0.68	0.33	U	0.82	0.33
Vinyl chloride	75-01-4	8260D	µg/Kg	646 (5)	970	2.6	U	2.6	1.4	0.74	U	0.74	0.41	1.5	UJ	2.7	1.5	0.5	UJ	0.91	0.5	0.44	UJ	0.8	0.44	0.91	U	1.7	0.91	0.45	U	0.82	0.45

Table 5.2 - Soil: Volatile Organic Compounds (VOCs) Analytical Results

(continued)

Rolling Knolls Landfill

Sample Name				ESC's	NJAC 7:26D	DP08_0.5-8.0				DP09_1.5-3.0				DP10_0.5-10.0				DP11_0.5-5.0				DP11_14.0-18.0				DP12_0.5-4.0				DP13_0.5-3.0			
Sample Date/Time						05/11/2021 13:15				05/13/2021 11:35				05/13/2021 14:30				05/03/2021 10:10				05/03/2021 09:30				05/10/2021 11:20				05/10/2021 12:20			
Latitude				Screening Criteria	(8) Soil Remediation Standards (Ing.-Derm.) - Residential	40.7292838				40.7285174				40.7272947				40.7220743				40.7220743				40.7218276				40.7221319			
Longitude						-74.4410889				-74.4407729				-74.4400920				-74.4442957				-74.4442957				-74.4445596				-74.4453061			
Lab Sample Name						GS-N-DPT08-SB-0.5-8.0				GS-N-DPT09-SB-1.5-3.0				GS-N-DPT10-SC-0.5-10.0				GS-S-DPT11-SC-0.5-5				GS-S-DPT11-SB-14-18				GS-S-DPT12-SB-0.5-4.0				GS-S-DPT13-SC-0.5-3.0			
Lab Sample Number						460-234161-7				460-234435-5				460-234436-10				460-233488-2				460-233488-3				460-234082-2				460-234082-4			
Lab Report Number(s)						460-234161-1				460-234435-1				460-234436-1				460-233488-1				460-233488-1				460-234082-1				460-234082-1 / 460-234082-2			
Analyte	CAS	Method	Units			Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)
1,1,1,2-Tetrachloroethane	630-20-6	8260D	µg/Kg	225000 (6)		1.1	U	5.8	1.1	0.15	UJ	0.79	0.15	0.59	U	3.1	0.59	0.57	UJ	3	0.57	0.27	UJ	1.4	0.27	1.7	U	9	1.7	0.4	U	2.1	0.4
1,1,1-Trichloroethane	71-55-6	8260D	µg/Kg	29800 (5)	160000000	1.3	U	5.8	1.3	0.19	UJ	0.79	0.19	0.72	U	3.1	0.72	0.69	U	3	0.69	0.33	U	1.4	0.33	2.1	U	9	2.1	0.5	U	2.1	0.5
1,1,2,2-Tetrachloroethane	79-34-5	8260D	µg/Kg	127 (5)	3500	1.2	U	5.8	1.2	0.17	U	0.79	0.17	0.66	U	3.1	0.66	0.64	U	3	0.64	0.3	U	1.4	0.3	1.9	U	9	1.9	0.46	U	2.1	0.46
1,1,2-Trichloro-1,2,2-trifluoroethane	76-13-1	8260D	µg/Kg			1.7	U	5.8	1.7	0.24	UJ	0.79	0.24	0.93	U	3.1	0.93	0.9	U	3	0.9	0.42	U	1.4	0.42	2.7	U	9	2.7	0.64	U	2.1	0.64
1,1,2-Trichloroethane	79-00-5	8260D	µg/Kg	28600 (5)	12000	1	U	5.8	1	0.14	U	0.79	0.14	0.55	U	3.1	0.55	0.53	U	3	0.53	0.25	U	1.4	0.25	1.6	U	9	1.6	0.38	U	2.1	0.38
1,1-Dichloroethane	75-34-3	8260D	µg/Kg	20100 (6)	120000	1.2	U	5.8	1.2	0.16	U	0.79	0.16	0.64	U	3.1	0.64	0.61	U	3	0.61	0.29	U	1.4	0.29	1.9	U	9	1.9	0.44	U	2.1	0.44
1,1-Dichloroethene	75-35-4	8260D	µg/Kg	8280 (5)	11000	1.3	U	5.8	1.3	0.18	UJ	0.79	0.18	0.7	U	3.1	0.7	0.67	U	3	0.67	0.32	U	1.4	0.32	2	U	9	2	0.48	U	2.1	0.48
1,2,3-Trichlorobenzene	87-61-6	8260D	µg/Kg	20000 (5)		1	U	5.8	1	0.14	U	0.79	0.14	0.56	U	3.1	0.56	0.54	U	3	0.54	0.26	U	1.4	0.26	1.6	U	9	1.6	0.39	U	2.1	0.39
1,2,4-Trichlorobenzene	120-82-1	8260D	µg/Kg	20000 (5)	780000	2.1	U	5.8	2.1	0.28	UJ	0.79	0.28	1.1	U	3.1	1.1	1.1	U	3	1.1	0.5	U	1.4	0.5	3.2	U	9	3.2	0.76	U	2.1	0.76
1,2-Dibromo-3-Chloropropane	96-12-8	8260D	µg/Kg	35.2 (6)	870	2.6	U	5.8	2.6	0.37	U	0.79	0.37	1.4	U	3.1	1.4	1.4	UJ	3	1.4	0.65	UJ	1.4	0.65	4.2	U	9	4.2	0.98	U	2.1	0.98
1,2-Dichlorobenzene	95-50-1	8260D	µg/Kg	2960 (5)	6700000	2.1	U	5.8	2.1	0.29	UJ	0.79	0.29	1.1	U	3.1	1.1	1.1	U	3	1.1	0.51	U	1.4	0.51	3.3	U	9	3.3	0.77	U	2.1	0.77
1,2-Dichloroethane	107-06-2	8260D	µg/Kg	21200 (5)	5800	1.7	U	5.8	1.7	0.24	U	0.79	0.24	0.92	U	3.1	0.92	0.88	U	3	0.88	0.42	U	1.4	0.42	2.7	U	9	2.7	0.63	U	2.1	0.63
1,2-Dichloropropane	78-87-5	8260D	µg/Kg	32700 (5)	19000	2.4	U	5.8	2.4	0.34	U	0.79	0.34	1.3	U	3.1	1.3	1.3	U	3	1.3	0.6	U	1.4	0.6	3.8	U	9	3.8	0.9	U	2.1	0.9
1,3-Dichlorobenzene	541-73-1	8260D	µg/Kg	37700 (5)	6700000	2.1	U	5.8	2.1	0.29	UJ	0.79	0.29	1.1	U	3.1	1.1	1.1	U	3	1.1	0.51	U	1.4	0.51	3.3	U	9	3.3	0.78	U	2.1	0.78
1,4-Dichlorobenzene	106-46-7	8260D	µg/Kg	546 (5)	780000	18		5.8	1.3	0.18	UJ	0.79	0.18	9		3.1	0.7	8.5		3	0.67	0.32	U	1.4	0.32	3.9	J	9	2	0.48	U	2.1	0.48
2-Butanone (MEK)	78-93-3	8260D	µg/Kg	350000 (7)	47000000	64		29	2.1	0.29	U	4	0.29	38		16	1.1	100		15	1.1	20		7	0.52	420		45	3.3	37		11	0.78
2-Hexanone	591-78-6	8260D	µg/Kg	12600 (6)	390000	9.9	U	29	9.9	1.4	U	4	1.4	5.3	U	16	5.3	5.1	U	15	5.1	2.4	U	7	2.4	15	U	45	15	3.6	U	11	3.6
2-Methyl-2-propanol	75-65-0	8260D	µg/Kg		1400000	45	U	58	45	6.2	U	7.9	6.2	24	U	31	24	23	U	30	23	11	U	14	11	71	UJ	90	71	17	U	21	17
4-Methyl-2-pentanone (MIBK)	108-10-1	8260D	µg/Kg	443000 (6)		9	U	29	9	1.2	U	4	1.2	4.8	U	16	4.8	4.6	U	15	4.6	2.2	U	7	2.2	14	U	45	14	3.3	U	11	3.3
Acetone	67-64-1	8260D	µg/Kg	1200 (7)	70000000	400		35	33	17		4.8	4.5	240		19	18	300		18	17	120		8.5	8.1	1700		54	52	160		13	12
Benzene	71-43-2	8260D	µg/Kg	255 (5)	3000	1.5	U	5.8	1.5	0.2	UJ	0.79	0.2	0.97	J	3.1	0.8	0.77	U	3	0.77	0.36	U	1.4	0.36	2.3	U	9	2.3	0.55	U	2.1	0.55
Bromoform	75-25-2	8260D	µg/Kg	15900 (5)	88000	2.4	U	5.8	2.4	0.34	U	0.79	0.34	1.3	UJ	3.1	1.3	1.3	UJ	3	1.3	0.6	UJ	1.4	0.6	3.8	U	9	3.8	0.91	U	2.1	0.91
Bromomethane	74-83-9	8260D	µg/Kg	235 (5)	110000	5.8	UJ	12	5.8	0.79	U	1.6	0.79	3.1	UJ	6.2	3.1	3	U	6	3	1.4	U	2.8	1.4	9	UJ	18	9	2.1	UJ	4.3	2.1
Carbon disulfide	75-15-0	8260D	µg/Kg	810 (7)		3	J	5.8	1.5	0.25	J	0.79	0.21	0.83	U	3.1	0.83	1.7	J	3	0.79	0.84	J	1.4	0.37	2.4	U	9	2.4	0.57	U	2.1	0.57
Carbon tetrachloride	56-23-5	8260D	µg/Kg	2980 (5)	7600	2.2	U	5.8	2.2	0.31	UJ	0.79	0.31	1.2	U	3.1	1.2	1.2	UJ	3	1.2	0.55	UJ	1.4	0.55	3.5	U	9	3.5	0.82	U	2.1	0.82
Chlorobenzene	108-90-7	8260D	µg/Kg	13100 (5)	510000	18		5.8	1	0.14	UJ	0.79	0.14	17		3.1	0.55	4.3		3	0.53	0.25	U	1.4	0.25	1.6	U	9	1.6	0.38	U	2.1	0.38
Chlorobromomethane	74-97-5	8260D	µg/Kg			1.6	U	5.8	1.6	0.22	U	0.79	0.22	0.87	U	3.1	0.87	0.84	U	3	0.84	0.4	U	1.4	0.4	2.5	U	9	2.5	0.6	U	2.1	0.6
Chlorodibromomethane	124-48-1	8260D	µg/Kg	2050 (5)	8300	1.1	U	5.8	1.1	0.15	U	0.79	0.15	0.6	U	3.1	0.6	0.58	UJ	3	0.58	0.27	UJ	1.4	0.27	1.8	U	9	1.8	0.41	U	2.1	0.41
Chloroethane	75-00-3	8260D	µg/Kg			3	U	5.8	3	0.41	U	0.79	0.41	1.6	U	3.1	1.6	1.6	U	3	1.6	0.74	U	1.4	0.74	4.7	U	9	4.7	1.1	U	2.1	1.1
Chloroform	67-66-3	8260D	µg/Kg	1190 (5)	780000	5.6	U	5.8	5.6	0.77	UJ	0.79	0.77	3	U	3.1	3	2.9	U	3	2.9	1.4	U	1.4	1.4	8.8	U	9	8.8	2.1	U	2.1	2.1
Chloromethane	74-87-3	8260D	µg/Kg			2.5	U	5.8	2.5	0.35	U	0.79	0.35	1.4	U	3.1	1.4	1.3	U	3	1.3	0.61	U	1.4	0.61	3.9	U	9	3.9	0.93	U	2.1	0.93
cis-1,2-Dichloroethene	156-59-2	8260D	µg/Kg	89600 (7)	780000	2.1	U	5.8	2.1	0.28	U	0.79	0.28	1.1	U	3.1	1.1	1.1	U	3	1.1	0.5	U	1.4	0.5	3.2	U	9	3.2	0.76	U	2.1	0.76
cis-1,3-Dichloropropene	10061-01-5	8260D	µg/Kg	398 (6)		1.6	U	5.8	1.6	0.22	U	0.79	0.22	0.85	U	3.1	0.85	0.81	UJ	3	0.81	0.38	UJ	1.4	0.38	2.5	U	9	2.5	0.58	U	2.1	0.58
Cyclohexane	110-82-7	8260D	µg/Kg			1.3	U	5.8	1.3	0.18	U	0.79	0.18	2.5	J	3.1	0.69	0.66	U	3	0.66	0.31	U	1.4	0.31	2	U	9	2	0.47	U	2.1	0.47
Dichlorobromomethane	75-27-4	8260D	µg/Kg	540 (5)	11000	1.5	U	5.8	1.5	0.2	U	0.79	0.2	0.8	U	3.1	0.8	0.77	UJ	3	0.77	0.36	UJ	1.4	0.36	2.3	U	9	2.3	0.55	U	2.1	0.55
Dichlorodifluoromethane	75-71-8	8260D	µg/Kg	39500 (6)	16000000	1.9	U	5.8	1.9	0.27	UJ	0.79	0.27	1	U	3.1	1	1	U	3	1	0.48	U	1.4	0.48	3.1	U	9	3.1	0.72	U	2.1	0.72
Ethylbenzene	100-41-4	8260D	µg/Kg	5160 (5)	7800000	1.1	U	5.8	1.1	0.16	UJ	0.79	0.16	0.62	U	3.1	0.62	0.59	U	3	0.59	0.28	U	1.4	0.28	1.8	U	9	1.8	0.42	U	2.1	0.42
Ethylene Dibromide	106-93-4	8260D	µg/Kg		350	1	U	5.8	1	0.14	UJ	0.79	0.14	0.56	U	3.1	0.56	0.54	U	3	0.54	0.25	U	1.4	0.25	1.6	U	9	1.6	0.38	U	2.1	0.38
Isopropylbenzene	98-82-8	8260D	µg/Kg		7800000	1.6	U	5.8	1.6	0.23	UJ	0.79	0.23	0.88	U	3.1	0.88	0.85	U	3	0.85	0.4	U	1.4	0.4	2.6	U	9	2.6	0.61	U	2.1	0.61
Methyl acetate	79-20-9	8260D	µg/Kg		78000000	25	U	29	25	3.4	U	4	3.4	13	U	16	13	13	U	15	13	6.1	U	7	6.1	39	U	45	39	9.2	U	11	9.2
Methyl tert-butyl ether	1634-04-4	8260D	µg/Kg		780000	2.9	U	5.8	2.9	0.41	U	0.79	0.41	1.6	U	3.1	1.6	1.5	U	3	1.5	0.72	U	1.4	0.72	4.6	U	9	4.6	1.1	U	2.1	1.1
Methylcyclohexane	108-87-2	8260D	µg/Kg			2.9	U	5.8	2.9	0.4	UJ	0.79	0.4	3	J	3.1	1.5	1.5	U	3	1.5	0.7	U	1.4	0.7	4.5	U	9	4.5	1.1	U	2.1	1.1
Methylene Chloride	75-09-2	8260D	µg/Kg	4050 (5)	50000	6.6	U	12	6.6	0.91	U	1.6	0.91	3.6	U	6.2	3.6	3.4	U	6	3.4	1.6	U	2.8	1.6	12	U	18	10	2.4	U	4.3	2.4
m-Xylene & p-Xylene	179601-23-1	8260D	µg/Kg	4162 (7)	12000000	1	U	5.8	1	0.14	UJ	0.79	0.14	0.78	J	3.1	0.54	0.52	U	3	0.52	0.25	U	1.4	0.25	1.6	U	9	1.6	0.37	U	2.1	0.37
o-Xylene	95-47-6	8260D	µg/Kg	4162 (7)	12000000	1.1	U	5.8	1.1	0.15	UJ	0.79	0.15	0.6	U	3.1	0.6	0.58	U	3	0.58	0.27	U	1.4	0.27	1.8	U	9	1.8	0.41	U	2.1	0.41
Styrene	100-42-5	8260D	µg/Kg	4690 (5)	16000000	1.6	U	5.8	1.6	0.22	UJ	0.79	0.22	0.86	U	3.1	0.86	0.83	U	3	0.83	0.39	U	1.4	0.39	2.5	U	9	2.5	0.59	U	2.1	0.59
Tetrachloroethene	127-18-4	8260D	µg/Kg	9920 (5)	330000	1.8	U	5.8	1.8	0.24	UJ	0.79	0.24	0.95	U	3.1	0.95	0.91	U	3	0.91	0.43	U	1.4	0.43	2.8	U	9	2.8	0.65	U	2.1	0.65
Toluene	108-88-3	8260D	µg/Kg	200000 (5)	6300000	5.3	J	5.8	1.3	0.19	UJ	0.79	0.19	0.85	J	3.1	0.73	1	J	3	0.7	0.63	J	1.4	0.33	2.1	U	9	2.1	0.5	U	2.1	0.5
trans-1,2-Dichloroethene	156-60-5	8260D	µg/Kg	784 (5)	1300000	1.4	U	5.8	1.4	0.2	U	0.79	0.2	0.76	U	3.1	0.76	0.73	U	3	0.73	0.35	U	1.4	0.35	2.2	U	9	2.2	0.52	U	2.1	0.52
trans-1,3-Dichloropropene	10061-02-6	8260D	µg/Kg	398 (6)		1.5	U	5.8	1.5	0.21	U	0.79	0.21	0.83	U	3.1	0.83	0.79	UJ	3	0.79	0.37	UJ	1.4	0.37	2.4	U	9	2.4	0.57	U	2.1	0.57
Trichloroethene	79-01-6	8260D	µg/Kg	12400 (5)	15000	1.8	U	5.8	1.8	0.26	UJ	0.79	0.26	1	U	3.1	1	0.96	U	3	0.96	0.45	U	1.4	0.45	2.9	U	9	2.9	0.68	U	2.1	0.68
Trichlorofluoromethane	75-69-4	8260D	µg/Kg	52000 (7)	23000000	2.3	U	5.8	2.3	0.32	UJ	0.79	0.32	1.3	U	3.1	1.3	1.2	U	3	1.2	0.57	U	1.4	0.57	3.7	U	9	3.7	0.87	U	2.1	0.87
Vinyl chloride	75-01-4	8260D	µg/Kg	646 (5)	970	3.1	U	5.8	3.1	0.43	U	0.79	0.43	1.7	UJ	3.1	1.7	1.6	U	3	1.6	0.77	U	1.4	0.77	4.9	U	9	4.9	1.2	U	2.1	1.2

Table 5.2 - Soil: Volatile Organic Compounds (VOCs) Analytical Results

(continued)

Rolling Knolls Landfill

Sample Name				ESC's	NJAC 7:26D	DP13_3.0-4.0				DP14_0.5-5.0				DP101_0.5-5.0 (DP14_0.5-5.0 duplicate)				DP15_0.5-5.0				DP15_19.0-21.0				DP16_0.5-4.0				DP16_4.0-7.0			
Sample Date/Time						05/10/2021 12:30				05/03/2021 11:10				05/03/2021 11:10				05/03/2021 15:55				05/03/2021 15:05				05/04/2021 10:10				05/04/2021 09:55			
Latitude						40.7221319				40.7222989				40.7222989				40.7226573				40.7226573				40.7229083				40.7229083			
Longitude				Screening Criteria	(8) Soil Remediation Standards (Ing.-Derm.) - Residential	-74.4453061				-74.4446187				-74.4446187				-74.4446863				-74.4446863				-74.4452270				-74.4452270			
Lab Sample Name						GS-S-DPT13-SB-3.0-4.0				GS-S-DPT14-SC-0.5-5				GS-S-DPT101-SC-0.5-5				GS-S-DPT15-SC-0.5-5				GS-S-DPT15-SB-19-21				GS-S-DPT16-SC-0.5-4				GS-S-DPT16-SB-4-7			
Lab Sample Number						460-234082-5				460-233488-5				460-233506-2				460-233506-4				460-233506-5				460-233704-2				460-233704-3			
Lab Report Number(s)						460-234082-1				460-233488-1 / 460-233488-2				460-233506-1				460-233506-1 / 460-233506-2				460-233506-1				460-233704-1				460-233704-1			
Analyte	CAS	Method	Units			Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)
1,1,1,2-Tetrachloroethane	630-20-6	8260D	µg/Kg	225000 (6)		0.62	U	3.2	0.62	0.35	UJ	1.8	0.35	0.36	U	1.9	0.36	1.1	U	5.9	1.1	0.3	U	1.6	0.3	0.94	U	5	0.94	0.56	U	2.9	0.56
1,1,1-Trichloroethane	71-55-6	8260D	µg/Kg	29800 (5)	160000000	0.76	U	3.2	0.76	0.43	U	1.8	0.43	0.45	U	1.9	0.45	1.4	U	5.9	1.4	0.37	U	1.6	0.37	1.2	U	5	1.2	0.68	U	2.9	0.68
1,1,2,2-Tetrachloroethane	79-34-5	8260D	µg/Kg	127 (5)	3500	0.69	UJ	3.2	0.69	0.4	U	1.8	0.4	0.41	U	1.9	0.41	1.3	U	5.9	1.3	0.34	U	1.6	0.34	1.1	U	5	1.1	0.63	U	2.9	0.63
1,1,2-Trichloro-1,2,2-trifluoroethane	76-13-1	8260D	µg/Kg			0.98	U	3.2	0.98	0.56	U	1.8	0.56	0.58	U	1.9	0.58	1.8	U	5.9	1.8	0.48	U	1.6	0.48	1.5	U	5	1.5	0.88	U	2.9	0.88
1,1,2-Trichloroethane	79-00-5	8260D	µg/Kg	28600 (5)	12000	0.58	U	3.2	0.58	0.33	U	1.8	0.33	0.34	U	1.9	0.34	1.1	U	5.9	1.1	0.29	U	1.6	0.29	0.88	U	5	0.88	0.52	U	2.9	0.52
1,1-Dichloroethane	75-34-3	8260D	µg/Kg	20100 (6)	120000	0.67	U	3.2	0.67	0.38	U	1.8	0.38	0.39	U	1.9	0.39	1.2	U	5.9	1.2	0.33	U	1.6	0.33	1	U	5	1	0.6	U	2.9	0.6
1,1-Dichloroethene	75-35-4	8260D	µg/Kg	8280 (5)	11000	0.73	U	3.2	0.73	0.42	U	1.8	0.42	0.43	U	1.9	0.43	1.3	U	5.9	1.3	0.36	U	1.6	0.36	1.1	U	5	1.1	0.66	U	2.9	0.66
1,2,3-Trichlorobenzene	87-61-6	8260D	µg/Kg	20000 (5)		0.59	UJ	3.2	0.59	0.33	U	1.8	0.33	0.35	U	1.9	0.35	1.1	U	5.9	1.1	0.29	U	1.6	0.29	0.9	U	5	0.9	0.53	U	2.9	0.53
1,2,4-Trichlorobenzene	120-82-1	8260D	µg/Kg	20000 (5)	780000	1.2	UJ	3.2	1.2	0.66	U	1.8	0.66	0.69	U	1.9	0.69	2.1	U	5.9	2.1	0.57	U	1.6	0.57	1.8	U	5	1.8	1	U	2.9	1
1,2-Dibromo-3-Chloropropane	96-12-8	8260D	µg/Kg	35.2 (6)	870	1.5	UJ	3.2	1.5	0.85	UJ	1.8	0.85	0.88	U	1.9	0.88	2.7	U	5.9	2.7	0.74	U	1.6	0.74	2.3	U	5	2.3	1.3	U	2.9	1.3
1,2-Dichlorobenzene	95-50-1	8260D	µg/Kg	2960 (5)	6700000	1.2	UJ	3.2	1.2	0.67	U	1.8	0.67	0.69	U	1.9	0.69	2.1	U	5.9	2.1	0.58	U	1.6	0.58	1.8	U	5	1.8	1.1	U	2.9	1.1
1,2-Dichloroethane	107-06-2	8260D	µg/Kg	21200 (5)	5800	0.96	U	3.2	0.96	0.55	U	1.8	0.55	0.57	U	1.9	0.57	1.8	U	5.9	1.8	0.47	U	1.6	0.47	1.5	U	5	1.5	0.87	U	2.9	0.87
1,2-Dichloropropane	78-87-5	8260D	µg/Kg	32700 (5)	19000	1.4	U	3.2	1.4	0.78	U	1.8	0.78	0.81	U	1.9	0.81	2.5	U	5.9	2.5	0.68	U	1.6	0.68	2.1	U	5	2.1	1.2	U	2.9	1.2
1,3-Dichlorobenzene	541-73-1	8260D	µg/Kg	37700 (5)	6700000	1.2	UJ	3.2	1.2	0.68	U	1.8	0.68	0.7	U	1.9	0.7	2.2	U	5.9	2.2	0.58	U	1.6	0.58	1.8	U	5	1.8	1.1	U	2.9	1.1
1,4-Dichlorobenzene	106-46-7	8260D	µg/Kg	546 (5)	780000	0.73	UJ	3.2	0.73	1.2	J	1.8	0.42	1.5	J	1.9	0.43	1.6	J	5.9	1.3	0.36	U	1.6	0.36	1.1	U	5	1.1	0.66	U	2.9	0.66
2-Butanone (MEK)	78-93-3	8260D	µg/Kg	350000 (7)	47000000	100	J	16	1.2	13		9.2	0.68	29		9.6	0.71	140		30	2.2	46		8	0.59	58		25	1.8	39		15	1.1
2-Hexanone	591-78-6	8260D	µg/Kg	12600 (6)	390000	5.6	U	16	5.6	3.2	U	9.2	3.2	3.3	U	9.6	3.3	10	U	30	10	2.7	U	8	2.7	8.5	U	25	8.5	5	U	15	5
2-Methyl-2-propanol	75-65-0	8260D	µg/Kg		1400000	25	U	32	25	15	U	18	15	15	U	19	15	47	U	59	47	13	U	16	13	39	U	50	39	23	U	29	23
4-Methyl-2-pentanone (MIBK)	108-10-1	8260D	µg/Kg	443000 (6)		5	U	16	5	2.9	U	9.2	2.9	3	U	9.6	3	9.2	U	30	9.2	2.5	U	8	2.5	7.7	U	25	7.7	4.5	U	15	4.5
Acetone	67-64-1	8260D	µg/Kg	1200 (7)	70000000	470	J	19	19	120		11	11	170		11	11	520		36	34	190		9.6	9.2	280		30	28	930		18	17
Benzene	71-43-2	8260D	µg/Kg	255 (5)	3000	2.4	J	3.2	0.84	0.48	U	1.8	0.48	0.49	U	1.9	0.49	2.5	J	5.9	1.5	0.41	U	1.6	0.41	1.3	U	5	1.3	0.75	U	2.9	0.75
Bromoform	75-25-2	8260D	µg/Kg	15900 (5)	88000	1.4	U	3.2	1.4	0.79	UJ	1.8	0.79	0.81	U	1.9	0.81	2.5	U	5.9	2.5	0.68	U	1.6	0.68	2.1	UJ	5	2.1	1.2	UJ	2.9	1.2
Bromomethane	74-83-9	8260D	µg/Kg	235 (5)	110000	3.2	UJ	6.5	3.2	1.8	U	3.7	1.8	1.9	UJ	3.8	1.9	5.9	UJ	12	5.9	1.6	UJ	3.2	1.6	5	UJ	9.9	5	2.9	UJ	5.8	2.9
Carbon disulfide	75-15-0	8260D	µg/Kg	810 (7)		1.1	J	3.2	0.86	0.49	U	1.8	0.49	0.51	U	1.9	0.51	8.5		5.9	1.6	1.5	J	1.6	0.43	1.4	J	5	1.3	1.6	J	2.9	0.78
Carbon tetrachloride	56-23-5	8260D	µg/Kg	2980 (5)	7600	1.3	U	3.2	1.3	0.72	UJ	1.8	0.72	0.74	U	1.9	0.74	2.3	U	5.9	2.3	0.62	U	1.6	0.62	1.9	U	5	1.9	1.1	U	2.9	1.1
Chlorobenzene	108-90-7	8260D	µg/Kg	13100 (5)	510000	0.57	U	3.2	0.57	2		1.8	0.33	2.7		1.9	0.34	4.7	J	5.9	1.1	0.28	U	1.6	0.28	0.88	U	5	0.88	0.52	U	2.9	0.52
Chlorobromomethane	74-97-5	8260D	µg/Kg			0.91	U	3.2	0.91	0.52	U	1.8	0.52	0.54	U	1.9	0.54	1.7	U	5.9	1.7	0.45	U	1.6	0.45	1.4	U	5	1.4	0.82	U	2.9	0.82
Chlorodibromomethane	124-48-1	8260D	µg/Kg	2050 (5)	8300	0.63	U	3.2	0.63	0.36	UJ	1.8	0.36	0.37	U	1.9	0.37	1.2	U	5.9	1.2	0.31	U	1.6	0.31	0.96	U	5	0.96	0.57	U	2.9	0.57
Chloroethane	75-00-3	8260D	µg/Kg			1.7	U	3.2	1.7	0.97	U	1.8	0.97	1	U	1.9	1	3.1	U	5.9	3.1	0.84	U	1.6	0.84	2.6	U	5	2.6	1.5	U	2.9	1.5
Chloroform	67-66-3	8260D	µg/Kg	1190 (5)	780000	3.2	U	3.2	3.2	1.8	U	1.8	1.8	1.9	U	1.9	1.9	5.8	U	5.9	5.8	1.6	U	1.6	1.6	4.8	U	5	4.8	14		2.9	2.8
Chloromethane	74-87-3	8260D	µg/Kg			1.4	U	3.2	1.4	0.8	U	1.8	0.8	0.83	U	1.9	0.83	2.6	U	5.9	2.6	0.7	U	1.6	0.7	2.2	U	5	2.2	1.3	U	2.9	1.3
cis-1,2-Dichloroethene	156-59-2	8260D	µg/Kg	89600 (7)	780000	1.2	U	3.2	1.2	0.66	U	1.8	0.66	0.69	U	1.9	0.69	2.1	U	5.9	2.1	0.57	U	1.6	0.57	1.8	U	5	1.8	1	U	2.9	1
cis-1,3-Dichloropropene	10061-01-5	8260D	µg/Kg	398 (6)		0.89	U	3.2	0.89	0.5	U	1.8	0.5	0.52	U	1.9	0.52	1.6	U	5.9	1.6	0.44	U	1.6	0.44	1.4	U	5	1.4	0.8	U	2.9	0.8
Cyclohexane	110-82-7	8260D	µg/Kg			0.72	U	3.2	0.72	0.41	U	1.8	0.41	0.42	U	1.9	0.42	1.3	U	5.9	1.3	0.35	U	1.6	0.35	1.1	U	5	1.1	0.65	U	2.9	0.65
Dichlorobromomethane	75-27-4	8260D	µg/Kg	540 (5)	11000	0.83	U	3.2	0.83	0.48	UJ	1.8	0.48	0.49	U	1.9	0.49	1.5	U	5.9	1.5	0.41	U	1.6	0.41	1.3	U	5	1.3	0.75	U	2.9	0.75
Dichlorodifluoromethane	75-71-8	8260D	µg/Kg	39500 (6)	16000000	1.1	U	3.2	1.1	0.63	U	1.8	0.63	0.65	U	1.9	0.65	2	U	5.9	2	0.54	U	1.6	0.54	1.7	U	5	1.7	0.99	U	2.9	0.99
Ethylbenzene	100-41-4	8260D	µg/Kg	5160 (5)	7800000	0.65	U	3.2	0.65	0.37	U	1.8	0.37	0.38	U	1.9	0.38	1.2	U	5.9	1.2	0.32	U	1.6	0.32	0.99	U	5	0.99	0.58	U	2.9	0.58
Ethylene Dibromide	106-93-4	8260D	µg/Kg		350	0.58	U	3.2	0.58	0.33	U	1.8	0.33	0.34	U	1.9	0.34	1.1	U	5.9	1.1	0.29	U	1.6	0.29	0.89	U	5	0.89	0.53	U	2.9	0.53
Isopropylbenzene	98-82-8	8260D	µg/Kg		7800000	0.93	U	3.2	0.93	0.53	U	1.8	0.53	0.55	U	1.9	0.55	1.7	U	5.9	1.7	0.46	U	1.6	0.46	1.4	U	5	1.4	0.83	U	2.9	0.83
Methyl acetate	79-20-9	8260D	µg/Kg		78000000	14	U	16	14	8	U	9.2	8	8.2	U	9.6	8.2	26	U	30	26	6.9	U	8	6.9	21	U	25	21	13	U	15	13
Methyl tert-butyl ether	1634-04-4	8260D	µg/Kg		780000	1.7	U	3.2	1.7	0.95	U	1.8	0.95	0.98	U	1.9	0.98	3	U	5.9	3	0.82	U	1.6	0.82	2.5	U	5	2.5	1.5	U	2.9	1.5
Methylcyclohexane	108-87-2	8260D	µg/Kg			1.6	U	3.2	1.6	0.92	U	1.8	0.92	0.96	U	1.9	0.96	3	U	5.9	3	0.8	U	1.6	0.8	2.5	U	5	2.5	1.5	U	2.9	1.5
Methylene Chloride	75-09-2	8260D	µg/Kg	4050 (5)	50000	3.7	U	6.5	3.7	2.1	U	3.7	2.1	2.2	U	3.8	2.2	8.6	J	12	6.8	1.8	U	3.2	1.8	5.7	U	9.9	5.7	3.3	U	5.8	3.3
m-Xylene & p-Xylene	179601-23-1	8260D	µg/Kg	4162 (7)	12000000	0.57	U	3.2	0.57	0.32	U	1.8	0.32	0.33	U	1.9	0.33	1	U	5.9	1	0.28	U	1.6	0.28	0.86	U	5	0.86	0.51	U	2.9	0.51
o-Xylene	95-47-6	8260D	µg/Kg	4162 (7)	12000000	0.63	U	3.2	0.63	0.36	U	1.8	0.36	0.37	U	1.9	0.37	1.2	U	5.9	1.2	0.31	U	1.6	0.31	0.96	U	5	0.96	0.57	U	2.9	0.57
Styrene	100-42-5	8260D	µg/Kg	4690 (5)	16000000	0.9	U	3.2	0.9	0.51	U	1.8	0.51	0.53	U	1.9	0.53	1.7	U	5.9	1.7	0.45	U	1.6	0.45	1.4	U	5	1.4	0.81	U	2.9	0.81
Tetrachloroethene	127-18-4	8260D	µg/Kg	9920 (5)	330000	0.99	U	3.2	0.99	0.56	U	1.8	0.56	0.58	U	1.9	0.58	1.8	U	5.9	1.8	0.49	U	1.6	0.49	1.5	U	5	1.5	0.89	U	2.9	0.89
Toluene	108-88-3	8260D	µg/Kg	200000 (5)	6300000	0.76	U	3.2	0.76	0.43	U	1.8	0.43	0.45	U	1.9	0.45	1.4	U	5.9	1.4	0.37	U	1.6	0.37	2.4	J	5	1.2	0.68	U	2.9	0.68
trans-1,2-Dichloroethene	156-60-5	8260D	µg/Kg	784 (5)	1300000	0.8	U	3.2	0.8	0.45	U	1.8	0.45	0.47	U	1.9	0.47	1.5	U	5.9	1.5	0.39	U	1.6	0.39	1.2	U	5	1.2	0.72	U	2.9	0.72
trans-1,3-Dichloropropene	10061-02-6	8260D	µg/Kg	398 (6)		0.86	U	3.2	0.86	0.49	UJ	1.8	0.49	0.51	U	1.9	0.51	1.6	U	5.9	1.6	0.43	U	1.6	0.43	1.3	U	5	1.3	0.78	U	2.9	0.78
Trichloroethene	79-01-6	8260D	µg/Kg	12400 (5)	15000	1	U	3.2	1	0.59	U	1.8	0.59	0.62	U	1.9	0.62	1.9	U	5.9	1.9	0.51	U	1.6	0.51	1.6	U	5	1.6	0.94	U	2.9	0.94
Trichlorofluoromethane	75-69-4	8260D	µg/Kg	52000 (7)	23000000	1.3	U	3.2	1.3	0.75	U	1.8	0.75	0.78	U	1.9	0.78	2.4	U	5.9	2.4	0.65	U	1.6	0.65	2	U	5	2	1.2	U	2.9	1.2
Vinyl chloride	75-01-4	8260D	µg/Kg	646 (5)	970	1.8	U	3.2	1.8	1	U	1.8	1	1	U	1.9	1	3.2	U	5.9	3.2	0.87	U	1.6	0.87	2.7	U	5	2.7	1.6	U	2.9	1.6

Table 5.2 - Soil: Volatile Organic Compounds (VOCs) Analytical Results

(continued)

Rolling Knolls Landfill

Sample Name				ESC's	NJAC 7:26D	DP17_0.5-2.0				DP17_3.5-5.0				DP102_3.5-5.0 (DP17_3.5-5.0 duplicate)				DP18_3.5-5.0				DP19_0.5-5.0				DP19_5.0-9.0				DP20_0.5-4.0			
Sample Date/Time						05/05/2021 10:45				05/05/2021 11:40				05/05/2021 11:40				05/10/2021 14:05				05/10/2021 09:00				05/10/2021 09:50				05/04/2021 13:25			
Latitude				Screening Criteria	(8) Soil Remediation Standards (Ing.-Derm.) - Residential	40.7231730				40.7231730				40.7231730				40.7226388				40.7236522				40.7236522				40.7227310			
Longitude						-74.4437270				-74.4437270				-74.4437270				-74.4459762				-74.4437257				-74.4437257				-74.4439070			
Lab Sample Name						GS-S-DPT17-SC-0.5-2				GS-S-DPT17-SB-3.5-5				GS-S-DP102-SB-3.5-5				GS-S-DPT13-SB-3.5-5.0				GS-S-DPT19-SC-0.5-5.0				GS-S-DPT19-SB-5.0-9.0				GS-S-DPT20-SC-0.5-4			
Lab Sample Number						460-233715-2				460-233715-3				460-233708-6				460-234082-6				460-234080-2				460-234080-3				460-233704-5			
Lab Report Number(s)						460-233715-1				460-233715-1				460-233708-1				460-234082-1				460-234080-1				460-234080-1				460-233704-1			
Analyte	CAS	Method	Units			Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)
1,1,1,2-Tetrachloroethane	630-20-6	8260D	µg/Kg	225000 (6)		0.49	U	2.6	0.49	0.7	U	3.7	0.7	0.89	U	4.7	0.89	0.69	U	3.6	0.69	0.46	U	2.4	0.46	0.88	UJ	4.7	0.88	0.31	U	1.6	0.31
1,1,1-Trichloroethane	71-55-6	8260D	µg/Kg	29800 (5)	160000000	0.6	U	2.6	0.6	0.86	U	3.7	0.86	1.1	U	4.7	1.1	0.85	U	3.6	0.85	0.56	U	2.4	0.56	1.1	UJ	4.7	1.1	0.37	U	1.6	0.37
1,1,2,2-Tetrachloroethane	79-34-5	8260D	µg/Kg	127 (5)	3500	0.55	UJ	2.6	0.55	0.79	UJ	3.7	0.79	1	UJ	4.7	1	0.78	U	3.6	0.78	0.51	U	2.4	0.51	1	UJ	4.7	1	0.34	U	1.6	0.34
1,1,2-Trichloro-1,2,2-trifluoroethane	76-13-1	8260D	µg/Kg			0.77	U	2.6	0.77	1.1	U	3.7	1.1	1.4	U	4.7	1.4	1.1	U	3.6	1.1	0.72	U	2.4	0.72	1.4	U	4.7	1.4	0.48	U	1.6	0.48
1,1,2-Trichloroethane	79-00-5	8260D	µg/Kg	28600 (5)	12000	0.46	U	2.6	0.46	0.66	U	3.7	0.66	0.83	U	4.7	0.83	0.65	U	3.6	0.65	0.43	U	2.4	0.43	0.83	UJ	4.7	0.83	0.29	U	1.6	0.29
1,1-Dichloroethane	75-34-3	8260D	µg/Kg	20100 (6)	120000	0.53	U	2.6	0.53	0.76	U	3.7	0.76	0.97	U	4.7	0.97	0.75	U	3.6	0.75	0.5	U	2.4	0.5	0.96	UJ	4.7	0.96	0.33	U	1.6	0.33
1,1-Dichloroethene	75-35-4	8260D	µg/Kg	8280 (5)	11000	0.58	U	2.6	0.58	0.83	U	3.7	0.83	1.1	U	4.7	1.1	0.82	U	3.6	0.82	0.54	U	2.4	0.54	1	U	4.7	1	0.36	U	1.6	0.36
1,2,3-Trichlorobenzene	87-61-6	8260D	µg/Kg	20000 (5)		0.46	UJ	2.6	0.46	0.67	UJ	3.7	0.67	0.85	UJ	4.7	0.85	0.66	U	3.6	0.66	0.44	U	2.4	0.44	0.84	UJ	4.7	0.84	0.29	U	1.6	0.29
1,2,4-Trichlorobenzene	120-82-1	8260D	µg/Kg	20000 (5)	780000	0.92	UJ	2.6	0.92	1.3	UJ	3.7	1.3	1.7	UJ	4.7	1.7	1.3	U	3.6	1.3	0.86	U	2.4	0.86	1.7	UJ	4.7	1.7	0.58	U	1.6	0.58
1,2-Dibromo-3-Chloropropane	96-12-8	8260D	µg/Kg	35.2 (6)	870	1.2	UJ	2.6	1.2	1.7	UJ	3.7	1.7	2.2	UJ	4.7	2.2	1.7	U	3.6	1.7	1.1	UJ	2.4	1.1	2.1	UJ	4.7	2.1	0.74	U	1.6	0.74
1,2-Dichlorobenzene	95-50-1	8260D	µg/Kg	2960 (5)	6700000	0.93	UJ	2.6	0.93	1.3	UJ	3.7	1.3	1.7	UJ	4.7	1.7	1.3	U	3.6	1.3	0.87	U	2.4	0.87	1.7	UJ	4.7	1.7	0.58	U	1.6	0.58
1,2-Dichloroethane	107-06-2	8260D	µg/Kg	21200 (5)	5800	0.76	U	2.6	0.76	1.1	U	3.7	1.1	1.4	U	4.7	1.4	1.1	U	3.6	1.1	0.71	U	2.4	0.71	1.4	UJ	4.7	1.4	0.48	U	1.6	0.48
1,2-Dichloropropane	78-87-5	8260D	µg/Kg	32700 (5)	19000	1.1	U	2.6	1.1	1.6	U	3.7	1.6	2	U	4.7	2	1.5	U	3.6	1.5	1	U	2.4	1	2	UJ	4.7	2	0.68	U	1.6	0.68
1,3-Dichlorobenzene	541-73-1	8260D	µg/Kg	37700 (5)	6700000	0.94	UJ	2.6	0.94	1.3	UJ	3.7	1.3	1.7	UJ	4.7	1.7	1.3	U	3.6	1.3	0.88	U	2.4	0.88	1.7	UJ	4.7	1.7	0.59	U	1.6	0.59
1,4-Dichlorobenzene	106-46-7	8260D	µg/Kg	546 (5)	780000	1.7	J	2.6	0.58	11	J	3.7	0.83	9	J	4.7	1.1	0.82	U	3.6	0.82	2	J	2.4	0.54	9	J	4.7	1	0.36	U	1.6	0.36
2-Butanone (MEK)	78-93-3	8260D	µg/Kg	350000 (7)	47000000	0.94	U	13	0.94	140		18	1.4	170		23	1.7	120		18	1.3	74		12	0.89	290	J	23	1.7	0.59	U	8	0.59
2-Hexanone	591-78-6	8260D	µg/Kg	12600 (6)	390000	4.4	UJ	13	4.4	6.3	U	18	6.3	8	UJ	23	8	6.2	U	18	6.2	4.1	UJ	12	4.1	8	UJ	23	8	2.8	U	8	2.8
2-Methyl-2-propanol	75-65-0	8260D	µg/Kg		1400000	20	U	26	20	29	U	37	29	37	U	47	37	28	U	36	28	19	UJ	24	19	36	UJ	47	36	13	U	16	13
4-Methyl-2-pentanone (MIBK)	108-10-1	8260D	µg/Kg	443000 (6)		4	UJ	13	4	5.7	U	18	5.7	7.3	UJ	23	7.3	5.6	U	18	5.6	3.7	U	12	3.7	7.2	UJ	23	7.2	2.5	U	8	2.5
Acetone	67-64-1	8260D	µg/Kg	1200 (7)	70000000	29		15	15	630	J	22	21	590		28	27	380		22	21	210		14	14	830	J	28	27	53		9.6	9.2
Benzene	71-43-2	8260D	µg/Kg	255 (5)	3000	0.66	U	2.6	0.66	5.6		3.7	0.95	8.2		4.7	1.2	0.94	U	3.6	0.94	0.62	U	2.4	0.62	1.2	UJ	4.7	1.2	0.41	U	1.6	0.41
Bromoform	75-25-2	8260D	µg/Kg	15900 (5)	88000	1.1	U	2.6	1.1	1.6	U	3.7	1.6	2	U	4.7	2	1.5	U	3.6	1.5	1	UJ	2.4	1	2	UJ	4.7	2	0.68	UJ	1.6	0.68
Bromomethane	74-83-9	8260D	µg/Kg	235 (5)	110000	2.6	UJ	5.1	2.6	3.7	U	7.4	3.7	4.7	UJ	9.4	4.7	3.6	UJ	7.3	3.6	2.4	U	4.8	2.4	4.7	U	9.3	4.7	1.6	UJ	3.2	1.6
Carbon disulfide	75-15-0	8260D	µg/Kg	810 (7)		0.68	U	2.6	0.68	2.9	J	3.7	0.98	2.4	J	4.7	1.2	2.1	J	3.6	0.97	1	J	2.4	0.64	11	J	4.7	1.2	0.43	U	1.6	0.43
Carbon tetrachloride	56-23-5	8260D	µg/Kg	2980 (5)	7600	0.99	U	2.6	0.99	1.4	U	3.7	1.4	1.8	U	4.7	1.8	1.4	U	3.6	1.4	0.93	U	2.4	0.93	1.8	UJ	4.7	1.8	0.62	U	1.6	0.62
Chlorobenzene	108-90-7	8260D	µg/Kg	13100 (5)	510000	0.45	U	2.6	0.45	13		3.7	0.65	24		4.7	0.83	0.64	U	3.6	0.64	0.84	J	2.4	0.43	13	J	4.7	0.82	0.28	U	1.6	0.28
Chlorobromomethane	74-97-5	8260D	µg/Kg			0.72	U	2.6	0.72	1	U	3.7	1	1.3	U	4.7	1.3	1	U	3.6	1	0.68	U	2.4	0.68	1.3	UJ	4.7	1.3	0.45	U	1.6	0.45
Chlorodibromomethane	124-48-1	8260D	µg/Kg	2050 (5)	8300	0.5	U	2.6	0.5	0.71	U	3.7	0.71	0.91	U	4.7	0.91	0.7	U	3.6	0.7	0.47	UJ	2.4	0.47	0.9	UJ	4.7	0.9	0.31	U	1.6	0.31
Chloroethane	75-00-3	8260D	µg/Kg			1.3	U	2.6	1.3	1.9	UJ	3.7	1.9	2.4	U	4.7	2.4	1.9	U	3.6	1.9	1.3	U	2.4	1.3	2.4	U	4.7	2.4	0.84	U	1.6	0.84
Chloroform	67-66-3	8260D	µg/Kg	1190 (5)	780000	2.5	U	2.6	2.5	3.6	U	3.7	3.6	4.6	U	4.7	4.6	3.5	U	3.6	3.5	2.3	U	2.4	2.3	4.5	UJ	4.7	4.5	1.6	U	1.6	1.6
Chloromethane	74-87-3	8260D	µg/Kg			1.1	UJ	2.6	1.1	1.6	UJ	3.7	1.6	2	UJ	4.7	2	1.6	U	3.6	1.6	1	UJ	2.4	1	2	UJ	4.7	2	0.7	U	1.6	0.7
cis-1,2-Dichloroethene	156-59-2	8260D	µg/Kg	89600 (7)	780000	0.92	U	2.6	0.92	1.3	U	3.7	1.3	1.7	U	4.7	1.7	1.3	U	3.6	1.3	0.86	U	2.4	0.86	1.7	UJ	4.7	1.7	0.58	U	1.6	0.58
cis-1,3-Dichloropropene	10061-01-5	8260D	µg/Kg	398 (6)		0.7	U	2.6	0.7	1	U	3.7	1	1.3	U	4.7	1.3	0.99	U	3.6	0.99	0.66	UJ	2.4	0.66	1.3	UJ	4.7	1.3	0.44	U	1.6	0.44
Cyclohexane	110-82-7	8260D	µg/Kg			0.57	U	2.6	0.57	0.81	U	3.7	0.81	1	U	4.7	1	0.8	U	3.6	0.8	1	J	2.4	0.53	2.8	J	4.7	1	0.36	U	1.6	0.36
Dichlorobromomethane	75-27-4	8260D	µg/Kg	540 (5)	11000	0.66	U	2.6	0.66	0.95	U	3.7	0.95	1.2	U	4.7	1.2	0.93	U	3.6	0.93	0.62	U	2.4	0.62	1.2	UJ	4.7	1.2	0.41	U	1.6	0.41
Dichlorodifluoromethane	75-71-8	8260D	µg/Kg	39500 (6)	16000000	0.87	UJ	2.6	0.87	1.2	UJ	3.7	1.2	1.6	UJ	4.7	1.6	1.2	U	3.6	1.2	0.81	U	2.4	0.81	1.6	U	4.7	1.6	0.54	U	1.6	0.54
Ethylbenzene	100-41-4	8260D	µg/Kg	5160 (5)	7800000	0.51	U	2.6	0.51	1.3	J	3.7	0.73	3.3	J	4.7	0.93	0.72	U	3.6	0.72	0.48	U	2.4	0.48	0.93	UJ	4.7	0.93	0.32	U	1.6	0.32
Ethylene Dibromide	106-93-4	8260D	µg/Kg		350	0.46	U	2.6	0.46	0.66	U	3.7	0.66	0.84	U	4.7	0.84	0.65	U	3.6	0.65	0.43	U	2.4	0.43	0.84	UJ	4.7	0.84	0.29	U	1.6	0.29
Isopropylbenzene	98-82-8	8260D	µg/Kg		7800000	0.73	U	2.6	0.73	2.5	J	3.7	1	4.6	J	4.7	1.3	1	U	3.6	1	0.69	U	2.4	0.69	1.3	J	4.7	1.3	0.46	U	1.6	0.46
Methyl acetate	79-20-9	8260D	µg/Kg		78000000	11	U	13	11	16	U	18	16	20	U	23	20	16	U	18	16	10	U	12	10	20	U	23	20	6.9	U	8	6.9
Methyl tert-butyl ether	1634-04-4	8260D	µg/Kg		780000	1.3	U	2.6	1.3	1.9	U	3.7	1.9	2.4	U	4.7	2.4	1.9	U	3.6	1.9	1.2	U	2.4	1.2	2.4	UJ	4.7	2.4	0.82	U	1.6	0.82
Methylcyclohexane	108-87-2	8260D	µg/Kg			1.3	U	2.6	1.3	1.8	U	3.7	1.8	2.3	U	4.7	2.3	1.8	U	3.6	1.8	2.2	J	2.4	1.2	6.5	J	4.7	2.3	0.8	U	1.6	0.8
Methylene Chloride	75-09-2	8260D	µg/Kg	4050 (5)	50000	2.9	U	5.1	2.9	4.9	U	7.4	4.2	8.6	U	9.4	5.4	4.2	U	7.3	4.2	2.8	U	4.8	2.8	16	J	9.3	5.3	1.8	U	3.2	1.8
m-Xylene & p-Xylene	179601-23-1	8260D	µg/Kg	4162 (7)	12000000	0.45	U	2.6	0.45	11		3.7	0.64	21		4.7	0.82	0.63	U	3.6	0.63	0.42	U	2.4	0.42	1.1	J	4.7	0.81	0.28	U	1.6	0.28
o-Xylene	95-47-6	8260D	µg/Kg	4162 (7)	12000000	0.5	U	2.6	0.5	10		3.7	0.71	21		4.7	0.91	0.7	U	3.6	0.7	0.47	U	2.4	0.47	0.9	UJ	4.7	0.9	0.31	U	1.6	0.31
Styrene	100-42-5	8260D	µg/Kg	4690 (5)	16000000	0.71	U	2.6	0.71	1	U	3.7	1	1.3	U	4.7	1.3	1	U	3.6	1	0.67	U	2.4	0.67	1.3	UJ	4.7	1.3	0.45	U	1.6	0.45
Tetrachloroethene	127-18-4	8260D	µg/Kg	9920 (5)	330000	0.78	U	2.6	0.78	1.1	U	3.7	1.1	1.4	U	4.7	1.4	1.1	U	3.6	1.1	0.73	U	2.4	0.73	1.4	UJ	4.7	1.4	0.49	U	1.6	0.49
Toluene	108-88-3	8260D	µg/Kg	200000 (5)	6300000	0.6	U	2.6	0.6	1.5	J	3.7	0.86	1.9	J	4.7	1.1	0.85	U	3.6	0.85	0.58	J	2.4	0.56	1.2	J	4.7	1.1	0.38	U	1.6	0.38
trans-1,2-Dichloroethene	156-60-5	8260D	µg/Kg	784 (5)	1300000	0.63	U	2.6	0.63	0.91	U	3.7	0.91	1.2	U	4.7	1.2	0.89	U	3.6	0.89	0.59	U	2.4	0.59	1.1	UJ	4.7	1.1	0.4	U	1.6	0.4
trans-1,3-Dichloropropene	10061-02-6	8260D	µg/Kg	398 (6)		0.68	U	2.6	0.68	0.98	U	3.7	0.98	1.2	U	4.7	1.2	0.97	U	3.6	0.97	0.64	UJ	2.4	0.64	1.2	UJ	4.7	1.2	0.43	U	1.6	0.43
Trichloroethene	79-01-6	8260D	µg/Kg	12400 (5)	15000	0.82	U	2.6	0.82	1.2	U	3.7	1.2	1.5	U	4.7	1.5	1.2	U	3.6	1.2	0.77	U	2.4	0.77	1.5	UJ	4.7	1.5	0.52	U	1.6	0.52
Trichlorofluoromethane	75-69-4	8260D	µg/Kg	52000 (7)	23000000	1	U	2.6	1	1.5	UJ	3.7	1.5	1.9	U	4.7	1.9	1.5	U	3.6	1.5	0.98	U	2.4	0.98	1.9	U	4.7	1.9	0.65	U	1.6	0.65
Vinyl chloride	75-01-4	8260D	µg/Kg	646 (5)	970	1.4	U	2.6	1.4	2	UJ	3.7	2	2.6	U	4.7	2.6	2	U	3.6	2	1.3	U	2.4	1.3	2.5	U	4.7	2.5	0.88	U	1.6	0.88

Table 5.2 - Soil: Volatile Organic Compounds (VOCs) Analytical Results

(continued)

Rolling Knolls Landfill

Sample Name				ESC's	NJAC 7:26D	DP20_10.0-13.0				DP21_0.5-4.0				DP21_4.0-5.0				DP22_0.5-3.0				DP102_0.5-3.0 (DP22_0.5-3.0 duplicate)				DP22_3.0-5.0				DP23_0.5-2.5			
Sample Date/Time						05/04/2021 13:00				05/07/2021 11:05				05/07/2021 11:50				05/04/2021 11:35				05/04/2021 11:35				05/04/2021 11:00				05/10/2021 16:05			
Latitude						40.7227310				40.7238344				40.7238344				40.7234467				40.7234467				40.7234467				40.7234761			
Longitude						-74.4439070				-74.4456550				-74.4456550				-74.4453029				-74.4453029				-74.4453029				-74.4461556			
Lab Sample Name				Screening Criteria	(8) Soil Remediation Standards (Ing.-Derm.) - Residential	GS-S-DPT-20-SB-10-13				GS-S-DPT21-SC-0.5-4				GS-S-DPT21-SB-4-5				GS-S-DPT22-SC-0.5-3				GS-S-DPT102-SC-0.5-3				GS-S-DPT22-SB-3-5				GS-S-DPT23-SC-0.5-2.5			
Lab Sample Number						460-233704-6				460-233940-6				460-233940-7				460-233706-2				460-233704-7				460-233706-3				460-234080-5			
Lab Report Number(s)						460-233704-1				460-233940-1				460-233940-1				460-233706-1				460-233704-1				460-233706-1				460-234080-1			
Analyte	CAS	Method	Units			Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)
1,1,1,2-Tetrachloroethane	630-20-6	8260D	µg/Kg	225000 (6)		1.5	U	8	1.5	0.81	UJ	4.3	0.81	0.92	U	4.8	0.92	0.75	U	3.9	0.75	0.33	U	1.7	0.33	0.35	U	1.8	0.35	0.87	U	4.6	0.87
1,1,1-Trichloroethane	71-55-6	8260D	µg/Kg	29800 (5)	160000000	1.9	U	8	1.9	1	UJ	4.3	1	1.1	U	4.8	1.1	0.91	U	3.9	0.91	0.4	U	1.7	0.4	0.42	U	1.8	0.42	1.1	U	4.6	1.1
1,1,2,2-Tetrachloroethane	79-34-5	8260D	µg/Kg	127 (5)	3500	1.7	U	8	1.7	0.92	UJ	4.3	0.92	1	U	4.8	1	0.84	U	3.9	0.84	0.37	U	1.7	0.37	0.39	U	1.8	0.39	0.98	U	4.6	0.98
1,1,2-Trichloro-1,2,2-trifluoroethane	76-13-1	8260D	µg/Kg			2.4	U	8	2.4	1.3	UJ	4.3	1.3	1.5	UJ	4.8	1.5	1.2	U	3.9	1.2	0.52	U	1.7	0.52	0.55	U	1.8	0.55	1.4	U	4.6	1.4
1,1,2-Trichloroethane	79-00-5	8260D	µg/Kg	28600 (5)	12000	1.4	U	8	1.4	0.76	UJ	4.3	0.76	0.86	U	4.8	0.86	0.7	U	3.9	0.7	0.31	U	1.7	0.31	0.32	U	1.8	0.32	0.82	U	4.6	0.82
1,1-Dichloroethane	75-34-3	8260D	µg/Kg	20100 (6)	120000	1.6	U	8	1.6	0.88	UJ	4.3	0.88	1	U	4.8	1	0.81	U	3.9	0.81	0.36	U	1.7	0.36	0.38	U	1.8	0.38	0.95	U	4.6	0.95
1,1-Dichloroethene	75-35-4	8260D	µg/Kg	8280 (5)	11000	1.8	U	8	1.8	0.96	UJ	4.3	0.96	1.1	U	4.8	1.1	0.88	U	3.9	0.88	0.39	U	1.7	0.39	0.41	U	1.8	0.41	1	U	4.6	1
1,2,3-Trichlorobenzene	87-61-6	8260D	µg/Kg	20000 (5)		1.4	U	8	1.4	0.78	UJ	4.3	0.78	0.87	U	4.8	0.87	0.71	U	3.9	0.71	0.31	U	1.7	0.31	0.33	U	1.8	0.33	0.83	U	4.6	0.83
1,2,4-Trichlorobenzene	120-82-1	8260D	µg/Kg	20000 (5)	780000	2.8	U	8	2.8	1.5	UJ	4.3	1.5	1.7	U	4.8	1.7	1.4	U	3.9	1.4	0.62	U	1.7	0.62	0.65	U	1.8	0.65	1.6	U	4.6	1.6
1,2-Dibromo-3-Chloropropane	96-12-8	8260D	µg/Kg	35.2 (6)	870	3.7	U	8	3.7	2	UJ	4.3	2	2.2	UJ	4.8	2.2	1.8	U	3.9	1.8	0.79	U	1.7	0.79	0.84	U	1.8	0.84	2.1	UJ	4.6	2.1
1,2-Dichlorobenzene	95-50-1	8260D	µg/Kg	2960 (5)	6700000	2.9	U	8	2.9	1.5	UJ	4.3	1.5	1.7	U	4.8	1.7	1.4	U	3.9	1.4	0.62	U	1.7	0.62	0.66	U	1.8	0.66	1.7	U	4.6	1.7
1,2-Dichloroethane	107-06-2	8260D	µg/Kg	21200 (5)	5800	2.4	U	8	2.4	1.3	UJ	4.3	1.3	1.4	U	4.8	1.4	1.2	U	3.9	1.2	0.51	U	1.7	0.51	0.54	U	1.8	0.54	1.4	U	4.6	1.4
1,2-Dichloropropane	78-87-5	8260D	µg/Kg	32700 (5)	19000	3.4	U	8	3.4	1.8	UJ	4.3	1.8	2	U	4.8	2	1.7	U	3.9	1.7	0.73	U	1.7	0.73	0.77	U	1.8	0.77	1.9	U	4.6	1.9
1,3-Dichlorobenzene	541-73-1	8260D	µg/Kg	37700 (5)	6700000	2.9	U	8	2.9	1.6	UJ	4.3	1.6	1.8	U	4.8	1.8	1.4	U	3.9	1.4	0.63	U	1.7	0.63	0.67	U	1.8	0.67	1.7	U	4.6	1.7
1,4-Dichlorobenzene	106-46-7	8260D	µg/Kg	546 (5)	780000	1.8	U	8	1.8	0.96	UJ	4.3	0.96	5.8		4.8	1.1	0.88	U	3.9	0.88	0.39	U	1.7	0.39	0.41	U	1.8	0.41	7.4		4.6	1
2-Butanone (MEK)	78-93-3	8260D	µg/Kg	350000 (7)	47000000	120		40	2.9	59	J	21	1.6	210	J	24	1.8	48		20	1.4	11		8.6	0.64	100		9.1	0.67	250		23	1.7
2-Hexanone	591-78-6	8260D	µg/Kg	12600 (6)	390000	14	U	40	14	7.3	UJ	21	7.3	8.3	U	24	8.3	6.7	U	20	6.7	3	U	8.6	3	5.4	J	9.1	3.1	7.9	UJ	23	7.9
2-Methyl-2-propanol	75-65-0	8260D	µg/Kg		1400000	62	U	80	62	34	UJ	43	34	38	U	48	38	31	U	39	31	14	U	17	14	**17**	J	18	14	36	UJ	46	36
4-Methyl-2-pentanone (MIBK)	108-10-1	8260D	µg/Kg	443000 (6)		12	U	40	12	6.7	UJ	21	6.7	7.5	U	24	7.5	6.1	U	20	6.1	2.7	U	8.6	2.7	2.8	U	9.1	2.8	7.1	U	23	7.1
Acetone	67-64-1	8260D	µg/Kg	1200 (7)	70000000	470		48	46	260		26	24	620		29	28	210		24	22	55		10	9.9	300		11	10	710		28	26
Benzene	71-43-2	8260D	µg/Kg	255 (5)	3000	2.1	U	8	2.1	1.1	UJ	4.3	1.1	4.7	J	4.8	1.2	1	U	3.9	1	0.45	U	1.7	0.45	0.47	U	1.8	0.47	1.5	J	4.6	1.2
Bromoform	75-25-2	8260D	µg/Kg	15900 (5)	88000	3.4	UJ	8	3.4	1.8	UJ	4.3	1.8	2.1	UJ	4.8	2.1	1.7	U	3.9	1.7	0.73	UJ	1.7	0.73	0.77	U	1.8	0.77	2	UJ	4.6	2
Bromomethane	74-83-9	8260D	µg/Kg	235 (5)	110000	8	UJ	16	8	4.3	U	8.6	4.3	4.8	U	9.7	4.8	3.9	UJ	7.8	3.9	1.7	UJ	3.5	1.7	1.8	UJ	3.6	1.8	4.6	U	9.2	4.6
Carbon disulfide	75-15-0	8260D	µg/Kg	810 (7)		4.8	J	8	2.1	1.8	J	4.3	1.1	5.9		4.8	1.3	3.3	J	3.9	1	0.49	J	1.7	0.46	1.5	J	1.8	0.48	9.3		4.6	1.2
Carbon tetrachloride	56-23-5	8260D	µg/Kg	2980 (5)	7600	3.1	U	8	3.1	1.7	UJ	4.3	1.7	1.9	U	4.8	1.9	1.5	U	3.9	1.5	0.67	U	1.7	0.67	0.71	U	1.8	0.71	1.8	U	4.6	1.8
Chlorobenzene	108-90-7	8260D	µg/Kg	13100 (5)	510000	1.4	U	8	1.4	1.8	J	4.3	0.76	7.7		4.8	0.85	0.69	U	3.9	0.69	0.31	U	1.7	0.31	0.42	J	1.8	0.32	16		4.6	0.81
Chlorobromomethane	74-97-5	8260D	µg/Kg			2.2	U	8	2.2	1.2	UJ	4.3	1.2	1.4	U	4.8	1.4	1.1	U	3.9	1.1	0.49	U	1.7	0.49	0.51	U	1.8	0.51	1.3	U	4.6	1.3
Chlorodibromomethane	124-48-1	8260D	µg/Kg	2050 (5)	8300	1.5	U	8	1.5	0.83	UJ	4.3	0.83	0.94	UJ	4.8	0.94	0.76	U	3.9	0.76	0.34	U	1.7	0.34	0.35	U	1.8	0.35	0.89	UJ	4.6	0.89
Chloroethane	75-00-3	8260D	µg/Kg			4.2	U	8	4.2	2.2	U	4.3	2.2	2.5	U	4.8	2.5	2	U	3.9	2	0.9	U	1.7	0.9	0.95	U	1.8	0.95	2.4	U	4.6	2.4
Chloroform	67-66-3	8260D	µg/Kg	1190 (5)	780000	7.7	U	8	7.7	4.2	UJ	4.3	4.2	4.7	U	4.8	4.7	3.8	U	3.9	3.8	1.7	U	1.7	1.7	1.8	U	1.8	1.8	4.5	U	4.6	4.5
Chloromethane	74-87-3	8260D	µg/Kg			3.5	U	8	3.5	1.9	U	4.3	1.9	2.1	U	4.8	2.1	1.7	U	3.9	1.7	0.75	U	1.7	0.75	0.79	U	1.8	0.79	2	UJ	4.6	2
cis-1,2-Dichloroethene	156-59-2	8260D	µg/Kg	89600 (7)	780000	2.8	U	8	2.8	1.5	UJ	4.3	1.5	1.7	U	4.8	1.7	1.4	U	3.9	1.4	0.62	U	1.7	0.62	0.65	U	1.8	0.65	1.6	U	4.6	1.6
cis-1,3-Dichloropropene	10061-01-5	8260D	µg/Kg	398 (6)		2.2	U	8	2.2	1.2	UJ	4.3	1.2	1.3	U	4.8	1.3	1.1	U	3.9	1.1	0.47	U	1.7	0.47	0.5	U	1.8	0.5	1.3	UJ	4.6	1.3
Cyclohexane	110-82-7	8260D	µg/Kg			1.8	U	8	1.8	0.95	UJ	4.3	0.95	1.1	U	4.8	1.1	0.87	U	3.9	0.87	0.38	U	1.7	0.38	0.4	U	1.8	0.4	3.3	J	4.6	1
Dichlorobromomethane	75-27-4	8260D	µg/Kg	540 (5)	11000	2	U	8	2	1.1	UJ	4.3	1.1	1.2	U	4.8	1.2	1	U	3.9	1	0.44	U	1.7	0.44	0.47	U	1.8	0.47	1.2	U	4.6	1.2
Dichlorodifluoromethane	75-71-8	8260D	µg/Kg	39500 (6)	16000000	2.7	U	8	2.7	1.4	U	4.3	1.4	1.6	U	4.8	1.6	1.3	U	3.9	1.3	0.58	U	1.7	0.58	0.62	U	1.8	0.62	1.6	U	4.6	1.6
Ethylbenzene	100-41-4	8260D	µg/Kg	5160 (5)	7800000	1.6	U	8	1.6	0.85	UJ	4.3	0.85	0.96	U	4.8	0.96	0.78	U	3.9	0.78	0.34	U	1.7	0.34	0.36	U	1.8	0.36	0.91	U	4.6	0.91
Ethylene Dibromide	106-93-4	8260D	µg/Kg		350	1.4	U	8	1.4	0.77	UJ	4.3	0.77	0.87	U	4.8	0.87	0.71	U	3.9	0.71	0.31	U	1.7	0.31	0.33	U	1.8	0.33	0.83	U	4.6	0.83
Isopropylbenzene	98-82-8	8260D	µg/Kg		7800000	2.3	U	8	2.3	1.2	UJ	4.3	1.2	1.4	U	4.8	1.4	1.1	U	3.9	1.1	0.49	U	1.7	0.49	0.52	U	1.8	0.52	1.3	U	4.6	1.3
Methyl acetate	79-20-9	8260D	µg/Kg		78000000	34	U	40	34	18	UJ	21	18	21	U	24	21	17	UJ	20	17	7.4	U	8.6	7.4	7.8	UJ	9.1	7.8	20	U	23	20
Methyl tert-butyl ether	1634-04-4	8260D	µg/Kg		780000	4.1	U	8	4.1	2.2	U	4.3	2.2	2.5	U	4.8	2.5	2	U	3.9	2	0.88	U	1.7	0.88	0.93	U	1.8	0.93	2.4	U	4.6	2.4
Methylcyclohexane	108-87-2	8260D	µg/Kg			4	U	8	4	2.1	UJ	4.3	2.1	2.4	U	4.8	2.4	2	U	3.9	2	0.86	U	1.7	0.86	0.91	U	1.8	0.91	2.3	U	4.6	2.3
Methylene Chloride	75-09-2	8260D	µg/Kg	4050 (5)	50000	9.1	U	16	9.1	4.9	U	8.6	4.9	5.5	U	9.7	5.5	4.5	U	7.8	4.5	2	U	3.5	2	3.3	U	3.6	2.1	8	U	9.2	5.3
m-Xylene & p-Xylene	179601-23-1	8260D	µg/Kg	4162 (7)	12000000	1.4	U	8	1.4	0.75	UJ	4.3	0.75	1.4	J	4.8	0.84	0.68	U	3.9	0.68	0.3	U	1.7	0.3	1.3	J	1.8	0.32	2.6	J	4.6	0.8
o-Xylene	95-47-6	8260D	µg/Kg	4162 (7)	12000000	1.5	U	8	1.5	0.83	UJ	4.3	0.83	0.94	U	4.8	0.94	0.76	U	3.9	0.76	0.34	U	1.7	0.34	1.6	J	1.8	0.35	1.2	J	4.6	0.89
Styrene	100-42-5	8260D	µg/Kg	4690 (5)	16000000	2.2	U	8	2.2	1.2	UJ	4.3	1.2	1.3	U	4.8	1.3	1.1	U	3.9	1.1	0.48	U	1.7	0.48	0.51	U	1.8	0.51	1.3	U	4.6	1.3
Tetrachloroethene	127-18-4	8260D	µg/Kg	9920 (5)	330000	2.4	U	8	2.4	1.3	UJ	4.3	1.3	1.5	U	4.8	1.5	1.2	U	3.9	1.2	0.53	U	1.7	0.53	0.56	U	1.8	0.56	1.4	U	4.6	1.4
Toluene	108-88-3	8260D	µg/Kg	200000 (5)	6300000	1.9	U	8	1.9	1	UJ	4.3	1	1.1	U	4.8	1.1	1	J	3.9	0.92	0.46	J	1.7	0.4	0.63	J	1.8	0.43	2.3	J	4.6	1.1
trans-1,2-Dichloroethene	156-60-5	8260D	µg/Kg	784 (5)	1300000	2	U	8	2	1.1	UJ	4.3	1.1	1.2	U	4.8	1.2	0.97	U	3.9	0.97	0.42	U	1.7	0.42	0.45	U	1.8	0.45	1.1	U	4.6	1.1
trans-1,3-Dichloropropene	10061-02-6	8260D	µg/Kg	398 (6)		2.1	U	8	2.1	1.1	UJ	4.3	1.1	1.3	UJ	4.8	1.3	1	U	3.9	1	0.46	U	1.7	0.46	0.48	U	1.8	0.48	1.2	UJ	4.6	1.2
Trichloroethene	79-01-6	8260D	µg/Kg	12400 (5)	15000	2.6	U	8	2.6	1.4	UJ	4.3	1.4	1.6	U	4.8	1.6	1.3	U	3.9	1.3	0.55	U	1.7	0.55	0.59	U	1.8	0.59	1.5	U	4.6	1.5
Trichlorofluoromethane	75-69-4	8260D	µg/Kg	52000 (7)	23000000	3.2	U	8	3.2	1.7	UJ	4.3	1.7	2	U	4.8	2	1.6	U	3.9	1.6	0.7	U	1.7	0.7	0.74	U	1.8	0.74	1.9	U	4.6	1.9
Vinyl chloride	75-01-4	8260D	µg/Kg	646 (5)	970	4.3	U	8	4.3	2.3	U	4.3	2.3	2.6	U	4.8	2.6	2.1	U	3.9	2.1	0.94	U	1.7	0.94	1	U	1.8		2.5	U	4.6	2.5

Table 5.2 - Soil: Volatile Organic Compounds (VOCs) Analytical Results

(continued)

Rolling Knolls Landfill

Sample Name				ESC's	NJAC 7:26D	DP23_2.5-3.0				DP24_0.5-2.5				DP24_2.5-3.0				DP25_1.0-1.5				DP26_0.5-3.5				DP26_3.5-4.0				DP27_0.5-3.0			
Sample Date/Time						05/10/2021 16:20				05/14/2021 10:10				05/14/2021 10:15				05/06/2021 15:20				05/07/2021 08:45				05/07/2021 09:00				05/05/2021 14:00			
Latitude						40.7234761				40.7234047				40.7234047				40.7234932				40.7240722				40.7240722				40.7231759			
Longitude						-74.4461556				-74.4467553				-74.4467553				-74.4473376				-74.4463803				-74.4463803				-74.4437423			
Lab Sample Name				Screening Criteria	(8) Soil Remediation Standards (Ing.-Derm.) - Residential	GS-S-DPT23-SB-2.5-3.0				GS-S-DPT24-SC-0.5-2.5				GS-S-DPT24-SB-2.5-3.0				GS-S-DPT25-SB-1-1.5				GS-S-DPT26-SC-0.5-3.5				GS-S-DPT26-SB-3.5-4				GS-S-DPT27-SC-0.5-3			
Lab Sample Number						460-234080-6				460-234442-2				460-234442-3				460-233899-6				460-233940-2				460-233940-3				460-233708-5			
Lab Report Number(s)						460-234080-1				460-234442-1				460-234442-1				460-233899-1				460-233940-1				460-233940-1				460-233708-1 / 460-233708-2			
Analyte	CAS	Method	Units			Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)
1,1,1,2-Tetrachloroethane	630-20-6	8260D	µg/Kg	225000 (6)		0.48	U	2.6	0.48	0.67	U	3.5	0.67	0.16	U	0.85	0.16	0.26	U	1.4	0.26	0.5	U	2.6	0.5	0.64	U	3.4	0.64	0.36	U	1.9	0.36
1,1,1-Trichloroethane	71-55-6	8260D	µg/Kg	29800 (5)	160000000	0.59	U	2.6	0.59	0.82	U	3.5	0.82	0.2	U	0.85	0.2	0.32	U	1.4	0.32	0.62	U	2.6	0.62	0.79	U	3.4	0.79	0.45	U	1.9	0.45
1,1,2,2-Tetrachloroethane	79-34-5	8260D	µg/Kg	127 (5)	3500	0.55	U	2.6	0.55	0.75	U	3.5	0.75	0.18	U	0.85	0.18	0.29	UJ	1.4	0.29	0.57	U	2.6	0.57	0.73	U	3.4	0.73	0.41	UJ	1.9	0.41
1,1,2-Trichloro-1,2,2-trifluoroethane	76-13-1	8260D	µg/Kg			0.77	UJ	2.6	0.77	1.1	U	3.5	1.1	0.26	U	0.85	0.26	0.41	U	1.4	0.41	0.8	UJ	2.6	0.8	1	UJ	3.4	1	0.58	U	1.9	0.58
1,1,2-Trichloroethane	79-00-5	8260D	µg/Kg	28600 (5)	12000	0.45	U	2.6	0.45	0.63	U	3.5	0.63	0.15	U	0.85	0.15	0.24	U	1.4	0.24	0.47	U	2.6	0.47	0.6	U	3.4	0.6	0.34	U	1.9	0.34
1,1-Dichloroethane	75-34-3	8260D	µg/Kg	20100 (6)	120000	0.53	U	2.6	0.53	0.73	U	3.5	0.73	0.18	U	0.85	0.18	0.28	U	1.4	0.28	0.54	U	2.6	0.54	0.7	U	3.4	0.7	0.39	U	1.9	0.39
1,1-Dichloroethene	75-35-4	8260D	µg/Kg	8280 (5)	11000	0.57	U	2.6	0.57	0.79	U	3.5	0.79	0.19	U	0.85	0.19	0.31	U	1.4	0.31	0.59	U	2.6	0.59	0.76	U	3.4	0.76	0.43	U	1.9	0.43
1,2,3-Trichlorobenzene	87-61-6	8260D	µg/Kg	20000 (5)		0.46	U	2.6	0.46	0.64	U	3.5	0.64	0.15	U	0.85	0.15	0.25	UJ	1.4	0.25	0.48	U	2.6	0.48	0.61	U	3.4	0.61	0.35	UJ	1.9	0.35
1,2,4-Trichlorobenzene	120-82-1	8260D	µg/Kg	20000 (5)	780000	0.91	U	2.6	0.91	1.3	U	3.5	1.3	0.31	U	0.85	0.31	0.49	UJ	1.4	0.49	0.95	U	2.6	0.95	1.2	U	3.4	1.2	0.69	UJ	1.9	0.69
1,2-Dibromo-3-Chloropropane	96-12-8	8260D	µg/Kg	35.2 (6)	870	1.2	UJ	2.6	1.2	1.6	UJ	3.5	1.6	0.39	UJ	0.85	0.39	0.63	UJ	1.4	0.63	1.2	UJ	2.6	1.2	1.6	UJ	3.4	1.6	0.88	UJ	1.9	0.88
1,2-Dichlorobenzene	95-50-1	8260D	µg/Kg	2960 (5)	6700000	0.92	U	2.6	0.92	1.3	U	3.5	1.3	0.31	U	0.85	0.31	0.5	UJ	1.4	0.5	0.95	U	2.6	0.95	1.2	U	3.4	1.2	0.69	UJ	1.9	0.69
1,2-Dichloroethane	107-06-2	8260D	µg/Kg	21200 (5)	5800	0.75	U	2.6	0.75	1	U	3.5	1	0.25	U	0.85	0.25	0.41	U	1.4	0.41	0.78	U	2.6	0.78	1	U	3.4	1	0.57	U	1.9	0.57
1,2-Dichloropropane	78-87-5	8260D	µg/Kg	32700 (5)	19000	1.1	U	2.6	1.1	1.5	U	3.5	1.5	0.36	U	0.85	0.36	0.58	U	1.4	0.58	1.1	U	2.6	1.1	1.4	U	3.4	1.4	0.81	U	1.9	0.81
1,3-Dichlorobenzene	541-73-1	8260D	µg/Kg	37700 (5)	6700000	0.93	U	2.6	0.93	1.3	U	3.5	1.3	0.31	U	0.85	0.31	0.5	UJ	1.4	0.5	0.96	U	2.6	0.96	1.2	U	3.4	1.2	0.7	UJ	1.9	0.7
1,4-Dichlorobenzene	106-46-7	8260D	µg/Kg	546 (5)	780000	0.57	U	2.6	0.57	0.79	U	3.5	0.79	0.19	U	0.85	0.19	0.31	UJ	1.4	0.31	0.59	U	2.6	0.59	1.1	J	3.4	0.76	0.43	UJ	1.9	0.43
2-Butanone (MEK)	78-93-3	8260D	µg/Kg	350000 (7)	47000000	160		13	0.94	53	J	18	1.3	5.3	J	4.3	0.31	52		6.9	0.5	8.3	J	13	0.97	130	J	17	1.2	24		9.6	0.7
2-Hexanone	591-78-6	8260D	µg/Kg	12600 (6)	390000	4.4	U	13	4.4	6	U	18	6	1.5	U	4.3	1.5	2.3	UJ	6.9	2.3	4.5	U	13	4.5	5.8	U	17	5.8	3.3	UJ	9.6	3.3
2-Methyl-2-propanol	75-65-0	8260D	µg/Kg		1400000	20	U	26	20	28	U	35	28	6.7	U	8.5	6.7	11	U	14	11	21	U	26	21	27	U	34	27	33		19	15
4-Methyl-2-pentanone (MIBK)	108-10-1	8260D	µg/Kg	443000 (6)		4	U	13	4	5.5	U	18	5.5	1.3	U	4.3	1.3	2.1	UJ	6.9	2.1	4.1	U	13	4.1	5.3	U	17	5.3	3	UJ	9.6	3
Acetone	67-64-1	8260D	µg/Kg	1200 (7)	70000000	470		15	15	120		21	20	16		5.1	4.9	260		8.2	7.8	150		16	15	360		20	19	340		11	11
Benzene	71-43-2	8260D	µg/Kg	255 (5)	3000	0.66	U	2.6	0.66	0.91	U	3.5	0.91	0.22	U	0.85	0.22	0.35	U	1.4	0.35	0.68	U	2.6	0.68	0.87	U	3.4	0.87	0.49	U	1.9	0.49
Bromoform	75-25-2	8260D	µg/Kg	15900 (5)	88000	1.1	UJ	2.6	1.1	1.5	UJ	3.5	1.5	0.36	UJ	0.85	0.36	0.58	U	1.4	0.58	1.1	UJ	2.6	1.1	1.4	UJ	3.4	1.4	0.81	U	1.9	0.81
Bromomethane	74-83-9	8260D	µg/Kg	235 (5)	110000	2.6	U	5.1	2.6	3.5	U	7	3.5	0.85	U	1.7	0.85	1.4	UJ	2.7	1.4	2.6	U	5.3	2.6	3.4	U	6.8	3.4	1.9	UJ	3.8	1.9
Carbon disulfide	75-15-0	8260D	µg/Kg	810 (7)		1.7	J	2.6	0.68	0.94	U	3.5	0.94	0.23	U	0.85	0.23	0.41	J	1.4	0.36	0.7	U	2.6	0.7	1.4	J	3.4	0.9	0.51	U	1.9	0.51
Carbon tetrachloride	56-23-5	8260D	µg/Kg	2980 (5)	7600	0.99	U	2.6	0.99	1.4	U	3.5	1.4	0.33	U	0.85	0.33	0.53	U	1.4	0.53	1	U	2.6	1	1.3	U	3.4	1.3	0.74	U	1.9	0.74
Chlorobenzene	108-90-7	8260D	µg/Kg	13100 (5)	510000	0.45	U	2.6	0.45	0.62	U	3.5	0.62	0.15	U	0.85	0.15	0.24	U	1.4	0.24	0.47	U	2.6	0.47	0.6	U	3.4	0.6	0.34	U	1.9	0.34
Chlorobromomethane	74-97-5	8260D	µg/Kg			0.72	U	2.6	0.72	0.99	U	3.5	0.99	0.24	U	0.85	0.24	0.39	U	1.4	0.39	0.74	U	2.6	0.74	0.95	U	3.4	0.95	0.54	U	1.9	0.54
Chlorodibromomethane	124-48-1	8260D	µg/Kg	2050 (5)	8300	0.49	UJ	2.6	0.49	0.68	U	3.5	0.68	0.17	U	0.85	0.17	0.27	U	1.4	0.27	0.51	UJ	2.6	0.51	0.66	UJ	3.4	0.66	0.37	U	1.9	0.37
Chloroethane	75-00-3	8260D	µg/Kg			1.3	U	2.6	1.3	1.8	U	3.5	1.8	0.45	U	0.85	0.45	0.72	U	1.4	0.72	1.4	U	2.6	1.4	1.8	U	3.4	1.8	1	U	1.9	1
Chloroform	67-66-3	8260D	µg/Kg	1190 (5)	780000	2.5	U	2.6	2.5	3.4	U	3.5	3.4	0.83	U	0.85	0.83	1.3	U	1.4	1.3	2.6	U	2.6	2.6	3.3	U	3.4	3.3	1.9	U	1.9	1.9
Chloromethane	74-87-3	8260D	µg/Kg			1.1	U	2.6	1.1	1.5	U	3.5	1.5	0.37	U	0.85	0.37	0.6	UJ	1.4	0.6	1.1	U	2.6	1.1	1.5	U	3.4	1.5	0.83	UJ	1.9	0.83
cis-1,2-Dichloroethene	156-59-2	8260D	µg/Kg	89600 (7)	780000	0.91	U	2.6	0.91	1.3	U	3.5	1.3	0.31	U	0.85	0.31	0.49	U	1.4	0.49	0.95	U	2.6	0.95	1.2	U	3.4	1.2	0.69	U	1.9	0.69
cis-1,3-Dichloropropene	10061-01-5	8260D	µg/Kg	398 (6)		0.7	U	2.6	0.7	0.96	UJ	3.5	0.96	0.23	UJ	0.85	0.23	0.37	U	1.4	0.37	0.72	U	2.6	0.72	0.93	U	3.4	0.93	0.52	U	1.9	0.52
Cyclohexane	110-82-7	8260D	µg/Kg			0.56	U	2.6	0.56	0.78	U	3.5	0.78	0.19	U	0.85	0.19	0.3	U	1.4	0.3	0.58	U	2.6	0.58	0.75	U	3.4	0.75	0.42	U	1.9	0.42
Dichlorobromomethane	75-27-4	8260D	µg/Kg	540 (5)	11000	0.66	U	2.6	0.66	0.91	UJ	3.5	0.91	0.22	UJ	0.85	0.22	0.35	U	1.4	0.35	0.68	U	2.6	0.68	0.87	U	3.4	0.87	0.49	U	1.9	0.49
Dichlorodifluoromethane	75-71-8	8260D	µg/Kg	39500 (6)	16000000	0.86	U	2.6	0.86	1.2	U	3.5	1.2	0.29	U	0.85	0.29	0.46	UJ	1.4	0.46	0.89	U	2.6	0.89	1.1	U	3.4	1.1	0.65	UJ	1.9	0.65
Ethylbenzene	100-41-4	8260D	µg/Kg	5160 (5)	7800000	0.51	U	2.6	0.51	0.7	U	3.5	0.7	0.17	U	0.85	0.17	0.27	U	1.4	0.27	0.53	U	2.6	0.53	0.67	U	3.4	0.67	0.38	U	1.9	0.38
Ethylene Dibromide	106-93-4	8260D	µg/Kg		350	0.46	U	2.6	0.46	0.63	U	3.5	0.63	0.15	U	0.85	0.15	0.25	U	1.4	0.25	0.48	U	2.6	0.48	0.61	U	3.4	0.61	0.34	U	1.9	0.34
Isopropylbenzene	98-82-8	8260D	µg/Kg		7800000	0.73	U	2.6	0.73	1	U	3.5	1	0.24	U	0.85	0.24	0.39	U	1.4	0.39	0.75	U	2.6	0.75	0.97	U	3.4	0.97	0.55	U	1.9	0.55
Methyl acetate	79-20-9	8260D	µg/Kg		78000000	11	U	13	11	15	U	18	15	3.7	U	4.3	3.7	6.6	J	6.9	5.9	11	U	13	11	15	U	17	15	8.2	U	9.6	8.2
Methyl tert-butyl ether	1634-04-4	8260D	µg/Kg		780000	1.3	U	2.6	1.3	1.8	U	3.5	1.8	0.44	U	0.85	0.44	0.7	U	1.4	0.7	1.4	U	2.6	1.4	1.7	U	3.4	1.7	0.98	U	1.9	0.98
Methylcyclohexane	108-87-2	8260D	µg/Kg			1.3	U	2.6	1.3	1.8	U	3.5	1.8	0.43	U	0.85	0.43	0.68	U	1.4	0.68	1.3	U	2.6	1.3	1.7	U	3.4	1.7	0.96	U	1.9	0.96
Methylene Chloride	75-09-2	8260D	µg/Kg	4050 (5)	50000	3.7	U	5.1	2.9	4	U	7	4	1.7		1.7	0.98	3.7		2.7	1.6	3	U	5.3	3	3.9	U	6.8	3.9	3.6	U	3.8	2.2
m-Xylene & p-Xylene	179601-23-1	8260D	µg/Kg	4162 (7)	12000000	0.44	U	2.6	0.44	0.61	U	3.5	0.61	0.15	U	0.85	0.15	0.24	U	1.4	0.24	0.46	U	2.6	0.46	2.9	J	3.4	0.59	0.42	J	1.9	0.33
o-Xylene	95-47-6	8260D	µg/Kg	4162 (7)	12000000	0.49	U	2.6	0.49	0.68	U	3.5	0.68	0.17	U	0.85	0.17	0.27	U	1.4	0.27	0.51	U	2.6	0.51	2.2	J	3.4	0.66	0.37	U	1.9	0.37
Styrene	100-42-5	8260D	µg/Kg	4690 (5)	16000000	0.71	U	2.6	0.71	0.98	U	3.5	0.98	0.24	U	0.85	0.24	0.38	U	1.4	0.38	0.73	U	2.6	0.73	0.94	U	3.4	0.94	0.53	U	1.9	0.53
Tetrachloroethene	127-18-4	8260D	µg/Kg	9920 (5)	330000	0.78	U	2.6	0.78	1.1	U	3.5	1.1	0.26	U	0.85	0.26	0.42	U	1.4	0.42	0.81	U	2.6	0.81	1	U	3.4	1	1.1	J	1.9	0.58
Toluene	108-88-3	8260D	µg/Kg	200000 (5)	6300000	0.6	U	2.6	0.6	1.7	J	3.5	0.82	0.2	U	0.85	0.2	0.32	U	1.4	0.32	0.62	U	2.6	0.62	0.79	U	3.4	0.79	0.45	U	1.9	0.45
trans-1,2-Dichloroethene	156-60-5	8260D	µg/Kg	784 (5)	1300000	0.63	U	2.6	0.63	0.87	U	3.5	0.87	0.21	U	0.85	0.21	0.34	U	1.4	0.34	0.65	U	2.6	0.65	0.83	U	3.4	0.83	0.47	U	1.9	0.47
trans-1,3-Dichloropropene	10061-02-6	8260D	µg/Kg	398 (6)		0.68	UJ	2.6	0.68	0.94	UJ	3.5	0.94	0.23	UJ	0.85	0.23	0.36	U	1.4	0.36	0.7	UJ	2.6	0.7	0.9	UJ	3.4	0.9	0.51	U	1.9	0.51
Trichloroethene	79-01-6	8260D	µg/Kg	12400 (5)	15000	0.82	U	2.6	0.82	1.1	U	3.5	1.1	0.27	U	0.85	0.27	0.44	U	1.4	0.44	0.85	U	2.6	0.85	1.1	U	3.4	1.1	0.61	U	1.9	0.61
Trichlorofluoromethane	75-69-4	8260D	µg/Kg	52000 (7)	23000000	1	U	2.6	1	1.4	U	3.5	1.4	0.35	U	0.85	0.35	0.56	U	1.4	0.56	1.1	U	2.6	1.1	1.4	U	3.4	1.4	0.78	U	1.9	0.78
Vinyl chloride	75-01-4	8260D	µg/Kg	646 (5)	970	1.4	U	2.6	1.4	1.9	U	3.5	1.9	0.47	U	0.85	0.47	0.75	U	1.4	0.75	1.4	U	2.6	1.4	1.9	U	3.4	1.9	1	U	1.9	1

Table 5.2 - Soil: Volatile Organic Compounds (VOCs) Analytical Results

(continued)

Rolling Knolls Landfill

	Sample Name			ESC's	NJAC 7:26D	DP27_8.0-10.0				DP28_0.5-5.0				DP28_5.0-8.0				DP29_0.5-2.0				DP29_7.0-10.0				DP30_0.5-3.0				DP30_7.5-8.0			
	Sample Date/Time					05/06/2021 10:15				05/05/2021 09:10				05/05/2021 08:40				05/06/2021 12:00				05/06/2021 12:45				05/13/2021 15:40				05/13/2021 16:20			
	Latitude					40.7231759				40.7240805				40.7240805				40.7248365				40.7248365				40.7266724				40.7266724			
	Longitude					-74.4437423				-74.4443078				-74.4443078				-74.4434245				-74.4434245				-74.4405011				-74.4405011			
	Lab Sample Name			Screening Criteria	(8) Soil Remediation Standards (Ing.-Derm.) - Residential	GS-S-DPT27-SB-8-10				GS-S-DPT28-SC-0.5-5				GS-S-DPT28-SB-5-8				GS-S-DPT29-SC-0.5-2				GS-S-DPT29-SB-7-10				GS-S-DPT30-SC-0.5-3.0				GS-S-DPT30-SO-7.5-8.0			
	Lab Sample Number					460-233899-1				460-233708-2				460-233708-3				460-233899-3				460-233899-4				460-234436-5				460-234436-6			
	Lab Report Number(s)					460-233899-1 / 460-233899-2				460-233708-1				460-233708-1				460-233899-1				460-233899-1				460-234436-1				460-234436-1			
Analyte	CAS	Method	Units			Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)
1,1,1,2-Tetrachloroethane	630-20-6	8260D	µg/Kg	225000 (6)		0.12 U		0.66	0.12	0.63 U		3.3	0.63	0.17 U		0.92	0.17	0.52 U		2.7	0.52	1.7 U		8.8	1.7	0.44 U		2.3	0.44	160 U		740	160
1,1,1-Trichloroethane	71-55-6	8260D	µg/Kg	29800 (5)	160000000	0.15 U		0.66	0.15	0.77 U		3.3	0.77	0.21 U		0.92	0.21	0.64 U		2.7	0.64	2.1 U		8.8	2.1	0.53 U		2.3	0.53	210 U		740	210
1,1,2,2-Tetrachloroethane	79-34-5	8260D	µg/Kg	127 (5)	3500	0.14 U		0.66	0.14	0.71 UJ		3.3	0.71	0.2 U		0.92	0.2	0.59 UJ		2.7	0.59	1.9 UJ		8.8	1.9	0.49 U		2.3	0.49	150 U		740	150
1,1,2-Trichloro-1,2,2-trifluoroethane	76-13-1	8260D	µg/Kg			0.2 U		0.66	0.2	0.99 U		3.3	0.99	0.28 U		0.92	0.28	0.82 U		2.7	0.82	2.7 U		8.8	2.7	0.69 UJ		2.3	0.69	250 U		740	250
1,1,2-Trichloroethane	79-00-5	8260D	µg/Kg	28600 (5)	12000	0.12 U		0.66	0.12	0.59 U		3.3	0.59	0.16 U		0.92	0.16	0.49 U		2.7	0.49	1.6 U		8.8	1.6	0.41 U		2.3	0.41	150 U		740	150
1,1-Dichloroethane	75-34-3	8260D	µg/Kg	20100 (6)	120000	0.14 U		0.66	0.14	0.68 U		3.3	0.68	0.19 U		0.92	0.19	0.56 U		2.7	0.56	1.8 U		8.8	1.8	0.47 U		2.3	0.47	180 U		740	180
1,1-Dichloroethene	75-35-4	8260D	µg/Kg	8280 (5)	11000	0.15 U		0.66	0.15	0.74 U		3.3	0.74	0.21 U		0.92	0.21	0.62 U		2.7	0.62	2 U		8.8	2	0.52 U		2.3	0.52	190 U		740	190
1,2,3-Trichlorobenzene	87-61-6	8260D	µg/Kg	20000 (5)		0.12 U		0.66	0.12	0.6 UJ		3.3	0.6	0.17 U		0.92	0.17	0.49 U		2.7	0.49	1.6 UJ		8.8	1.6	0.42 U		2.3	0.42	260 U		740	260
1,2,4-Trichlorobenzene	120-82-1	8260D	µg/Kg	20000 (5)	780000	0.23 U		0.66	0.23	1.2 UJ		3.3	1.2	0.33 U		0.92	0.33	0.98 U		2.7	0.98	3.2 UJ		8.8	3.2	0.82 U		2.3	0.82	200 U		740	200
1,2-Dibromo-3-Chloropropane	96-12-8	8260D	µg/Kg	35.2 (6)	870	0.3 U		0.66	0.3	1.5 UJ		3.3	1.5	0.42 U		0.92	0.42	1.3 U		2.7	1.3	4.1 UJ		8.8	4.1	1.1 U		2.3	1.1	160 U		740	160
1,2-Dichlorobenzene	95-50-1	8260D	µg/Kg	2960 (5)	6700000	0.24 U		0.66	0.24	1.7 J		3.3	1.2	0.33 U		0.92	0.33	0.99 U		2.7	0.99	19 J		8.8	3.2	0.83 U		2.3	0.83	160 U		740	160
1,2-Dichloroethane	107-06-2	8260D	µg/Kg	21200 (5)	5800	0.19 U		0.66	0.19	0.98 U		3.3	0.98	0.27 U		0.92	0.27	0.81 U		2.7	0.81	2.6 U		8.8	2.6	0.68 U		2.3	0.68	180 U		740	180
1,2-Dichloropropane	78-87-5	8260D	µg/Kg	32700 (5)	19000	0.28 U		0.66	0.28	1.4 U		3.3	1.4	0.39 U		0.92	0.39	1.2 U		2.7	1.2	3.7 U		8.8	3.7	0.97 U		2.3	0.97	130 U		740	130
1,3-Dichlorobenzene	541-73-1	8260D	µg/Kg	37700 (5)	6700000	0.24 U		0.66	0.24	1.4 J		3.3	1.2	0.33 U		0.92	0.33	1 U		2.7	1	3.2 UJ		8.8	3.2	0.84 U		2.3	0.84	240 U		740	240
1,4-Dichlorobenzene	106-46-7	8260D	µg/Kg	546 (5)	780000	0.15 U		0.66	0.15	18 J		3.3	0.74	0.21 U		0.92	0.21	3.5		2.7	0.62	270 J		8.8	2	0.52 U		2.3	0.52	250 U		740	250
2-Butanone (MEK)	78-93-3	8260D	µg/Kg	350000 (7)	47000000	4.8		3.3	0.24	250		17	1.2	11		4.6	0.34	9.3 J		14	1	1600 J		44	3.3	14		11	0.84	1600 U		3700	1600
2-Hexanone	591-78-6	8260D	µg/Kg	12600 (6)	390000	1.1 UJ		3.3	1.1	5.6 UJ		17	5.6	1.6 UJ		4.6	1.6	4.7 UJ		14	4.7	15 UJ		44	15	3.9 U		11	3.9	840 U		3700	840
2-Methyl-2-propanol	75-65-0	8260D	µg/Kg		1400000	89		6.6	5.1	26 U		33	26	7.2 U		9.2	7.2	21 U		27	21	69 U		88	69	18 U		23	18	6100 U		7400	6100
4-Methyl-2-pentanone (MIBK)	108-10-1	8260D	µg/Kg	443000 (6)		1 UJ		3.3	1	5.1 UJ		17	5.1	1.4 UJ		4.6	1.4	4.3 UJ		14	4.3	14 UJ		44	14	3.6 U		11	3.6	960 U		3700	960
Acetone	67-64-1	8260D	µg/Kg	1200 (7)	70000000	360		3.9	3.8	890		20	19	55		5.5	5.2	57		16	16	5000 J		53	51	67		14	13	4600		3700	3300
Benzene	71-43-2	8260D	µg/Kg	255 (5)	3000	0.17 U		0.66	0.17	2.5 J		3.3	0.85	0.24 U		0.92	0.24	0.71 U		2.7	0.71	23 J		8.8	2.3	0.59 U		2.3	0.59	150 U		740	150
Bromoform	75-25-2	8260D	µg/Kg	15900 (5)	88000	0.28 U		0.66	0.28	1.4 U		3.3	1.4	0.39 U		0.92	0.39	1.2 UJ		2.7	1.2	3.8 U		8.8	3.8	0.97 U		2.3	0.97	130 U		740	130
Bromomethane	74-83-9	8260D	µg/Kg	235 (5)	110000	0.66 UJ		1.3	0.66	3.3 UJ		6.6	3.3	0.92 UJ		1.8	0.92	2.7 U		5.5	2.7	8.8 UJ		18	8.8	2.3 UJ		4.6	2.3	410 U		740	410
Carbon disulfide	75-15-0	8260D	µg/Kg	810 (7)		0.17 U		0.66	0.17	1.1 J		3.3	0.88	0.24 U		0.92	0.24	0.73 U		2.7	0.73	49 J		8.8	2.3	0.61 U		2.3	0.61	500 U		740	500
Carbon tetrachloride	56-23-5	8260D	µg/Kg	2980 (5)	7600	0.25 U		0.66	0.25	1.3 U		3.3	1.3	0.36 U		0.92	0.36	1.1 U		2.7	1.1	3.4 U		8.8	3.4	0.89 U		2.3	0.89	240 U		740	240
Chlorobenzene	108-90-7	8260D	µg/Kg	13100 (5)	510000	0.12 U		0.66	0.12	18		3.3	0.58	0.16 U		0.92	0.16	2.6 J		2.7	0.48	450 J		8.8	1.5	0.41 U		2.3	0.41	180 U		740	180
Chlorobromomethane	74-97-5	8260D	µg/Kg			0.18 U		0.66	0.18	0.93 U		3.3	0.93	0.26 U		0.92	0.26	0.77 U		2.7	0.77	2.5 U		8.8	2.5	0.64 U		2.3	0.64	220 U		740	220
Chlorodibromomethane	124-48-1	8260D	µg/Kg	2050 (5)	8300	0.13 U		0.66	0.13	0.64 U		3.3	0.64	0.18 U		0.92	0.18	0.53 U		2.7	0.53	1.7 U		8.8	1.7	0.44 U		2.3	0.44	160 U		740	160
Chloroethane	75-00-3	8260D	µg/Kg			0.34 U		0.66	0.34	1.7 U		3.3	1.7	0.48 U		0.92	0.48	1.4 U		2.7	1.4	4.6 U		8.8	4.6	1.2 U		2.3	1.2	270 U		740	270
Chloroform	67-66-3	8260D	µg/Kg	1190 (5)	780000	0.64 U		0.66	0.64	3.2 U		3.3	3.2	0.89 U		0.92	0.89	2.7 U		2.7	2.7	8.6 U		8.8	8.6	2.2 U		2.3	2.2	160 U		740	160
Chloromethane	74-87-3	8260D	µg/Kg			0.29 UJ		0.66	0.29	1.4 UJ		3.3	1.4	0.4 UJ		0.92	0.4	1.2 UJ		2.7	1.2	3.8 UJ		8.8	3.8	1 U		2.3	1	300 U		740	300
cis-1,2-Dichloroethene	156-59-2	8260D	µg/Kg	89600 (7)	780000	0.23 U		0.66	0.23	1.2 U		3.3	1.2	0.33 U		0.92	0.33	0.98 U		2.7	0.98	3.2 U		8.8	3.2	0.82 U		2.3	0.82	190 U		740	190
cis-1,3-Dichloropropene	10061-01-5	8260D	µg/Kg	398 (6)		0.18 U		0.66	0.18	0.9 U		3.3	0.9	0.25 U		0.92	0.25	0.75 U		2.7	0.75	2.4 U		8.8	2.4	0.63 U		2.3	0.63	160 U		740	160
Cyclohexane	110-82-7	8260D	µg/Kg			0.14 U		0.66	0.14	0.73 U		3.3	0.73	0.2 U		0.92	0.2	0.6 U		2.7	0.6	5.3 J		8.8	2	0.51 UJ		2.3	0.51	190 U		740	190
Dichlorobromomethane	75-27-4	8260D	µg/Kg	540 (5)	11000	0.17 U		0.66	0.17	0.85 U		3.3	0.85	0.24 U		0.92	0.24	0.7 U		2.7	0.7	2.3 U		8.8	2.3	0.59 U		2.3	0.59	110 U		740	110
Dichlorodifluoromethane	75-71-8	8260D	µg/Kg	39500 (6)	16000000	0.22 UJ		0.66	0.22	1.1 UJ		3.3	1.1	0.31 UJ		0.92	0.31	0.92 UJ		2.7	0.92	3 UJ		8.8	3	0.78 U		2.3	0.78	230 U		740	230
Ethylbenzene	100-41-4	8260D	µg/Kg	5160 (5)	7800000	0.13 U		0.66	0.13	0.8 J		3.3	0.66	0.18 U		0.92	0.18	0.54 U		2.7	0.54	1.8 U		8.8	1.8	0.46 U		2.3	0.46	240 J		740	220
Ethylene Dibromide	106-93-4	8260D	µg/Kg		350	0.12 U		0.66	0.12	0.59 U		3.3	0.59	0.17 U		0.92	0.17	0.49 U		2.7	0.49	1.6 U		8.8	1.6	0.41 U		2.3	0.41	140 U		740	140
Isopropylbenzene	98-82-8	8260D	µg/Kg		7800000	0.19 U		0.66	0.19	0.94 U		3.3	0.94	0.26 U		0.92	0.26	0.78 U		2.7	0.78	3.9 J		8.8	2.5	0.65 U		2.3	0.65	240 U		740	240
Methyl acetate	79-20-9	8260D	µg/Kg		78000000	2.8 U		3.3	2.8	14 U		17	14	3.9 U		4.6	3.9	12 U		14	12	38 U		44	38	9.9 U		11	9.9	7400		3700	580
Methyl tert-butyl ether	1634-04-4	8260D	µg/Kg		780000	0.34 U		0.66	0.34	1.7 U		3.3	1.7	0.47 U		0.92	0.47	1.4 U		2.7	1.4	4.5 U		8.8	4.5	1.2 U		2.3	1.2	160 U		740	160
Methylcyclohexane	108-87-2	8260D	µg/Kg			0.33 U		0.66	0.33	1.6 U		3.3	1.6	0.46 U		0.92	0.46	1.4 U		2.7	1.4	6.7 J		8.8	4.4	1.1 UJ		2.3	1.1	540 U		740	540
Methylene Chloride	75-09-2	8260D	µg/Kg	4050 (5)	50000	9.5		1.3	0.75	3.8 U		6.6	3.8	1.1 U		1.8	1.1	3.1 U		5.5	3.1	32 J		18	10	2.6 U		4.6	2.6	160 U		740	160
m-Xylene & p-Xylene	179601-23-1	8260D	µg/Kg	4162 (7)	12000000	0.38 J		0.66	0.11	1.3 J		3.3	0.57	0.16 U		0.92	0.16	0.48 U		2.7	0.48	21 J		8.8	1.5	0.4 U		2.3	0.4	6500		740	210
o-Xylene	95-47-6	8260D	µg/Kg	4162 (7)	12000000	0.18 J		0.66	0.13	0.67 J		3.3	0.64	0.18 U		0.92	0.18	0.53 U		2.7	0.53	21 J		8.8	1.7	0.44 U		2.3	0.44	1500		740	240
Styrene	100-42-5	8260D	µg/Kg	4690 (5)	16000000	0.49 J		0.66	0.18	0.92 U		3.3	0.92	0.26 U		0.92	0.26	0.76 U		2.7	0.76	2.5 U		8.8	2.5	0.64 U		2.3	0.64	130 U		740	130
Tetrachloroethene	127-18-4	8260D	µg/Kg	9920 (5)	330000	0.99		0.66	0.2	1 U		3.3	1	0.28 U		0.92	0.28	0.83 U		2.7	0.83	2.7 U		8.8	2.7	0.7 U		2.3	0.7	270 U		740	270
Toluene	108-88-3	8260D	µg/Kg	200000 (5)	6300000	0.55 J		0.66	0.15	3.4		3.3	0.77	0.21 U		0.92	0.21	0.64 U		2.7	0.64	10 J		8.8	2.1	0.54 U		2.3	0.54	180 U		740	180
trans-1,2-Dichloroethene	156-60-5	8260D	µg/Kg	784 (5)	1300000	0.16 U		0.66	0.16	0.81 U		3.3	0.81	0.23 U		0.92	0.23	0.67 U		2.7	0.67	2.2 U		8.8	2.2	0.56 U		2.3	0.56	130 U		740	130
trans-1,3-Dichloropropene	10061-02-6	8260D	µg/Kg	398 (6)		0.17 U		0.66	0.17	0.88 U		3.3	0.88	0.24 U		0.92	0.24	0.73 U		2.7	0.73	2.3 U		8.8	2.3	0.61 U		2.3	0.61	160 U		740	160
Trichloroethene	79-01-6	8260D	µg/Kg	12400 (5)	15000	0.21 U		0.66	0.21	1.1 U		3.3	1.1	0.29 U		0.92	0.29	0.88 U		2.7	0.88	2.8 U		8.8	2.8	0.74 U		2.3	0.74	160 U		740	160
Trichlorofluoromethane	75-69-4	8260D	µg/Kg	52000 (7)	23000000	0.27 U		0.66	0.27	1.3 U		3.3	1.3	0.37 U		0.92	0.37	1.1 U		2.7	1.1	3.6 U		8.8	3.6	0.93 U		2.3	0.93	240 U		740	240
Vinyl chloride	75-01-4	8260D	µg/Kg	646 (5)	970	0.36 U		0.66	0.36	1.8 U		3.3	1.8	0.5 U		0.92	0.5	1.5 U		2.7	1.5	4.8 U		8.8	4.8	1.3 U		2.3	1.3	150 U		740	150

Table 5.2 - Soil: Volatile Organic Compounds (VOCs) Analytical Results (continued)

Rolling Knolls Landfill

	Sample Name			ESC's	NJAC 7:26D	DP30_8.0-9.0				DP31_0.5-5.0			
	Sample Date/Time					05/13/2021 16:20				05/14/2021 09:10			
	Latitude			Screening Criteria	(8) Soil Remediation Standards (Ing.-Derm.) - Residential	40.7266724				40.7237372			
	Longitude					-74.4405011				-74.4477876			
	Lab Sample Name					GS-N-DPT30-SB-8.0-9.0				GS-S-DPT31-SC-0.5-5.0			
	Lab Sample Number					460-234436-7				460-234442-5			
	Lab Report Number(s)					460-234436-1				460-234442-1			
Analyte	CAS	Method	Units			Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)
1,1,1,2-Tetrachloroethane	630-20-6	8260D	µg/Kg	225000 (6)		0.79	U	4.2	0.79	0.26	U	1.4	0.26
1,1,1-Trichloroethane	71-55-6	8260D	µg/Kg	29800 (5)	160000000	0.97	U	4.2	0.97	0.32	U	1.4	0.32
1,1,2,2-Tetrachloroethane	79-34-5	8260D	µg/Kg	127 (5)	3500	0.89	U	4.2	0.89	0.29	U	1.4	0.29
1,1,2-Trichloro-1,2,2-trifluoroethane	76-13-1	8260D	µg/Kg			1.3	UJ	4.2	1.3	0.41	UJ	1.4	0.41
1,1,2-Trichloroethane	79-00-5	8260D	µg/Kg	28600 (5)	12000	0.74	U	4.2	0.74	0.24	U	1.4	0.24
1,1-Dichloroethane	75-34-3	8260D	µg/Kg	20100 (6)	120000	0.86	U	4.2	0.86	0.28	U	1.4	0.28
1,1-Dichloroethene	75-35-4	8260D	µg/Kg	8280 (5)	11000	0.94	U	4.2	0.94	0.31	U	1.4	0.31
1,2,3-Trichlorobenzene	87-61-6	8260D	µg/Kg	20000 (5)		0.75	U	4.2	0.75	0.25	U	1.4	0.25
1,2,4-Trichlorobenzene	120-82-1	8260D	µg/Kg	20000 (5)	780000	1.5	U	4.2	1.5	0.49	U	1.4	0.49
1,2-Dibromo-3-Chloropropane	96-12-8	8260D	µg/Kg	35.2 (6)	870	1.9	U	4.2	1.9	0.63	UJ	1.4	0.63
1,2-Dichlorobenzene	95-50-1	8260D	µg/Kg	2960 (5)	6700000	4.4		4.2	1.5	0.49	U	1.4	0.49
1,2-Dichloroethane	107-06-2	8260D	µg/Kg	21200 (5)	5800	1.2	U	4.2	1.2	0.4	U	1.4	0.4
1,2-Dichloropropane	78-87-5	8260D	µg/Kg	32700 (5)	19000	1.8	U	4.2	1.8	0.58	U	1.4	0.58
1,3-Dichlorobenzene	541-73-1	8260D	µg/Kg	37700 (5)	6700000	1.5	U	4.2	1.5	0.5	U	1.4	0.5
1,4-Dichlorobenzene	106-46-7	8260D	µg/Kg	546 (5)	780000	22		4.2	0.94	0.31	U	1.4	0.31
2-Butanone (MEK)	78-93-3	8260D	µg/Kg	350000 (7)	47000000	100		21	1.5	0.5	U	6.8	0.5
2-Hexanone	591-78-6	8260D	µg/Kg	12600 (6)	390000	7.1	U	21	7.1	2.3	U	6.8	2.3
2-Methyl-2-propanol	75-65-0	8260D	µg/Kg		1400000	33	U	42	33	11	U	14	11
4-Methyl-2-pentanone (MIBK)	108-10-1	8260D	µg/Kg	443000 (6)		6.5	U	21	6.5	2.1	U	6.8	2.1
Acetone	67-64-1	8260D	µg/Kg	1200 (7)	70000000	370		25	24	7.8	U	8.2	7.8
Benzene	71-43-2	8260D	µg/Kg	255 (5)	3000	3.2	J	4.2	1.1	0.35	U	1.4	0.35
Bromoform	75-25-2	8260D	µg/Kg	15900 (5)	88000	1.8	U	4.2	1.8	0.58	UJ	1.4	0.58
Bromomethane	74-83-9	8260D	µg/Kg	235 (5)	110000	4.2	UJ	8.3	4.2	1.4	U	2.7	1.4
Carbon disulfide	75-15-0	8260D	µg/Kg	810 (7)		10		4.2	1.1	0.36	U	1.4	0.36
Carbon tetrachloride	56-23-5	8260D	µg/Kg	2980 (5)	7600	1.6	U	4.2	1.6	0.53	U	1.4	0.53
Chlorobenzene	108-90-7	8260D	µg/Kg	13100 (5)	510000	14		4.2	0.74	0.24	U	1.4	0.24
Chlorobromomethane	74-97-5	8260D	µg/Kg			1.2	U	4.2	1.2	0.38	U	1.4	0.38
Chlorodibromomethane	124-48-1	8260D	µg/Kg	2050 (5)	8300	0.81	U	4.2	0.81	0.26	U	1.4	0.26
Chloroethane	75-00-3	8260D	µg/Kg			2.2	U	4.2	2.2	0.71	U	1.4	0.71
Chloroform	67-66-3	8260D	µg/Kg	1190 (5)	780000	4	U	4.2	4	1.3	U	1.4	1.3
Chloromethane	74-87-3	8260D	µg/Kg			1.8	U	4.2	1.8	0.59	U	1.4	0.59
cis-1,2-Dichloroethene	156-59-2	8260D	µg/Kg	89600 (7)	780000	1.5	U	4.2	1.5	0.49	U	1.4	0.49
cis-1,3-Dichloropropene	10061-01-5	8260D	µg/Kg	398 (6)		1.1	U	4.2	1.1	0.37	U	1.4	0.37
Cyclohexane	110-82-7	8260D	µg/Kg			3.2	J	4.2	0.92	0.3	U	1.4	0.3
Dichlorobromomethane	75-27-4	8260D	µg/Kg	540 (5)	11000	1.1	U	4.2	1.1	0.35	UJ	1.4	0.35
Dichlorodifluoromethane	75-71-8	8260D	µg/Kg	39500 (6)	16000000	1.4	U	4.2	1.4	0.46	U	1.4	0.46
Ethylbenzene	100-41-4	8260D	µg/Kg	5160 (5)	7800000	0.83	U	4.2	0.83	0.27	U	1.4	0.27
Ethylene Dibromide	106-93-4	8260D	µg/Kg		350	0.75	U	4.2	0.75	0.25	U	1.4	0.25
Isopropylbenzene	98-82-8	8260D	µg/Kg		7800000	1.2	J	4.2	1.2	0.39	U	1.4	0.39
Methyl acetate	79-20-9	8260D	µg/Kg		78000000	18	U	21	18	5.9	U	6.8	5.9
Methyl tert-butyl ether	1634-04-4	8260D	µg/Kg		780000	2.1	U	4.2	2.1	0.7	U	1.4	0.7
Methylcyclohexane	108-87-2	8260D	µg/Kg			33	J	4.2	2.1	0.68	U	1.4	0.68
Methylene Chloride	75-09-2	8260D	µg/Kg	4050 (5)	50000	4.8	U	8.3	4.8	1.6	U	2.7	1.6
m-Xylene & p-Xylene	179601-23-1	8260D	µg/Kg	4162 (7)	12000000	12		4.2	0.72	0.24	U	1.4	0.24
o-Xylene	95-47-6	8260D	µg/Kg	4162 (7)	12000000	4.6		4.2	0.81	0.26	U	1.4	0.26
Styrene	100-42-5	8260D	µg/Kg	4690 (5)	16000000	1.2	U	4.2	1.2	0.38	U	1.4	0.38
Tetrachloroethene	127-18-4	8260D	µg/Kg	9920 (5)	330000	1.3	U	4.2	1.3	0.42	U	1.4	0.42
Toluene	108-88-3	8260D	µg/Kg	200000 (5)	6300000	1.9	J	4.2	0.97	0.32	U	1.4	0.32
trans-1,2-Dichloroethene	156-60-5	8260D	µg/Kg	784 (5)	1300000	1	U	4.2	1	0.33	U	1.4	0.33
trans-1,3-Dichloropropene	10061-02-6	8260D	µg/Kg	398 (6)		1.1	U	4.2	1.1	0.36	UJ	1.4	0.36
Trichloroethene	79-01-6	8260D	µg/Kg	12400 (5)	15000	1.3	U	4.2	1.3	0.44	U	1.4	0.44
Trichlorofluoromethane	75-69-4	8260D	µg/Kg	52000 (7)	23000000	1.7	U	4.2	1.7	0.55	U	1.4	0.55
Vinyl chloride	75-01-4	8260D	µg/Kg	646 (5)	970	2.3	U	4.2	2.3	0.74	U	1.4	0.74

Table 5.3 - Soil: Semi-Volatile Organic Constituents (SVOCs) Analytical Results

Rolling Knolls Landfill

Sample Name				ESC's	NJAC 7:26D	SS01				SS100 (SS01 duplicate)				SS02				SS03				SS04				SS05				SS06			
Sample Date/Time						05/11/2021 08:35				05/11/2021 12:00				05/11/2021 10:10				05/11/2021 13:45				04/29/2021 10:20				04/29/2021 16:20				05/13/2021 09:00			
Latitude				Screening Criteria	(8) Soil Remediation Standards (Ing.-Derm.) - Residential	40.7297321				40.7297321				40.7303542				40.7288473				40.7304704				40.7300494				40.729803			
Longitude						-74.4419101				-74.4419101				-74.4418002				-74.441059				-74.4414832				-74.4418444				-74.441428			
Lab Sample Name						GS-N-SS01				GS-N-SS100				GS-N-SS02				GS-N-SS03				GS-N-SS04				GS-N-SS05				GS-N-SS06			
Lab Sample Number						460-234161-1				460-234161-9				460-234186-1				460-234161-3				460-233312-1				460-233312-4				460-234436-1			
Lab Report Number(s)						460-234161-1 / 460-234161-2				460-234161-1				460-234186-1				460-234161-1				460-233312-1				460-233312-1				460-234436-1			
Analyte	CAS	Method	Units			Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)
1,1'-Biphenyl	92-52-4	8270E	µg/Kg	60000 (5)	87000	130	J	670	8.9	110	J	610	8.2	15	U	1100	15	7.5	U	570	7.5	620	U	620	8.2	640	U	640	8.6	9.8	U	740	9.8
1,2,4,5-Tetrachlorobenzene	95-94-3	8270E	µg/Kg	2020 (5)	23000	21	U	670	21	19	U	610	19	35	U	1100	35	18	U	570	18	620	U	620	19	640	U	640	20	23	U	740	23
1,4-Dioxane	123-91-1	8270E	µg/Kg	1830 (7)	7000	59	U	67	59	54	U	61	54	98	U	110	98	50	U	57	50	62	U	62	54	64	U	64	56	65	U	74	65
2,2'-oxybis[1-chloropropane]	108-60-1	8270E	µg/Kg	19900 (5)	3100000	12	U	670	12	11	U	610	11	20	U	1100	20	10	U	570	10	620	U	620	11	640	U	640	12	13	UJ	740	13
2,3,4,6-Tetrachlorophenol	58-90-2	8270E	µg/Kg	199 (6)	1900000	45	U	670	45	42	U	610	42	76	U	1100	76	38	U	570	38	620	U	620	42	640	U	640	44	50	U	740	50
2,4,5-Trichlorophenol	95-95-4	8270E	µg/Kg	9000 (5)	6300000	68	U	670	68	63	U	610	63	110	U	1100	110	58	U	570	58	620	U	620	63	640	U	640	66	75	U	740	75
2,4,6-Trichlorophenol	88-06-2	8270E	µg/Kg	4000 (5)	49000	86	U	270	86	79	U	250	79	140	U	450	140	73	U	230	73	250	U	250	80	260	U	260	83	95	U	300	95
2,4-Dichlorophenol	120-83-2	8270E	µg/Kg	87500 (5)	190000	43	U	270	43	40	U	250	40	72	U	450	72	36	U	230	36	250	U	250	40	260	U	260	41	48	U	300	48
2,4-Dimethylphenol	105-67-9	8270E	µg/Kg	10 (5)	1300000	30	U	670	30	27	U	610	27	49	U	1100	49	25	U	570	25	620	U	620	27	640	U	640	28	33	U	740	33
2,4-Dinitrophenol	51-28-5	8270E	µg/Kg	60.9 (5)	130000	330	U	540	330	300	U	500	300	550	U	900	550	280	U	460	280	500	U	500	300	520	U	520	320	360	U	600	360
2,4-Dinitrotoluene	121-14-2	8270E	µg/Kg	1280 (5)		72	U	140	72	66	U	120	66	120	U	230	120	61	U	110	61	130	U	130	67	130	U	130	69	80	U	150	80
2,6-Dinitrotoluene	606-20-2	8270E	µg/Kg	4000 (7)		49	U	140	49	45	U	120	45	81	U	230	81	41	U	110	41	130	U	130	45	130	U	130	47	54	U	150	54
2-Chloronaphthalene	91-58-7	8270E	µg/Kg	12.2 (5)	4800000	31	U	670	31	29	U	610	29	52	U	1100	52	26	U	570	26	620	U	620	29	640	U	640	30	34	U	740	34
2-Chlorophenol	95-57-8	8270E	µg/Kg	243 (5)	390000	24	U	670	24	22	U	610	22	40	U	1100	40	20	U	570	20	620	U	620	22	640	U	640	23	26	U	740	26
2-Methylnaphthalene	91-57-6	8270E	µg/Kg	3240 (5)	240000	120	J	670	19	90	J	610	17	31	U	1100	31	16	U	570	16	25	J	620	17	45	J	640	18	21	U	740	21
2-Methylphenol	95-48-7	8270E	µg/Kg	580000 (7)	320000	25	U	670	25	23	U	610	23	42	U	1100	42	21	U	570	21	620	U	620	23	640	U	640	24	28	U	740	28
2-Nitroaniline	88-74-4	8270E	µg/Kg	5300 (7)		25	U	670	25	23	U	610	23	42	U	1100	42	21	U	570	21	620	U	620	23	640	U	640	24	28	U	740	28
2-Nitrophenol	88-75-5	8270E	µg/Kg	7000 (7)		67	U	670	67	62	U	610	62	110	U	1100	110	57	U	570	57	620	U	620	62	640	U	640	65	74	U	740	74
3,3'-Dichlorobenzidine	91-94-1	8270E	µg/Kg	646 (5)	1200	100	U	270	100	93	U	250	93	170	U	450	170	86	U	230	86	250	U	250	94	260	U	260	98	110	U	300	110
3-Nitroaniline	99-09-2	8270E	µg/Kg	3160 (6)		76	U	670	76	69	U	610	69	130	U	1100	130	64	U	570	64	620	U	620	70	640	U	640	73	83	U	740	83
4,6-Dinitro-2-methylphenol	534-52-1	8270E	µg/Kg			270	U	540	270	250	U	500	250	460	U	900	460	230	U	460	230	500	U	500	250	520	U	520	260	300	U	600	300
4-Bromophenyl phenyl ether	101-55-3	8270E	µg/Kg			27	U	670	27	24	U	610	24	44	U	1100	44	23	U	570	23	620	U	620	25	640	U	640	26	29	U	740	29
4-Chloro-3-methylphenol	59-50-7	8270E	µg/Kg			38	U	670	38	35	U	610	35	63	U	1100	63	32	U	570	32	620	U	620	35	640	U	640	36	42	U	740	42
4-Chloroaniline	106-47-8	8270E	µg/Kg	1000 (7)	2700	120	U	670	120	110	U	610	110	200	U	1100	200	100	U	570	100	620	U	620	110	640	U	640	110	130	U	740	130
4-Chlorophenyl phenyl ether	7005-72-3	8270E	µg/Kg			24	U	670	24	22	U	610	22	39	U	1100	39	20	U	570	20	620	U	620	22	640	U	640	23	26	U	740	26
4-Methylphenol	106-44-5	8270E	µg/Kg		630000	53	J	670	42	140	J	610	38	70	U	1100	70	35	U	570	35	69	J	620	39	640	U	640	40	46	U	740	46
4-Nitroaniline	100-01-6	8270E	µg/Kg	21900 (6)	27000	77	U	670	77	71	U	610	71	130	U	1100	130	65	U	570	65	620	U	620	71	640	U	640	74	85	U	740	85
4-Nitrophenol	100-02-7	8270E	µg/Kg	5120 (5)		110	U	1400	110	100	U	1200	100	180	U	2300	180	92	U	1100	92	1300	U	1300	100	1300	U	1300	110	120	UJ	1500	120
Acetophenone	98-86-2	8270E	µg/Kg	300000 (6)	7800000	160	J	670	33	280	J	610	30	95	J	1100	55	28	U	570	28	540	J	620	30	230	J	640	32	36	U	740	36
Atrazine	1912-24-9	8270E	µg/Kg		220000	40	U	270	40	36	U	250	36	66	U	450	66	33	U	230	33	250	U	250	37	260	U	260	38	44	U	300	44
Benzaldehyde	100-52-7	8270E	µg/Kg		170000	170	J	670	110	730	J	610	100	200	J	1100	180	94	UJ	570	94	700	J	620	100	490	J	640	110	120	UJ	740	120
Bis(2-chloroethoxy)methane	111-91-1	8270E	µg/Kg		190000	52	U	670	52	48	U	610	48	87	U	1100	87	44	U	570	44	620	U	620	48	640	U	640	50	58	U	740	58
Bis(2-chloroethyl)ether	111-44-4	8270E	µg/Kg	23700 (5)	630	23	U	67	23	21	U	61	21	39	U	110	39	20	U	57	20	62	U	62	22	64	U	64	22	26	U	74	26
Bis(2-ethylhexyl) phthalate	117-81-7	8270E	µg/Kg	925 (5)	39000	9500		670	36	13000		3100	160	13000		1100	59	230	J	570	30	6200		620	33	3600		640	34	3000		740	39
Butyl benzyl phthalate	85-68-7	8270E	µg/Kg	239 (5)	290000	430	J	670	31	570	J	610	29	3400		1100	52	27	U	570	27	52	J	620	29	430	J	640	30	110	J	740	35
Caprolactam	105-60-2	8270E	µg/Kg		32000000	100	U	670	100	96	U	610	96	170	U	1100	170	88	U	570	88	620	U	620	97	640	U	640	100	120	U	740	120
Carbazole	86-74-8	8270E	µg/Kg	79000 (7)		26	U	670	26	42	J	610	23	43	U	1100	43	22	U	570	22	620	U	620	24	640	U	640	25	28	U	740	28
Dibenzofuran	132-64-9	8270E	µg/Kg	6100 (7)		32	J	670	9.4	24	J	610	8.7	16	U	1100	16	8	U	570	8	620	U	620	8.7	640	U	640	9.1	10	U	740	10
Diethyl phthalate	84-66-2	8270E	µg/Kg	24800 (5)	51000000	130	J	670	9.7	300	J	610	8.9	35	J	1100	16	8.2	U	570	8.2	36	J	620	9	98	J	640	9.4	31	J	740	11
Dimethyl phthalate	131-11-3	8270E	µg/Kg	38000 (7)		530	J	670	150	1100		610	140	250	U	1100	250	130	U	570	130	620	U	620	140	640	U	640	150	170	U	740	170
Di-n-butyl phthalate	84-74-2	8270E	µg/Kg	150 (5)	6300000	15000		670	25	11000		610	23	500	J	1100	42	21	U	570	21	220	J	620	23	1500		640	24	270	J	740	28
Di-n-octyl phthalate	117-84-0	8270E	µg/Kg	910 (7)	630000	14000		670	36	27000		3100	160	59	U	1100	59	30	U	570	30	620	U	620	33	320	J	640	34	39	U	740	39
Hexachlorobenzene	118-74-1	8270E	µg/Kg	199 (5)	430	32	U	67	32	29	U	61	29	53	U	110	53	27	U	57	27	62	U	62	29	64	U	64	31	35	U	74	35
Hexachlorobutadiene	87-68-3	8270E	µg/Kg	39.8 (5)	8900	14	U	140	14	13	U	120	13	24	U	230	24	12	U	110	12	130	U	130	13	130	U	130	14	16	U	150	16
Hexachlorocyclopentadiene	77-47-4	8270E	µg/Kg	755 (5)	470000	59	UJ	670	59	54	UJ	610	54	98	UJ	1100	98	50	UJ	570	50	620	U	620	54	640	U	640	57	65	U	740	65
Hexachloroethane	67-72-1	8270E	µg/Kg	596 (5)	17000	23	U	67	23	21	U	61	21	38	U	110	38	19	U	57	19	62	U	62	21	64	U	64	22	25	U	74	25
Isophorone	78-59-1	8270E	µg/Kg	139000 (5)	570000	190	U	270	190	180	U	250	180	320	U	450	320	160	U	230	160	250	U	250	180	260	U	260	190	210	U	300	210
Nitrobenzene	98-95-3	8270E	µg/Kg	1310 (5)	160000	16	U	67	16	15	U	61	15	27	U	110	27	14	U	57	14	62	U	62	15	64	U	64	16	18	U	74	18
N-Nitrosodi-n-propylamine	621-64-7	8270E	µg/Kg		170	49	U	67	49	45	U	61	45	81	U	110	81	41	U	57	41	62	U	62	45	64	U	64	47	54	U	74	54
N-Nitrosodiphenylamine	86-30-6	8270E	µg/Kg	545 (5)	110000	55	U	670	55	51	U	610	51	92	U	1100	92	47	U	570	47	620	U	620	51	640	U	640	53	61	U	740	61
Pentachlorophenol	87-86-5	8270E	µg/Kg	2100 (3)	1000	140	U	540	140	260	J	500	130	230	U	900	230	120	U	460	120	500	U	500	130	85	J	520	130	150	U	600	150
Phenol	108-95-2	8270E	µg/Kg	30000 (5)	19000000	1200		670	25	2500		610	23	41	U	1100	41	21	U	570	21	620	U	620	23	640	U	640	24	27	U	740	27

Table 5.3 - Soil: Semi-Volatile Organic Constituents (SVOCs) Analytical Results

Rolling Knolls Landfill

Sample Name				ESC's	NJAC 7:26D	SS01				SS100 (SS01 duplicate)				SS02				SS03				SS04				SS05				SS06			
Sample Date/Time						05/11/2021 08:35				05/11/2021 12:00				05/11/2021 10:10				05/11/2021 13:45				04/29/2021 10:20				04/29/2021 16:20				05/13/2021 09:00			
Latitude				Screening Criteria	(8) Soil Remediation Standards (Ing.-Derm.) - Residential	40.7297321				40.7297321				40.7303542				40.7288473				40.7304704				40.7300494				40.729803			
Longitude						-74.4419101				-74.4419101				-74.4418002				-74.441059				-74.4414832				-74.4418444				-74.441428			
Lab Sample Name						GS-N-SS01				GS-N-SS100				GS-N-SS02				GS-N-SS03				GS-N-SS04				GS-N-SS05				GS-N-SS06			
Lab Sample Number						460-234161-1				460-234161-9				460-234186-1				460-234161-3				460-233312-1				460-233312-4				460-234436-1			
Lab Report Number(s)						460-234161-1 / 460-234161-2				460-234161-1				460-234186-1				460-234161-1				460-233312-1				460-233312-1				460-234436-1			
Analyte	**CAS**	**Method**	**Units**			**Result**	**LDC Flag**	**RL**	**MDL (EDL)**	**Result**	**LDC Flag**	**RL**	**MDL (EDL)**	**Result**	**LDC Flag**	**RL**	**MDL (EDL)**	**Result**	**LDC Flag**	**RL**	**MDL (EDL)**	**Result**	**LDC Flag**	**RL**	**MDL (EDL)**	**Result**	**LDC Flag**	**RL**	**MDL (EDL)**	**Result**	**LDC Flag**	**RL**	**MDL (EDL)**
Polycyclic Aromatic Hydrocarbons (PAHs)																																	
Acenaphthene	83-32-9	8270E	µg/Kg	20000 (5)	3600000	35	J	670	19	18	U	610	18	32	U	1100	32	16	U	570	16	620	U	620	18	640	U	640	18	21	U	740	21
Acenaphthylene	208-96-8	8270E	µg/Kg	682000 (5)		24	J	670	6.7	36	J	610	6.2	40	J	1100	11	5.7	U	570	5.7	620	U	620	6.2	640	U	640	6.5	7.5	U	740	7.5
Anthracene	120-12-7	8270E	µg/Kg	1480000 (5)	18000000	74	J	670	20	130	J	610	19	34	U	1100	34	17	U	570	17	620	U	620	19	640	U	640	20	23	U	740	23
Fluorene	86-73-7	8270E	µg/Kg	122000 (5)	2400000	35	J	670	9.1	26	J	610	8.4	15	U	1100	15	7.7	U	570	7.7	620	U	620	8.4	640	U	640	8.8	10	U	740	10
Naphthalene	91-20-3	8270E	µg/Kg	99.4 (5)	2500000	170	J	670	12	180	J	610	11	42	J	1100	19	9.8	U	570	9.8	75	J	620	11	77	J	640	11	65	J	740	13
Phenanthrene	85-01-8	8270E	µg/Kg	45700 (5)		420	J	670	12	260	J	610	11	35	J	1100	20	10	U	570	10	97	J	620	11	55	J	640	11	27	J	740	13
Benzo[a]anthracene	56-55-3	8270E	µg/Kg	5210 (5)	5100	180		67	23	290		61	21	39	U	110	39	20	U	57	20	150		62	22	64	U	64	23	26	U	74	26
Benzo[a]pyrene	50-32-8	8270E	µg/Kg	1520 (5)	510	130		67	18	270		61	16	30	U	110	30	47	J	57	15	110		62	17	35	J	64	17	20	U	74	20
Benzo[b]fluoranthene	205-99-2	8270E	µg/Kg	59800 (5)	5100	230		67	17	500		61	16	40	J	110	29	15	U	57	15	170		62	16	71		64	17	26	J	74	19
Benzo[g,h,i]perylene	191-24-2	8270E	µg/Kg	119000 (5)		1300		670	20	180	J	610	18	33	U	1100	33	250	J	570	17	620	U	620	18	62	J	640	19	22	U	740	22
Benzo[k]fluoranthene	207-08-9	8270E	µg/Kg	148000 (5)	51000	130		67	13	190		61	12	22	U	110	22	11	U	57	11	83		62	12	43	J	64	13	15	U	74	15
Chrysene	218-01-9	8270E	µg/Kg	4730 (5)	510000	210	J	670	11	390	J	610	10	19	U	1100	19	9.6	U	570	9.6	140	J	620	10	43	J	640	11	23	J	740	13
Dibenz(a,h)anthracene	53-70-3	8270E	µg/Kg	18400 (5)	510	890		67	29	27	U	61	27	48	U	110	48	50	J	57	25	62	U	62	27	64	U	64	28	32	U	74	32
Fluoranthene	206-44-0	8270E	µg/Kg	122000 (5)	2400000	430	J	670	23	610		610	22	39	U	1100	39	20	U	570	20	210	J	620	22	43	J	640	23	26	J	740	26
Indeno[1,2,3-cd]pyrene	193-39-5	8270E	µg/Kg	109000 (5)	5100	1300		67	26	160		61	24	44	U	110	44	260		57	22	50	J	62	24	64	J	64	25	29	U	74	29
Pyrene	129-00-0	8270E	µg/Kg	78500 (5)	1800000	320	J	670	17	500	J	610	15	28	U	1100	28	14	U	570	14	190	J	620	15	41	J	640	16	18	U	740	18
Low Molecular Weight PAHs			µg/Kg	29000 (2)		758				650				198				66.2				2652				2692				153.5			
High Molecular Weight PAHs			µg/Kg	1100 (4)		5120				3117				342				696.6				1785				530				237			

Table 5.3 - Soil: Semi-Volatile Organic Constituents (SVOCs) Analytical Results

(continued)

Rolling Knolls Landfill

Sample Name				ESC's	NJAC 7:26D	SS07						SS08			SS09			SS10			SS11			SS12		
Sample Date/Time						04/28/2021 00:00				05/13/2021 12:55			05/11/2021 12:30			05/13/2021 11:10			05/13/2021 14:10			05/03/2021 10:00			05/10/2021 10:45		
Latitude				Screening Criteria	(8) Soil Remediation Standards (Ing.-Derm.) - Residential	40.7293038						40.72928382			40.7285174			40.7272947			40.7220743			40.7218276		
Longitude						-74.4416064						-74.44108891			-74.4407729			-74.440092			-74.4442957			-74.4445596		
Lab Sample Name						GS-N-SS07						GS-N-SS08			GS-N-SS09			GS-N-SS10			GS-S-SS11			GS-S-SS12		
Lab Sample Number						460-233313-1				460-234435-1			460-234161-6			460-234435-4			460-234436-9			460-233488-1			460-234082-1		
Lab Report Number(s)						460-233313-1				460-234435-1			460-234161-1			460-234435-1			460-234436-1			460-233488-1			460-234082-1		
Analyte	CAS	Method	Units			Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)
1,1'-Biphenyl	92-52-4	8270E	µg/Kg	60000 (5)	87000	67	J	740	9.8					12	U	930	12	9.7	U	730	9.7	82	J	830	11	16	U	1200	16	30	U	2300	30
1,2,4,5-Tetrachlorobenzene	95-94-3	8270E	µg/Kg	2020 (5)	23000	23	U	740	23					29	U	930	29	23	U	730	23	26	U	830	26	38	U	1200	38	70	U	2300	70
1,4-Dioxane	123-91-1	8270E	µg/Kg	1830 (7)	7000	65	U	74	65					81	U	93	81	64	U	73	64	72	U	83	72	110	U	120	110	200	UJ	230	200
2,2'-oxybis[1-chloropropane]	108-60-1	8270E	µg/Kg	19900 (5)	3100000	13	U	740	13					17	U	930	17	13	U	730	13	15	UJ	830	15	22	U	1200	22	41	U	2300	41
2,3,4,6-Tetrachlorophenol	58-90-2	8270E	µg/Kg	199 (6)	1900000	50	U	740	50					63	U	930	63	49	U	730	49	56	U	830	56	82	U	1200	82	150	U	2300	150
2,4,5-Trichlorophenol	95-95-4	8270E	µg/Kg	9000 (5)	6300000	75	U	740	75					95	U	930	95	74	U	730	74	84	U	830	84	120	U	1200	120	230	U	2300	230
2,4,6-Trichlorophenol	88-06-2	8270E	µg/Kg	4000 (5)	49000	95	U	300	95					120	U	370	120	93	U	290	93	110	U	330	110	160	U	490	160	290	U	910	290
2,4-Dichlorophenol	120-83-2	8270E	µg/Kg	87500 (5)	190000	48	U	300	48					60	U	370	60	47	U	290	47	53	U	330	53	78	U	490	78	140	U	910	140
2,4-Dimethylphenol	105-67-9	8270E	µg/Kg	10 (5)	1300000	33	U	740	33					41	U	930	41	32	U	730	32	36	U	830	36	53	U	1200	53	99	U	2300	99
2,4-Dinitrophenol	51-28-5	8270E	µg/Kg	60.9 (5)	130000	360	UJ	600	360					460	U	750	460	360	UJ	590	360	410	U	670	410	590	U	970	590	1100	UJ	1800	1100
2,4-Dinitrotoluene	121-14-2	8270E	µg/Kg	1280 (5)		80	U	150	80					100	U	190	100	78	U	150	78	89	U	170	89	130	U	240	130	240	U	460	240
2,6-Dinitrotoluene	606-20-2	8270E	µg/Kg	4000 (7)		54	UJ	150	54					67	U	190	67	53	UJ	150	53	60	U	170	60	87	U	240	87	160	UJ	460	160
2-Chloronaphthalene	91-58-7	8270E	µg/Kg	12.2 (5)	4800000	34	U	740	34					43	U	930	43	34	U	730	34	38	U	830	38	56	U	1200	56	100	U	2300	100
2-Chlorophenol	95-57-8	8270E	µg/Kg	243 (5)	390000	26	U	740	26					33	U	930	33	26	U	730	26	30	U	830	30	43	U	1200	43	80	U	2300	80
2-Methylnaphthalene	91-57-6	8270E	µg/Kg	3240 (5)	240000	58	J	740	21					26	U	930	26	20	U	730	20	61	J	830	23	35	J	1200	34	63	U	2300	63
2-Methylphenol	95-48-7	8270E	µg/Kg	580000 (7)	320000	28	U	740	28					35	U	930	35	27	U	730	27	31	U	830	31	45	U	1200	45	84	U	2300	84
2-Nitroaniline	88-74-4	8270E	µg/Kg	5300 (7)		28	U	740	28					35	U	930	35	27	U	730	27	31	U	830	31	45	U	1200	45	84	U	2300	84
2-Nitrophenol	88-75-5	8270E	µg/Kg	7000 (7)		74	UJ	740	74					93	U	930	93	73	UJ	730	73	83	U	830	83	120	U	1200	120	230	UJ	2300	230
3,3'-Dichlorobenzidine	91-94-1	8270E	µg/Kg	646 (5)	1200	110	U	300	110					140	U	370	140	110	U	290	110	130	U	330	130	180	U	490	180	340	U	910	340
3-Nitroaniline	99-09-2	8270E	µg/Kg	3160 (6)		83	U	740	83					100	U	930	100	82	U	730	82	93	U	830	93	140	U	1200	140	250	U	2300	250
4,6-Dinitro-2-methylphenol	534-52-1	8270E	µg/Kg			300	UJ	600	300					380	U	750	380	300	UJ	590	300	340	U	670	340	490	U	970	490	920	UJ	1800	920
4-Bromophenyl phenyl ether	101-55-3	8270E	µg/Kg			29	U	740	29					37	U	930	37	29	U	730	29	33	U	830	33	48	U	1200	48	89	U	2300	89
4-Chloro-3-methylphenol	59-50-7	8270E	µg/Kg			42	U	740	42					52	U	930	52	41	U	730	41	46	U	830	46	68	U	1200	68	130	U	2300	130
4-Chloroaniline	106-47-8	8270E	µg/Kg	1000 (7)	2700	130	U	740	130					160	U	930	160	130	U	730	130	150	U	830	150	210	U	1200	210	400	U	2300	400
4-Chlorophenyl phenyl ether	7005-72-3	8270E	µg/Kg			26	U	740	26					33	U	930	33	26	U	730	26	29	U	830	29	43	U	1200	43	80	U	2300	80
4-Methylphenol	106-44-5	8270E	µg/Kg		630000	46	U	740	46					58	U	930	58	45	U	730	45	80	J	830	52	76	U	1200	76	140	U	2300	140
4-Nitroaniline	100-01-6	8270E	µg/Kg	21900 (6)	27000	85	U	740	85					110	U	930	110	84	U	730	84	95	U	830	95	140	U	1200	140	260	U	2300	260
4-Nitrophenol	100-02-7	8270E	µg/Kg	5120 (5)		120	U	1500	120					150	U	1900	150	120	UJ	1500	120	140	UJ	1700	140	200	U	2400	200	370	U	4600	370
Acetophenone	98-86-2	8270E	µg/Kg	300000 (6)	7800000	280	J	740	36					46	U	930	46	36	U	730	36	290	J	830	41	59	U	1200	59	110	U	2300	110
Atrazine	1912-24-9	8270E	µg/Kg		220000	44	U	300	44					55	U	370	55	43	U	290	43	49	U	330	49	71	U	490	71	130	U	910	130
Benzaldehyde	100-52-7	8270E	µg/Kg		170000	530	J	740	120					150	UJ	930	150	120	UJ	730	120	210	J	830	140	370	J	1200	200	370	UJ	2300	370
Bis(2-chloroethoxy)methane	111-91-1	8270E	µg/Kg		190000	58	U	740	58					72	U	930	72	57	U	730	57	65	U	830	65	94	U	1200	94	180	U	2300	180
Bis(2-chloroethyl)ether	111-44-4	8270E	µg/Kg	23700 (5)	630	26	U	74	26					32	U	93	32	25	U	73	25	29	U	83	29	42	U	120	42	79	U	230	79
Bis(2-ethylhexyl) phthalate	117-81-7	8270E	µg/Kg	925 (5)	39000	6200		740	39					49	U	930	49	38	U	730	38	880		830	44	580	J	1200	64	120	U	2300	120
Butyl benzyl phthalate	85-68-7	8270E	µg/Kg	239 (5)	290000	99	J	740	35					44	U	930	44	34	U	730	34	39	U	830	39	180	J	1200	57	110	U	2300	110
Caprolactam	105-60-2	8270E	µg/Kg		32000000	120	U	740	120					140	U	930	140	110	U	730	110	130	U	830	130	190	U	1200	190	350	U	2300	350
Carbazole	86-74-8	8270E	µg/Kg	79000 (7)		28	U	740	28					35	U	930	35	28	U	730	28	32	U	830	32	46	U	1200	46	86	U	2300	86
Dibenzofuran	132-64-9	8270E	µg/Kg	6100 (7)		23	J	740	10					13	U	930	13	10	U	730	10	12	U	830	12	17	U	1200	17	32	U	2300	32
Diethyl phthalate	84-66-2	8270E	µg/Kg	24800 (5)	51000000	91	J	740	11					13	U	930	13	11	U	730	11	95	J	830	12	18	U	1200	18	33	U	2300	33
Dimethyl phthalate	131-11-3	8270E	µg/Kg	38000 (7)		170	U	740	170					210	U	930	210	170	U	730	170	190	U	830	190	270	U	1200	270	510	U	2300	510
Di-n-butyl phthalate	84-74-2	8270E	µg/Kg	150 (5)	6300000	360	J	740	28					35	U	930	35	27	U	730	27	31	U	830	31	130	J	1200	46	85	U	2300	85
Di-n-octyl phthalate	117-84-0	8270E	µg/Kg	910 (7)	630000	39	U	740	39					49	U	930	49	39	U	730	39	44	U	830	44	64	U	1200	64	120	U	2300	120
Hexachlorobenzene	118-74-1	8270E	µg/Kg	199 (5)	430	35	U	74	35					44	U	93	44	35	U	73	35	39	U	83	39	57	U	120	57	110	U	230	110
Hexachlorobutadiene	87-68-3	8270E	µg/Kg	39.8 (5)	8900	16	U	150	16					20	U	190	20	15	U	150	15	18	U	170	18	26	U	240	26	48	U	460	48
Hexachlorocyclopentadiene	77-47-4	8270E	µg/Kg	755 (5)	470000	65	U	740	65					81	UJ	930	81	64	U	730	64	73	U	830	73	110	U	1200	110	200	U	2300	200
Hexachloroethane	67-72-1	8270E	µg/Kg	596 (5)	17000	25	U	74	25					32	U	93	32	25	U	73	25	28	U	83	28	42	U	120	42	77	U	230	77
Isophorone	78-59-1	8270E	µg/Kg	139000 (5)	570000	210	U	300	210					270	U	370	270	210	U	290	210	240	U	330	240	350	U	490	350	650	U	910	650
Nitrobenzene	98-95-3	8270E	µg/Kg	1310 (5)	160000	18	U	74	18					22	U	93	22	17	U	73	17	20	U	83	20	29	U	120	29	54	U	230	54
N-Nitrosodi-n-propylamine	621-64-7	8270E	µg/Kg		170	54	U	74	54					67	U	93	67	53	U	73	53	60	U	83	60	88	U	120	88	160	U	230	160
N-Nitrosodiphenylamine	86-30-6	8270E	µg/Kg	545 (5)	110000	61	U	740	61					76	U	930	76	60	U	730	60	68	U	830	68	99	U	1200	99	190	U	2300	190
Pentachlorophenol	87-86-5	8270E	µg/Kg	2100 (3)	1000	150	U	600	150					190	U	750	190	150	U	590	150	170	U	670	170	250	U	970	250	460	U	1800	460
Phenol	108-95-2	8270E	µg/Kg	30000 (5)	19000000	27	U	740	27					34	U	930	34	27	U	730	27	57	J	830	30	44	U	1200	44	83	U	2300	83

Table 5.3 - Soil: Semi-Volatile Organic Constituents (SVOCs) Analytical Results

(continued)

Rolling Knolls Landfill

Sample Name				ESC's	NJAC 7:26D	SS07						SS08			SS09			SS10			SS11			SS12		
Sample Date/Time						04/28/2021 00:00				05/13/2021 12:55			05/11/2021 12:30			05/13/2021 11:10			05/13/2021 14:10			05/03/2021 10:00			05/10/2021 10:45		
Latitude				Screening Criteria	(8) Soil Remediation Standards (Ing.-Derm.) - Residential	40.7293038						40.72928382			40.7285174			40.7272947			40.7220743			40.7218276		
Longitude						-74.4416064						-74.44108891			-74.4407729			-74.440092			-74.4442957			-74.4445596		
Lab Sample Name						GS-N-SS07						GS-N-SS08			GS-N-SS09			GS-N-SS10			GS-S-SS11			GS-S-SS12		
Lab Sample Number						460-233313-1				460-234435-1			460-234161-6			460-234435-4			460-234436-9			460-233488-1			460-234082-1		
Lab Report Number(s)						460-233313-1				460-234435-1			460-234161-1			460-234435-1			460-234436-1			460-233488-1			460-234082-1		
Analyte	CAS	Method	Units			Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)
Polycyclic Aromatic Hydrocarbons (PAHs)																											
Acenaphthene	83-32-9	8270E	µg/Kg	20000 (5)	3600000	21	U	740	21					26	U	930	26	21	U	730	21	24	U	830	24	34	U	1200	34	64	U	2300	64
Acenaphthylene	208-96-8	8270E	µg/Kg	682000 (5)		20	J	740	7.5					9.3	U	930	9.3	7.3	U	730	7.3	8.3	U	830	8.3	12	U	1200	12	23	U	2300	23
Anthracene	120-12-7	8270E	µg/Kg	1480000 (5)	18000000	23	U	740	23					28	U	930	28	22	U	730	22	25	U	830	25	37	U	1200	37	69	U	2300	69
Fluorene	86-73-7	8270E	µg/Kg	122000 (5)	2400000	10	U	740	10					13	U	930	13	9.9	U	730	9.9	11	U	830	11	16	U	1200	16	31	U	2300	31
Naphthalene	91-20-3	8270E	µg/Kg	99.4 (5)	2500000	130	J	740	13					16	U	930	16	13	U	730	13	150	J	830	14	130	J	1200	21	39	U	2300	39
Phenanthrene	85-01-8	8270E	µg/Kg	45700 (5)		99	J	740	13					16	U	930	16	13	U	730	13	69	J	830	15	110	J	1200	21	40	U	2300	40
Benzo[a]anthracene	56-55-3	8270E	µg/Kg	5210 (5)	5100	85		74	26					32	U	93	32	25	U	73	25	29	U	83	29	66	J	120	42	79	U	230	79
Benzo[a]pyrene	50-32-8	8270E	µg/Kg	1520 (5)	510	75		74	20					25	U	93	25	19	U	73	19	22	U	83	22	40	J	120	32	60	U	230	60
Benzo[b]fluoranthene	205-99-2	8270E	µg/Kg	59800 (5)	5100	150		74	19					24	U	93	24	19	U	73	19	34	J	83	21	110	J	120	31	58	U	230	58
Benzo[g,h,i]perylene	191-24-2	8270E	µg/Kg	119000 (5)		51	J	740	22					27	U	930	27	21	U	730	21	29	J	830	24	36	U	1200	36	67	U	2300	67
Benzo[k]fluoranthene	207-08-9	8270E	µg/Kg	148000 (5)	51000	49	J	74	15					18	U	93	18	14	U	73	14	16	U	83	16	45	J	120	24	44	U	230	44
Chrysene	218-01-9	8270E	µg/Kg	4730 (5)	510000	110	J	740	13					16	U	930	16	12	U	730	12	53	J	830	14	96	J	1200	20	38	U	2300	38
Dibenz(a,h)anthracene	53-70-3	8270E	µg/Kg	18400 (5)	510	32	U	74	32					40	U	93	40	32	U	73	32	36	U	83	36	52	U	120	52	98	U	230	98
Fluoranthene	206-44-0	8270E	µg/Kg	122000 (5)	2400000	130	J	740	26					39	J	930	32	25	U	730	25	30	J	830	29	160	J	1200	42	79	U	2300	79
Indeno[1,2,3-cd]pyrene	193-39-5	8270E	µg/Kg	109000 (5)	5100	53	J	74	29					36	U	93	36	28	U	73	28	32	U	83	32	47	U	120	47	88	U	230	88
Pyrene	129-00-0	8270E	µg/Kg	78500 (5)	1800000	120	J	740	18					23	U	930	23	18	U	730	18	48	J	830	21	110	J	1200	30	56	U	2300	56
Low Molecular Weight PAHs			µg/Kg	29000 (2)		303								108.3				86.2				287.3			339				266			
High Molecular Weight PAHs			µg/Kg	1100 (4)		855								280				213				329			762				667			

Table 5.3 - Soil: Semi-Volatile Organic Constituents (SVOCs) Analytical Results

(continued)

Rolling Knolls Landfill

Sample Name				ESC's	NJAC 7:26D	SS13				SS14				SS102 (SS14 duplicate)				SS15				SS16				SS17				SS18			
Sample Date/Time						05/10/2021 12:10				05/03/2021 10:40				05/03/2021 10:40				05/03/2021 15:30				05/04/2021 09:40				05/05/2021 10:05				05/10/2021 13:30			
Latitude						40.7221319				40.7222989				40.7222989				40.7226573				40.7229083				40.723173				40.7226388			
Longitude						-74.4453061				-74.4446187				-74.4446187				-74.4446863				-74.445227				-74.443727				-74.4459762			
Lab Sample Name				Screening Criteria	(8) Soil Remediation Standards (Ing.-Derm.) - Residential	GS-S-SS13				GS-S-SS14				GS-S-SS102				GS-S-SS15				GS-S-SS16				GS-S-SS17				GS-S-SS18			
Lab Sample Number						460-234082-3				460-233488-4				460-233506-1				460-233506-3				460-233704-1				460-233715-1				460-234084-1			
Lab Report Number(s)						460-234082-1 / 460-234082-2				460-233488-1 / 460-233488-2				460-233506-1				460-233506-1 / 460-233506-2				460-233704-1				460-233715-1				460-234084-1			
Analyte	CAS	Method	Units			Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)
1,1'-Biphenyl	92-52-4	8270E	µg/Kg	60000 (5)	87000	7.4	U	560	7.4	10	U	780	10	9.3	U	700	9.3	8.1	U	610	8.1	11	U	800	11	7.9	U	590	7.9	39	U	2900	39
1,2,4,5-Tetrachlorobenzene	95-94-3	8270E	µg/Kg	2020 (5)	23000	17	U	560	17	24	U	780	24	22	U	700	22	19	U	610	19	25	U	800	25	19	U	590	19	92	U	2900	92
1,4-Dioxane	123-91-1	8270E	µg/Kg	1830 (7)	7000	49	UJ	56	49	68	U	78	68	61	U	70	61	54	U	61	54	70	U	80	70	52	U	59	52	260	UJ	290	260
2,2'-oxybis[1-chloropropane]	108-60-1	8270E	µg/Kg	19900 (5)	3100000	10	U	560	10	14	U	780	14	13	U	700	13	11	U	610	11	15	U	800	15	11	U	590	11	53	U	2900	53
2,3,4,6-Tetrachlorophenol	58-90-2	8270E	µg/Kg	199 (6)	1900000	38	U	560	38	53	U	780	53	48	U	700	48	42	U	610	42	55	U	800	55	40	U	590	40	200	U	2900	200
2,4,5-Trichlorophenol	95-95-4	8270E	µg/Kg	9000 (5)	6300000	57	U	560	57	80	U	780	80	72	U	700	72	62	U	610	62	82	U	800	82	61	U	590	61	300	U	2900	300
2,4,6-Trichlorophenol	88-06-2	8270E	µg/Kg	4000 (5)	49000	72	U	220	72	100	U	320	100	90	U	280	90	79	U	250	79	100	U	320	100	77	U	240	77	380	U	1200	380
2,4-Dichlorophenol	120-83-2	8270E	µg/Kg	87500 (5)	190000	36	U	220	36	50	U	320	50	45	U	280	45	39	U	250	39	52	U	320	52	38	U	240	38	190	U	1200	190
2,4-Dimethylphenol	105-67-9	8270E	µg/Kg	10 (5)	1300000	25	U	560	25	34	U	780	34	31	U	700	31	27	U	610	27	35	U	800	35	26	U	590	26	130	U	2900	130
2,4-Dinitrophenol	51-28-5	8270E	µg/Kg	60.9 (5)	130000	270	UJ	450	270	390	U	630	390	350	U	570	350	300	U	490	300	400	U	650	400	290	U	480	290	1400	U	2400	1400
2,4-Dinitrotoluene	121-14-2	8270E	µg/Kg	1280 (5)		60	U	110	60	84	U	160	84	76	U	140	76	66	U	120	66	87	U	160	87	64	U	120	64	320	U	600	320
2,6-Dinitrotoluene	606-20-2	8270E	µg/Kg	4000 (7)		40	UJ	110	40	57	U	160	57	51	U	140	51	44	U	120	44	58	U	160	58	43	U	120	43	210	U	600	210
2-Chloronaphthalene	91-58-7	8270E	µg/Kg	12.2 (5)	4800000	26	U	560	26	36	U	780	36	33	U	700	33	28	U	610	28	37	U	800	37	28	U	590	28	140	U	2900	140
2-Chlorophenol	95-57-8	8270E	µg/Kg	243 (5)	390000	20	U	560	20	28	U	780	28	25	U	700	25	22	U	610	22	29	U	800	29	21	U	590	21	100	U	2900	100
2-Methylnaphthalene	91-57-6	8270E	µg/Kg	3240 (5)	240000	16	U	560	16	22	U	780	22	21	J	700	20	67	J	610	17	23	U	800	23	34	J	590	17	82	U	2900	82
2-Methylphenol	95-48-7	8270E	µg/Kg	580000 (7)	320000	21	U	560	21	29	U	780	29	26	U	700	26	23	U	610	23	30	U	800	30	22	U	590	22	110	U	2900	110
2-Nitroaniline	88-74-4	8270E	µg/Kg	5300 (7)		21	U	560	21	29	U	780	29	26	U	700	26	23	U	610	23	30	U	800	30	22	U	590	22	110	U	2900	110
2-Nitrophenol	88-75-5	8270E	µg/Kg	7000 (7)		56	UJ	560	56	79	U	780	79	70	U	700	70	61	U	610	61	81	U	800	81	60	U	590	60	290	U	2900	290
3,3'-Dichlorobenzidine	91-94-1	8270E	µg/Kg	646 (5)	1200	84	U	220	84	120	U	320	120	110	U	280	110	93	U	250	93	120	U	320	120	90	U	240	90	440	U	1200	440
3-Nitroaniline	99-09-2	8270E	µg/Kg	3160 (6)		63	U	560	63	88	U	780	88	79	U	700	79	69	U	610	69	91	U	800	91	67	U	590	67	330	U	2900	330
4,6-Dinitro-2-methylphenol	534-52-1	8270E	µg/Kg			230	UJ	450	230	320	U	630	320	290	U	570	290	250	U	490	250	330	U	650	330	240	U	480	240	1200	U	2400	1200
4-Bromophenyl phenyl ether	101-55-3	8270E	µg/Kg			22	U	560	22	31	U	780	31	28	U	700	28	24	U	610	24	32	U	800	32	24	U	590	24	120	U	2900	120
4-Chloro-3-methylphenol	59-50-7	8270E	µg/Kg			31	U	560	31	44	U	780	44	39	U	700	39	34	U	610	34	45	U	800	45	33	U	590	33	170	U	2900	170
4-Chloroaniline	106-47-8	8270E	µg/Kg	1000 (7)	2700	99	U	560	99	140	U	780	140	120	U	700	120	110	U	610	110	140	U	800	140	110	U	590	110	520	U	2900	520
4-Chlorophenyl phenyl ether	7005-72-3	8270E	µg/Kg			20	U	560	20	28	U	780	28	25	U	700	25	22	U	610	22	28	U	800	28	21	U	590	21	100	U	2900	100
4-Methylphenol	106-44-5	8270E	µg/Kg		630000	35	U	560	35	49	U	780	49	44	U	700	44	90	J	610	38	50	U	800	50	37	U	590	37	180	U	2900	180
4-Nitroaniline	100-01-6	8270E	µg/Kg	21900 (6)	27000	64	U	560	64	90	U	780	90	81	U	700	81	70	U	610	70	93	U	800	93	68	U	590	68	340	U	2900	340
4-Nitrophenol	100-02-7	8270E	µg/Kg	5120 (5)		91	U	1100	91	130	U	1600	130	110	U	1400	110	100	U	1200	100	130	U	1600	130	97	U	1200	97	480	U	6000	480
Acetophenone	98-86-2	8270E	µg/Kg	300000 (6)	7800000	27	U	560	27	60	J	780	38	77	J	700	35	160	J	610	30	40	U	800	40	87	J	590	29	140	U	2900	140
Atrazine	1912-24-9	8270E	µg/Kg		220000	33	U	220	33	46	U	320	46	41	U	280	41	36	U	250	36	47	U	320	47	35	U	240	35	170	U	1200	170
Benzaldehyde	100-52-7	8270E	µg/Kg		170000	92	UJ	560	92	180	J	780	130	150	J	700	120	330	J	610	100	130	UJ	800	130	350	J	590	99	490	UJ	2900	490
Bis(2-chloroethoxy)methane	111-91-1	8270E	µg/Kg		190000	44	U	560	44	61	U	780	61	55	U	700	55	48	U	610	48	63	U	800	63	46	U	590	46	230	U	2900	230
Bis(2-chloroethyl)ether	111-44-4	8270E	µg/Kg	23700 (5)	630	19	U	56	19	27	U	78	27	24	U	70	24	21	U	61	21	28	U	80	28	21	U	59	21	100	U	290	100
Bis(2-ethylhexyl) phthalate	117-81-7	8270E	µg/Kg	925 (5)	39000	1500		560	30	140000		7800	410	580	J	700	37	3600		610	32	2400		800	43	1900		590	32	510	J	2900	160
Butyl benzyl phthalate	85-68-7	8270E	µg/Kg	239 (5)	290000	38	J	560	26	40000		7800	370	33	U	700	33	29	U	610	29	38	U	800	38	59	J	590	28	140	U	2900	140
Caprolactam	105-60-2	8270E	µg/Kg		32000000	87	U	560	87	120	U	780	120	110	U	700	110	95	U	610	95	130	U	800	130	93	U	590	93	460	U	2900	460
Carbazole	86-74-8	8270E	µg/Kg	79000 (7)		21	U	560	21	30	U	780	30	27	U	700	27	23	U	610	23	31	U	800	31	23	U	590	23	110	U	2900	110
Dibenzofuran	132-64-9	8270E	µg/Kg	6100 (7)		7.8	U	560	7.8	11	U	780	11	9.9	U	700	9.9	8.6	U	610	8.6	11	U	800	11	8.4	U	590	8.4	41	U	2900	41
Diethyl phthalate	84-66-2	8270E	µg/Kg	24800 (5)	51000000	8.1	U	560	8.1	11	U	780	11	10	U	700	10	28	J	610	8.9	12	U	800	12	8.6	U	590	8.6	210	J	2900	43
Dimethyl phthalate	131-11-3	8270E	µg/Kg	38000 (7)		130	U	560	130	180	U	780	180	160	U	700	160	140	U	610	140	180	U	800	180	140	U	590	140	670	U	2900	670
Di-n-butyl phthalate	84-74-2	8270E	µg/Kg	150 (5)	6300000	460	J	560	21	3500		780	30	26	U	700	26	23	U	610	23	440	J	800	30	260	J	590	22	240	J	2900	110
Di-n-octyl phthalate	117-84-0	8270E	µg/Kg	910 (7)	630000	30	U	560	30	42	U	780	42	37	U	700	37	32	U	610	32	43	U	800	43	32	U	590	32	290	J	2900	160
Hexachlorobenzene	118-74-1	8270E	µg/Kg	199 (5)	430	27	U	56	27	37	U	78	37	33	U	70	33	29	U	61	29	38	U	80	38	28	U	59	28	140	U	290	140
Hexachlorobutadiene	87-68-3	8270E	µg/Kg	39.8 (5)	8900	12	U	110	12	17	U	160	17	15	U	140	15	13	U	120	13	17	U	160	17	13	U	120	13	63	U	600	63
Hexachlorocyclopentadiene	77-47-4	8270E	µg/Kg	755 (5)	470000	49	U	560	49	69	U	780	69	62	U	700	62	54	U	610	54	71	U	800	71	52	UJ	590	52	260	U	2900	260
Hexachloroethane	67-72-1	8270E	µg/Kg	596 (5)	17000	19	U	56	19	27	U	78	27	24	U	70	24	21	U	61	21	28	U	80	28	20	U	59	20	100	U	290	100
Isophorone	78-59-1	8270E	µg/Kg	139000 (5)	570000	160	U	220	160	230	U	320	230	200	U	280	200	180	U	250	180	230	U	320	230	170	U	240	170	850	U	1200	850
Nitrobenzene	98-95-3	8270E	µg/Kg	1310 (5)	160000	13	U	56	13	19	U	78	19	17	U	70	17	15	U	61	15	19	U	80	19	14	U	59	14	71	U	290	71
N-Nitrosodi-n-propylamine	621-64-7	8270E	µg/Kg		170	41	U	56	41	57	U	78	57	51	U	70	51	45	U	61	45	59	U	80	59	43	U	59	43	210	U	290	210
N-Nitrosodiphenylamine	86-30-6	8270E	µg/Kg	545 (5)	110000	46	U	560	46	64	U	780	64	58	U	700	58	50	U	610	50	66	U	800	66	49	U	590	49	240	U	2900	240
Pentachlorophenol	87-86-5	8270E	µg/Kg	2100 (3)	1000	110	U	450	110	160	U	630	160	140	U	570	140	130	U	490	130	170	U	650	170	120	U	480	120	600	U	2400	600
Phenol	108-95-2	8270E	µg/Kg	30000 (5)	19000000	21	U	560	21	29	U	780	29	26	U	700	26	54	J	610	23	39	J	800	30	22	U	590	22	110	U	2900	110

Table 5.3 - Soil: Semi-Volatile Organic Constituents (SVOCs) Analytical Results

(continued)

Rolling Knolls Landfill

Sample Name				ESC's	NJAC 7:26D	SS13				SS14				SS102 (SS14 duplicate)				SS15				SS16				SS17				SS18			
Sample Date/Time						05/10/2021 12:10				05/03/2021 10:40				05/03/2021 10:40				05/03/2021 15:30				05/04/2021 09:40				05/05/2021 10:05				05/10/2021 13:30			
Latitude				Screening Criteria	(8) Soil Remediation Standards (Ing.-Derm.) - Residential	40.7221319				40.7222989				40.7222989				40.7226573				40.7229083				40.723173				40.7226388			
Longitude						-74.4453061				-74.4446187				-74.4446187				-74.4446863				-74.445227				-74.443727				-74.4459762			
Lab Sample Name						GS-S-SS13				GS-S-SS14				GS-S-SS102				GS-S-SS15				GS-S-SS16				GS-S-SS17				GS-S-SS18			
Lab Sample Number						460-234082-3				460-233488-4				460-233506-1				460-233506-3				460-233704-1				460-233715-1				460-234084-1			
Lab Report Number(s)						460-234082-1 / 460-234082-2				460-233488-1 / 460-233488-2				460-233506-1				460-233506-1 / 460-233506-2				460-233704-1				460-233715-1				460-234084-1			
Analyte	**CAS**	**Method**	**Units**			**Result**	**LDC Flag**	**RL**	**MDL (EDL)**	**Result**	**LDC Flag**	**RL**	**MDL (EDL)**	**Result**	**LDC Flag**	**RL**	**MDL (EDL)**	**Result**	**LDC Flag**	**RL**	**MDL (EDL)**	**Result**	**LDC Flag**	**RL**	**MDL (EDL)**	**Result**	**LDC Flag**	**RL**	**MDL (EDL)**	**Result**	**LDC Flag**	**RL**	**MDL (EDL)**
Polycyclic Aromatic Hydrocarbons (PAHs)																															
Acenaphthene	83-32-9	8270E	µg/Kg	20000 (5)	3600000	16	U	560	16	22	U	780	22	20	U	700	20	17	U	610	17	23	U	800	23	17	U	590	17	84	U	2900	84
Acenaphthylene	208-96-8	8270E	µg/Kg	682000 (5)		5.6	U	560	5.6	7.9	U	780	7.9	7.1	U	700	7.1	6.2	U	610	6.2	8.1	U	800	8.1	6	U	590	6	110	J	2900	30
Anthracene	120-12-7	8270E	µg/Kg	1480000 (5)	18000000	17	U	560	17	24	U	780	24	21	U	700	21	19	U	610	19	25	U	800	25	18	U	590	18	190	J	2900	90
Fluorene	86-73-7	8270E	µg/Kg	122000 (5)	2400000	7.6	U	560	7.6	11	U	780	11	9.5	U	700	9.5	23	J	610	8.3	11	U	800	11	8.1	U	590	8.1	40	U	2900	40
Naphthalene	91-20-3	8270E	µg/Kg	99.4 (5)	2500000	9.7	U	560	9.7	80	J	780	14	72	J	700	12	190	J	610	11	30	J	800	14	68	J	590	10	51	U	2900	51
Phenanthrene	85-01-8	8270E	µg/Kg	45700 (5)		9.8	U	560	9.8	34	J	780	14	35	J	700	12	87	J	610	11	26	J	800	14	91	J	590	10	52	U	2900	52
Benzo[a]anthracene	56-55-3	8270E	µg/Kg	5210 (5)	5100	19	U	56	19	27	U	78	27	25	U	70	25	21	U	61	21	28	U	80	28	56	J	59	21	100	U	290	100
Benzo[a]pyrene	50-32-8	8270E	µg/Kg	1520 (5)	510	15	U	56	15	21	U	78	21	20	J	70	19	29	J	61	16	28	J	80	21	16	U	59	16	78	U	290	78
Benzo[b]fluoranthene	205-99-2	8270E	µg/Kg	59800 (5)	5100	18	J	56	14	20	U	78	20	34	J	70	18	47	J	61	16	34	J	80	21	130		59	15	76	U	290	76
Benzo[g,h,i]perylene	191-24-2	8270E	µg/Kg	119000 (5)		16	U	560	16	23	U	780	23	21	U	700	21	27	J	610	18	39	J	800	24	65	J	590	18	1900	J	2900	87
Benzo[k]fluoranthene	207-08-9	8270E	µg/Kg	148000 (5)	51000	11	U	56	11	15	U	78	15	14	J	70	14	17	J	61	12	16	U	80	16	12	U	59	12	58	U	290	58
Chrysene	218-01-9	8270E	µg/Kg	4730 (5)	510000	9.4	U	560	9.4	13	U	780	13	12	U	700	12	61	J	610	10	31	J	800	14	97	J	590	10	50	U	2900	50
Dibenz(a,h)anthracene	53-70-3	8270E	µg/Kg	18400 (5)	510	24	U	56	24	34	U	78	34	30	U	70	30	27	U	61	27	35	U	80	35	26	U	59	26	650		290	130
Fluoranthene	206-44-0	8270E	µg/Kg	122000 (5)	2400000	20	U	560	20	38	J	780	27	40	J	700	25	65	J	610	21	28	J	800	28	140	J	590	21	100	U	2900	100
Indeno[1,2,3-cd]pyrene	193-39-5	8270E	µg/Kg	109000 (5)	5100	22	U	56	22	31	U	78	31	27	U	70	27	24	U	61	24	32	U	80	32	23	U	59	23	1200		290	110
Pyrene	129-00-0	8270E	µg/Kg	78500 (5)	1800000	14	U	560	14	19	U	780	19	17	U	700	17	72	J	610	15	37	J	800	20	110	J	590	15	73	U	2900	73
Low Molecular Weight PAHs			µg/Kg	29000 (2)		65.7				178.9				164.6				342.2				123.1				208.1				527			
High Molecular Weight PAHs			µg/Kg	1100 (4)		168.4				241				240				390				308				675				4285			

Table 5.3 - Soil: Semi-Volatile Organic Constituents (SVOCs) Analytical Results

(continued)

Rolling Knolls Landfill

Sample Name				ESC's	NJAC 7:26D	SS19				SS20				SS21				SS101 (SS21 duplicate)				SS22				SS23				SS24			
Sample Date/Time						05/10/2021 08:30				05/04/2021 12:45				05/07/2021 10:30				05/07/2021 10:30				05/04/2021 10:55				05/10/2021 15:40				05/14/2021 10:00			
Latitude						40.7236522				40.722731				40.7238344				40.7238344				40.7234467				40.7234761				40.7234047			
Longitude						-74.4437257				-74.443907				-74.445655				-74.445655				-74.4453029				-74.4461556				-74.4467553			
Lab Sample Name				Screening Criteria	(8) Soil Remediation Standards (Ing.-Derm.) - Residential	GS-S-SS19				GS-S-SS20				GS-S-SS21				GS-S-SS101				GS-S-SS22				GS-S-SS23				GS-S-SS24			
Lab Sample Number						460-234080-1				460-233704-4				460-233940-4				460-233940-5				460-233706-1				460-234080-4				460-234442-1			
Lab Report Number(s)						460-234080-1				460-233704-1				460-233940-1				460-233940-1				460-233706-1				460-234080-1				460-234442-1			
Analyte	CAS	Method	Units			Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)
1,1'-Biphenyl	92-52-4	8270E	µg/Kg	60000 (5)	87000	10	U	780	10	5.4	U	410	5.4	7.9	U	590	7.9	8.5	U	640	8.5	120	J	1100	14	14	U	1000	14	12	U	870	12
1,2,4,5-Tetrachlorobenzene	95-94-3	8270E	µg/Kg	2020 (5)	23000	24	U	780	24	13	U	410	13	18	U	590	18	20	U	640	20	34	U	1100	34	32	U	1000	32	27	U	870	27
1,4-Dioxane	123-91-1	8270E	µg/Kg	1830 (7)	7000	68	U	78	68	35	U	41	35	52	U	59	52	56	U	64	56	95	U	110	95	91	U	100	91	77	U	87	77
2,2'-oxybis[1-chloropropane]	108-60-1	8270E	µg/Kg	19900 (5)	3100000	14	U	780	14	7.3	U	410	7.3	11	U	590	11	12	U	640	12	20	U	1100	20	19	U	1000	19	16	UJ	870	16
2,3,4,6-Tetrachlorophenol	58-90-2	8270E	µg/Kg	199 (6)	1900000	53	U	780	53	28	U	410	28	40	U	590	40	44	U	640	44	74	U	1100	74	70	U	1000	70	59	U	870	59
2,4,5-Trichlorophenol	95-95-4	8270E	µg/Kg	9000 (5)	6300000	80	U	780	80	41	U	410	41	60	U	590	60	65	U	640	65	110	U	1100	110	110	U	1000	110	89	U	870	89
2,4,6-Trichlorophenol	88-06-2	8270E	µg/Kg	4000 (5)	49000	100	U	310	100	52	U	160	52	76	U	240	76	82	U	260	82	140	U	440	140	130	U	420	130	110	U	350	110
2,4-Dichlorophenol	120-83-2	8270E	µg/Kg	87500 (5)	190000	50	U	310	50	26	U	160	26	38	U	240	38	41	U	260	41	70	U	440	70	67	U	420	67	56	U	350	56
2,4-Dimethylphenol	105-67-9	8270E	µg/Kg	10 (5)	1300000	34	U	780	34	18	U	410	18	26	U	590	26	28	U	640	28	48	U	1100	48	46	U	1000	46	39	U	870	39
2,4-Dinitrophenol	51-28-5	8270E	µg/Kg	60.9 (5)	130000	380	UJ	630	380	200	U	330	200	290	U	480	290	320	U	520	320	530	U	870	530	510	UJ	830	510	430	U	710	430
2,4-Dinitrotoluene	121-14-2	8270E	µg/Kg	1280 (5)		84	U	160	84	44	U	82	44	64	U	120	64	69	U	130	69	120	U	220	120	110	U	210	110	94	U	180	94
2,6-Dinitrotoluene	606-20-2	8270E	µg/Kg	4000 (7)		56	UJ	160	56	29	U	82	29	43	U	120	43	46	U	130	46	79	U	220	79	75	UJ	210	75	63	U	180	63
2-Chloronaphthalene	91-58-7	8270E	µg/Kg	12.2 (5)	4800000	36	U	780	36	19	U	410	19	27	U	590	27	30	U	640	30	50	U	1100	50	48	U	1000	48	41	U	870	41
2-Chlorophenol	95-57-8	8270E	µg/Kg	243 (5)	390000	28	U	780	28	14	U	410	14	21	U	590	21	23	U	640	23	39	U	1100	39	37	U	1000	37	31	U	870	31
2-Methylnaphthalene	91-57-6	8270E	µg/Kg	3240 (5)	240000	22	U	780	22	13	J	410	11	17	U	590	17	31	J	640	18	410	J	1100	30	29	U	1000	29	25	U	870	25
2-Methylphenol	95-48-7	8270E	µg/Kg	580000 (7)	320000	29	U	780	29	15	U	410	15	22	U	590	22	24	U	640	24	41	U	1100	41	39	U	1000	39	33	U	870	33
2-Nitroaniline	88-74-4	8270E	µg/Kg	5300 (7)		29	U	780	29	15	U	410	15	22	U	590	22	24	U	640	24	41	U	1100	41	39	U	1000	39	33	U	870	33
2-Nitrophenol	88-75-5	8270E	µg/Kg	7000 (7)		78	UJ	780	78	41	U	410	41	59	U	590	59	64	U	640	64	110	U	1100	110	100	UJ	1000	100	88	U	870	88
3,3'-Dichlorobenzidine	91-94-1	8270E	µg/Kg	646 (5)	1200	120	U	310	120	61	U	160	61	90	U	240	90	97	U	260	97	160	U	440	160	160	U	420	160	130	U	350	130
3-Nitroaniline	99-09-2	8270E	µg/Kg	3160 (6)		88	U	780	88	46	U	410	46	67	U	590	67	72	U	640	72	120	U	1100	120	120	U	1000	120	99	U	870	99
4,6-Dinitro-2-methylphenol	534-52-1	8270E	µg/Kg			320	UJ	630	320	170	U	330	170	240	U	480	240	260	U	520	260	440	U	870	440	420	UJ	830	420	360	U	710	360
4-Bromophenyl phenyl ether	101-55-3	8270E	µg/Kg			31	U	780	31	16	U	410	16	24	U	590	24	25	U	640	25	43	U	1100	43	41	U	1000	41	35	U	870	35
4-Chloro-3-methylphenol	59-50-7	8270E	µg/Kg			44	U	780	44	23	U	410	23	33	U	590	33	36	U	640	36	61	U	1100	61	58	U	1000	58	49	U	870	49
4-Chloroaniline	106-47-8	8270E	µg/Kg	1000 (7)	2700	140	U	780	140	72	U	410	72	110	U	590	110	110	U	640	110	190	U	1100	190	180	U	1000	180	160	U	870	160
4-Chlorophenyl phenyl ether	7005-72-3	8270E	µg/Kg			28	U	780	28	14	U	410	14	21	U	590	21	23	U	640	23	38	U	1100	38	37	U	1000	37	31	U	870	31
4-Methylphenol	106-44-5	8270E	µg/Kg		630000	49	U	780	49	25	U	410	25	37	U	590	37	40	U	640	40	68	U	1100	68	65	U	1000	65	55	U	870	55
4-Nitroaniline	100-01-6	8270E	µg/Kg	21900 (6)	27000	90	U	780	90	47	U	410	47	68	U	590	68	74	U	640	74	3000		1100	120	120	U	1000	120	200	J	870	100
4-Nitrophenol	100-02-7	8270E	µg/Kg	5120 (5)		130	U	1600	130	66	U	820	66	97	U	1200	97	100	U	1300	100	180	U	2200	180	170	U	2100	170	140	UJ	1800	140
Acetophenone	98-86-2	8270E	µg/Kg	300000 (6)	7800000	38	U	780	38	20	U	410	20	29	U	590	29	50	J	640	32	53	U	1100	53	51	U	1000	51	43	U	870	43
Atrazine	1912-24-9	8270E	µg/Kg		220000	46	U	310	46	24	U	160	24	35	U	240	35	38	U	260	38	64	U	440	64	61	U	420	61	52	U	350	52
Benzaldehyde	100-52-7	8270E	µg/Kg		170000	130	UJ	780	130	67	UJ	410	67	260	J	590	98	200	J	640	110	230	J	1100	180	170	UJ	1000	170	140	UJ	870	140
Bis(2-chloroethoxy)methane	111-91-1	8270E	µg/Kg		190000	61	U	780	61	32	U	410	32	46	U	590	46	50	U	640	50	85	U	1100	85	81	U	1000	81	68	U	870	68
Bis(2-chloroethyl)ether	111-44-4	8270E	µg/Kg	23700 (5)	630	27	U	78	27	14	U	41	14	21	U	59	21	22	U	64	22	38	U	110	38	36	U	100	36	31	U	87	31
Bis(2-ethylhexyl) phthalate	117-81-7	8270E	µg/Kg	925 (5)	39000	41	U	780	41	60	J	410	21	4100		590	31	12000		3200	170	810	J	1100	58	2100		1000	55	1400		870	46
Butyl benzyl phthalate	85-68-7	8270E	µg/Kg	239 (5)	290000	210	J	780	37	19	U	410	19	840		590	28	1200		640	30	51	U	1100	51	49	U	1000	49	41	U	870	41
Caprolactam	105-60-2	8270E	µg/Kg		32000000	120	U	780	120	63	U	410	63	92	U	590	92	100	U	640	100	170	U	1100	170	160	U	1000	160	140	U	870	140
Carbazole	86-74-8	8270E	µg/Kg	79000 (7)		30	U	780	30	15	U	410	15	23	U	590	23	24	U	640	24	69	J	1100	41	40	U	1000	40	33	U	870	33
Dibenzofuran	132-64-9	8270E	µg/Kg	6100 (7)		11	U	780	11	5.7	U	410	5.7	8.3	U	590	8.3	9	U	640	9	140	J	1100	15	15	U	1000	15	12	U	870	12
Diethyl phthalate	84-66-2	8270E	µg/Kg	24800 (5)	51000000	100	J	780	11	5.9	U	410	5.9	150	J	590	8.6	360	J	640	9.3	16	U	1100	16	15	U	1000	15	54	J	870	13
Dimethyl phthalate	131-11-3	8270E	µg/Kg	38000 (7)		180	U	780	180	92	U	410	92	930		590	130	12000		640	150	250	U	1100	250	240	U	1000	240	200	U	870	200
Di-n-butyl phthalate	84-74-2	8270E	µg/Kg	150 (5)	6300000	43	J	780	29	15	U	410	15	260	J	590	22	1600		640	24	77	J	1100	41	350	J	1000	39	60	J	870	33
Di-n-octyl phthalate	117-84-0	8270E	µg/Kg	910 (7)	630000	41	U	780	41	22	U	410	22	1400		590	31	16000		3200	170	58	U	1100	58	55	U	1000	55	46	U	870	46
Hexachlorobenzene	118-74-1	8270E	µg/Kg	199 (5)	430	37	U	78	37	19	U	41	19	28	U	59	28	31	U	64	31	52	U	110	52	49	U	100	49	42	U	87	42
Hexachlorobutadiene	87-68-3	8270E	µg/Kg	39.8 (5)	8900	17	U	160	17	8.6	U	82	8.6	13	U	120	13	14	U	130	14	23	U	220	23	22	U	210	22	19	U	180	19
Hexachlorocyclopentadiene	77-47-4	8270E	µg/Kg	755 (5)	470000	69	U	780	69	36	U	410	36	52	UJ	590	52	56	U	640	56	95	UJ	1100	95	91	U	1000	91	77	U	870	77
Hexachloroethane	67-72-1	8270E	µg/Kg	596 (5)	17000	27	U	78	27	14	U	41	14	20	U	59	20	22	U	64	22	37	U	110	37	36	U	100	36	30	U	87	30
Isophorone	78-59-1	8270E	µg/Kg	139000 (5)	570000	230	U	310	230	120	U	160	120	170	U	240	170	190	U	260	190	310	U	440	310	300	U	420	300	250	U	350	250
Nitrobenzene	98-95-3	8270E	µg/Kg	1310 (5)	160000	19	U	78	19	9.8	U	41	9.8	14	U	59	14	15	U	64	15	26	U	110	26	25	U	100	25	21	U	87	21
N-Nitrosodi-n-propylamine	621-64-7	8270E	µg/Kg		170	57	U	78	57	29	U	41	29	43	U	59	43	47	U	64	47	79	U	110	79	75	U	100	75	64	U	87	64
N-Nitrosodiphenylamine	86-30-6	8270E	µg/Kg	545 (5)	110000	64	U	780	64	33	U	410	33	49	U	590	49	53	U	640	53	89	U	1100	89	85	U	1000	85	72	U	870	72
Pentachlorophenol	87-86-5	8270E	µg/Kg	2100 (3)	1000	160	U	630	160	83	U	330	83	120	U	480	120	130	U	520	130	220	U	870	220	210	U	830	210	180	U	710	180
Phenol	108-95-2	8270E	µg/Kg	30000 (5)	19000000	29	U	780	29	15	U	410	15	22	U	590	22	24	U	640	24	40	U	1100	40	38	U	1000	38	32	U	870	32

Table 5.3 - Soil: Semi-Volatile Organic Constituents (SVOCs) Analytical Results

(continued)

Rolling Knolls Landfill

Sample Name				ESC's	NJAC 7:26D	SS19				SS20				SS21				SS101 (SS21 duplicate)				SS22				SS23				SS24			
Sample Date/Time						05/10/2021 08:30				05/04/2021 12:45				05/07/2021 10:30				05/07/2021 10:30				05/04/2021 10:55				05/10/2021 15:40				05/14/2021 10:00			
Latitude						40.7236522				40.722731				40.7238344				40.7238344				40.7234467				40.7234761				40.7234047			
Longitude						-74.4437257				-74.443907				-74.445655				-74.445655				-74.4453029				-74.4461556				-74.4467553			
Lab Sample Name				Screening Criteria	(8) Soil Remediation Standards (Ing.-Derm.) - Residential	GS-S-SS19				GS-S-SS20				GS-S-SS21				GS-S-SS101				GS-S-SS22				GS-S-SS23				GS-S-SS24			
Lab Sample Number						460-234080-1				460-233704-4				460-233940-4				460-233940-5				460-233706-1				460-234080-4				460-234442-1			
Lab Report Number(s)						460-234080-1				460-233704-1				460-233940-1				460-233940-1				460-233706-1				460-234080-1				460-234442-1			
Analyte	CAS	Method	Units			Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)
Polycyclic Aromatic Hydrocarbons (PAHs)																																	
Acenaphthene	83-32-9	8270E	µg/Kg	20000 (5)	3600000	22	U	780	22	12	U	410	12	17	U	590	17	18	U	640	18	31	U	1100	31	30	U	1000	30	25	U	870	25
Acenaphthylene	208-96-8	8270E	µg/Kg	682000 (5)		7.9	U	780	7.9	4.1	U	410	4.1	6	U	590	6	13	J	640	6.5	11	U	1100	11	10	U	1000	10	8.8	U	870	8.8
Anthracene	120-12-7	8270E	µg/Kg	1480000 (5)	18000000	24	U	780	24	12	U	410	12	18	U	590	18	20	U	640	20	130	J	1100	33	32	U	1000	32	27	U	870	27
Fluorene	86-73-7	8270E	µg/Kg	122000 (5)	2400000	11	U	780	11	5.5	U	410	5.5	8	U	590	8	8.7	U	640	8.7	120	J	1100	15	14	U	1000	14	12	U	870	12
Naphthalene	91-20-3	8270E	µg/Kg	99.4 (5)	2500000	14	U	780	14	11	J	410	7	30	J	590	10	25	J	640	11	740	J	1100	19	18	U	1000	18	15	U	870	15
Phenanthrene	85-01-8	8270E	µg/Kg	45700 (5)		14	U	780	14	25	J	410	7.1	48	J	590	10	38	J	640	11	710	J	1100	19	18	U	1000	18	15	U	870	15
Benzo[a]anthracene	56-55-3	8270E	µg/Kg	5210 (5)	5100	27	U	78	27	28	J	41	14	67		59	21	64		64	22	250		110	38	36	J	100	36	31	U	87	31
Benzo[a]pyrene	50-32-8	8270E	µg/Kg	1520 (5)	510	21	U	78	21	31	J	41	11	71		59	16	76	J	64	17	240		110	29	28	U	100	28	23	U	87	23
Benzo[b]fluoranthene	205-99-2	8270E	µg/Kg	59800 (5)	5100	20	U	78	20	44		41	11	120		59	15	110		64	17	300		110	28	29	J	100	27	23	J	87	23
Benzo[g,h,i]perylene	191-24-2	8270E	µg/Kg	119000 (5)		23	U	780	23	25	J	410	12	17	U	590	17	38	J	640	19	83	J	1100	32	31	U	1000	31	26	U	870	26
Benzo[k]fluoranthene	207-08-9	8270E	µg/Kg	148000 (5)	51000	15	U	78	15	17	J	41	8	12	U	59	12	44	J	64	13	21	U	110	21	20	U	100	20	17	U	87	17
Chrysene	218-01-9	8270E	µg/Kg	4730 (5)	510000	13	U	780	13	35	J	410	6.9	90	J	590	10	72	J	640	11	220	J	1100	18	18	U	1000	18	15	U	870	15
Dibenz(a,h)anthracene	53-70-3	8270E	µg/Kg	18400 (5)	510	34	U	78	34	18	U	41	18	26	U	59	26	28	U	64	28	47	U	110	47	45	U	100	45	38	U	87	38
Fluoranthene	206-44-0	8270E	µg/Kg	122000 (5)	2400000	27	U	780	27	35	J	410	14	93	J	590	21	65	J	640	22	470	J	1100	38	36	U	1000	36	31	U	870	31
Indeno[1,2,3-cd]pyrene	193-39-5	8270E	µg/Kg	109000 (5)	5100	31	U	78	31	26	J	41	16	23	U	59	23	37	J	64	25	110		110	42	41	U	100	41	34	U	87	34
Pyrene	129-00-0	8270E	µg/Kg	78500 (5)	1800000	19	U	780	19	45	J	410	10	93	J	590	15	76	J	640	16	330	J	1100	27	26	U	1000	26	22	U	870	22
Low Molecular Weight PAHs			µg/Kg	29000 (2)		92.9				69.6				127				122.7				1742				122				102.8			
High Molecular Weight PAHs			µg/Kg	1100 (4)		230				304				612				610				2071				310				260			

Table 5.3 - Soil: Semi-Volatile Organic Constituents (SVOCs) Analytical Results

(continued)

Rolling Knolls Landfill

Sample Name				ESC's	NJAC 7:26D	SS25				SS26				SS27				SS28				SS29				SS30				SS31			
Sample Date/Time						05/06/2021 14:55				05/07/2021 08:30				05/05/2021 13:30				05/05/2021 08:20				05/06/2021 11:25				05/13/2021 15:20				05/14/2021 08:45			
Latitude						40.7234932				40.7240722				40.7231759				40.7240805				40.7248365				40.7266724				40.7237372			
Longitude						-74.4473376				-74.4463803				-74.4437423				-74.4443078				-74.4434245				-74.4405011				-74.4477876			
Lab Sample Name				Screening Criteria	(8) Soil Remediation Standards (Ing.-Derm.) - Residential	GS-S-SS25				GS-S-SS26				GS-S-SS27				GS-S-SS28				GS-S-SS29				GS-S-SS30				GS-S-SS31			
Lab Sample Number						460-233899-5				460-233940-1				460-233708-4				460-233708-1				460-233899-2				460-234436-4				460-234442-4			
Lab Report Number(s)						460-233899-1				460-233940-1				460-233708-1 / 460-233708-2				460-233708-1				460-233899-1				460-234436-1				460-234442-1			
Analyte	CAS	Method	Units			Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)
1,1'-Biphenyl	92-52-4	8270E	µg/Kg	60000 (5)	87000	6.4	U	480	6.4	6.8	U	510	6.8	7	U	530	7	8.5	U	640	8.5	16	U	1200	16	70	J	740	9.9	5.9	U	440	5.9
1,2,4,5-Tetrachlorobenzene	95-94-3	8270E	µg/Kg	2020 (5)	23000	15	U	480	15	16	U	510	16	16	U	530	16	20	U	640	20	36	U	1200	36	23	U	740	23	14	U	440	14
1,4-Dioxane	123-91-1	8270E	µg/Kg	1830 (7)	7000	42	U	48	42	45	U	51	45	46	U	53	46	56	U	64	56	100	U	120	100	65	U	74	65	39	U	44	39
2,2'-oxybis[1-chloropropane]	108-60-1	8270E	µg/Kg	19900 (5)	3100000	8.7	U	480	8.7	9.3	U	510	9.3	9.5	U	530	9.5	12	U	640	12	21	U	1200	21	13	UJ	740	13	8.1	UJ	440	8.1
2,3,4,6-Tetrachlorophenol	58-90-2	8270E	µg/Kg	199 (6)	1900000	32	U	480	32	35	U	510	35	36	U	530	36	43	U	640	43	79	U	1200	79	51	U	740	51	30	U	440	30
2,4,5-Trichlorophenol	95-95-4	8270E	µg/Kg	9000 (5)	6300000	49	U	480	49	52	U	510	52	54	U	530	54	65	U	640	65	120	U	1200	120	76	U	740	76	45	U	440	45
2,4,6-Trichlorophenol	88-06-2	8270E	µg/Kg	4000 (5)	49000	61	U	190	61	66	U	210	66	68	U	210	68	82	U	260	82	150	U	470	150	96	U	300	96	57	U	180	57
2,4-Dichlorophenol	120-83-2	8270E	µg/Kg	87500 (5)	190000	31	U	190	31	33	U	210	33	34	U	210	34	41	U	260	41	75	U	470	75	48	U	300	48	29	U	180	29
2,4-Dimethylphenol	105-67-9	8270E	µg/Kg	10 (5)	1300000	21	U	480	21	23	U	510	23	23	U	530	23	28	U	640	28	51	U	1200	51	33	U	740	33	20	U	440	20
2,4-Dinitrophenol	51-28-5	8270E	µg/Kg	60.9 (5)	130000	230	UJ	380	230	250	U	410	250	260	U	420	260	310	U	510	310	570	UJ	940	570	370	U	600	370	220	U	360	220
2,4-Dinitrotoluene	121-14-2	8270E	µg/Kg	1280 (5)		51	U	97	51	55	U	100	55	57	U	110	57	69	U	130	69	130	U	240	130	80	U	150	80	48	U	90	48
2,6-Dinitrotoluene	606-20-2	8270E	µg/Kg	4000 (7)		35	UJ	97	35	37	U	100	37	38	U	110	38	46	U	130	46	85	UJ	240	85	520		150	54	32	U	90	32
2-Chloronaphthalene	91-58-7	8270E	µg/Kg	12.2 (5)	4800000	22	U	480	22	24	U	510	24	24	U	530	24	30	U	640	30	54	U	1200	54	35	U	740	35	21	U	440	21
2-Chlorophenol	95-57-8	8270E	µg/Kg	243 (5)	390000	17	U	480	17	18	U	510	18	19	U	530	19	23	U	640	23	42	U	1200	42	27	U	740	27	16	U	440	16
2-Methylnaphthalene	91-57-6	8270E	µg/Kg	3240 (5)	240000	13	U	480	13	14	U	510	14	21	J	530	15	490	J	640	18	78	J	1200	33	42	J	740	21	12	U	440	12
2-Methylphenol	95-48-7	8270E	µg/Kg	580000 (7)	320000	18	U	480	18	19	U	510	19	20	U	530	20	24	U	640	24	44	U	1200	44	28	U	740	28	17	U	440	17
2-Nitroaniline	88-74-4	8270E	µg/Kg	5300 (7)		18	U	480	18	19	U	510	19	20	U	530	20	24	U	640	24	44	U	1200	44	28	U	740	28	17	U	440	17
2-Nitrophenol	88-75-5	8270E	µg/Kg	7000 (7)		48	UJ	480	48	51	U	510	51	53	U	530	53	64	U	640	64	120	UJ	1200	120	75	U	740	75	45	U	440	45
3,3'-Dichlorobenzidine	91-94-1	8270E	µg/Kg	646 (5)	1200	72	U	190	72	78	U	210	78	80	U	210	80	96	U	260	96	180	U	470	180	110	U	300	110	67	U	180	67
3-Nitroaniline	99-09-2	8270E	µg/Kg	3160 (6)		54	U	480	54	58	U	510	58	59	U	530	59	72	U	640	72	130	U	1200	130	84	U	740	84	50	U	440	50
4,6-Dinitro-2-methylphenol	534-52-1	8270E	µg/Kg			200	UJ	380	200	210	U	410	210	210	U	420	210	260	U	510	260	480	UJ	940	480	300	U	600	300	180	U	360	180
4-Bromophenyl phenyl ether	101-55-3	8270E	µg/Kg			19	U	480	19	20	U	510	20	21	U	530	21	25	U	640	25	46	U	1200	46	30	U	740	30	18	U	440	18
4-Chloro-3-methylphenol	59-50-7	8270E	µg/Kg			27	U	480	27	29	U	510	29	30	U	530	30	36	U	640	36	66	U	1200	66	42	U	740	42	25	U	440	25
4-Chloroaniline	106-47-8	8270E	µg/Kg	1000 (7)	2700	85	U	480	85	91	U	510	91	93	U	530	93	110	U	640	110	210	U	1200	210	130	U	740	130	79	U	440	79
4-Chlorophenyl phenyl ether	7005-72-3	8270E	µg/Kg			17	U	480	17	18	U	510	18	19	U	530	19	23	U	640	23	41	U	1200	41	26	U	740	26	16	U	440	16
4-Methylphenol	106-44-5	8270E	µg/Kg		630000	30	U	480	30	32	U	510	32	33	U	530	33	40	U	640	40	73	U	1200	73	72	J	740	47	28	U	440	28
4-Nitroaniline	100-01-6	8270E	µg/Kg	21900 (6)	27000	55	U	480	55	59	U	510	59	60	U	530	60	73	U	640	73	130	U	1200	130	86	U	740	86	51	U	440	51
4-Nitrophenol	100-02-7	8270E	µg/Kg	5120 (5)		78	U	970	78	84	U	1000	84	86	U	1100	86	100	U	1300	100	190	U	2400	190	120	UJ	1500	120	73	UJ	900	73
Acetophenone	98-86-2	8270E	µg/Kg	300000 (6)	7800000	23	U	480	23	28	J	510	25	43	J	530	26	430	J	640	31	220	J	1200	57	380	J	740	37	22	U	440	22
Atrazine	1912-24-9	8270E	µg/Kg		220000	28	U	190	28	30	U	210	30	31	U	210	31	38	U	260	38	69	U	470	69	44	U	300	44	26	U	180	26
Benzaldehyde	100-52-7	8270E	µg/Kg		170000	79	UJ	480	79	150	J	510	85	150	J	530	87	1600	J	640	110	420	J	1200	190	800	J	740	120	74	UJ	440	74
Bis(2-chloroethoxy)methane	111-91-1	8270E	µg/Kg		190000	37	U	480	37	40	U	510	40	41	U	530	41	50	U	640	50	91	U	1200	91	58	U	740	58	35	U	440	35
Bis(2-chloroethyl)ether	111-44-4	8270E	µg/Kg	23700 (5)	630	17	U	48	17	18	U	51	18	18	U	53	18	22	U	64	22	41	U	120	41	26	U	74	26	15	U	44	15
Bis(2-ethylhexyl) phthalate	117-81-7	8270E	µg/Kg	925 (5)	39000	25	U	480	25	110	J	510	27	570		530	28	530	J	640	34	2200		1200	62	3800		740	39	24	U	440	24
Butyl benzyl phthalate	85-68-7	8270E	µg/Kg	239 (5)	290000	22	U	480	22	24	U	510	24	80	J	530	25	30	U	640	30	55	U	1200	55	44	J	740	35	21	U	440	21
Caprolactam	105-60-2	8270E	µg/Kg		32000000	74	U	480	74	80	U	510	80	82	U	530	82	99	U	640	99	180	U	1200	180	120	U	740	120	69	U	440	69
Carbazole	86-74-8	8270E	µg/Kg	79000 (7)		18	U	480	18	20	U	510	20	20	U	530	20	24	U	640	24	45	U	1200	45	65	J	740	28	17	U	440	17
Dibenzofuran	132-64-9	8270E	µg/Kg	6100 (7)		6.7	U	480	6.7	7.2	U	510	7.2	7.4	U	530	7.4	24	J	640	9	70	J	1200	16	33	J	740	10	15	J	440	6.2
Diethyl phthalate	84-66-2	8270E	µg/Kg	24800 (5)	51000000	6.9	U	480	6.9	7.4	U	510	7.4	37	J	530	7.6	9.3	U	640	9.3	100	J	1200	17	76	J	740	11	6.4	U	440	6.4
Dimethyl phthalate	131-11-3	8270E	µg/Kg	38000 (7)		110	U	480	110	120	U	510	120	120	U	530	120	150	U	640	150	270	U	1200	270	170	U	740	170	100	U	440	100
Di-n-butyl phthalate	84-74-2	8270E	µg/Kg	150 (5)	6300000	18	U	480	18	19	U	510	19	960		530	20	99	J	640	24	190	J	1200	44	650	J	740	28	17	U	440	17
Di-n-octyl phthalate	117-84-0	8270E	µg/Kg	910 (7)	630000	25	U	480	25	27	U	510	27	28	U	530	28	34	U	640	34	62	U	1200	62	40	U	740	40	24	U	440	24
Hexachlorobenzene	118-74-1	8270E	µg/Kg	199 (5)	430	23	U	48	23	24	U	51	24	25	U	53	25	30	U	64	30	56	U	120	56	35	U	74	35	21	U	44	21
Hexachlorobutadiene	87-68-3	8270E	µg/Kg	39.8 (5)	8900	10	U	97	10	11	U	100	11	11	U	110	11	14	U	130	14	25	U	240	25	16	U	150	16	9.5	U	90	9.5
Hexachlorocyclopentadiene	77-47-4	8270E	µg/Kg	755 (5)	470000	42	U	480	42	45	U	510	45	46	U	530	46	56	U	640	56	100	U	1200	100	65	U	740	65	39	U	440	39
Hexachloroethane	67-72-1	8270E	µg/Kg	596 (5)	17000	16	U	48	16	18	U	51	18	18	U	53	18	22	U	64	22	40	U	120	40	26	U	74	26	15	U	44	15
Isophorone	78-59-1	8270E	µg/Kg	139000 (5)	570000	140	U	190	140	150	U	210	150	150	U	210	150	180	U	260	180	340	U	470	340	220	U	300	220	130	U	180	130
Nitrobenzene	98-95-3	8270E	µg/Kg	1310 (5)	160000	11	U	48	11	12	U	51	12	13	U	53	13	15	U	64	15	28	U	120	28	18	U	74	18	11	U	44	11
N-Nitrosodi-n-propylamine	621-64-7	8270E	µg/Kg		170	35	U	48	35	37	U	51	37	38	U	53	38	46	U	64	46	85	U	120	85	54	U	74	54	32	U	44	32
N-Nitrosodiphenylamine	86-30-6	8270E	µg/Kg	545 (5)	110000	39	U	480	39	42	U	510	42	43	U	530	43	53	U	640	53	96	U	1200	96	61	U	740	61	37	U	440	37
Pentachlorophenol	87-86-5	8270E	µg/Kg	2100 (3)	1000	98	U	380	98	110	U	410	110	110	U	420	110	180	J	510	130	240	U	940	240	150	U	600	150	91	U	360	91
Phenol	108-95-2	8270E	µg/Kg	30000 (5)	19000000	18	U	480	18	19	U	510	19	34	J	530	19	56	J	640	23	43	U	1200	43	640	J	740	27	16	U	440	16

Table 5.3 - Soil: Semi-Volatile Organic Constituents (SVOCs) Analytical Results

(continued)

Rolling Knolls Landfill

Sample Name				ESC's	NJAC 7:26D	SS25				SS26				SS27				SS28				SS29				SS30				SS31			
Sample Date/Time						05/06/2021 14:55				05/07/2021 08:30				05/05/2021 13:30				05/05/2021 08:20				05/06/2021 11:25				05/13/2021 15:20				05/14/2021 08:45			
Latitude				Screening Criteria	(8) Soil Remediation Standards (Ing.-Derm.) - Residential	40.7234932				40.7240722				40.7231759				40.7240805				40.7248365				40.7266724				40.7237372			
Longitude						-74.4473376				-74.4463803				-74.4437423				-74.4443078				-74.4434245				-74.4405011				-74.4477876			
Lab Sample Name						GS-S-SS25				GS-S-SS26				GS-S-SS27				GS-S-SS28				GS-S-SS29				GS-S-SS30				GS-S-SS31			
Lab Sample Number						460-233899-5				460-233940-1				460-233708-4				460-233708-1				460-233899-2				460-234436-4				460-234442-4			
Lab Report Number(s)						460-233899-1				460-233940-1				460-233708-1 / 460-233708-2				460-233708-1				460-233899-1				460-234436-1				460-234442-1			
Analyte	CAS	Method	Units			Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)
Polycyclic Aromatic Hydrocarbons (PAHs)																																	
Acenaphthene	83-32-9	8270E	µg/Kg	20000 (5)	3600000	14	U	480	14	15	U	510	15	15	U	530	15	110	J	640	18	33	U	1200	33	68	J	740	21	13	U	440	13
Acenaphthylene	208-96-8	8270E	µg/Kg	682000 (5)		4.8	U	480	4.8	5.2	U	510	5.2	20	J	530	5.3	45	J	640	6.4	56	J	1200	12	7.5	U	740	7.5	4.5	U	440	4.5
Anthracene	120-12-7	8270E	µg/Kg	1480000 (5)	18000000	15	U	480	15	16	U	510	16	16	U	530	16	120	J	640	19	53	J	1200	36	110	J	740	23	14	U	440	14
Fluorene	86-73-7	8270E	µg/Kg	122000 (5)	2400000	6.5	U	480	6.5	7	U	510	7	7.1	U	530	7.1	110	J	640	8.7	45	J	1200	16	47	J	740	10	6	U	440	6
Naphthalene	91-20-3	8270E	µg/Kg	99.4 (5)	2500000	8.3	U	480	8.3	8.9	U	510	8.9	38	J	530	9.1	300	J	640	11	220	J	1200	20	120	J	740	13	15	J	440	7.7
Phenanthrene	85-01-8	8270E	µg/Kg	45700 (5)		39	J	480	8.4	23	J	510	9	58	J	530	9.3	380	J	640	11	230	J	1200	21	430	J	740	13	30	J	440	7.8
Benzo[a]anthracene	56-55-3	8270E	µg/Kg	5210 (5)	5100	17	U	48	17	18	J	51	18	88		53	18	120		64	22	69	J	120	41	280		74	26	16	U	44	16
Benzo[a]pyrene	50-32-8	8270E	µg/Kg	1520 (5)	510	16	J	48	13	14	U	51	14	97		53	14	120		64	17	58	J	120	31	320		74	20	13	J	44	12
Benzo[b]fluoranthene	205-99-2	8270E	µg/Kg	59800 (5)	5100	22	J	48	12	18	J	51	13	140		53	14	130		64	17	170		120	30	500		74	19	24	J	44	12
Benzo[g,h,i]perylene	191-24-2	8270E	µg/Kg	119000 (5)		14	U	480	14	15	U	510	15	74	J	530	16	55	J	640	19	76	J	1200	35	210	J	740	22	13	U	440	13
Benzo[k]fluoranthene	207-08-9	8270E	µg/Kg	148000 (5)	51000	9.5	J	48	9.4	10	U	51	10	54		53	10	48	J	64	13	76	J	120	23	200		74	15	8.7	U	44	8.7
Chrysene	218-01-9	8270E	µg/Kg	4730 (5)	510000	8.1	U	480	8.1	8.7	U	510	8.7	96	J	530	8.9	120	J	640	11	190	J	1200	20	340	J	740	13	26	J	440	7.5
Dibenz(a,h)anthracene	53-70-3	8270E	µg/Kg	18400 (5)	510	21	U	48	21	22	U	51	22	24	J	53	23	28	U	64	28	51	U	120	51	61	J	74	32	19	U	44	19
Fluoranthene	206-44-0	8270E	µg/Kg	122000 (5)	2400000	23	J	480	17	18	U	510	18	94	J	530	18	170	J	640	22	150	J	1200	41	540	J	740	26	23	J	440	16
Indeno[1,2,3-cd]pyrene	193-39-5	8270E	µg/Kg	109000 (5)	5100	19	U	48	19	20	U	51	20	85		53	21	55	J	64	25	71	J	120	46	230		74	29	17	U	44	17
Pyrene	129-00-0	8270E	µg/Kg	78500 (5)	1800000	25	J	480	12	13	U	510	13	100	J	530	13	270	J	640	16	130	J	1200	29	590	J	740	19	22	J	440	11
Low Molecular Weight PAHs			µg/Kg	29000 (2)		87.6				75.1				154.1				1065				637				782.5				82.5			
High Molecular Weight PAHs			µg/Kg	1100 (4)		174.6				156.7				852				1116				1041				3271				181.7			

Table 5.3 - Soil: Semi-Volatile Organic Constituents (SVOCs) Analytical Results

(continued)

Rolling Knolls Landfill

Sample Name				ESC's	NJAC 7:26D	DP01_0.5-8.5				DP100_0.5-8.5 (DP01_0.5-8.5 duplicate)				DP02_0.5-8.5				DP02_8.5-10.0				DP03_0.5-3.5				DP03_3.5-4.0				DP04_0.5-5.0			
Sample Date/Time						05/11/2021 09:10				05/11/2021 12:00				05/11/2021 10:40				05/11/2021 11:15				05/11/2021 14:05				05/11/2021 14:15				04/29/2021 12:50			
Latitude						40.7297321				40.7297321				40.7303542				40.7303542				40.7288473				40.7288473				40.7304704			
Longitude						-74.4419101				-74.4419101				-74.4418002				-74.4418002				-74.4410590				-74.4410590				-74.4414832			
Lab Sample Name				Screening Criteria	(8) Soil Remediation Standards (Ing.-Derm.) - Residential	GS-N-DPT01-SC-0.5-8.5				GS-N-DPT100-SC-0.5-8.5				GS-N-DPT02-SC-0.5-8.5				GS-N-DPT02-SB-8.5-10.0				GS-N-DPT03-SC-0.5-3.5				GS-N-DPT03-SB-3.5-4.0				GS-N-DPT04-SC-0.5-5			
Lab Sample Number						460-234161-2				460-234161-8				460-234186-2				460-234186-3				460-234161-4				460-234161-5				460-233312-2			
Lab Report Number(s)						460-234161-1 / 460-234161-2				460-234161-1				460-234186-1				460-234186-1				460-234161-1				460-234161-1				460-233312-1			
Analyte	CAS	Method	Units			Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)
1,1'-Biphenyl	92-52-4	8270E	µg/Kg	60000 (5)	87000	84	J	740	9.9	360	J	750	10	12	UJ	920	12	5.3	U	400	5.3	8.1	U	610	8.1	5.5	U	410	5.5	7100	U	7100	94
1,2,4,5-Tetrachlorobenzene	95-94-3	8270E	µg/Kg	2020 (5)	23000	23	U	740	23	24	U	750	24	29	UJ	920	29	12	U	400	12	19	U	610	19	13	U	410	13	7100	U	7100	220
1,4-Dioxane	123-91-1	8270E	µg/Kg	1830 (7)	7000	65	U	74	65	66	U	75	66	81	UJ	92	81	35	U	40	35	53	U	61	53	36	U	41	36	710	U	710	620
2,2'-oxybis[1-chloropropane]	108-60-1	8270E	µg/Kg	19900 (5)	3100000	13	U	740	13	14	UJ	750	14	17	UJ	920	17	7.2	UJ	400	7.2	11	U	610	11	7.5	U	410	7.5	7100	U	7100	130
2,3,4,6-Tetrachlorophenol	58-90-2	8270E	µg/Kg	199 (6)	1900000	50	U	740	50	51	U	750	51	63	UJ	920	63	27	U	400	27	41	U	610	41	28	U	410	28	7100	U	7100	480
2,4,5-Trichlorophenol	95-95-4	8270E	µg/Kg	9000 (5)	6300000	76	U	740	76	77	U	750	77	94	U	920	94	40	U	400	40	62	U	610	62	42	U	410	42	7100	U	7100	720
2,4,6-Trichlorophenol	88-06-2	8270E	µg/Kg	4000 (5)	49000	96	U	300	96	97	U	300	97	120	UJ	370	120	51	U	160	51	78	U	250	78	53	U	170	53	2900	U	2900	910
2,4-Dichlorophenol	120-83-2	8270E	µg/Kg	87500 (5)	190000	48	U	300	48	49	U	300	49	59	UJ	370	59	25	U	160	25	39	U	250	39	27	U	170	27	2900	U	2900	460
2,4-Dimethylphenol	105-67-9	8270E	µg/Kg	10 (5)	1300000	33	U	740	33	33	U	750	33	41	U	920	41	17	U	400	17	27	U	610	27	18	U	410	18	7100	U	7100	310
2,4-Dinitrophenol	51-28-5	8270E	µg/Kg	60.9 (5)	130000	370	U	600	370	370	U	610	370	450	UJ	740	450	190	U	320	190	300	U	490	300	200	U	330	200	5700	UJ	5700	3500
2,4-Dinitrotoluene	121-14-2	8270E	µg/Kg	1280 (5)		80	U	150	80	81	U	150	81	100	UJ	190	100	43	U	80	43	66	U	120	66	44	U	84	44	1400	U	1400	760
2,6-Dinitrotoluene	606-20-2	8270E	µg/Kg	4000 (7)		54	U	150	54	55	U	150	55	67	UJ	190	67	29	U	80	29	44	U	120	44	30	U	84	30	1400	UJ	1400	510
2-Chloronaphthalene	91-58-7	8270E	µg/Kg	12.2 (5)	4800000	34	U	740	34	35	U	750	35	43	UJ	920	43	18	U	400	18	28	U	610	28	19	U	410	19	7100	U	7100	330
2-Chlorophenol	95-57-8	8270E	µg/Kg	243 (5)	390000	26	U	740	26	27	U	750	27	33	UJ	920	33	14	U	400	14	22	U	610	22	15	U	410	15	7100	U	7100	250
2-Methylnaphthalene	91-57-6	8270E	µg/Kg	3240 (5)	240000	280	J	740	21	920		750	21	40	J	920	26	11	U	400	11	17	U	610	17	12	U	410	12	190	J	7100	200
2-Methylphenol	95-48-7	8270E	µg/Kg	580000 (7)	320000	28	U	740	28	28	U	750	28	35	UJ	920	35	15	U	400	15	23	U	610	23	15	U	410	15	7100	U	7100	270
2-Nitroaniline	88-74-4	8270E	µg/Kg	5300 (7)		28	U	740	28	28	U	750	28	35	UJ	920	35	15	U	400	15	23	U	610	23	15	U	410	15	7100	U	7100	270
2-Nitrophenol	88-75-5	8270E	µg/Kg	7000 (7)		75	U	740	75	76	U	750	76	93	U	920	93	40	U	400	40	61	U	610	61	41	U	410	41	7100	UJ	7100	710
3,3'-Dichlorobenzidine	91-94-1	8270E	µg/Kg	646 (5)	1200	110	U	300	110	110	U	300	110	140	UJ	370	140	60	U	160	60	92	U	250	92	62	U	170	62	2900	U	2900	1100
3-Nitroaniline	99-09-2	8270E	µg/Kg	3160 (6)		84	U	740	84	85	U	750	85	100	U	920	100	45	U	400	45	69	U	610	69	47	U	410	47	7100	U	7100	800
4,6-Dinitro-2-methylphenol	534-52-1	8270E	µg/Kg			300	U	600	300	310	U	610	310	380	UJ	740	380	160	U	320	160	250	U	490	250	170	U	330	170	5700	UJ	5700	2900
4-Bromophenyl phenyl ether	101-55-3	8270E	µg/Kg			30	U	740	30	30	U	750	30	37	UJ	920	37	16	U	400	16	24	U	610	24	16	U	410	16	7100	U	7100	280
4-Chloro-3-methylphenol	59-50-7	8270E	µg/Kg			42	U	740	42	42	U	750	42	52	UJ	920	52	22	U	400	22	34	U	610	34	23	U	410	23	7100	U	7100	400
4-Chloroaniline	106-47-8	8270E	µg/Kg	1000 (7)	2700	130	U	740	130	130	U	750	130	160	U	920	160	70	U	400	70	110	U	610	110	73	U	410	73	7100	U	7100	1300
4-Chlorophenyl phenyl ether	7005-72-3	8270E	µg/Kg			26	U	740	26	27	U	750	27	33	UJ	920	33	14	U	400	14	22	U	610	22	15	U	410	15	7100	U	7100	250
4-Methylphenol	106-44-5	8270E	µg/Kg		630000	130	J	740	46	220	J	750	47	100	J	920	58	25	U	400	25	38	U	610	38	26	U	410	26	7100	U	7100	440
4-Nitroaniline	100-01-6	8270E	µg/Kg	21900 (6)	27000	85	U	740	85	87	U	750	87	110	UJ	920	110	46	U	400	46	70	U	610	70	47	U	410	47	7100	U	7100	820
4-Nitrophenol	100-02-7	8270E	µg/Kg	5120 (5)		120	U	1500	120	120	UJ	1500	120	150	UJ	1900	150	65	UJ	800	65	99	U	1200	99	67	U	840	67	14000	U	14000	1200
Acetophenone	98-86-2	8270E	µg/Kg	300000 (6)	7800000	37	U	740	37	670	J	750	37	100	J	920	45	19	U	400	19	30	U	610	30	20	U	410	20	7100	U	7100	350
Atrazine	1912-24-9	8270E	µg/Kg		220000	44	U	300	44	45	U	300	45	54	U	370	54	23	U	160	23	36	U	250	36	24	U	170	24	2900	U	2900	420
Benzaldehyde	100-52-7	8270E	µg/Kg		170000	120	UJ	740	120	930	J	750	130	220	J	920	150	66	UJ	400	66	100	UJ	610	100	68	UJ	410	68	7100	UJ	7100	1200
Bis(2-chloroethoxy)methane	111-91-1	8270E	µg/Kg		190000	58	U	740	58	59	U	750	59	72	UJ	920	72	31	U	400	31	48	U	610	48	32	U	410	32	7100	U	7100	550
Bis(2-chloroethyl)ether	111-44-4	8270E	µg/Kg	23700 (5)	630	26	U	74	26	26	U	75	26	32	UJ	92	32	14	U	40	14	21	U	61	21	14	U	41	14	710	U	710	250
Bis(2-ethylhexyl) phthalate	117-81-7	8270E	µg/Kg	925 (5)	39000	11000		740	39	13000		750	40	1900	J	920	49	21	U	400	21	550	J	610	32	22	U	410	22	7100	U	7100	380
Butyl benzyl phthalate	85-68-7	8270E	µg/Kg	239 (5)	290000	35	U	740	35	270	J	750	35	52	J	920	43	19	U	400	19	29	U	610	29	19	U	410	19	7100	U	7100	330
Caprolactam	105-60-2	8270E	µg/Kg		32000000	120	U	740	120	120	U	750	120	140	UJ	920	140	62	U	400	62	95	U	610	95	64	U	410	64	7100	U	7100	1100
Carbazole	86-74-8	8270E	µg/Kg	79000 (7)		580	J	740	28	4400		750	29	35	UJ	920	35	15	U	400	15	23	U	610	23	16	U	410	16	7100	U	7100	270
Dibenzofuran	132-64-9	8270E	µg/Kg	6100 (7)		340	J	740	10	2500		750	11	13	UJ	920	13	5.6	U	400	5.6	8.6	U	610	8.6	5.8	U	410	5.8	7100	U	7100	100
Diethyl phthalate	84-66-2	8270E	µg/Kg	24800 (5)	51000000	74	J	740	11	120	J	750	11	80	J	920	13	5.7	U	400	5.7	8.8	U	610	8.8	6	U	410	6	7100	U	7100	100
Dimethyl phthalate	131-11-3	8270E	µg/Kg	38000 (7)		280	J	740	170	400	J	750	170	210	UJ	920	210	90	U	400	90	140	U	610	140	94	U	410	94	7100	U	7100	1600
Di-n-butyl phthalate	84-74-2	8270E	µg/Kg	150 (5)	6300000	400	J	740	28	1900		750	28	190	J	920	35	15	U	400	15	25	J	610	23	16	U	410	16	7100	U	7100	270
Di-n-octyl phthalate	117-84-0	8270E	µg/Kg	910 (7)	630000	4600		740	39	4800		750	40	49	UJ	920	49	21	U	400	21	32	U	610	32	22	U	410	22	7100	U	7100	380
Hexachlorobenzene	118-74-1	8270E	µg/Kg	199 (5)	430	35	U	74	35	36	U	75	36	44	UJ	92	44	19	U	40	19	29	U	61	29	20	U	41	20	710	U	710	340
Hexachlorobutadiene	87-68-3	8270E	µg/Kg	39.8 (5)	8900	16	U	150	16	16	U	150	16	20	U	190	20	8.4	U	80	8.4	13	U	120	13	8.8	U	84	8.8	1400	U	1400	150
Hexachlorocyclopentadiene	77-47-4	8270E	µg/Kg	755 (5)	470000	65	UJ	740	65	66	U	750	66	81	UJ	920	81	35	U	400	35	54	UJ	610	54	36	UJ	410	36	7100	U	7100	620
Hexachloroethane	67-72-1	8270E	µg/Kg	596 (5)	17000	26	U	74	26	26	U	75	26	32	UJ	92	32	14	U	40	14	21	U	61	21	14	U	41	14	710	U	710	240
Isophorone	78-59-1	8270E	µg/Kg	139000 (5)	570000	220	U	300	220	220	U	300	220	270	UJ	370	270	110	U	160	110	180	U	250	180	120	U	170	120	2900	U	2900	2100
Nitrobenzene	98-95-3	8270E	µg/Kg	1310 (5)	160000	18	U	74	18	18	U	75	18	22	UJ	92	22	9.5	U	40	9.5	15	U	61	15	9.9	U	41	9.9	710	U	710	170
N-Nitrosodi-n-propylamine	621-64-7	8270E	µg/Kg		170	54	U	74	54	55	U	75	55	67	UJ	92	67	29	U	40	29	44	U	61	44	30	U	41	30	710	U	710	520
N-Nitrosodiphenylamine	86-30-6	8270E	µg/Kg	545 (5)	110000	65	J	740	61	220	J	750	62	76	UJ	920	76	33	U	400	33	50	U	610	50	34	U	410	34	7100	U	7100	580
Pentachlorophenol	87-86-5	8270E	µg/Kg	2100 (3)	1000	150	U	600	150	1100		610	160	190	UJ	740	190	81	U	320	81	130	U	490	130	85	U	330	85	5700	U	5700	1500
Phenol	108-95-2	8270E	µg/Kg	30000 (5)	19000000	27	U	740	27	370	J	750	28	260	J	920	34	15	U	400	15	22	U	610	22	15	U	410	15	7100	U	7100	260

Table 5.3 - Soil: Semi-Volatile Organic Constituents (SVOCs) Analytical Results

(continued)

Rolling Knolls Landfill

	Sample Name			ESC's	NJAC 7:26D	DP01_0.5-8.5				DP100_0.5-8.5 (DP01_0.5-8.5 duplicate)				DP02_0.5-8.5				DP02_8.5-10.0				DP03_0.5-3.5				DP03_3.5-4.0				DP04_0.5-5.0			
	Sample Date/Time					05/11/2021 09:10				05/11/2021 12:00				05/11/2021 10:40				05/11/2021 11:15				05/11/2021 14:05				05/11/2021 14:15				04/29/2021 12:50			
	Latitude					40.7297321				40.7297321				40.7303542				40.7303542				40.7288473				40.7288473				40.7304704			
	Longitude					-74.4419101				-74.4419101				-74.4418002				-74.4418002				-74.4410590				-74.4410590				-74.4414832			
	Lab Sample Name			Screening Criteria	(8) Soil Remediation Standards (Ing.-Derm.) - Residential	GS-N-DPT01-SC-0.5-8.5				GS-N-DPT100-SC-0.5-8.5				GS-N-DPT02-SC-0.5-8.5				GS-N-DPT02-SB-8.5-10.0				GS-N-DPT03-SC-0.5-3.5				GS-N-DPT03-SB-3.5-4.0				GS-N-DPT04-SC-0.5-5			
	Lab Sample Number					460-234161-2				460-234161-8				460-234186-2				460-234186-3				460-234161-4				460-234161-5				460-233312-2			
	Lab Report Number(s)					460-234161-1 / 460-234161-2				460-234161-1				460-234186-1				460-234186-1				460-234161-1				460-234161-1				460-233312-1			
Analyte	CAS	Method	Units			Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)
Polycyclic Aromatic Hydrocarbons (PAHs)																																
Acenaphthene	83-32-9	8270E	µg/Kg	20000 (5)	3600000	400	J	740	23	3000		750	22	26	UJ	920	26	11	U	400	11	17	U	610	17	12	U	410	12	200	J	7100	200
Acenaphthylene	208-96-8	8270E	µg/Kg	682000 (5)		61	J	740	7.5	140	J	750	7.6	9.3	UJ	920	9.3	4	U	400	4	6.1	U	610	6.1	4.2	U	410	4.2	500	J	7100	71
Anthracene	120-12-7	8270E	µg/Kg	1480000 (5)	18000000	890		740	23	8200		750	23	28	UJ	920	28	12	U	400	12	19	U	610	19	13	U	410	13	7100	U	7100	220
Fluorene	86-73-7	8270E	µg/Kg	122000 (5)	2400000	430	J	740	10	3500		750	10	13	UJ	920	13	5.4	U	400	5.4	16	J	610	8.3	5.6	U	410	5.6	270	J	7100	96
Naphthalene	91-20-3	8270E	µg/Kg	99.4 (5)	2500000	920		740	13	1900		750	13	110	J	920	16	6.9	U	400	6.9	110	J	610	11	7.1	U	410	7.1	2700	J	7100	120
Phenanthrene	85-01-8	8270E	µg/Kg	45700 (5)		4400		740	13	41000		3800	66	120	J	920	16	7	U	400	7	46	J	610	11	7.3	U	410	7.3	1100	J	7100	120
Benzo[a]anthracene	56-55-3	8270E	µg/Kg	5210 (5)	5100	2100		74	26	16000		75	26	240		92	32	14	U	40	14	29	J	61	21	14	U	41	14	710		710	250
Benzo[a]pyrene	50-32-8	8270E	µg/Kg	1520 (5)	510	2000		74	20	17000		75	20	380		92	25	11	U	40	11	16	U	61	16	11	U	41	11	400	J	710	190
Benzo[b]fluoranthene	205-99-2	8270E	µg/Kg	59800 (5)	5100	3100		74	19	22000		380	98	150	J	92	24	10	U	40	10	16	U	61	16	11	U	41	11	290	J	710	180
Benzo[g,h,i]perylene	191-24-2	8270E	µg/Kg	119000 (5)		690	J	740	22	8300		750	22	320	J	920	27	12	U	400	12	68	J	610	18	12	U	410	12	7100	U	7100	210
Benzo[k]fluoranthene	207-08-9	8270E	µg/Kg	148000 (5)	51000	1400		74	15	8900		75	15	34	J	92	18	7.8	U	40	7.8	12	U	61	12	8.1	U	41	8.1	63	J	710	140
Chrysene	218-01-9	8270E	µg/Kg	4730 (5)	510000	2200		740	13	17000		750	13	430	J	920	16	6.7	U	400	6.7	35	J	610	10	7	U	410	7	840	J	7100	120
Dibenz(a,h)anthracene	53-70-3	8270E	µg/Kg	18400 (5)	510	140		74	32	2900		75	33	52	J	92	40	17	U	40	17	26	U	61	26	18	U	41	18	710	U	710	310
Fluoranthene	206-44-0	8270E	µg/Kg	122000 (5)	2400000	5700		740	26	44000		3800	130	77	J	920	32	14	U	400	14	52	J	610	21	14	U	410	14	680	J	7100	250
Indeno[1,2,3-cd]pyrene	193-39-5	8270E	µg/Kg	109000 (5)	5100	980		74	29	10000		75	30	110		92	36	15	U	40	15	59	J	61	24	16	U	41	16	150	J	710	280
Pyrene	129-00-0	8270E	µg/Kg	78500 (5)	1800000	4200		740	19	35000		3800	94	320	J	920	23	9.9	U	400	9.9	49	J	610	15	10	U	410	10	1900	J	7100	180
Low Molecular Weight PAHs			µg/Kg	29000 (2)		7101				57740				306.3				46.3				214.1				49.2				11870			
High Molecular Weight PAHs			µg/Kg	1100 (4)		22510				181100				2113				117.4				362				121.1				12843			

Table 5.3 - Soil: Semi-Volatile Organic Constituents (SVOCs) Analytical Results

(continued)

Rolling Knolls Landfill

Sample Name				ESC's	NJAC 7:26D	DP04_5.0-8.0				DP05_0.5-5.0				DP05_5.0-7.0				DP06_0.5-2.0				DP06_2.5-3.0				DP100_2.5-3.0 (DP06_2.5-3.0 duplicate)				DP07_0.5-4.5			
Sample Date/Time						04/29/2021 10:35				04/29/2021 16:40				04/29/2021 15:50				05/13/2021 09:30				05/13/2021 09:55				05/13/2021 12:00				05/13/2021 13:10			
Latitude						40.7304704				40.7300494				40.7300494				40.7298030				40.7298030				40.7298030				40.7293038			
Longitude						-74.4414832				-74.4418444				-74.4418444				-74.4414280				-74.4414280				-74.4414280				-74.4416064			
Lab Sample Name				Screening Criteria	(8) Soil Remediation Standards (Ing.-Derm.) - Residential	GS-N-DPT04--SB-5-8				GS-N-DPT05--SC-0.5-5				GS-N-DPT05--SB-5-7				GS-N-DPT06-SC-0.5-2.0				GS-N-DPT06-SB-2.5-3.0				GS-N-DPT100-SB-2.5-3.0				GS-N-DPT07-SC-0.5-4.5			
Lab Sample Number						460-233312-3				460-233312-5				460-233312-6				460-234436-2				460-234436-3				460-234436-8				460-234435-2			
Lab Report Number(s)						460-233312-1				460-233312-1				460-233312-1				460-234436-1				460-234436-1				460-234436-1				460-234435-1			
Analyte	CAS	Method	Units			Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)
1,1'-Biphenyl	92-52-4	8270E	µg/Kg	60000 (5)	87000	410	U	410	5.5	48	J	690	9.2	380	U	380	5	14	U	1000	14	5.4	U	400	5.4	5.4	U	410	5.4	33	J	570	7.6
1,2,4,5-Tetrachlorobenzene	95-94-3	8270E	µg/Kg	2020 (5)	23000	410	U	410	13	690	U	690	22	380	U	380	12	33	U	1000	33	13	U	400	13	13	U	410	13	18	U	570	18
1,4-Dioxane	123-91-1	8270E	µg/Kg	1830 (7)	7000	41	U	41	36	69	U	69	61	38	U	38	33	91	U	100	91	35	U	40	35	36	U	41	36	50	U	57	50
2,2'-oxybis[1-chloropropane]	108-60-1	8270E	µg/Kg	19900 (5)	3100000	410	U	410	7.5	690	U	690	13	380	U	380	6.9	19	UJ	1000	19	7.3	UJ	400	7.3	7.4	UJ	410	7.4	10	U	570	10
2,3,4,6-Tetrachlorophenol	58-90-2	8270E	µg/Kg	199 (6)	1900000	410	U	410	28	690	U	690	47	380	U	380	26	71	U	1000	71	27	U	400	27	28	U	410	28	39	U	570	39
2,4,5-Trichlorophenol	95-95-4	8270E	µg/Kg	9000 (5)	6300000	410	U	410	42	690	U	690	71	380	U	380	39	110	U	1000	110	41	U	400	41	42	U	410	42	58	U	570	58
2,4,6-Trichlorophenol	88-06-2	8270E	µg/Kg	4000 (5)	49000	170	U	170	53	280	U	280	89	150	U	150	49	130	U	420	130	52	U	160	52	52	U	160	52	74	U	230	74
2,4-Dichlorophenol	120-83-2	8270E	µg/Kg	87500 (5)	190000	170	U	170	26	280	U	280	44	150	U	150	24	67	U	420	67	26	U	160	26	26	U	160	26	37	U	230	37
2,4-Dimethylphenol	105-67-9	8270E	µg/Kg	10 (5)	1300000	410	U	410	18	690	U	690	30	380	U	380	17	46	U	1000	46	18	U	400	18	18	U	410	18	25	U	570	25
2,4-Dinitrophenol	51-28-5	8270E	µg/Kg	60.9 (5)	130000	330	U	330	200	560	U	560	340	300	U	300	190	510	U	840	510	200	U	330	200	200	U	330	200	280	UJ	460	280
2,4-Dinitrotoluene	121-14-2	8270E	µg/Kg	1280 (5)		84	U	84	44	140	U	140	75	77	U	77	41	110	U	210	110	44	U	82	44	44	U	83	44	62	U	120	62
2,6-Dinitrotoluene	606-20-2	8270E	µg/Kg	4000 (7)		84	U	84	30	140	U	140	50	77	U	77	27	75	U	210	75	29	U	82	29	29	U	83	29	41	UJ	120	41
2-Chloronaphthalene	91-58-7	8270E	µg/Kg	12.2 (5)	4800000	410	U	410	19	690	U	690	32	380	U	380	18	48	U	1000	48	19	U	400	19	19	U	410	19	27	U	570	27
2-Chlorophenol	95-57-8	8270E	µg/Kg	243 (5)	390000	410	U	410	15	690	U	690	25	380	U	380	13	37	U	1000	37	14	U	400	14	15	U	410	15	20	U	570	20
2-Methylnaphthalene	91-57-6	8270E	µg/Kg	3240 (5)	240000	410	U	410	12	33	J	690	19	380	U	380	11	34	J	1000	29	11	U	400	11	11	U	410	11	36	J	570	16
2-Methylphenol	95-48-7	8270E	µg/Kg	580000 (7)	320000	410	U	410	15	690	U	690	26	380	U	380	14	39	U	1000	39	15	U	400	15	15	U	410	15	21	U	570	21
2-Nitroaniline	88-74-4	8270E	µg/Kg	5300 (7)		410	U	410	15	690	U	690	26	380	U	380	14	39	U	1000	39	15	U	400	15	15	U	410	15	21	U	570	21
2-Nitrophenol	88-75-5	8270E	µg/Kg	7000 (7)		410	U	410	41	690	U	690	69	380	U	380	38	100	U	1000	100	41	U	400	41	41	U	410	41	57	UJ	570	57
3,3'-Dichlorobenzidine	91-94-1	8270E	µg/Kg	646 (5)	1200	170	U	170	62	280	U	280	100	150	U	150	57	160	U	420	160	61	U	160	61	62	U	160	62	87	U	230	87
3-Nitroaniline	99-09-2	8270E	µg/Kg	3160 (6)		410	U	410	46	690	U	690	78	380	U	380	43	120	U	1000	120	46	U	400	46	46	U	410	46	65	U	570	65
4,6-Dinitro-2-methylphenol	534-52-1	8270E	µg/Kg			330	U	330	170	560	U	560	280	300	U	300	150	430	U	840	430	170	U	330	170	170	U	330	170	230	UJ	460	230
4-Bromophenyl phenyl ether	101-55-3	8270E	µg/Kg			410	U	410	16	690	U	690	28	380	U	380	15	41	U	1000	41	16	U	400	16	16	U	410	16	23	U	570	23
4-Chloro-3-methylphenol	59-50-7	8270E	µg/Kg			410	U	410	23	690	U	690	39	380	U	380	21	59	U	1000	59	23	U	400	23	23	U	410	23	32	U	570	32
4-Chloroaniline	106-47-8	8270E	µg/Kg	1000 (7)	2700	410	U	410	73	690	U	690	120	380	U	380	67	190	U	1000	190	72	U	400	72	72	U	410	72	100	U	570	100
4-Chlorophenyl phenyl ether	7005-72-3	8270E	µg/Kg			410	U	410	15	690	U	690	24	380	U	380	13	37	U	1000	37	14	U	400	14	14	U	410	14	20	U	570	20
4-Methylphenol	106-44-5	8270E	µg/Kg		630000	410	U	410	26	31	J	690	43	380	U	380	24	65	U	1000	65	25	U	400	25	25	U	410	25	58	J	570	36
4-Nitroaniline	100-01-6	8270E	µg/Kg	21900 (6)	27000	410	U	410	47	690	U	690	80	380	U	380	44	120	U	1000	120	46	U	400	46	47	U	410	47	66	U	570	66
4-Nitrophenol	100-02-7	8270E	µg/Kg	5120 (5)		840	U	840	67	1400	U	1400	110	770	U	770	62	170	UJ	2100	170	84	J	820	66	67	UJ	830	67	93	UJ	1200	93
Acetophenone	98-86-2	8270E	µg/Kg	300000 (6)	7800000	410	U	410	20	82	J	690	34	380	U	380	19	51	U	1000	51	20	U	400	20	20	U	410	20	73	J	570	28
Atrazine	1912-24-9	8270E	µg/Kg		220000	170	U	170	24	280	U	280	41	150	U	150	22	61	U	420	61	24	U	160	24	24	U	160	24	34	U	230	34
Benzaldehyde	100-52-7	8270E	µg/Kg		170000	14	J	410	68	220	J	690	110	380	UJ	380	63	170	UJ	1000	170	67	UJ	400	67	67	UJ	410	67	450	UJ	570	95
Bis(2-chloroethoxy)methane	111-91-1	8270E	µg/Kg		190000	410	U	410	32	690	U	690	54	380	U	380	30	81	U	1000	81	32	U	400	32	32	U	410	32	45	U	570	45
Bis(2-chloroethyl)ether	111-44-4	8270E	µg/Kg	23700 (5)	630	41	U	41	14	69	U	69	24	38	U	38	13	36	U	100	36	14	U	40	14	14	U	41	14	20	U	57	20
Bis(2-ethylhexyl) phthalate	117-81-7	8270E	µg/Kg	925 (5)	39000	170	J	410	22	7500		690	37	41	J	380	20	830	J	1000	55	60	J	400	21	40	J	410	22	690		570	30
Butyl benzyl phthalate	85-68-7	8270E	µg/Kg	239 (5)	290000	410	U	410	19	110	J	690	33	380	U	380	18	150	J	1000	49	19	U	400	19	19	U	410	19	27	U	570	27
Caprolactam	105-60-2	8270E	µg/Kg		32000000	410	U	410	64	690	U	690	110	380	U	380	59	160	U	1000	160	63	U	400	63	64	U	410	64	89	U	570	89
Carbazole	86-74-8	8270E	µg/Kg	79000 (7)		410	U	410	16	690	U	690	26	380	U	380	14	40	U	1000	40	15	U	400	15	16	U	410	16	22	U	570	22
Dibenzofuran	132-64-9	8270E	µg/Kg	6100 (7)		410	U	410	5.8	690	U	690	9.7	380	U	380	5.3	15	U	1000	15	5.7	U	400	5.7	5.7	U	410	5.7	20	J	570	8.1
Diethyl phthalate	84-66-2	8270E	µg/Kg	24800 (5)	51000000	410	U	410	6	61	J	690	10	380	U	380	5.5	15	U	1000	15	5.9	U	400	5.9	5.9	U	410	5.9	8.3	U	570	8.3
Dimethyl phthalate	131-11-3	8270E	µg/Kg	38000 (7)		410	U	410	94	150	J	690	160	380	U	380	86	240	U	1000	240	92	U	400	92	93	U	410	93	130	U	570	130
Di-n-butyl phthalate	84-74-2	8270E	µg/Kg	150 (5)	6300000	410	U	410	16	580	J	690	26	380	U	380	14	39	U	1000	39	15	U	400	15	15	U	410	15	22	U	570	22
Di-n-octyl phthalate	117-84-0	8270E	µg/Kg	910 (7)	630000	410	U	410	22	690	U	690	37	67	J	380	20	55	U	1000	55	21	U	400	21	22	U	410	22	30	U	570	30
Hexachlorobenzene	118-74-1	8270E	µg/Kg	199 (5)	430	41	U	41	20	69	U	69	33	38	U	38	18	50	U	100	50	19	U	40	19	19	U	41	19	27	U	57	27
Hexachlorobutadiene	87-68-3	8270E	µg/Kg	39.8 (5)	8900	84	U	84	8.8	140	U	140	15	77	U	77	8.1	22	U	210	22	8.6	U	82	8.6	8.7	U	83	8.7	12	U	120	12
Hexachlorocyclopentadiene	77-47-4	8270E	µg/Kg	755 (5)	470000	410	U	410	38	690	U	690	61	380	U	380	33	92	U	1000	92	36	U	400	36	36	U	410	36	50	U	570	50
Hexachloroethane	67-72-1	8270E	µg/Kg	596 (5)	17000	41	U	41	14	69	U	69	24	38	U	38	13	36	U	100	36	14	U	40	14	14	U	41	14	20	U	57	20
Isophorone	78-59-1	8270E	µg/Kg	139000 (5)	570000	170	U	170	120	280	U	280	200	150	U	150	110	300	U	420	300	120	U	160	120	120	U	160	120	170	U	230	170
Nitrobenzene	98-95-3	8270E	µg/Kg	1310 (5)	160000	41	U	41	9.9	69	U	69	17	38	U	38	9.1	25	U	100	25	9.7	U	40	9.7	9.8	U	41	9.8	14	U	57	14
N-Nitrosodi-n-propylamine	621-64-7	8270E	µg/Kg		170	41	U	41	30	69	U	69	50	38	U	38	28	76	U	100	76	29	U	40	29	30	U	41	30	42	U	57	42
N-Nitrosodiphenylamine	86-30-6	8270E	µg/Kg	545 (5)	110000	410	U	410	34	690	U	690	57	380	U	380	31	86	U	1000	86	33	U	400	33	34	U	410	34	47	U	570	47
Pentachlorophenol	87-86-5	8270E	µg/Kg	2100 (3)	1000	330	U	330	85	55	J	560	140	300	U	300	78	210	U	840	210	83	U	330	83	84	U	330	84	120	U	460	120
Phenol	108-95-2	8270E	µg/Kg	30000 (5)	19000000	410	U	410	15	690	U	690	26	380	U	380	14	38	U	1000	38	15	U	400	15	15	U	410	15	21	U	570	21

Table 5.3 - Soil: Semi-Volatile Organic Constituents (SVOCs) Analytical Results

(continued)

Rolling Knolls Landfill

Sample Name				ESC's	NJAC 7:26D	DP04_5.0-8.0				DP05_0.5-5.0				DP05_5.0-7.0				DP06_0.5-2.0				DP06_2.5-3.0				DP100_2.5-3.0 (DP06_2.5-3.0 duplicate)				DP07_0.5-4.5			
Sample Date/Time						04/29/2021 10:35				04/29/2021 16:40				04/29/2021 15:50				05/13/2021 09:30				05/13/2021 09:55				05/13/2021 12:00				05/13/2021 13:10			
Latitude						40.7304704				40.7300494				40.7300494				40.7298030				40.7298030				40.7298030				40.7293038			
Longitude						-74.4414832				-74.4418444				-74.4418444				-74.4414280				-74.4414280				-74.4414280				-74.4416064			
Lab Sample Name				Screening Criteria	(8) Soil Remediation Standards (Ing.-Derm.) - Residential	GS-N-DPT04--SB-5-8				GS-N-DPT05--SC-0.5-5				GS-N-DPT05--SB-5-7				GS-N-DPT06-SC-0.5-2.0				GS-N-DPT06-SB-2.5-3.0				GS-N-DPT100-SB-2.5-3.0				GS-N-DPT07-SC-0.5-4.5			
Lab Sample Number						460-233312-3				460-233312-5				460-233312-6				460-234436-2				460-234436-3				460-234436-8				460-234435-2			
Lab Report Number(s)						460-233312-1				460-233312-1				460-233312-1				460-234436-1				460-234436-1				460-234436-1				460-234435-1			
Analyte	CAS	Method	Units			Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)
Polycyclic Aromatic Hydrocarbons (PAHs)																																	
Acenaphthene	83-32-9	8270E	µg/Kg	20000 (5)	3600000	410	U	410	12	690	U	690	20	380	U	380	11	30	U	1000	30	12	U	400	12	12	U	410	12	16	U	570	16
Acenaphthylene	208-96-8	8270E	µg/Kg	682000 (5)		410	U	410	4.1	690	U	690	7	380	U	380	3.8	11	U	1000	11	4.1	U	400	4.1	4.1	U	410	4.1	5.8	U	570	5.8
Anthracene	120-12-7	8270E	µg/Kg	1480000 (5)	18000000	410	U	410	13	690	U	690	21	380	U	380	12	32	U	1000	32	12	U	400	12	12	U	410	12	17	U	570	17
Fluorene	86-73-7	8270E	µg/Kg	122000 (5)	2400000	410	U	410	5.6	21	J	690	9.4	380	U	380	5.1	14	U	1000	14	5.5	U	400	5.5	5.5	U	410	5.5	19	J	570	7.8
Naphthalene	91-20-3	8270E	µg/Kg	99.4 (5)	2500000	13	J	410	7.1	76	J	690	12	380	U	380	6.6	99	J	1000	18	7	U	400	7	7.1	U	410	7.1	140	J	570	9.9
Phenanthrene	85-01-8	8270E	µg/Kg	45700 (5)		410	U	410	7.2	60	J	690	12	380	U	380	6.7	57	J	1000	18	7.1	U	400	7.1	7.2	U	410	7.2	10	U	570	10
Benzo[a]anthracene	56-55-3	8270E	µg/Kg	5210 (5)	5100	41	U	41	14	69	U	69	24	38	U	38	13	50	J	100	36	14	U	40	14	14	U	41	14	20	U	57	20
Benzo[a]pyrene	50-32-8	8270E	µg/Kg	1520 (5)	510	41	U	41	11	26	J	69	18	38	U	38	10	33	J	100	28	11	U	40	11	11	U	41	11	15	U	57	15
Benzo[b]fluoranthene	205-99-2	8270E	µg/Kg	59800 (5)	5100	41	U	41	11	43	J	69	18	38	U	38	9.8	67	J	100	27	10	U	40	10	11	U	41	11	15	U	57	15
Benzo[g,h,i]perylene	191-24-2	8270E	µg/Kg	119000 (5)		410	U	410	12	690	U	690	20	380	U	380	11	41	J	1000	31	12	U	400	12	12	U	410	12	17	U	570	17
Benzo[k]fluoranthene	207-08-9	8270E	µg/Kg	148000 (5)	51000	41	U	41	8.1	69	U	69	14	38	U	38	7.4	20	J	100	20	7.9	U	40	7.9	8	U	41	8	11	U	57	11
Chrysene	218-01-9	8270E	µg/Kg	4730 (5)	510000	410	U	410	7	42	J	690	12	380	U	380	6.4	41	J	1000	18	6.8	U	400	6.8	6.9	U	410	6.9	9.7	U	570	9.7
Dibenz(a,h)anthracene	53-70-3	8270E	µg/Kg	18400 (5)	510	41	U	41	18	69	U	69	30	38	U	38	16	45	U	100	45	18	U	40	18	18	U	41	18	25	U	57	25
Fluoranthene	206-44-0	8270E	µg/Kg	122000 (5)	2400000	410	U	410	14	57	J	690	24	380	U	380	13	50	J	1000	36	14	U	400	14	14	U	410	14	26	J	570	20
Indeno[1,2,3-cd]pyrene	193-39-5	8270E	µg/Kg	109000 (5)	5100	41	U	41	16	69	U	69	27	38	U	38	15	41	U	100	41	16	U	40	16	16	U	41	16	22	U	57	22
Pyrene	129-00-0	8270E	µg/Kg	78500 (5)	1800000	410	U	410	10	54	J	690	17	380	U	380	9.4	56	J	1000	26	10	U	400	10	10	U	410	10	30	J	570	14
Low Molecular Weight PAHs			µg/Kg	29000 (2)		2063				2227				2280				243				47.7				47.9				207.8			
High Molecular Weight PAHs			µg/Kg	1100 (4)		1886				1188				1748				444				119.7				120.9				190.7			

Table 5.3 - Soil: Semi-Volatile Organic Constituents (SVOCs) Analytical Results

(continued)

Rolling Knolls Landfill

Sample Name				ESC's	NJAC 7:26D	DP07_4.5-5.0				DP07_5.0-8.0				DP08_0.5-8.0				DP09_1.5-3.0				DP10_0.5-10.0				DP11_0.5-5.0				DP11_14.0-18.0			
Sample Date/Time						05/13/2021 13:30				04/28/2021 00:00				05/11/2021 13:15				05/13/2021 11:35				05/13/2021 14:30				05/03/2021 10:10				05/03/2021 09:30			
Latitude						40.7293038				40.7293038				40.7292838				40.7285174				40.7272947				40.7220743				40.7220743			
Longitude						-74.4416064				-74.4416064				-74.4410889				-74.4407729				-74.4400920				-74.4442957				-74.4442957			
Lab Sample Name				Screening Criteria	(8) Soil Remediation Standards (Ing.-Derm.) - Residential	GS-N-DPT07-SB-4.5-5.0				GS-N-DPT07-SB-5-8				GS-N-DPT08-SB-0.5-8.0				GS-N-DPT09-SB-1.5-3.0				GS-N-DPT10-SC-0.5-10.0				GS-S-DPT11-SC-0.5-5				GS-S-DPT11-SB-14-18			
Lab Sample Number						460-234435-3				460-233313-2				460-234161-7				460-234435-5				460-234436-10				460-233488-2				460-233488-3			
Lab Report Number(s)						460-234435-1				460-233313-1				460-234161-1				460-234435-1				460-234436-1				460-233488-1				460-233488-1			
Analyte	CAS	Method	Units			Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)
1,1'-Biphenyl	92-52-4	8270E	µg/Kg	60000 (5)	87000					5.2	U	390	5.2	23	U	1700	23	5.4	U	400	5.4	14	U	1000	14	94	J	900	12	5.1	U	380	5.1
1,2,4,5-Tetrachlorobenzene	95-94-3	8270E	µg/Kg	2020 (5)	23000					12	U	390	12	54	U	1700	54	13	U	400	13	32	U	1000	32	28	U	900	28	12	U	380	12
1,4-Dioxane	123-91-1	8270E	µg/Kg	1830 (7)	7000					34	U	39	34	150	U	170	150	35	U	40	35	91	U	100	91	79	U	90	79	33	U	38	33
2,2'-oxybis[1-chloropropane]	108-60-1	8270E	µg/Kg	19900 (5)	3100000					7.1	U	390	7.1	31	UJ	1700	31	7.3	U	400	7.3	19	UJ	1000	19	16	U	900	16	6.9	U	380	6.9
2,3,4,6-Tetrachlorophenol	58-90-2	8270E	µg/Kg	199 (6)	1900000					27	U	390	27	120	U	1700	120	27	U	400	27	70	U	1000	70	61	U	900	61	26	U	380	26
2,4,5-Trichlorophenol	95-95-4	8270E	µg/Kg	9000 (5)	6300000					40	U	390	40	180	U	1700	180	41	U	400	41	110	U	1000	110	92	U	900	92	39	U	380	39
2,4,6-Trichlorophenol	88-06-2	8270E	µg/Kg	4000 (5)	49000					51	U	160	51	220	U	700	220	52	U	160	52	130	U	420	130	120	U	360	120	49	U	150	49
2,4-Dichlorophenol	120-83-2	8270E	µg/Kg	87500 (5)	190000					25	U	160	25	110	U	700	110	26	U	160	26	67	U	420	67	58	U	360	58	24	U	150	24
2,4-Dimethylphenol	105-67-9	8270E	µg/Kg	10 (5)	1300000					17	U	390	17	76	U	1700	76	18	U	400	18	46	U	1000	46	40	U	900	40	17	U	380	17
2,4-Dinitrophenol	51-28-5	8270E	µg/Kg	60.9 (5)	130000					190	U	320	190	850	U	1400	850	200	UJ	320	200	510	U	830	510	440	U	730	440	190	U	310	190
2,4-Dinitrotoluene	121-14-2	8270E	µg/Kg	1280 (5)						42	U	80	42	190	U	350	190	44	U	82	44	110	U	210	110	97	U	180	97	41	U	77	41
2,6-Dinitrotoluene	606-20-2	8270E	µg/Kg	4000 (7)						29	U	80	29	130	U	350	130	29	UJ	82	29	75	U	210	75	65	U	180	65	28	U	77	28
2-Chloronaphthalene	91-58-7	8270E	µg/Kg	12.2 (5)	4800000					18	U	390	18	80	U	1700	80	19	U	400	19	48	U	1000	48	42	U	900	42	18	U	380	18
2-Chlorophenol	95-57-8	8270E	µg/Kg	243 (5)	390000					14	U	390	14	62	U	1700	62	14	U	400	14	37	U	1000	37	32	U	900	32	14	U	380	14
2-Methylnaphthalene	91-57-6	8270E	µg/Kg	3240 (5)	240000					11	U	390	11	120	J	1700	49	11	U	400	11	96	J	1000	29	170	J	900	25	11	U	380	11
2-Methylphenol	95-48-7	8270E	µg/Kg	580000 (7)	320000					15	U	390	15	65	U	1700	65	15	U	400	15	39	U	1000	39	34	U	900	34	14	U	380	14
2-Nitroaniline	88-74-4	8270E	µg/Kg	5300 (7)						15	U	390	15	65	U	1700	65	15	U	400	15	39	U	1000	39	34	U	900	34	14	U	380	14
2-Nitrophenol	88-75-5	8270E	µg/Kg	7000 (7)						40	U	390	40	170	U	1700	170	40	UJ	400	40	100	U	1000	100	90	U	900	90	38	U	380	38
3,3'-Dichlorobenzidine	91-94-1	8270E	µg/Kg	646 (5)	1200					60	U	160	60	260	U	700	260	61	U	160	61	160	U	420	160	140	U	360	140	58	U	150	58
3-Nitroaniline	99-09-2	8270E	µg/Kg	3160 (6)						44	U	390	44	200	U	1700	200	46	U	400	46	120	U	1000	120	100	U	900	100	43	U	380	43
4,6-Dinitro-2-methylphenol	534-52-1	8270E	µg/Kg							160	U	320	160	710	U	1400	710	160	UJ	320	160	420	U	830	420	370	U	730	370	160	U	310	160
4-Bromophenyl phenyl ether	101-55-3	8270E	µg/Kg							16	U	390	16	69	U	1700	69	16	U	400	16	41	U	1000	41	36	U	900	36	15	U	380	15
4-Chloro-3-methylphenol	59-50-7	8270E	µg/Kg							22	U	390	22	97	U	1700	97	23	U	400	23	58	U	1000	58	51	U	900	51	21	U	380	21
4-Chloroaniline	106-47-8	8270E	µg/Kg	1000 (7)	2700					70	U	390	70	310	U	1700	310	72	U	400	72	180	U	1000	180	160	U	900	160	68	U	380	68
4-Chlorophenyl phenyl ether	7005-72-3	8270E	µg/Kg							14	U	390	14	61	U	1700	61	14	U	400	14	37	U	1000	37	32	U	900	32	13	U	380	13
4-Methylphenol	106-44-5	8270E	µg/Kg		630000					25	U	390	25	490	J	1700	110	25	U	400	25	95	J	1000	65	230	J	900	56	24	U	380	24
4-Nitroaniline	100-01-6	8270E	µg/Kg	21900 (6)	27000					45	U	390	45	200	U	1700	200	46	U	400	46	120	U	1000	120	100	U	900	100	44	U	380	44
4-Nitrophenol	100-02-7	8270E	µg/Kg	5120 (5)						64	U	800	64	280	UJ	3500	280	66	UJ	820	66	170	UJ	2100	170	150	U	1800	150	62	U	770	62
Acetophenone	98-86-2	8270E	µg/Kg	300000 (6)	7800000					19	U	390	19	85	U	1700	85	20	U	400	20	180	J	1000	51	540	J	900	44	19	U	380	19
Atrazine	1912-24-9	8270E	µg/Kg		220000					23	U	160	23	100	U	700	100	24	U	160	24	61	U	420	61	53	U	360	53	22	U	150	22
Benzaldehyde	100-52-7	8270E	µg/Kg		170000					65	UJ	390	65	360	J	1700	290	67	UJ	400	67	170	UJ	1000	170	300	J	900	150	63	UJ	380	63
Bis(2-chloroethoxy)methane	111-91-1	8270E	µg/Kg		190000					31	U	390	31	140	U	1700	140	31	U	400	31	81	U	1000	81	70	U	900	70	30	U	380	30
Bis(2-chloroethyl)ether	111-44-4	8270E	µg/Kg	23700 (5)	630					14	U	39	14	60	U	170	60	14	U	40	14	36	U	100	36	31	U	90	31	13	U	38	13
Bis(2-ethylhexyl) phthalate	117-81-7	8270E	µg/Kg	925 (5)	39000					21	U	390	21	2300		1700	92	21	U	400	21	2800		1000	55	7400		900	48	20	U	380	20
Butyl benzyl phthalate	85-68-7	8270E	µg/Kg	239 (5)	290000					19	U	390	19	81	U	1700	81	19	U	400	19	49	U	1000	49	42	U	900	42	18	U	380	18
Caprolactam	105-60-2	8270E	µg/Kg		32000000					61	U	390	61	270	U	1700	270	63	U	400	63	160	U	1000	160	140	U	900	140	59	U	380	59
Carbazole	86-74-8	8270E	µg/Kg	79000 (7)						15	U	390	15	66	U	1700	66	15	U	400	15	40	U	1000	40	34	U	900	34	15	U	380	15
Dibenzofuran	132-64-9	8270E	µg/Kg	6100 (7)						5.5	U	390	5.5	84	J	1700	24	5.7	U	400	5.7	15	U	1000	15	38	J	900	13	5.4	U	380	5.4
Diethyl phthalate	84-66-2	8270E	µg/Kg	24800 (5)	51000000					5.7	U	390	5.7	78	J	1700	25	5.9	U	400	5.9	83	J	1000	15	13	U	900	13	5.5	U	380	5.5
Dimethyl phthalate	131-11-3	8270E	µg/Kg	38000 (7)						90	U	390	90	390	U	1700	390	92	U	400	92	240	U	1000	240	210	U	900	210	87	U	380	87
Di-n-butyl phthalate	84-74-2	8270E	µg/Kg	150 (5)	6300000					15	U	390	15	97	J	1700	65	15	U	400	15	39	U	1000	39	380	J	900	34	14	U	380	14
Di-n-octyl phthalate	117-84-0	8270E	µg/Kg	910 (7)	630000					21	U	390	21	92	U	1700	92	21	U	400	21	55	U	1000	55	48	U	900	48	20	U	380	20
Hexachlorobenzene	118-74-1	8270E	µg/Kg	199 (5)	430					19	U	39	19	82	U	170	82	19	U	40	19	49	U	100	49	43	U	90	43	18	U	38	18
Hexachlorobutadiene	87-68-3	8270E	µg/Kg	39.8 (5)	8900					8.4	U	80	8.4	37	U	350	37	8.6	U	82	8.6	22	U	210	22	19	U	180	19	8.1	U	77	8.1
Hexachlorocyclopentadiene	77-47-4	8270E	µg/Kg	755 (5)	470000					35	U	390	35	150	U	1700	150	35	U	400	35	91	U	1000	91	79	U	900	79	33	U	380	33
Hexachloroethane	67-72-1	8270E	µg/Kg	596 (5)	17000					14	U	39	14	60	U	170	60	14	U	40	14	36	U	100	36	31	U	90	31	13	U	38	13
Isophorone	78-59-1	8270E	µg/Kg	139000 (5)	570000					110	U	160	110	500	U	700	500	120	U	160	120	300	U	420	300	260	U	360	260	110	U	150	110
Nitrobenzene	98-95-3	8270E	µg/Kg	1310 (5)	160000					9.5	U	39	9.5	42	U	170	42	9.7	U	40	9.7	25	U	100	25	22	U	90	22	9.2	U	38	9.2
N-Nitrosodi-n-propylamine	621-64-7	8270E	µg/Kg		170					29	U	39	29	130	U	170	130	29	U	40	29	75	U	100	75	66	U	90	66	28	U	38	28
N-Nitrosodiphenylamine	86-30-6	8270E	µg/Kg	545 (5)	110000					32	U	390	32	230	J	1700	140	33	U	400	33	85	U	1000	85	740	J	900	74	31	U	380	31
Pentachlorophenol	87-86-5	8270E	µg/Kg	2100 (3)	1000					81	U	320	81	360	U	1400	360	83	U	320	83	210	U	830	210	190	U	730	190	78	U	310	78
Phenol	108-95-2	8270E	µg/Kg	30000 (5)	19000000					15	U	390	15	130	J	1700	64	15	U	400	15	38	U	1000	38	33	U	900	33	14	U	380	14

Table 5.3 - Soil: Semi-Volatile Organic Constituents (SVOCs) Analytical Results

(continued)

Rolling Knolls Landfill

	Sample Name			ESC's	NJAC 7:26D	DP07_4.5-5.0				DP07_5.0-8.0				DP08_0.5-8.0				DP09_1.5-3.0				DP10_0.5-10.0				DP11_0.5-5.0				DP11_14.0-18.0			
	Sample Date/Time					05/13/2021 13:30				04/28/2021 00:00				05/11/2021 13:15				05/13/2021 11:35				05/13/2021 14:30				05/03/2021 10:10				05/03/2021 09:30			
	Latitude					40.7293038				40.7293038				40.7292838				40.7285174				40.7272947				40.7220743				40.7220743			
	Longitude					-74.4416064				-74.4416064				-74.4410889				-74.4407729				-74.4400920				-74.4442957				-74.4442957			
	Lab Sample Name			Screening Criteria	(8) Soil Remediation Standards (Ing.-Derm.) - Residential	GS-N-DPT07-SB-4.5-5.0				GS-N-DPT07-SB-5-8				GS-N-DPT08-SB-0.5-8.0				GS-N-DPT09-SB-1.5-3.0				GS-N-DPT10-SC-0.5-10.0				GS-S-DPT11-SC-0.5-5				GS-S-DPT11-SB-14-18			
	Lab Sample Number					460-234435-3				460-233313-2				460-234161-7				460-234435-5				460-234436-10				460-233488-2				460-233488-3			
	Lab Report Number(s)					460-234435-1				460-233313-1				460-234161-1				460-234435-1				460-234436-1				460-233488-1				460-233488-1			
Analyte	CAS	Method	Units			Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)
Polycyclic Aromatic Hydrocarbons (PAHs)																																
Acenaphthene	83-32-9	8270E	µg/Kg	20000 (5)	3600000					11	U	390	11	99	J	1700	49	12	U	400	12	30	U	1000	30	26	U	900	26	11	U	380	11
Acenaphthylene	208-96-8	8270E	µg/Kg	682000 (5)						4	U	390	4	17	U	1700	17	4.1	U	400	4.1	10	U	1000	10	9.1	U	900	9.1	3.8	U	380	3.8
Anthracene	120-12-7	8270E	µg/Kg	1480000 (5)	18000000					12	U	390	12	53	U	1700	53	12	U	400	12	32	U	1000	32	28	U	900	28	12	U	380	12
Fluorene	86-73-7	8270E	µg/Kg	122000 (5)	2400000					5.4	U	390	5.4	150	J	1700	24	5.5	U	400	5.5	26	J	1000	14	60	J	900	12	5.2	U	380	5.2
Naphthalene	91-20-3	8270E	µg/Kg	99.4 (5)	2500000					6.8	U	390	6.8	850	J	1700	30	7	U	400	7	180	J	1000	18	380	J	900	16	6.6	U	380	6.6
Phenanthrene	85-01-8	8270E	µg/Kg	45700 (5)						6.9	U	390	6.9	150	J	1700	31	7.1	U	400	7.1	99	J	1000	18	200	J	900	16	6.7	U	380	6.7
Benzo[a]anthracene	56-55-3	8270E	µg/Kg	5210 (5)	5100					14	U	39	14	65	J	170	61	14	U	40	14	36	U	100	36	32	U	90	32	13	U	38	13
Benzo[a]pyrene	50-32-8	8270E	µg/Kg	1520 (5)	510					11	U	39	11	46	U	170	46	11	U	40	11	28	U	100	28	130		90	24	10	U	38	10
Benzo[b]fluoranthene	205-99-2	8270E	µg/Kg	59800 (5)	5100					10	U	39	10	49	J	170	45	10	U	40	10	27	U	100	27	82	J	90	23	9.9	U	38	9.9
Benzo[g,h,i]perylene	191-24-2	8270E	µg/Kg	119000 (5)						12	U	390	12	51	U	1700	51	12	U	400	12	31	U	1000	31	950		900	27	11	U	380	11
Benzo[k]fluoranthene	207-08-9	8270E	µg/Kg	148000 (5)	51000					7.7	U	39	7.7	34	U	170	34	7.9	U	40	7.9	20	U	100	20	22	J	90	18	7.5	U	38	7.5
Chrysene	218-01-9	8270E	µg/Kg	4730 (5)	510000					6.7	U	390	6.7	50	J	1700	29	6.8	U	400	6.8	56	J	1000	18	100	J	900	15	6.4	U	380	6.4
Dibenz(a,h)anthracene	53-70-3	8270E	µg/Kg	18400 (5)	510					17	U	39	17	75	U	170	75	17	U	40	17	45	U	100	45	39	U	90	39	17	U	38	17
Fluoranthene	206-44-0	8270E	µg/Kg	122000 (5)	2400000					14	U	390	14	120	J	1700	61	14	U	400	14	36	U	1000	36	120	J	900	32	13	U	380	13
Indeno[1,2,3-cd]pyrene	193-39-5	8270E	µg/Kg	109000 (5)	5100					15	U	39	15	68	U	170	68	16	U	40	16	41	U	100	41	210		90	35	15	U	38	15
Pyrene	129-00-0	8270E	µg/Kg	78500 (5)	1800000					9.8	U	390	9.8	120	J	1700	43	10	U	400	10	26	U	1000	26	150	J	900	22	9.5	U	380	9.5
Low Molecular Weight PAHs			µg/Kg	29000 (2)						46.1				1319				47.7				377				703.1				45.3			
High Molecular Weight PAHs			µg/Kg	1100 (4)						117.2				678				118.7				346				1835				112.3			

Table 5.3 - Soil: Semi-Volatile Organic Constituents (SVOCs) Analytical Results

(continued)

Rolling Knolls Landfill

Sample Name				ESC's	NJAC 7:26D	DP12_0.5-4.0				DP13_0.5-3.0				DP13_3.0-4.0				DP14_0.5-5.0				DP101_0.5-5.0 (DP14_0.5-5.0 duplicate)				DP15_0.5-5.0				DP15_19.0-21.0			
Sample Date/Time						05/10/2021 11:20				05/10/2021 12:20				05/10/2021 12:30				05/03/2021 11:10				05/03/2021 11:10				05/03/2021 15:55				05/03/2021 15:05			
Latitude						40.7218276				40.7221319				40.7221319				40.7222989				40.7222989				40.7226573				40.7226573			
Longitude						-74.4445596				-74.4453061				-74.4453061				-74.4446187				-74.4446187				-74.4446863				-74.4446863			
Lab Sample Name				Screening Criteria	(8) Soil Remediation Standards (Ing.-Derm.) - Residential	GS-S-DPT12-SB-0.5-4.0				GS-S-DPT13-SC-0.5-3.0				GS-S-DPT13-SB-3.0-4.0				GS-S-DPT14-SC-0.5-5				GS-S-DPT101-SC-0.5-5				GS-S-DPT15-SC-0.5-5				GS-S-DPT15-SB-19-21			
Lab Sample Number						460-234082-2				460-234082-4				460-234082-5				460-233488-5				460-233506-2				460-233506-4				460-233506-5			
Lab Report Number(s)						460-234082-1				460-234082-1 / 460-234082-2				460-234082-1				460-233488-1 / 460-233488-2				460-233506-1				460-233506-1 / 460-233506-2				460-233506-1			
Analyte	CAS	Method	Units			Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)
1,1'-Biphenyl	92-52-4	8270E	µg/Kg	60000 (5)	87000	34	U	2500	34	45	J	740	9.8	20	U	1500	20	41	J	780	10	42	J	730	9.7	120	U	9300	120	6.1	U	460	6.1
1,2,4,5-Tetrachlorobenzene	95-94-3	8270E	µg/Kg	2020 (5)	23000	79	U	2500	79	23	U	740	23	46	U	1500	46	24	U	780	24	23	U	730	23	290	U	9300	290	14	U	460	14
1,4-Dioxane	123-91-1	8270E	µg/Kg	1830 (7)	7000	220	UJ	250	220	65	UJ	74	65	130	UJ	150	130	69	U	78	69	64	U	73	64	810	U	930	810	40	U	46	40
2,2'-oxybis[1-chloropropane]	108-60-1	8270E	µg/Kg	19900 (5)	3100000	46	U	2500	46	13	U	740	13	27	U	1500	27	14	U	780	14	13	U	730	13	170	U	9300	170	8.3	U	460	8.3
2,3,4,6-Tetrachlorophenol	58-90-2	8270E	µg/Kg	199 (6)	1900000	170	U	2500	170	50	U	740	50	100	U	1500	100	53	U	780	53	50	U	730	50	630	U	9300	630	31	U	460	31
2,4,5-Trichlorophenol	95-95-4	8270E	µg/Kg	9000 (5)	6300000	260	U	2500	260	75	U	740	75	150	U	1500	150	80	U	780	80	75	U	730	75	950	U	9300	950	47	U	460	47
2,4,6-Trichlorophenol	88-06-2	8270E	µg/Kg	4000 (5)	49000	320	U	1000	320	95	U	300	95	190	U	600	190	100	U	320	100	94	U	290	94	1200	U	3700	1200	59	U	180	59
2,4-Dichlorophenol	120-83-2	8270E	µg/Kg	87500 (5)	190000	160	U	1000	160	47	U	300	47	95	U	600	95	50	U	320	50	47	U	290	47	600	U	3700	600	29	U	180	29
2,4-Dimethylphenol	105-67-9	8270E	µg/Kg	10 (5)	1300000	110	U	2500	110	33	U	740	33	65	U	1500	65	35	U	780	35	32	U	730	32	410	U	9300	410	20	U	460	20
2,4-Dinitrophenol	51-28-5	8270E	µg/Kg	60.9 (5)	130000	1200	UJ	2000	1200	360	UJ	600	360	730	UJ	1200	730	390	U	630	390	360	U	590	360	4600	U	7500	4600	220	U	370	220
2,4-Dinitrotoluene	121-14-2	8270E	µg/Kg	1280 (5)		270	U	510	270	80	U	150	80	160	U	300	160	85	U	160	85	79	U	150	79	1000	U	1900	1000	49	U	93	49
2,6-Dinitrotoluene	606-20-2	8270E	µg/Kg	4000 (7)		180	UJ	510	180	53	UJ	150	53	110	UJ	300	110	57	U	160	57	53	U	150	53	670	U	1900	670	33	U	93	33
2-Chloronaphthalene	91-58-7	8270E	µg/Kg	12.2 (5)	4800000	120	U	2500	120	34	U	740	34	69	U	1500	69	36	U	780	36	34	U	730	34	430	U	9300	430	21	U	460	21
2-Chlorophenol	95-57-8	8270E	µg/Kg	243 (5)	390000	90	U	2500	90	26	U	740	26	53	U	1500	53	28	U	780	28	26	U	730	26	330	U	9300	330	16	U	460	16
2-Methylnaphthalene	91-57-6	8270E	µg/Kg	3240 (5)	240000	71	U	2500	71	99	J	740	21	41	U	1500	41	23	J	780	22	59	J	730	20	260	U	9300	260	13	U	460	13
2-Methylphenol	95-48-7	8270E	µg/Kg	580000 (7)	320000	94	U	2500	94	28	U	740	28	55	U	1500	55	29	U	780	29	27	U	730	27	350	U	9300	350	17	U	460	17
2-Nitroaniline	88-74-4	8270E	µg/Kg	5300 (7)		94	U	2500	94	28	U	740	28	55	U	1500	55	29	U	780	29	27	U	730	27	350	U	9300	350	17	U	460	17
2-Nitrophenol	88-75-5	8270E	µg/Kg	7000 (7)		250	UJ	2500	250	74	UJ	740	74	150	UJ	1500	150	79	U	780	79	73	U	730	73	930	U	9300	930	46	U	460	46
3,3'-Dichlorobenzidine	91-94-1	8270E	µg/Kg	646 (5)	1200	380	U	1000	380	110	U	300	110	220	U	600	220	120	U	320	120	110	U	290	110	1400	U	3700	1400	69	U	180	69
3-Nitroaniline	99-09-2	8270E	µg/Kg	3160 (6)		280	U	2500	280	83	U	740	83	170	U	1500	170	88	U	780	88	83	U	730	83	1000	U	9300	1000	52	U	460	52
4,6-Dinitro-2-methylphenol	534-52-1	8270E	µg/Kg			1000	UJ	2000	1000	300	UJ	600	300	600	UJ	1200	600	320	U	630	320	300	U	590	300	3800	U	7500	3800	190	U	370	190
4-Bromophenyl phenyl ether	101-55-3	8270E	µg/Kg			100	U	2500	100	29	U	740	29	59	U	1500	59	31	U	780	31	29	U	730	29	370	U	9300	370	18	U	460	18
4-Chloro-3-methylphenol	59-50-7	8270E	µg/Kg			140	U	2500	140	42	U	740	42	83	U	1500	83	44	U	780	44	41	U	730	41	520	U	9300	520	26	U	460	26
4-Chloroaniline	106-47-8	8270E	µg/Kg	1000 (7)	2700	450	U	2500	450	130	U	740	130	260	U	1500	260	140	U	780	140	130	U	730	130	1700	U	9300	1700	81	U	460	81
4-Chlorophenyl phenyl ether	7005-72-3	8270E	µg/Kg			89	U	2500	89	26	U	740	26	52	U	1500	52	28	U	780	28	26	U	730	26	330	U	9300	330	16	U	460	16
4-Methylphenol	106-44-5	8270E	µg/Kg		630000	160	U	2500	160	46	U	740	46	93	U	1500	93	87	J	780	49	52	J	730	46	580	U	9300	580	29	U	460	29
4-Nitroaniline	100-01-6	8270E	µg/Kg	21900 (6)	27000	290	U	2500	290	85	U	740	85	170	U	1500	170	90	U	780	90	84	U	730	84	1100	U	9300	1100	53	U	460	53
4-Nitrophenol	100-02-7	8270E	µg/Kg	5120 (5)		410	U	5100	410	120	U	1500	120	240	U	3000	240	130	U	1600	130	120	U	1500	120	1500	U	19000	1500	75	U	930	75
Acetophenone	98-86-2	8270E	µg/Kg	300000 (6)	7800000	120	U	2500	120	36	U	740	36	73	U	1500	73	860		780	39	120	J	730	36	460	U	9300	460	22	U	460	22
Atrazine	1912-24-9	8270E	µg/Kg		220000	150	U	1000	150	44	U	300	44	87	U	600	87	46	U	320	46	43	U	290	43	550	U	3700	550	27	U	180	27
Benzaldehyde	100-52-7	8270E	µg/Kg		170000	420	UJ	2500	420	120	UJ	740	120	240	UJ	1500	240	340	J	780	130	270	J	730	120	1500	UJ	9300	1500	76	UJ	460	76
Bis(2-chloroethoxy)methane	111-91-1	8270E	µg/Kg		190000	200	U	2500	200	58	U	740	58	120	U	1500	120	61	U	780	61	57	U	730	57	720	U	9300	720	36	U	460	36
Bis(2-chloroethyl)ether	111-44-4	8270E	µg/Kg	23700 (5)	630	88	U	250	88	26	U	74	26	52	U	150	52	27	U	78	27	26	U	73	26	320	U	930	320	16	U	46	16
Bis(2-ethylhexyl) phthalate	117-81-7	8270E	µg/Kg	925 (5)	39000	130	U	2500	130	18000		740	39	470	J	1500	78	2600		780	42	1500		730	39	41000		9300	490	350	J	460	24
Butyl benzyl phthalate	85-68-7	8270E	µg/Kg	239 (5)	290000	120	U	2500	120	35	U	740	35	69	U	1500	69	37	U	780	37	34	U	730	34	440	U	9300	440	190	J	460	21
Caprolactam	105-60-2	8270E	µg/Kg		32000000	390	U	2500	390	120	U	740	120	230	U	1500	230	120	U	780	120	110	U	730	110	1400	U	9300	1400	71	U	460	71
Carbazole	86-74-8	8270E	µg/Kg	79000 (7)		96	U	2500	96	320	J	740	28	140	J	1500	56	30	U	780	30	28	U	730	28	350	U	9300	350	17	U	460	17
Dibenzofuran	132-64-9	8270E	µg/Kg	6100 (7)		35	U	2500	35	240	J	740	10	75	J	1500	21	11	U	780	11	10	U	730	10	130	U	9300	130	6.4	U	460	6.4
Diethyl phthalate	84-66-2	8270E	µg/Kg	24800 (5)	51000000	37	U	2500	37	33	J	740	11	21	U	1500	21	48	J	780	11	74	J	730	11	130	U	9300	130	6.6	U	460	6.6
Dimethyl phthalate	131-11-3	8270E	µg/Kg	38000 (7)		570	U	2500	570	29000		1500	340	340	U	1500	340	180	U	780	180	170	U	730	170	2100	U	9300	2100	100	U	460	100
Di-n-butyl phthalate	84-74-2	8270E	µg/Kg	150 (5)	6300000	95	U	2500	95	180	J	740	28	56	U	1500	56	150	J	780	30	28	U	730	28	350	U	9300	350	62	J	460	17
Di-n-octyl phthalate	117-84-0	8270E	µg/Kg	910 (7)	630000	130	U	2500	130	120	J	740	39	78	U	1500	78	42	U	780	42	39	U	730	39	490	U	9300	490	24	U	460	24
Hexachlorobenzene	118-74-1	8270E	µg/Kg	199 (5)	430	120	U	250	120	35	U	74	35	70	U	150	70	37	U	78	37	35	U	73	35	440	U	930	440	22	U	46	22
Hexachlorobutadiene	87-68-3	8270E	µg/Kg	39.8 (5)	8900	54	U	510	54	16	U	150	16	32	U	300	32	17	U	160	17	16	U	150	16	200	U	1900	200	9.7	U	93	9.7
Hexachlorocyclopentadiene	77-47-4	8270E	µg/Kg	755 (5)	470000	220	U	2500	220	65	U	740	65	130	U	1500	130	69	U	780	69	64	U	730	64	820	U	9300	820	40	U	460	40
Hexachloroethane	67-72-1	8270E	µg/Kg	596 (5)	17000	87	U	250	87	25	U	74	25	51	U	150	51	27	U	78	27	25	U	73	25	320	U	930	320	16	U	46	16
Isophorone	78-59-1	8270E	µg/Kg	139000 (5)	570000	730	U	1000	730	210	U	300	210	430	U	600	430	230	U	320	230	210	U	290	210	2700	U	3700	2700	130	U	180	130
Nitrobenzene	98-95-3	8270E	µg/Kg	1310 (5)	160000	61	U	250	61	18	U	74	18	36	U	150	36	19	U	78	19	18	U	73	18	220	U	930	220	11	U	46	11
N-Nitrosodi-n-propylamine	621-64-7	8270E	µg/Kg		170	180	U	250	180	54	U	74	54	110	U	150	110	57	U	78	57	53	U	73	53	680	U	930	680	33	U	46	33
N-Nitrosodiphenylamine	86-30-6	8270E	µg/Kg	545 (5)	110000	210	U	2500	210	61	U	740	61	120	U	1500	120	65	U	780	65	120	J	730	60	760	U	9300	760	38	U	460	38
Pentachlorophenol	87-86-5	8270E	µg/Kg	2100 (3)	1000	520	U	2000	520	150	U	600	150	300	U	1200	300	160	U	630	160	150	U	590	150	1900	U	7500	1900	94	U	370	94
Phenol	108-95-2	8270E	µg/Kg	30000 (5)	19000000	93	U	2500	93	27	U	740	27	54	U	1500	54	29	U	780	29	27	U	730	27	340	U	9300	340	17	U	460	17

Table 5.3 - Soil: Semi-Volatile Organic Constituents (SVOCs) Analytical Results

(continued)

Rolling Knolls Landfill

Sample Name				ESC's	NJAC 7:26D	DP12_0.5-4.0				DP13_0.5-3.0				DP13_3.0-4.0				DP14_0.5-5.0				DP101_0.5-5.0 (DP14_0.5-5.0 duplicate)				DP15_0.5-5.0				DP15_19.0-21.0			
Sample Date/Time						05/10/2021 11:20				05/10/2021 12:20				05/10/2021 12:30				05/03/2021 11:10				05/03/2021 11:10				05/03/2021 15:55				05/03/2021 15:05			
Latitude						40.7218276				40.7221319				40.7221319				40.7222989				40.7222989				40.7226573				40.7226573			
Longitude						-74.4445596				-74.4453061				-74.4453061				-74.4446187				-74.4446187				-74.4446863				-74.4446863			
Lab Sample Name				Screening Criteria	(8) Soil Remediation Standards (Ing.-Derm.) - Residential	GS-S-DPT12-SB-0.5-4.0				GS-S-DPT13-SC-0.5-3.0				GS-S-DPT13-SB-3.0-4.0				GS-S-DPT14-SC-0.5-5				GS-S-DPT101-SC-0.5-5				GS-S-DPT15-SC-0.5-5				GS-S-DPT15-SB-19-21			
Lab Sample Number						460-234082-2				460-234082-4				460-234082-5				460-233488-5				460-233506-2				460-233506-4				460-233506-5			
Lab Report Number(s)						460-234082-1				460-234082-1 / 460-234082-2				460-234082-1				460-233488-1 / 460-233488-2				460-233506-1				460-233506-1 / 460-233506-2				460-233506-1			
Analyte	**CAS**	**Method**	**Units**			**Result**	**LDC Flag**	**RL**	**MDL (EDL)**	**Result**	**LDC Flag**	**RL**	**MDL (EDL)**	**Result**	**LDC Flag**	**RL**	**MDL (EDL)**	**Result**	**LDC Flag**	**RL**	**MDL (EDL)**	**Result**	**LDC Flag**	**RL**	**MDL (EDL)**	**Result**	**LDC Flag**	**RL**	**MDL (EDL)**	**Result**	**LDC Flag**	**RL**	**MDL (EDL)**
Polycyclic Aromatic Hydrocarbons (PAHs)																																
Acenaphthene	83-32-9	8270E	µg/Kg	20000 (5)	3600000	72	U	2500	72	240	J	740	21	100	J	1500	42	22	U	780	22	21	U	730	21	260	U	9300	260	13	U	460	13
Acenaphthylene	208-96-8	8270E	µg/Kg	682000 (5)		25	U	2500	25	160	J	740	7.4	15	U	1500	15	7.9	U	780	7.9	7.4	U	730	7.4	93	U	9300	93	4.6	U	460	4.6
Anthracene	120-12-7	8270E	µg/Kg	1480000 (5)	18000000	77	U	2500	77	830		740	23	250	J	1500	45	24	U	780	24	22	U	730	22	280	U	9300	280	14	U	460	14
Fluorene	86-73-7	8270E	µg/Kg	122000 (5)	2400000	34	U	2500	34	350	J	740	10	110	J	1500	20	11	U	780	11	9.9	U	730	9.9	130	U	9300	130	6.2	U	460	6.2
Naphthalene	91-20-3	8270E	µg/Kg	99.4 (5)	2500000	44	U	2500	44	250	J	740	13	120	J	1500	26	130	J	780	14	300	J	730	13	160	U	9300	160	7.9	U	460	7.9
Phenanthrene	85-01-8	8270E	µg/Kg	45700 (5)		44	U	2500	44	3300		740	13	1200	J	1500	26	40	J	780	14	63	J	730	13	160	U	9300	160	8	U	460	8
Benzo[a]anthracene	56-55-3	8270E	µg/Kg	5210 (5)	5100	88	U	250	88	2700		74	26	840		150	52	27	U	78	27	28	J	73	26	320	U	930	320	16	U	46	16
Benzo[a]pyrene	50-32-8	8270E	µg/Kg	1520 (5)	510	67	U	250	67	3300		74	20	820		150	39	40	J	78	21	20	U	73	20	250	U	930	250	12	U	46	12
Benzo[b]fluoranthene	205-99-2	8270E	µg/Kg	59800 (5)	5100	65	U	250	65	4000		74	19	1100		150	38	56	J	78	20	64	J	73	19	240	U	930	240	12	U	46	12
Benzo[g,h,i]perylene	191-24-2	8270E	µg/Kg	119000 (5)		74	U	2500	74	2200		740	22	470	J	1500	44	420	J	780	23	22	U	730	22	270	U	9300	270	13	U	460	13
Benzo[k]fluoranthene	207-08-9	8270E	µg/Kg	148000 (5)	51000	50	U	250	50	1600		74	15	450		150	29	27	J	78	15	14	U	73	14	180	U	930	180	9	U	46	9
Chrysene	218-01-9	8270E	µg/Kg	4730 (5)	510000	43	U	2500	43	2700		740	13	760	J	1500	25	55	J	780	13	67	J	730	12	160	U	9300	160	7.7	U	460	7.7
Dibenz(a,h)anthracene	53-70-3	8270E	µg/Kg	18400 (5)	510	110	U	250	110	580		74	32	150		150	64	210		78	34	32	U	73	32	400	U	930	400	20	U	46	20
Fluoranthene	206-44-0	8270E	µg/Kg	122000 (5)	2400000	88	U	2500	88	4200		740	26	1500		1500	52	39	J	780	27	50	J	730	26	410	J	9300	320	16	U	460	16
Indeno[1,2,3-cd]pyrene	193-39-5	8270E	µg/Kg	109000 (5)	5100	99	U	250	99	2400		74	29	550		150	58	350		78	31	29	U	73	29	360	U	930	360	18	U	46	18
Pyrene	129-00-0	8270E	µg/Kg	78500 (5)	1800000	63	U	2500	63	4100		740	18	1400	J	1500	37	20	U	780	20	53	J	730	18	230	U	9300	230	11	U	460	11
Low Molecular Weight PAHs			µg/Kg	29000 (2)		296				5130				1795				234.9				423.3				1083				53.7			
High Molecular Weight PAHs			µg/Kg	1100 (4)		747				**27780**				**8040**				**1244**				379				**2820**				134.7			

Table 5.3 - Soil: Semi-Volatile Organic Constituents (SVOCs) Analytical Results

(continued)

Rolling Knolls Landfill

Sample Name				ESC's	NJAC 7:26D	DP16_0.5-4.0				DP16_4.0-7.0				DP17_0.5-2.0				DP17_3.5-5.0				DP102_3.5-5.0 (DP17_3.5-5.0 duplicate)				DP18_3.5-5.0				DP19_0.5-5.0			
Sample Date/Time						05/04/2021 10:10				05/04/2021 09:55				05/05/2021 10:45				05/05/2021 11:40				05/05/2021 11:40				05/10/2021 14:05				05/10/2021 09:00			
Latitude						40.7229083				40.7229083				40.7231730				40.7231730				40.7231730				40.7226388				40.7236522			
Longitude						-74.4452270				-74.4452270				-74.4437270				-74.4437270				-74.4437270				-74.4459762				-74.4437257			
Lab Sample Name				Screening Criteria	(8) Soil Remediation Standards (Ing.-Derm.) - Residential	GS-S-DPT16-SC-0.5-4				GS-S-DPT16-SB-4-7				GS-S-DPT17-SC-0.5-2				GS-S-DPT17-SB-3.5-5				GS-S-DP102-SB-3.5-5				GS-S-DPT13-SB-3.5-5.0				GS-S-DPT19-SC-0.5-5.0			
Lab Sample Number						460-233704-2				460-233704-3				460-233715-2				460-233715-3				460-233708-6				460-234082-6				460-234080-2			
Lab Report Number(s)						460-233704-1				460-233704-1				460-233715-1				460-233715-1				460-233708-1				460-234082-1				460-234080-1			
Analyte	CAS	Method	Units			Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)
1,1'-Biphenyl	92-52-4	8270E	µg/Kg	60000 (5)	87000	19	U	1400	19	12	U	870	12	14	U	1000	14	16	U	1200	16	17	U	1300	17	12	U	910	12	11	U	810	11
1,2,4,5-Tetrachlorobenzene	95-94-3	8270E	µg/Kg	2020 (5)	23000	44	U	1400	44	27	U	870	27	32	U	1000	32	37	U	1200	37	41	U	1300	41	28	U	910	28	25	U	810	25
1,4-Dioxane	123-91-1	8270E	µg/Kg	1830 (7)	7000	120	U	140	120	76	U	87	76	91	U	100	91	100	U	120	100	110	U	130	110	80	UJ	91	80	71	U	81	71
2,2'-oxybis[1-chloropropane]	108-60-1	8270E	µg/Kg	19900 (5)	3100000	26	U	1400	26	16	U	870	16	19	U	1000	19	22	U	1200	22	24	U	1300	24	17	U	910	17	15	U	810	15
2,3,4,6-Tetrachlorophenol	58-90-2	8270E	µg/Kg	199 (6)	1900000	97	U	1400	97	59	U	870	59	71	U	1000	71	81	U	1200	81	89	U	1300	89	62	U	910	62	55	U	810	55
2,4,5-Trichlorophenol	95-95-4	8270E	µg/Kg	9000 (5)	6300000	150	U	1400	150	88	U	870	88	110	U	1000	110	120	U	1200	120	130	U	1300	130	93	U	910	93	83	U	810	83
2,4,6-Trichlorophenol	88-06-2	8270E	µg/Kg	4000 (5)	49000	180	U	570	180	110	U	350	110	130	U	420	130	150	U	480	150	170	U	530	170	120	U	370	120	100	U	330	100
2,4-Dichlorophenol	120-83-2	8270E	µg/Kg	87500 (5)	190000	91	U	570	91	56	U	350	56	67	U	420	67	77	U	480	77	84	U	530	84	59	U	370	59	52	U	330	52
2,4-Dimethylphenol	105-67-9	8270E	µg/Kg	10 (5)	1300000	63	U	1400	63	38	U	870	38	46	U	1000	46	53	U	1200	53	58	U	1300	58	40	U	910	40	36	U	810	36
2,4-Dinitrophenol	51-28-5	8270E	µg/Kg	60.9 (5)	130000	700	U	1100	700	430	U	700	430	510	U	840	510	590	U	960	590	650	U	1100	650	450	UJ	730	450	400	UJ	650	400
2,4-Dinitrotoluene	121-14-2	8270E	µg/Kg	1280 (5)		150	U	290	150	93	U	180	93	110	U	210	110	130	U	240	130	140	U	270	140	98	U	190	98	87	U	160	87
2,6-Dinitrotoluene	606-20-2	8270E	µg/Kg	4000 (7)		100	U	290	100	63	U	180	63	75	U	210	75	86	U	240	86	95	U	270	95	66	UJ	190	66	59	UJ	160	59
2-Chloronaphthalene	91-58-7	8270E	µg/Kg	12.2 (5)	4800000	66	U	1400	66	40	U	870	40	48	U	1000	48	55	U	1200	55	61	U	1300	61	42	U	910	42	44	J	810	38
2-Chlorophenol	95-57-8	8270E	µg/Kg	243 (5)	390000	51	U	1400	51	31	U	870	31	37	U	1000	37	43	U	1200	43	47	U	1300	47	33	U	910	33	29	U	810	29
2-Methylnaphthalene	91-57-6	8270E	µg/Kg	3240 (5)	240000	100	J	1400	40	24	U	870	24	82	J	1000	29	42	J	1200	33	37	U	1300	37	26	U	910	26	43	J	810	23
2-Methylphenol	95-48-7	8270E	µg/Kg	580000 (7)	320000	53	U	1400	53	32	U	870	32	39	U	1000	39	45	U	1200	45	49	U	1300	49	34	U	910	34	30	U	810	30
2-Nitroaniline	88-74-4	8270E	µg/Kg	5300 (7)		53	U	1400	53	32	U	870	32	39	U	1000	39	45	U	1200	45	49	U	1300	49	34	U	910	34	30	U	810	30
2-Nitrophenol	88-75-5	8270E	µg/Kg	7000 (7)		140	U	1400	140	87	U	870	87	100	U	1000	100	120	U	1200	120	130	U	1300	130	92	UJ	910	92	81	UJ	810	81
3,3'-Dichlorobenzidine	91-94-1	8270E	µg/Kg	646 (5)	1200	220	U	570	220	130	U	350	130	160	U	420	160	180	U	480	180	200	U	530	200	140	U	370	140	120	U	330	120
3-Nitroaniline	99-09-2	8270E	µg/Kg	3160 (6)		160	U	1400	160	98	U	870	98	120	U	1000	120	130	U	1200	130	150	U	1300	150	100	U	910	100	91	U	810	91
4,6-Dinitro-2-methylphenol	534-52-1	8270E	µg/Kg			580	U	1100	580	350	U	700	350	430	U	840	430	490	U	960	490	540	U	1100	540	370	UJ	730	370	330	UJ	650	330
4-Bromophenyl phenyl ether	101-55-3	8270E	µg/Kg			57	U	1400	57	34	U	870	34	41	U	1000	41	47	U	1200	47	52	U	1300	52	36	U	910	36	32	U	810	32
4-Chloro-3-methylphenol	59-50-7	8270E	µg/Kg			80	U	1400	80	49	U	870	49	58	U	1000	58	67	U	1200	67	74	U	1300	74	51	U	910	51	46	U	810	46
4-Chloroaniline	106-47-8	8270E	µg/Kg	1000 (7)	2700	250	U	1400	250	150	U	870	150	180	U	1000	180	210	U	1200	210	230	U	1300	230	160	U	910	160	140	U	810	140
4-Chlorophenyl phenyl ether	7005-72-3	8270E	µg/Kg			50	U	1400	50	31	U	870	31	37	U	1000	37	42	U	1200	42	46	U	1300	46	32	U	910	32	29	U	810	29
4-Methylphenol	106-44-5	8270E	µg/Kg		630000	89	U	1400	89	54	U	870	54	65	U	1000	65	75	U	1200	75	82	U	1300	82	57	U	910	57	51	U	810	51
4-Nitroaniline	100-01-6	8270E	µg/Kg	21900 (6)	27000	160	U	1400	160	100	U	870	100	120	U	1000	120	140	U	1200	140	150	U	1300	150	100	U	910	100	93	U	810	93
4-Nitrophenol	100-02-7	8270E	µg/Kg	5120 (5)		230	U	2900	230	140	U	1800	140	170	U	2100	170	200	U	2400	200	210	U	2700	210	150	U	1900	150	130	U	1600	130
Acetophenone	98-86-2	8270E	µg/Kg	300000 (6)	7800000	100	J	1400	70	43	U	870	43	51	U	1000	51	59	U	1200	59	65	U	1300	65	45	U	910	45	40	U	810	40
Atrazine	1912-24-9	8270E	µg/Kg		220000	84	U	570	84	51	U	350	51	61	U	420	61	70	U	480	70	77	U	530	77	54	U	370	54	48	U	330	48
Benzaldehyde	100-52-7	8270E	µg/Kg		170000	240	UJ	1400	240	140	UJ	870	140	170	UJ	1000	170	200	J	1200	200	220	UJ	1300	220	150	UJ	910	150	130	UJ	810	130
Bis(2-chloroethoxy)methane	111-91-1	8270E	µg/Kg		190000	110	U	1400	110	68	U	870	68	81	U	1000	81	93	U	1200	93	100	U	1300	100	71	U	910	71	63	U	810	63
Bis(2-chloroethyl)ether	111-44-4	8270E	µg/Kg	23700 (5)	630	50	U	140	50	30	U	87	30	36	U	100	36	42	U	120	42	46	U	130	46	32	U	91	32	28	U	81	28
Bis(2-ethylhexyl) phthalate	117-81-7	8270E	µg/Kg	925 (5)	39000	5300		1400	75	53	J	870	46	360	J	1000	55	1200		1200	63	700	J	1300	70	48	U	910	48	41000		4000	210
Butyl benzyl phthalate	85-68-7	8270E	µg/Kg	239 (5)	290000	87	J	1400	67	41	U	870	41	49	U	1000	49	56	U	1200	56	62	U	1300	62	43	U	910	43	180	J	810	38
Caprolactam	105-60-2	8270E	µg/Kg		32000000	220	U	1400	220	130	U	870	130	160	U	1000	160	190	U	1200	190	200	U	1300	200	140	U	910	140	130	U	810	130
Carbazole	86-74-8	8270E	µg/Kg	79000 (7)		54	U	1400	54	33	U	870	33	40	U	1000	40	46	U	1200	46	50	U	1300	50	35	U	910	35	31	U	810	31
Dibenzofuran	132-64-9	8270E	µg/Kg	6100 (7)		20	U	1400	20	12	U	870	12	15	U	1000	15	17	U	1200	17	18	U	1300	18	13	U	910	13	11	U	810	11
Diethyl phthalate	84-66-2	8270E	µg/Kg	24800 (5)	51000000	21	U	1400	21	32	J	870	13	15	U	1000	15	17	U	1200	17	19	U	1300	19	13	U	910	13	56	J	810	12
Dimethyl phthalate	131-11-3	8270E	µg/Kg	38000 (7)		320	U	1400	320	200	U	870	200	240	U	1000	240	270	U	1200	270	300	U	1300	300	210	U	910	210	180	U	810	180
Di-n-butyl phthalate	84-74-2	8270E	µg/Kg	150 (5)	6300000	77	J	1400	54	33	U	870	33	55	J	1000	39	45	U	1200	45	50	U	1300	50	34	U	910	34	1500		810	31
Di-n-octyl phthalate	117-84-0	8270E	µg/Kg	910 (7)	630000	75	U	1400	75	46	U	870	46	55	U	1000	55	63	U	1200	63	70	U	1300	70	48	U	910	48	43	U	810	43
Hexachlorobenzene	118-74-1	8270E	µg/Kg	199 (5)	430	68	U	140	68	41	U	87	41	49	U	100	49	57	U	120	57	62	U	130	62	43	U	91	43	39	U	81	39
Hexachlorobutadiene	87-68-3	8270E	µg/Kg	39.8 (5)	8900	30	U	290	30	18	U	180	18	22	U	210	22	25	U	240	25	28	U	270	28	19	U	190	19	17	U	160	17
Hexachlorocyclopentadiene	77-47-4	8270E	µg/Kg	755 (5)	470000	130	U	1400	130	76	U	870	76	91	U	1000	91	100	U	1200	100	120	U	1300	120	80	U	910	80	71	U	810	71
Hexachloroethane	67-72-1	8270E	µg/Kg	596 (5)	17000	49	U	140	49	30	U	87	30	36	U	100	36	41	U	120	41	45	U	130	45	31	U	91	31	28	U	81	28
Isophorone	78-59-1	8270E	µg/Kg	139000 (5)	570000	410	U	570	410	250	U	350	250	300	U	420	300	350	U	480	350	380	U	530	380	260	U	370	260	230	U	330	230
Nitrobenzene	98-95-3	8270E	µg/Kg	1310 (5)	160000	34	U	140	34	21	U	87	21	25	U	100	25	29	U	120	29	32	U	130	32	22	U	91	22	19	U	81	19
N-Nitrosodi-n-propylamine	621-64-7	8270E	µg/Kg		170	100	U	140	100	63	U	87	63	76	U	100	76	87	U	120	87	96	U	130	96	66	U	91	66	59	U	81	59
N-Nitrosodiphenylamine	86-30-6	8270E	µg/Kg	545 (5)	110000	120	U	1400	120	71	U	870	71	86	U	1000	86	98	U	1200	98	110	U	1300	110	75	U	910	75	67	U	810	67
Pentachlorophenol	87-86-5	8270E	µg/Kg	2100 (3)	1000	290	U	1100	290	180	U	700	180	210	U	840	210	250	U	960	250	270	U	1100	270	190	U	730	190	170	U	650	170
Phenol	108-95-2	8270E	µg/Kg	30000 (5)	19000000	52	J	1400	52	26000		1700	64	38	U	1000	38	120	J	1200	44	52	J	1300	48	34	U	910	34	30	U	810	30

Table 5.3 - Soil: Semi-Volatile Organic Constituents (SVOCs) Analytical Results

(continued)

Rolling Knolls Landfill

	Sample Name			ESC's	NJAC 7:26D	DP16_0.5-4.0				DP16_4.0-7.0				DP17_0.5-2.0				DP17_3.5-5.0				DP102_3.5-5.0 (DP17_3.5-5.0 duplicate)				DP18_3.5-5.0				DP19_0.5-5.0			
	Sample Date/Time					05/04/2021 10:10				05/04/2021 09:55				05/05/2021 10:45				05/05/2021 11:40				05/05/2021 11:40				05/10/2021 14:05				05/10/2021 09:00			
	Latitude					40.7229083				40.7229083				40.7231730				40.7231730				40.7231730				40.7226388				40.7236522			
	Longitude					-74.4452270				-74.4452270				-74.4437270				-74.4437270				-74.4437270				-74.4459762				-74.4437257			
	Lab Sample Name			Screening Criteria	(8) Soil Remediation Standards (Ing.-Derm.) - Residential	GS-S-DPT16-SC-0.5-4				GS-S-DPT16-SB-4-7				GS-S-DPT17-SC-0.5-2				GS-S-DPT17-SB-3.5-5				GS-S-DP102-SB-3.5-5				GS-S-DPT13-SB-3.5-5.0				GS-S-DPT19-SC-0.5-5.0			
	Lab Sample Number					460-233704-2				460-233704-3				460-233715-2				460-233715-3				460-233708-6				460-234082-6				460-234080-2			
	Lab Report Number(s)					460-233704-1				460-233704-1				460-233715-1				460-233715-1				460-233708-1				460-234082-1				460-234080-1			
Analyte	CAS	Method	Units			Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)
Polycyclic Aromatic Hydrocarbons (PAHs)																																
Acenaphthene	83-32-9	8270E	µg/Kg	20000 (5)	3600000	41	U	1400	41	25	U	870	25	30	U	1000	30	34	U	1200	34	37	U	1300	37	26	U	910	26	23	U	810	23
Acenaphthylene	208-96-8	8270E	µg/Kg	682000 (5)		14	U	1400	14	8.7	U	870	8.7	10	U	1000	10	12	U	1200	12	13	U	1300	13	9.2	U	910	9.2	8.2	U	810	8.2
Anthracene	120-12-7	8270E	µg/Kg	1480000 (5)	18000000	43	U	1400	43	26	U	870	26	32	U	1000	32	36	U	1200	36	40	U	1300	40	28	U	910	28	25	U	810	25
Fluorene	86-73-7	8270E	µg/Kg	122000 (5)	2400000	34	J	1400	19	23	J	870	12	27	J	1000	14	16	U	1200	16	18	U	1300	18	12	U	910	12	11	U	810	11
Naphthalene	91-20-3	8270E	µg/Kg	99.4 (5)	2500000	100	J	1400	25	15	U	870	15	240	J	1000	18	170	J	1200	21	150	J	1300	23	16	U	910	16	46	J	810	14
Phenanthrene	85-01-8	8270E	µg/Kg	45700 (5)		210	J	1400	25	32	J	870	15	63	J	1000	18	68	J	1200	21	53	J	1300	23	16	U	910	16	98	J	810	14
Benzo[a]anthracene	56-55-3	8270E	µg/Kg	5210 (5)	5100	50	J	140	50	38	J	87	30	36	U	100	36	42	U	120	42	46	U	130	46	32	U	91	32	55	J	81	28
Benzo[a]pyrene	50-32-8	8270E	µg/Kg	1520 (5)	510	38	U	140	38	34	J	87	23	28	J	100	28	32	U	120	32	35	U	130	35	24	U	91	24	53	J	81	22
Benzo[b]fluoranthene	205-99-2	8270E	µg/Kg	59800 (5)	5100	37	J	140	37	27	J	87	22	60	J	100	27	44	J	120	31	34	U	130	34	24	U	91	24	92		81	21
Benzo[g,h,i]perylene	191-24-2	8270E	µg/Kg	119000 (5)		42	U	1400	42	30	J	870	26	34	J	1000	31	35	U	1200	35	39	U	1300	39	27	U	910	27	24	U	810	24
Benzo[k]fluoranthene	207-08-9	8270E	µg/Kg	148000 (5)	51000	28	U	140	28	28	J	87	17	24	J	100	20	23	U	120	23	26	U	130	26	18	U	91	18	16	U	81	16
Chrysene	218-01-9	8270E	µg/Kg	4730 (5)	510000	48	J	1400	24	29	J	870	15	54	J	1000	18	36	J	1200	20	22	UJ	1300	22	15	U	910	15	52	J	810	14
Dibenz(a,h)anthracene	53-70-3	8270E	µg/Kg	18400 (5)	510	62	U	140	62	38	U	87	38	45	U	100	45	52	U	120	52	57	U	130	57	40	U	91	40	35	U	81	35
Fluoranthene	206-44-0	8270E	µg/Kg	122000 (5)	2400000	110	J	1400	50	30	U	870	30	66	J	1000	36	63	J	1200	42	46	U	1300	46	32	U	910	32	75	J	810	28
Indeno[1,2,3-cd]pyrene	193-39-5	8270E	µg/Kg	109000 (5)	5100	56	U	140	56	34	U	87	34	41	U	100	41	47	U	120	47	51	U	130	51	36	U	91	36	39	J	81	32
Pyrene	129-00-0	8270E	µg/Kg	78500 (5)	1800000	100	J	1400	35	22	U	870	22	72	J	1000	26	60	J	1200	30	33	U	1300	33	23	U	910	23	94	J	810	20
Low Molecular Weight PAHs			µg/Kg	29000 (2)		442				129.7				402				336				311				107.2				211.2			
High Molecular Weight PAHs			µg/Kg	1100 (4)		571				310				460				434				389				271				535			

Table 5.3 - Soil: Semi-Volatile Organic Constituents (SVOCs) Analytical Results

(continued)

Rolling Knolls Landfill

Sample Name				ESC's	NJAC 7:26D	DP19_5.0-9.0				DP20_0.5-4.0				DP20_10.0-13.0				DP21_0.5-4.0				DP21_4.0-5.0				DP22_0.5-3.0				DP102_0.5-3.0 (DP22_0.5-3.0 duplicate)			
Sample Date/Time						05/10/2021 09:50				05/04/2021 13:25				05/04/2021 13:00				05/07/2021 11:05				05/07/2021 11:50				05/04/2021 11:35				05/04/2021 11:35			
Latitude						40.7236522				40.7227310				40.7227310				40.7238344				40.7238344				40.7234467				40.7234467			
Longitude						-74.4437257				-74.4439070				-74.4439070				-74.4456550				-74.4456550				-74.4453029				-74.4453029			
Lab Sample Name				Screening Criteria	(8) Soil Remediation Standards (Ing.-Derm.) - Residential	GS-S-DPT19-SB-5.0-9.0				GS-S-DPT20-SC-0.5-4				GS-S-DPT-20-SB-10-13				GS-S-DPT21-SC-0.5-4				GS-S-DPT21-SB-4-5				GS-S-DPT22-SC-0.5-3				GS-S-DPT102-SC-0.5-3			
Lab Sample Number						460-234080-3				460-233704-5				460-233704-6				460-233940-6				460-233940-7				460-233706-2				460-233704-7			
Lab Report Number(s)						460-234080-1				460-233704-1				460-233704-1				460-233940-1				460-233940-1				460-233706-1				460-233704-1			
Analyte	CAS	Method	Units			Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)
1,1'-Biphenyl	92-52-4	8270E	µg/Kg	60000 (5)	87000	16	U	1200	16	7.8	U	590	7.8	28	U	2100	28	15	UJ	1100	15	54	J	1000	14	11	U	820	11	9.7	U	730	9.7
1,2,4,5-Tetrachlorobenzene	95-94-3	8270E	µg/Kg	2020 (5)	23000	38	U	1200	38	18	U	590	18	66	U	2100	66	35	UJ	1100	35	32	U	1000	32	26	U	820	26	23	U	730	23
1,4-Dioxane	123-91-1	8270E	µg/Kg	1830 (7)	7000	110	U	120	110	51	U	59	51	190	U	210	190	99	UJ	110	99	90	U	100	90	72	U	82	72	64	U	73	64
2,2'-oxybis[1-chloropropane]	108-60-1	8270E	µg/Kg	19900 (5)	3100000	22	U	1200	22	11	U	590	11	38	U	2100	38	21	UJ	1100	21	19	U	1000	19	15	U	820	15	13	U	730	13
2,3,4,6-Tetrachlorophenol	58-90-2	8270E	µg/Kg	199 (6)	1900000	83	U	1200	83	40	U	590	40	140	U	2100	140	77	UJ	1100	77	70	U	1000	70	56	U	820	56	50	U	730	50
2,4,5-Trichlorophenol	95-95-4	8270E	µg/Kg	9000 (5)	6300000	120	U	1200	120	60	U	590	60	220	U	2100	220	120	UJ	1100	120	110	U	1000	110	84	U	820	84	75	U	730	75
2,4,6-Trichlorophenol	88-06-2	8270E	µg/Kg	4000 (5)	49000	160	U	490	160	75	U	240	75	270	U	850	270	150	UJ	460	150	130	U	420	130	110	U	330	110	94	U	300	94
2,4-Dichlorophenol	120-83-2	8270E	µg/Kg	87500 (5)	190000	78	U	490	78	38	U	240	38	140	U	850	140	73	UJ	460	73	66	U	420	66	53	U	330	53	47	U	300	47
2,4-Dimethylphenol	105-67-9	8270E	µg/Kg	10 (5)	1300000	54	U	1200	54	26	U	590	26	93	U	2100	93	50	UJ	1100	50	62	J	1000	46	36	U	820	36	32	U	730	32
2,4-Dinitrophenol	51-28-5	8270E	µg/Kg	60.9 (5)	130000	600	UJ	980	600	290	U	470	290	1000	U	1700	1000	560	R	910	560	510	U	830	510	400	U	660	400	360	U	590	360
2,4-Dinitrotoluene	121-14-2	8270E	µg/Kg	1280 (5)		130	U	250	130	63	U	120	63	230	U	430	230	120	UJ	230	120	110	U	210	110	89	U	170	89	79	U	150	79
2,6-Dinitrotoluene	606-20-2	8270E	µg/Kg	4000 (7)		88	UJ	250	88	42	U	120	42	150	U	430	150	82	UJ	230	82	75	U	210	75	60	U	170	60	53	U	150	53
2-Chloronaphthalene	91-58-7	8270E	µg/Kg	12.2 (5)	4800000	56	U	1200	56	27	U	590	27	98	U	2100	98	52	UJ	1100	52	48	U	1000	48	38	U	820	38	34	U	730	34
2-Chlorophenol	95-57-8	8270E	µg/Kg	243 (5)	390000	43	U	1200	43	21	U	590	21	75	U	2100	75	40	UJ	1100	40	37	U	1000	37	29	U	820	29	26	U	730	26
2-Methylnaphthalene	91-57-6	8270E	µg/Kg	3240 (5)	240000	34	U	1200	34	81	J	590	16	59	U	2100	59	53	J	1100	32	46	J	1000	29	59	J	820	23	49	J	730	21
2-Methylphenol	95-48-7	8270E	µg/Kg	580000 (7)	320000	46	U	1200	46	22	U	590	22	79	U	2100	79	42	UJ	1100	42	39	U	1000	39	31	U	820	31	27	U	730	27
2-Nitroaniline	88-74-4	8270E	µg/Kg	5300 (7)		46	U	1200	46	22	U	590	22	79	U	2100	79	42	UJ	1100	42	39	U	1000	39	31	U	820	31	27	U	730	27
2-Nitrophenol	88-75-5	8270E	µg/Kg	7000 (7)		120	UJ	1200	120	59	U	590	59	210	U	2100	210	110	UJ	1100	110	100	U	1000	100	83	U	820	83	74	U	730	74
3,3'-Dichlorobenzidine	91-94-1	8270E	µg/Kg	646 (5)	1200	180	U	490	180	89	U	240	89	320	U	850	320	170	UJ	460	170	160	U	420	160	120	U	330	120	110	U	300	110
3-Nitroaniline	99-09-2	8270E	µg/Kg	3160 (6)		140	U	1200	140	66	U	590	66	240	U	2100	240	130	U	1100	130	120	U	1000	120	93	U	820	93	83	U	730	83
4,6-Dinitro-2-methylphenol	534-52-1	8270E	µg/Kg			500	UJ	980	500	240	U	470	240	870	U	1700	870	460	UJ	910	460	420	U	830	420	340	U	660	340	300	U	590	300
4-Bromophenyl phenyl ether	101-55-3	8270E	µg/Kg			48	U	1200	48	23	U	590	23	84	U	2100	84	45	UJ	1100	45	41	U	1000	41	33	U	820	33	29	U	730	29
4-Chloro-3-methylphenol	59-50-7	8270E	µg/Kg			68	U	1200	68	33	U	590	33	120	U	2100	120	64	UJ	1100	64	58	U	1000	58	46	U	820	46	41	U	730	41
4-Chloroaniline	106-47-8	8270E	µg/Kg	1000 (7)	2700	220	U	1200	220	100	U	590	100	380	U	2100	380	200	UJ	1100	200	180	U	1000	180	150	U	820	150	130	U	730	130
4-Chlorophenyl phenyl ether	7005-72-3	8270E	µg/Kg			43	U	1200	43	21	U	590	21	75	U	2100	75	40	UJ	1100	40	37	U	1000	37	29	U	820	29	26	U	730	26
4-Methylphenol	106-44-5	8270E	µg/Kg		630000	76	U	1200	76	46	J	590	37	130	U	2100	130	71	UJ	1100	71	120	J	1000	65	51	U	820	51	46	U	730	46
4-Nitroaniline	100-01-6	8270E	µg/Kg	21900 (6)	27000	140	U	1200	140	67	U	590	67	240	U	2100	240	130	UJ	1100	130	120	U	1000	120	95	U	820	95	84	U	730	84
4-Nitrophenol	100-02-7	8270E	µg/Kg	5120 (5)		200	UJ	2500	200	96	U	1200	96	350	U	4300	350	180	UJ	2300	180	170	U	2100	170	130	U	1700	130	120	U	1500	120
Acetophenone	98-86-2	8270E	µg/Kg	300000 (6)	7800000	60	U	1200	60	29	U	590	29	100	U	2100	100	56	UJ	1100	56	51	U	1000	51	40	U	820	40	36	U	730	36
Atrazine	1912-24-9	8270E	µg/Kg		220000	72	U	490	72	35	U	240	35	120	U	850	120	67	U	460	67	61	U	420	61	49	U	330	49	43	U	300	43
Benzaldehyde	100-52-7	8270E	µg/Kg		170000	200	UJ	1200	200	97	UJ	590	97	350	UJ	2100	350	190	UJ	1100	190	280	J	1000	170	140	UJ	820	140	120	UJ	730	120
Bis(2-chloroethoxy)methane	111-91-1	8270E	µg/Kg		190000	95	U	1200	95	46	U	590	46	170	U	2100	170	88	UJ	1100	88	81	U	1000	81	64	U	820	64	57	U	730	57
Bis(2-chloroethyl)ether	111-44-4	8270E	µg/Kg	23700 (5)	630	43	U	120	43	20	U	59	20	74	U	210	74	39	UJ	110	39	36	U	100	36	29	U	82	29	26	U	73	26
Bis(2-ethylhexyl) phthalate	117-81-7	8270E	µg/Kg	925 (5)	39000	1700		1200	65	310	J	590	31	110	U	2100	110	2000	J	1100	60	1300		1000	55	110	J	820	44	42	J	730	39
Butyl benzyl phthalate	85-68-7	8270E	µg/Kg	239 (5)	290000	57	U	1200	57	28	U	590	28	99	U	2100	99	590	J	1100	53	120	J	1000	49	39	U	820	39	34	U	730	34
Caprolactam	105-60-2	8270E	µg/Kg		32000000	190	U	1200	190	91	U	590	91	330	U	2100	330	180	UJ	1100	180	160	U	1000	160	130	U	820	130	110	U	730	110
Carbazole	86-74-8	8270E	µg/Kg	79000 (7)		46	U	1200	46	22	U	590	22	81	U	2100	81	43	UJ	1100	43	39	U	1000	39	31	U	820	31	28	U	730	28
Dibenzofuran	132-64-9	8270E	µg/Kg	6100 (7)		17	U	1200	17	8.2	U	590	8.2	30	U	2100	30	16	UJ	1100	16	31	J	1000	15	12	U	820	12	10	U	730	10
Diethyl phthalate	84-66-2	8270E	µg/Kg	24800 (5)	51000000	18	U	1200	18	8.5	U	590	8.5	31	U	2100	31	35	J	1100	16	33	J	1000	15	12	U	820	12	11	U	730	11
Dimethyl phthalate	131-11-3	8270E	µg/Kg	38000 (7)		280	U	1200	280	130	U	590	130	480	U	2100	480	260	UJ	1100	260	240	U	1000	240	190	U	820	190	170	U	730	170
Di-n-butyl phthalate	84-74-2	8270E	µg/Kg	150 (5)	6300000	46	U	1200	46	92	J	590	22	80	U	2100	80	200	J	1100	43	140	J	1000	39	31	U	820	31	420	J	730	28
Di-n-octyl phthalate	117-84-0	8270E	µg/Kg	910 (7)	630000	110	J	1200	65	31	U	590	31	110	U	2100	110	340	J	1100	60	55	U	1000	55	44	U	820	44	39	U	730	39
Hexachlorobenzene	118-74-1	8270E	µg/Kg	199 (5)	430	58	U	120	58	28	U	59	28	100	U	210	100	54	UJ	110	54	49	U	100	49	39	U	82	39	35	U	73	35
Hexachlorobutadiene	87-68-3	8270E	µg/Kg	39.8 (5)	8900	26	U	250	26	12	U	120	12	45	U	430	45	24	UJ	230	24	22	U	210	22	18	U	170	18	16	U	150	16
Hexachlorocyclopentadiene	77-47-4	8270E	µg/Kg	755 (5)	470000	110	U	1200	110	51	U	590	51	190	U	2100	190	99	R	1100	99	91	U	1000	91	72	U	820	72	64	U	730	64
Hexachloroethane	67-72-1	8270E	µg/Kg	596 (5)	17000	42	U	120	42	20	U	59	20	73	U	210	73	39	UJ	110	39	36	U	100	36	28	U	82	28	25	U	73	25
Isophorone	78-59-1	8270E	µg/Kg	139000 (5)	570000	350	U	490	350	170	U	240	170	610	U	850	610	330	UJ	460	330	300	U	420	300	240	U	330	240	210	U	300	210
Nitrobenzene	98-95-3	8270E	µg/Kg	1310 (5)	160000	29	U	120	29	14	U	59	14	51	U	210	51	27	UJ	110	27	25	U	100	25	20	U	82	20	18	U	73	18
N-Nitrosodi-n-propylamine	621-64-7	8270E	µg/Kg		170	89	U	120	89	43	U	59	43	150	U	210	150	82	UJ	110	82	75	U	100	75	60	U	82	60	53	U	73	53
N-Nitrosodiphenylamine	86-30-6	8270E	µg/Kg	545 (5)	110000	100	U	1200	100	140	J	590	48	170	U	2100	170	93	UJ	1100	93	85	U	1000	85	68	U	820	68	60	U	730	60
Pentachlorophenol	87-86-5	8270E	µg/Kg	2100 (3)	1000	250	U	980	250	120	U	470	120	430	U	1700	430	230	U	910	230	210	U	830	210	170	U	660	170	150	U	590	150
Phenol	108-95-2	8270E	µg/Kg	30000 (5)	19000000	45	U	1200	45	38	J	590	22	78	U	2100	78	42	UJ	1100	42	38	U	1000	38	33	J	820	30	27	U	730	27

Table 5.3 - Soil: Semi-Volatile Organic Constituents (SVOCs) Analytical Results

(continued)

Rolling Knolls Landfill

Sample Name				ESC's	NJAC 7:26D	DP19_5.0-9.0				DP20_0.5-4.0				DP20_10.0-13.0				DP21_0.5-4.0				DP21_4.0-5.0				DP22_0.5-3.0				DP102_0.5-3.0 (DP22_0.5-3.0 duplicate)			
Sample Date/Time						05/10/2021 09:50				05/04/2021 13:25				05/04/2021 13:00				05/07/2021 11:05				05/07/2021 11:50				05/04/2021 11:35				05/04/2021 11:35			
Latitude						40.7236522				40.7227310				40.7227310				40.7238344				40.7238344				40.7234467				40.7234467			
Longitude						-74.4437257				-74.4439070				-74.4439070				-74.4456550				-74.4456550				-74.4453029				-74.4453029			
Lab Sample Name				Screening Criteria	(8) Soil Remediation Standards (Ing.-Derm.) - Residential	GS-S-DPT19-SB-5.0-9.0				GS-S-DPT20-SC-0.5-4				GS-S-DPT-20-SB-10-13				GS-S-DPT21-SC-0.5-4				GS-S-DPT21-SB-4-5				GS-S-DPT22-SC-0.5-3				GS-S-DPT102-SC-0.5-3			
Lab Sample Number						460-234080-3				460-233704-5				460-233704-6				460-233940-6				460-233940-7				460-233706-2				460-233704-7			
Lab Report Number(s)						460-234080-1				460-233704-1				460-233704-1				460-233940-1				460-233940-1				460-233706-1				460-233704-1			
Analyte	CAS	Method	Units			Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)
Polycyclic Aromatic Hydrocarbons (PAHs)																																
Acenaphthene	83-32-9	8270E	µg/Kg	20000 (5)	3600000	35	U	1200	35	17	U	590	17	60	U	2100	60	32	UJ	1100	32	30	U	1000	30	23	U	820	23	21	U	730	21
Acenaphthylene	208-96-8	8270E	µg/Kg	682000 (5)		12	U	1200	12	5.9	U	590	5.9	21	U	2100	21	11	UJ	1100	11	10	U	1000	10	8.3	U	820	8.3	7.4	U	730	7.4
Anthracene	120-12-7	8270E	µg/Kg	1480000 (5)	18000000	37	U	1200	37	18	U	590	18	65	U	2100	65	35	UJ	1100	35	32	U	1000	32	25	U	820	25	22	U	730	22
Fluorene	86-73-7	8270E	µg/Kg	122000 (5)	2400000	17	U	1200	17	8	U	590	8	29	U	2100	29	15	UJ	1100	15	14	U	1000	14	11	U	820	11	10	U	730	10
Naphthalene	91-20-3	8270E	µg/Kg	99.4 (5)	2500000	21	U	1200	21	170	J	590	10	37	U	2100	37	180	J	1100	20	390	J	1000	18	14	U	820	14	42	J	730	13
Phenanthrene	85-01-8	8270E	µg/Kg	45700 (5)		59	J	1200	21	30	J	590	10	37	U	2100	37	72	J	1100	20	110	J	1000	18	40	J	820	14	46	J	730	13
Benzo[a]anthracene	56-55-3	8270E	µg/Kg	5210 (5)	5100	72	J	120	43	20	U	59	20	74	U	210	74	40	UJ	110	40	48	J	100	36	29	U	82	29	26	U	73	26
Benzo[a]pyrene	50-32-8	8270E	µg/Kg	1520 (5)	510	50	J	120	33	19	J	59	16	57	U	210	57	30	UJ	110	30	28	U	100	28	22	U	82	22	20	U	73	20
Benzo[b]fluoranthene	205-99-2	8270E	µg/Kg	59800 (5)	5100	59	J	120	32	31	J	59	15	55	U	210	55	40	J	110	29	62	J	100	27	26	J	82	21	19	U	73	19
Benzo[g,h,i]perylene	191-24-2	8270E	µg/Kg	119000 (5)		36	U	1200	36	28	J	590	17	63	U	2100	63	33	UJ	1100	33	31	U	1000	31	24	U	820	24	22	U	730	22
Benzo[k]fluoranthene	207-08-9	8270E	µg/Kg	148000 (5)	51000	36	J	120	24	13	J	59	12	42	U	210	42	22	UJ	110	22	20	U	100	20	16	U	82	16	14	U	73	14
Chrysene	218-01-9	8270E	µg/Kg	4730 (5)	510000	47	J	1200	21	23	J	590	9.9	36	UJ	2100	36	19	UJ	1100	19	70	J	1000	18	14	UJ	820	14	12	J	730	12
Dibenz(a,h)anthracene	53-70-3	8270E	µg/Kg	18400 (5)	510	53	U	120	53	25	U	59	25	92	U	210	92	49	UJ	110	49	45	U	100	45	36	U	82	36	32	U	73	32
Fluoranthene	206-44-0	8270E	µg/Kg	122000 (5)	2400000	81	J	1200	43	29	J	590	20	74	U	2100	74	40	UJ	1100	40	110	J	1000	36	31	J	820	29	26	U	730	26
Indeno[1,2,3-cd]pyrene	193-39-5	8270E	µg/Kg	109000 (5)	5100	48	U	120	48	23	U	59	23	83	U	210	83	44	UJ	110	44	40	U	100	40	32	U	82	32	29	U	73	29
Pyrene	129-00-0	8270E	µg/Kg	78500 (5)	1800000	81	J	1200	30	35	J	590	15	53	U	2100	53	57	J	1100	28	110	J	1000	26	40	J	820	20	18	U	730	18
Low Molecular Weight PAHs			µg/Kg	29000 (2)		181				248.9				249				345				586				121.3				148.4			
High Molecular Weight PAHs			µg/Kg	1100 (4)		563				246				629				374				564				270				218			

Table 5.3 - Soil: Semi-Volatile Organic Constituents (SVOCs) Analytical Results

(continued)

Rolling Knolls Landfill

Sample Name				ESC's	NJAC 7:26D	DP22_3.0-5.0				DP23_0.5-2.5				DP23_2.5-3.0				DP24_0.5-2.5				DP24_2.5-3.0				DP25_1.0-1.5				DP26_0.5-3.5			
Sample Date/Time						05/04/2021 11:00				05/10/2021 16:05				05/10/2021 16:20				05/14/2021 10:10				05/14/2021 10:15				05/06/2021 15:20				05/07/2021 08:45			
Latitude						40.7234467				40.7234761				40.7234761				40.7234047				40.7234047				40.7234932				40.7240722			
Longitude				Screening Criteria	(8) Soil Remediation Standards (Ing.-Derm.) - Residential	-74.4453029				-74.4461556				-74.4461556				-74.4467553				-74.4467553				-74.4473376				-74.4463803			
Lab Sample Name						GS-S-DPT22-SB-3-5				GS-S-DPT23-SC-0.5-2.5				GS-S-DPT23-SB-2.5-3.0				GS-S-DPT24-SC-0.5-2.5				GS-S-DPT24-SB-2.5-3.0				GS-S-DPT25-SB-1-1.5				GS-S-DPT26-SC-0.5-3.5			
Lab Sample Number						460-233706-3				460-234080-5				460-234080-6				460-234442-2				460-234442-3				460-233899-6				460-233940-2			
Lab Report Number(s)						460-233706-1				460-234080-1				460-234080-1				460-234442-1				460-234442-1				460-233899-1				460-233940-1			
Analyte	CAS	Method	Units			Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)
1,1'-Biphenyl	92-52-4	8270E	µg/Kg	60000 (5)	87000	5.5	U	410	5.5	20	U	1500	20	11	U	820	11	14	U	1100	14	5.4	U	400	5.4	7.2	U	540	7.2	9.9	U	750	9.9
1,2,4,5-Tetrachlorobenzene	95-94-3	8270E	µg/Kg	2020 (5)	23000	13	U	410	13	47	U	1500	47	26	U	820	26	34	U	1100	34	13	U	400	13	17	U	540	17	23	U	750	23
1,4-Dioxane	123-91-1	8270E	µg/Kg	1830 (7)	7000	36	U	41	36	130	U	150	130	72	U	82	72	94	U	110	94	35	U	40	35	47	U	54	47	65	U	75	65
2,2'-oxybis[1-chloropropane]	108-60-1	8270E	µg/Kg	19900 (5)	3100000	7.5	U	410	7.5	27	U	1500	27	15	U	820	15	20	UJ	1100	20	7.3	UJ	400	7.3	9.8	U	540	9.8	14	U	750	14
2,3,4,6-Tetrachlorophenol	58-90-2	8270E	µg/Kg	199 (6)	1900000	28	U	410	28	100	U	1500	100	56	U	820	56	73	U	1100	73	27	U	400	27	37	U	540	37	51	U	750	51
2,4,5-Trichlorophenol	95-95-4	8270E	µg/Kg	9000 (5)	6300000	42	U	410	42	150	U	1500	150	84	U	820	84	110	U	1100	110	41	U	400	41	55	U	540	55	76	U	750	76
2,4,6-Trichlorophenol	88-06-2	8270E	µg/Kg	4000 (5)	49000	53	U	170	53	190	U	610	190	110	U	330	110	140	U	430	140	52	U	160	52	69	U	220	69	96	U	300	96
2,4-Dichlorophenol	120-83-2	8270E	µg/Kg	87500 (5)	190000	27	U	170	27	97	U	610	97	53	U	330	53	69	U	430	69	26	U	160	26	35	U	220	35	48	U	300	48
2,4-Dimethylphenol	105-67-9	8270E	µg/Kg	10 (5)	1300000	18	U	410	18	67	U	1500	67	36	U	820	36	48	U	1100	48	18	U	400	18	24	U	540	24	33	U	750	33
2,4-Dinitrophenol	51-28-5	8270E	µg/Kg	60.9 (5)	130000	200	U	330	200	750	UJ	1200	750	400	UJ	660	400	530	U	870	530	200	U	320	200	270	U	430	270	370	U	600	370
2,4-Dinitrotoluene	121-14-2	8270E	µg/Kg	1280 (5)		45	U	84	45	160	U	310	160	89	U	170	89	120	U	220	120	43	U	82	43	58	U	110	58	80	U	150	80
2,6-Dinitrotoluene	606-20-2	8270E	µg/Kg	4000 (7)		30	U	84	30	110	UJ	310	110	59	UJ	170	59	78	U	220	78	29	U	82	29	39	U	110	39	54	U	150	54
2-Chloronaphthalene	91-58-7	8270E	µg/Kg	12.2 (5)	4800000	19	U	410	19	70	U	1500	70	38	U	820	38	50	U	1100	50	19	U	400	19	25	U	540	25	35	U	750	35
2-Chlorophenol	95-57-8	8270E	µg/Kg	243 (5)	390000	15	U	410	15	54	U	1500	54	29	U	820	29	39	U	1100	39	14	U	400	14	19	U	540	19	27	U	750	27
2-Methylnaphthalene	91-57-6	8270E	µg/Kg	3240 (5)	240000	12	U	410	12	42	U	1500	42	23	U	820	23	30	U	1100	30	11	U	400	11	15	U	540	15	90	J	750	21
2-Methylphenol	95-48-7	8270E	µg/Kg	580000 (7)	320000	16	U	410	16	57	U	1500	57	31	U	820	31	40	U	1100	40	15	U	400	15	20	U	540	20	38	J	750	28
2-Nitroaniline	88-74-4	8270E	µg/Kg	5300 (7)		16	U	410	16	57	U	1500	57	31	U	820	31	40	U	1100	40	15	U	400	15	20	U	540	20	28	U	750	28
2-Nitrophenol	88-75-5	8270E	µg/Kg	7000 (7)		42	U	410	42	150	UJ	1500	150	82	UJ	820	82	110	U	1100	110	40	U	400	40	54	U	540	54	75	U	750	75
3,3'-Dichlorobenzidine	91-94-1	8270E	µg/Kg	646 (5)	1200	63	U	170	63	230	U	610	230	120	U	330	120	160	U	430	160	61	U	160	61	82	U	220	82	110	U	300	110
3-Nitroaniline	99-09-2	8270E	µg/Kg	3160 (6)		47	U	410	47	170	U	1500	170	93	U	820	93	120	U	1100	120	45	U	400	45	61	U	540	61	84	U	750	84
4,6-Dinitro-2-methylphenol	534-52-1	8270E	µg/Kg			170	U	330	170	620	UJ	1200	620	340	UJ	660	340	440	U	870	440	160	U	320	160	220	U	430	220	310	U	600	310
4-Bromophenyl phenyl ether	101-55-3	8270E	µg/Kg			16	U	410	16	60	U	1500	60	33	U	820	33	43	U	1100	43	16	U	400	16	21	U	540	21	30	U	750	30
4-Chloro-3-methylphenol	59-50-7	8270E	µg/Kg			23	U	410	23	85	U	1500	85	46	U	820	46	61	U	1100	61	23	U	400	23	30	U	540	30	42	U	750	42
4-Chloroaniline	106-47-8	8270E	µg/Kg	1000 (7)	2700	74	U	410	74	270	U	1500	270	150	U	820	150	190	U	1100	190	72	U	400	72	96	U	540	96	130	U	750	130
4-Chlorophenyl phenyl ether	7005-72-3	8270E	µg/Kg			15	U	410	15	54	U	1500	54	29	U	820	29	38	U	1100	38	14	U	400	14	19	U	540	19	26	U	750	26
4-Methylphenol	106-44-5	8270E	µg/Kg		630000	26	U	410	26	95	U	1500	95	51	U	820	51	68	U	1100	68	25	U	400	25	34	U	540	34	47	U	750	47
4-Nitroaniline	100-01-6	8270E	µg/Kg	21900 (6)	27000	48	U	410	48	170	U	1500	170	95	U	820	95	120	U	1100	120	46	U	400	46	62	U	540	62	86	U	750	86
4-Nitrophenol	100-02-7	8270E	µg/Kg	5120 (5)		68	U	840	68	250	U	3100	250	130	U	1700	130	180	UJ	2200	180	66	UJ	820	66	88	U	1100	88	120	U	1500	120
Acetophenone	98-86-2	8270E	µg/Kg	300000 (6)	7800000	20	U	410	20	75	U	1500	75	40	U	820	40	53	U	1100	53	20	U	400	20	27	U	540	27	37	U	750	37
Atrazine	1912-24-9	8270E	µg/Kg		220000	24	U	170	24	89	U	610	89	48	U	330	48	64	U	430	64	24	U	160	24	32	U	220	32	44	U	300	44
Benzaldehyde	100-52-7	8270E	µg/Kg		170000	69	UJ	410	69	250	UJ	1500	250	140	UJ	820	140	180	UJ	1100	180	67	UJ	400	67	330	J	540	89	120	UJ	750	120
Bis(2-chloroethoxy)methane	111-91-1	8270E	µg/Kg		190000	32	U	410	32	120	U	1500	120	64	U	820	64	84	U	1100	84	31	U	400	31	42	U	540	42	58	U	750	58
Bis(2-chloroethyl)ether	111-44-4	8270E	µg/Kg	23700 (5)	630	14	U	41	14	53	U	150	53	29	U	82	29	38	U	110	38	14	U	40	14	19	U	54	19	26	U	75	26
Bis(2-ethylhexyl) phthalate	117-81-7	8270E	µg/Kg	925 (5)	39000	22	U	410	22	80	U	1500	80	44	U	820	44	600000		54000	2900	21	U	400	21	160	J	540	29	520	J	750	40
Butyl benzyl phthalate	85-68-7	8270E	µg/Kg	239 (5)	290000	19	U	410	19	71	U	1500	71	39	U	820	39	51	U	1100	51	19	U	400	19	25	U	540	25	77	J	750	35
Caprolactam	105-60-2	8270E	µg/Kg		32000000	65	U	410	65	240	U	1500	240	130	U	820	130	170	U	1100	170	63	U	400	63	84	U	540	84	120	U	750	120
Carbazole	86-74-8	8270E	µg/Kg	79000 (7)		16	U	410	16	58	U	1500	58	31	U	820	31	41	U	1100	41	15	U	400	15	21	U	540	21	28	U	750	28
Dibenzofuran	132-64-9	8270E	µg/Kg	6100 (7)		5.8	U	410	5.8	21	U	1500	21	12	U	820	12	15	U	1100	15	5.7	U	400	5.7	7.6	U	540	7.6	28	J	750	11
Diethyl phthalate	84-66-2	8270E	µg/Kg	24800 (5)	51000000	12	J	410	6	22	U	1500	22	12	U	820	12	16	U	1100	16	5.8	U	400	5.8	7.8	U	540	7.8	11	U	750	11
Dimethyl phthalate	131-11-3	8270E	µg/Kg	38000 (7)		94	U	410	94	350	U	1500	350	190	U	820	190	250	U	1100	250	92	U	400	92	120	U	540	120	170	U	750	170
Di-n-butyl phthalate	84-74-2	8270E	µg/Kg	150 (5)	6300000	16	U	410	16	100	J	1500	57	31	U	820	31	41	U	1100	41	15	U	400	15	20	U	540	20	65	J	750	28
Di-n-octyl phthalate	117-84-0	8270E	µg/Kg	910 (7)	630000	22	U	410	22	80	U	1500	80	44	U	820	44	57	U	1100	57	21	U	400	21	29	U	540	29	40	U	750	40
Hexachlorobenzene	118-74-1	8270E	µg/Kg	199 (5)	430	20	U	41	20	72	U	150	72	39	U	82	39	51	U	110	51	19	U	40	19	26	U	54	26	36	U	75	36
Hexachlorobutadiene	87-68-3	8270E	µg/Kg	39.8 (5)	8900	8.8	U	84	8.8	32	U	310	32	18	U	170	18	23	U	220	23	8.6	U	82	8.6	12	U	110	12	16	U	150	16
Hexachlorocyclopentadiene	77-47-4	8270E	µg/Kg	755 (5)	470000	36	U	410	36	130	U	1500	130	72	U	820	72	95	U	1100	95	35	U	400	35	47	U	540	47	66	U	750	66
Hexachloroethane	67-72-1	8270E	µg/Kg	596 (5)	17000	14	U	41	14	52	U	150	52	28	U	82	28	37	U	110	37	14	U	40	14	19	U	54	19	26	U	75	26
Isophorone	78-59-1	8270E	µg/Kg	139000 (5)	570000	120	U	170	120	440	U	610	440	240	U	330	240	310	U	430	310	120	U	160	120	160	U	220	160	220	U	300	220
Nitrobenzene	98-95-3	8270E	µg/Kg	1310 (5)	160000	10	U	41	10	36	U	150	36	20	U	82	20	26	U	110	26	9.7	U	40	9.7	13	U	54	13	18	U	75	18
N-Nitrosodi-n-propylamine	621-64-7	8270E	µg/Kg		170	30	U	41	30	110	U	150	110	60	U	82	60	79	U	110	79	29	U	40	29	39	U	54	39	54	U	75	54
N-Nitrosodiphenylamine	86-30-6	8270E	µg/Kg	545 (5)	110000	34	U	410	34	120	U	1500	120	68	U	820	68	89	U	1100	89	33	U	400	33	44	U	540	44	61	U	750	61
Pentachlorophenol	87-86-5	8270E	µg/Kg	2100 (3)	1000	85	U	330	85	310	U	1200	310	170	U	660	170	220	U	870	220	83	U	320	83	110	U	430	110	150	U	600	150
Phenol	108-95-2	8270E	µg/Kg	30000 (5)	19000000	15	U	410	15	56	U	1500	56	30	U	820	30	75	J	1100	40	15	U	400	15	20	U	540	20	28	U	750	28

Table 5.3 - Soil: Semi-Volatile Organic Constituents (SVOCs) Analytical Results

(continued)

Rolling Knolls Landfill

Sample Name				ESC's	NJAC 7:26D	DP22_3.0-5.0				DP23_0.5-2.5				DP23_2.5-3.0				DP24_0.5-2.5				DP24_2.5-3.0				DP25_1.0-1.5				DP26_0.5-3.5			
Sample Date/Time						05/04/2021 11:00				05/10/2021 16:05				05/10/2021 16:20				05/14/2021 10:10				05/14/2021 10:15				05/06/2021 15:20				05/07/2021 08:45			
Latitude						40.7234467				40.7234761				40.7234761				40.7234047				40.7234047				40.7234932				40.7240722			
Longitude						-74.4453029				-74.4461556				-74.4461556				-74.4467553				-74.4467553				-74.4473376				-74.4463803			
Lab Sample Name				Screening Criteria	(8) Soil Remediation Standards (Ing.-Derm.) - Residential	GS-S-DPT22-SB-3-5				GS-S-DPT23-SC-0.5-2.5				GS-S-DPT23-SB-2.5-3.0				GS-S-DPT24-SC-0.5-2.5				GS-S-DPT24-SB-2.5-3.0				GS-S-DPT25-SB-1-1.5				GS-S-DPT26-SC-0.5-3.5			
Lab Sample Number						460-233706-3				460-234080-5				460-234080-6				460-234442-2				460-234442-3				460-233899-6				460-233940-2			
Lab Report Number(s)						460-233706-1				460-234080-1				460-234080-1				460-234442-1				460-234442-1				460-233899-1				460-233940-1			
Analyte	CAS	Method	Units			Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)
Polycyclic Aromatic Hydrocarbons (PAHs)																																
Acenaphthene	83-32-9	8270E	µg/Kg	20000 (5)	3600000	12	U	410	12	43	U	1500	43	23	U	820	23	31	U	1100	31	11	U	400	11	15	U	540	15	21	U	750	21
Acenaphthylene	208-96-8	8270E	µg/Kg	682000 (5)		4.2	U	410	4.2	15	U	1500	15	8.3	U	820	8.3	11	U	1100	11	4.1	U	400	4.1	5.4	U	540	5.4	7.5	U	750	7.5
Anthracene	120-12-7	8270E	µg/Kg	1480000 (5)	18000000	13	U	410	13	46	U	1500	46	25	U	820	25	33	U	1100	33	12	U	400	12	16	U	540	16	23	U	750	23
Fluorene	86-73-7	8270E	µg/Kg	122000 (5)	2400000	11	J	410	5.6	21	U	1500	21	11	U	820	11	15	U	1100	15	5.5	U	400	5.5	14	J	540	7.3	54	J	750	10
Naphthalene	91-20-3	8270E	µg/Kg	99.4 (5)	2500000	7.2	U	410	7.2	26	U	1500	26	14	U	820	14	64	J	1100	19	7	U	400	7	9.3	U	540	9.3	74	J	750	13
Phenanthrene	85-01-8	8270E	µg/Kg	45700 (5)		23	J	410	7.3	27	U	1500	27	14	U	820	14	57	J	1100	19	7.1	U	400	7.1	120	J	540	9.5	100	J	750	13
Benzo[a]anthracene	56-55-3	8270E	µg/Kg	5210 (5)	5100	23	J	41	14	53	U	150	53	29	U	82	29	41	J	110	38	14	U	40	14	22	J	54	19	26	U	75	26
Benzo[a]pyrene	50-32-8	8270E	µg/Kg	1520 (5)	510	17	J	41	11	40	U	150	40	22	U	82	22	29	U	110	29	11	U	40	11	28	J	54	14	23	J	75	20
Benzo[b]fluoranthene	205-99-2	8270E	µg/Kg	59800 (5)	5100	19	J	41	11	39	U	150	39	21	U	82	21	59	J	110	28	10	U	40	10	47	J	54	14	41	J	75	19
Benzo[g,h,i]perylene	191-24-2	8270E	µg/Kg	119000 (5)		15	J	410	12	45	U	1500	45	24	U	820	24	32	U	1100	32	12	U	400	12	17	J	540	16	22	U	750	22
Benzo[k]fluoranthene	207-08-9	8270E	µg/Kg	148000 (5)	51000	15	J	41	8.1	30	U	150	30	16	U	82	16	21	U	110	21	7.9	U	40	7.9	18	J	54	11	15	U	75	15
Chrysene	218-01-9	8270E	µg/Kg	4730 (5)	510000	17	J	410	7	26	U	1500	26	14	U	820	14	56	J	1100	18	6.8	U	400	6.8	27	J	540	9.1	36	J	750	13
Dibenz(a,h)anthracene	53-70-3	8270E	µg/Kg	18400 (5)	510	18	U	41	18	66	U	150	66	36	U	82	36	47	U	110	47	17	U	40	17	23	U	54	23	32	U	75	32
Fluoranthene	206-44-0	8270E	µg/Kg	122000 (5)	2400000	21	J	410	15	53	U	1500	53	29	U	820	29	57	J	1100	38	14	U	400	14	38	J	540	19	72	J	750	26
Indeno[1,2,3-cd]pyrene	193-39-5	8270E	µg/Kg	109000 (5)	5100	16	J	41	16	59	U	150	59	32	U	82	32	42	U	110	42	16	U	40	16	21	J	54	21	29	U	75	29
Pyrene	129-00-0	8270E	µg/Kg	78500 (5)	1800000	25	J	410	10	38	U	1500	38	20	U	820	20	61	J	1100	27	10	U	400	10	49	J	540	13	59	J	750	19
Low Molecular Weight PAHs			µg/Kg	29000 (2)		70.4				178				95.3				211				46.7				179.7				279.5			
High Molecular Weight PAHs			µg/Kg	1100 (4)		186				449				243				445				118.7				290				355			

Table 5.3 - Soil: Semi-Volatile Organic Constituents (SVOCs) Analytical Results

(continued)

Rolling Knolls Landfill

Sample Name				ESC's	NJAC 7:26D	DP26_3.5-4.0				DP27_0.5-3.0				DP27_8.0-10.0				DP28_0.5-5.0				DP28_5.0-8.0				DP29_0.5-2.0				DP29_7.0-10.0			
Sample Date/Time						05/07/2021 09:00				05/05/2021 14:00				05/06/2021 10:15				05/05/2021 09:10				05/05/2021 08:40				05/06/2021 12:00				05/06/2021 12:45			
Latitude						40.7240722				40.7231759				40.7231759				40.7240805				40.7240805				40.7248365				40.7248365			
Longitude						-74.4463803				-74.4437423				-74.4437423				-74.4443078				-74.4443078				-74.4434245				-74.4434245			
Lab Sample Name				Screening Criteria	(8) Soil Remediation Standards (Ing.-Derm.) - Residential	GS-S-DPT26-SB-3.5-4				GS-S-DPT27-SC-0.5-3				GS-S-DPT27-SB-8-10				GS-S-DPT28-SC-0.5-5				GS-S-DPT28-SB-5-8				GS-S-DPT29-SC-0.5-2				GS-S-DPT29-SB-7-10			
Lab Sample Number						460-233940-3				460-233708-5				460-233899-1				460-233708-2				460-233708-3				460-233899-3				460-233899-4			
Lab Report Number(s)						460-233940-1				460-233708-1 / 460-233708-2				460-233899-1 / 460-233899-2				460-233708-1				460-233708-1				460-233899-1				460-233899-1			
Analyte	CAS	Method	Units			Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)
1,1'-Biphenyl	92-52-4	8270E	µg/Kg	60000 (5)	87000	10	U	760	10	8.8	U	660	8.8	5.1	U	380	5.1	260	J	1000	14	5.4	U	410	5.4	14	U	1100	14	29	U	2200	29
1,2,4,5-Tetrachlorobenzene	95-94-3	8270E	µg/Kg	2020 (5)	23000	24	U	760	24	21	U	660	21	12	U	380	12	32	U	1000	32	13	U	410	13	34	U	1100	34	68	U	2200	68
1,4-Dioxane	123-91-1	8270E	µg/Kg	1830 (7)	7000	66	U	76	66	58	U	66	58	33	U	38	33	89	U	100	89	36	U	41	36	95	U	110	95	190	U	220	190
2,2'-oxybis[1-chloropropane]	108-60-1	8270E	µg/Kg	19900 (5)	3100000	14	U	760	14	12	U	660	12	6.9	U	380	6.9	18	U	1000	18	7.4	U	410	7.4	20	U	1100	20	39	U	2200	39
2,3,4,6-Tetrachlorophenol	58-90-2	8270E	µg/Kg	199 (6)	1900000	52	U	760	52	45	U	660	45	26	U	380	26	69	U	1000	69	28	U	410	28	73	U	1100	73	150	U	2200	150
2,4,5-Trichlorophenol	95-95-4	8270E	µg/Kg	9000 (5)	6300000	78	U	760	78	67	U	660	67	39	U	380	39	100	U	1000	100	42	U	410	42	110	U	1100	110	220	U	2200	220
2,4,6-Trichlorophenol	88-06-2	8270E	µg/Kg	4000 (5)	49000	98	U	310	98	85	U	270	85	49	U	150	49	130	U	410	130	52	U	160	52	140	U	440	140	280	U	870	280
2,4-Dichlorophenol	120-83-2	8270E	µg/Kg	87500 (5)	190000	49	U	310	49	42	U	270	42	24	U	150	24	65	U	410	65	26	U	160	26	70	U	440	70	140	U	870	140
2,4-Dimethylphenol	105-67-9	8270E	µg/Kg	10 (5)	1300000	33	U	760	33	29	U	660	29	17	U	380	17	45	U	1000	45	18	U	410	18	48	U	1100	48	95	U	2200	95
2,4-Dinitrophenol	51-28-5	8270E	µg/Kg	60.9 (5)	130000	370	U	610	370	330	U	530	330	190	UJ	310	190	500	U	820	500	200	U	330	200	530	UJ	870	530	1100	UJ	1700	1100
2,4-Dinitrotoluene	121-14-2	8270E	µg/Kg	1280 (5)		82	U	150	82	71	U	130	71	41	U	77	41	110	U	210	110	44	U	83	44	120	U	220	120	230	U	440	230
2,6-Dinitrotoluene	606-20-2	8270E	µg/Kg	4000 (7)		55	U	150	55	48	U	130	48	28	UJ	77	28	74	U	210	74	30	U	83	30	78	UJ	220	78	160	UJ	440	160
2-Chloronaphthalene	91-58-7	8270E	µg/Kg	12.2 (5)	4800000	35	U	760	35	31	U	660	31	18	U	380	18	47	U	1000	47	19	U	410	19	50	U	1100	50	100	U	2200	100
2-Chlorophenol	95-57-8	8270E	µg/Kg	243 (5)	390000	27	U	760	27	24	U	660	24	14	U	380	14	36	U	1000	36	15	U	410	15	39	U	1100	39	77	U	2200	77
2-Methylnaphthalene	91-57-6	8270E	µg/Kg	3240 (5)	240000	21	U	760	21	20	J	660	19	11	U	380	11	15000		1000	28	11	U	410	11	30	U	1100	30	61	U	2200	61
2-Methylphenol	95-48-7	8270E	µg/Kg	580000 (7)	320000	28	U	760	28	25	U	660	25	14	U	380	14	38	U	1000	38	15	U	410	15	40	U	1100	40	81	U	2200	81
2-Nitroaniline	88-74-4	8270E	µg/Kg	5300 (7)		28	U	760	28	25	U	660	25	14	U	380	14	38	U	1000	38	15	U	410	15	41	U	1100	41	81	U	2200	81
2-Nitrophenol	88-75-5	8270E	µg/Kg	7000 (7)		76	U	760	76	66	U	660	66	38	UJ	380	38	100	U	1000	100	41	U	410	41	110	UJ	1100	110	220	UJ	2200	220
3,3'-Dichlorobenzidine	91-94-1	8270E	µg/Kg	646 (5)	1200	110	U	310	110	100	U	270	100	58	U	150	58	150	U	410	150	62	U	160	62	160	U	440	160	330	U	870	330
3-Nitroaniline	99-09-2	8270E	µg/Kg	3160 (6)		86	U	760	86	75	U	660	75	43	U	380	43	110	U	1000	110	46	U	410	46	120	U	1100	120	240	U	2200	240
4,6-Dinitro-2-methylphenol	534-52-1	8270E	µg/Kg			310	U	610	310	270	U	530	270	160	UJ	310	160	420	U	820	420	170	U	330	170	440	UJ	870	440	890	UJ	1700	890
4-Bromophenyl phenyl ether	101-55-3	8270E	µg/Kg			30	U	760	30	26	U	660	26	15	U	380	15	40	U	1000	40	16	U	410	16	43	U	1100	43	86	U	2200	86
4-Chloro-3-methylphenol	59-50-7	8270E	µg/Kg			43	U	760	43	37	U	660	37	21	U	380	21	57	U	1000	57	23	U	410	23	61	U	1100	61	120	U	2200	120
4-Chloroaniline	106-47-8	8270E	µg/Kg	1000 (7)	2700	130	U	760	130	120	U	660	120	68	U	380	68	180	U	1000	180	72	U	410	72	190	U	1100	190	390	U	2200	390
4-Chlorophenyl phenyl ether	7005-72-3	8270E	µg/Kg			27	U	760	27	23	U	660	23	13	U	380	13	36	U	1000	36	14	U	410	14	38	U	1100	38	77	U	2200	77
4-Methylphenol	106-44-5	8270E	µg/Kg		630000	48	U	760	48	41	U	660	41	24	U	380	24	64	U	1000	64	26	U	410	26	68	U	1100	68	140	U	2200	140
4-Nitroaniline	100-01-6	8270E	µg/Kg	21900 (6)	27000	87	U	760	87	76	U	660	76	44	U	380	44	120	U	1000	120	47	U	410	47	120	U	1100	120	250	U	2200	250
4-Nitrophenol	100-02-7	8270E	µg/Kg	5120 (5)		120	U	1500	120	110	U	1300	110	62	U	770	62	170	U	2100	170	67	U	830	67	180	U	2200	180	350	U	4400	350
Acetophenone	98-86-2	8270E	µg/Kg	300000 (6)	7800000	37	U	760	37	45	J	660	32	19	U	380	19	50	U	1000	50	20	U	410	20	130	J	1100	53	110	U	2200	110
Atrazine	1912-24-9	8270E	µg/Kg		220000	45	U	310	45	39	U	270	39	22	U	150	22	60	U	410	60	24	U	160	24	64	U	440	64	130	U	870	130
Benzaldehyde	100-52-7	8270E	µg/Kg		170000	130	UJ	760	130	150	J	660	110	63	UJ	380	63	170	UJ	1000	170	67	UJ	410	67	180	UJ	1100	180	360	UJ	2200	360
Bis(2-chloroethoxy)methane	111-91-1	8270E	µg/Kg		190000	59	U	760	59	52	U	660	52	30	U	380	30	79	U	1000	79	32	U	410	32	84	U	1100	84	170	U	2200	170
Bis(2-chloroethyl)ether	111-44-4	8270E	µg/Kg	23700 (5)	630	26	U	76	26	23	U	66	23	13	U	38	13	35	U	100	35	14	U	41	14	38	U	110	38	76	U	220	76
Bis(2-ethylhexyl) phthalate	117-81-7	8270E	µg/Kg	925 (5)	39000	100	J	760	40	1100		660	35	20	U	380	20	300	J	1000	54	22	U	410	22	13000		1100	57	110	U	2200	110
Butyl benzyl phthalate	85-68-7	8270E	µg/Kg	239 (5)	290000	36	U	760	36	31	U	660	31	18	U	380	18	48	U	1000	48	19	U	410	19	51	U	1100	51	100	U	2200	100
Caprolactam	105-60-2	8270E	µg/Kg		32000000	120	U	760	120	100	U	660	100	59	U	380	59	160	U	1000	160	64	U	410	64	170	U	1100	170	340	U	2200	340
Carbazole	86-74-8	8270E	µg/Kg	79000 (7)		29	U	760	29	47	J	660	25	15	U	380	15	39	U	1000	39	16	U	410	16	41	U	1100	41	83	U	2200	83
Dibenzofuran	132-64-9	8270E	µg/Kg	6100 (7)		11	U	760	11	28	J	660	9.3	5.4	U	380	5.4	120	J	1000	14	5.7	U	410	5.7	15	U	1100	15	30	U	2200	30
Diethyl phthalate	84-66-2	8270E	µg/Kg	24800 (5)	51000000	11	U	760	11	31	J	660	9.6	5.5	U	380	5.5	100	J	1000	15	5.9	U	410	5.9	97	J	1100	16	31	U	2200	31
Dimethyl phthalate	131-11-3	8270E	µg/Kg	38000 (7)		170	U	760	170	150	U	660	150	87	U	380	87	230	U	1000	230	93	U	410	93	250	U	1100	250	490	U	2200	490
Di-n-butyl phthalate	84-74-2	8270E	µg/Kg	150 (5)	6300000	29	U	760	29	61	J	660	25	14	U	380	14	4600		1000	38	15	U	410	15	230	J	1100	41	82	U	2200	82
Di-n-octyl phthalate	117-84-0	8270E	µg/Kg	910 (7)	630000	40	U	760	40	35	U	660	35	20	U	380	20	54	U	1000	54	22	U	410	22	57	U	1100	57	110	U	2200	110
Hexachlorobenzene	118-74-1	8270E	µg/Kg	199 (5)	430	36	U	76	36	31	U	66	31	18	U	38	18	48	U	100	48	19	U	41	19	51	U	110	51	100	U	220	100
Hexachlorobutadiene	87-68-3	8270E	µg/Kg	39.8 (5)	8900	16	U	150	16	14	U	130	14	8.1	U	77	8.1	22	U	210	22	8.7	U	83	8.7	23	U	220	23	46	U	440	46
Hexachlorocyclopentadiene	77-47-4	8270E	µg/Kg	755 (5)	470000	67	UJ	760	67	58	U	660	58	33	U	380	33	89	U	1000	89	36	U	410	36	95	U	1100	95	190	U	2200	190
Hexachloroethane	67-72-1	8270E	µg/Kg	596 (5)	17000	26	U	76	26	23	U	66	23	13	U	38	13	35	U	100	35	14	U	41	14	37	U	110	37	74	U	220	74
Isophorone	78-59-1	8270E	µg/Kg	139000 (5)	570000	220	U	310	220	190	U	270	190	110	U	150	110	290	U	410	290	120	U	160	120	310	U	440	310	630	U	870	630
Nitrobenzene	98-95-3	8270E	µg/Kg	1310 (5)	160000	18	U	76	18	16	U	66	16	9.1	U	38	9.1	24	U	100	24	9.8	U	41	9.8	26	U	110	26	52	U	220	52
N-Nitrosodi-n-propylamine	621-64-7	8270E	µg/Kg		170	55	U	76	55	48	U	66	48	28	U	38	28	74	U	100	74	30	U	41	30	79	U	110	79	160	U	220	160
N-Nitrosodiphenylamine	86-30-6	8270E	µg/Kg	545 (5)	110000	63	U	760	63	54	U	660	54	31	U	380	31	550	J	1000	84	34	U	410	34	89	U	1100	89	180	U	2200	180
Pentachlorophenol	87-86-5	8270E	µg/Kg	2100 (3)	1000	160	U	610	160	160	J	530	140	78	U	310	78	210	U	820	210	84	U	330	84	220	U	870	220	440	U	1700	440
Phenol	108-95-2	8270E	µg/Kg	30000 (5)	19000000	28	U	760	28	29	J	660	24	14	U	380	14	37	U	1000	37	15	U	410	15	40	U	1100	40	80	U	2200	80

Table 5.3 - Soil: Semi-Volatile Organic Constituents (SVOCs) Analytical Results

(continued)

Rolling Knolls Landfill

Sample Name				ESC's	NJAC 7:26D	DP26_3.5-4.0				DP27_0.5-3.0				DP27_8.0-10.0				DP28_0.5-5.0				DP28_5.0-8.0				DP29_0.5-2.0				DP29_7.0-10.0			
Sample Date/Time						05/07/2021 09:00				05/05/2021 14:00				05/06/2021 10:15				05/05/2021 09:10				05/05/2021 08:40				05/06/2021 12:00				05/06/2021 12:45			
Latitude						40.7240722				40.7231759				40.7231759				40.7240805				40.7240805				40.7248365				40.7248365			
Longitude						-74.4463803				-74.4437423				-74.4437423				-74.4443078				-74.4443078				-74.4434245				-74.4434245			
Lab Sample Name				Screening Criteria	(8) Soil Remediation Standards (Ing.-Derm.) - Residential	GS-S-DPT26-SB-3.5-4				GS-S-DPT27-SC-0.5-3				GS-S-DPT27-SB-8-10				GS-S-DPT28-SC-0.5-5				GS-S-DPT28-SB-5-8				GS-S-DPT29-SC-0.5-2				GS-S-DPT29-SB-7-10			
Lab Sample Number						460-233940-3				460-233708-5				460-233899-1				460-233708-2				460-233708-3				460-233899-3				460-233899-4			
Lab Report Number(s)						460-233940-1				460-233708-1 / 460-233708-2				460-233899-1 / 460-233899-2				460-233708-1				460-233708-1				460-233899-1				460-233899-1			
Analyte	**CAS**	**Method**	**Units**			**Result**	**LDC Flag**	**RL**	**MDL (EDL)**	**Result**	**LDC Flag**	**RL**	**MDL (EDL)**	**Result**	**LDC Flag**	**RL**	**MDL (EDL)**	**Result**	**LDC Flag**	**RL**	**MDL (EDL)**	**Result**	**LDC Flag**	**RL**	**MDL (EDL)**	**Result**	**LDC Flag**	**RL**	**MDL (EDL)**	**Result**	**LDC Flag**	**RL**	**MDL (EDL)**
Polycyclic Aromatic Hydrocarbons (PAHs)																															
Acenaphthene	83-32-9	8270E	µg/Kg	20000 (5)	3600000	22	U	760	22	27	J	660	19	11	U	380	11	570	J	1000	29	12	U	410	12	31	U	1100	31	62	U	2200	62
Acenaphthylene	208-96-8	8270E	µg/Kg	682000 (5)		7.6	U	760	7.6	6.7	U	660	6.7	3.8	U	380	3.8	10	U	1000	10	4.1	U	410	4.1	11	U	1100	11	22	U	2200	22
Anthracene	120-12-7	8270E	µg/Kg	1480000 (5)	18000000	23	U	760	23	180	J	660	20	12	U	380	12	31	U	1000	31	12	U	410	12	33	U	1100	33	66	U	2200	66
Fluorene	86-73-7	8270E	µg/Kg	122000 (5)	2400000	10	U	760	10	48	J	660	9	5.2	U	380	5.2	110	J	1000	14	5.5	U	410	5.5	15	U	1100	15	29	U	2200	29
Naphthalene	91-20-3	8270E	µg/Kg	99.4 (5)	2500000	13	U	760	13	35	J	660	11	6.6	U	380	6.6	570	J	1000	18	7.1	U	410	7.1	19	U	1100	19	38	U	2200	38
Phenanthrene	85-01-8	8270E	µg/Kg	45700 (5)		33	J	760	13	690		660	12	6.7	U	380	6.7	71	J	1000	18	7.2	U	410	7.2	63	J	1100	19	38	U	2200	38
Benzo[a]anthracene	56-55-3	8270E	µg/Kg	5210 (5)	5100	27	U	76	27	390		66	23	13	U	38	13	36	U	100	36	14	U	41	14	59	J	110	38	76	U	220	76
Benzo[a]pyrene	50-32-8	8270E	µg/Kg	1520 (5)	510	20	U	76	20	340		66	18	10	U	38	10	27	U	100	27	11	U	41	11	48	J	110	29	58	U	220	58
Benzo[b]fluoranthene	205-99-2	8270E	µg/Kg	59800 (5)	5100	20	U	76	20	440		66	17	9.9	U	38	9.9	32	J	100	26	11	U	41	11	75	J	110	28	56	U	220	56
Benzo[g,h,i]perylene	191-24-2	8270E	µg/Kg	119000 (5)		22	U	760	22	180	J	660	20	11	U	380	11	30	U	1000	30	12	U	410	12	59	J	1100	32	64	U	2200	64
Benzo[k]fluoranthene	207-08-9	8270E	µg/Kg	148000 (5)	51000	15	U	76	15	160		66	13	7.5	U	38	7.5	20	U	100	20	8	U	41	8	26	J	110	21	43	U	220	43
Chrysene	218-01-9	8270E	µg/Kg	4730 (5)	510000	13	U	760	13	340	J	660	11	6.4	U	380	6.4	26	J	1000	17	6.9	UJ	410	6.9	63	J	1100	18	37	U	2200	37
Dibenz(a,h)anthracene	53-70-3	8270E	µg/Kg	18400 (5)	510	33	U	76	33	65	J	66	29	16	U	38	16	44	U	100	44	18	U	41	18	47	U	110	47	94	U	220	94
Fluoranthene	206-44-0	8270E	µg/Kg	122000 (5)	2400000	31	J	760	27	730		660	23	13	U	380	13	40	J	1000	36	14	U	410	14	54	J	1100	38	76	U	2200	76
Indeno[1,2,3-cd]pyrene	193-39-5	8270E	µg/Kg	109000 (5)	5100	30	U	76	30	230		66	26	15	U	38	15	40	U	100	40	16	U	41	16	42	U	110	42	85	U	220	85
Pyrene	129-00-0	8270E	µg/Kg	78500 (5)	1800000	19	U	760	19	660		660	16	9.5	U	380	9.5	25	U	1000	25	10	U	410	10	61	J	1100	27	54	U	2200	54
Low Molecular Weight PAHs			µg/Kg	29000 (2)		108.6				986.7				45.3				1362				47.9				172				255			
High Molecular Weight PAHs			µg/Kg	1100 (4)		230				3535				111.3				320				120.9				534				643			

Table 5.3 - Soil: Semi-Volatile Organic Constituents (SVOCs) Analytical Results (continued)

Rolling Knolls Landfill

Sample Name				ESC's	NJAC 7:26D	DP30_0.5-3.0				DP30_7.5-8.0				DP30_8.0-9.0				DP31_0.5-5.0			
Sample Date/Time						05/13/2021 15:40				05/13/2021 16:20				05/13/2021 16:20				05/14/2021 09:10			
Latitude						40.7266724				40.7266724				40.7266724				40.7237372			
Longitude						-74.4405011				-74.4405011				-74.4405011				-74.4477876			
Lab Sample Name				Screening Criteria	(8) Soil Remediation Standards (Ing.-Derm.) - Residential	GS-S-DPT30-SC-0.5-3.0				GS-S-DPT30-SO-7.5-8.0				GS-N-DPT30-SB-8.0-9.0				GS-S-DPT31-SC-0.5-5.0			
Lab Sample Number						460-234436-5				460-234436-6				460-234436-7				460-234442-5			
Lab Report Number(s)						460-234436-1				460-234436-1				460-234436-1				460-234442-1			
Analyte	CAS	Method	Units			Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)
1,1'-Biphenyl	92-52-4	8270E	µg/Kg	60000 (5)	87000	10	U	780	10	18	U	1400	18	150	J	1200	16	5.5	U	410	5.5
1,2,4,5-Tetrachlorobenzene	95-94-3	8270E	µg/Kg	2020 (5)	23000	24	U	780	24	42	U	1400	42	37	U	1200	37	13	U	410	13
1,4-Dioxane	123-91-1	8270E	µg/Kg	1830 (7)	7000	69	U	78	69	120	U	140	120	100	U	120	100	36	U	41	36
2,2'-oxybis[1-chloropropane]	108-60-1	8270E	µg/Kg	19900 (5)	3100000	14	UJ	780	14	25	UJ	1400	25	22	UJ	1200	22	7.5	UJ	410	7.5
2,3,4,6-Tetrachlorophenol	58-90-2	8270E	µg/Kg	199 (6)	1900000	53	U	780	53	92	U	1400	92	81	U	1200	81	28	U	410	28
2,4,5-Trichlorophenol	95-95-4	8270E	µg/Kg	9000 (5)	6300000	80	U	780	80	140	U	1400	140	120	U	1200	120	42	U	410	42
2,4,6-Trichlorophenol	88-06-2	8270E	µg/Kg	4000 (5)	49000	100	U	320	100	170	U	550	170	150	U	480	150	53	U	170	53
2,4-Dichlorophenol	120-83-2	8270E	µg/Kg	87500 (5)	190000	50	U	320	50	87	U	550	87	76	U	480	76	26	U	170	26
2,4-Dimethylphenol	105-67-9	8270E	µg/Kg	10 (5)	1300000	42	J	780	35	60	U	1400	60	52	U	1200	52	18	U	410	18
2,4-Dinitrophenol	51-28-5	8270E	µg/Kg	60.9 (5)	130000	390	U	630	390	670	U	1100	670	590	U	960	590	200	U	330	200
2,4-Dinitrotoluene	121-14-2	8270E	µg/Kg	1280 (5)		85	U	160	85	150	U	280	150	130	U	240	130	44	U	84	44
2,6-Dinitrotoluene	606-20-2	8270E	µg/Kg	4000 (7)		57	U	160	57	98	U	280	98	86	U	240	86	30	U	84	30
2-Chloronaphthalene	91-58-7	8270E	µg/Kg	12.2 (5)	4800000	36	U	780	36	63	U	1400	63	55	U	1200	55	19	U	410	19
2-Chlorophenol	95-57-8	8270E	µg/Kg	243 (5)	390000	28	U	780	28	48	U	1400	48	42	U	1200	42	15	U	410	15
2-Methylnaphthalene	91-57-6	8270E	µg/Kg	3240 (5)	240000	22	U	780	22	61	J	1400	38	560	J	1200	33	12	U	410	12
2-Methylphenol	95-48-7	8270E	µg/Kg	580000 (7)	320000	29	U	780	29	51	U	1400	51	44	U	1200	44	15	U	410	15
2-Nitroaniline	88-74-4	8270E	µg/Kg	5300 (7)		29	U	780	29	51	U	1400	51	45	U	1200	45	15	U	410	15
2-Nitrophenol	88-75-5	8270E	µg/Kg	7000 (7)		79	U	780	79	140	U	1400	140	120	U	1200	120	41	U	410	41
3,3'-Dichlorobenzidine	91-94-1	8270E	µg/Kg	646 (5)	1200	120	U	320	120	210	U	550	210	180	U	480	180	62	U	170	62
3-Nitroaniline	99-09-2	8270E	µg/Kg	3160 (6)		88	U	780	88	150	U	1400	150	130	U	1200	130	47	U	410	47
4,6-Dinitro-2-methylphenol	534-52-1	8270E	µg/Kg			320	U	630	320	550	U	1100	550	490	U	960	490	170	U	330	170
4-Bromophenyl phenyl ether	101-55-3	8270E	µg/Kg			31	U	780	31	54	U	1400	54	47	U	1200	47	16	U	410	16
4-Chloro-3-methylphenol	59-50-7	8270E	µg/Kg			44	U	780	44	76	U	1400	76	67	U	1200	67	23	U	410	23
4-Chloroaniline	106-47-8	8270E	µg/Kg	1000 (7)	2700	140	U	780	140	240	U	1400	240	210	U	1200	210	73	U	410	73
4-Chlorophenyl phenyl ether	7005-72-3	8270E	µg/Kg			28	U	780	28	48	U	1400	48	42	U	1200	42	15	U	410	15
4-Methylphenol	106-44-5	8270E	µg/Kg		630000	110	J	780	49	85	U	1400	85	290	J	1200	74	26	U	410	26
4-Nitroaniline	100-01-6	8270E	µg/Kg	21900 (6)	27000	90	U	780	90	160	U	1400	160	140	U	1200	140	47	U	410	47
4-Nitrophenol	100-02-7	8270E	µg/Kg	5120 (5)		130	UJ	1600	130	220	UJ	2800	220	190	UJ	2400	190	67	UJ	840	67
Acetophenone	98-86-2	8270E	µg/Kg	300000 (6)	7800000	96	J	780	39	67	U	1400	67	58	U	1200	58	20	U	410	20
Atrazine	1912-24-9	8270E	µg/Kg		220000	46	U	320	46	80	U	550	80	70	U	480	70	24	U	170	24
Benzaldehyde	100-52-7	8270E	µg/Kg		170000	170	J	780	130	300	J	1400	220	330	J	1200	200	68	UJ	410	68
Bis(2-chloroethoxy)methane	111-91-1	8270E	µg/Kg		190000	61	U	780	61	110	U	1400	110	93	U	1200	93	32	U	410	32
Bis(2-chloroethyl)ether	111-44-4	8270E	µg/Kg	23700 (5)	630	27	U	78	27	47	U	140	47	41	U	120	41	14	U	41	14
Bis(2-ethylhexyl) phthalate	117-81-7	8270E	µg/Kg	925 (5)	39000	730	J	780	42	130	J	1400	72	2400		1200	63	22	U	410	22
Butyl benzyl phthalate	85-68-7	8270E	µg/Kg	239 (5)	290000	2400		780	37	64	U	1400	64	56	U	1200	56	19	U	410	19
Caprolactam	105-60-2	8270E	µg/Kg		32000000	120	U	780	120	210	U	1400	210	190	U	1200	190	64	U	410	64
Carbazole	86-74-8	8270E	µg/Kg	79000 (7)		30	U	780	30	52	U	1400	52	49	J	1200	45	16	U	410	16
Dibenzofuran	132-64-9	8270E	µg/Kg	6100 (7)		11	U	780	11	19	U	1400	19	100	J	1200	17	5.8	U	410	5.8
Diethyl phthalate	84-66-2	8270E	µg/Kg	24800 (5)	51000000	46	J	780	11	20	U	1400	20	340	J	1200	17	6	U	410	6
Dimethyl phthalate	131-11-3	8270E	µg/Kg	38000 (7)		180	U	780	180	310	U	1400	310	270	U	1200	270	94	U	410	94
Di-n-butyl phthalate	84-74-2	8270E	µg/Kg	150 (5)	6300000	350	J	780	30	51	U	1400	51	130	J	1200	45	16	U	410	16
Di-n-octyl phthalate	117-84-0	8270E	µg/Kg	910 (7)	630000	42	U	780	42	72	U	1400	72	63	U	1200	63	22	U	410	22
Hexachlorobenzene	118-74-1	8270E	µg/Kg	199 (5)	430	37	U	78	37	65	U	140	65	57	U	120	57	20	U	41	20
Hexachlorobutadiene	87-68-3	8270E	µg/Kg	39.8 (5)	8900	17	U	160	17	29	U	280	29	25	U	240	25	8.8	U	84	8.8
Hexachlorocyclopentadiene	77-47-4	8270E	µg/Kg	755 (5)	470000	69	U	780	69	120	U	1400	120	100	U	1200	100	36	U	410	36
Hexachloroethane	67-72-1	8270E	µg/Kg	596 (5)	17000	27	U	78	27	47	U	140	47	41	U	120	41	14	U	41	14
Isophorone	78-59-1	8270E	µg/Kg	139000 (5)	570000	230	U	320	230	390	U	550	390	340	U	480	340	120	U	170	120
Nitrobenzene	98-95-3	8270E	µg/Kg	1310 (5)	160000	19	U	78	19	33	U	140	33	29	U	120	29	9.9	U	41	9.9
N-Nitrosodi-n-propylamine	621-64-7	8270E	µg/Kg		170	57	U	78	57	99	U	140	99	87	U	120	87	30	U	41	30
N-Nitrosodiphenylamine	86-30-6	8270E	µg/Kg	545 (5)	110000	65	U	780	65	290	J	1400	110	13000		1200	98	34	U	410	34
Pentachlorophenol	87-86-5	8270E	µg/Kg	2100 (3)	1000	160	U	630	160	280	U	1100	280	240	U	960	240	85	U	330	85
Phenol	108-95-2	8270E	µg/Kg	30000 (5)	19000000	29	U	780	29	64	J	1400	50	66	J	1200	44	15	U	410	15

Table 5.3 - Soil: Semi-Volatile Organic Constituents (SVOCs) Analytical Results (continued)

Rolling Knolls Landfill

	Sample Name			ESC's	NJAC 7:26D	DP30_0.5-3.0				DP30_7.5-8.0				DP30_8.0-9.0				DP31_0.5-5.0			
	Sample Date/Time					05/13/2021 15:40				05/13/2021 16:20				05/13/2021 16:20				05/14/2021 09:10			
	Latitude					40.7266724				40.7266724				40.7266724				40.7237372			
	Longitude			Screening Criteria	(8) Soil Remediation Standards (Ing.-Derm.) - Residential	-74.4405011				-74.4405011				-74.4405011				-74.4477876			
	Lab Sample Name					GS-S-DPT30-SC-0.5-3.0				GS-S-DPT30-SO-7.5-8.0				GS-N-DPT30-SB-8.0-9.0				GS-S-DPT31-SC-0.5-5.0			
	Lab Sample Number					460-234436-5				460-234436-6				460-234436-7				460-234442-5			
	Lab Report Number(s)					460-234436-1				460-234436-1				460-234436-1				460-234442-1			
Analyte	CAS	Method	Units			Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)
Polycyclic Aromatic Hydrocarbons (PAHs)																					
Acenaphthene	83-32-9	8270E	µg/Kg	20000 (5)	3600000	22	U	780	22	39	U	1400	39	67	J	1200	34	12	U	410	12
Acenaphthylene	208-96-8	8270E	µg/Kg	682000 (5)		7.9	U	780	7.9	14	U	1400	14	12	U	1200	12	4.2	U	410	4.2
Anthracene	120-12-7	8270E	µg/Kg	1480000 (5)	18000000	24	U	780	24	41	U	1400	41	36	U	1200	36	13	U	410	13
Fluorene	86-73-7	8270E	µg/Kg	122000 (5)	2400000	11	U	780	11	18	U	1400	18	140	J	1200	16	5.6	U	410	5.6
Naphthalene	91-20-3	8270E	µg/Kg	99.4 (5)	2500000	51	J	780	14	200	J	1400	24	790	J	1200	21	7.1	U	410	7.1
Phenanthrene	85-01-8	8270E	µg/Kg	45700 (5)		82	J	780	14	130	J	1400	24	450	J	1200	21	13	J	410	7.3
Benzo[a]anthracene	56-55-3	8270E	µg/Kg	5210 (5)	5100	88		78	27	73	J	140	47	96	J	120	42	14	U	41	14
Benzo[a]pyrene	50-32-8	8270E	µg/Kg	1520 (5)	510	95		78	21	58	J	140	36	62	J	120	32	11	U	41	11
Benzo[b]fluoranthene	205-99-2	8270E	µg/Kg	59800 (5)	5100	160		78	20	160		140	35	110	J	120	31	18	J	41	11
Benzo[g,h,i]perylene	191-24-2	8270E	µg/Kg	119000 (5)		420	J	780	23	81	J	1400	40	64	J	1200	35	12	U	410	12
Benzo[k]fluoranthene	207-08-9	8270E	µg/Kg	148000 (5)	51000	60	J	78	15	67	J	140	27	35	J	120	23	8.1	U	41	8.1
Chrysene	218-01-9	8270E	µg/Kg	4730 (5)	510000	140	J	780	13	120	J	1400	23	130	J	1200	20	13	J	410	7
Dibenz(a,h)anthracene	53-70-3	8270E	µg/Kg	18400 (5)	510	34	U	78	34	59	U	140	59	52	U	120	52	18	U	41	18
Fluoranthene	206-44-0	8270E	µg/Kg	122000 (5)	2400000	190	J	780	27	150	J	1400	47	210	J	1200	42	17	J	410	14
Indeno[1,2,3-cd]pyrene	193-39-5	8270E	µg/Kg	109000 (5)	5100	110		78	31	91	J	140	53	56	J	120	47	16	U	41	16
Pyrene	129-00-0	8270E	µg/Kg	78500 (5)	1800000	220	J	780	20	140	J	1400	34	230	J	1200	30	10	U	410	10
Low Molecular Weight PAHs			µg/Kg	29000 (2)		197.9				442				1495				54.9			
High Molecular Weight PAHs			µg/Kg	1100 (4)		1517				999				1045				137.1			

Table 5.4 - Soil: Dioxins and Furans Analytical Results

Rolling Knolls Landfill

Sample Name				NJDEP Avian TEF's	ESC's	NJAC 7:26D	SS01				SS13				SS14				SS15				SS18				SS27				DP01_0.5-8.5			
Sample Date/Time							05/11/2021 08:35				05/10/2021 12:10				05/03/2021 10:40				05/03/2021 15:30				05/10/2021 13:30				05/05/2021 13:30				05/11/2021 09:10			
Latitude							40.7297321				40.7221319				40.7222989				40.7226573				40.7226388				40.7231759				40.7297321			
Longitude				Toxicity Equivalence Factor (TEF)	Screening Criteria	(8) Soil Remediation Standards (Ing.-Derm.) - Residential	-74.4419101				-74.4453061				-74.4446187				-74.4446863				-74.4459762				-74.4437423				-74.4419101			
Lab Sample Name							GS-N-SS01				GS-S-SS13				GS-S-SS14				GS-S-SS15				GS-S-SS18				GS-S-SS27				GS-N-DPT01-SC-0.5-8.5			
Lab Sample Number							460-234161-1				460-234082-3				460-233488-4				460-233506-3				460-234084-1				460-233708-4				460-234161-2			
Lab Report Number(s)							460-234161-1 / 460-234161-2				460-234082-1 / 460-234082-2				460-233488-1 / 460-233488-2				460-233506-1 / 460-233506-2				460-234084-1				460-233708-1 / 460-233708-2				460-234161-1 / 460-234161-2			
Analyte	CAS	Method	Units				Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)
1,2,3,4,6,7,8-HpCDD	35822-46-9	8290A	pg/g				6980		102	23.8	3850		86	14.6	3310		12.3	7.99	3170	J	18	9.76	1630		45.4	13.4	3800	J	27.7	27.7	3190		11.3	7.18
1,2,3,4,6,7,8-HpCDF	67562-39-4	8290A	pg/g				600		10.2	5.09	299		8.6	2.6	730		12.3	4.68	420	J	18	3.71	290		45.4	5.68	316		7.81	5.72	272		11.3	2.51
1,2,3,4,7,8,9-HpCDF	55673-89-7	8290A	pg/g				33.8		10.2	5.92	23.9		8.6	3.02	30.4		12.3	5.44	18.8	J	18	4.32	16.9	J	45.4	6.61	21.1		7.81	6.65	23.4		11.3	2.92
1,2,3,4,7,8-HxCDD	39227-28-6	8290A	pg/g				27.5		10.2	2.48	6.31	J	8.6	0.92	5.63	J	12.3	1.47	5.43	J	18	1	5.41	J	45.4	2.17	6.7	J	7.81	1.2	9.64	J	11.3	1.48
1,2,3,4,7,8-HxCDF	70648-26-9	8290A	pg/g				52.7		10.2	2.79	44.6		8.6	1.52	21.6		12.3	3.07	16.6	J	18	3.38	18.6	J	45.4	4.24	17.6		7.81	2.02	51.3		11.3	1.3
1,2,3,6,7,8-HxCDD	57653-85-7	8290A	pg/g				174		10.2	2.37	58.6		8.6	0.88	70.9		12.3	1.4	61.7		18	0.96	43.2	J	45.4	2.07	60.4		7.81	1.15	66.3		11.3	1.41
1,2,3,6,7,8-HxCDF	57117-44-9	8290A	pg/g				31.8		10.2	2.69	18.7		8.6	1.47	11.5	J	12.3	2.96	9.03	J	18	3.25	15.6	J	45.4	4.08	8.19	J	7.81	1.95	23.3		11.3	1.25
1,2,3,7,8,9-HxCDD	19408-74-3	8290A	pg/g				94.2		10.2	2.26	24		8.6	0.84	15.7		12.3	1.33	15.2	J	18	0.91	16.8	J	45.4	1.97	18		7.81	1.09	29.2		11.3	1.34
1,2,3,7,8,9-HxCDF	72918-21-9	8290A	pg/g				2.84	U	10.2	2.84	1.55	U	8.6	1.55	3.12	U	12.3	3.12	3.43	U	18	3.43	4.3	U	45.4	4.3	2.06	U	7.81	2.06	1.72	J	11.3	1.37
1,2,3,7,8-PeCDD	40321-76-4	8290A	pg/g				22.1		10.2	2.58	6.08	J	8.6	1.39	3.56	J	12.3	1.57	1.84	U	18	1.84	4.22	U	45.4	4.22	2.37	J	7.81	1.03	8.69	J	11.3	3.05
1,2,3,7,8-PeCDF	57117-41-6	8290A	pg/g				25.9		10.2	4.2	7.01	J	8.6	0.7	4.44	J	12.3	1.64	4.09	J	18	1.76	3.42	U	45.4	3.42	3.85	J	7.81	0.59	12.2		11.3	1.78
2,3,4,6,7,8-HxCDF	60851-34-5	8290A	pg/g				24.5		10.2	2.76	10.2		8.6	1.51	6.17	J	12.3	3.04	4.32	J	18	3.34	7.63	J	45.4	4.19	4.53	J	7.81	2	11	J	11.3	1.28
2,3,4,7,8-PeCDF	57117-31-4	8290A	pg/g				39.8		10.2	4.3	16.8		8.6	0.72	8.17	J	12.3	1.68	6.9	J	18	1.81	7.83	J	45.4	3.5	7.92		7.81	0.6	26.1		11.3	1.82
2,3,7,8-TCDD	1746-01-6	8290A	pg/g		0.199 (5)	51	15.9		2.04	0.87	3.43		1.72	0.34	4.95		2.45	0.82	3.98	J	3.59	0.48	3.94	J	9.07	1.98	4.69		1.56	0.37	9.24		2.27	0.7
2,3,7,8-TCDF	51207-31-9	8290A	pg/g		840 (5)		85.8		11.7	11.7	30.7		1.72	0.74	46.2		2.45	2.07	35		3.59	1.61	23.5		9.07	6.44	45.9		3.22	3.22	47.2		4.12	4.12
OCDD	3268-87-9	8290A	pg/g				93000	J	204	38.9	44900		172	13	60100		245	19.5	43600	J	35.9	16.6	16500		90.7	19.3	50700	J	47.6	47.6	38900	J	22.7	11.7
OCDF	39001-02-0	8290A	pg/g				2240		20.4	0.73	857		17.2	0.23	2390		24.5	0.59	2470	J	35.9	0.91	827		90.7	1.18	961		15.6	0.26	1020		22.7	0.28
Total HpCDD	37871-00-4	8290A	pg/g				12800		102	23.8	7440		86	14.6	6670		12.3	7.99	6170	J	18	9.76	3000		45.4	13.4	6960		27.7	27.7	6100		11.3	7.18
Total HpCDF	38998-75-3	8290A	pg/g				2270		10.2	5.5	1080		8.6	2.81	2580		12.3	5.06	2020	J	18	4.01	1100		45.4	6.15	1430		7.81	6.19	1000		11.3	2.71
Total HxCDD	34465-46-8	8290A	pg/g				1230		10.2	2.37	438	J	8.6	0.88	528		12.3	1.4	361		18	0.96	442	J	45.4	2.07	374		7.81	1.15	614	J	11.3	1.41
Total HxCDF	55684-94-1	8290A	pg/g				697		10.2	2.77	384		8.6	1.51	589		12.3	3.05	373		18	3.35	319		45.4	4.2	319	J	7.81	2.01	393		11.3	1.29
Total PeCDD	36088-22-9	8290A	pg/g				284	J	10.2	2.58	62.7	J	8.6	1.39	21.2		12.3	1.57	9.92	J	18	1.84	69	J	45.4	4.22	29.4	J	7.81	1.03	69	J	11.3	3.05
Total PeCDF	30402-15-4	8290A	pg/g				469	J	10.2	4.25	176		8.6	0.71	112	J	12.3	1.66	90.3	J	18	1.78	121		45.4	3.46	87.1	J	7.81	0.59	228		11.3	1.8
Total TCDD	41903-57-5	8290A	pg/g		0.199 (5)		192	J	2.04	0.87	34.8		1.72	0.34	25.1		2.45	0.82	35.1	J	3.59	0.48	49.7	J	9.07	1.98	27.6	J	1.56	0.37	63.6	J	2.27	0.7
Total TCDF	30402-14-3	8290A	pg/g		840 (5)		712		4.19	4.19	155		1.72	0.9	109		2.45	2.24	40.5		12.2	12.2	122	J	9.07	5.29	112		1.61	1.61	316		2.27	2.27
Chlorinated Dibenzo-p-dioxin TEQ Calculation																																		
1,2,3,4,6,7,8-HpCDD	35822-46-9	PCDD	pg/g	0.001			6.98				3.85				3.31				3.17				1.63				3.8				3.19			
1,2,3,4,7,8-HxCDD	39227-28-6	PCDD	pg/g	0.05			1.375				0.3155				0.2815				0.2715				0.2705				0.335				0.482			
1,2,3,6,7,8-HxCDD	57653-85-7	PCDD	pg/g	0.01			1.74				0.586				0.709				0.617				0.432				0.604				0.663			
1,2,3,7,8,9-HxCDD	19408-74-3	PCDD	pg/g	0.1			9.42				2.4				1.57				1.52				1.68				1.8				2.92			
1,2,3,7,8-PeCDD	40321-76-4	PCDD	pg/g	1			22.1				6.08				3.56				0				0				2.37				8.69			
2,3,7,8-TCDD	1746-01-6	PCDD	pg/g	1	0.199 (5)		15.9				3.43				4.95				3.98				3.94				4.69				9.24			
OCDD	3268-87-9	PCDD	pg/g	0.0001			9.3				4.49				6.01				4.36				1.65				5.07				3.89			
Σ Dibenzo-p-dioxin (PCDD) TEQ	30402-14-3		pg/g		0.199 (5)		67				21				20				14				10				19				29			
Chlorinated dibenzofuran TEQ Calculation																																		
1,2,3,4,6,7,8-HpCDF	67562-39-4	PCDF	pg/g	0.01			6				2.99				7.3				4.2				2.9				3.16				2.72			
1,2,3,4,7,8,9-HpCDF	55673-89-7	PCDF	pg/g	0.01			0.338				0.239				0.304				0.188				0.169				0.211				0.234			
1,2,3,4,7,8-HxCDF	70648-26-9	PCDF	pg/g	0.1			5.27				4.46				2.16				1.66				1.86				1.76				5.13			
1,2,3,6,7,8-HxCDF	57117-44-9	PCDF	pg/g	0.1			3.18				1.87				1.15				0.903				1.56				0.819				2.33			
1,2,3,7,8,9-HxCDF	72918-21-9	PCDF	pg/g	0.1			0				0				0				0				0				0				0.172			
1,2,3,7,8-PeCDF	57117-41-6	PCDF	pg/g	0.1			2.59				0.701				0.444				0.409				0				0.385				1.22			
2,3,4,6,7,8-HxCDF	60851-34-5	PCDF	pg/g	0.1			2.45				1.02				0.617				0.432				0.763				0.453				1.1			
2,3,4,7,8-PeCDF	57117-31-4	PCDF	pg/g	1			39.8				16.8				8.17				6.9				7.83				7.92				26.1			
2,3,7,8-TCDF	51207-31-9	PCDF	pg/g	1			85.8				30.7				46.2				35				23.5				45.9				47.2			
OCDF	39001-02-0	PCDF	pg/g	0.0001			0.224				0.0857				0.239				0.247				0.0827				0.0961				0.102			
Σ Dibenzofuran (PCDF) TEQ	30402-14-3		pg/g		0.199 (5)		145				59				66				50				39				61				86			
Σ PCB TEQ + PCDD TEQ + PCDF TEQ	30402-14-3		pg/g		0.199 (5)		912				203				418				1054				297				1739				2972			

Table 5.4 - Soil: Dioxins and Furans Analytical Results

(continued)

Rolling Knolls Landfill

Sample Name				NJDEP Avian TEF's	ESC's	NJAC 7:26D	DP13_0.5-3.0				DP14_0.5-5.0				DP15_0.5-5.0				DP27_0.5-3.0				DP27_8.0-10.0			
Sample Date/Time							05/10/2021 12:20				05/03/2021 11:10				05/03/2021 15:55				05/05/2021 14:00				05/06/2021 10:15			
Latitude				Toxicity Equivalence Factor (TEF)	Screening Criteria	(8) Soil Remediation Standards (Ing.-Derm.) - Residential	40.7221319				40.7222989				40.7226573				40.7231759				40.7231759			
Longitude							-74.4453061				-74.4446187				-74.4446863				-74.4437423				-74.4437423			
Lab Sample Name							GS-S-DPT13-SC-0.5-3.0				GS-S-DPT14-SC-0.5-5				GS-S-DPT15-SC-0.5-5				GS-S-DPT27-SC-0.5-3				GS-S-DPT27-SB-8-10			
Lab Sample Number							460-234082-4				460-233488-5				460-233506-4				460-233708-5				460-233899-1			
Lab Report Number(s)							460-234082-1 / 460-234082-2				460-233488-1 / 460-233488-2				460-233506-1 / 460-233506-2				460-233708-1 / 460-233708-2				460-233899-1 / 460-233899-2			
Analyte	CAS	Method	Units				Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)
1,2,3,4,6,7,8-HpCDD	35822-46-9	8290A	pg/g				7560		116	31.1	5340		116	27.7	2360		55	6.74	7220	J	60.5	60.5	18.2		5.66	0.11
1,2,3,4,6,7,8-HpCDF	67562-39-4	8290A	pg/g				457		11.6	3.2	1130		11.6	7.85	188		55	1.88	1680		43.7	43.7	2.33	J	5.66	0.036
1,2,3,4,7,8,9-HpCDF	55673-89-7	8290A	pg/g				23.5		11.6	3.73	47		11.6	9.13	10.2	J	55	2.18	67.9		50.9	50.9	0.2	U	5.66	0.042
1,2,3,4,7,8-HxCDD	39227-28-6	8290A	pg/g				7.96	J	11.6	1.24	7.23	J	11.6	3.24	3.88	J	55	0.79	7.4	J	9.85	3.5	0.23	U	5.66	0.029
1,2,3,4,7,8-HxCDF	70648-26-9	8290A	pg/g				20.4		11.6	2.3	41.4		11.6	4.94	9.63	J	55	1.15	52.3		11.3	11.3	0.22	J	5.66	0.019
1,2,3,6,7,8-HxCDD	57653-85-7	8290A	pg/g				98.1		11.6	1.18	109		11.6	3.09	35.5	J	55	0.76	173		9.85	3.34	0.37	J	5.66	0.028
1,2,3,6,7,8-HxCDF	57117-44-9	8290A	pg/g				9.88	J	11.6	2.22	18.9		11.6	4.76	5.74	J	55	1.11	24.9		10.9	10.9	0.11	U	5.66	0.018
1,2,3,7,8,9-HxCDD	19408-74-3	8290A	pg/g				45.4		11.6	1.13	25.7		11.6	2.95	11.2	J	55	0.72	29.4		9.85	3.18	0.21	U	5.66	0.026
1,2,3,7,8,9-HxCDF	72918-21-9	8290A	pg/g				2.34	U	11.6	2.34	5.02	U	11.6	5.02	1.17	U	55	1.17	11.5	U	11.5	11.5	0.045	U	5.66	0.019
1,2,3,7,8-PeCDD	40321-76-4	8290A	pg/g				12		11.6	1.44	4.51	J	11.6	1.13	0.77	U	55	0.77	5.81	J	9.85	2.64	0.074	U	5.66	0.018
1,2,3,7,8-PeCDF	57117-41-6	8290A	pg/g				3.36	J	11.6	1.29	4.84	J	11.6	0.81	1.9	J	55	0.63	5.55	J	9.85	1.45	0.063	U	5.66	0.011
2,3,4,6,7,8-HxCDF	60851-34-5	8290A	pg/g				4.69	J	11.6	2.28	9	J	11.6	4.89	1.14	U	55	1.14	11.2	U	11.2	11.2	0.038	U	5.66	0.019
2,3,4,7,8-PeCDF	57117-31-4	8290A	pg/g				5.83	J	11.6	1.32	12.3		11.6	0.83	2.92	J	55	0.65	12.2		9.85	1.48	0.075	U	5.66	0.011
2,3,7,8-TCDD	1746-01-6	8290A	pg/g		0.199 (5)	51	7.25		2.32	1.86	4.99		2.31	0.2	3.11	J	11	0.43	7.53		1.97	0.88	0.061	U	1.13	0.012
2,3,7,8-TCDF	51207-31-9	8290A	pg/g		840 (5)		37.5		2.32	1.77	51.3		2.31	0.77	18.6		11	0.64	60.1		3.53	3.53	0.18	J	1.13	0.0099
OCDD	3268-87-9	8290A	pg/g				105000	J	232	48.4	86200		231	35.9	25500	J	110	10.3	157000	J	199	199	312		11.3	0.13
OCDF	39001-02-0	8290A	pg/g				1680		23.2	0.41	4960		23.1	1.45	846		110	0.48	4920		19.7	0.98	8.73	J	11.3	0.01
Total HpCDD	37871-00-4	8290A	pg/g				15400		116	31.1	10500		116	27.7	4340		55	6.74	15100		60.5	60.5	38.9		5.66	0.11
Total HpCDF	38998-75-3	8290A	pg/g				1860		11.6	3.46	4490		11.6	8.49	884		55	2.03	9780		47.3	47.3	10.5		5.66	0.039
Total HxCDD	34465-46-8	8290A	pg/g				854		11.6	1.18	645		11.6	3.09	256		55	0.76	929		9.85	3.34	3.04	J	5.66	0.028
Total HxCDF	55684-94-1	8290A	pg/g				502		11.6	2.29	950	J	11.6	4.91	193		55	1.14	2370	J	11.2	11.2	1.92	J	5.66	0.019
Total PeCDD	36088-22-9	8290A	pg/g				93.5	J	11.6	1.44	59.3	J	11.6	1.13	11.6	J	55	0.77	2.6	J	9.85	2.64	0.79	J	5.66	0.018
Total PeCDF	30402-15-4	8290A	pg/g				75.6		11.6	1.31	135		11.6	0.82	35.2	J	55	0.64	154		9.85	1.47	0.6	J	5.66	0.011
Total TCDD	41903-57-5	8290A	pg/g		0.199 (5)		39.3		2.32	1.86	25.2		2.31	0.2	22.9	J	11	0.43	56.8	J	1.97	0.88	1.01	J	1.13	0.012
Total TCDF	30402-14-3	8290A	pg/g		840 (5)		92.3		2.32	1.51	138		2.31	1.05	58.9	J	11	1.03	129	J	1.97	1.84	0.48	J	1.13	0.0099
Chlorinated Dibenzo-p-dioxin TEQ Calculation																										
1,2,3,4,6,7,8-HpCDD	35822-46-9	PCDD	pg/g	0.001			7.56				5.34				2.36				7.22				0.0182			
1,2,3,4,7,8-HxCDD	39227-28-6	PCDD	pg/g	0.05			0.398				0.3615				0.194				0.37				0.0115			
1,2,3,6,7,8-HxCDD	57653-85-7	PCDD	pg/g	0.01			0.981				1.09				0.355				1.73				0.0037			
1,2,3,7,8,9-HxCDD	19408-74-3	PCDD	pg/g	0.1			4.54				2.57				1.12				2.94				0.021			
1,2,3,7,8-PeCDD	40321-76-4	PCDD	pg/g	1			12				4.51				0				5.81				0.074			
2,3,7,8-TCDD	1746-01-6	PCDD	pg/g	1	0.199 (5)		7.25				4.99				3.11				7.53				0.061			
OCDD	3268-87-9	PCDD	pg/g	0.0001			10.5				8.62				2.55				15.7				0.0312			
Σ Dibenzo-p-dioxin (PCDD) TEQ	30402-14-3		pg/g		0.199 (5)		43				27				10				41				0.22			
Chlorinated dibenzofuran TEQ Calculation																										
1,2,3,4,6,7,8-HpCDF	67562-39-4	PCDF	pg/g	0.01			4.57				11.3				1.88				16.8				0.0233			
1,2,3,4,7,8,9-HpCDF	55673-89-7	PCDF	pg/g	0.01			0.235				0.47				0.102				0.679				0.002			
1,2,3,4,7,8-HxCDF	70648-26-9	PCDF	pg/g	0.1			2.04				4.14				0.963				5.23				0.022			
1,2,3,6,7,8-HxCDF	57117-44-9	PCDF	pg/g	0.1			0.988				1.89				0.574				2.49				0.011			
1,2,3,7,8,9-HxCDF	72918-21-9	PCDF	pg/g	0.1			0				0				0				0				0.0045			
1,2,3,7,8-PeCDF	57117-41-6	PCDF	pg/g	0.1			0.336				0.484				0.19				0.555				0.0063			
2,3,4,6,7,8-HxCDF	60851-34-5	PCDF	pg/g	0.1			0.469				0.9				0				0				0.0038			
2,3,4,7,8-PeCDF	57117-31-4	PCDF	pg/g	1			5.83				12.3				2.92				12.2				0.075			
2,3,7,8-TCDF	51207-31-9	PCDF	pg/g	1			37.5				51.3				18.6				60.1				0.18			
OCDF	39001-02-0	PCDF	pg/g	0.0001			0.168				0.496				0.0846				0.492				0.000873			
Σ Dibenzofuran (PCDF) TEQ	30402-14-3		pg/g		0.199 (5)		52				83				25				98				0.33			
Σ PCB TEQ + PCDD TEQ + PCDF TEQ	30402-14-3		pg/g		0.199 (5)		700				408				552				1206				2.6			

Table 5.5 - Soil: Polychlorinated Biphenyls (PCBs) Analytical Results

Rolling Knolls Landfill

Sample Name				NJDEP Avian TEF's	ESC's	NJAC 7:26D	SS01				SS100 (SS01 duplicate)				SS02				SS03				SS04				SS05				SS06			
Sample Date/Time							05/11/2021 08:35				05/11/2021 12:00				05/11/2021 10:10				05/11/2021 13:45				04/29/2021 10:20				04/29/2021 16:20				05/13/2021 09:00			
Latitude				Toxicity Equivalence Factor (TEF)	Screening Criteria	(8) Soil Remediation Standards (Ing.-Derm.) - Residential	40.7297321				40.7297321				40.7303542				40.7288473				40.7304704				40.7300494				40.729803			
Longitude							-74.4419101				-74.4419101				-74.4418002				-74.441059				-74.4414832				-74.4418444				-74.441428			
Lab Sample Name							GS-N-SS01				GS-N-SS100				GS-N-SS02				GS-N-SS03				GS-N-SS04				GS-N-SS05				GS-N-SS06			
Lab Sample Number							460-234161-1				460-234161-9				460-234186-1				460-234161-3				460-233312-1				460-233312-4				460-234436-1			
Lab Report Number(s)							460-234161-1 / 460-234161-2				460-234161-1				460-234186-1				460-234161-1				460-233312-1				460-233312-1				460-234436-1			
Analyte	CAS	Method	Units				Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)
Polychlorinated Biphenyls (PCBs)		8082A					•				•				•				•				•				•				•			
Aroclor 1016	12674-11-2	8082A	µg/Kg		1100 (7)		18	U	140	18	17	U	120	17	75	U	570	75	15	U	110	15	250	U	250	33	130	U	130	17	40	U	300	40
Aroclor 1221	11104-28-2	8082A	µg/Kg				18	U	140	18	17	U	120	17	75	U	570	75	15	U	110	15	250	U	250	33	130	U	130	17	40	U	300	40
Aroclor 1232	11141-16-5	8082A	µg/Kg				18	U	140	18	17	U	120	17	75	U	570	75	15	U	110	15	250	U	250	33	130	U	130	17	40	U	300	40
Aroclor 1242	53469-21-9	8082A	µg/Kg		41 (7)		18	U	140	18	17	U	120	17	75	U	570	75	15	U	110	15	250	U	250	33	130	U	130	17	40	U	300	40
Aroclor 1248	12672-29-6	8082A	µg/Kg		7.3 (7)		18	U	140	18	17	U	120	17	10000		570	75	15	U	110	15	2900		250	33	1100		130	17	3200	J	300	40
Aroclor 1254	11097-69-1	8082A	µg/Kg		41 (7)		19	U	140	19	17	U	120	17	78	U	570	78	150		110	16	250	U	250	35	130	U	130	18	41	U	300	41
Aroclor 1260	11096-82-5	8082A	µg/Kg		880 (7)		19	U	140	19	17	U	120	17	78	U	570	78	16	U	110	16	250	U	250	35	130	U	130	18	41	U	300	41
Aroclor 1268	11100-14-4	8082A	µg/Kg				19	U	140	19	17	U	120	17	78	U	570	78	16	U	110	16	250	U	250	35	130	U	130	18	41	U	300	41
Aroclor-1262	37324-23-5	8082A	µg/Kg				19	U	140	19	17	U	120	17	78	U	570	78	16	U	110	16	250	U	250	35	130	U	130	18	760	J	300	41
Polychlorinated biphenyls, Total	1336-36-3	8082A	µg/Kg		371 (5)	250	19	U	140	19	17	U	120	17	10000		570	78	150		110	16	2900		250	35	1100		130	18	4000	J	300	41
Chlorinated Biphenyl Congeners (PCBs)		1668A					•																											
PCB-1	2051-60-7	1668A	pg/g				966		794	3.2																								
PCB-2	2051-61-8	1668A	pg/g				773	J	794	3.06																								
PCB-3	2051-62-9	1668A	pg/g				1700		794	3.5																								
PCB-4	13029-08-8	1668A	pg/g				2180		794	20.9																								
PCB-5	16605-91-7	1668A	pg/g				89.9	U	794	89.9																								
PCB-6	25569-80-6	1668A	pg/g				1210		794	81.4																								
PCB-7	33284-50-3	1668A	pg/g				201	J	794	87.4																								
PCB-8	34883-43-7	1668A	pg/g				5380		794	75.4																								
PCB-9	34883-39-1	1668A	pg/g				310	J	794	85.7																								
PCB-10	33146-45-1	1668A	pg/g				392	J	794	17.3																								
PCB-11	2050-67-1	1668A	pg/g				4570		794	98.3																								
PCB-12	2974-92-7	1668A	pg/g				1400	J	1590	97																								
PCB-13	2974-90-5	1668A	pg/g				1400	J	1590	97																								
PCB-14	34883-41-5	1668A	pg/g				143	J	794	93.9																								
PCB-15	2050-68-2	1668A	pg/g				13900		794	78.2																								
PCB-16	38444-78-9	1668A	pg/g				5460		794	27.6																								
PCB-17	37680-66-3	1668A	pg/g				8440		794	26.8																								
PCB-18	37680-65-2	1668A	pg/g				16600		1590	19.1																								
PCB-19	38444-73-4	1668A	pg/g				3670		794	34.8																								
PCB-20	38444-84-7	1668A	pg/g				62900		2380	1010																								
PCB-21	55702-46-0	1668A	pg/g				14000		1590	1060																								
PCB-22	38444-85-8	1668A	pg/g				16700		1000	1000																								
PCB-23	55720-44-0	1668A	pg/g				1020	U	1020	1020																								
PCB-24	55702-45-9	1668A	pg/g				281	J	794	20.1																								
PCB-25	55712-37-3	1668A	pg/g				3090		923	923																								
PCB-26	38444-81-4	1668A	pg/g				8450		1590	1060																								
PCB-27	38444-76-7	1668A	pg/g				2830		794	18.3																								
PCB-28	7012-37-5	1668A	pg/g				62900		2380	1010																								
PCB-29	15862-07-4	1668A	pg/g				8450		1590	1060																								
PCB-30	35693-92-6	1668A	pg/g				16600		1590	19.1																								
PCB-31	16606-02-3	1668A	pg/g				51800		975	975																								
PCB-32	38444-77-8	1668A	pg/g				9840		794	18.8																								
PCB-33	38444-86-9	1668A	pg/g				14000		1590	1060																								
PCB-34	37680-68-5	1668A	pg/g				1060	U	1060	1060																								
PCB-35	37680-69-6	1668A	pg/g				1350		1160	1160																								
PCB-36	38444-87-0	1668A	pg/g				1160	U	1160	1160																								
PCB-37	38444-90-5	1668A	pg/g				35900		1030	1030																								
PCB-38	53555-66-1	1668A	pg/g				1200	U	1200	1200																								
PCB-39	38444-88-1	1668A	pg/g				1310		1080	1080																								
PCB-40	38444-93-8	1668A	pg/g				34000		1590	913																								
PCB-41	52663-59-9	1668A	pg/g				6420		1390	1390																								
PCB-42	36559-22-5	1668A	pg/g				23800		970	970																								
PCB-43	70362-46-8	1668A	pg/g				2560	J	985	985																								
PCB-44	41464-39-5	1668A	pg/g				97200		2380	934																								
PCB-45	70362-45-7	1668A	pg/g				12500		1390	1390																								
PCB-46	41464-47-5	1668A	pg/g				3170		1180	1180																								
PCB-47	2437-79-8	1668A	pg/g				97200		2380	934																								
PCB-48	70362-47-9	1668A	pg/g				13200		1000	1000																								
PCB-49	41464-40-8	1668A	pg/g				75100		1590	825																								

Table 5.5 - Soil: Polychlorinated Biphenyls (PCBs) Analytical Results

Rolling Knolls Landfill

Sample Name				NJDEP Avian TEF's	ESC's	NJAC 7:26D	SS01				SS100 (SS01 duplicate)				SS02				SS03				SS04				SS05				SS06			
Sample Date/Time							05/11/2021 08:35				05/11/2021 12:00				05/11/2021 10:10				05/11/2021 13:45				04/29/2021 10:20				04/29/2021 16:20				05/13/2021 09:00			
Latitude				Toxicity Equivalence Factor (TEF)	Screening Criteria	(8) Soil Remediation Standards (Ing.-Derm.) - Residential	40.7297321				40.7297321				40.7303542				40.7288473				40.7304704				40.7300494				40.729803			
Longitude							-74.4419101				-74.4419101				-74.4418002				-74.441059				-74.4414832				-74.4418444				-74.441428			
Lab Sample Name							GS-N-SS01				GS-N-SS100				GS-N-SS02				GS-N-SS03				GS-N-SS04				GS-N-SS05				GS-N-SS06			
Lab Sample Number							460-234161-1				460-234161-9				460-234186-1				460-234161-3				460-233312-1				460-233312-4				460-234436-1			
Lab Report Number(s)							460-234161-1 / 460-234161-2				460-234161-1				460-234186-1				460-234161-1				460-233312-1				460-233312-1				460-234436-1			
Analyte	CAS	Method	Units				Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)
PCB-50	62796-65-0	1668A	pg/g				15900		1590	1160																								
PCB-51	68194-04-7	1668A	pg/g				2460		818	818																								
PCB-52	35693-99-3	1668A	pg/g				129000	J	980	980																								
PCB-53	41464-41-9	1668A	pg/g				15900		1590	1160																								
PCB-54	15968-05-5	1668A	pg/g				349	J	794	2.64																								
PCB-55	74338-24-2	1668A	pg/g				728	U	794	728																								
PCB-56	41464-43-1	1668A	pg/g				47700		856	856																								
PCB-57	70424-67-8	1668A	pg/g				929	U	929	929																								
PCB-58	41464-49-7	1668A	pg/g				798	U	798	798																								
PCB-59	74472-33-6	1668A	pg/g				8960		2380	800																								
PCB-60	33025-41-1	1668A	pg/g				18800		905	905																								
PCB-61	33284-53-6	1668A	pg/g				165000		3180	865																								
PCB-62		1668A	pg/g				8960		2380	800																								
PCB-63	74472-34-7	1668A	pg/g				2810		934	934																								
PCB-64	52663-58-8	1668A	pg/g				32700		794	734																								
PCB-65	33284-54-7	1668A	pg/g				97200		2380	934																								
PCB-66	32598-10-0	1668A	pg/g				116000	J	862	862																								
PCB-67	73575-53-8	1668A	pg/g				1560	J	794	718																								
PCB-68	73575-52-7	1668A	pg/g				1550		812	812																								
PCB-69	60233-24-1	1668A	pg/g				75100		1590	825																								
PCB-70	32598-11-1	1668A	pg/g				165000		3180	865																								
PCB-71	41464-46-4	1668A	pg/g				34000		1590	913																								
PCB-72	41464-42-0	1668A	pg/g				1270		909	909																								
PCB-73	74338-23-1	1668A	pg/g				698	U	794	698																								
PCB-74	32690-93-0	1668A	pg/g				165000		3180	865																								
PCB-75	32598-12-2	1668A	pg/g				8960		2380	800																								
PCB-76	70362-48-0	1668A	pg/g				165000		3180	865																								
PCB-77	32598-13-3	1668A	pg/g				13800	J	986	986																								
PCB-78	70362-49-1	1668A	pg/g				993	U	993	993																								
PCB-79	41464-48-6	1668A	pg/g				1300		871	871																								
PCB-80	33284-52-5	1668A	pg/g				795	U	795	795																								
PCB-81	70362-50-4	1668A	pg/g				964	U	964	964																								
PCB-82	52663-62-4	1668A	pg/g				16500		1930	1930																								
PCB-83	60145-20-2	1668A	pg/g				8450		2490	2490																								
PCB-84	52663-60-2	1668A	pg/g				29200		2120	2120																								
PCB-85	65510-45-4	1668A	pg/g				27000		2380	1510																								
PCB-86	55312-69-1	1668A	pg/g				97100		4770	1520																								
PCB-87	38380-02-8	1668A	pg/g				97100		4770	1520																								
PCB-88	55215-17-3	1668A	pg/g				22400		1810	1810																								
PCB-89	73575-57-2	1668A	pg/g				2030	U	2030	2030																								
PCB-90	68194-07-0	1668A	pg/g				136000		2380	1590																								
PCB-91	68194-05-8	1668A	pg/g				22400		1810	1810																								
PCB-92	52663-61-3	1668A	pg/g				26800		1830	1830																								
PCB-93	73575-56-1	1668A	pg/g				1750	U	1750	1750																								
PCB-94	73575-55-0	1668A	pg/g				1980	U	1980	1980																								
PCB-95	38379-99-6	1668A	pg/g				91800	J	1810	1810																								
PCB-96	73575-54-9	1668A	pg/g				875		794	4.43																								
PCB-97	41464-51-1	1668A	pg/g				97100		4770	1520																								
PCB-98	60233-25-2	1668A	pg/g				4300		1730	1730																								
PCB-99	38380-01-7	1668A	pg/g				67600		1510	1510																								
PCB-100	39485-83-1	1668A	pg/g				1750	U	1750	1750																								
PCB-101	37680-73-2	1668A	pg/g				136000		2380	1590																								
PCB-102	68194-06-9	1668A	pg/g				4300		1730	1730																								
PCB-103	60145-21-3	1668A	pg/g				1650	U	1650	1650																								
PCB-104	56558-16-8	1668A	pg/g				40.5	J	794	5.46																								
PCB-105	32598-14-4	1668A	pg/g				55600		1290	1290																								
PCB-106	70424-69-0	1668A	pg/g				1490	U	1490	1490																								
PCB-107	70424-68-9	1668A	pg/g				7000		1590	1490																								
PCB-108	70362-41-3	1668A	pg/g				97100		4770	1520																								
PCB-109	74472-35-8	1668A	pg/g				9180		1310	1310																								
PCB-110	38380-03-9	1668A	pg/g				164000	J	1590	1290																								
PCB-111	39635-32-0	1668A	pg/g				1360	U	1360	1360																								
PCB-112	74472-36-9	1668A	pg/g				1090	U	1090	1090																								

Table 5.5 - Soil: Polychlorinated Biphenyls (PCBs) Analytical Results

Rolling Knolls Landfill

Sample Name				NJDEP Avian TEF's	ESC's	NJAC 7:26D	SS01				SS100 (SS01 duplicate)				SS02				SS03				SS04				SS05				SS06			
Sample Date/Time							05/11/2021 08:35				05/11/2021 12:00				05/11/2021 10:10				05/11/2021 13:45				04/29/2021 10:20				04/29/2021 16:20				05/13/2021 09:00			
Latitude				Toxicity Equivalence Factor (TEF)	Screening Criteria	(8) Soil Remediation Standards (Ing.-Derm.) - Residential	40.7297321				40.7297321				40.7303542				40.7288473				40.7304704				40.7300494				40.729803			
Longitude							-74.4419101				-74.4419101				-74.4418002				-74.441059				-74.4414832				-74.4418444				-74.441428			
Lab Sample Name							GS-N-SS01				GS-N-SS100				GS-N-SS02				GS-N-SS03				GS-N-SS04				GS-N-SS05				GS-N-SS06			
Lab Sample Number							460-234161-1				460-234161-9				460-234186-1				460-234161-3				460-233312-1				460-233312-4				460-234436-1			
Lab Report Number(s)							460-234161-1 / 460-234161-2				460-234161-1				460-234186-1				460-234161-1				460-233312-1				460-233312-1				460-234436-1			
Analyte	CAS	Method	Units				Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)
PCB-113	68194-10-5	1668A	pg/g				136000		2380	1590																								
PCB-114	74472-37-0	1668A	pg/g				2260		1470	1470																								
PCB-115	74472-38-1	1668A	pg/g				164000	J	1590	1290																								
PCB-116	18259-05-7	1668A	pg/g				27000		2380	1510																								
PCB-117	68194-11-6	1668A	pg/g				27000		2380	1510																								
PCB-118	31508-00-6	1668A	pg/g				114000	J	1260	1260																								
PCB-119	56558-17-9	1668A	pg/g				97100		4770	1520																								
PCB-120	68194-12-7	1668A	pg/g				1150	U	1150	1150																								
PCB-121	56558-18-0	1668A	pg/g				1170	U	1170	1170																								
PCB-122	76842-07-4	1668A	pg/g				2830		1690	1690																								
PCB-123	65510-44-3	1668A	pg/g				2780		1500	1500																								
PCB-124	70424-70-3	1668A	pg/g				7000		1590	1490																								
PCB-125	74472-39-2	1668A	pg/g				97100		4770	1520																								
PCB-126	57465-28-8	1668A	pg/g				1560	U	1560	1560																								
PCB-127	39635-33-1	1668A	pg/g				1640	U	1640	1640																								
PCB-128	38380-07-3	1668A	pg/g				20400		1590	490																								
PCB-129	55215-18-4	1668A	pg/g				129000		2380	516																								
PCB-130	52663-66-8	1668A	pg/g				7890		794	662																								
PCB-131	61798-70-7	1668A	pg/g				1730		794	587																								
PCB-132	38380-05-1	1668A	pg/g				34300		794	575																								
PCB-133	35694-04-3	1668A	pg/g				1690	J	794	562																								
PCB-134	52704-70-8	1668A	pg/g				5720		1590	550																								
PCB-135	52744-13-5	1668A	pg/g				27200		1590	521																								
PCB-136	38411-22-2	1668A	pg/g				9230		794	366																								
PCB-137	35694-06-5	1668A	pg/g				5970		794	555																								
PCB-138	35065-28-2	1668A	pg/g				129000		2380	516																								
PCB-139	56030-56-9	1668A	pg/g				2300		1590	517																								
PCB-140	59291-64-4	1668A	pg/g				2300		1590	517																								
PCB-141	52712-04-6	1668A	pg/g				17900		794	552																								
PCB-142	41411-61-4	1668A	pg/g				573	U	794	573																								
PCB-143	68194-15-0	1668A	pg/g				5720		1590	550																								
PCB-144	68194-14-9	1668A	pg/g				3920		794	477																								
PCB-145	74472-40-5	1668A	pg/g				379	U	794	379																								
PCB-146	51908-16-8	1668A	pg/g				13900		794	452																								
PCB-147	68194-13-8	1668A	pg/g				74200		1590	504																								
PCB-148	74472-41-6	1668A	pg/g				482	U	794	482																								
PCB-149	38380-04-0	1668A	pg/g				74200		1590	504																								
PCB-150	68194-08-1	1668A	pg/g				346	U	794	346																								
PCB-151	52663-63-5	1668A	pg/g				27200		1590	521																								
PCB-152	68194-09-2	1668A	pg/g				388	U	794	388																								
PCB-153	35065-27-1	1668A	pg/g				86900		1590	418																								
PCB-154	60145-22-4	1668A	pg/g				1080		794	444																								
PCB-155	33979-03-2	1668A	pg/g				473	U	794	473																								
PCB-156	38380-08-4	1668A	pg/g				15600		159	126																								
PCB-157	69782-90-7	1668A	pg/g				15600		159	126																								
PCB-158	74472-42-7	1668A	pg/g				10500		794	357																								
PCB-159	39635-35-3	1668A	pg/g				777	J	794	96.9																								
PCB-160	41411-62-5	1668A	pg/g				465	U	794	465																								
PCB-161	74472-43-8	1668A	pg/g				12200		794	415																								
PCB-162	39635-34-2	1668A	pg/g				530	J	794	102																								
PCB-163	74472-44-9	1668A	pg/g				129000		2380	516																								
PCB-164	74472-45-0	1668A	pg/g				8370		794	448																								
PCB-165	74472-46-1	1668A	pg/g				432	U	794	432																								
PCB-166	41411-63-6	1668A	pg/g				20400		1590	490																								
PCB-167	52663-72-6	1668A	pg/g				5620		104	104																								
PCB-168	59291-65-5	1668A	pg/g				86900		1590	418																								
PCB-169	32774-16-6	1668A	pg/g				111	U	111	111																								
PCB-170	35065-30-6	1668A	pg/g				19800		794	255																								
PCB-171	52663-71-5	1668A	pg/g				6060		1590	229																								
PCB-172	52663-74-8	1668A	pg/g				3780		794	250																								
PCB-173	68194-16-1	1668A	pg/g				6060		1590	229																								
PCB-174	38411-25-5	1668A	pg/g				19500		794	210																								
PCB-175	40186-70-7	1668A	pg/g				1070		794	105																								

Table 5.5 - Soil: Polychlorinated Biphenyls (PCBs) Analytical Results

Rolling Knolls Landfill

	Sample Name			NJDEP Avian TEF's	ESC's	NJAC 7:26D	SS01				SS100 (SS01 duplicate)				SS02				SS03				SS04				SS05				SS06			
	Sample Date/Time						05/11/2021 08:35				05/11/2021 12:00				05/11/2021 10:10				05/11/2021 13:45				04/29/2021 10:20				04/29/2021 16:20				05/13/2021 09:00			
	Latitude						40.7297321				40.7297321				40.7303542				40.7288473				40.7304704				40.7300494				40.729803			
	Longitude			Toxicity Equivalence Factor (TEF)	Screening Criteria	(8) Soil Remediation Standards (Ing.-Derm.) - Residential	-74.4419101				-74.4419101				-74.4418002				-74.441059				-74.4414832				-74.4418444				-74.441428			
	Lab Sample Name						GS-N-SS01				GS-N-SS100				GS-N-SS02				GS-N-SS03				GS-N-SS04				GS-N-SS05				GS-N-SS06			
	Lab Sample Number						460-234161-1				460-234161-9				460-234186-1				460-234161-3				460-233312-1				460-233312-4				460-234436-1			
	Lab Report Number(s)						460-234161-1 / 460-234161-2				460-234161-1				460-234186-1				460-234161-1				460-233312-1				460-233312-1				460-234436-1			
Analyte	CAS	Method	Units				Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)
PCB-176	52663-65-7	1668A	pg/g				2660		794	7.83																								
PCB-177	52663-70-4	1668A	pg/g				10700		794	211																								
PCB-178	52663-67-9	1668A	pg/g				5030		794	10.8																								
PCB-179	52663-64-6	1668A	pg/g				7780		794	6.82																								
PCB-180	35065-29-3	1668A	pg/g				43800		1590	187																								
PCB-181	74472-47-2	1668A	pg/g				297	J	794	216																								
PCB-182	60145-23-5	1668A	pg/g				247	J	794	10.2																								
PCB-183	52663-69-1	1668A	pg/g				9650		794	184																								
PCB-184	74472-48-3	1668A	pg/g				34.6	J	794	7.08																								
PCB-185	52712-05-7	1668A	pg/g				3560	J	794	245																								
PCB-186	74472-49-4	1668A	pg/g				6.36	U	794	6.36																								
PCB-187	52663-68-0	1668A	pg/g				28500		794	8.61																								
PCB-188	74487-85-7	1668A	pg/g				94.5	J	794	8.57																								
PCB-189	39635-31-9	1668A	pg/g				856		79.4	8.1																								
PCB-190	41411-64-7	1668A	pg/g				3430		794	160																								
PCB-191	74472-50-7	1668A	pg/g				1010		794	168																								
PCB-192	74472-51-8	1668A	pg/g				158	U	794	158																								
PCB-193	69782-91-8	1668A	pg/g				43800		1590	187																								
PCB-194	35694-08-7	1668A	pg/g				9820		794	39.9																								
PCB-195	52663-78-2	1668A	pg/g				3620		794	39.5																								
PCB-196	42740-50-1	1668A	pg/g				5810		794	14.9																								
PCB-197	33091-17-7	1668A	pg/g				401	J	794	9.29																								
PCB-198	68194-17-2	1668A	pg/g				13100		1590	13.3																								
PCB-199	52663-75-9	1668A	pg/g				13100		1590	13.3																								
PCB-200	52663-73-7	1668A	pg/g				1810		794	11.3																								
PCB-201	40186-71-8	1668A	pg/g				1760		794	10.6																								
PCB-202	2136-99-4	1668A	pg/g				3290		794	12.2																								
PCB-203	52663-76-0	1668A	pg/g				7080		794	12.1																								
PCB-204	74472-52-9	1668A	pg/g				10.2	U	794	10.2																								
PCB-205	74472-53-0	1668A	pg/g				605	J	794	28.5																								
PCB-206	40186-72-9	1668A	pg/g				6160		794	54.4																								
PCB-207	52663-79-3	1668A	pg/g				720	J	794	38.5																								
PCB-208	52663-77-1	1668A	pg/g				2080		794	38.2																								
PCB-209	2051-24-3	1668A	pg/g				5090		794	1.69																								
Σ Polychlorinated biphenyls	1336-36-3	8082A	pg/g		371000 (5)	250000	5,212,853																											
Dioxin-Like PCB TEQ Calculation																																		
PCB-77	32598-13-3	1668A	pg/g	0.05			690																											
PCB-81	70362-50-4	1668A	pg/g	0.1			0																											
PCB-105	32598-14-4	1668A	pg/g	0.0001			6																											
PCB-114	74472-37-0	1668A	pg/g	0.0001			0																											
PCB-118	31508-00-6	1668A	pg/g	0.00001			1																											
PCB-123	65510-44-3	1668A	pg/g	0.00001			0																											
PCB-126	57465-28-8	1668A	pg/g	0.1			0																											
PCB-156	38380-08-4	1668A	pg/g	0.0001			2																											
PCB-157	69782-90-7	1668A	pg/g	0.0001			2																											
PCB-167	52663-72-6	1668A	pg/g	0.00001			0																											
PCB-169	32774-16-6	1668A	pg/g	0.001			0																											
PCB-189	39635-31-9	1668A	pg/g	0.00001			0																											
Σ Polychlorinated biphenyls (PCB) TEQ	1336-36-3	8082A	pg/g		0.199 (5)		700																											

Table 5.5 - Soil: Polychlorinated Biphenyls (PCBs) Analytical Results

(continued)

Rolling Knolls Landfill

Sample Name				NJDEP Avian TEF's	ESC's	NJAC 7:26D	SS07				SS08				SS09				SS10				SS11				SS12				SS13			
Sample Date/Time							04/28/2021 00:00				05/11/2021 12:30				05/13/2021 11:10				05/13/2021 14:10				05/03/2021 10:00				05/10/2021 10:45				05/10/2021 12:10			
Latitude				Toxicity Equivalence Factor (TEF)	Screening Criteria	(8) Soil Remediation Standards (Ing.-Derm.) - Residential	40.7293038				40.72928382				40.7285174				40.7272947				40.7220743				40.7218276				40.7221319			
Longitude							-74.4416064				-74.44108891				-74.4407729				-74.440092				-74.4442957				-74.4445596				-74.4453061			
Lab Sample Name							GS-N-SS07				GS-N-SS08				GS-N-SS09				GS-N-SS10				GS-S-SS11				GS-S-SS12				GS-S-SS13			
Lab Sample Number							460-233313-1				460-234161-6				460-234435-4				460-234436-9				460-233488-1				460-234082-1				460-234082-3			
Lab Report Number(s)							460-233313-1				460-234161-1				460-234435-1				460-234436-1				460-233488-1				460-234082-1				460-234082-1 / 460-234082-2			
Analyte	CAS	Method	Units				Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)
Polychlorinated Biphenyls (PCBs)		8082A					•				•				•				•				•				•				•			
Aroclor 1016	12674-11-2	8082A	µg/Kg		1100 (7)		20	U	150	20	25	U	190	25	20	UJ	150	20	22	U	170	22	33	U	240	33	61	U	460	61	15	U	110	15
Aroclor 1221	11104-28-2	8082A	µg/Kg				20	U	150	20	25	U	190	25	20	UJ	150	20	22	U	170	22	33	U	240	33	61	U	460	61	15	U	110	15
Aroclor 1232	11141-16-5	8082A	µg/Kg				20	U	150	20	25	U	190	25	20	UJ	150	20	22	U	170	22	33	U	240	33	61	U	460	61	15	U	110	15
Aroclor 1242	53469-21-9	8082A	µg/Kg		41 (7)		20	U	150	20	330		190	25	20	UJ	150	20	22	U	170	22	33	U	240	33	61	U	460	61	15	U	110	15
Aroclor 1248	12672-29-6	8082A	µg/Kg		7.3 (7)		1300		150	20	25	U	190	25	20	UJ	150	20	1400		170	22	2700		240	33	61	U	460	61	15	U	110	15
Aroclor 1254	11097-69-1	8082A	µg/Kg		41 (7)		21	U	150	21	26	U	190	26	20	UJ	150	20	23	U	170	23	34	U	240	34	63	U	460	63	2000		110	16
Aroclor 1260	11096-82-5	8082A	µg/Kg		880 (7)		21	U	150	21	26	U	190	26	20	UJ	150	20	250		170	23	740		240	34	63	U	460	63	16	U	110	16
Aroclor 1268	11100-14-4	8082A	µg/Kg				21	U	150	21	26	U	190	26	20	UJ	150	20	23	U	170	23	34	U	240	34	63	U	460	63	16	U	110	16
Aroclor-1262	37324-23-5	8082A	µg/Kg				21	U	150	21	26	U	190	26	20	UJ	150	20	23	U	170	23	34	U	240	34	63	U	460	63	16	U	110	16
Polychlorinated biphenyls, Total	1336-36-3	8082A	µg/Kg		371 (5)	250	1300		150	21	330		190	26	20	UJ	150	20	1700		170	23	3400		240	34	63	U	460	63	2000		110	16
Chlorinated Biphenyl Congeners (PCBs)		1668A																													•			
PCB-1	2051-60-7	1668A	pg/g																												1400		678	5.9
PCB-2	2051-61-8	1668A	pg/g																												368	J	678	5.61
PCB-3	2051-62-9	1668A	pg/g																												2260		678	6.39
PCB-4	13029-08-8	1668A	pg/g																												601	J	678	18.7
PCB-5	16605-91-7	1668A	pg/g																												48.2	J	678	35.5
PCB-6	25569-80-6	1668A	pg/g																												423	J	678	32.2
PCB-7	33284-50-3	1668A	pg/g																												116	J	678	34.5
PCB-8	34883-43-7	1668A	pg/g																												1730		678	29.8
PCB-9	34883-39-1	1668A	pg/g																												141	J	678	33.9
PCB-10	33146-45-1	1668A	pg/g																												55.6	J	678	16.2
PCB-11	2050-67-1	1668A	pg/g																												1170		678	38.9
PCB-12	2974-92-7	1668A	pg/g																												623	J	1360	38.3
PCB-13	2974-90-5	1668A	pg/g																												623	J	1360	38.3
PCB-14	34883-41-5	1668A	pg/g																												37.1	U	678	37.1
PCB-15	2050-68-2	1668A	pg/g																												3340		678	31.7
PCB-16	38444-78-9	1668A	pg/g																												599	J	678	6.68
PCB-17	37680-66-3	1668A	pg/g																												669	J	678	6.48
PCB-18	37680-65-2	1668A	pg/g																												1370		1360	4.62
PCB-19	38444-73-4	1668A	pg/g																												266	J	678	7.48
PCB-20	38444-84-7	1668A	pg/g																												3950		2040	72.7
PCB-21	55702-46-0	1668A	pg/g																												1780		1360	76
PCB-22	38444-85-8	1668A	pg/g																												1320		678	71.9
PCB-23	55720-44-0	1668A	pg/g																												73.1	U	678	73.1
PCB-24	55702-45-9	1668A	pg/g																												15.3	J	678	4.85
PCB-25	55712-37-3	1668A	pg/g																												294	J	678	66.2
PCB-26	38444-81-4	1668A	pg/g																												647	J	1360	75.8
PCB-27	38444-76-7	1668A	pg/g																												156	J	678	4.42
PCB-28	7012-37-5	1668A	pg/g																												3950		2040	72.7
PCB-29	15862-07-4	1668A	pg/g																												647	J	1360	75.8
PCB-30	35693-92-6	1668A	pg/g																												1370		1360	4.62
PCB-31	16606-02-3	1668A	pg/g																												3730		678	70
PCB-32	38444-77-8	1668A	pg/g																												644	J	678	4.54
PCB-33	38444-86-9	1668A	pg/g																												1780		1360	76
PCB-34	37680-68-5	1668A	pg/g																												75.8	U	678	75.8
PCB-35	37680-69-6	1668A	pg/g																												132	J	678	83.4
PCB-36	38444-87-0	1668A	pg/g																												83.6	U	678	83.6
PCB-37	38444-90-5	1668A	pg/g																												3870		678	78.4
PCB-38	53555-66-1	1668A	pg/g																												86.2	U	678	86.2
PCB-39	38444-88-1	1668A	pg/g																												77.7	U	678	77.7
PCB-40	38444-93-8	1668A	pg/g																												3320		1360	643
PCB-41	52663-59-9	1668A	pg/g																												980	U	980	980
PCB-42	36559-22-5	1668A	pg/g																												2730		683	683
PCB-43	70362-46-8	1668A	pg/g																												694	U	694	694
PCB-44	41464-39-5	1668A	pg/g																												24600		2040	658
PCB-45	70362-45-7	1668A	pg/g																												1220		981	981
PCB-46	41464-47-5	1668A	pg/g																												831	U	831	831
PCB-47	2437-79-8	1668A	pg/g																												24600		2040	658
PCB-48	70362-47-9	1668A	pg/g																												994		704	704
PCB-49	41464-40-8	1668A	pg/g																												16300		1360	581

Table 5.5 - Soil: Polychlorinated Biphenyls (PCBs) Analytical Results

(continued)

Rolling Knolls Landfill

Sample Name				NJDEP Avian TEF's	ESC's	NJAC 7:26D	SS07				SS08				SS09				SS10				SS11				SS12				SS13			
Sample Date/Time							04/28/2021 00:00				05/11/2021 12:30				05/13/2021 11:10				05/13/2021 14:10				05/03/2021 10:00				05/10/2021 10:45				05/10/2021 12:10			
Latitude				Toxicity Equivalence Factor (TEF)	Screening Criteria	(8) Soil Remediation Standards (Ing.-Derm.) - Residential	40.7293038				40.72928382				40.7285174				40.7272947				40.7220743				40.7218276				40.7221319			
Longitude							-74.4416064				-74.44108891				-74.4407729				-74.440092				-74.4442957				-74.4445596				-74.4453061			
Lab Sample Name							GS-N-SS07				GS-N-SS08				GS-N-SS09				GS-N-SS10				GS-S-SS11				GS-S-SS12				GS-S-SS13			
Lab Sample Number							460-233313-1				460-234161-6				460-234435-4				460-234436-9				460-233488-1				460-234082-1				460-234082-3			
Lab Report Number(s)							460-233313-1				460-234161-1				460-234435-1				460-234436-1				460-233488-1				460-234082-1				460-234082-1 / 460-234082-2			
Analyte	CAS	Method	Units				Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)
PCB-50	62796-65-0	1668A	pg/g																												1520		1360	817
~~PCB-51~~	~~68194-04-7~~	~~1668A~~	pg/g																												576	U	678	576
PCB-52	35693-99-3	1668A	pg/g																												89700		1360	791
PCB-53	41464-41-9	1668A	pg/g																												1520		1360	817
PCB-54	15968-05-5	1668A	pg/g																												23.3	J	678	2.04
PCB-55	74338-24-2	1668A	pg/g																												365	U	678	365
PCB-56	41464-43-1	1668A	pg/g																												6990		678	429
PCB-57	70424-67-8	1668A	pg/g																												465	U	678	465
PCB-58	41464-49-7	1668A	pg/g																												400	U	678	400
PCB-59	74472-33-6	1668A	pg/g																												847	J	2040	563
PCB-60	33025-41-1	1668A	pg/g																												2580		678	453
PCB-61	33284-53-6	1668A	pg/g																												77700		2710	434
PCB-62		1668A	pg/g																												847	J	2040	563
PCB-63	74472-34-7	1668A	pg/g																												468	U	678	468
PCB-64	52663-58-8	1668A	pg/g																												4560		678	517
PCB-65	33284-54-7	1668A	pg/g																												24600		2040	658
PCB-66	32598-10-0	1668A	pg/g																												18800		678	432
PCB-67	73575-53-8	1668A	pg/g																												360	U	678	360
PCB-68	73575-52-7	1668A	pg/g																												407	U	678	407
PCB-69	60233-24-1	1668A	pg/g																												16300		1360	581
PCB-70	32598-11-1	1668A	pg/g																												77700		2710	434
PCB-71	41464-46-4	1668A	pg/g																												3320		1360	643
PCB-72	41464-42-0	1668A	pg/g																												455	U	678	455
PCB-73	74338-23-1	1668A	pg/g																												492	U	678	492
PCB-74	32690-93-0	1668A	pg/g																												77700		2710	434
PCB-75	32598-12-2	1668A	pg/g																												847	J	2040	563
PCB-76	70362-48-0	1668A	pg/g																												77700		2710	434
PCB-77	32598-13-3	1668A	pg/g																												2160	J	517	517
PCB-78	70362-49-1	1668A	pg/g																												498	U	678	498
PCB-79	41464-48-6	1668A	pg/g																												1780		678	437
PCB-80	33284-52-5	1668A	pg/g																												399	U	678	399
PCB-81	70362-50-4	1668A	pg/g																												501	U	501	501
PCB-82	52663-62-4	1668A	pg/g																												16400		3090	3090
PCB-83	60145-20-2	1668A	pg/g																												11600		4000	4000
PCB-84	52663-60-2	1668A	pg/g																												44400		3400	3400
PCB-85	65510-45-4	1668A	pg/g																												29600		2420	2420
PCB-86	55312-69-1	1668A	pg/g																												147000		4070	2430
PCB-87	38380-02-8	1668A	pg/g																												147000		4070	2430
PCB-88	55215-17-3	1668A	pg/g																												25400		2900	2900
PCB-89	73575-57-2	1668A	pg/g																												3270	U	3270	3270
PCB-90	68194-07-0	1668A	pg/g																												242000		4070	2580
PCB-91	68194-05-8	1668A	pg/g																												25400		2900	2900
PCB-92	52663-61-3	1668A	pg/g																												46300		2940	2940
PCB-93	73575-56-1	1668A	pg/g																												2810	U	2810	2810
PCB-94	73575-55-0	1668A	pg/g																												3180	U	3180	3180
PCB-95	38379-99-6	1668A	pg/g																												159000	J	2940	2940
PCB-96	73575-54-9	1668A	pg/g																												461	J	678	2.22
PCB-97	41464-51-1	1668A	pg/g																												147000		4070	2430
PCB-98	60233-25-2	1668A	pg/g																												2770	U	2770	2770
PCB-99	38380-01-7	1668A	pg/g																												86100		2450	2450
PCB-100	39485-83-1	1668A	pg/g																												2810	U	2810	2810
PCB-101	37680-73-2	1668A	pg/g																												242000		4070	2580
PCB-102	68194-06-9	1668A	pg/g																												2770	U	2770	2770
PCB-103	60145-21-3	1668A	pg/g																												2650	U	2650	2650
PCB-104	56558-16-8	1668A	pg/g																												5.03	J	678	2.63
PCB-105	32598-14-4	1668A	pg/g																												62800		2210	2210
PCB-106	70424-69-0	1668A	pg/g																												2380	U	2380	2380
PCB-107	70424-68-9	1668A	pg/g																												10600		2380	2380
PCB-108	70362-41-3	1668A	pg/g																												147000		4070	2430
PCB-109	74472-35-8	1668A	pg/g																												13000		2100	2100
PCB-110	38380-03-9	1668A	pg/g																												250000		2710	2100
PCB-111	39635-32-0	1668A	pg/g																												2180	U	2180	2180
PCB-112	74472-36-9	1668A	pg/g																												1750	U	1750	1750

Table 5.5 - Soil: Polychlorinated Biphenyls (PCBs) Analytical Results

(continued)

Rolling Knolls Landfill

Sample Name				NJDEP Avian TEF's	ESC's	NJAC 7:26D	SS07				SS08				SS09				SS10				SS11				SS12				SS13			
Sample Date/Time							04/28/2021 00:00				05/11/2021 12:30				05/13/2021 11:10				05/13/2021 14:10				05/03/2021 10:00				05/10/2021 10:45				05/10/2021 12:10			
Latitude				Toxicity Equivalence Factor (TEF)	Screening Criteria	(8) Soil Remediation Standards (Ing.-Derm.) - Residential	40.7293038				40.72928382				40.7285174				40.7272947				40.7220743				40.7218276				40.7221319			
Longitude							-74.4416064				-74.44108891				-74.4407729				-74.440092				-74.4442957				-74.4445596				-74.4453061			
Lab Sample Name							GS-N-SS07				GS-N-SS08				GS-N-SS09				GS-N-SS10				GS-S-SS11				GS-S-SS12				GS-S-SS13			
Lab Sample Number							460-233313-1				460-234161-6				460-234435-4				460-234436-9				460-233488-1				460-234082-1				460-234082-3			
Lab Report Number(s)							460-233313-1				460-234161-1				460-234435-1				460-234436-1				460-233488-1				460-234082-1				460-234082-1 / 460-234082-2			
Analyte	CAS	Method	Units				Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)
PCB-113	68194-10-5	1668A	pg/g																												242000		4070	2580
PCB-114	74472-37-0	1668A	pg/g																												2920		2460	2460
PCB-115	74472-38-1	1668A	pg/g																												250000		2710	2100
PCB-116	18259-05-7	1668A	pg/g																												29600		2420	2420
PCB-117	68194-11-6	1668A	pg/g																												29600		2420	2420
PCB-118	31508-00-6	1668A	pg/g																												176000	J	2060	2060
PCB-119	56558-17-9	1668A	pg/g																												147000		4070	2430
PCB-120	68194-12-7	1668A	pg/g																												1840	U	1840	1840
PCB-121	56558-18-0	1668A	pg/g																												1880	U	1880	1880
PCB-122	76842-07-4	1668A	pg/g																												2890		2720	2720
PCB-123	65510-44-3	1668A	pg/g																												3130		2570	2570
PCB-124	70424-70-3	1668A	pg/g																												10600		2380	2380
PCB-125	74472-39-2	1668A	pg/g																												147000		4070	2430
PCB-126	57465-28-8	1668A	pg/g																												2740	U	2740	2740
PCB-127	39635-33-1	1668A	pg/g																												2630	U	2630	2630
PCB-128	38380-07-3	1668A	pg/g																												38600		1360	934
PCB-129	55215-18-4	1668A	pg/g																												248000		4070	899
PCB-130	52663-66-8	1668A	pg/g																												15500		1260	1260
PCB-131	61798-70-7	1668A	pg/g																												2830		1120	1120
PCB-132	38380-05-1	1668A	pg/g																												70600		1360	1000
PCB-133	35694-04-3	1668A	pg/g																												2580		1070	1070
PCB-134	52704-70-8	1668A	pg/g																												10800		1360	1050
PCB-135	52744-13-5	1668A	pg/g																												56400		1360	993
PCB-136	38411-22-2	1668A	pg/g																												22200		697	697
PCB-137	35694-06-5	1668A	pg/g																												11500		1060	1060
PCB-138	35065-28-2	1668A	pg/g																												248000		4070	899
PCB-139	56030-56-9	1668A	pg/g																												3630		1360	986
PCB-140	59291-64-4	1668A	pg/g																												3630		1360	986
PCB-141	52712-04-6	1668A	pg/g																												1050	U	1050	1050
PCB-142	41411-61-4	1668A	pg/g																												1090	U	1090	1090
PCB-143	68194-15-0	1668A	pg/g																												10800		1360	1050
PCB-144	68194-14-9	1668A	pg/g																												7250		910	910
PCB-145	74472-40-5	1668A	pg/g																												722	U	722	722
PCB-146	51908-16-8	1668A	pg/g																												24800		861	861
PCB-147	68194-13-8	1668A	pg/g																												148000		2710	878
PCB-148	74472-41-6	1668A	pg/g																												918	U	918	918
PCB-149	38380-04-0	1668A	pg/g																												148000		2710	878
PCB-150	68194-08-1	1668A	pg/g																												660	U	678	660
PCB-151	52663-63-5	1668A	pg/g																												56400		1360	993
PCB-152	68194-09-2	1668A	pg/g																												740	U	740	740
PCB-153	35065-27-1	1668A	pg/g																												160000		2710	728
PCB-154	60145-22-4	1668A	pg/g																												1450		846	846
PCB-155	33979-03-2	1668A	pg/g																												881	U	881	881
PCB-156	38380-08-4	1668A	pg/g																												30700		303	303
PCB-157	69782-90-7	1668A	pg/g																												30700		303	303
PCB-158	74472-42-7	1668A	pg/g																												21000		681	681
PCB-159	39635-35-3	1668A	pg/g																												805	J	678	234
PCB-160	41411-62-5	1668A	pg/g																												886	U	886	886
PCB-161	74472-43-8	1668A	pg/g																												791	U	791	791
PCB-162	39635-34-2	1668A	pg/g																												721		678	245
PCB-163	74472-44-9	1668A	pg/g																												248000		4070	899
PCB-164	74472-45-0	1668A	pg/g																												16100		853	853
PCB-165	74472-46-1	1668A	pg/g																												823	U	823	823
PCB-166	41411-63-6	1668A	pg/g																												38600		1360	934
PCB-167	52663-72-6	1668A	pg/g																												9670		244	244
PCB-168	59291-65-5	1668A	pg/g																												160000		2710	728
PCB-169	32774-16-6	1668A	pg/g																												281	U	281	281
PCB-170	35065-30-6	1668A	pg/g																												30300		678	326
PCB-171	52663-71-5	1668A	pg/g																												8510		1360	292
PCB-172	52663-74-8	1668A	pg/g																												4580		678	319
PCB-173	68194-16-1	1668A	pg/g																												8510		1360	292
PCB-174	38411-25-5	1668A	pg/g																												24200		678	268
PCB-175	40186-70-7	1668A	pg/g																												1220		678	146

Table 5.5 - Soil: Polychlorinated Biphenyls (PCBs) Analytical Results

(continued)

Rolling Knolls Landfill

Sample Name				NJDEP Avian TEF's	ESC's	NJAC 7:26D	SS07				SS08				SS09				SS10				SS11				SS12				SS13			
Sample Date/Time							04/28/2021 00:00				05/11/2021 12:30				05/13/2021 11:10				05/13/2021 14:10				05/03/2021 10:00				05/10/2021 10:45				05/10/2021 12:10			
Latitude				Toxicity Equivalence Factor (TEF)	Screening Criteria	(8) Soil Remediation Standards (Ing.-Derm.) - Residential	40.7293038				40.72928382				40.7285174				40.7272947				40.7220743				40.7218276				40.7221319			
Longitude							-74.4416064				-74.44108891				-74.4407729				-74.440092				-74.4442957				-74.4445596				-74.4453061			
Lab Sample Name							GS-N-SS07				GS-N-SS08				GS-N-SS09				GS-N-SS10				GS-S-SS11				GS-S-SS12				GS-S-SS13			
Lab Sample Number							460-233313-1				460-234161-6				460-234435-4				460-234436-9				460-233488-1				460-234082-1				460-234082-3			
Lab Report Number(s)							460-233313-1				460-234161-1				460-234435-1				460-234436-1				460-233488-1				460-234082-1				460-234082-1 / 460-234082-2			
Analyte	CAS	Method	Units				Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)
PCB-176	52663-65-7	1668A	pg/g																												3240		678	10.8
~~PCB-177~~	~~52663-70-4~~	~~1668A~~	pg/g																												13600		678	269
PCB-178	52663-67-9	1668A	pg/g																												5300		678	14.9
PCB-179	52663-64-6	1668A	pg/g																												9070		678	9.43
PCB-180	35065-29-3	1668A	pg/g																												52500		1360	239
PCB-181	74472-47-2	1668A	pg/g																												502	J	678	275
PCB-182	60145-23-5	1668A	pg/g																												14.1	U	678	14.1
PCB-183	52663-69-1	1668A	pg/g																												13800		678	235
PCB-184	74472-48-3	1668A	pg/g																												9.8	U	678	9.8
PCB-185	52712-05-7	1668A	pg/g																												313	U	678	313
PCB-186	74472-49-4	1668A	pg/g																												8.8	U	678	8.8
PCB-187	52663-68-0	1668A	pg/g																												27300		678	11.9
PCB-188	74487-85-7	1668A	pg/g																												37.4	J	678	12.1
PCB-189	39635-31-9	1668A	pg/g																												1350		67.8	8.42
PCB-190	41411-64-7	1668A	pg/g																												2640		678	205
PCB-191	74472-50-7	1668A	pg/g																												1200		678	214
PCB-192	74472-51-8	1668A	pg/g																												201	U	678	201
PCB-193	69782-91-8	1668A	pg/g																												52500		1360	239
PCB-194	35694-08-7	1668A	pg/g																												11100		678	36.6
PCB-195	52663-78-2	1668A	pg/g																												3930		678	36.3
PCB-196	42740-50-1	1668A	pg/g																												4760		678	13.4
PCB-197	33091-17-7	1668A	pg/g																												370	J	678	8.37
PCB-198	68194-17-2	1668A	pg/g																												11000		1360	12
PCB-199	52663-75-9	1668A	pg/g																												11000		1360	12
PCB-200	52663-73-7	1668A	pg/g																												1450		678	10.2
PCB-201	40186-71-8	1668A	pg/g																												1330		678	9.57
PCB-202	2136-99-4	1668A	pg/g																												2670		678	10.9
PCB-203	52663-76-0	1668A	pg/g																												6730		678	10.9
PCB-204	74472-52-9	1668A	pg/g																												9.14	U	678	9.14
PCB-205	74472-53-0	1668A	pg/g																												692		678	26.5
PCB-206	40186-72-9	1668A	pg/g																												8710		678	40
PCB-207	52663-79-3	1668A	pg/g																												911		678	29
PCB-208	52663-77-1	1668A	pg/g																												3230		678	29.3
PCB-209	2051-24-3	1668A	pg/g																												16800		678	3.22
Σ Polychlorinated biphenyls	1336-36-3	8082A	pg/g		371000 (5)	250000																									5,687,161			
Dioxin-Like PCB TEQ Calculation																																		
PCB-77	32598-13-3	1668A	pg/g	0.05																											108			
PCB-81	70362-50-4	1668A	pg/g	0.1																											0			
PCB-105	32598-14-4	1668A	pg/g	0.0001																											6			
PCB-114	74472-37-0	1668A	pg/g	0.0001																											0			
PCB-118	31508-00-6	1668A	pg/g	0.00001																											2			
PCB-123	65510-44-3	1668A	pg/g	0.00001																											0			
PCB-126	57465-28-8	1668A	pg/g	0.1																											0			
PCB-156	38380-08-4	1668A	pg/g	0.0001																											3			
PCB-157	69782-90-7	1668A	pg/g	0.0001																											3			
PCB-167	52663-72-6	1668A	pg/g	0.00001																											0			
PCB-169	32774-16-6	1668A	pg/g	0.001																											0			
PCB-189	39635-31-9	1668A	pg/g	0.00001																											0			
Σ Polychlorinated biphenyls (PCB) TEQ	1336-36-3	8082A	pg/g		0.199 (5)																										123			

Table 5.5 - Soil: Polychlorinated Biphenyls (PCBs) Analytical Results

(continued)

Rolling Knolls Landfill

Sample Name				NJDEP Avian TEF's	ESC's	NJAC 7:26D	SS14				SS102 (SS14 duplicate)				SS15				SS16				SS17				SS18				SS19			
Sample Date/Time							05/03/2021 10:40				05/03/2021 10:40				05/03/2021 15:30				05/04/2021 09:40				05/05/2021 10:05				05/10/2021 13:30				05/10/2021 08:30			
Latitude				Toxicity Equivalence Factor (TEF)	Screening Criteria	(8) Soil Remediation Standards (Ing.-Derm.) - Residential	40.7222989				40.7222989				40.7226573				40.7229083				40.723173				40.7226388				40.7236522			
Longitude							-74.4446187				-74.4446187				-74.4446863				-74.445227				-74.443727				-74.4459762				-74.4437257			
Lab Sample Name							GS-S-SS14				GS-S-SS102				GS-S-SS15				GS-S-SS16				GS-S-SS17				GS-S-SS18				GS-S-SS19			
Lab Sample Number							460-233488-4				460-233506-1				460-233506-3				460-233704-1				460-233715-1				460-234084-1				460-234080-1			
Lab Report Number(s)							460-233488-1 / 460-233488-2				460-233506-1				460-233506-1 / 460-233506-2				460-233704-1				460-233715-1				460-234084-1				460-234080-1			
Analyte	CAS	Method	Units				Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)
Polychlorinated Biphenyls (PCBs)		8082A					•				•				•				•				•				•				•			
Aroclor 1016	12674-11-2	8082A	µg/Kg		1100 (7)		21	U	160	21	19	U	140	19	82	U	620	82	22	U	160	22	32	U	240	32	79	U	600	79	210	U	1600	210
Aroclor 1221	11104-28-2	8082A	µg/Kg				21	U	160	21	19	U	140	19	82	U	620	82	22	U	160	22	32	U	240	32	79	U	600	79	210	U	1600	210
Aroclor 1232	11141-16-5	8082A	µg/Kg				21	U	160	21	19	U	140	19	82	U	620	82	22	U	160	22	32	U	240	32	79	U	600	79	210	U	1600	210
Aroclor 1242	53469-21-9	8082A	µg/Kg		41 (7)		21	U	160	21	19	U	140	19	82	U	620	82	22	U	160	22	32	U	240	32	79	U	600	79	210	U	1600	210
Aroclor 1248	12672-29-6	8082A	µg/Kg		7.3 (7)		820		160	21	19	U	140	19	6000	J	620	82	22	U	160	22	32	U	240	32	79	U	600	79	210	U	1600	210
Aroclor 1254	11097-69-1	8082A	µg/Kg		41 (7)		22	U	160	22	1400		140	20	85	U	620	85	1500		160	22	3200		240	33	82	U	600	82	220	U	1600	220
Aroclor 1260	11096-82-5	8082A	µg/Kg		880 (7)		230		160	22	20	U	140	20	85	U	620	85	22	U	160	22	33	U	240	33	82	U	600	82	220	U	1600	220
Aroclor 1268	11100-14-4	8082A	µg/Kg				22	U	160	22	20	U	140	20	85	U	620	85	22	U	160	22	33	U	240	33	82	U	600	82	220	U	1600	220
Aroclor-1262	37324-23-5	8082A	µg/Kg				22	U	160	22	20	U	140	20	85	U	620	85	22	U	160	22	33	U	240	33	82	U	600	82	15000		1600	220
Polychlorinated biphenyls, Total	1336-36-3	8082A	µg/Kg		371 (5)	250	1100		160	22	1400		140	20	6000	J	620	85	1500		160	22	3200		240	33	82	U	600	82	15000		1600	220
Chlorinated Biphenyl Congeners (PCBs)		1668A					•								•												•							
PCB-1	2051-60-7	1668A	pg/g				1400		972	6.92					2850		1440	8.74									2190	J	180	5.18				
PCB-2	2051-61-8	1668A	pg/g				359	J	972	6.67					431	J	1440	8.78									421		180	4.8				
PCB-3	2051-62-9	1668A	pg/g				2060		972	7.71					2170		1440	10.6									2610	J	180	5.31				
PCB-4	13029-08-8	1668A	pg/g				1270		972	40.2					12100		1440	24.3									12800		180	25.2				
PCB-5	16605-91-7	1668A	pg/g				58.6	U	972	58.6					191	U	1440	191									191	U	191	191				
PCB-6	25569-80-6	1668A	pg/g				698	J	972	53					12700		1440	173									3150		180	173				
PCB-7	33284-50-3	1668A	pg/g				109	J	972	56.9					511	J	1440	186									260		186	186				
PCB-8	34883-43-7	1668A	pg/g				2090		972	49.1					18700		1440	161									3750		180	161				
PCB-9	34883-39-1	1668A	pg/g				156	J	972	55.8					975	J	1440	182									312		182	182				
PCB-10	33146-45-1	1668A	pg/g				153	J	972	34.9					675	J	1440	22.4									853		180	22.5				
PCB-11	2050-67-1	1668A	pg/g				1080		972	64					1660		1440	209									879		209	209				
PCB-12	2974-92-7	1668A	pg/g				987	J	1940	63.2					4280		2870	206									3270		361	206				
PCB-13	2974-90-5	1668A	pg/g				987	J	1940	63.2					4280		2870	206									3270		361	206				
PCB-14	34883-41-5	1668A	pg/g				61.1	U	972	61.1					200	U	1440	200									200	U	200	200				
PCB-15	2050-68-2	1668A	pg/g				8040		972	52.3					13100		1440	177									37600	J	180	174				
PCB-16	38444-78-9	1668A	pg/g				1230		972	14					11700		1440	87									5730	J	180	86.5				
PCB-17	37680-66-3	1668A	pg/g				1840		972	13.6					18500		1440	84.4									18700	J	180	83.8				
PCB-18	37680-65-2	1668A	pg/g				2930		1940	9.69					40400		2870	60.2									23100	J	361	59.8				
PCB-19	38444-73-4	1668A	pg/g				1780		972	16.1					7040		1440	84.5									21500	J	180	76.3				
PCB-20	38444-84-7	1668A	pg/g				12800		2920	169					98300		4310	1280									32000	J	541	501				
PCB-21	55702-46-0	1668A	pg/g				2870		1940	177					18400		2870	1340									3370	J	524	524				
PCB-22	38444-85-8	1668A	pg/g				2920		972	167					27900		1440	1270									4140	J	495	495				
PCB-23	55720-44-0	1668A	pg/g				170	U	972	170					1290	U	1440	1290									504	UJ	504	504				
PCB-24	55702-45-9	1668A	pg/g				57.3	J	972	10.2					376	J	1440	63.2									62.7	UJ	180	62.7				
PCB-25	55712-37-3	1668A	pg/g				1280		972	154					8760		1440	1170									6460	J	456	456				
PCB-26	38444-81-4	1668A	pg/g				2160		1940	177					17200		2870	1340									13300	J	523	523				
PCB-27	38444-76-7	1668A	pg/g				1080		972	9.28					4290		1440	57.6									15800	J	180	57.2				
PCB-28	7012-37-5	1668A	pg/g				12800		2920	169					98300		4310	1280									32000	J	541	501				
PCB-29	15862-07-4	1668A	pg/g				2160		1940	177					17200		2870	1340									13300	J	523	523				
PCB-30	35693-92-6	1668A	pg/g				2930		1940	9.69					40400		2870	60.2									23100	J	361	59.8				
PCB-31	16606-02-3	1668A	pg/g				9780		972	163					118000		1440	1230									22300	J	482	482				
PCB-32	38444-77-8	1668A	pg/g				3030		972	9.52					16800		1440	59.1									31600	J	180	58.7				
PCB-33	38444-86-9	1668A	pg/g				2870		1940	177					18400		2870	1340									3370	J	524	524				
PCB-34	37680-68-5	1668A	pg/g				177	U	972	177					1340	U	1440	1340									522	UJ	522	522				
PCB-35	37680-69-6	1668A	pg/g				194	U	972	194					1470	U	1470	1470									575	UJ	575	575				
PCB-36	38444-87-0	1668A	pg/g				195	U	972	195					1470	U	1470	1470									576	UJ	576	576				
PCB-37	38444-90-5	1668A	pg/g				7940		972	180					23100		1510	1510									11500		635	635				
PCB-38	53555-66-1	1668A	pg/g				201	U	972	201					1520	U	1520	1520									594	UJ	594	594				
PCB-39	38444-88-1	1668A	pg/g				181	U	972	181					1370	U	1440	1370									536	UJ	536	536				
PCB-40	38444-93-8	1668A	pg/g				12800		1940	1310					67000		3230	3230									41500	J	3700	3700				
PCB-41	52663-59-9	1668A	pg/g				2000	U	2000	2000					11000	J	4930	4930									5640	U	5640	5640				
PCB-42	36559-22-5	1668A	pg/g				9160		1390	1390					43400		3430	3430									23400	J	3930	3930				
PCB-43	70362-46-8	1668A	pg/g				1410	U	1410	1410					6600		3490	3490									3990	U	3990	3990				
PCB-44	41464-39-5	1668A	pg/g				43000		2920	1340					201000		4310	3310									108000	J	3780	3780				
PCB-45	70362-45-7	1668A	pg/g				4510		2000	2000					28200		4930	4930									17100		5640	5640				
PCB-46	41464-47-5	1668A	pg/g				1860		1690	1690					7420		4180	4180									9760		4780	4780				
PCB-47	2437-79-8	1668A	pg/g				43000		2920	1340					201000		4310	3310									108000	J	3780	3780				
PCB-48	70362-47-9	1668A	pg/g				2360		1440	1440					32900		3540	3540									4540		4050	4050				
PCB-49	41464-40-8	1668A	pg/g				33300		1940	1180					142000		2920	2920									80500	J	3340	3340				

Table 5.5 - Soil: Polychlorinated Biphenyls (PCBs) Analytical Results

(continued)

Rolling Knolls Landfill

Sample Name				NJDEP Avian TEF's	ESC's	NJAC 7:26D	SS14						SS102 (SS14 duplicate)						SS15						SS16						SS17						SS18						SS19					
Sample Date/Time							05/03/2021 10:40						05/03/2021 10:40						05/03/2021 15:30						05/04/2021 09:40						05/05/2021 10:05						05/10/2021 13:30						05/10/2021 08:30					
Latitude				Toxicity Equivalence Factor (TEF)	Screening Criteria	(8) Soil Remediation Standards (Ing.-Derm.) - Residential	40.7222989						40.7222989						40.7226573						40.7229083						40.723173						40.7226388						40.7236522					
Longitude							-74.4446187						-74.4446187						-74.4446863						-74.445227						-74.443727						-74.4459762						-74.4437257					
Lab Sample Name							GS-S-SS14						GS-S-SS102						GS-S-SS15						GS-S-SS16						GS-S-SS17						GS-S-SS18						GS-S-SS19					
Lab Sample Number							460-233488-4						460-233506-1						460-233506-3						460-233704-1						460-233715-1						460-234084-1						460-234080-1					
Lab Report Number(s)							460-233488-1 / 460-233488-2						460-233506-1						460-233506-1 / 460-233506-2						460-233704-1						460-233715-1						460-234084-1						460-234080-1					
Analyte	CAS	Method	Units				Result	LDC Flag	RL	MDL (EDL)			Result	LDC Flag	RL	MDL (EDL)			Result	LDC Flag	RL	MDL (EDL)			Result	LDC Flag	RL	MDL (EDL)			Result	LDC Flag	RL	MDL (EDL)			Result	LDC Flag	RL	MDL (EDL)			Result	LDC Flag	RL	MDL (EDL)		
PCB-50	62796-65-0	1668A	pg/g				9670		1940	1670									33500		4110	4110															41900	J	4700	4700								
~~PCB-51~~	~~68194-04-7~~	~~1668A~~	~~pg/g~~				2110		1170	1170									6020		2900	2900															15200		3320	3320								
PCB-52	35693-99-3	1668A	pg/g				74300		1410	1410									301000	J	3470	3470															154000	J	3970	3970								
PCB-53	41464-41-9	1668A	pg/g				9670		1940	1670									33500		4110	4110															41900	J	4700	4700								
PCB-54	15968-05-5	1668A	pg/g				405	J	972	2.7									787	J	1440	9.75															2890		180	2.46								
PCB-55	74338-24-2	1668A	pg/g				469	U	972	469									1200	U	1440	1200															263	U	263	263								
PCB-56	41464-43-1	1668A	pg/g				15800		972	547									89600		1440	1410															13600		309	309								
PCB-57	70424-67-8	1668A	pg/g				593	U	972	593									1530	U	1530	1530															336	U	336	336								
PCB-58	41464-49-7	1668A	pg/g				510	U	972	510									1320	U	1440	1320															1960		288	288								
PCB-59	74472-33-6	1668A	pg/g				3290		2920	1150									15400		4310	2830															5910		3240	3240								
PCB-60	33025-41-1	1668A	pg/g				5530		972	578									52300		1490	1490															1920		327	327								
PCB-61	33284-53-6	1668A	pg/g				63500		3890	552									394000		5750	1430															49200		721	313								
PCB-62		1668A	pg/g				3290		2920	1150									15400		4310	2830															5910		3240	3240								
PCB-63	74472-34-7	1668A	pg/g				1240		972	597									9330		1540	1540															338	U	338	338								
PCB-64	52663-58-8	1668A	pg/g				14100		1050	1050									92100		2600	2600															14300		2970	2970								
PCB-65	33284-54-7	1668A	pg/g				43000		2920	1340									201000		4310	3310															108000	J	3780	3780								
PCB-66	32598-10-0	1668A	pg/g				42100		972	551									222000	J	1440	1420															50300	J	312	312								
PCB-67	73575-53-8	1668A	pg/g				583	J	972	458									3520		1440	1190															259	U	259	259								
PCB-68	73575-52-7	1668A	pg/g				600	J	972	519									1340	U	1440	1340															1180		293	293								
PCB-69	60233-24-1	1668A	pg/g				33300		1940	1180									142000		2920	2920															80500	J	3340	3340								
PCB-70	32598-11-1	1668A	pg/g				63500		3890	552									394000		5750	1430															49200		721	313								
PCB-71	41464-46-4	1668A	pg/g				12800		1940	1310									67000		3230	3230															41500	J	3700	3700								
PCB-72	41464-42-0	1668A	pg/g				806	J	972	580									1890		1500	1500															1520		328	328								
PCB-73	74338-23-1	1668A	pg/g				1000	U	1000	1000									2470	U	2470	2470															2830	U	2830	2830								
PCB-74	32690-93-0	1668A	pg/g				63500		3890	552									394000		5750	1430															49200		721	313								
PCB-75	32598-12-2	1668A	pg/g				3290		2920	1150									15400		4310	2830															5910		3240	3240								
PCB-76	70362-48-0	1668A	pg/g				63500		3890	552									394000		5750	1430															49200		721	313								
PCB-77	32598-13-3	1668A	pg/g				6460		637	637									19400		1730	1730															4860	J	394	394								
PCB-78	70362-49-1	1668A	pg/g				635	U	972	635									1640	U	1640	1640															359	U	359	359								
PCB-79	41464-48-6	1668A	pg/g				1630		972	556									2990		1440	1440															924		315	315								
PCB-80	33284-52-5	1668A	pg/g				508	U	972	508									1310	U	1440	1310															524	J	287	287								
PCB-81	70362-50-4	1668A	pg/g				626	U	626	626									1730	U	1730	1730															385	U	385	385								
PCB-82	52663-62-4	1668A	pg/g				15900		2400	2400									36100		4020	4020															12800		1650	1650								
PCB-83	60145-20-2	1668A	pg/g				6900		3110	3110									16000		5200	5200															6660		2130	2130								
PCB-84	52663-60-2	1668A	pg/g				31400		2640	2640									65000		4420	4420															35600	J	1810	1810								
PCB-85	65510-45-4	1668A	pg/g				26100		2920	1880									57300		4310	3150															20000		1290	1290								
PCB-86	55312-69-1	1668A	pg/g				96100		5830	1890									189000		8620	3160															76500		1300	1300								
PCB-87	38380-02-8	1668A	pg/g				96100		5830	1890									189000		8620	3160															76500		1300	1300								
PCB-88	55215-17-3	1668A	pg/g				21000		2250	2250									41500		3770	3770															18900		1550	1550								
PCB-89	73575-57-2	1668A	pg/g				2540	U	2540	2540									4780		4250	4250															1740	U	1740	1740								
PCB-90	68194-07-0	1668A	pg/g				145000		2920	1980									264000		4310	3320															118000	J	1360	1360								
PCB-91	68194-05-8	1668A	pg/g				21000		2250	2250									41500		3770	3770															18900		1550	1550								
PCB-92	52663-61-3	1668A	pg/g				28000		2280	2280									46100		3820	3820															26400	J	1570	1570								
PCB-93	73575-56-1	1668A	pg/g				2180	U	2180	2180									3650	U	3650	3650															2670		1500	1500								
PCB-94	73575-55-0	1668A	pg/g				2470	U	2470	2470									4130	U	4130	4130															1690	U	1690	1690								
PCB-95	38379-99-6	1668A	pg/g				107000	J	2250	2250									185000	J	3770	3770															91700	J	1550	1550								
PCB-96	73575-54-9	1668A	pg/g				828	J	972	2.38									2460		1440	12															1400		180	3.66								
PCB-97	41464-51-1	1668A	pg/g				96100		5830	1890									189000		8620	3160															76500		1300	1300								
PCB-98	60233-25-2	1668A	pg/g				4350		2150	2150									10000		3610	3610															5100		1480	1480								
PCB-99	38380-01-7	1668A	pg/g				68100		1880	1880									129000		3150	3150															62400	J	1290	1290								
PCB-100	39485-83-1	1668A	pg/g				2180	U	2180	2180									3650	U	3650	3650															2670		1500	1500								
PCB-101	37680-73-2	1668A	pg/g				145000		2920	1980									264000		4310	3320															118000	J	1360	1360								
PCB-102	68194-06-9	1668A	pg/g				4350		2150	2150									10000		3610	3610															5100		1480	1480								
PCB-103	60145-21-3	1668A	pg/g				2060	U	2060	2060									3450	U	3450	3450															1410	U	1410	1410								
PCB-104	56558-16-8	1668A	pg/g				95	J	972	2.72									76.3	J	1440	13.8															297		180	3.92								
PCB-105	32598-14-4	1668A	pg/g				42600		1690	1690									113000		2810	2810															28900	J	1160	1160								
PCB-106	70424-69-0	1668A	pg/g				1850	U	1850	1850									3100	U	3100	3100															1270	U	1270	1270								
PCB-107	70424-68-9	1668A	pg/g				6220		1940	1850									11400		3100	3100															4080		1270	1270								
PCB-108	70362-41-3	1668A	pg/g				96100		5830	1890									189000		8620	3160															76500		1300	1300								
PCB-109	74472-35-8	1668A	pg/g				7630		1630	1630									18800		2740	2740															6340		1120	1120								
PCB-110	38380-03-9	1668A	pg/g				176000		1940	1610									304000	J	2870	2700															127000	J	1110	1110								
PCB-111	39635-32-0	1668A	pg/g				1690	U	1690	1690									2830	U	2830	2830															1160	U	1160	1160								
PCB-112	74472-36-9	1668A	pg/g				1360	U	1360	1360									2280	U	2280	2280															934	U	934	934								

Table 5.5 - Soil: Polychlorinated Biphenyls (PCBs) Analytical Results

(continued)

Rolling Knolls Landfill

Sample Name				NJDEP Avian TEF's	ESC's	NJAC 7:26D	SS14				SS102 (SS14 duplicate)				SS15				SS16				SS17				SS18				SS19			
Sample Date/Time							05/03/2021 10:40				05/03/2021 10:40				05/03/2021 15:30				05/04/2021 09:40				05/05/2021 10:05				05/10/2021 13:30				05/10/2021 08:30			
Latitude							40.7222989				40.7222989				40.7226573				40.7229083				40.723173				40.7226388				40.7236522			
Longitude				Toxicity Equivalence Factor (TEF)	Screening Criteria	(8) Soil Remediation Standards (Ing.-Derm.) - Residential	-74.4446187				-74.4446187				-74.4446863				-74.445227				-74.443727				-74.4459762				-74.4437257			
Lab Sample Name							GS-S-SS14				GS-S-SS102				GS-S-SS15				GS-S-SS16				GS-S-SS17				GS-S-SS18				GS-S-SS19			
Lab Sample Number							460-233488-4				460-233506-1				460-233506-3				460-233704-1				460-233715-1				460-234084-1				460-234080-1			
Lab Report Number(s)							460-233488-1 / 460-233488-2				460-233506-1				460-233506-1 / 460-233506-2				460-233704-1				460-233715-1				460-234084-1				460-234080-1			
Analyte	CAS	Method	Units				Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)
PCB-113	68194-10-5	1668A	pg/g				145000		2920	1980					264000		4310	3320									118000	J	1360	1360				
PCB-114	74472-37-0	1668A	pg/g				1870	U	1870	1870					7510		3150	3150									1290	U	1290	1290				
PCB-115	74472-38-1	1668A	pg/g				176000		1940	1610					304000	J	2870	2700									127000	J	1110	1110				
PCB-116	18259-05-7	1668A	pg/g				26100		2920	1880					57300		4310	3150									20000		1290	1290				
PCB-117	68194-11-6	1668A	pg/g				26100		2920	1880					57300		4310	3150									20000		1290	1290				
PCB-118	31508-00-6	1668A	pg/g				109000	J	1560	1560					235000	J	2550	2550									78700	J	1140	1140				
PCB-119	56558-17-9	1668A	pg/g				96100		5830	1890					189000		8620	3160									76500		1300	1300				
PCB-120	68194-12-7	1668A	pg/g				1430	U	1430	1430					2400	U	2400	2400									984	U	984	984				
PCB-121	56558-18-0	1668A	pg/g				1460	U	1460	1460					2440	U	2440	2440									1000	U	1000	1000				
PCB-122	76842-07-4	1668A	pg/g				2110	U	2110	2110					5840		3530	3530									1570		1450	1450				
PCB-123	65510-44-3	1668A	pg/g				2220		1890	1890					5150		3200	3200									1780		1290	1290				
PCB-124	70424-70-3	1668A	pg/g				6220		1940	1850					11400		3100	3100									4080		1270	1270				
PCB-125	74472-39-2	1668A	pg/g				96100		5830	1890					189000		8620	3160									76500		1300	1300				
PCB-126	57465-28-8	1668A	pg/g				2160	U	2160	2160					3570	U	3570	3570									1350	U	1350	1350				
PCB-127	39635-33-1	1668A	pg/g				2040	U	2040	2040					3420	U	3420	3420									1400	U	1400	1400				
PCB-128	38380-07-3	1668A	pg/g				21800		1940	844					32600		2870	816									15100		416	416				
PCB-129	55215-18-4	1668A	pg/g				133000		2920	889					185000		4310	860									92200	J	541	438				
PCB-130	52663-66-8	1668A	pg/g				8510		1140	1140					13000		1440	1100									6540		561	561				
PCB-131	61798-70-7	1668A	pg/g				1550	J	1010	1010					2640		1440	977									1200		498	498				
PCB-132	38380-05-1	1668A	pg/g				39400		991	991					53100		1440	958									26700	J	488	488				
PCB-133	35694-04-3	1668A	pg/g				1860		972	968					2030		1440	930									1470		477	477				
PCB-134	52704-70-8	1668A	pg/g				5960		1940	947					8130		2870	916									4630		467	467				
PCB-135	52744-13-5	1668A	pg/g				31300		1940	897					36500		2870	867									23800		442	442				
PCB-136	38411-22-2	1668A	pg/g				11100		972	630					13700		1440	609									8640		310	310				
PCB-137	35694-06-5	1668A	pg/g				7340		972	956					12300		1440	924									3780		471	471				
PCB-138	35065-28-2	1668A	pg/g				133000		2920	889					185000		4310	860									92200	J	541	438				
PCB-139	56030-56-9	1668A	pg/g				2190	J	1940	891					3700		2870	861									1760		439	439				
PCB-140	59291-64-4	1668A	pg/g				2190	J	1940	891					3700		2870	861									1760		439	439				
PCB-141	52712-04-6	1668A	pg/g				19400		972	951					24400	J	1440	920									12800		469	469				
PCB-142	41411-61-4	1668A	pg/g				988	U	988	988					955	U	1440	955									487	U	487	487				
PCB-143	68194-15-0	1668A	pg/g				5960		1940	947					8130		2870	916									4630		467	467				
PCB-144	68194-14-9	1668A	pg/g				4020		972	822					5520		1440	795									2830		405	405				
PCB-145	74472-40-5	1668A	pg/g				652	U	972	652					630	U	1440	630									321	U	321	321				
PCB-146	51908-16-8	1668A	pg/g				13800		972	778					17600		1440	752									10900		383	383				
PCB-147	68194-13-8	1668A	pg/g				80500		1940	868					99900		2870	839									59500	J	427	427				
PCB-148	74472-41-6	1668A	pg/g				830	U	972	830					802	U	1440	802									409	U	409	409				
PCB-149	38380-04-0	1668A	pg/g				80500		1940	868					99900		2870	839									59500	J	427	427				
PCB-150	68194-08-1	1668A	pg/g				597	U	972	597					577	U	1440	577									294	U	294	294				
PCB-151	52663-63-5	1668A	pg/g				31300		1940	897					36500		2870	867									23800		442	442				
PCB-152	68194-09-2	1668A	pg/g				669	U	972	669					647	U	1440	647									329	U	329	329				
PCB-153	35065-27-1	1668A	pg/g				90300		1940	720					116000		2870	696									65400	J	361	355				
PCB-154	60145-22-4	1668A	pg/g				1290		972	769					1240	J	1440	739									1230		377	377				
PCB-155	33979-03-2	1668A	pg/g				770	U	972	770					720	U	1440	720									348	U	348	348				
PCB-156	38380-08-4	1668A	pg/g				16400		194	187					27900		287	192									9120	J	76.5	76.5				
PCB-157	69782-90-7	1668A	pg/g				16400		194	187					27900		287	192									9120	J	76.5	76.5				
PCB-158	74472-42-7	1668A	pg/g				11000		972	616					16900		1440	595									7730		303	303				
PCB-159	39635-35-3	1668A	pg/g				970	J	972	145					756	J	1440	150									425		180	56.9				
PCB-160	41411-62-5	1668A	pg/g				800	U	972	800					774	U	1440	774									394	U	394	394				
PCB-161	74472-43-8	1668A	pg/g				715	U	972	715					691	U	1440	691									352	U	352	352				
PCB-162	39635-34-2	1668A	pg/g				513	J	972	152					746	J	1440	158									283		180	59.8				
PCB-163	74472-44-9	1668A	pg/g				133000		2920	889					185000		4310	860									92200	J	541	438				
PCB-164	74472-45-0	1668A	pg/g				7460	J	972	771					11300		1440	746									7240		380	380				
PCB-165	74472-46-1	1668A	pg/g				743	U	972	743					719	U	1440	719									366	U	366	366				
PCB-166	41411-63-6	1668A	pg/g				21800		1940	844					32600		2870	816									15100		416	416				
PCB-167	52663-72-6	1668A	pg/g				5650		153	153					9210		163	163									3490		61.8	61.8				
PCB-168	59291-65-5	1668A	pg/g				90300		1940	720					116000		2870	696									65400	J	361	355				
PCB-169	32774-16-6	1668A	pg/g				177	U	177	177					188	U	188	188									69	U	69	69				
PCB-170	35065-30-6	1668A	pg/g				19100		972	373					22900		1440	328									11600		180	156				
PCB-171	52663-71-5	1668A	pg/g				5730		1940	335					7010		2870	294									3640		361	140				
PCB-172	52663-74-8	1668A	pg/g				3550		972	365					4260		1440	321									2270		180	152				
PCB-173	68194-16-1	1668A	pg/g				5730		1940	335					7010		2870	294									3640		361	140				
PCB-174	38411-25-5	1668A	pg/g				21000		972	307					18300		1440	270									11800		180	128				
PCB-175	40186-70-7	1668A	pg/g				1060		972	11.8					962	J	1440	16.9									672		180	7.89				

Table 5.5 - Soil: Polychlorinated Biphenyls (PCBs) Analytical Results

(continued)

Rolling Knolls Landfill

Sample Name				NJDEP Avian TEF's	ESC's	NJAC 7:26D	SS14				SS102 (SS14 duplicate)				SS15				SS16				SS17				SS18				SS19			
Sample Date/Time							05/03/2021 10:40				05/03/2021 10:40				05/03/2021 15:30				05/04/2021 09:40				05/05/2021 10:05				05/10/2021 13:30				05/10/2021 08:30			
Latitude							40.7222989				40.7222989				40.7226573				40.7229083				40.723173				40.7226388				40.7236522			
Longitude				Toxicity Equivalence Factor (TEF)	Screening Criteria	(8) Soil Remediation Standards (Ing.-Derm.) - Residential	-74.4446187				-74.4446187				-74.4446863				-74.445227				-74.443727				-74.4459762				-74.4437257			
Lab Sample Name							GS-S-SS14				GS-S-SS102				GS-S-SS15				GS-S-SS16				GS-S-SS17				GS-S-SS18				GS-S-SS19			
Lab Sample Number							460-233488-4				460-233506-1				460-233506-3				460-233704-1				460-233715-1				460-234084-1				460-234080-1			
Lab Report Number(s)							460-233488-1 / 460-233488-2				460-233506-1				460-233506-1 / 460-233506-2				460-233704-1				460-233715-1				460-234084-1				460-234080-1			
Analyte	CAS	Method	Units				Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)
PCB-176	52663-65-7	1668A	pg/g				3150		972	8.74					2840		1440	12.5									1830		180	5.86				
~~PCB-177~~	~~52663-70-4~~	~~1668A~~	~~pg/g~~				11200		972	308					10900		1440	271									6560		180	129				
PCB-178	52663-67-9	1668A	pg/g				5910		972	12.3					4760		1440	17.2									3310		180	8.08				
PCB-179	52663-64-6	1668A	pg/g				10500		972	7.61					7850		1440	10.9									5530		180	5.1				
PCB-180	35065-29-3	1668A	pg/g				49000		1940	273					40000		2870	240									24800		361	114				
PCB-181	74472-47-2	1668A	pg/g				315	U	972	315					389	J	1440	277									185		180	132				
PCB-182	60145-23-5	1668A	pg/g				11.4	U	972	11.4					216	J	1440	16.3									7.63	U	180	7.63				
PCB-183	52663-69-1	1668A	pg/g				12400		972	269					10900		1440	237									6180		180	112				
PCB-184	74472-48-3	1668A	pg/g				7.91	U	972	7.91					11.3	U	1440	11.3									5.3	U	180	5.3				
PCB-185	52712-05-7	1668A	pg/g				3710	J	972	358					3150	J	1440	314									2130		180	149				
PCB-186	74472-49-4	1668A	pg/g				7.1	U	972	7.1					10.2	U	1440	10.2									4.76	U	180	4.76				
PCB-187	52663-68-0	1668A	pg/g				30600		972	9.61					22900		1440	13.8									17200		180	6.44				
PCB-188	74487-85-7	1668A	pg/g				50.3	J	972	9.98					30.1	J	1440	12.8									42.2	J	180	5.21				
PCB-189	39635-31-9	1668A	pg/g				855		97.2	6.66					1020	J	144	14.8									527		18	3.63				
PCB-190	41411-64-7	1668A	pg/g				3780		972	234					4220		1440	200									2190		180	97.8				
PCB-191	74472-50-7	1668A	pg/g				841	J	972	245					1000	J	1440	215									599		180	102				
PCB-192	74472-51-8	1668A	pg/g				230	U	972	230					202	U	1440	202									96.2	U	180	96.2				
PCB-193	69782-91-8	1668A	pg/g				49000		1940	273					40000		2870	240									24800		361	114				
PCB-194	35694-08-7	1668A	pg/g				20700		972	37					8710		1440	36.7									4670		180	6.86				
PCB-195	52663-78-2	1668A	pg/g				6780		972	36.6					3240		1440	36.3									1800		180	6.79				
PCB-196	42740-50-1	1668A	pg/g				11000		972	43.7					5420		1440	29.9									3290		180	8.33				
PCB-197	33091-17-7	1668A	pg/g				783	J	972	27.3					453	J	1440	18.7									231	J	180	5.19				
PCB-198	68194-17-2	1668A	pg/g				27100		1940	39.1					14100		2870	26.8									7900		361	7.43				
PCB-199	52663-75-9	1668A	pg/g				27100		1940	39.1					14100		2870	26.8									7900		361	7.43				
PCB-200	52663-73-7	1668A	pg/g				3830		972	33.3					1870		1440	22.8									1070		180	6.34				
PCB-201	40186-71-8	1668A	pg/g				3490		972	31.2					1900		1440	21.4									1030		180	5.94				
PCB-202	2136-99-4	1668A	pg/g				6920		972	35.5					4190		1440	21.6									1820		180	5.64				
PCB-203	52663-76-0	1668A	pg/g				16300		972	35.5					8680		1440	24.3									4320		180	6.75				
PCB-204	74472-52-9	1668A	pg/g				29.8	U	972	29.8					20.4	U	1440	20.4									5.67	U	180	5.67				
PCB-205	74472-53-0	1668A	pg/g				1170		972	26.6					599	J	1440	29.3									349		180	5.83				
PCB-206	40186-72-9	1668A	pg/g				19400		972	18.8					10500		1440	65.5									6780		180	5.47				
PCB-207	52663-79-3	1668A	pg/g				2080		972	13.3					1590		1440	46									778		180	3.76				
PCB-208	52663-77-1	1668A	pg/g				6000		972	13.2					5370		1440	45.5									2980	J	180	3.67				
PCB-209	2051-24-3	1668A	pg/g				11200		972	3.17					17100		1440	4.92									11900		180	2.46				
Σ Polychlorinated biphenyls	1336-36-3	8082A	pg/g		371000 (5)	250000	**4,135,306**								**9,699,012**												**3,996,791**							
Dioxin-Like PCB TEQ Calculation																																		
PCB-77	32598-13-3	1668A	pg/g	0.05			323								970												243							
PCB-81	70362-50-4	1668A	pg/g	0.1			0								0												0							
PCB-105	32598-14-4	1668A	pg/g	0.0001			4								11												3							
PCB-114	74472-37-0	1668A	pg/g	0.0001			0								1												0							
PCB-118	31508-00-6	1668A	pg/g	0.00001			1								2												1							
PCB-123	65510-44-3	1668A	pg/g	0.00001			0								0												0							
PCB-126	57465-28-8	1668A	pg/g	0.1			0								0												0							
PCB-156	38380-08-4	1668A	pg/g	0.0001			2								3												1							
PCB-157	69782-90-7	1668A	pg/g	0.0001			2								3												1							
PCB-167	52663-72-6	1668A	pg/g	0.00001			0								0												0							
PCB-169	32774-16-6	1668A	pg/g	0.001			0								0												0							
PCB-189	39635-31-9	1668A	pg/g	0.00001			0								0												0							
Σ Polychlorinated biphenyls (PCB) TEQ	1336-36-3	8082A	pg/g		0.199 (5)		**332**								**990**												**249**							

Table 5.5 - Soil: Polychlorinated Biphenyls (PCBs) Analytical Results

(continued)

Rolling Knolls Landfill

Sample Name				NJDEP Avian TEF's	ESC's	NJAC 7:26D	SS20				SS21				SS101 (SS21 duplicate)				SS22				SS23				SS24				SS25			
Sample Date/Time							05/04/2021 12:45				05/07/2021 10:30				05/07/2021 10:30				05/04/2021 10:55				05/10/2021 15:40				05/14/2021 10:00				05/06/2021 14:55			
Latitude							40.722731				40.7238344				40.7238344				40.7234467				40.7234761				40.7234047				40.7234932			
Longitude				Toxicity Equivalence Factor (TEF)	Screening Criteria	(8) Soil Remediation Standards (Ing.-Derm.) - Residential	-74.443907				-74.445655				-74.445655				-74.4453029				-74.4461556				-74.4467553				-74.4473376			
Lab Sample Name							GS-S-SS20				GS-S-SS21				GS-S-SS101				GS-S-SS22				GS-S-SS23				GS-S-SS24				GS-S-SS25			
Lab Sample Number							460-233704-4				460-233940-4				460-233940-5				460-233706-1				460-234080-4				460-234442-1				460-233899-5			
Lab Report Number(s)							460-233704-1				460-233940-1				460-233940-1				460-233706-1				460-234080-1				460-234442-1				460-233899-1			
Analyte	CAS	Method	Units				Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)
Polychlorinated Biphenyls (PCBs)		8082A					•				•				•				•				•				•				•			
Aroclor 1016	12674-11-2	8082A	µg/Kg		1100 (7)		11	U	82	11	16	U	120	16	17	U	130	17	29	U	220	29	28	U	210	28	24	U	180	24	13	U	97	13
Aroclor 1221	11104-28-2	8082A	µg/Kg				11	U	82	11	16	U	120	16	17	U	130	17	29	U	220	29	28	U	210	28	24	U	180	24	13	U	97	13
Aroclor 1232	11141-16-5	8082A	µg/Kg				11	U	82	11	16	U	120	16	17	U	130	17	29	U	220	29	28	U	210	28	24	U	180	24	13	U	97	13
Aroclor 1242	53469-21-9	8082A	µg/Kg		41 (7)		11	U	82	11	16	U	120	16	17	U	130	17	29	U	220	29	28	U	210	28	24	U	180	24	13	U	97	13
Aroclor 1248	12672-29-6	8082A	µg/Kg		7.3 (7)		11	U	82	11	16	U	120	16	17	U	130	17	29	U	220	29	1800	J	210	28	24	U	180	24	13	U	97	13
Aroclor 1254	11097-69-1	8082A	µg/Kg		41 (7)		11	U	82	11	17	U	120	17	220		130	18	2400	J	220	30	29	U	210	29	1100	J	180	24	13	U	97	13
Aroclor 1260	11096-82-5	8082A	µg/Kg		880 (7)		11	U	82	11	17	U	120	17	18	U	130	18	30	U	220	30	360	J	210	29	24	U	180	24	13	U	97	13
Aroclor 1268	11100-14-4	8082A	µg/Kg				11	U	82	11	17	U	120	17	18	U	130	18	30	U	220	30	29	U	210	29	24	U	180	24	13	U	97	13
Aroclor-1262	37324-23-5	8082A	µg/Kg				11	U	82	11	17	U	120	17	18	U	130	18	30	U	220	30	29	U	210	29	24	U	180	24	13	U	97	13
Polychlorinated biphenyls, Total	1336-36-3	8082A	µg/Kg		371 (5)	250	11	U	82	11	17	U	120	17	220		130	18	2400	J	220	30	2200		210	29	1100	J	180	24	13	U	97	13
Chlorinated Biphenyl Congeners (PCBs)		1668A																																
PCB-1	2051-60-7	1668A	pg/g																															
PCB-2	2051-61-8	1668A	pg/g																															
PCB-3	2051-62-9	1668A	pg/g																															
PCB-4	13029-08-8	1668A	pg/g																															
PCB-5	16605-91-7	1668A	pg/g																															
PCB-6	25569-80-6	1668A	pg/g																															
PCB-7	33284-50-3	1668A	pg/g																															
PCB-8	34883-43-7	1668A	pg/g																															
PCB-9	34883-39-1	1668A	pg/g																															
PCB-10	33146-45-1	1668A	pg/g																															
PCB-11	2050-67-1	1668A	pg/g																															
PCB-12	2974-92-7	1668A	pg/g																															
PCB-13	2974-90-5	1668A	pg/g																															
PCB-14	34883-41-5	1668A	pg/g																															
PCB-15	2050-68-2	1668A	pg/g																															
PCB-16	38444-78-9	1668A	pg/g																															
PCB-17	37680-66-3	1668A	pg/g																															
PCB-18	37680-65-2	1668A	pg/g																															
PCB-19	38444-73-4	1668A	pg/g																															
PCB-20	38444-84-7	1668A	pg/g																															
PCB-21	55702-46-0	1668A	pg/g																															
PCB-22	38444-85-8	1668A	pg/g																															
PCB-23	55720-44-0	1668A	pg/g																															
PCB-24	55702-45-9	1668A	pg/g																															
PCB-25	55712-37-3	1668A	pg/g																															
PCB-26	38444-81-4	1668A	pg/g																															
PCB-27	38444-76-7	1668A	pg/g																															
PCB-28	7012-37-5	1668A	pg/g																															
PCB-29	15862-07-4	1668A	pg/g																															
PCB-30	35693-92-6	1668A	pg/g																															
PCB-31	16606-02-3	1668A	pg/g																															
PCB-32	38444-77-8	1668A	pg/g																															
PCB-33	38444-86-9	1668A	pg/g																															
PCB-34	37680-68-5	1668A	pg/g																															
PCB-35	37680-69-6	1668A	pg/g																															
PCB-36	38444-87-0	1668A	pg/g																															
PCB-37	38444-90-5	1668A	pg/g																															
PCB-38	53555-66-1	1668A	pg/g																															
PCB-39	38444-88-1	1668A	pg/g																															
PCB-40	38444-93-8	1668A	pg/g																															
PCB-41	52663-59-9	1668A	pg/g																															
PCB-42	36559-22-5	1668A	pg/g																															
PCB-43	70362-46-8	1668A	pg/g																															
PCB-44	41464-39-5	1668A	pg/g																															
PCB-45	70362-45-7	1668A	pg/g																															
PCB-46	41464-47-5	1668A	pg/g																															
PCB-47	2437-79-8	1668A	pg/g																															
PCB-48	70362-47-9	1668A	pg/g																															
PCB-49	41464-40-8	1668A	pg/g																															

Table 5.5 - Soil: Polychlorinated Biphenyls (PCBs) Analytical Results (continued)

Rolling Knolls Landfill

Sample Name				NJDEP Avian TEF's	ESC's	NJAC 7:26D	SS20				SS21				SS101 (SS21 duplicate)				SS22				SS23				SS24				SS25			
Sample Date/Time							05/04/2021 12:45				05/07/2021 10:30				05/07/2021 10:30				05/04/2021 10:55				05/10/2021 15:40				05/14/2021 10:00				05/06/2021 14:55			
Latitude				Toxicity Equivalence Factor (TEF)	Screening Criteria	(8) Soil Remediation Standards (Ing.-Derm.) - Residential	40.722731				40.7238344				40.7238344				40.7234467				40.7234761				40.7234047				40.7234932			
Longitude							-74.443907				-74.445655				-74.445655				-74.4453029				-74.4461556				-74.4467553				-74.4473376			
Lab Sample Name							GS-S-SS20				GS-S-SS21				GS-S-SS101				GS-S-SS22				GS-S-SS23				GS-S-SS24				GS-S-SS25			
Lab Sample Number							460-233704-4				460-233940-4				460-233940-5				460-233706-1				460-234080-4				460-234442-1				460-233899-5			
Lab Report Number(s)							460-233704-1				460-233940-1				460-233940-1				460-233706-1				460-234080-1				460-234442-1				460-233899-1			
Analyte	CAS	Method	Units				Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)
PCB-50	62796-65-0	1668A	pg/g																															
~~PCB-51~~	~~68194-04-7~~	~~1668A~~	~~pg/g~~																															
PCB-52	35693-99-3	1668A	pg/g																															
PCB-53	41464-41-9	1668A	pg/g																															
PCB-54	15968-05-5	1668A	pg/g																															
PCB-55	74338-24-2	1668A	pg/g																															
PCB-56	41464-43-1	1668A	pg/g																															
PCB-57	70424-67-8	1668A	pg/g																															
PCB-58	41464-49-7	1668A	pg/g																															
PCB-59	74472-33-6	1668A	pg/g																															
PCB-60	33025-41-1	1668A	pg/g																															
PCB-61	33284-53-6	1668A	pg/g																															
PCB-62		1668A	pg/g																															
PCB-63	74472-34-7	1668A	pg/g																															
PCB-64	52663-58-8	1668A	pg/g																															
PCB-65	33284-54-7	1668A	pg/g																															
PCB-66	32598-10-0	1668A	pg/g																															
PCB-67	73575-53-8	1668A	pg/g																															
PCB-68	73575-52-7	1668A	pg/g																															
PCB-69	60233-24-1	1668A	pg/g																															
PCB-70	32598-11-1	1668A	pg/g																															
PCB-71	41464-46-4	1668A	pg/g																															
PCB-72	41464-42-0	1668A	pg/g																															
PCB-73	74338-23-1	1668A	pg/g																															
PCB-74	32690-93-0	1668A	pg/g																															
PCB-75	32598-12-2	1668A	pg/g																															
PCB-76	70362-48-0	1668A	pg/g																															
PCB-77	32598-13-3	1668A	pg/g																															
PCB-78	70362-49-1	1668A	pg/g																															
PCB-79	41464-48-6	1668A	pg/g																															
PCB-80	33284-52-5	1668A	pg/g																															
PCB-81	70362-50-4	1668A	pg/g																															
PCB-82	52663-62-4	1668A	pg/g																															
PCB-83	60145-20-2	1668A	pg/g																															
PCB-84	52663-60-2	1668A	pg/g																															
PCB-85	65510-45-4	1668A	pg/g																															
PCB-86	55312-69-1	1668A	pg/g																															
PCB-87	38380-02-8	1668A	pg/g																															
PCB-88	55215-17-3	1668A	pg/g																															
PCB-89	73575-57-2	1668A	pg/g																															
PCB-90	68194-07-0	1668A	pg/g																															
PCB-91	68194-05-8	1668A	pg/g																															
PCB-92	52663-61-3	1668A	pg/g																															
PCB-93	73575-56-1	1668A	pg/g																															
PCB-94	73575-55-0	1668A	pg/g																															
PCB-95	38379-99-6	1668A	pg/g																															
PCB-96	73575-54-9	1668A	pg/g																															
PCB-97	41464-51-1	1668A	pg/g																															
PCB-98	60233-25-2	1668A	pg/g																															
PCB-99	38380-01-7	1668A	pg/g																															
PCB-100	39485-83-1	1668A	pg/g																															
PCB-101	37680-73-2	1668A	pg/g																															
PCB-102	68194-06-9	1668A	pg/g																															
PCB-103	60145-21-3	1668A	pg/g																															
PCB-104	56558-16-8	1668A	pg/g																															
PCB-105	32598-14-4	1668A	pg/g																															
PCB-106	70424-69-0	1668A	pg/g																															
PCB-107	70424-68-9	1668A	pg/g																															
PCB-108	70362-41-3	1668A	pg/g																															
PCB-109	74472-35-8	1668A	pg/g																															
PCB-110	38380-03-9	1668A	pg/g																															
PCB-111	39635-32-0	1668A	pg/g																															
PCB-112	74472-36-9	1668A	pg/g																															

Table 5.5 - Soil: Polychlorinated Biphenyls (PCBs) Analytical Results

(continued)

Rolling Knolls Landfill

Sample Name				NJDEP Avian TEF's	ESC's	NJAC 7:26D	SS20				SS21				SS101 (SS21 duplicate)				SS22				SS23				SS24				SS25			
Sample Date/Time							05/04/2021 12:45				05/07/2021 10:30				05/07/2021 10:30				05/04/2021 10:55				05/10/2021 15:40				05/14/2021 10:00				05/06/2021 14:55			
Latitude				Toxicity Equivalence Factor (TEF)	Screening Criteria	(8) Soil Remediation Standards (Ing.-Derm.) - Residential	40.722731				40.7238344				40.7238344				40.7234467				40.7234761				40.7234047				40.7234932			
Longitude							-74.443907				-74.445655				-74.445655				-74.4453029				-74.4461556				-74.4467553				-74.4473376			
Lab Sample Name							GS-S-SS20				GS-S-SS21				GS-S-SS101				GS-S-SS22				GS-S-SS23				GS-S-SS24				GS-S-SS25			
Lab Sample Number							460-233704-4				460-233940-4				460-233940-5				460-233706-1				460-234080-4				460-234442-1				460-233899-5			
Lab Report Number(s)							460-233704-1				460-233940-1				460-233940-1				460-233706-1				460-234080-1				460-234442-1				460-233899-1			
Analyte	CAS	Method	Units				Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)
PCB-113	68194-10-5	1668A	pg/g																															
PCB-114	74472-37-0	1668A	pg/g																															
PCB-115	74472-38-1	1668A	pg/g																															
PCB-116	18259-05-7	1668A	pg/g																															
PCB-117	68194-11-6	1668A	pg/g																															
PCB-118	31508-00-6	1668A	pg/g																															
PCB-119	56558-17-9	1668A	pg/g																															
PCB-120	68194-12-7	1668A	pg/g																															
PCB-121	56558-18-0	1668A	pg/g																															
PCB-122	76842-07-4	1668A	pg/g																															
PCB-123	65510-44-3	1668A	pg/g																															
PCB-124	70424-70-3	1668A	pg/g																															
PCB-125	74472-39-2	1668A	pg/g																															
PCB-126	57465-28-8	1668A	pg/g																															
PCB-127	39635-33-1	1668A	pg/g																															
PCB-128	38380-07-3	1668A	pg/g																															
PCB-129	55215-18-4	1668A	pg/g																															
PCB-130	52663-66-8	1668A	pg/g																															
PCB-131	61798-70-7	1668A	pg/g																															
PCB-132	38380-05-1	1668A	pg/g																															
PCB-133	35694-04-3	1668A	pg/g																															
PCB-134	52704-70-8	1668A	pg/g																															
PCB-135	52744-13-5	1668A	pg/g																															
PCB-136	38411-22-2	1668A	pg/g																															
PCB-137	35694-06-5	1668A	pg/g																															
PCB-138	35065-28-2	1668A	pg/g																															
PCB-139	56030-56-9	1668A	pg/g																															
PCB-140	59291-64-4	1668A	pg/g																															
PCB-141	52712-04-6	1668A	pg/g																															
PCB-142	41411-61-4	1668A	pg/g																															
PCB-143	68194-15-0	1668A	pg/g																															
PCB-144	68194-14-9	1668A	pg/g																															
PCB-145	74472-40-5	1668A	pg/g																															
PCB-146	51908-16-8	1668A	pg/g																															
PCB-147	68194-13-8	1668A	pg/g																															
PCB-148	74472-41-6	1668A	pg/g																															
PCB-149	38380-04-0	1668A	pg/g																															
PCB-150	68194-08-1	1668A	pg/g																															
PCB-151	52663-63-5	1668A	pg/g																															
PCB-152	68194-09-2	1668A	pg/g																															
PCB-153	35065-27-1	1668A	pg/g																															
PCB-154	60145-22-4	1668A	pg/g																															
PCB-155	33979-03-2	1668A	pg/g																															
PCB-156	38380-08-4	1668A	pg/g																															
PCB-157	69782-90-7	1668A	pg/g																															
PCB-158	74472-42-7	1668A	pg/g																															
PCB-159	39635-35-3	1668A	pg/g																															
PCB-160	41411-62-5	1668A	pg/g																															
PCB-161	74472-43-8	1668A	pg/g																															
PCB-162	39635-34-2	1668A	pg/g																															
PCB-163	74472-44-9	1668A	pg/g																															
PCB-164	74472-45-0	1668A	pg/g																															
PCB-165	74472-46-1	1668A	pg/g																															
PCB-166	41411-63-6	1668A	pg/g																															
PCB-167	52663-72-6	1668A	pg/g																															
PCB-168	59291-65-5	1668A	pg/g																															
PCB-169	32774-16-6	1668A	pg/g																															
PCB-170	35065-30-6	1668A	pg/g																															
PCB-171	52663-71-5	1668A	pg/g																															
PCB-172	52663-74-8	1668A	pg/g																															
PCB-173	68194-16-1	1668A	pg/g																															
PCB-174	38411-25-5	1668A	pg/g																															
PCB-175	40186-70-7	1668A	pg/g																															

Table 5.5 - Soil: Polychlorinated Biphenyls (PCBs) Analytical Results

(continued)

Rolling Knolls Landfill

	Sample Name			NJDEP Avian TEF's	ESC's	NJAC 7:26D	SS20				SS21				SS101 (SS21 duplicate)				SS22				SS23				SS24				SS25			
	Sample Date/Time						05/04/2021 12:45				05/07/2021 10:30				05/07/2021 10:30				05/04/2021 10:55				05/10/2021 15:40				05/14/2021 10:00				05/06/2021 14:55			
	Latitude			Toxicity Equivalence Factor (TEF)	Screening Criteria	(8) Soil Remediation Standards (Ing.-Derm.) - Residential	40.722731				40.7238344				40.7238344				40.7234467				40.7234761				40.7234047				40.7234932			
	Longitude						-74.443907				-74.445655				-74.445655				-74.4453029				-74.4461556				-74.4467553				-74.4473376			
	Lab Sample Name						GS-S-SS20				GS-S-SS21				GS-S-SS101				GS-S-SS22				GS-S-SS23				GS-S-SS24				GS-S-SS25			
	Lab Sample Number						460-233704-4				460-233940-4				460-233940-5				460-233706-1				460-234080-4				460-234442-1				460-233899-5			
	Lab Report Number(s)						460-233704-1				460-233940-1				460-233940-1				460-233706-1				460-234080-1				460-234442-1				460-233899-1			
Analyte	CAS	Method	Units				Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)
PCB-176	52663-65-7	1668A	pg/g																															
~~PCB-177~~	~~52663-70-4~~	~~1668A~~	~~pg/g~~																															
PCB-178	52663-67-9	1668A	pg/g																															
PCB-179	52663-64-6	1668A	pg/g																															
PCB-180	35065-29-3	1668A	pg/g																															
PCB-181	74472-47-2	1668A	pg/g																															
PCB-182	60145-23-5	1668A	pg/g																															
PCB-183	52663-69-1	1668A	pg/g																															
PCB-184	74472-48-3	1668A	pg/g																															
PCB-185	52712-05-7	1668A	pg/g																															
PCB-186	74472-49-4	1668A	pg/g																															
PCB-187	52663-68-0	1668A	pg/g																															
PCB-188	74487-85-7	1668A	pg/g																															
PCB-189	39635-31-9	1668A	pg/g																															
PCB-190	41411-64-7	1668A	pg/g																															
PCB-191	74472-50-7	1668A	pg/g																															
PCB-192	74472-51-8	1668A	pg/g																															
PCB-193	69782-91-8	1668A	pg/g																															
PCB-194	35694-08-7	1668A	pg/g																															
PCB-195	52663-78-2	1668A	pg/g																															
PCB-196	42740-50-1	1668A	pg/g																															
PCB-197	33091-17-7	1668A	pg/g																															
PCB-198	68194-17-2	1668A	pg/g																															
PCB-199	52663-75-9	1668A	pg/g																															
PCB-200	52663-73-7	1668A	pg/g																															
PCB-201	40186-71-8	1668A	pg/g																															
PCB-202	2136-99-4	1668A	pg/g																															
PCB-203	52663-76-0	1668A	pg/g																															
PCB-204	74472-52-9	1668A	pg/g																															
PCB-205	74472-53-0	1668A	pg/g																															
PCB-206	40186-72-9	1668A	pg/g																															
PCB-207	52663-79-3	1668A	pg/g																															
PCB-208	52663-77-1	1668A	pg/g																															
PCB-209	2051-24-3	1668A	pg/g																															
Σ Polychlorinated biphenyls	1336-36-3	8082A	pg/g		371000 (5)	250000																												
Dioxin-Like PCB TEQ Calculation																																		
PCB-77	32598-13-3	1668A	pg/g	0.05																														
PCB-81	70362-50-4	1668A	pg/g	0.1																														
PCB-105	32598-14-4	1668A	pg/g	0.0001																														
PCB-114	74472-37-0	1668A	pg/g	0.0001																														
PCB-118	31508-00-6	1668A	pg/g	0.00001																														
PCB-123	65510-44-3	1668A	pg/g	0.00001																														
PCB-126	57465-28-8	1668A	pg/g	0.1																														
PCB-156	38380-08-4	1668A	pg/g	0.0001																														
PCB-157	69782-90-7	1668A	pg/g	0.0001																														
PCB-167	52663-72-6	1668A	pg/g	0.00001																														
PCB-169	32774-16-6	1668A	pg/g	0.001																														
PCB-189	39635-31-9	1668A	pg/g	0.00001																														
Σ Polychlorinated biphenyls (PCB) TEQ	1336-36-3	8082A	pg/g		0.199 (5)																													

Table 5.5 - Soil: Polychlorinated Biphenyls (PCBs) Analytical Results

(continued)

Rolling Knolls Landfill

Sample Name				NJDEP Avian TEF's	ESC's	NJAC 7:26D	SS26				SS27				SS28				SS29				SS30				SS31				DP01_0.5-8.5			
Sample Date/Time							05/07/2021 08:30				05/05/2021 13:30				05/05/2021 08:20				05/06/2021 11:25				05/13/2021 15:20				05/14/2021 08:45				05/11/2021 09:10			
Latitude				Toxicity Equivalence Factor (TEF)	Screening Criteria	(8) Soil Remediation Standards (Ing.-Derm.) - Residential	40.7240722				40.7231759				40.7240805				40.7248365				40.7266724				40.7237372				40.7297321			
Longitude							-74.4463803				-74.4437423				-74.4443078				-74.4434245				-74.4405011				-74.4477876				-74.4419101			
Lab Sample Name							GS-S-SS26				GS-S-SS27				GS-S-SS28				GS-S-SS29				GS-S-SS30				GS-S-SS31				GS-N-DPT01-SC-0.5-8.5			
Lab Sample Number							460-233940-1				460-233708-4				460-233708-1				460-233899-2				460-234436-4				460-234442-4				460-234161-2			
Lab Report Number(s)							460-233940-1				460-233708-1 / 460-233708-2				460-233708-1				460-233899-1				460-234436-1				460-234442-1				460-234161-1 / 460-234161-2			
Analyte	CAS	Method	Units				Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)
Polychlorinated Biphenyls (PCBs)		8082A					•				•				•				•				•				•				•			
Aroclor 1016	12674-11-2	8082A	µg/Kg		1100 (7)		14	U	100	14	140	U	1100	140	17	U	130	17	320	U	2400	320	20	U	150	20	12	U	90	12	20	U	150	20
Aroclor 1221	11104-28-2	8082A	µg/Kg				14	U	100	14	140	U	1100	140	17	U	130	17	320	U	2400	320	20	U	150	20	12	U	90	12	20	U	150	20
Aroclor 1232	11141-16-5	8082A	µg/Kg				14	U	100	14	140	U	1100	140	17	U	130	17	320	U	2400	320	20	U	150	20	12	U	90	12	20	U	150	20
Aroclor 1242	53469-21-9	8082A	µg/Kg		41 (7)		14	U	100	14	140	U	1100	140	17	U	130	17	320	U	2400	320	20	U	150	20	12	U	90	12	20	U	150	20
Aroclor 1248	12672-29-6	8082A	µg/Kg		7.3 (7)		14	U	100	14	9900		1100	140	17	U	130	17	320	U	2400	320	20	U	150	20	12	U	90	12	1000		150	20
Aroclor 1254	11097-69-1	8082A	µg/Kg		41 (7)		14	U	100	14	150	U	1100	150	18	U	130	18	27000		2400	330	2300		150	21	12	U	90	12	21	U	150	21
Aroclor 1260	11096-82-5	8082A	µg/Kg		880 (7)		89	J	100	14	150	U	1100	150	840		130	18	330	U	2400	330	21	U	150	21	12	U	90	12	21	U	150	21
Aroclor 1268	11100-14-4	8082A	µg/Kg				14	U	100	14	150	U	1100	150	18	U	130	18	330	U	2400	330	21	U	150	21	12	U	90	12	21	U	150	21
Aroclor-1262	37324-23-5	8082A	µg/Kg				14	U	100	14	150	U	1100	150	18	U	130	18	330	U	2400	330	21	U	150	21	12	U	90	12	21	U	150	21
Polychlorinated biphenyls, Total	1336-36-3	8082A	µg/Kg		371 (5)	250	89	J	100	14	9900		1100	150	840		130	18	27000		2400	330	2300		150	21	12	U	90	12	1000		150	21
Chlorinated Biphenyl Congeners (PCBs)		1668A									•																				•			
PCB-1	2051-60-7	1668A	pg/g								1660		625	8.48																	53800		892	55.1
PCB-2	2051-61-8	1668A	pg/g								626		625	8.15																	2950		892	50.9
PCB-3	2051-62-9	1668A	pg/g								3840		625	9.39																	21200		892	56.2
PCB-4	13029-08-8	1668A	pg/g								909		625	21.5																	124000	J	892	57.4
PCB-5	16605-91-7	1668A	pg/g								83.3	U	625	83.3																	1710	U	1710	1710
PCB-6	25569-80-6	1668A	pg/g								797		625	75.5																	57900		1550	1550
PCB-7	33284-50-3	1668A	pg/g								213	J	625	81																	5080		1660	1660
PCB-8	34883-43-7	1668A	pg/g								3710		625	69.9																	125000		1440	1440
PCB-9	34883-39-1	1668A	pg/g								256	J	625	79.5																	7250		1630	1630
PCB-10	33146-45-1	1668A	pg/g								90.7	J	625	20.6																	21900		892	50.3
PCB-11	2050-67-1	1668A	pg/g								1140		625	91.1																	3210		1870	1870
PCB-12	2974-92-7	1668A	pg/g								1120	J	1250	89.9																	44700		1850	1850
PCB-13	2974-90-5	1668A	pg/g								1120	J	1250	89.9																	44700		1850	1850
PCB-14	34883-41-5	1668A	pg/g								222	J	625	87																	1790	U	1790	1790
PCB-15	2050-68-2	1668A	pg/g								8870		625	79.4																	181000	J	1530	1530
PCB-16	38444-78-9	1668A	pg/g								3290		625	24.3																	65000		1130	1130
PCB-17	37680-66-3	1668A	pg/g								4760		625	23.4																	156000		1100	1100
PCB-18	37680-65-2	1668A	pg/g								12500		1250	16.7																	151000		1780	782
PCB-19	38444-73-4	1668A	pg/g								816		625	22.6																	183000	J	1270	1270
PCB-20	38444-84-7	1668A	pg/g								66000		1870	1020																	211000	J	7500	7500
PCB-21	55702-46-0	1668A	pg/g								11300		1250	1060																	68500		7830	7830
PCB-22	38444-85-8	1668A	pg/g								16800		1010	1010																	264000	J	7410	7410
PCB-23	55720-44-0	1668A	pg/g								1020	U	1020	1020																	7540	U	7540	7540
PCB-24	55702-45-9	1668A	pg/g								17.5	U	625	17.5																	11800		892	821
PCB-25	55712-37-3	1668A	pg/g								1980		926	926																	118000	J	6830	6830
PCB-26	38444-81-4	1668A	pg/g								5250		1250	1060																	120000		7820	7820
PCB-27	38444-76-7	1668A	pg/g								860		625	16																	123000		892	748
PCB-28	7012-37-5	1668A	pg/g								66000		1870	1020																	211000	J	7500	7500
PCB-29	15862-07-4	1668A	pg/g								5250		1250	1060																	120000		7820	7820
PCB-30	35693-92-6	1668A	pg/g								12500		1250	16.7																	151000		1780	782
PCB-31	16606-02-3	1668A	pg/g								97400	J	979	979																	280000	J	7220	7220
PCB-32	38444-77-8	1668A	pg/g								5110		625	16.4																	208000		892	768
PCB-33	38444-86-9	1668A	pg/g								11300		1250	1060																	68500		7830	7830
PCB-34	37680-68-5	1668A	pg/g								1060	U	1060	1060																	7820	U	7820	7820
PCB-35	37680-69-6	1668A	pg/g								1170	U	1170	1170																	8600	U	8600	8600
PCB-36	38444-87-0	1668A	pg/g								5010		1170	1170																	8620	U	8620	8620
PCB-37	38444-90-5	1668A	pg/g								31600		1230	1230																	193000	J	8080	8080
PCB-38	53555-66-1	1668A	pg/g								1210	U	1210	1210																	8890	U	8890	8890
PCB-39	38444-88-1	1668A	pg/g								1090	U	1090	1090																	8020	U	8020	8020
PCB-40	38444-93-8	1668A	pg/g								59800		2910	2910																	409000	J	8620	8620
PCB-41	52663-59-9	1668A	pg/g								7300		4440	4440																	67100		13100	13100
PCB-42	36559-22-5	1668A	pg/g								41100		3100	3100																	265000	J	9160	9160
PCB-43	70362-46-8	1668A	pg/g								5200		3140	3140																	25400		9300	9300
PCB-44	41464-39-5	1668A	pg/g								203000	J	2980	2980																	681000	J	8820	8820
PCB-45	70362-45-7	1668A	pg/g								16500		4450	4450																	142000	J	13200	13200
PCB-46	41464-47-5	1668A	pg/g								3920	J	3770	3770																	89800	J	11100	11100
PCB-47	2437-79-8	1668A	pg/g								203000	J	2980	2980																	681000	J	8820	8820
PCB-48	70362-47-9	1668A	pg/g								25400		3190	3190																	86100	J	9440	9440
PCB-49	41464-40-8	1668A	pg/g								162000	J	2630	2630																	404000	J	7790	7790

Table 5.5 - Soil: Polychlorinated Biphenyls (PCBs) Analytical Results

(continued)

Rolling Knolls Landfill

Sample Name				NJDEP Avian TEF's	ESC's	NJAC 7:26D	SS26				SS27				SS28				SS29				SS30				SS31				DP01_0.5-8.5			
Sample Date/Time							05/07/2021 08:30				05/05/2021 13:30				05/05/2021 08:20				05/06/2021 11:25				05/13/2021 15:20				05/14/2021 08:45				05/11/2021 09:10			
Latitude				Toxicity Equivalence Factor (TEF)	Screening Criteria	(8) Soil Remediation Standards (Ing.-Derm.) - Residential	40.7240722				40.7231759				40.7240805				40.7248365				40.7266724				40.7237372				40.7297321			
Longitude							-74.4463803				-74.4437423				-74.4443078				-74.4434245				-74.4405011				-74.4477876				-74.4419101			
Lab Sample Name							GS-S-SS26				GS-S-SS27				GS-S-SS28				GS-S-SS29				GS-S-SS30				GS-S-SS31				GS-N-DPT01-SC-0.5-8.5			
Lab Sample Number							460-233940-1				460-233708-4				460-233708-1				460-233899-2				460-234436-4				460-234442-4				460-234161-2			
Lab Report Number(s)							460-233940-1				460-233708-1 / 460-233708-2				460-233708-1				460-233899-1				460-234436-1				460-234442-1				460-234161-1 / 460-234161-2			
Analyte	CAS	Method	Units				Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)
PCB-50	62796-65-0	1668A	pg/g								22200		3700	3700																	375000	J	11000	11000
~~PCB-51~~	~~68194-04-7~~	~~1668A~~	~~pg/g~~								2610	U	2610	2610																	141000	J	7730	7730
PCB-52	35693-99-3	1668A	pg/g								332000	J	3130	3130																	505000	J	9250	9250
PCB-53	41464-41-9	1668A	pg/g								22200		3700	3700																	375000	J	11000	11000
PCB-54	15968-05-5	1668A	pg/g								197	J	625	2.76																	17900		892	15.1
PCB-55	74338-24-2	1668A	pg/g								1180	U	1180	1180																	9240	J	3500	3500
PCB-56	41464-43-1	1668A	pg/g								130000	J	1390	1390																	284000	J	4120	4120
PCB-57	70424-67-8	1668A	pg/g								1510	U	1510	1510																	4470	U	4470	4470
PCB-58	41464-49-7	1668A	pg/g								1300	U	1300	1300																	3840	U	3840	3840
PCB-59	74472-33-6	1668A	pg/g								13500		2550	2550																	82800		7550	7550
PCB-60	33025-41-1	1668A	pg/g								50500		1470	1470																	176000	J	4350	4350
PCB-61	33284-53-6	1668A	pg/g								490000	J	2500	1410																	750000	J	4160	4160
PCB-62		1668A	pg/g								13500		2550	2550																	82800		7550	7550
PCB-63	74472-34-7	1668A	pg/g								11100		1520	1520																	33800	J	4490	4490
PCB-64	52663-58-8	1668A	pg/g								92200	J	2340	2340																	313000	J	6930	6930
PCB-65	33284-54-7	1668A	pg/g								203000	J	2980	2980																	681000	J	8820	8820
PCB-66	32598-10-0	1668A	pg/g								324000	J	1400	1400																	506000	J	4140	4140
PCB-67	73575-53-8	1668A	pg/g								2710	J	1170	1170																	13500	J	3450	3450
PCB-68	73575-52-7	1668A	pg/g								1620		1320	1320																	14000	J	3900	3900
PCB-69	60233-24-1	1668A	pg/g								162000	J	2630	2630																	404000	J	7790	7790
PCB-70	32598-11-1	1668A	pg/g								490000	J	2500	1410																	750000	J	4160	4160
PCB-71	41464-46-4	1668A	pg/g								59800		2910	2910																	409000	J	8620	8620
PCB-72	41464-42-0	1668A	pg/g								2630		1480	1480																	12700	J	4370	4370
PCB-73	74338-23-1	1668A	pg/g								2230	U	2230	2230																	12000		6590	6590
PCB-74	32690-93-0	1668A	pg/g								490000	J	2500	1410																	750000	J	4160	4160
PCB-75	32598-12-2	1668A	pg/g								13500		2550	2550																	82800		7550	7550
PCB-76	70362-48-0	1668A	pg/g								490000	J	2500	1410																	750000	J	4160	4160
PCB-77	32598-13-3	1668A	pg/g								32800		1680	1680																	55900	J	4780	4780
PCB-78	70362-49-1	1668A	pg/g								1610	U	1610	1610																	4780	U	4780	4780
PCB-79	41464-48-6	1668A	pg/g								2670		1420	1420																	10700		4190	4190
PCB-80	33284-52-5	1668A	pg/g								1290	U	1290	1290																	6570		3820	3820
PCB-81	70362-50-4	1668A	pg/g								1780	U	1780	1780																	4170	U	4170	4170
PCB-82	52663-62-4	1668A	pg/g								40400		3310	3310																	111000	J	20100	20100
PCB-83	60145-20-2	1668A	pg/g								15200		4280	4280																	70300	J	26000	26000
PCB-84	52663-60-2	1668A	pg/g								66100	J	3640	3640																	341000	J	22100	22100
PCB-85	65510-45-4	1668A	pg/g								73000		2590	2590																	167000	J	8620	8620
PCB-86	55312-69-1	1668A	pg/g								198000		3750	2610																	668000	J	15800	15800
PCB-87	38380-02-8	1668A	pg/g								198000		3750	2610																	668000	J	15800	15800
PCB-88	55215-17-3	1668A	pg/g								50500		3110	3110																	231000	J	18800	18800
PCB-89	73575-57-2	1668A	pg/g								5130		3500	3500																	11600	U	11600	11600
PCB-90	68194-07-0	1668A	pg/g								278000	J	2730	2730																	1020000	J	16600	16600
PCB-91	68194-05-8	1668A	pg/g								50500		3110	3110																	231000	J	18800	18800
PCB-92	52663-61-3	1668A	pg/g								49200		3150	3150																	235000	J	19100	19100
PCB-93	73575-56-1	1668A	pg/g								3080		3010	3010																	23800		9980	9980
PCB-94	73575-55-0	1668A	pg/g								3400	U	3400	3400																	19000		11300	11300
PCB-95	38379-99-6	1668A	pg/g								180000	J	3110	3110																	912000	J	18800	18800
PCB-96	73575-54-9	1668A	pg/g								2350		625	7.81																	12700		892	32.2
PCB-97	41464-51-1	1668A	pg/g								198000		3750	2610																	668000	J	15800	15800
PCB-98	60233-25-2	1668A	pg/g								11100		2970	2970																	40100	J	9870	9870
PCB-99	38380-01-7	1668A	pg/g								168000	J	2600	2600																	470000	J	15700	15700
PCB-100	39485-83-1	1668A	pg/g								3080		3010	3010																	23800		9980	9980
PCB-101	37680-73-2	1668A	pg/g								278000	J	2730	2730																	1020000	J	16600	16600
PCB-102	68194-06-9	1668A	pg/g								11100		2970	2970																	40100	J	9870	9870
PCB-103	60145-21-3	1668A	pg/g								2840	U	2840	2840																	15800		9430	9430
PCB-104	56558-16-8	1668A	pg/g								42.7	J	625	8.38																	1700		892	39.6
PCB-105	32598-14-4	1668A	pg/g								121000	J	2390	2390																	298000	J	13600	13600
PCB-106	70424-69-0	1668A	pg/g								2550	U	2550	2550																	8480	U	8480	8480
PCB-107	70424-68-9	1668A	pg/g								12300		2550	2550																	38100		8480	8480
PCB-108	70362-41-3	1668A	pg/g								198000		3750	2610																	668000	J	15800	15800
PCB-109	74472-35-8	1668A	pg/g								21200		2250	2250																	67100		7490	7490
PCB-110	38380-03-9	1668A	pg/g								327000	J	2220	2220																	1080000	J	13500	13500
PCB-111	39635-32-0	1668A	pg/g								2330	U	2330	2330																	7750	U	7750	7750
PCB-112	74472-36-9	1668A	pg/g								1880	U	1880	1880																	6230	U	6230	6230

Table 5.5 - Soil: Polychlorinated Biphenyls (PCBs) Analytical Results

(continued)

Rolling Knolls Landfill

Sample Name				NJDEP Avian TEF's	ESC's	NJAC 7:26D	SS26				SS27				SS28				SS29				SS30				SS31				DP01_0.5-8.5			
Sample Date/Time							05/07/2021 08:30				05/05/2021 13:30				05/05/2021 08:20				05/06/2021 11:25				05/13/2021 15:20				05/14/2021 08:45				05/11/2021 09:10			
Latitude				Toxicity Equivalence Factor (TEF)	Screening Criteria	(8) Soil Remediation Standards (Ing.-Derm.) - Residential	40.7240722				40.7231759				40.7240805				40.7248365				40.7266724				40.7237372				40.7297321			
Longitude							-74.4463803				-74.4437423				-74.4443078				-74.4434245				-74.4405011				-74.4477876				-74.4419101			
Lab Sample Name							GS-S-SS26				GS-S-SS27				GS-S-SS28				GS-S-SS29				GS-S-SS30				GS-S-SS31				GS-N-DPT01-SC-0.5-8.5			
Lab Sample Number							460-233940-1				460-233708-4				460-233708-1				460-233899-2				460-234436-4				460-234442-4				460-234161-2			
Lab Report Number(s)							460-233940-1				460-233708-1 / 460-233708-2				460-233708-1				460-233899-1				460-234436-1				460-234442-1				460-234161-1 / 460-234161-2			
Analyte	CAS	Method	Units				Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)
PCB-113	68194-10-5	1668A	pg/g								278000	J	2730	2730																	1020000	J	16600	16600
~~PCB-114~~	~~74472-37-0~~	~~1668A~~	~~pg/g~~								5680		2620	2620																	21200		8750	8750
PCB-115	74472-38-1	1668A	pg/g								327000	J	2220	2220																	1080000	J	13500	13500
PCB-116	18259-05-7	1668A	pg/g								73000		2590	2590																	157000	J	15700	15700
PCB-117	68194-11-6	1668A	pg/g								73000		2590	2590																	157000	J	15700	15700
PCB-118	31508-00-6	1668A	pg/g								243000	J	2140	2140																	725000	J	12900	12900
PCB-119	56558-17-9	1668A	pg/g								198000		3750	2610																	668000	J	15800	15800
PCB-120	68194-12-7	1668A	pg/g								1980	U	1980	1980																	6560	U	6560	6560
PCB-121	56558-18-0	1668A	pg/g								2010	U	2010	2010																	6680	U	6680	6680
PCB-122	76842-07-4	1668A	pg/g								5230		2910	2910																	12100		9670	9670
PCB-123	65510-44-3	1668A	pg/g								7580		2650	2650																	14800		8750	8750
PCB-124	70424-70-3	1668A	pg/g								12300		2550	2550																	38100		8480	8480
PCB-125	74472-39-2	1668A	pg/g								198000		3750	2610																	668000	J	15800	15800
PCB-126	57465-28-8	1668A	pg/g								3060	U	3060	3060																	9930	U	9930	9930
PCB-127	39635-33-1	1668A	pg/g								2810	U	2810	2810																	9350	U	9350	9350
PCB-128	38380-07-3	1668A	pg/g								28100		1250	580																	127000		2260	2260
PCB-129	55215-18-4	1668A	pg/g								158000		1870	610																	721000	J	6690	3900
PCB-130	52663-66-8	1668A	pg/g								11100		782	782																	49700		3050	3050
PCB-131	61798-70-7	1668A	pg/g								2130		694	694																	12600		2700	2700
PCB-132	38380-05-1	1668A	pg/g								48600		680	680																	254000	J	4350	4350
PCB-133	35694-04-3	1668A	pg/g								1830		664	664																	9430		2590	2590
PCB-134	52704-70-8	1668A	pg/g								7480		1250	650																	42900		2530	2530
PCB-135	52744-13-5	1668A	pg/g								29800		1250	616																	159000		2400	2400
PCB-136	38411-22-2	1668A	pg/g								12000		625	432																	78400		1680	1680
PCB-137	35694-06-5	1668A	pg/g								8830		656	656																	42800		2560	2560
PCB-138	35065-28-2	1668A	pg/g								158000		1870	610																	721000	J	6690	3900
PCB-139	56030-56-9	1668A	pg/g								3170		1250	611																	15200		2380	2380
PCB-140	59291-64-4	1668A	pg/g								3170		1250	611																	15200		2380	2380
PCB-141	52712-04-6	1668A	pg/g								20500		653	653																	109000	J	4180	4180
PCB-142	41411-61-4	1668A	pg/g								678	U	678	678																	2640	U	2640	2640
PCB-143	68194-15-0	1668A	pg/g								7480		1250	650																	42900		2530	2530
PCB-144	68194-14-9	1668A	pg/g								4180		625	564																	16000		2200	2200
PCB-145	74472-40-5	1668A	pg/g								448	U	625	448																	1740	U	1740	1740
PCB-146	51908-16-8	1668A	pg/g								15600		625	534																	70200		2080	2080
PCB-147	68194-13-8	1668A	pg/g								88900		1250	596																	457000	J	4460	3810
PCB-148	74472-41-6	1668A	pg/g								569	U	625	569																	2220	U	2220	2220
PCB-149	38380-04-0	1668A	pg/g								88900		1250	596																	457000	J	4460	3810
PCB-150	68194-08-1	1668A	pg/g								410	U	625	410																	1620		1600	1600
PCB-151	52663-63-5	1668A	pg/g								29800		1250	616																	159000		2400	2400
PCB-152	68194-09-2	1668A	pg/g								459	U	625	459																	1840		1790	1790
PCB-153	35065-27-1	1668A	pg/g								101000		1250	494																	431000	J	4460	3160
PCB-154	60145-22-4	1668A	pg/g								1190		625	525																	7750		2050	2050
PCB-155	33979-03-2	1668A	pg/g								508	U	625	508																	2330	U	2330	2330
PCB-156	38380-08-4	1668A	pg/g								20900		148	148																	109000		960	960
PCB-157	69782-90-7	1668A	pg/g								20900		148	148																	109000		960	960
PCB-158	74472-42-7	1668A	pg/g								13200		625	422																	68300		1650	1650
PCB-159	39635-35-3	1668A	pg/g								598	J	625	116																	1090		892	757
PCB-160	41411-62-5	1668A	pg/g								549	U	625	549																	2140	U	2140	2140
PCB-161	74472-43-8	1668A	pg/g								490	U	625	490																	1910	U	1910	1910
PCB-162	39635-34-2	1668A	pg/g								632		625	121																	2490		892	794
PCB-163	74472-44-9	1668A	pg/g								158000		1870	610																	721000	J	6690	3900
PCB-164	74472-45-0	1668A	pg/g								10700		625	529																	47900		2060	2060
PCB-165	74472-46-1	1668A	pg/g								510	U	625	510																	1990	U	1990	1990
PCB-166	41411-63-6	1668A	pg/g								28100		1250	580																	127000		2260	2260
PCB-167	52663-72-6	1668A	pg/g								6910		120	120																	30400		801	801
PCB-168	59291-65-5	1668A	pg/g								101000		1250	494																	431000	J	4460	3160
PCB-169	32774-16-6	1668A	pg/g								153	U	153	153																	863	U	863	863
PCB-170	35065-30-6	1668A	pg/g								18900		625	241																	73700		892	668
PCB-171	52663-71-5	1668A	pg/g								5500		1250	217																	21800		1780	599
PCB-172	52663-74-8	1668A	pg/g								3270		625	236																	10600		892	653
PCB-173	68194-16-1	1668A	pg/g								5500		1250	217																	21800		1780	599
PCB-174	38411-25-5	1668A	pg/g								14000		625	199																	48000		892	550
PCB-175	40186-70-7	1668A	pg/g								816		625	11.4																	2830		892	42

Table 5.5 - Soil: Polychlorinated Biphenyls (PCBs) Analytical Results

(continued)

Rolling Knolls Landfill

Sample Name				NJDEP Avian TEF's	ESC's	NJAC 7:26D	SS26				SS27				SS28				SS29				SS30				SS31				DP01_0.5-8.5			
Sample Date/Time							05/07/2021 08:30				05/05/2021 13:30				05/05/2021 08:20				05/06/2021 11:25				05/13/2021 15:20				05/14/2021 08:45				05/11/2021 09:10			
Latitude				Toxicity Equivalence Factor (TEF)	Screening Criteria	(8) Soil Remediation Standards (Ing.-Derm.) - Residential	40.7240722				40.7231759				40.7240805				40.7248365				40.7266724				40.7237372				40.7297321			
Longitude							-74.4463803				-74.4437423				-74.4443078				-74.4434245				-74.4405011				-74.4477876				-74.4419101			
Lab Sample Name							GS-S-SS26				GS-S-SS27				GS-S-SS28				GS-S-SS29				GS-S-SS30				GS-S-SS31				GS-N-DPT01-SC-0.5-8.5			
Lab Sample Number							460-233940-1				460-233708-4				460-233708-1				460-233899-2				460-234436-4				460-234442-4				460-234161-2			
Lab Report Number(s)							460-233940-1				460-233708-1 / 460-233708-2				460-233708-1				460-233899-1				460-234436-1				460-234442-1				460-234161-1 / 460-234161-2			
Analyte	CAS	Method	Units				Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)
PCB-176	52663-65-7	1668A	pg/g								2220		625	8.44																	7230		892	31.2
~~PCB-177~~	~~52663-70-4~~	~~1668A~~	~~pg/g~~								8740		625	199																	28100		892	552
PCB-178	52663-67-9	1668A	pg/g								3540		625	11.6																	9740		892	43
PCB-179	52663-64-6	1668A	pg/g								5740		625	7.35																	16300		892	27.1
PCB-180	35065-29-3	1668A	pg/g								32500		1250	177																	106000		1780	489
PCB-181	74472-47-2	1668A	pg/g								353	J	625	204																	1850		892	564
PCB-182	60145-23-5	1668A	pg/g								191	J	625	11																	750	J	892	40.6
PCB-183	52663-69-1	1668A	pg/g								8460		625	174																	25500		892	487
PCB-184	74472-48-3	1668A	pg/g								7.64	U	625	7.64																	86.3	J	892	28.2
PCB-185	52712-05-7	1668A	pg/g								3010		625	232																	5470		892	641
PCB-186	74472-49-4	1668A	pg/g								6.86	U	625	6.86																	25.3	U	892	25.3
PCB-187	52663-68-0	1668A	pg/g								16700		625	9.28																	46400		892	34.3
PCB-188	74487-85-7	1668A	pg/g								8.38	U	625	8.38																	295	J	892	32.9
PCB-189	39635-31-9	1668A	pg/g								894		62.5	6.43																	3460		89.2	14.9
PCB-190	41411-64-7	1668A	pg/g								3290		625	152																	11000		892	419
PCB-191	74472-50-7	1668A	pg/g								875		625	159																	2880		892	439
PCB-192	74472-51-8	1668A	pg/g								149	U	625	149																	412	U	892	412
PCB-193	69782-91-8	1668A	pg/g								32500		1250	172																	106000	J	1780	489
PCB-194	35694-08-7	1668A	pg/g								6390		625	18.5																	16000		892	59.9
PCB-195	52663-78-2	1668A	pg/g								2630		625	18.3																	5790		892	59.3
PCB-196	42740-50-1	1668A	pg/g								4090		625	11.2																	8280		892	20.8
PCB-197	33091-17-7	1668A	pg/g								303	J	625	7.02																	658	J	892	13
PCB-198	68194-17-2	1668A	pg/g								8530		1250	10.1																	17000		1780	18.6
PCB-199	52663-75-9	1668A	pg/g								8530		1250	10.1																	17000		1780	18.6
PCB-200	52663-73-7	1668A	pg/g								1270		625	8.58																	2290		892	15.8
PCB-201	40186-71-8	1668A	pg/g								1220		625	8.04																	2350		892	14.8
PCB-202	2136-99-4	1668A	pg/g								1950		625	7.85																	4080		892	16.5
PCB-203	52663-76-0	1668A	pg/g								5190		625	9.13																	10700		892	16.9
PCB-204	74472-52-9	1668A	pg/g								7.67	U	625	7.67																	14.2	U	892	14.2
PCB-205	74472-53-0	1668A	pg/g								483	J	625	15.3																	1040		892	43.8
PCB-206	40186-72-9	1668A	pg/g								3700		625	17.3																	14800		892	73.8
PCB-207	52663-79-3	1668A	pg/g								549	J	625	12.5																	1530		892	49
PCB-208	52663-77-1	1668A	pg/g								1680		625	12.6																	4210		892	46.7
PCB-209	2051-24-3	1668A	pg/g								4990		625	1.72																	6100		892	2.87
Σ Polychlorinated biphenyls	1336-36-3	8082A	pg/g		371000 (5)	250000					**9,949,923**																				**33,861,639**			
Dioxin-Like PCB TEQ Calculation																																		
PCB-77	32598-13-3	1668A	pg/g	0.05							1,640																				2,795			
PCB-81	70362-50-4	1668A	pg/g	0.1							0																				0			
PCB-105	32598-14-4	1668A	pg/g	0.0001							12																				30			
PCB-114	74472-37-0	1668A	pg/g	0.0001							1																				2			
PCB-118	31508-00-6	1668A	pg/g	0.00001							2																				7			
PCB-123	65510-44-3	1668A	pg/g	0.00001							0																				0			
PCB-126	57465-28-8	1668A	pg/g	0.1							0																				0			
PCB-156	38380-08-4	1668A	pg/g	0.0001							2																				11			
PCB-157	69782-90-7	1668A	pg/g	0.0001							2																				11			
PCB-167	52663-72-6	1668A	pg/g	0.00001							0																				0			
PCB-169	32774-16-6	1668A	pg/g	0.001							0																				0			
PCB-189	39635-31-9	1668A	pg/g	0.00001							0																				0			
Σ Polychlorinated biphenyls (PCB) TEQ	1336-36-3	8082A	pg/g		0.199 (5)						**1659**																				**2856**			

Table 5.5 - Soil: Polychlorinated Biphenyls (PCBs) Analytical Results

(continued)

Rolling Knolls Landfill

Sample Name				NJDEP Avian TEF's	ESC's	NJAC 7:26D	DP100_0.5-8.5 (DP01_0.5-8.5 duplicate)				DP02_0.5-8.5				DP02_8.5-10.0				DP03_0.5-3.5				DP03_3.5-4.0				DP04_0.5-5.0				DP04_5.0-8.0			
Sample Date/Time							05/11/2021 12:00				05/11/2021 10:40				05/11/2021 11:15				05/11/2021 14:05				05/11/2021 14:15				04/29/2021 12:50				04/29/2021 10:35			
Latitude							40.7297321				40.7303542				40.7303542				40.7288473				40.7288473				40.7304704				40.7304704			
Longitude				Toxicity Equivalence Factor (TEF)	Screening Criteria	(8) Soil Remediation Standards (Ing.-Derm.) - Residential	-74.4419101				-74.4418002				-74.4418002				-74.4410590				-74.4410590				-74.4414832				-74.4414832			
Lab Sample Name							GS-N-DPT100-SC-0.5-8.5				GS-N-DPT02-SC-0.5-8.5				GS-N-DPT02-SB-8.5-10.0				GS-N-DPT03-SC-0.5-3.5				GS-N-DPT03-SB-3.5-4.0				GS-N-DPT04-SC-0.5-5				GS-N-DPT04--SB-5-8			
Lab Sample Number							460-234161-8				460-234186-2				460-234186-3				460-234161-4				460-234161-5				460-233312-2				460-233312-3			
Lab Report Number(s)							460-234161-1				460-234186-1				460-234186-1				460-234161-1				460-234161-1				460-233312-1				460-233312-1			
Analyte	CAS	Method	Units				Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)
Polychlorinated Biphenyls (PCBs)		8082A					•				•				•				•				•				•				•			
Aroclor 1016	12674-11-2	8082A	µg/Kg		1100 (7)		20	U	150	20	25	U	190	25	11	U	80	11	82	U	620	82	11	U	84	11	290	U	290	38	84	U	84	11
Aroclor 1221	11104-28-2	8082A	µg/Kg				20	U	150	20	25	U	190	25	11	U	80	11	82	U	620	82	11	U	84	11	290	U	290	38	84	U	84	11
Aroclor 1232	11141-16-5	8082A	µg/Kg				20	U	150	20	25	U	190	25	11	U	80	11	4500		620	82	94		84	11	290	U	290	39	84	U	84	11
Aroclor 1242	53469-21-9	8082A	µg/Kg		41 (7)		20	U	150	20	25	U	190	25	11	U	80	11	82	U	620	82	11	U	84	11	290	U	290	38	84	U	84	11
Aroclor 1248	12672-29-6	8082A	µg/Kg		7.3 (7)		1100		150	20	360		190	25	11	U	80	11	82	U	620	82	11	U	84	11	5100		290	38	450		84	11
Aroclor 1254	11097-69-1	8082A	µg/Kg		41 (7)		21	U	150	21	26	U	190	26	11	U	80	11	85	U	620	85	11	U	84	11	290	U	290	39	84	U	84	11
Aroclor 1260	11096-82-5	8082A	µg/Kg		880 (7)		21	U	150	21	26	U	190	26	11	U	80	11	85	U	620	85	11	U	84	11	290	U	290	39	84	U	84	11
Aroclor 1268	11100-14-4	8082A	µg/Kg				21	U	150	21	26	U	190	26	11	U	80	11	85	U	620	85	11	U	84	11	290	U	290	39	84	U	84	11
Aroclor-1262	37324-23-5	8082A	µg/Kg				21	U	150	21	26	U	190	26	11	U	80	11	85	U	620	85	11	U	84	11	290	U	290	39	84	U	84	11
Polychlorinated biphenyls, Total	1336-36-3	8082A	µg/Kg		371 (5)	250	1100		150	21	360		190	26	11	U	80	11	4500		620	85	94		84	11	5100		290	39	450		84	11
Chlorinated Biphenyl Congeners (PCBs)		1668A																																
PCB-1	2051-60-7	1668A	pg/g																															
PCB-2	2051-61-8	1668A	pg/g																															
PCB-3	2051-62-9	1668A	pg/g																															
PCB-4	13029-08-8	1668A	pg/g																															
PCB-5	16605-91-7	1668A	pg/g																															
PCB-6	25569-80-6	1668A	pg/g																															
PCB-7	33284-50-3	1668A	pg/g																															
PCB-8	34883-43-7	1668A	pg/g																															
PCB-9	34883-39-1	1668A	pg/g																															
PCB-10	33146-45-1	1668A	pg/g																															
PCB-11	2050-67-1	1668A	pg/g																															
PCB-12	2974-92-7	1668A	pg/g																															
PCB-13	2974-90-5	1668A	pg/g																															
PCB-14	34883-41-5	1668A	pg/g																															
PCB-15	2050-68-2	1668A	pg/g																															
PCB-16	38444-78-9	1668A	pg/g																															
PCB-17	37680-66-3	1668A	pg/g																															
PCB-18	37680-65-2	1668A	pg/g																															
PCB-19	38444-73-4	1668A	pg/g																															
PCB-20	38444-84-7	1668A	pg/g																															
PCB-21	55702-46-0	1668A	pg/g																															
PCB-22	38444-85-8	1668A	pg/g																															
PCB-23	55720-44-0	1668A	pg/g																															
PCB-24	55702-45-9	1668A	pg/g																															
PCB-25	55712-37-3	1668A	pg/g																															
PCB-26	38444-81-4	1668A	pg/g																															
PCB-27	38444-76-7	1668A	pg/g																															
PCB-28	7012-37-5	1668A	pg/g																															
PCB-29	15862-07-4	1668A	pg/g																															
PCB-30	35693-92-6	1668A	pg/g																															
PCB-31	16606-02-3	1668A	pg/g																															
PCB-32	38444-77-8	1668A	pg/g																															
PCB-33	38444-86-9	1668A	pg/g																															
PCB-34	37680-68-5	1668A	pg/g																															
PCB-35	37680-69-6	1668A	pg/g																															
PCB-36	38444-87-0	1668A	pg/g																															
PCB-37	38444-90-5	1668A	pg/g																															
PCB-38	53555-66-1	1668A	pg/g																															
PCB-39	38444-88-1	1668A	pg/g																															
PCB-40	38444-93-8	1668A	pg/g																															
PCB-41	52663-59-9	1668A	pg/g																															
PCB-42	36559-22-5	1668A	pg/g																															
PCB-43	70362-46-8	1668A	pg/g																															
PCB-44	41464-39-5	1668A	pg/g																															
PCB-45	70362-45-7	1668A	pg/g																															
PCB-46	41464-47-5	1668A	pg/g																															
PCB-47	2437-79-8	1668A	pg/g																															
PCB-48	70362-47-9	1668A	pg/g																															
PCB-49	41464-40-8	1668A	pg/g																															

Table 5.5 - Soil: Polychlorinated Biphenyls (PCBs) Analytical Results

(continued)

Rolling Knolls Landfill

	Sample Name			NJDEP Avian TEF's	ESC's	NJAC 7:26D	DP100_0.5-8.5 (DP01_0.5-8.5 duplicate)				DP02_0.5-8.5				DP02_8.5-10.0				DP03_0.5-3.5				DP03_3.5-4.0				DP04_0.5-5.0				DP04_5.0-8.0			
	Sample Date/Time						05/11/2021 12:00				05/11/2021 10:40				05/11/2021 11:15				05/11/2021 14:05				05/11/2021 14:15				04/29/2021 12:50				04/29/2021 10:35			
	Latitude						40.7297321				40.7303542				40.7303542				40.7288473				40.7288473				40.7304704				40.7304704			
	Longitude			Toxicity Equivalence Factor (TEF)	Screening Criteria	(8) Soil Remediation Standards (Ing.-Derm.) - Residential	-74.4419101				-74.4418002				-74.4418002				-74.4410590				-74.4410590				-74.4414832				-74.4414832			
	Lab Sample Name						GS-N-DPT100-SC-0.5-8.5				GS-N-DPT02-SC-0.5-8.5				GS-N-DPT02-SB-8.5-10.0				GS-N-DPT03-SC-0.5-3.5				GS-N-DPT03-SB-3.5-4.0				GS-N-DPT04-SC-0.5-5				GS-N-DPT04--SB-5-8			
	Lab Sample Number						460-234161-8				460-234186-2				460-234186-3				460-234161-4				460-234161-5				460-233312-2				460-233312-3			
	Lab Report Number(s)						460-234161-1				460-234186-1				460-234186-1				460-234161-1				460-234161-1				460-233312-1				460-233312-1			
Analyte	CAS	Method	Units				Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)
PCB-50	62796-65-0	1668A	pg/g																													
~~PCB-51~~	~~68194-04-7~~	~~1668A~~	~~pg/g~~																													
PCB-52	35693-99-3	1668A	pg/g																													
PCB-53	41464-41-9	1668A	pg/g																													
PCB-54	15968-05-5	1668A	pg/g																													
PCB-55	74338-24-2	1668A	pg/g																													
PCB-56	41464-43-1	1668A	pg/g																													
PCB-57	70424-67-8	1668A	pg/g																													
PCB-58	41464-49-7	1668A	pg/g																													
PCB-59	74472-33-6	1668A	pg/g																													
PCB-60	33025-41-1	1668A	pg/g																													
PCB-61	33284-53-6	1668A	pg/g																													
PCB-62		1668A	pg/g																													
PCB-63	74472-34-7	1668A	pg/g																													
PCB-64	52663-58-8	1668A	pg/g																													
PCB-65	33284-54-7	1668A	pg/g																													
PCB-66	32598-10-0	1668A	pg/g																													
PCB-67	73575-53-8	1668A	pg/g																													
PCB-68	73575-52-7	1668A	pg/g																													
PCB-69	60233-24-1	1668A	pg/g																													
PCB-70	32598-11-1	1668A	pg/g																													
PCB-71	41464-46-4	1668A	pg/g																													
PCB-72	41464-42-0	1668A	pg/g																													
PCB-73	74338-23-1	1668A	pg/g																													
PCB-74	32690-93-0	1668A	pg/g																													
PCB-75	32598-12-2	1668A	pg/g																													
PCB-76	70362-48-0	1668A	pg/g																													
PCB-77	32598-13-3	1668A	pg/g																													
PCB-78	70362-49-1	1668A	pg/g																													
PCB-79	41464-48-6	1668A	pg/g																													
PCB-80	33284-52-5	1668A	pg/g																													
PCB-81	70362-50-4	1668A	pg/g																													
PCB-82	52663-62-4	1668A	pg/g																													
PCB-83	60145-20-2	1668A	pg/g																													
PCB-84	52663-60-2	1668A	pg/g																													
PCB-85	65510-45-4	1668A	pg/g																													
PCB-86	55312-69-1	1668A	pg/g																													
PCB-87	38380-02-8	1668A	pg/g																													
PCB-88	55215-17-3	1668A	pg/g																													
PCB-89	73575-57-2	1668A	pg/g																													
PCB-90	68194-07-0	1668A	pg/g																													
PCB-91	68194-05-8	1668A	pg/g																													
PCB-92	52663-61-3	1668A	pg/g																													
PCB-93	73575-56-1	1668A	pg/g																													
PCB-94	73575-55-0	1668A	pg/g																													
PCB-95	38379-99-6	1668A	pg/g																													
PCB-96	73575-54-9	1668A	pg/g																													
PCB-97	41464-51-1	1668A	pg/g																													
PCB-98	60233-25-2	1668A	pg/g																													
PCB-99	38380-01-7	1668A	pg/g																													
PCB-100	39485-83-1	1668A	pg/g																													
PCB-101	37680-73-2	1668A	pg/g																													
PCB-102	68194-06-9	1668A	pg/g																													
PCB-103	60145-21-3	1668A	pg/g																													
PCB-104	56558-16-8	1668A	pg/g																													
PCB-105	32598-14-4	1668A	pg/g																													
PCB-106	70424-69-0	1668A	pg/g																													
PCB-107	70424-68-9	1668A	pg/g																													
PCB-108	70362-41-3	1668A	pg/g																													
PCB-109	74472-35-8	1668A	pg/g																													
PCB-110	38380-03-9	1668A	pg/g																													
PCB-111	39635-32-0	1668A	pg/g																													
PCB-112	74472-36-9	1668A	pg/g																													

Table 5.5 - Soil: Polychlorinated Biphenyls (PCBs) Analytical Results

(continued)

Rolling Knolls Landfill

	Sample Name			NJDEP Avian TEF's	ESC's	NJAC 7:26D	DP100_0.5-8.5 (DP01_0.5-8.5 duplicate)				DP02_0.5-8.5				DP02_8.5-10.0				DP03_0.5-3.5				DP03_3.5-4.0				DP04_0.5-5.0				DP04_5.0-8.0			
	Sample Date/Time						05/11/2021 12:00				05/11/2021 10:40				05/11/2021 11:15				05/11/2021 14:05				05/11/2021 14:15				04/29/2021 12:50				04/29/2021 10:35			
	Latitude						40.7297321				40.7303542				40.7303542				40.7288473				40.7288473				40.7304704				40.7304704			
	Longitude			Toxicity Equivalence Factor (TEF)	Screening Criteria	(8) Soil Remediation Standards (Ing.-Derm.) - Residential	-74.4419101				-74.4418002				-74.4418002				-74.4410590				-74.4410590				-74.4414832				-74.4414832			
	Lab Sample Name						GS-N-DPT100-SC-0.5-8.5				GS-N-DPT02-SC-0.5-8.5				GS-N-DPT02-SB-8.5-10.0				GS-N-DPT03-SC-0.5-3.5				GS-N-DPT03-SB-3.5-4.0				GS-N-DPT04-SC-0.5-5				GS-N-DPT04--SB-5-8			
	Lab Sample Number						460-234161-8				460-234186-2				460-234186-3				460-234161-4				460-234161-5				460-233312-2				460-233312-3			
	Lab Report Number(s)						460-234161-1				460-234186-1				460-234186-1				460-234161-1				460-234161-1				460-233312-1				460-233312-1			
Analyte	CAS	Method	Units				Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)
PCB-113	68194-10-5	1668A	pg/g																													
~~PCB-114~~	~~74472-37-0~~	~~1668A~~	~~pg/g~~																													
PCB-115	74472-38-1	1668A	pg/g																													
PCB-116	18259-05-7	1668A	pg/g																													
PCB-117	68194-11-6	1668A	pg/g																													
PCB-118	31508-00-6	1668A	pg/g																													
PCB-119	56558-17-9	1668A	pg/g																													
PCB-120	68194-12-7	1668A	pg/g																													
PCB-121	56558-18-0	1668A	pg/g																													
PCB-122	76842-07-4	1668A	pg/g																													
PCB-123	65510-44-3	1668A	pg/g																													
PCB-124	70424-70-3	1668A	pg/g																													
PCB-125	74472-39-2	1668A	pg/g																													
PCB-126	57465-28-8	1668A	pg/g																													
PCB-127	39635-33-1	1668A	pg/g																													
PCB-128	38380-07-3	1668A	pg/g																													
PCB-129	55215-18-4	1668A	pg/g																													
PCB-130	52663-66-8	1668A	pg/g																													
PCB-131	61798-70-7	1668A	pg/g																													
PCB-132	38380-05-1	1668A	pg/g																													
PCB-133	35694-04-3	1668A	pg/g																													
PCB-134	52704-70-8	1668A	pg/g																													
PCB-135	52744-13-5	1668A	pg/g																													
PCB-136	38411-22-2	1668A	pg/g																													
PCB-137	35694-06-5	1668A	pg/g																													
PCB-138	35065-28-2	1668A	pg/g																													
PCB-139	56030-56-9	1668A	pg/g																													
PCB-140	59291-64-4	1668A	pg/g																													
PCB-141	52712-04-6	1668A	pg/g																													
PCB-142	41411-61-4	1668A	pg/g																													
PCB-143	68194-15-0	1668A	pg/g																													
PCB-144	68194-14-9	1668A	pg/g																													
PCB-145	74472-40-5	1668A	pg/g																													
PCB-146	51908-16-8	1668A	pg/g																													
PCB-147	68194-13-8	1668A	pg/g																													
PCB-148	74472-41-6	1668A	pg/g																													
PCB-149	38380-04-0	1668A	pg/g																													
PCB-150	68194-08-1	1668A	pg/g																													
PCB-151	52663-63-5	1668A	pg/g																													
PCB-152	68194-09-2	1668A	pg/g																													
PCB-153	35065-27-1	1668A	pg/g																													
PCB-154	60145-22-4	1668A	pg/g																													
PCB-155	33979-03-2	1668A	pg/g																													
PCB-156	38380-08-4	1668A	pg/g																													
PCB-157	69782-90-7	1668A	pg/g																													
PCB-158	74472-42-7	1668A	pg/g																													
PCB-159	39635-35-3	1668A	pg/g																													
PCB-160	41411-62-5	1668A	pg/g																													
PCB-161	74472-43-8	1668A	pg/g																													
PCB-162	39635-34-2	1668A	pg/g																													
PCB-163	74472-44-9	1668A	pg/g																													
PCB-164	74472-45-0	1668A	pg/g																													
PCB-165	74472-46-1	1668A	pg/g																													
PCB-166	41411-63-6	1668A	pg/g																													
PCB-167	52663-72-6	1668A	pg/g																													
PCB-168	59291-65-5	1668A	pg/g																													
PCB-169	32774-16-6	1668A	pg/g																													
PCB-170	35065-30-6	1668A	pg/g																													
PCB-171	52663-71-5	1668A	pg/g																													
PCB-172	52663-74-8	1668A	pg/g																													
PCB-173	68194-16-1	1668A	pg/g																													
PCB-174	38411-25-5	1668A	pg/g																													
PCB-175	40186-70-7	1668A	pg/g																													

Table 5.5 - Soil: Polychlorinated Biphenyls (PCBs) Analytical Results

(continued)

Rolling Knolls Landfill

	Sample Name			NJDEP Avian TEF's	ESC's	NJAC 7:26D	DP100_0.5-8.5 (DP01_0.5-8.5 duplicate)				DP02_0.5-8.5				DP02_8.5-10.0				DP03_0.5-3.5				DP03_3.5-4.0				DP04_0.5-5.0				DP04_5.0-8.0			
	Sample Date/Time						05/11/2021 12:00				05/11/2021 10:40				05/11/2021 11:15				05/11/2021 14:05				05/11/2021 14:15				04/29/2021 12:50				04/29/2021 10:35			
	Latitude						40.7297321				40.7303542				40.7303542				40.7288473				40.7288473				40.7304704				40.7304704			
	Longitude						-74.4419101				-74.4418002				-74.4418002				-74.4410590				-74.4410590				-74.4414832				-74.4414832			
	Lab Sample Name						GS-N-DPT100-SC-0.5-8.5				GS-N-DPT02-SC-0.5-8.5				GS-N-DPT02-SB-8.5-10.0				GS-N-DPT03-SC-0.5-3.5				GS-N-DPT03-SB-3.5-4.0				GS-N-DPT04-SC-0.5-5				GS-N-DPT04--SB-5-8			
	Lab Sample Number						460-234161-8				460-234186-2				460-234186-3				460-234161-4				460-234161-5				460-233312-2				460-233312-3			
	Lab Report Number(s)						460-234161-1				460-234186-1				460-234186-1				460-234161-1				460-234161-1				460-233312-1				460-233312-1			
Analyte	CAS	Method	Units				Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)
PCB-176	52663-65-7	1668A	pg/g																													
~~PCB-177~~	~~52663-70-4~~	~~1668A~~	~~pg/g~~																													
PCB-178	52663-67-9	1668A	pg/g																													
PCB-179	52663-64-6	1668A	pg/g																													
PCB-180	35065-29-3	1668A	pg/g																													
PCB-181	74472-47-2	1668A	pg/g																													
PCB-182	60145-23-5	1668A	pg/g																													
PCB-183	52663-69-1	1668A	pg/g																													
PCB-184	74472-48-3	1668A	pg/g																													
PCB-185	52712-05-7	1668A	pg/g																													
PCB-186	74472-49-4	1668A	pg/g																													
PCB-187	52663-68-0	1668A	pg/g																													
PCB-188	74487-85-7	1668A	pg/g																													
PCB-189	39635-31-9	1668A	pg/g																													
PCB-190	41411-64-7	1668A	pg/g																													
PCB-191	74472-50-7	1668A	pg/g																													
PCB-192	74472-51-8	1668A	pg/g																													
PCB-193	69782-91-8	1668A	pg/g																													
PCB-194	35694-08-7	1668A	pg/g																													
PCB-195	52663-78-2	1668A	pg/g																													
PCB-196	42740-50-1	1668A	pg/g																													
PCB-197	33091-17-7	1668A	pg/g																													
PCB-198	68194-17-2	1668A	pg/g																													
PCB-199	52663-75-9	1668A	pg/g																													
PCB-200	52663-73-7	1668A	pg/g																													
PCB-201	40186-71-8	1668A	pg/g																													
PCB-202	2136-99-4	1668A	pg/g																													
PCB-203	52663-76-0	1668A	pg/g																													
PCB-204	74472-52-9	1668A	pg/g																													
PCB-205	74472-53-0	1668A	pg/g																													
PCB-206	40186-72-9	1668A	pg/g																													
PCB-207	52663-79-3	1668A	pg/g																													
PCB-208	52663-77-1	1668A	pg/g																													
PCB-209	2051-24-3	1668A	pg/g																													
Σ Polychlorinated biphenyls	1336-36-3	8082A	pg/g		371000 (5)	250000																										
Dioxin-Like PCB TEQ Calculation																																
PCB-77	32598-13-3	1668A	pg/g	0.05																												
PCB-81	70362-50-4	1668A	pg/g	0.1																												
PCB-105	32598-14-4	1668A	pg/g	0.0001																												
PCB-114	74472-37-0	1668A	pg/g	0.0001																												
PCB-118	31508-00-6	1668A	pg/g	0.00001																												
PCB-123	65510-44-3	1668A	pg/g	0.00001																												
PCB-126	57465-28-8	1668A	pg/g	0.1																												
PCB-156	38380-08-4	1668A	pg/g	0.0001																												
PCB-157	69782-90-7	1668A	pg/g	0.0001																												
PCB-167	52663-72-6	1668A	pg/g	0.00001																												
PCB-169	32774-16-6	1668A	pg/g	0.001																												
PCB-189	39635-31-9	1668A	pg/g	0.00001																												
Σ Polychlorinated biphenyls (PCB) TEQ	1336-36-3	8082A	pg/g		0.199 (5)																											

Table 5.5 - Soil: Polychlorinated Biphenyls (PCBs) Analytical Results

(continued)

Rolling Knolls Landfill

Sample Name				NJDEP Avian TEF's	ESC's	NJAC 7:26D	DP05_0.5-5.0				DP05_5.0-7.0				DP06_0.5-2.0				DP06_2.5-3.0				DP100_2.5-3.0 (DP06_2.5-3.0 duplicate)				DP07_0.5-4.5				DP07_4.5-5.0			
Sample Date/Time							04/29/2021 16:40				04/29/2021 15:50				05/13/2021 09:30				05/13/2021 09:55				05/13/2021 12:00				05/13/2021 13:10				05/13/2021 13:30			
Latitude							40.7300494				40.7300494				40.7298030				40.7298030				40.7298030				40.7293038				40.7293038			
Longitude				Toxicity Equivalence Factor (TEF)	Screening Criteria	(8) Soil Remediation Standards (Ing.-Derm.) - Residential	-74.4418444				-74.4418444				-74.4414280				-74.4414280				-74.4414280				-74.4416064				-74.4416064			
Lab Sample Name							GS-N-DPT05--SC-0.5-5				GS-N-DPT05--SB-5-7				GS-N-DPT06-SC-0.5-2.0				GS-N-DPT06-SB-2.5-3.0				GS-N-DPT100-SB-2.5-3.0				GS-N-DPT07-SC-0.5-4.5				GS-N-DPT07-SB-4.5-5.0			
Lab Sample Number							460-233312-5				460-233312-6				460-234436-2				460-234436-3				460-234436-8				460-234435-2				460-234435-3			
Lab Report Number(s)							460-233312-1				460-233312-1				460-234436-1				460-234436-1				460-234436-1				460-234435-1				460-234435-1			
Analyte	CAS	Method	Units				Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)
Polychlorinated Biphenyls (PCBs)		8082A					•				•				•				•				•				•							
Aroclor 1016	12674-11-2	8082A	µg/Kg		1100 (7)		140	U	140	19	77	U	77	10	56	U	420	56	11	U	82	11	11	U	83	11	15	U	120	15				
Aroclor 1221	11104-28-2	8082A	µg/Kg				140	U	140	19	77	U	77	10	56	U	420	56	11	U	82	11	11	U	83	11	15	U	120	15				
Aroclor 1232	11141-16-5	8082A	µg/Kg				140	U	140	19	77	U	77	10	56	U	420	56	11	U	82	11	11	U	83	11	15	U	120	15				
Aroclor 1242	53469-21-9	8082A	µg/Kg		41 (7)		140	U	140	19	77	U	77	10	56	U	420	56	11	U	82	11	11	U	83	11	15	U	120	15				
Aroclor 1248	12672-29-6	8082A	µg/Kg		7.3 (7)		1100		140	19	77	U	77	10	7500	J	420	56	68	J	82	11	120		83	11	820		120	15				
Aroclor 1254	11097-69-1	8082A	µg/Kg		41 (7)		140	U	140	19	77	U	77	11	58	U	420	58	11	U	82	11	11	U	83	11	16	U	120	16				
Aroclor 1260	11096-82-5	8082A	µg/Kg		880 (7)		140	U	140	19	77	U	77	11	3500	J	420	58	11	U	82	11	11	U	83	11	16	U	120	16				
Aroclor 1268	11100-14-4	8082A	µg/Kg				140	U	140	19	77	U	77	11	58	U	420	58	11	U	82	11	11	U	83	11	16	U	120	16				
Aroclor-1262	37324-23-5	8082A	µg/Kg				140	U	140	19	77	U	77	11	58	U	420	58	11	U	82	11	11	U	83	11	16	U	120	16				
Polychlorinated biphenyls, Total	1336-36-3	8082A	µg/Kg		371 (5)	250	1100		140	19	77	U	77	11	11000	J	420	58	68	J	82	11	120		83	11	820		120	16				
Chlorinated Biphenyl Congeners (PCBs)		1668A																																
PCB-1	2051-60-7	1668A	pg/g																															
PCB-2	2051-61-8	1668A	pg/g																															
PCB-3	2051-62-9	1668A	pg/g																															
PCB-4	13029-08-8	1668A	pg/g																															
PCB-5	16605-91-7	1668A	pg/g																															
PCB-6	25569-80-6	1668A	pg/g																															
PCB-7	33284-50-3	1668A	pg/g																															
PCB-8	34883-43-7	1668A	pg/g																															
PCB-9	34883-39-1	1668A	pg/g																															
PCB-10	33146-45-1	1668A	pg/g																															
PCB-11	2050-67-1	1668A	pg/g																															
PCB-12	2974-92-7	1668A	pg/g																															
PCB-13	2974-90-5	1668A	pg/g																															
PCB-14	34883-41-5	1668A	pg/g																															
PCB-15	2050-68-2	1668A	pg/g																															
PCB-16	38444-78-9	1668A	pg/g																															
PCB-17	37680-66-3	1668A	pg/g																															
PCB-18	37680-65-2	1668A	pg/g																															
PCB-19	38444-73-4	1668A	pg/g																															
PCB-20	38444-84-7	1668A	pg/g																															
PCB-21	55702-46-0	1668A	pg/g																															
PCB-22	38444-85-8	1668A	pg/g																															
PCB-23	55720-44-0	1668A	pg/g																															
PCB-24	55702-45-9	1668A	pg/g																															
PCB-25	55712-37-3	1668A	pg/g																															
PCB-26	38444-81-4	1668A	pg/g																															
PCB-27	38444-76-7	1668A	pg/g																															
PCB-28	7012-37-5	1668A	pg/g																															
PCB-29	15862-07-4	1668A	pg/g																															
PCB-30	35693-92-6	1668A	pg/g																															
PCB-31	16606-02-3	1668A	pg/g																															
PCB-32	38444-77-8	1668A	pg/g																															
PCB-33	38444-86-9	1668A	pg/g																															
PCB-34	37680-68-5	1668A	pg/g																															
PCB-35	37680-69-6	1668A	pg/g																															
PCB-36	38444-87-0	1668A	pg/g																															
PCB-37	38444-90-5	1668A	pg/g																															
PCB-38	53555-66-1	1668A	pg/g																															
PCB-39	38444-88-1	1668A	pg/g																															
PCB-40	38444-93-8	1668A	pg/g																															
PCB-41	52663-59-9	1668A	pg/g																															
PCB-42	36559-22-5	1668A	pg/g																															
PCB-43	70362-46-8	1668A	pg/g																															
PCB-44	41464-39-5	1668A	pg/g																															
PCB-45	70362-45-7	1668A	pg/g																															
PCB-46	41464-47-5	1668A	pg/g																															
PCB-47	2437-79-8	1668A	pg/g																															
PCB-48	70362-47-9	1668A	pg/g																															
PCB-49	41464-40-8	1668A	pg/g																															

Table 5.5 - Soil: Polychlorinated Biphenyls (PCBs) Analytical Results

(continued)

Rolling Knolls Landfill

Sample Name				NJDEP Avian TEF's	ESC's	NJAC 7:26D	DP05_0.5-5.0				DP05_5.0-7.0				DP06_0.5-2.0				DP06_2.5-3.0				DP100_2.5-3.0 (DP06_2.5-3.0 duplicate)				DP07_0.5-4.5				DP07_4.5-5.0			
Sample Date/Time							04/29/2021 16:40				04/29/2021 15:50				05/13/2021 09:30				05/13/2021 09:55				05/13/2021 12:00				05/13/2021 13:10				05/13/2021 13:30			
Latitude				Toxicity Equivalence Factor (TEF)	Screening Criteria	(8) Soil Remediation Standards (Ing.-Derm.) - Residential	40.7300494				40.7300494				40.7298030				40.7298030				40.7298030				40.7293038				40.7293038			
Longitude							-74.4418444				-74.4418444				-74.4414280				-74.4414280				-74.4414280				-74.4416064				-74.4416064			
Lab Sample Name							GS-N-DPT05--SC-0.5-5				GS-N-DPT05--SB-5-7				GS-N-DPT06-SC-0.5-2.0				GS-N-DPT06-SB-2.5-3.0				GS-N-DPT100-SB-2.5-3.0				GS-N-DPT07-SC-0.5-4.5				GS-N-DPT07-SB-4.5-5.0			
Lab Sample Number							460-233312-5				460-233312-6				460-234436-2				460-234436-3				460-234436-8				460-234435-2				460-234435-3			
Lab Report Number(s)							460-233312-1				460-233312-1				460-234436-1				460-234436-1				460-234436-1				460-234435-1				460-234435-1			
Analyte	CAS	Method	Units				Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)
PCB-50	62796-65-0	1668A	pg/g																															
~~PCB-51~~	~~68194-04-7~~	~~1668A~~	~~pg/g~~																															
PCB-52	35693-99-3	1668A	pg/g																															
PCB-53	41464-41-9	1668A	pg/g																															
PCB-54	15968-05-5	1668A	pg/g																															
PCB-55	74338-24-2	1668A	pg/g																															
PCB-56	41464-43-1	1668A	pg/g																															
PCB-57	70424-67-8	1668A	pg/g																															
PCB-58	41464-49-7	1668A	pg/g																															
PCB-59	74472-33-6	1668A	pg/g																															
PCB-60	33025-41-1	1668A	pg/g																															
PCB-61	33284-53-6	1668A	pg/g																															
PCB-62		1668A	pg/g																															
PCB-63	74472-34-7	1668A	pg/g																															
PCB-64	52663-58-8	1668A	pg/g																															
PCB-65	33284-54-7	1668A	pg/g																															
PCB-66	32598-10-0	1668A	pg/g																															
PCB-67	73575-53-8	1668A	pg/g																															
PCB-68	73575-52-7	1668A	pg/g																															
PCB-69	60233-24-1	1668A	pg/g																															
PCB-70	32598-11-1	1668A	pg/g																															
PCB-71	41464-46-4	1668A	pg/g																															
PCB-72	41464-42-0	1668A	pg/g																															
PCB-73	74338-23-1	1668A	pg/g																															
PCB-74	32690-93-0	1668A	pg/g																															
PCB-75	32598-12-2	1668A	pg/g																															
PCB-76	70362-48-0	1668A	pg/g																															
PCB-77	32598-13-3	1668A	pg/g																															
PCB-78	70362-49-1	1668A	pg/g																															
PCB-79	41464-48-6	1668A	pg/g																															
PCB-80	33284-52-5	1668A	pg/g																															
PCB-81	70362-50-4	1668A	pg/g																															
PCB-82	52663-62-4	1668A	pg/g																															
PCB-83	60145-20-2	1668A	pg/g																															
PCB-84	52663-60-2	1668A	pg/g																															
PCB-85	65510-45-4	1668A	pg/g																															
PCB-86	55312-69-1	1668A	pg/g																															
PCB-87	38380-02-8	1668A	pg/g																															
PCB-88	55215-17-3	1668A	pg/g																															
PCB-89	73575-57-2	1668A	pg/g																															
PCB-90	68194-07-0	1668A	pg/g																															
PCB-91	68194-05-8	1668A	pg/g																															
PCB-92	52663-61-3	1668A	pg/g																															
PCB-93	73575-56-1	1668A	pg/g																															
PCB-94	73575-55-0	1668A	pg/g																															
PCB-95	38379-99-6	1668A	pg/g																															
PCB-96	73575-54-9	1668A	pg/g																															
PCB-97	41464-51-1	1668A	pg/g																															
PCB-98	60233-25-2	1668A	pg/g																															
PCB-99	38380-01-7	1668A	pg/g																															
PCB-100	39485-83-1	1668A	pg/g																															
PCB-101	37680-73-2	1668A	pg/g																															
PCB-102	68194-06-9	1668A	pg/g																															
PCB-103	60145-21-3	1668A	pg/g																															
PCB-104	56558-16-8	1668A	pg/g																															
PCB-105	32598-14-4	1668A	pg/g																															
PCB-106	70424-69-0	1668A	pg/g																															
PCB-107	70424-68-9	1668A	pg/g																															
PCB-108	70362-41-3	1668A	pg/g																															
PCB-109	74472-35-8	1668A	pg/g																															
PCB-110	38380-03-9	1668A	pg/g																															
PCB-111	39635-32-0	1668A	pg/g																															
PCB-112	74472-36-9	1668A	pg/g																															

Table 5.5 - Soil: Polychlorinated Biphenyls (PCBs) Analytical Results (continued)

Rolling Knolls Landfill

Analyte	CAS	Method	Units	Sample Name	NJDEP Avian TEF's	ESC's	NJAC 7:26D	DP05_0.5-5.0				DP05_5.0-7.0				DP06_0.5-2.0				DP06_2.5-3.0				DP100_2.5-3.0 (DP06_2.5-3.0 duplicate)				DP07_0.5-4.5				DP07_4.5-5.0			
				Sample Date/Time				04/29/2021 16:40				04/29/2021 15:50				05/13/2021 09:30				05/13/2021 09:55				05/13/2021 12:00				05/13/2021 13:10				05/13/2021 13:30			
				Latitude				40.7300494				40.7300494				40.7298030				40.7298030				40.7298030				40.7293038				40.7293038			
				Longitude	Toxicity Equivalence Factor (TEF)	Screening Criteria	(8) Soil Remediation Standards (Ing.-Derm.) - Residential	-74.4418444				-74.4418444				-74.4414280				-74.4414280				-74.4414280				-74.4416064				-74.4416064			
				Lab Sample Name				GS-N-DPT05--SC-0.5-5				GS-N-DPT05--SB-5-7				GS-N-DPT06-SC-0.5-2.0				GS-N-DPT06-SB-2.5-3.0				GS-N-DPT100-SB-2.5-3.0				GS-N-DPT07-SC-0.5-4.5				GS-N-DPT07-SB-4.5-5.0			
				Lab Sample Number				460-233312-5				460-233312-6				460-234436-2				460-234436-3				460-234436-8				460-234435-2				460-234435-3			
				Lab Report Number(s)				460-233312-1				460-233312-1				460-234436-1				460-234436-1				460-234436-1				460-234435-1				460-234435-1			
								Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)
PCB-113	68194-10-5	1668A	pg/g																																
~~PCB-114~~	~~74472-37-0~~	~~1668A~~	~~pg/g~~																																
PCB-115	74472-38-1	1668A	pg/g																																
PCB-116	18259-05-7	1668A	pg/g																																
PCB-117	68194-11-6	1668A	pg/g																																
PCB-118	31508-00-6	1668A	pg/g																																
PCB-119	56558-17-9	1668A	pg/g																																
PCB-120	68194-12-7	1668A	pg/g																																
PCB-121	56558-18-0	1668A	pg/g																																
PCB-122	76842-07-4	1668A	pg/g																																
PCB-123	65510-44-3	1668A	pg/g																																
PCB-124	70424-70-3	1668A	pg/g																																
PCB-125	74472-39-2	1668A	pg/g																																
PCB-126	57465-28-8	1668A	pg/g																																
PCB-127	39635-33-1	1668A	pg/g																																
PCB-128	38380-07-3	1668A	pg/g																																
PCB-129	55215-18-4	1668A	pg/g																																
PCB-130	52663-66-8	1668A	pg/g																																
PCB-131	61798-70-7	1668A	pg/g																																
PCB-132	38380-05-1	1668A	pg/g																																
PCB-133	35694-04-3	1668A	pg/g																																
PCB-134	52704-70-8	1668A	pg/g																																
PCB-135	52744-13-5	1668A	pg/g																																
PCB-136	38411-22-2	1668A	pg/g																																
PCB-137	35694-06-5	1668A	pg/g																																
PCB-138	35065-28-2	1668A	pg/g																																
PCB-139	56030-56-9	1668A	pg/g																																
PCB-140	59291-64-4	1668A	pg/g																																
PCB-141	52712-04-6	1668A	pg/g																																
PCB-142	41411-61-4	1668A	pg/g																																
PCB-143	68194-15-0	1668A	pg/g																																
PCB-144	68194-14-9	1668A	pg/g																																
PCB-145	74472-40-5	1668A	pg/g																																
PCB-146	51908-16-8	1668A	pg/g																																
PCB-147	68194-13-8	1668A	pg/g																																
PCB-148	74472-41-6	1668A	pg/g																																
PCB-149	38380-04-0	1668A	pg/g																																
PCB-150	68194-08-1	1668A	pg/g																																
PCB-151	52663-63-5	1668A	pg/g																																
PCB-152	68194-09-2	1668A	pg/g																																
PCB-153	35065-27-1	1668A	pg/g																																
PCB-154	60145-22-4	1668A	pg/g																																
PCB-155	33979-03-2	1668A	pg/g																																
PCB-156	38380-08-4	1668A	pg/g																																
PCB-157	69782-90-7	1668A	pg/g																																
PCB-158	74472-42-7	1668A	pg/g																																
PCB-159	39635-35-3	1668A	pg/g																																
PCB-160	41411-62-5	1668A	pg/g																																
PCB-161	74472-43-8	1668A	pg/g																																
PCB-162	39635-34-2	1668A	pg/g																																
PCB-163	74472-44-9	1668A	pg/g																																
PCB-164	74472-45-0	1668A	pg/g																																
PCB-165	74472-46-1	1668A	pg/g																																
PCB-166	41411-63-6	1668A	pg/g																																
PCB-167	52663-72-6	1668A	pg/g																																
PCB-168	59291-65-5	1668A	pg/g																																
PCB-169	32774-16-6	1668A	pg/g																																
PCB-170	35065-30-6	1668A	pg/g																																
PCB-171	52663-71-5	1668A	pg/g																																
PCB-172	52663-74-8	1668A	pg/g																																
PCB-173	68194-16-1	1668A	pg/g																																
PCB-174	38411-25-5	1668A	pg/g																																
PCB-175	40186-70-7	1668A	pg/g																																

Table 5.5 - Soil: Polychlorinated Biphenyls (PCBs) Analytical Results

(continued)

Rolling Knolls Landfill

	Sample Name			NJDEP Avian TEF's	ESC's	NJAC 7:26D	DP05_0.5-5.0				DP05_5.0-7.0				DP06_0.5-2.0				DP06_2.5-3.0				DP100_2.5-3.0 (DP06_2.5-3.0 duplicate)				DP07_0.5-4.5				DP07_4.5-5.0			
	Sample Date/Time						04/29/2021 16:40				04/29/2021 15:50				05/13/2021 09:30				05/13/2021 09:55				05/13/2021 12:00				05/13/2021 13:10				05/13/2021 13:30			
	Latitude						40.7300494				40.7300494				40.7298030				40.7298030				40.7298030				40.7293038				40.7293038			
	Longitude			Toxicity Equivalence Factor (TEF)	Screening Criteria	(8) Soil Remediation Standards (Ing.-Derm.) - Residential	-74.4418444				-74.4418444				-74.4414280				-74.4414280				-74.4414280				-74.4416064				-74.4416064			
	Lab Sample Name						GS-N-DPT05--SC-0.5-5				GS-N-DPT05--SB-5-7				GS-N-DPT06-SC-0.5-2.0				GS-N-DPT06-SB-2.5-3.0				GS-N-DPT100-SB-2.5-3.0				GS-N-DPT07-SC-0.5-4.5				GS-N-DPT07-SB-4.5-5.0			
	Lab Sample Number						460-233312-5				460-233312-6				460-234436-2				460-234436-3				460-234436-8				460-234435-2				460-234435-3			
	Lab Report Number(s)						460-233312-1				460-233312-1				460-234436-1				460-234436-1				460-234436-1				460-234435-1				460-234435-1			
Analyte	CAS	Method	Units				Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)
PCB-176	52663-65-7	1668A	pg/g																															
~~PCB-177~~	~~52663-70-4~~	~~1668A~~	~~pg/g~~																															
PCB-178	52663-67-9	1668A	pg/g																															
PCB-179	52663-64-6	1668A	pg/g																															
PCB-180	35065-29-3	1668A	pg/g																															
PCB-181	74472-47-2	1668A	pg/g																															
PCB-182	60145-23-5	1668A	pg/g																															
PCB-183	52663-69-1	1668A	pg/g																															
PCB-184	74472-48-3	1668A	pg/g																															
PCB-185	52712-05-7	1668A	pg/g																															
PCB-186	74472-49-4	1668A	pg/g																															
PCB-187	52663-68-0	1668A	pg/g																															
PCB-188	74487-85-7	1668A	pg/g																															
PCB-189	39635-31-9	1668A	pg/g																															
PCB-190	41411-64-7	1668A	pg/g																															
PCB-191	74472-50-7	1668A	pg/g																															
PCB-192	74472-51-8	1668A	pg/g																															
PCB-193	69782-91-8	1668A	pg/g																															
PCB-194	35694-08-7	1668A	pg/g																															
PCB-195	52663-78-2	1668A	pg/g																															
PCB-196	42740-50-1	1668A	pg/g																															
PCB-197	33091-17-7	1668A	pg/g																															
PCB-198	68194-17-2	1668A	pg/g																															
PCB-199	52663-75-9	1668A	pg/g																															
PCB-200	52663-73-7	1668A	pg/g																															
PCB-201	40186-71-8	1668A	pg/g																															
PCB-202	2136-99-4	1668A	pg/g																															
PCB-203	52663-76-0	1668A	pg/g																															
PCB-204	74472-52-9	1668A	pg/g																															
PCB-205	74472-53-0	1668A	pg/g																															
PCB-206	40186-72-9	1668A	pg/g																															
PCB-207	52663-79-3	1668A	pg/g																															
PCB-208	52663-77-1	1668A	pg/g																															
PCB-209	2051-24-3	1668A	pg/g																															
Σ Polychlorinated biphenyls	1336-36-3	8082A	pg/g		371000 (5)	250000																												
Dioxin-Like PCB TEQ Calculation																																		
PCB-77	32598-13-3	1668A	pg/g	0.05																														
PCB-81	70362-50-4	1668A	pg/g	0.1																														
PCB-105	32598-14-4	1668A	pg/g	0.0001																														
PCB-114	74472-37-0	1668A	pg/g	0.0001																														
PCB-118	31508-00-6	1668A	pg/g	0.00001																														
PCB-123	65510-44-3	1668A	pg/g	0.00001																														
PCB-126	57465-28-8	1668A	pg/g	0.1																														
PCB-156	38380-08-4	1668A	pg/g	0.0001																														
PCB-157	69782-90-7	1668A	pg/g	0.0001																														
PCB-167	52663-72-6	1668A	pg/g	0.00001																														
PCB-169	32774-16-6	1668A	pg/g	0.001																														
PCB-189	39635-31-9	1668A	pg/g	0.00001																														
Σ Polychlorinated biphenyls (PCB) TEQ	1336-36-3	8082A	pg/g		0.199 (5)																													

Table 5.5 - Soil: Polychlorinated Biphenyls (PCBs) Analytical Results

(continued)

Rolling Knolls Landfill

Sample Name				NJDEP Avian TEF's	ESC's	NJAC 7:26D	DP07_5.0-8.0				DP08_0.5-8.0				DP09_1.5-3.0				DP10_0.5-10.0				DP11_0.5-5.0				DP11_14.0-18.0				DP12_0.5-4.0			
Sample Date/Time							04/28/2021 00:00				05/11/2021 13:15				05/13/2021 11:35				05/13/2021 14:30				05/03/2021 10:10				05/03/2021 09:30				05/10/2021 11:20			
Latitude				Toxicity Equivalence Factor (TEF)	Screening Criteria	(8) Soil Remediation Standards (Ing.-Derm.) - Residential	40.7293038				40.7292838				40.7285174				40.7272947				40.7220743				40.7220743				40.7218276			
Longitude							-74.4416064				-74.4410889				-74.4407729				-74.4400920				-74.4442957				-74.4442957				-74.4445596			
Lab Sample Name							GS-N-DPT07-SB-5-8				GS-N-DPT08-SB-0.5-8.0				GS-N-DPT09-SB-1.5-3.0				GS-N-DPT10-SC-0.5-10.0				GS-S-DPT11-SC-0.5-5				GS-S-DPT11-SB-14-18				GS-S-DPT12-SB-0.5-4.0			
Lab Sample Number							460-233313-2				460-234161-7				460-234435-5				460-234436-10				460-233488-2				460-233488-3				460-234082-2			
Lab Report Number(s)							460-233313-1				460-234161-1				460-234435-1				460-234436-1				460-233488-1				460-233488-1				460-234082-1			
Analyte	**CAS**	**Method**	**Units**				**Result**	**LDC Flag**	**RL**	**MDL (EDL)**	**Result**	**LDC Flag**	**RL**	**MDL (EDL)**	**Result**	**LDC Flag**	**RL**	**MDL (EDL)**	**Result**	**LDC Flag**	**RL**	**MDL (EDL)**	**Result**	**LDC Flag**	**RL**	**MDL (EDL)**	**Result**	**LDC Flag**	**RL**	**MDL (EDL)**	**Result**	**LDC Flag**	**RL**	**MDL (EDL)**
Polychlorinated Biphenyls (PCBs)		**8082A**					•				•				•				•				•				•				•			
Aroclor 1016	12674-11-2	8082A	µg/Kg		1100 (7)		11	U	80	11	47	U	350	47	11	UJ	82	11	28	U	210	28	24	U	180	24	10	U	77	10	68	U	510	68
Aroclor 1221	11104-28-2	8082A	µg/Kg				11	U	80	11	47	U	350	47	11	U	82	11	28	U	210	28	24	U	180	24	10	U	77	10	68	U	510	68
Aroclor 1232	11141-16-5	8082A	µg/Kg				11	U	80	11	47	U	350	47	11	U	82	11	28	U	210	28	24	U	180	24	10	U	77	10	68	U	510	68
Aroclor 1242	53469-21-9	8082A	µg/Kg		41 (7)		11	U	80	11	47	U	350	47	11	U	82	11	3500	J	210	28	24	U	180	24	10	U	77	10	68	U	510	68
Aroclor 1248	12672-29-6	8082A	µg/Kg		7.3 (7)		11	U	80	11	47	U	350	47	11	U	82	11	28	U	210	28	1700		180	24	10	U	77	10	68	U	510	68
Aroclor 1254	11097-69-1	8082A	µg/Kg		41 (7)		11	U	80	11	48	U	350	48	11	U	82	11	1600	J	210	29	25	U	180	25	11	U	77	11	70	U	510	70
Aroclor 1260	11096-82-5	8082A	µg/Kg		880 (7)		11	U	80	11	48	U	350	48	11	UJ	82	11	29	U	210	29	430		180	25	11	U	77	11	70	U	510	70
Aroclor 1268	11100-14-4	8082A	µg/Kg				11	U	80	11	48	U	350	48	11	U	82	11	29	U	210	29	25	U	180	25	11	U	77	11	70	U	510	70
Aroclor-1262	37324-23-5	8082A	µg/Kg				11	U	80	11	48	U	350	48	11	U	82	11	29	U	210	29	25	U	180	25	11	U	77	11	70	U	510	70
Polychlorinated biphenyls, Total	1336-36-3	8082A	µg/Kg		371 (5)	250	11	U	80	11	48	U	350	48	11	U	82	11	5100	J	210	29	2100		180	25	11	U	77	11	70	U	510	70
Chlorinated Biphenyl Congeners (PCBs)		**1668A**																																
PCB-1	2051-60-7	1668A	pg/g																															
PCB-2	2051-61-8	1668A	pg/g																															
PCB-3	2051-62-9	1668A	pg/g																															
PCB-4	13029-08-8	1668A	pg/g																															
PCB-5	16605-91-7	1668A	pg/g																															
PCB-6	25569-80-6	1668A	pg/g																															
PCB-7	33284-50-3	1668A	pg/g																															
PCB-8	34883-43-7	1668A	pg/g																															
PCB-9	34883-39-1	1668A	pg/g																															
PCB-10	33146-45-1	1668A	pg/g																															
PCB-11	2050-67-1	1668A	pg/g																															
PCB-12	2974-92-7	1668A	pg/g																															
PCB-13	2974-90-5	1668A	pg/g																															
PCB-14	34883-41-5	1668A	pg/g																															
PCB-15	2050-68-2	1668A	pg/g																															
PCB-16	38444-78-9	1668A	pg/g																															
PCB-17	37680-66-3	1668A	pg/g																															
PCB-18	37680-65-2	1668A	pg/g																															
PCB-19	38444-73-4	1668A	pg/g																															
PCB-20	38444-84-7	1668A	pg/g																															
PCB-21	55702-46-0	1668A	pg/g																															
PCB-22	38444-85-8	1668A	pg/g																															
PCB-23	55720-44-0	1668A	pg/g																															
PCB-24	55702-45-9	1668A	pg/g																															
PCB-25	55712-37-3	1668A	pg/g																															
PCB-26	38444-81-4	1668A	pg/g																															
PCB-27	38444-76-7	1668A	pg/g																															
PCB-28	7012-37-5	1668A	pg/g																															
PCB-29	15862-07-4	1668A	pg/g																															
PCB-30	35693-92-6	1668A	pg/g																															
PCB-31	16606-02-3	1668A	pg/g																															
PCB-32	38444-77-8	1668A	pg/g																															
PCB-33	38444-86-9	1668A	pg/g																															
PCB-34	37680-68-5	1668A	pg/g																															
PCB-35	37680-69-6	1668A	pg/g																															
PCB-36	38444-87-0	1668A	pg/g																															
PCB-37	38444-90-5	1668A	pg/g																															
PCB-38	53555-66-1	1668A	pg/g																															
PCB-39	38444-88-1	1668A	pg/g																															
PCB-40	38444-93-8	1668A	pg/g																															
PCB-41	52663-59-9	1668A	pg/g																															
PCB-42	36559-22-5	1668A	pg/g																															
PCB-43	70362-46-8	1668A	pg/g																															
PCB-44	41464-39-5	1668A	pg/g																															
PCB-45	70362-45-7	1668A	pg/g																															
PCB-46	41464-47-5	1668A	pg/g																															
PCB-47	2437-79-8	1668A	pg/g																															
PCB-48	70362-47-9	1668A	pg/g																															
PCB-49	41464-40-8	1668A	pg/g																															

Table 5.5 - Soil: Polychlorinated Biphenyls (PCBs) Analytical Results (continued)

Rolling Knolls Landfill

	Sample Name			NJDEP Avian TEF's	ESC's	NJAC 7:26D	DP07_5.0-8.0				DP08_0.5-8.0				DP09_1.5-3.0				DP10_0.5-10.0				DP11_0.5-5.0				DP11_14.0-18.0				DP12_0.5-4.0			
	Sample Date/Time						04/28/2021 00:00				05/11/2021 13:15				05/13/2021 11:35				05/13/2021 14:30				05/03/2021 10:10				05/03/2021 09:30				05/10/2021 11:20			
	Latitude			Toxicity Equivalence Factor (TEF)	Screening Criteria	(8) Soil Remediation Standards (Ing.-Derm.) - Residential	40.7293038				40.7292838				40.7285174				40.7272947				40.7220743				40.7220743				40.7218276			
	Longitude						-74.4416064				-74.4410889				-74.4407729				-74.4400920				-74.4442957				-74.4442957				-74.4445596			
	Lab Sample Name						GS-N-DPT07-SB-5-8				GS-N-DPT08-SB-0.5-8.0				GS-N-DPT09-SB-1.5-3.0				GS-N-DPT10-SC-0.5-10.0				GS-S-DPT11-SC-0.5-5				GS-S-DPT11-SB-14-18				GS-S-DPT12-SB-0.5-4.0			
	Lab Sample Number						460-233313-2				460-234161-7				460-234435-5				460-234436-10				460-233488-2				460-233488-3				460-234082-2			
	Lab Report Number(s)						460-233313-1				460-234161-1				460-234435-1				460-234436-1				460-233488-1				460-233488-1				460-234082-1			
Analyte	CAS	Method	Units				Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)
PCB-50	62796-65-0	1668A	pg/g																															
~~PCB-51~~	~~68194-04-7~~	~~1668A~~	~~pg/g~~																															
PCB-52	35693-99-3	1668A	pg/g																															
PCB-53	41464-41-9	1668A	pg/g																															
PCB-54	15968-05-5	1668A	pg/g																															
PCB-55	74338-24-2	1668A	pg/g																															
PCB-56	41464-43-1	1668A	pg/g																															
PCB-57	70424-67-8	1668A	pg/g																															
PCB-58	41464-49-7	1668A	pg/g																															
PCB-59	74472-33-6	1668A	pg/g																															
PCB-60	33025-41-1	1668A	pg/g																															
PCB-61	33284-53-6	1668A	pg/g																															
PCB-62		1668A	pg/g																															
PCB-63	74472-34-7	1668A	pg/g																															
PCB-64	52663-58-8	1668A	pg/g																															
PCB-65	33284-54-7	1668A	pg/g																															
PCB-66	32598-10-0	1668A	pg/g																															
PCB-67	73575-53-8	1668A	pg/g																															
PCB-68	73575-52-7	1668A	pg/g																															
PCB-69	60233-24-1	1668A	pg/g																															
PCB-70	32598-11-1	1668A	pg/g																															
PCB-71	41464-46-4	1668A	pg/g																															
PCB-72	41464-42-0	1668A	pg/g																															
PCB-73	74338-23-1	1668A	pg/g																															
PCB-74	32690-93-0	1668A	pg/g																															
PCB-75	32598-12-2	1668A	pg/g																															
PCB-76	70362-48-0	1668A	pg/g																															
PCB-77	32598-13-3	1668A	pg/g																															
PCB-78	70362-49-1	1668A	pg/g																															
PCB-79	41464-48-6	1668A	pg/g																															
PCB-80	33284-52-5	1668A	pg/g																															
PCB-81	70362-50-4	1668A	pg/g																															
PCB-82	52663-62-4	1668A	pg/g																															
PCB-83	60145-20-2	1668A	pg/g																															
PCB-84	52663-60-2	1668A	pg/g																															
PCB-85	65510-45-4	1668A	pg/g																															
PCB-86	55312-69-1	1668A	pg/g																															
PCB-87	38380-02-8	1668A	pg/g																															
PCB-88	55215-17-3	1668A	pg/g																															
PCB-89	73575-57-2	1668A	pg/g																															
PCB-90	68194-07-0	1668A	pg/g																															
PCB-91	68194-05-8	1668A	pg/g																															
PCB-92	52663-61-3	1668A	pg/g																															
PCB-93	73575-56-1	1668A	pg/g																															
PCB-94	73575-55-0	1668A	pg/g																															
PCB-95	38379-99-6	1668A	pg/g																															
PCB-96	73575-54-9	1668A	pg/g																															
PCB-97	41464-51-1	1668A	pg/g																															
PCB-98	60233-25-2	1668A	pg/g																															
PCB-99	38380-01-7	1668A	pg/g																															
PCB-100	39485-83-1	1668A	pg/g																															
PCB-101	37680-73-2	1668A	pg/g																															
PCB-102	68194-06-9	1668A	pg/g																															
PCB-103	60145-21-3	1668A	pg/g																															
PCB-104	56558-16-8	1668A	pg/g																															
PCB-105	32598-14-4	1668A	pg/g																															
PCB-106	70424-69-0	1668A	pg/g																															
PCB-107	70424-68-9	1668A	pg/g																															
PCB-108	70362-41-3	1668A	pg/g																															
PCB-109	74472-35-8	1668A	pg/g																															
PCB-110	38380-03-9	1668A	pg/g																															
PCB-111	39635-32-0	1668A	pg/g																															
PCB-112	74472-36-9	1668A	pg/g																															

Table 5.5 - Soil: Polychlorinated Biphenyls (PCBs) Analytical Results

(continued)

Rolling Knolls Landfill

Sample Name				NJDEP Avian TEF's	ESC's	NJAC 7:26D	DP07_5.0-8.0				DP08_0.5-8.0				DP09_1.5-3.0				DP10_0.5-10.0				DP11_0.5-5.0				DP11_14.0-18.0				DP12_0.5-4.0			
Sample Date/Time							04/28/2021 00:00				05/11/2021 13:15				05/13/2021 11:35				05/13/2021 14:30				05/03/2021 10:10				05/03/2021 09:30				05/10/2021 11:20			
Latitude				Toxicity Equivalence Factor (TEF)	Screening Criteria	(8) Soil Remediation Standards (Ing.-Derm.) - Residential	40.7293038				40.7292838				40.7285174				40.7272947				40.7220743				40.7220743				40.7218276			
Longitude							-74.4416064				-74.4410889				-74.4407729				-74.4400920				-74.4442957				-74.4442957				-74.4445596			
Lab Sample Name							GS-N-DPT07-SB-5-8				GS-N-DPT08-SB-0.5-8.0				GS-N-DPT09-SB-1.5-3.0				GS-N-DPT10-SC-0.5-10.0				GS-S-DPT11-SC-0.5-5				GS-S-DPT11-SB-14-18				GS-S-DPT12-SB-0.5-4.0			
Lab Sample Number							460-233313-2				460-234161-7				460-234435-5				460-234436-10				460-233488-2				460-233488-3				460-234082-2			
Lab Report Number(s)							460-233313-1				460-234161-1				460-234435-1				460-234436-1				460-233488-1				460-233488-1				460-234082-1			
Analyte	CAS	Method	Units				Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)
PCB-113	68194-10-5	1668A	pg/g																													
~~PCB-114~~	~~74472-37-0~~	~~1668A~~	~~pg/g~~																													
PCB-115	74472-38-1	1668A	pg/g																													
PCB-116	18259-05-7	1668A	pg/g																													
PCB-117	68194-11-6	1668A	pg/g																													
PCB-118	31508-00-6	1668A	pg/g																													
PCB-119	56558-17-9	1668A	pg/g																													
PCB-120	68194-12-7	1668A	pg/g																													
PCB-121	56558-18-0	1668A	pg/g																													
PCB-122	76842-07-4	1668A	pg/g																													
PCB-123	65510-44-3	1668A	pg/g																													
PCB-124	70424-70-3	1668A	pg/g																													
PCB-125	74472-39-2	1668A	pg/g																													
PCB-126	57465-28-8	1668A	pg/g																													
PCB-127	39635-33-1	1668A	pg/g																													
PCB-128	38380-07-3	1668A	pg/g																													
PCB-129	55215-18-4	1668A	pg/g																													
PCB-130	52663-66-8	1668A	pg/g																													
PCB-131	61798-70-7	1668A	pg/g																													
PCB-132	38380-05-1	1668A	pg/g																													
PCB-133	35694-04-3	1668A	pg/g																													
PCB-134	52704-70-8	1668A	pg/g																													
PCB-135	52744-13-5	1668A	pg/g																													
PCB-136	38411-22-2	1668A	pg/g																													
PCB-137	35694-06-5	1668A	pg/g																													
PCB-138	35065-28-2	1668A	pg/g																													
PCB-139	56030-56-9	1668A	pg/g																													
PCB-140	59291-64-4	1668A	pg/g																													
PCB-141	52712-04-6	1668A	pg/g																													
PCB-142	41411-61-4	1668A	pg/g																													
PCB-143	68194-15-0	1668A	pg/g																													
PCB-144	68194-14-9	1668A	pg/g																													
PCB-145	74472-40-5	1668A	pg/g																													
PCB-146	51908-16-8	1668A	pg/g																													
PCB-147	68194-13-8	1668A	pg/g																													
PCB-148	74472-41-6	1668A	pg/g																													
PCB-149	38380-04-0	1668A	pg/g																													
PCB-150	68194-08-1	1668A	pg/g																													
PCB-151	52663-63-5	1668A	pg/g																													
PCB-152	68194-09-2	1668A	pg/g																													
PCB-153	35065-27-1	1668A	pg/g																													
PCB-154	60145-22-4	1668A	pg/g																													
PCB-155	33979-03-2	1668A	pg/g																													
PCB-156	38380-08-4	1668A	pg/g																													
PCB-157	69782-90-7	1668A	pg/g																													
PCB-158	74472-42-7	1668A	pg/g																													
PCB-159	39635-35-3	1668A	pg/g																													
PCB-160	41411-62-5	1668A	pg/g																													
PCB-161	74472-43-8	1668A	pg/g																													
PCB-162	39635-34-2	1668A	pg/g																													
PCB-163	74472-44-9	1668A	pg/g																													
PCB-164	74472-45-0	1668A	pg/g																													
PCB-165	74472-46-1	1668A	pg/g																													
PCB-166	41411-63-6	1668A	pg/g																													
PCB-167	52663-72-6	1668A	pg/g																													
PCB-168	59291-65-5	1668A	pg/g																													
PCB-169	32774-16-6	1668A	pg/g																													
PCB-170	35065-30-6	1668A	pg/g																													
PCB-171	52663-71-5	1668A	pg/g																													
PCB-172	52663-74-8	1668A	pg/g																													
PCB-173	68194-16-1	1668A	pg/g																													
PCB-174	38411-25-5	1668A	pg/g																													
PCB-175	40186-70-7	1668A	pg/g																													

Table 5.5 - Soil: Polychlorinated Biphenyls (PCBs) Analytical Results

(continued)

Rolling Knolls Landfill

	Sample Name			NJDEP Avian TEF's	ESC's	NJAC 7:26D	DP07_5.0-8.0				DP08_0.5-8.0				DP09_1.5-3.0				DP10_0.5-10.0				DP11_0.5-5.0				DP11_14.0-18.0				DP12_0.5-4.0			
	Sample Date/Time						04/28/2021 00:00				05/11/2021 13:15				05/13/2021 11:35				05/13/2021 14:30				05/03/2021 10:10				05/03/2021 09:30				05/10/2021 11:20			
	Latitude			Toxicity Equivalence Factor (TEF)	Screening Criteria	(8) Soil Remediation Standards (Ing.-Derm.) - Residential	40.7293038				40.7292838				40.7285174				40.7272947				40.7220743				40.7220743				40.7218276			
	Longitude						-74.4416064				-74.4410889				-74.4407729				-74.4400920				-74.4442957				-74.4442957				-74.4445596			
	Lab Sample Name						GS-N-DPT07-SB-5-8				GS-N-DPT08-SB-0.5-8.0				GS-N-DPT09-SB-1.5-3.0				GS-N-DPT10-SC-0.5-10.0				GS-S-DPT11-SC-0.5-5				GS-S-DPT11-SB-14-18				GS-S-DPT12-SB-0.5-4.0			
	Lab Sample Number						460-233313-2				460-234161-7				460-234435-5				460-234436-10				460-233488-2				460-233488-3				460-234082-2			
	Lab Report Number(s)						460-233313-1				460-234161-1				460-234435-1				460-234436-1				460-233488-1				460-233488-1				460-234082-1			
Analyte	CAS	Method	Units				Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)
PCB-176	52663-65-7	1668A	pg/g																															
~~PCB-177~~	~~52663-70-4~~	~~1668A~~	~~pg/g~~																															
PCB-178	52663-67-9	1668A	pg/g																															
PCB-179	52663-64-6	1668A	pg/g																															
PCB-180	35065-29-3	1668A	pg/g																															
PCB-181	74472-47-2	1668A	pg/g																															
PCB-182	60145-23-5	1668A	pg/g																															
PCB-183	52663-69-1	1668A	pg/g																															
PCB-184	74472-48-3	1668A	pg/g																															
PCB-185	52712-05-7	1668A	pg/g																															
PCB-186	74472-49-4	1668A	pg/g																															
PCB-187	52663-68-0	1668A	pg/g																															
PCB-188	74487-85-7	1668A	pg/g																															
PCB-189	39635-31-9	1668A	pg/g																															
PCB-190	41411-64-7	1668A	pg/g																															
PCB-191	74472-50-7	1668A	pg/g																															
PCB-192	74472-51-8	1668A	pg/g																															
PCB-193	69782-91-8	1668A	pg/g																															
PCB-194	35694-08-7	1668A	pg/g																															
PCB-195	52663-78-2	1668A	pg/g																															
PCB-196	42740-50-1	1668A	pg/g																															
PCB-197	33091-17-7	1668A	pg/g																															
PCB-198	68194-17-2	1668A	pg/g																															
PCB-199	52663-75-9	1668A	pg/g																															
PCB-200	52663-73-7	1668A	pg/g																															
PCB-201	40186-71-8	1668A	pg/g																															
PCB-202	2136-99-4	1668A	pg/g																															
PCB-203	52663-76-0	1668A	pg/g																															
PCB-204	74472-52-9	1668A	pg/g																															
PCB-205	74472-53-0	1668A	pg/g																															
PCB-206	40186-72-9	1668A	pg/g																															
PCB-207	52663-79-3	1668A	pg/g																															
PCB-208	52663-77-1	1668A	pg/g																															
PCB-209	2051-24-3	1668A	pg/g																															
Σ Polychlorinated biphenyls	1336-36-3	8082A	pg/g		371000 (5)	250000																												
Dioxin-Like PCB TEQ Calculation																																		
PCB-77	32598-13-3	1668A	pg/g	0.05																														
PCB-81	70362-50-4	1668A	pg/g	0.1																														
PCB-105	32598-14-4	1668A	pg/g	0.0001																														
PCB-114	74472-37-0	1668A	pg/g	0.0001																														
PCB-118	31508-00-6	1668A	pg/g	0.00001																														
PCB-123	65510-44-3	1668A	pg/g	0.00001																														
PCB-126	57465-28-8	1668A	pg/g	0.1																														
PCB-156	38380-08-4	1668A	pg/g	0.0001																														
PCB-157	69782-90-7	1668A	pg/g	0.0001																														
PCB-167	52663-72-6	1668A	pg/g	0.00001																														
PCB-169	32774-16-6	1668A	pg/g	0.001																														
PCB-189	39635-31-9	1668A	pg/g	0.00001																														
Σ Polychlorinated biphenyls (PCB) TEQ	1336-36-3	8082A	pg/g		0.199 (5)																													

Table 5.5 - Soil: Polychlorinated Biphenyls (PCBs) Analytical Results

(continued)

Rolling Knolls Landfill

Sample Name				NJDEP Avian TEF's	ESC's	NJAC 7:26D	DP13_0.5-3.0				DP13_3.0-4.0				DP14_0.5-5.0				DP101_0.5-5.0 (DP14_0.5-5.0 duplicate)				DP15_0.5-5.0				DP15_19.0-21.0				DP16_0.5-4.0			
Sample Date/Time							05/10/2021 12:20				05/10/2021 12:30				05/03/2021 11:10				05/03/2021 11:10				05/03/2021 15:55				05/03/2021 15:05				05/04/2021 10:10			
Latitude							40.7221319				40.7221319				40.7222989				40.7222989				40.7226573				40.7226573				40.7229083			
Longitude				Toxicity Equivalence Factor (TEF)			-74.4453061				-74.4453061				-74.4446187				-74.4446187				-74.4446863				-74.4446863				-74.4452270			
Lab Sample Name					Screening Criteria		GS-S-DPT13-SC-0.5-3.0				GS-S-DPT13-SB-3.0-4.0				GS-S-DPT14-SC-0.5-5				GS-S-DPT101-SC-0.5-5				GS-S-DPT15-SC-0.5-5				GS-S-DPT15-SB-19-21				GS-S-DPT16-SC-0.5-4			
Lab Sample Number						(8) Soil Remediation Standards (Ing.-Derm.) - Residential	460-234082-4				460-234082-5				460-233488-5				460-233506-2				460-233506-4				460-233506-5				460-233704-2			
Lab Report Number(s)							460-234082-1 / 460-234082-2				460-234082-1				460-233488-1 / 460-233488-2				460-233506-1				460-233506-1 / 460-233506-2				460-233506-1				460-233704-1			
Analyte	CAS	Method	Units				Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)
Polychlorinated Biphenyls (PCBs)		8082A					•				•				•				•				•				•				•			
Aroclor 1016	12674-11-2	8082A	µg/Kg		1100 (7)		20	U	150	20	40	U	300	40	21	U	160	21	39	U	300	39	50	U	380	50	12	U	93	12	38	U	290	38
Aroclor 1221	11104-28-2	8082A	µg/Kg				20	U	150	20	40	U	300	40	21	U	160	21	39	U	300	39	50	U	380	50	12	U	93	12	38	U	290	38
Aroclor 1232	11141-16-5	8082A	µg/Kg				20	U	150	20	40	U	300	40	21	U	160	21	39	U	300	39	50	U	380	50	12	U	93	12	38	U	290	38
Aroclor 1242	53469-21-9	8082A	µg/Kg		41 (7)		20	U	150	20	40	U	300	40	21	U	160	21	39	U	300	39	50	U	380	50	12	U	93	12	38	U	290	38
Aroclor 1248	12672-29-6	8082A	µg/Kg		7.3 (7)		2100		150	20	450		300	40	1200	J	160	21	39	U	300	39	1600		380	50	12	U	93	12	38	U	290	38
Aroclor 1254	11097-69-1	8082A	µg/Kg		41 (7)		21	U	150	21	41	U	300	41	22	U	160	22	3400		300	41	52	U	380	52	13	U	93	13	1100		290	40
Aroclor 1260	11096-82-5	8082A	µg/Kg		880 (7)		280		150	21	41	U	300	41	260	J	160	22	41	U	300	41	52	U	380	52	13	U	93	13	40	U	290	40
Aroclor 1268	11100-14-4	8082A	µg/Kg				21	U	150	21	41	U	300	41	22	U	160	22	41	U	300	41	52	U	380	52	13	U	93	13	40	U	290	40
Aroclor-1262	37324-23-5	8082A	µg/Kg				21	U	150	21	41	U	300	41	22	U	160	22	41	U	300	41	52	U	380	52	13	U	93	13	40	U	290	40
Polychlorinated biphenyls, Total	1336-36-3	8082A	µg/Kg		371 (5)	250	2400		150	21	450		300	41	1500	J	160	22	3400		300	41	1600		380	52	13	U	93	13	1100		290	40
Chlorinated Biphenyl Congeners (PCBs)		1668A					•								•								•											
PCB-1	2051-60-7	1668A	pg/g				4590		890	5.04					2900		935	5.79					5980		2180	15.6								
PCB-2	2051-61-8	1668A	pg/g				514	J	890	4.85					688	J	935	5.6					971	J	2180	15.6								
PCB-3	2051-62-9	1668A	pg/g				2560		890	5.6					3490		935	6.45					4550		2180	18.8								
PCB-4	13029-08-8	1668A	pg/g				10100		890	28.7					6060		935	25.8					22700		2180	66.6								
PCB-5	16605-91-7	1668A	pg/g				103	J	890	59.2					305	J	935	108					581	U	2180	581								
PCB-6	25569-80-6	1668A	pg/g				1380		890	53.6					5490		935	97.4					36400		2180	526								
PCB-7	33284-50-3	1668A	pg/g				503	J	890	57.3					621	J	935	104					1330	J	2180	565								
PCB-8	34883-43-7	1668A	pg/g				4070		890	49.6					7350		935	90.2					40000		2180	488								
PCB-9	34883-39-1	1668A	pg/g				436	J	890	56.4					772	J	935	103					2180		2180	554								
PCB-10	33146-45-1	1668A	pg/g				596	J	890	30.2					570	J	935	23.8					1530	J	2180	62.7								
PCB-11	2050-67-1	1668A	pg/g				64.7	U	890	64.7					1000		935	118					2550	J	2180	635								
PCB-12	2974-92-7	1668A	pg/g				1060	J	1780	63.8					3580		1870	116					15700		4360	627								
PCB-13	2974-90-5	1668A	pg/g				1060	J	1780	63.8					3580		1870	118					15700		4360	627								
PCB-14	34883-41-5	1668A	pg/g				61.7	U	890	61.7					112	U	935	112					607	U	2180	607								
PCB-15	2050-68-2	1668A	pg/g				5890		890	60.6					14400		935	99.7					31900		2180	548								
PCB-16	38444-78-9	1668A	pg/g				2160		890	40.2					4190		935	27.4					34000		2180	165								
PCB-17	37680-66-3	1668A	pg/g				8230		890	39					7320		935	26.6					50800		2180	160								
PCB-18	37680-65-2	1668A	pg/g				10100		1780	27.8					12200		1870	19					85000		4360	114								
PCB-19	38444-73-4	1668A	pg/g				5960		890	43.4					4600		935	30.9					20000		2180	162								
PCB-20	38444-84-7	1668A	pg/g				35500		2670	365					26600		2800	418					163000		6540	1270								
PCB-21	55702-46-0	1668A	pg/g				4660		1780	381					6880		1870	437					38600		4360	1330								
PCB-22	38444-85-8	1668A	pg/g				6320		890	366					6710		935	413					50600		2180	1260								
PCB-23	55720-44-0	1668A	pg/g				367	U	890	367					421	U	935	421					1280	U	2180	1280								
PCB-24	55702-45-9	1668A	pg/g				29.2	U	890	29.2					144	J	935	19.9					120	U	2180	120								
PCB-25	55712-37-3	1668A	pg/g				4020		890	334					4350		935	381					34700		2180	1160								
PCB-26	38444-81-4	1668A	pg/g				7120		1780	380					7870		1870	436					55700		4360	1330								
PCB-27	38444-76-7	1668A	pg/g				5160		890	26.6					2240		935	18.1					12100		2180	109								
PCB-28	7012-37-5	1668A	pg/g				35500		2670	365					26600		2800	418					163000		6540	1270								
PCB-29	15862-07-4	1668A	pg/g				7120		1780	380					7870		1870	436					55700		4360	1330								
PCB-30	35693-92-6	1668A	pg/g				10100		1780	27.8					12200		1870	19					85000		4360	114								
PCB-31	16606-02-3	1668A	pg/g				27400		890	351					23900		935	403					149000		2180	1220								
PCB-32	38444-77-8	1668A	pg/g				27.3	U	890	27.3					8820		935	18.6					45600		2180	112								
PCB-33	38444-86-9	1668A	pg/g				4660		1780	381					6880		1870	437					38600		4360	1330								
PCB-34	37680-68-5	1668A	pg/g				380	U	890	380					436	U	935	436					1450	J	2180	1330								
PCB-35	37680-69-6	1668A	pg/g				418	U	890	418					480	U	935	480					1890	J	2180	1460								
PCB-36	38444-87-0	1668A	pg/g				419	U	890	419					481	U	935	481					1460	U	2180	1460								
PCB-37	38444-90-5	1668A	pg/g				9650		890	403					10800		935	449					33600		2180	1480								
PCB-38	53555-66-1	1668A	pg/g				432	U	890	432					496	U	935	496					1510	U	2180	1510								
PCB-39	38444-88-1	1668A	pg/g				390	U	890	390					447	U	935	447					1360	U	2180	1360								
PCB-40	38444-93-8	1668A	pg/g				53400		2070	2070					18900		1870	1360					53200		4360	2180								
PCB-41	52663-59-9	1668A	pg/g				5130		3150	3150					2240		2080	2080					6820		3330	3330								
PCB-42	36559-22-5	1668A	pg/g				31000		2200	2200					11900		1450	1450					30900		2320	2320								
PCB-43	70362-46-8	1668A	pg/g				3250		2230	2230					1470	U	1470	1470					5030		2350	2350								
PCB-44	41464-39-5	1668A	pg/g				134000		2670	2110					62800		2800	1390					122000		6540	2230								
PCB-45	70362-45-7	1668A	pg/g				21300		3150	3150					5620		2080	2080					18500		3330	3330								
PCB-46	41464-47-5	1668A	pg/g				6900		2670	2670					2580		1760	1760					9290		2820	2820								
PCB-47	2437-79-8	1668A	pg/g				134000		2670	2110					62800		2800	1390					122000		6540	2230								
PCB-48	70362-47-9	1668A	pg/g				16700		2260	2260					4780		1490	1490					16700		2390	2390								
PCB-49	41464-40-8	1668A	pg/g				108000		1870	1870					45700		1870	1230					87900		4360	1970								

Table 5.5 - Soil: Polychlorinated Biphenyls (PCBs) Analytical Results

(continued)

Rolling Knolls Landfill

	Sample Name		NJDEP Avian TEF's	ESC's	NJAC 7:26D	DP13_0.5-3.0				DP13_3.0-4.0				DP14_0.5-5.0				DP101_0.5-5.0 (DP14_0.5-5.0 duplicate)				DP15_0.5-5.0				DP15_19.0-21.0				DP16_0.5-4.0			
	Sample Date/Time					05/10/2021 12:20				05/10/2021 12:30				05/03/2021 11:10				05/03/2021 11:10				05/03/2021 15:55				05/03/2021 15:05				05/04/2021 10:10			
	Latitude					40.7221319				40.7221319				40.7222989				40.7222989				40.7226573				40.7226573				40.7229083			
	Longitude		Toxicity Equivalence Factor (TEF)	Screening Criteria	(8) Soil Remediation Standards (Ing.-Derm.) - Residential	-74.4453061				-74.4453061				-74.4446187				-74.4446187				-74.4446863				-74.4446863				-74.4452270			
	Lab Sample Name					GS-S-DPT13-SC-0.5-3.0				GS-S-DPT13-SB-3.0-4.0				GS-S-DPT14-SC-0.5-5				GS-S-DPT101-SC-0.5-5				GS-S-DPT15-SC-0.5-5				GS-S-DPT15-SB-19-21				GS-S-DPT16-SC-0.5-4			
	Lab Sample Number					460-234082-4				460-234082-5				460-233488-5				460-233506-2				460-233506-4				460-233506-5				460-233704-2			
	Lab Report Number(s)					460-234082-1 / 460-234082-2				460-234082-1				460-233488-1 / 460-233488-2				460-233506-1				460-233506-1 / 460-233506-2				460-233506-1				460-233704-1			
Analyte	CAS	Method	Units				Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)
PCB-50	62796-65-0	1668A	pg/g				33800		2630	2630					11400		1870	1730					31900		4360	2770								
~~PCB-51~~	~~68194-04-7~~	~~1668A~~	~~pg/g~~				6480		1850	1850					2920		1220	1220					9740		2180	1960								
PCB-52	35693-99-3	1668A	pg/g				237000	J	2220	2220					105000		1870	1670					151000		2340	2340								
PCB-53	41464-41-9	1668A	pg/g				33800		2630	2630					11400		1870	1730					31900		4360	2770								
PCB-54	15968-05-5	1668A	pg/g				1060		890	15.7					447	J	935	1.8					1320	J	2180	9.38								
PCB-55	74338-24-2	1668A	pg/g				19500	J	890	763					549	U	935	649					584	U	2180	584								
PCB-56	41464-43-1	1668A	pg/g				49800		897	897					23700		935	763					36400		2180	687								
PCB-57	70424-67-8	1668A	pg/g				973	U	973	973					828	U	935	828					1240	J	2180	745								
PCB-58	41464-49-7	1668A	pg/g				836	U	890	836					711	U	935	711					640	U	2180	640								
PCB-59	74472-33-6	1668A	pg/g				9900		2670	1810					3940		2800	1190					11000		6540	1910								
PCB-60	33025-41-1	1668A	pg/g				17100	J	948	948					8910		935	807					18400		2180	726								
PCB-61	33284-53-6	1668A	pg/g				129000	J	3560	908					130000		3740	771					149000		8720	694								
PCB-62		1668A	pg/g				9900		2670	1810					3940		2800	1190					11000		6540	1910								
PCB-63	74472-34-7	1668A	pg/g				2880	J	979	979					1750	J	935	833					5900		2180	750								
PCB-64	52663-58-8	1668A	pg/g				47300		1660	1660					22500		1100	1100					45300		2180	1750								
PCB-65	33284-54-7	1668A	pg/g				134000		2670	2110					62800		2800	1390					122000		6540	2230								
PCB-66	32598-10-0	1668A	pg/g				24500		903	903					60400		935	768					91300		2180	692								
PCB-67	73575-53-8	1668A	pg/g				1040	J	890	753					703	J	935	640					2890		2180	576								
PCB-68	73575-52-7	1668A	pg/g				954	J	890	851					724	U	935	724					1190	J	2180	652								
PCB-69	60233-24-1	1668A	pg/g				108000		1870	1870					45700		1870	1230					87900		4360	1970								
PCB-70	32598-11-1	1668A	pg/g				129000	J	3560	908					130000		3740	771					149000		8720	694								
PCB-71	41464-46-4	1668A	pg/g				53400		2070	2070					18900		1870	1360					53200		4360	2180								
PCB-72	41464-42-0	1668A	pg/g				1550	J	952	952					818	J	935	810					2100	J	2180	729								
PCB-73	74338-23-1	1668A	pg/g				1580	U	1580	1580					1040	U	1040	1040					1670	U	2180	1670								
PCB-74	32690-93-0	1668A	pg/g				129000	J	3560	908					130000		3740	771					149000		8720	694								
PCB-75	32598-12-2	1668A	pg/g				9900		2670	1810					3940		2800	1190					11000		6540	1910								
PCB-76	70362-48-0	1668A	pg/g				129000	J	3560	908					130000		3740	771					149000		8720	694								
PCB-77	32598-13-3	1668A	pg/g				11900		923	923					5610	J	899	899					10200		910	910								
PCB-78	70362-49-1	1668A	pg/g				1040	U	1040	1040					886	U	935	886					797	U	2180	797								
PCB-79	41464-48-6	1668A	pg/g				1850		913	913					2200		935	771					1080	J	2180	699								
PCB-80	33284-52-5	1668A	pg/g				834	U	890	834					709	U	935	709					638	U	2180	638								
PCB-81	70362-50-4	1668A	pg/g				905	U	905	905					934	U	934	934					876	U	876	876								
PCB-82	52663-62-4	1668A	pg/g				19100		4120	4120					25300		3190	3190					13400		2180	1790								
PCB-83	60145-20-2	1668A	pg/g				10800		5330	5330					13300		4120	4120					6460		2310	2310								
PCB-84	52663-60-2	1668A	pg/g				47900		4530	4530					58100		3510	3510					29800		2180	1970								
PCB-85	65510-45-4	1668A	pg/g				32200		3230	3230					35500		2800	2500					17300		6540	1400								
PCB-86	55312-69-1	1668A	pg/g				119000		5340	3240					173000		5610	2510					66100		13100	1410								
PCB-87	38380-02-8	1668A	pg/g				119000		5340	3240					173000		5610	2510					66100		13100	1410								
PCB-88	55215-17-3	1668A	pg/g				35700		3870	3870					31800		2990	2990					18600		4360	1680								
PCB-89	73575-57-2	1668A	pg/g				4350	U	4350	4350					3370	U	3370	3370					2150	J	2180	1890								
PCB-90	68194-07-0	1668A	pg/g				173000		3400	3400					241000		2800	2630					96500		6540	1480								
PCB-91	68194-05-8	1668A	pg/g				35700		3870	3870					31800		2990	2990					18600		4360	1680								
PCB-92	52663-61-3	1668A	pg/g				33600		3910	3910					43900		3030	3030					21100		2180	1700								
PCB-93	73575-56-1	1668A	pg/g				3740	U	3740	3740					2900	U	2900	2900					1620	U	4360	1620								
PCB-94	73575-55-0	1668A	pg/g				4230	U	4230	4230					3280	U	3280	3280					1840	U	2180	1840								
PCB-95	38379-99-6	1668A	pg/g				146000	J	3870	3870					164000		2930	2930					81900		2180	1680								
PCB-96	73575-54-9	1668A	pg/g				2110		890	6.15					1130		935	2.6					1250	J	2180	12.2								
PCB-97	41464-51-1	1668A	pg/g				119000		5340	3240					173000		5610	2510					66100		13100	1410								
PCB-98	60233-25-2	1668A	pg/g				8790		3700	3700					5700		2860	2860					5220		4360	1610								
PCB-99	38380-01-7	1668A	pg/g				87300		3230	3230					89700		2440	2440					48800		2180	1400								
PCB-100	39485-83-1	1668A	pg/g				3740	U	3740	3740					2900	U	2900	2900					1620	U	4360	1620								
PCB-101	37680-73-2	1668A	pg/g				173000		3400	3400					241000		2800	2630					96500		6540	1480								
PCB-102	68194-06-9	1668A	pg/g				8790		3700	3700					5700		2860	2860					5220		4360	1610								
PCB-103	60145-21-3	1668A	pg/g				3530	U	3530	3530					2730	U	2730	2730					1650	J	2180	1530								
PCB-104	56558-16-8	1668A	pg/g				63.3	J	890	7.42					49.1	J	935	2.94					94.2	J	2180	11.5								
PCB-105	32598-14-4	1668A	pg/g				58000		2860	2860					85100		2160	2160					33800		1300	1300								
PCB-106	70424-69-0	1668A	pg/g				3180	U	3180	3180					2460	U	2460	2460					1380	U	2180	1380								
PCB-107	70424-68-9	1668A	pg/g				5690	J	3180	3180					9710		2460	2460					4360		4360	1380								
PCB-108	70362-41-3	1668A	pg/g				119000		5340	3240					173000		5610	2510					66100		13100	1410								
PCB-109	74472-35-8	1668A	pg/g				10500		2800	2800					13900		2170	2170					7580		2180	1220								
PCB-110	38380-03-9	1668A	pg/g				203000	J	2760	2760					261000		3740	2090					114000		4360	1200								
PCB-111	39635-32-0	1668A	pg/g				2900	U	2900	2900					2250	U	2250	2250					1260	U	2180	1260								
PCB-112	74472-36-9	1668A	pg/g				2330	U	2330	2330					1810	U	1810	1810					1010	U	2180	1010								

Table 5.5 - Soil: Polychlorinated Biphenyls (PCBs) Analytical Results

(continued)

Rolling Knolls Landfill

Sample Name				NJDEP Avian TEF's	ESC's	NJAC 7:26D	DP13_0.5-3.0				DP13_3.0-4.0				DP14_0.5-5.0				DP101_0.5-5.0 (DP14_0.5-5.0 duplicate)				DP15_0.5-5.0				DP15_19.0-21.0				DP16_0.5-4.0			
Sample Date/Time							05/10/2021 12:20				05/10/2021 12:30				05/03/2021 11:10				05/03/2021 11:10				05/03/2021 15:55				05/03/2021 15:05				05/04/2021 10:10			
Latitude							40.7221319				40.7221319				40.7222989				40.7222989				40.7226573				40.7226573				40.7229083			
Longitude				Toxicity Equivalence Factor (TEF)	Screening Criteria	(8) Soil Remediation Standards (Ing.-Derm.) - Residential	-74.4453061				-74.4453061				-74.4446187				-74.4446187				-74.4446863				-74.4446863				-74.4452270			
Lab Sample Name							GS-S-DPT13-SC-0.5-3.0				GS-S-DPT13-SB-3.0-4.0				GS-S-DPT14-SC-0.5-5				GS-S-DPT101-SC-0.5-5				GS-S-DPT15-SC-0.5-5				GS-S-DPT15-SB-19-21				GS-S-DPT16-SC-0.5-4			
Lab Sample Number							460-234082-4				460-234082-5				460-233488-5				460-233506-2				460-233506-4				460-233506-5				460-233704-2			
Lab Report Number(s)							460-234082-1 / 460-234082-2				460-234082-1				460-233488-1 / 460-233488-2				460-233506-1				460-233506-1 / 460-233506-2				460-233506-1				460-233704-1			
Analyte	CAS	Method	Units				Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)
PCB-113	68194-10-5	1668A	pg/g				173000		3400	3400					241000		2800	2630					96500		6540	1480								
PCB-114	74472-37-0	1668A	pg/g				3400	U	3400	3400					4480		2660	2660					2320	J	1460	1460								
PCB-115	74472-38-1	1668A	pg/g				203000	J	2760	2760					261000		3740	2090					114000		4360	1200								
PCB-116	18259-05-7	1668A	pg/g				32200		3230	3230					35500		2800	2500					17300		6540	1400								
PCB-117	68194-11-6	1668A	pg/g				32200		3230	3230					35500		2800	2500					17300		6540	1400								
PCB-118	31508-00-6	1668A	pg/g				126000	J	2650	2650					172000		2010	2010					85700		1260	1260								
PCB-119	56558-17-9	1668A	pg/g				119000		5340	3240					173000		5610	2510					66100		13100	1410								
PCB-120	68194-12-7	1668A	pg/g				2460	U	2460	2460					1900	U	1900	1900					1070	U	2180	1070								
PCB-121	56558-18-0	1668A	pg/g				2500	U	2500	2500					1940	U	1940	1940					1090	U	2180	1090								
PCB-122	76842-07-4	1668A	pg/g				3620	U	3620	3620					3660	J	2800	2800					2420		2180	1570								
PCB-123	65510-44-3	1668A	pg/g				2990	U	2990	2990					2610	U	2610	2610					2180		1430	1430								
PCB-124	70424-70-3	1668A	pg/g				5690	J	3180	3180					9710		2460	2460					4360		4360	1380								
PCB-125	74472-39-2	1668A	pg/g				119000		5340	3240					173000		5610	2510					66100		13100	1410								
PCB-126	57465-28-8	1668A	pg/g				3540	U	3540	3540					2820	U	2820	2820					1650	U	1650	1650								
PCB-127	39635-33-1	1668A	pg/g				3500	U	3500	3500					2710	U	2710	2710					1520	U	2180	1520								
PCB-128	38380-07-3	1668A	pg/g				23600		1780	657					39400		1870	934					13900		4360	369								
PCB-129	55215-18-4	1668A	pg/g				138000		2670	692					240000		2800	984					74000		6540	389								
PCB-130	52663-66-8	1668A	pg/g				9050		890	888					14800		1260	1260					6460		2180	498								
PCB-131	61798-70-7	1668A	pg/g				2360		890	786					2930		1120	1120					1170	J	2180	442								
PCB-132	38380-05-1	1668A	pg/g				43100		890	774					71200		1100	1100					24600		2180	433								
PCB-133	35694-04-3	1668A	pg/g				2000		890	753					2210		1070	1070					1200	J	2180	429								
PCB-134	52704-70-8	1668A	pg/g				6200	J	1780	737					10100		1870	1050					4200	J	4360	414								
PCB-135	52744-13-5	1668A	pg/g				32800		1780	698					44400		1870	993					18600		4360	392								
PCB-136	38411-22-2	1668A	pg/g				13100		890	490					18400		935	697					7440		2180	275								
PCB-137	35694-06-5	1668A	pg/g				7380		890	744					12500		1060	1060					5030		2180	418								
PCB-138	35065-28-2	1668A	pg/g				138000		2670	692					240000		2800	984					74000		6540	389								
PCB-139	56030-56-9	1668A	pg/g				2850		1780	693					3760		1870	988					1760	J	4360	389								
PCB-140	59291-64-4	1668A	pg/g				2850		1780	693					3760		1870	980					1760	J	4360	389								
PCB-141	52712-04-6	1668A	pg/g				20300		890	740					31300		1050	1050					10300	J	2180	416								
PCB-142	41411-61-4	1668A	pg/g				768	U	890	768					1090	U	1090	1090					432	U	2180	432								
PCB-143	68194-15-0	1668A	pg/g				6200	J	1780	737					10100		1870	1050					4200	J	4360	414								
PCB-144	68194-14-9	1668A	pg/g				4770		890	640					6120		935	910					2520		2180	360								
PCB-145	74472-40-5	1668A	pg/g				507	U	890	507					721	U	935	721					285	U	2180	285								
PCB-146	51908-16-8	1668A	pg/g				14000		890	609					19900		935	861					9330		2180	340								
PCB-147	68194-13-8	1668A	pg/g				87500		1780	675					125000		1870	960					45000		4360	379								
PCB-148	74472-41-6	1668A	pg/g				645	U	890	645					918	U	935	918					363	U	2180	363								
PCB-149	38380-04-0	1668A	pg/g				87500		1780	675					125000		1870	960					45000		4360	379								
PCB-150	68194-08-1	1668A	pg/g				464	U	890	464					660	U	935	660					261	U	2180	261								
PCB-151	52663-63-5	1668A	pg/g				32800		1780	698					44400		1870	993					18600		4360	392								
PCB-152	68194-09-2	1668A	pg/g				520	U	890	520					740	U	935	740					292	U	2180	292								
PCB-153	35065-27-1	1668A	pg/g				91300		1780	560					138000		1870	796					48300		4360	315								
PCB-154	60145-22-4	1668A	pg/g				1150		890	595					1970		935	848					943	J	2180	334								
PCB-155	33979-03-2	1668A	pg/g				570	U	890	570					819	U	935	819					275	U	2180	275								
PCB-156	38380-08-4	1668A	pg/g				15100		178	150					31900		295	295					11600		436	115								
PCB-157	69782-90-7	1668A	pg/g				15100		178	150					31900		295	295					11600		436	115								
PCB-158	74472-42-7	1668A	pg/g				12000		890	479					19400		935	681					7660		2180	269								
PCB-159	39635-35-3	1668A	pg/g				804	J	890	98.6					870	J	935	229					359	J	2180	82.4								
PCB-160	41411-62-5	1668A	pg/g				623	U	890	623					886	U	935	886					350	U	2180	350								
PCB-161	74472-43-8	1668A	pg/g				556	U	890	556					791	U	935	791					312	U	2180	312								
PCB-162	39635-34-2	1668A	pg/g				497	J	890	103					824	J	935	240					296	J	2180	86.5								
PCB-163	74472-44-9	1668A	pg/g				138000		2670	692					240000		2800	984					74000		6540	389								
PCB-164	74472-45-0	1668A	pg/g				9100		890	600					14000		935	853					5790		2180	337								
PCB-165	74472-46-1	1668A	pg/g				578	U	890	578					822	U	935	822					325	U	2180	325								
PCB-166	41411-63-6	1668A	pg/g				23600		1780	657					39400		1870	934					13900		4360	369								
PCB-167	52663-72-6	1668A	pg/g				5070		103	103					9370		240	240					3920		218	89.6								
PCB-168	59291-65-5	1668A	pg/g				91300		1780	560					138000		1870	796					48300		4360	315								
PCB-169	32774-16-6	1668A	pg/g				99.6	U	99.6	99.6					299	U	299	299					105	U	218	105								
PCB-170	35065-30-6	1668A	pg/g				17700		890	255					26800		935	306					10900		2180	158								
PCB-171	52663-71-5	1668A	pg/g				5170		1780	229					7360		1870	275					3460	J	4360	142								
PCB-172	52663-74-8	1668A	pg/g				3200		890	250					4260		935	308					1930	J	2180	155								
PCB-173	68194-16-1	1668A	pg/g				5170		1780	229					7360		1870	275					3460	J	4360	142								
PCB-174	38411-25-5	1668A	pg/g				17600		890	210					21900		935	252					8220		2180	130								
PCB-175	40186-70-7	1668A	pg/g				866	J	890	10.2					1080		935	14.2					500	J	2180	11								

Table 5.5 - Soil: Polychlorinated Biphenyls (PCBs) Analytical Results

(continued)

Rolling Knolls Landfill

Sample Name				NJDEP Avian TEF's	ESC's	NJAC 7:26D	DP13_0.5-3.0				DP13_3.0-4.0				DP14_0.5-5.0				DP101_0.5-5.0 (DP14_0.5-5.0 duplicate)				DP15_0.5-5.0				DP15_19.0-21.0				DP16_0.5-4.0			
Sample Date/Time							05/10/2021 12:20				05/10/2021 12:30				05/03/2021 11:10				05/03/2021 11:10				05/03/2021 15:55				05/03/2021 15:05				05/04/2021 10:10			
Latitude							40.7221319				40.7221319				40.7222989				40.7222989				40.7226573				40.7226573				40.7229083			
Longitude				Toxicity Equivalence Factor (TEF)	Screening Criteria	(8) Soil Remediation Standards (Ing.-Derm.) - Residential	-74.4453061				-74.4453061				-74.4446187				-74.4446187				-74.4446863				-74.4446863				-74.4452270			
Lab Sample Name							GS-S-DPT13-SC-0.5-3.0				GS-S-DPT13-SB-3.0-4.0				GS-S-DPT14-SC-0.5-5				GS-S-DPT101-SC-0.5-5				GS-S-DPT15-SC-0.5-5				GS-S-DPT15-SB-19-21				GS-S-DPT16-SC-0.5-4			
Lab Sample Number							460-234082-4				460-234082-5				460-233488-5				460-233506-2				460-233506-4				460-233506-5				460-233704-2			
Lab Report Number(s)							460-234082-1 / 460-234082-2				460-234082-1				460-233488-1 / 460-233488-2				460-233506-1				460-233506-1 / 460-233506-2				460-233506-1				460-233704-1			
Analyte	CAS	Method	Units				Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)
PCB-176	52663-65-7	1668A	pg/g				2350		890	7.54					3060		935	10.5					1470	J	2180	8.15								
~~PCB-177~~	~~52663-70-4~~	~~1668A~~	pg/g				8730		890	211					11600		935	253					5540		2180	131								
PCB-178	52663-67-9	1668A	pg/g				3810		890	10.8					4860		935	14.5					2460		2180	11.2								
PCB-179	52663-64-6	1668A	pg/g				6570		890	6.56					8400		935	9.18					3960		2180	7.1								
PCB-180	35065-29-3	1668A	pg/g				37500		1780	187					46300		1870	224					18600		4360	116								
PCB-181	74472-47-2	1668A	pg/g				216	U	890	216					503	J	935	259					134	U	2180	134								
PCB-182	60145-23-5	1668A	pg/g				9.82	U	890	9.82					13.7	U	935	13.7					162	J	2180	10.6								
PCB-183	52663-69-1	1668A	pg/g				10400		890	184					10400		935	221					5230		2180	114								
PCB-184	74472-48-3	1668A	pg/g				6.82	U	890	6.82					9.54	U	935	9.54					7.38	U	2180	7.38								
PCB-185	52712-05-7	1668A	pg/g				245	U	890	245					2630		935	294					2460		2180	152								
PCB-186	74472-49-4	1668A	pg/g				6.12	U	890	6.12					8.57	U	935	8.57					6.62	U	2180	6.62								
PCB-187	52663-68-0	1668A	pg/g				20300		890	8.29					24300		935	11.6					11900		2180	8.97								
PCB-188	74487-85-7	1668A	pg/g				8.57	U	890	8.57					30.6	J	935	11.1					28.4	J	2180	8.29								
PCB-189	39635-31-9	1668A	pg/g				792		89	8.59					1370		93.5	7.05					540		218	9.1								
PCB-190	41411-64-7	1668A	pg/g				3320		890	160					4640		935	192					1980	J	2180	99.4								
PCB-191	74472-50-7	1668A	pg/g				836	J	890	160					1010		935	201					511	J	2180	104								
PCB-192	74472-51-8	1668A	pg/g				158	U	890	158					189	U	935	189					97.7	U	2180	97.7								
PCB-193	69782-91-8	1668A	pg/g				37500		1780	187					46300		1870	224					18600		4360	116								
PCB-194	35694-08-7	1668A	pg/g				9230		890	43.1					11700		935	20.1					4610		2180	16.7								
PCB-195	52663-78-2	1668A	pg/g				3560		890	42.7					4330		935	19.9					1710	J	2180	16.6								
PCB-196	42740-50-1	1668A	pg/g				5110		890	16.1					5500		935	14.2					2800		2180	10.6								
PCB-197	33091-17-7	1668A	pg/g				358	J	890	10					478	J	935	8.87					202	J	2180	6.62								
PCB-198	68194-17-2	1668A	pg/g				10500		1780	14.4					12000		1870	12.7					6380		4360	9.48								
PCB-199	52663-75-9	1668A	pg/g				10500		1780	14.4					12000		1870	12.7					6380		4360	9.48								
PCB-200	52663-73-7	1668A	pg/g				1590		890	12.3					1730		935	10.8					821	J	2180	8.09								
PCB-201	40186-71-8	1668A	pg/g				1470		890	11.5					1570		935	10.1					838	J	2180	7.58								
PCB-202	2136-99-4	1668A	pg/g				2610		890	13.5					2970		935	11.4					1730	J	2180	7.64								
PCB-203	52663-76-0	1668A	pg/g				6510		890	13.1					7650		935	11.5					4050		2180	8.61								
PCB-204	74472-52-9	1668A	pg/g				11	U	890	11					9.69	U	935	9.69					7.24	U	2180	7.24								
PCB-205	74472-53-0	1668A	pg/g				597	J	890	30.3					737	J	935	14.8					265	J	2180	13.4								
PCB-206	40186-72-9	1668A	pg/g				6390		890	54.6					7430		935	8.3					5530		2180	31.6								
PCB-207	52663-79-3	1668A	pg/g				730	J	890	39.5					910	J	935	5.67					754	J	2180	21.2								
PCB-208	52663-77-1	1668A	pg/g				2400		890	39.9					2330		935	5.5					2210		2180	20.3								
PCB-209	2051-24-3	1668A	pg/g				9420		890	2.71					4370		935	1.32					8570		2180	4.51								
Σ Polychlorinated biphenyls	1336-36-3	8082A	pg/g		371000 (5)	250000	**5,769,319**								**6,564,600**								**5,213,595**											
Dioxin-Like PCB TEQ Calculation																																		
PCB-77	32598-13-3	1668A	pg/g	0.05			595								281								510											
PCB-81	70362-50-4	1668A	pg/g	0.1			0								0								0											
PCB-105	32598-14-4	1668A	pg/g	0.0001			6								9								3											
PCB-114	74472-37-0	1668A	pg/g	0.0001			0								0								0											
PCB-118	31508-00-6	1668A	pg/g	0.00001			1								2								1											
PCB-123	65510-44-3	1668A	pg/g	0.00001			0								0								0											
PCB-126	57465-28-8	1668A	pg/g	0.1			0								0								0											
PCB-156	38380-08-4	1668A	pg/g	0.0001			2								3								1											
PCB-157	69782-90-7	1668A	pg/g	0.0001			2								3								1											
PCB-167	52663-72-6	1668A	pg/g	0.00001			0								0								0											
PCB-169	32774-16-6	1668A	pg/g	0.001			0								0								0											
PCB-189	39635-31-9	1668A	pg/g	0.00001			0								0								0											
Σ Polychlorinated biphenyls (PCB) TEQ	1336-36-3	8082A	pg/g		0.199 (5)		**605**								**298**								**517**											

Table 5.5 - Soil: Polychlorinated Biphenyls (PCBs) Analytical Results

(continued)

Rolling Knolls Landfill

	Sample Name		NJDEP Avian TEF's	ESC's	NJAC 7:26D	DP16_4.0-7.0				DP17_0.5-2.0				DP17_3.5-5.0				DP102_3.5-5.0 (DP17_3.5-5.0 duplicate)				DP18_3.5-5.0				DP19_0.5-5.0				DP19_5.0-9.0			
	Sample Date/Time					05/04/2021 09:55				05/05/2021 10:45				05/05/2021 11:40				05/05/2021 11:40				05/10/2021 14:05				05/10/2021 09:00				05/10/2021 09:50			
	Latitude					40.7229083				40.7231730				40.7231730				40.7231730				40.7226388				40.7236522				40.7236522			
	Longitude		Toxicity Equivalence Factor (TEF)	Screening Criteria	(8) Soil Remediation Standards (Ing.-Derm.) - Residential	-74.4452270				-74.4437270				-74.4437270				-74.4437270				-74.4459762				-74.4437257				-74.4437257			
	Lab Sample Name					GS-S-DPT16-SB-4-7				GS-S-DPT17-SC-0.5-2				GS-S-DPT17-SB-3.5-5				GS-S-DP102-SB-3.5-5				GS-S-DPT13-SB-3.5-5.0				GS-S-DPT19-SC-0.5-5.0				GS-S-DPT19-SB-5.0-9.0			
	Lab Sample Number					460-233704-3				460-233715-2				460-233715-3				460-233708-6				460-234082-6				460-234080-2				460-234080-3			
	Lab Report Number(s)					460-233704-1				460-233715-1				460-233715-1				460-233708-1				460-234082-1				460-234080-1				460-234080-1			
Analyte	CAS	Method	Units			Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)
Polychlorinated Biphenyls (PCBs)		8082A				•				•				•				•				•				•				•			
Aroclor 1016	12674-11-2	8082A	µg/Kg		1100 (7)		23 U	180	23		28 U	210	28		32 U	240	32		35 U	270	35		25 U	190	25		22 U	160	22		33 U	250	33
Aroclor 1221	11104-28-2	8082A	µg/Kg				23 U	180	23		28 U	210	28		32 U	240	32		35 U	270	35		25 U	190	25		22 U	160	22		33 U	250	33
Aroclor 1232	11141-16-5	8082A	µg/Kg				23 U	180	23		28 U	210	28		32 U	240	32		35 U	270	35		25 U	190	25		22 U	160	22		33 U	250	33
Aroclor 1242	53469-21-9	8082A	µg/Kg		41 (7)		23 U	180	23		28 U	210	28		32 U	240	32		35 U	270	35		25 U	190	25		22 U	160	22		510	250	33
Aroclor 1248	12672-29-6	8082A	µg/Kg		7.3 (7)		23 U	180	23		28 U	210	28		32 U	240	32		35 U	270	35		25 U	190	25		22 U	160	22		33 U	250	33
Aroclor 1254	11097-69-1	8082A	µg/Kg		41 (7)		210	180	24		3400	210	29		1500	240	33		430	270	37		25 U	190	25		2400	160	23		34 U	250	34
Aroclor 1260	11096-82-5	8082A	µg/Kg		880 (7)		24 U	180	24		29 U	210	29		33 U	240	33		37 U	270	37		25 U	190	25		23 U	160	23		34 U	250	34
Aroclor 1268	11100-14-4	8082A	µg/Kg				24 U	180	24		29 U	210	29		33 U	240	33		37 U	270	37		25 U	190	25		23 U	160	23		34 U	250	34
Aroclor-1262	37324-23-5	8082A	µg/Kg				24 U	180	24		29 U	210	29		33 U	240	33		37 U	270	37		25 U	190	25		23 U	160	23		34 U	250	34
Polychlorinated biphenyls, Total	1336-36-3	8082A	µg/Kg		371 (5)	250	210	180	24		3400	210	29		1500	240	33		430	270	37		25 U	190	25		2400	160	23		510	250	34
Chlorinated Biphenyl Congeners (PCBs)		1668A																															
PCB-1	2051-60-7	1668A	pg/g																														
PCB-2	2051-61-8	1668A	pg/g																														
PCB-3	2051-62-9	1668A	pg/g																														
PCB-4	13029-08-8	1668A	pg/g																														
PCB-5	16605-91-7	1668A	pg/g																														
PCB-6	25569-80-6	1668A	pg/g																														
PCB-7	33284-50-3	1668A	pg/g																														
PCB-8	34883-43-7	1668A	pg/g																														
PCB-9	34883-39-1	1668A	pg/g																														
PCB-10	33146-45-1	1668A	pg/g																														
PCB-11	2050-67-1	1668A	pg/g																														
PCB-12	2974-92-7	1668A	pg/g																														
PCB-13	2974-90-5	1668A	pg/g																														
PCB-14	34883-41-5	1668A	pg/g																														
PCB-15	2050-68-2	1668A	pg/g																														
PCB-16	38444-78-9	1668A	pg/g																														
PCB-17	37680-66-3	1668A	pg/g																														
PCB-18	37680-65-2	1668A	pg/g																														
PCB-19	38444-73-4	1668A	pg/g																														
PCB-20	38444-84-7	1668A	pg/g																														
PCB-21	55702-46-0	1668A	pg/g																														
PCB-22	38444-85-8	1668A	pg/g																														
PCB-23	55720-44-0	1668A	pg/g																														
PCB-24	55702-45-9	1668A	pg/g																														
PCB-25	55712-37-3	1668A	pg/g																														
PCB-26	38444-81-4	1668A	pg/g																														
PCB-27	38444-76-7	1668A	pg/g																														
PCB-28	7012-37-5	1668A	pg/g																														
PCB-29	15862-07-4	1668A	pg/g																														
PCB-30	35693-92-6	1668A	pg/g																														
PCB-31	16606-02-3	1668A	pg/g																														
PCB-32	38444-77-8	1668A	pg/g																														
PCB-33	38444-86-9	1668A	pg/g																														
PCB-34	37680-68-5	1668A	pg/g																														
PCB-35	37680-69-6	1668A	pg/g																														
PCB-36	38444-87-0	1668A	pg/g																														
PCB-37	38444-90-5	1668A	pg/g																														
PCB-38	53555-66-1	1668A	pg/g																														
PCB-39	38444-88-1	1668A	pg/g																														
PCB-40	38444-93-8	1668A	pg/g																														
PCB-41	52663-59-9	1668A	pg/g																														
PCB-42	36559-22-5	1668A	pg/g																														
PCB-43	70362-46-8	1668A	pg/g																														
PCB-44	41464-39-5	1668A	pg/g																														
PCB-45	70362-45-7	1668A	pg/g																														
PCB-46	41464-47-5	1668A	pg/g																														
PCB-47	2437-79-8	1668A	pg/g																														
PCB-48	70362-47-9	1668A	pg/g																														
PCB-49	41464-40-8	1668A	pg/g																														

Table 5.5 - Soil: Polychlorinated Biphenyls (PCBs) Analytical Results

(continued)

Rolling Knolls Landfill

Sample Name				NJDEP Avian TEF's	ESC's	NJAC 7:26D	DP16_4.0-7.0				DP17_0.5-2.0				DP17_3.5-5.0				DP102_3.5-5.0 (DP17_3.5-5.0 duplicate)				DP18_3.5-5.0				DP19_0.5-5.0				DP19_5.0-9.0			
Sample Date/Time							05/04/2021 09:55				05/05/2021 10:45				05/05/2021 11:40				05/05/2021 11:40				05/10/2021 14:05				05/10/2021 09:00				05/10/2021 09:50			
Latitude				Toxicity Equivalence Factor (TEF)	Screening Criteria	(8) Soil Remediation Standards (Ing.-Derm.) - Residential	40.7229083				40.7231730				40.7231730				40.7231730				40.7226388				40.7236522				40.7236522			
Longitude							-74.4452270				-74.4437270				-74.4437270				-74.4437270				-74.4459762				-74.4437257				-74.4437257			
Lab Sample Name							GS-S-DPT16-SB-4-7				GS-S-DPT17-SC-0.5-2				GS-S-DPT17-SB-3.5-5				GS-S-DP102-SB-3.5-5				GS-S-DPT13-SB-3.5-5.0				GS-S-DPT19-SC-0.5-5.0				GS-S-DPT19-SB-5.0-9.0			
Lab Sample Number							460-233704-3				460-233715-2				460-233715-3				460-233708-6				460-234082-6				460-234080-2				460-234080-3			
Lab Report Number(s)							460-233704-1				460-233715-1				460-233715-1				460-233708-1				460-234082-1				460-234080-1				460-234080-1			
Analyte	CAS	Method	Units				Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)
PCB-50	62796-65-0	1668A	pg/g																															
~~PCB-51~~	~~68194-04-7~~	~~1668A~~	~~pg/g~~																															
PCB-52	35693-99-3	1668A	pg/g																															
PCB-53	41464-41-9	1668A	pg/g																															
PCB-54	15968-05-5	1668A	pg/g																															
PCB-55	74338-24-2	1668A	pg/g																															
PCB-56	41464-43-1	1668A	pg/g																															
PCB-57	70424-67-8	1668A	pg/g																															
PCB-58	41464-49-7	1668A	pg/g																															
PCB-59	74472-33-6	1668A	pg/g																															
PCB-60	33025-41-1	1668A	pg/g																															
PCB-61	33284-53-6	1668A	pg/g																															
PCB-62		1668A	pg/g																															
PCB-63	74472-34-7	1668A	pg/g																															
PCB-64	52663-58-8	1668A	pg/g																															
PCB-65	33284-54-7	1668A	pg/g																															
PCB-66	32598-10-0	1668A	pg/g																															
PCB-67	73575-53-8	1668A	pg/g																															
PCB-68	73575-52-7	1668A	pg/g																															
PCB-69	60233-24-1	1668A	pg/g																															
PCB-70	32598-11-1	1668A	pg/g																															
PCB-71	41464-46-4	1668A	pg/g																															
PCB-72	41464-42-0	1668A	pg/g																															
PCB-73	74338-23-1	1668A	pg/g																															
PCB-74	32690-93-0	1668A	pg/g																															
PCB-75	32598-12-2	1668A	pg/g																															
PCB-76	70362-48-0	1668A	pg/g																															
PCB-77	32598-13-3	1668A	pg/g																															
PCB-78	70362-49-1	1668A	pg/g																															
PCB-79	41464-48-6	1668A	pg/g																															
PCB-80	33284-52-5	1668A	pg/g																															
PCB-81	70362-50-4	1668A	pg/g																															
PCB-82	52663-62-4	1668A	pg/g																															
PCB-83	60145-20-2	1668A	pg/g																															
PCB-84	52663-60-2	1668A	pg/g																															
PCB-85	65510-45-4	1668A	pg/g																															
PCB-86	55312-69-1	1668A	pg/g																															
PCB-87	38380-02-8	1668A	pg/g																															
PCB-88	55215-17-3	1668A	pg/g																															
PCB-89	73575-57-2	1668A	pg/g																															
PCB-90	68194-07-0	1668A	pg/g																															
PCB-91	68194-05-8	1668A	pg/g																															
PCB-92	52663-61-3	1668A	pg/g																															
PCB-93	73575-56-1	1668A	pg/g																															
PCB-94	73575-55-0	1668A	pg/g																															
PCB-95	38379-99-6	1668A	pg/g																															
PCB-96	73575-54-9	1668A	pg/g																															
PCB-97	41464-51-1	1668A	pg/g																															
PCB-98	60233-25-2	1668A	pg/g																															
PCB-99	38380-01-7	1668A	pg/g																															
PCB-100	39485-83-1	1668A	pg/g																															
PCB-101	37680-73-2	1668A	pg/g																															
PCB-102	68194-06-9	1668A	pg/g																															
PCB-103	60145-21-3	1668A	pg/g																															
PCB-104	56558-16-8	1668A	pg/g																															
PCB-105	32598-14-4	1668A	pg/g																															
PCB-106	70424-69-0	1668A	pg/g																															
PCB-107	70424-68-9	1668A	pg/g																															
PCB-108	70362-41-3	1668A	pg/g																															
PCB-109	74472-35-8	1668A	pg/g																															
PCB-110	38380-03-9	1668A	pg/g																															
PCB-111	39635-32-0	1668A	pg/g																															
PCB-112	74472-36-9	1668A	pg/g																															

Table 5.5 - Soil: Polychlorinated Biphenyls (PCBs) Analytical Results (continued)

Rolling Knolls Landfill

Sample Name				NJDEP Avian TEF's	ESC's	NJAC 7:26D	DP16_4.0-7.0				DP17_0.5-2.0				DP17_3.5-5.0				DP102_3.5-5.0 (DP17_3.5-5.0 duplicate)				DP18_3.5-5.0				DP19_0.5-5.0				DP19_5.0-9.0			
Sample Date/Time							05/04/2021 09:55				05/05/2021 10:45				05/05/2021 11:40				05/05/2021 11:40				05/10/2021 14:05				05/10/2021 09:00				05/10/2021 09:50			
Latitude				Toxicity Equivalence Factor (TEF)	Screening Criteria	(8) Soil Remediation Standards (Ing.-Derm.) - Residential	40.7229083				40.7231730				40.7231730				40.7231730				40.7226388				40.7236522				40.7236522			
Longitude							-74.4452270				-74.4437270				-74.4437270				-74.4437270				-74.4459762				-74.4437257				-74.4437257			
Lab Sample Name							GS-S-DPT16-SB-4-7				GS-S-DPT17-SC-0.5-2				GS-S-DPT17-SB-3.5-5				GS-S-DP102-SB-3.5-5				GS-S-DPT13-SB-3.5-5.0				GS-S-DPT19-SC-0.5-5.0				GS-S-DPT19-SB-5.0-9.0			
Lab Sample Number							460-233704-3				460-233715-2				460-233715-3				460-233708-6				460-234082-6				460-234080-2				460-234080-3			
Lab Report Number(s)							460-233704-1				460-233715-1				460-233715-1				460-233708-1				460-234082-1				460-234080-1				460-234080-1			
Analyte	CAS	Method	Units				Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)
PCB-113	68194-10-5	1668A	pg/g																															
PCB-114	74472-37-0	1668A	pg/g																															
PCB-115	74472-38-1	1668A	pg/g																															
PCB-116	18259-05-7	1668A	pg/g																															
PCB-117	68194-11-6	1668A	pg/g																															
PCB-118	31508-00-6	1668A	pg/g																															
PCB-119	56558-17-9	1668A	pg/g																															
PCB-120	68194-12-7	1668A	pg/g																															
PCB-121	56558-18-0	1668A	pg/g																															
PCB-122	76842-07-4	1668A	pg/g																															
PCB-123	65510-44-3	1668A	pg/g																															
PCB-124	70424-70-3	1668A	pg/g																															
PCB-125	74472-39-2	1668A	pg/g																															
PCB-126	57465-28-8	1668A	pg/g																															
PCB-127	39635-33-1	1668A	pg/g																															
PCB-128	38380-07-3	1668A	pg/g																															
PCB-129	55215-18-4	1668A	pg/g																															
PCB-130	52663-66-8	1668A	pg/g																															
PCB-131	61798-70-7	1668A	pg/g																															
PCB-132	38380-05-1	1668A	pg/g																															
PCB-133	35694-04-3	1668A	pg/g																															
PCB-134	52704-70-8	1668A	pg/g																															
PCB-135	52744-13-5	1668A	pg/g																															
PCB-136	38411-22-2	1668A	pg/g																															
PCB-137	35694-06-5	1668A	pg/g																															
PCB-138	35065-28-2	1668A	pg/g																															
PCB-139	56030-56-9	1668A	pg/g																															
PCB-140	59291-64-4	1668A	pg/g																															
PCB-141	52712-04-6	1668A	pg/g																															
PCB-142	41411-61-4	1668A	pg/g																															
PCB-143	68194-15-0	1668A	pg/g																															
PCB-144	68194-14-9	1668A	pg/g																															
PCB-145	74472-40-5	1668A	pg/g																															
PCB-146	51908-16-8	1668A	pg/g																															
PCB-147	68194-13-8	1668A	pg/g																															
PCB-148	74472-41-6	1668A	pg/g																															
PCB-149	38380-04-0	1668A	pg/g																															
PCB-150	68194-08-1	1668A	pg/g																															
PCB-151	52663-63-5	1668A	pg/g																															
PCB-152	68194-09-2	1668A	pg/g																															
PCB-153	35065-27-1	1668A	pg/g																															
PCB-154	60145-22-4	1668A	pg/g																															
PCB-155	33979-03-2	1668A	pg/g																															
PCB-156	38380-08-4	1668A	pg/g																															
PCB-157	69782-90-7	1668A	pg/g																															
PCB-158	74472-42-7	1668A	pg/g																															
PCB-159	39635-35-3	1668A	pg/g																															
PCB-160	41411-62-5	1668A	pg/g																															
PCB-161	74472-43-8	1668A	pg/g																															
PCB-162	39635-34-2	1668A	pg/g																															
PCB-163	74472-44-9	1668A	pg/g																															
PCB-164	74472-45-0	1668A	pg/g																															
PCB-165	74472-46-1	1668A	pg/g																															
PCB-166	41411-63-6	1668A	pg/g																															
PCB-167	52663-72-6	1668A	pg/g																															
PCB-168	59291-65-5	1668A	pg/g																															
PCB-169	32774-16-6	1668A	pg/g																															
PCB-170	35065-30-6	1668A	pg/g																															
PCB-171	52663-71-5	1668A	pg/g																															
PCB-172	52663-74-8	1668A	pg/g																															
PCB-173	68194-16-1	1668A	pg/g																															
PCB-174	38411-25-5	1668A	pg/g																															
PCB-175	40186-70-7	1668A	pg/g																															

Table 5.5 - Soil: Polychlorinated Biphenyls (PCBs) Analytical Results

(continued)

Rolling Knolls Landfill

Sample Name				NJDEP Avian TEF's	ESC's	NJAC 7:26D	DP16_4.0-7.0				DP17_0.5-2.0				DP17_3.5-5.0				DP102_3.5-5.0 (DP17_3.5-5.0 duplicate)				DP18_3.5-5.0				DP19_0.5-5.0				DP19_5.0-9.0			
Sample Date/Time							05/04/2021 09:55				05/05/2021 10:45				05/05/2021 11:40				05/05/2021 11:40				05/10/2021 14:05				05/10/2021 09:00				05/10/2021 09:50			
Latitude				Toxicity Equivalence Factor (TEF)	Screening Criteria	(8) Soil Remediation Standards (Ing.-Derm.) - Residential	40.7229083				40.7231730				40.7231730				40.7231730				40.7226388				40.7236522				40.7236522			
Longitude							-74.4452270				-74.4437270				-74.4437270				-74.4437270				-74.4459762				-74.4437257				-74.4437257			
Lab Sample Name							GS-S-DPT16-SB-4-7				GS-S-DPT17-SC-0.5-2				GS-S-DPT17-SB-3.5-5				GS-S-DP102-SB-3.5-5				GS-S-DPT13-SB-3.5-5.0				GS-S-DPT19-SC-0.5-5.0				GS-S-DPT19-SB-5.0-9.0			
Lab Sample Number							460-233704-3				460-233715-2				460-233715-3				460-233708-6				460-234082-6				460-234080-2				460-234080-3			
Lab Report Number(s)							460-233704-1				460-233715-1				460-233715-1				460-233708-1				460-234082-1				460-234080-1				460-234080-1			
Analyte	CAS	Method	Units				Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)
PCB-176	52663-65-7	1668A	pg/g																															
~~PCB-177~~	~~52663-70-4~~	~~1668A~~	~~pg/g~~																															
PCB-178	52663-67-9	1668A	pg/g																															
PCB-179	52663-64-6	1668A	pg/g																															
PCB-180	35065-29-3	1668A	pg/g																															
PCB-181	74472-47-2	1668A	pg/g																															
PCB-182	60145-23-5	1668A	pg/g																															
PCB-183	52663-69-1	1668A	pg/g																															
PCB-184	74472-48-3	1668A	pg/g																															
PCB-185	52712-05-7	1668A	pg/g																															
PCB-186	74472-49-4	1668A	pg/g																															
PCB-187	52663-68-0	1668A	pg/g																															
PCB-188	74487-85-7	1668A	pg/g																															
PCB-189	39635-31-9	1668A	pg/g																															
PCB-190	41411-64-7	1668A	pg/g																															
PCB-191	74472-50-7	1668A	pg/g																															
PCB-192	74472-51-8	1668A	pg/g																															
PCB-193	69782-91-8	1668A	pg/g																															
PCB-194	35694-08-7	1668A	pg/g																															
PCB-195	52663-78-2	1668A	pg/g																															
PCB-196	42740-50-1	1668A	pg/g																															
PCB-197	33091-17-7	1668A	pg/g																															
PCB-198	68194-17-2	1668A	pg/g																															
PCB-199	52663-75-9	1668A	pg/g																															
PCB-200	52663-73-7	1668A	pg/g																															
PCB-201	40186-71-8	1668A	pg/g																															
PCB-202	2136-99-4	1668A	pg/g																															
PCB-203	52663-76-0	1668A	pg/g																															
PCB-204	74472-52-9	1668A	pg/g																															
PCB-205	74472-53-0	1668A	pg/g																															
PCB-206	40186-72-9	1668A	pg/g																															
PCB-207	52663-79-3	1668A	pg/g																															
PCB-208	52663-77-1	1668A	pg/g																															
PCB-209	2051-24-3	1668A	pg/g																															
Σ Polychlorinated biphenyls	1336-36-3	8082A	pg/g		371000 (5)	250000																												
Dioxin-Like PCB TEQ Calculation																																		
PCB-77	32598-13-3	1668A	pg/g	0.05																														
PCB-81	70362-50-4	1668A	pg/g	0.1																														
PCB-105	32598-14-4	1668A	pg/g	0.0001																														
PCB-114	74472-37-0	1668A	pg/g	0.0001																														
PCB-118	31508-00-6	1668A	pg/g	0.00001																														
PCB-123	65510-44-3	1668A	pg/g	0.00001																														
PCB-126	57465-28-8	1668A	pg/g	0.1																														
PCB-156	38380-08-4	1668A	pg/g	0.0001																														
PCB-157	69782-90-7	1668A	pg/g	0.0001																														
PCB-167	52663-72-6	1668A	pg/g	0.00001																														
PCB-169	32774-16-6	1668A	pg/g	0.001																														
PCB-189	39635-31-9	1668A	pg/g	0.00001																														
Σ Polychlorinated biphenyls (PCB) TEQ	1336-36-3	8082A	pg/g		0.199 (5)																													

Table 5.5 - Soil: Polychlorinated Biphenyls (PCBs) Analytical Results

(continued)

Rolling Knolls Landfill

	Sample Name			NJDEP Avian TEF's	ESC's	NJAC 7:26D	DP20_0.5-4.0				DP20_10.0-13.0				DP21_0.5-4.0				DP21_4.0-5.0				DP22_0.5-3.0				DP102_0.5-3.0 (DP22_0.5-3.0 duplicate)				DP22_3.0-5.0			
	Sample Date/Time						05/04/2021 13:25				05/04/2021 13:00				05/07/2021 11:05				05/07/2021 11:50				05/04/2021 11:35				05/04/2021 11:35				05/04/2021 11:00			
	Latitude						40.7227310				40.7227310				40.7238344				40.7238344				40.7234467				40.7234467				40.7234467			
	Longitude						-74.4439070				-74.4439070				-74.4456550				-74.4456550				-74.4453029				-74.4453029				-74.4453029			
	Lab Sample Name						GS-S-DPT20-SC-0.5-4				GS-S-DPT-20-SB-10-13				GS-S-DPT21-SC-0.5-4				GS-S-DPT21-SB-4-5				GS-S-DPT22-SC-0.5-3				GS-S-DPT102-SC-0.5-3				GS-S-DPT22-SB-3-5			
	Lab Sample Number						460-233704-5				460-233704-6				460-233940-6				460-233940-7				460-233706-2				460-233704-7				460-233706-3			
	Lab Report Number(s)						460-233704-1				460-233704-1				460-233940-1				460-233940-1				460-233706-1				460-233704-1				460-233706-1			
Analyte	CAS	Method	Units				Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)
Polychlorinated Biphenyls (PCBs)		8082A					•				•				•				•				•				•				•			
Aroclor 1016	12674-11-2	8082A	µg/Kg		1100 (7)		79	U	590	79	57	U	430	57	31	U	230	31	28	U	210	28	22	U	170	22	20	U	150	20	11	U	84	11
Aroclor 1221	11104-28-2	8082A	µg/Kg				79	U	590	79	57	U	430	57	31	U	230	31	28	U	210	28	22	U	170	22	20	U	150	20	11	U	84	11
Aroclor 1232	11141-16-5	8082A	µg/Kg				79	U	590	79	57	U	430	57	31	U	230	31	28	U	210	28	22	U	170	22	20	U	150	20	11	U	84	11
Aroclor 1242	53469-21-9	8082A	µg/Kg		41 (7)		79	U	590	79	57	U	430	57	31	U	230	31	28	U	210	28	22	U	170	22	20	U	150	20	11	U	84	11
Aroclor 1248	12672-29-6	8082A	µg/Kg		7.3 (7)		79	U	590	79	57	U	430	57	31	U	230	31	28	U	210	28	820	J	170	22	240		150	20	11	U	84	11
Aroclor 1254	11097-69-1	8082A	µg/Kg		41 (7)		82	U	590	82	59	U	430	59	32	U	230	32	29	U	210	29	23	U	170	23	20	U	150	20	12	U	84	12
Aroclor 1260	11096-82-5	8082A	µg/Kg		880 (7)		82	U	590	82	59	U	430	59	32	U	230	32	29	U	210	29	250	J	170	23	20	U	150	20	12	U	84	12
Aroclor 1268	11100-14-4	8082A	µg/Kg				9400		590	82	59	U	430	59	32	U	230	32	29	U	210	29	23	U	170	23	20	U	150	20	12	U	84	12
Aroclor-1262	37324-23-5	8082A	µg/Kg				82	U	590	82	59	U	430	59	32	U	230	32	29	U	210	29	23	U	170	23	20	U	150	20	12	U	84	12
Polychlorinated biphenyls, Total	1336-36-3	8082A	µg/Kg		371 (5)	250	9400		590	82	59	U	430	59	32	U	230	32	29	U	210	29	1100	J	170	23	240		150	20	12	U	84	12
Chlorinated Biphenyl Congeners (PCBs)		1668A																																
PCB-1	2051-60-7	1668A	pg/g																															
PCB-2	2051-61-8	1668A	pg/g																															
PCB-3	2051-62-9	1668A	pg/g																															
PCB-4	13029-08-8	1668A	pg/g																															
PCB-5	16605-91-7	1668A	pg/g																															
PCB-6	25569-80-6	1668A	pg/g																															
PCB-7	33284-50-3	1668A	pg/g																															
PCB-8	34883-43-7	1668A	pg/g																															
PCB-9	34883-39-1	1668A	pg/g																															
PCB-10	33146-45-1	1668A	pg/g																															
PCB-11	2050-67-1	1668A	pg/g																															
PCB-12	2974-92-7	1668A	pg/g																															
PCB-13	2974-90-5	1668A	pg/g																															
PCB-14	34883-41-5	1668A	pg/g																															
PCB-15	2050-68-2	1668A	pg/g																															
PCB-16	38444-78-9	1668A	pg/g																															
PCB-17	37680-66-3	1668A	pg/g																															
PCB-18	37680-65-2	1668A	pg/g																															
PCB-19	38444-73-4	1668A	pg/g																															
PCB-20	38444-84-7	1668A	pg/g																															
PCB-21	55702-46-0	1668A	pg/g																															
PCB-22	38444-85-8	1668A	pg/g																															
PCB-23	55720-44-0	1668A	pg/g																															
PCB-24	55702-45-9	1668A	pg/g																															
PCB-25	55712-37-3	1668A	pg/g																															
PCB-26	38444-81-4	1668A	pg/g																															
PCB-27	38444-76-7	1668A	pg/g																															
PCB-28	7012-37-5	1668A	pg/g																															
PCB-29	15862-07-4	1668A	pg/g																															
PCB-30	35693-92-6	1668A	pg/g																															
PCB-31	16606-02-3	1668A	pg/g																															
PCB-32	38444-77-8	1668A	pg/g																															
PCB-33	38444-86-9	1668A	pg/g																															
PCB-34	37680-68-5	1668A	pg/g																															
PCB-35	37680-69-6	1668A	pg/g																															
PCB-36	38444-87-0	1668A	pg/g																															
PCB-37	38444-90-5	1668A	pg/g																															
PCB-38	53555-66-1	1668A	pg/g																															
PCB-39	38444-88-1	1668A	pg/g																															
PCB-40	38444-93-8	1668A	pg/g																															
PCB-41	52663-59-9	1668A	pg/g																															
PCB-42	36559-22-5	1668A	pg/g																															
PCB-43	70362-46-8	1668A	pg/g																															
PCB-44	41464-39-5	1668A	pg/g																															
PCB-45	70362-45-7	1668A	pg/g																															
PCB-46	41464-47-5	1668A	pg/g																															
PCB-47	2437-79-8	1668A	pg/g																															
PCB-48	70362-47-9	1668A	pg/g																															
PCB-49	41464-40-8	1668A	pg/g																															

Table 5.5 - Soil: Polychlorinated Biphenyls (PCBs) Analytical Results

(continued)

Rolling Knolls Landfill

Sample Name				NJDEP Avian TEF's	ESC's	NJAC 7:26D	DP20_0.5-4.0				DP20_10.0-13.0				DP21_0.5-4.0				DP21_4.0-5.0				DP22_0.5-3.0				DP102_0.5-3.0 (DP22_0.5-3.0 duplicate)				DP22_3.0-5.0			
Sample Date/Time							05/04/2021 13:25				05/04/2021 13:00				05/07/2021 11:05				05/07/2021 11:50				05/04/2021 11:35				05/04/2021 11:35				05/04/2021 11:00			
Latitude							40.7227310				40.7227310				40.7238344				40.7238344				40.7234467				40.7234467				40.7234467			
Longitude				Toxicity Equivalence Factor (TEF)	Screening Criteria	(8) Soil Remediation Standards (Ing.-Derm.) - Residential	-74.4439070				-74.4439070				-74.4456550				-74.4456550				-74.4453029				-74.4453029				-74.4453029			
Lab Sample Name							GS-S-DPT20-SC-0.5-4				GS-S-DPT-20-SB-10-13				GS-S-DPT21-SC-0.5-4				GS-S-DPT21-SB-4-5				GS-S-DPT22-SC-0.5-3				GS-S-DPT102-SC-0.5-3				GS-S-DPT22-SB-3-5			
Lab Sample Number							460-233704-5				460-233704-6				460-233940-6				460-233940-7				460-233706-2				460-233704-7				460-233706-3			
Lab Report Number(s)							460-233704-1				460-233704-1				460-233940-1				460-233940-1				460-233706-1				460-233704-1				460-233706-1			
Analyte	CAS	Method	Units				Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)
PCB-50	62796-65-0	1668A	pg/g																													
~~PCB-51~~	~~68194-04-7~~	~~1668A~~	~~pg/g~~																													
PCB-52	35693-99-3	1668A	pg/g																													
PCB-53	41464-41-9	1668A	pg/g																													
PCB-54	15968-05-5	1668A	pg/g																													
PCB-55	74338-24-2	1668A	pg/g																													
PCB-56	41464-43-1	1668A	pg/g																													
PCB-57	70424-67-8	1668A	pg/g																													
PCB-58	41464-49-7	1668A	pg/g																													
PCB-59	74472-33-6	1668A	pg/g																													
PCB-60	33025-41-1	1668A	pg/g																													
PCB-61	33284-53-6	1668A	pg/g																													
PCB-62		1668A	pg/g																													
PCB-63	74472-34-7	1668A	pg/g																													
PCB-64	52663-58-8	1668A	pg/g																													
PCB-65	33284-54-7	1668A	pg/g																													
PCB-66	32598-10-0	1668A	pg/g																													
PCB-67	73575-53-8	1668A	pg/g																													
PCB-68	73575-52-7	1668A	pg/g																													
PCB-69	60233-24-1	1668A	pg/g																													
PCB-70	32598-11-1	1668A	pg/g																													
PCB-71	41464-46-4	1668A	pg/g																													
PCB-72	41464-42-0	1668A	pg/g																													
PCB-73	74338-23-1	1668A	pg/g																													
PCB-74	32690-93-0	1668A	pg/g																													
PCB-75	32598-12-2	1668A	pg/g																													
PCB-76	70362-48-0	1668A	pg/g																													
PCB-77	32598-13-3	1668A	pg/g																													
PCB-78	70362-49-1	1668A	pg/g																													
PCB-79	41464-48-6	1668A	pg/g																													
PCB-80	33284-52-5	1668A	pg/g																													
PCB-81	70362-50-4	1668A	pg/g																													
PCB-82	52663-62-4	1668A	pg/g																													
PCB-83	60145-20-2	1668A	pg/g																													
PCB-84	52663-60-2	1668A	pg/g																													
PCB-85	65510-45-4	1668A	pg/g																													
PCB-86	55312-69-1	1668A	pg/g																													
PCB-87	38380-02-8	1668A	pg/g																													
PCB-88	55215-17-3	1668A	pg/g																													
PCB-89	73575-57-2	1668A	pg/g																													
PCB-90	68194-07-0	1668A	pg/g																													
PCB-91	68194-05-8	1668A	pg/g																													
PCB-92	52663-61-3	1668A	pg/g																													
PCB-93	73575-56-1	1668A	pg/g																													
PCB-94	73575-55-0	1668A	pg/g																													
PCB-95	38379-99-6	1668A	pg/g																													
PCB-96	73575-54-9	1668A	pg/g																													
PCB-97	41464-51-1	1668A	pg/g																													
PCB-98	60233-25-2	1668A	pg/g																													
PCB-99	38380-01-7	1668A	pg/g																													
PCB-100	39485-83-1	1668A	pg/g																													
PCB-101	37680-73-2	1668A	pg/g																													
PCB-102	68194-06-9	1668A	pg/g																													
PCB-103	60145-21-3	1668A	pg/g																													
PCB-104	56558-16-8	1668A	pg/g																													
PCB-105	32598-14-4	1668A	pg/g																													
PCB-106	70424-69-0	1668A	pg/g																													
PCB-107	70424-68-9	1668A	pg/g																													
PCB-108	70362-41-3	1668A	pg/g																													
PCB-109	74472-35-8	1668A	pg/g																													
PCB-110	38380-03-9	1668A	pg/g																													
PCB-111	39635-32-0	1668A	pg/g																													
PCB-112	74472-36-9	1668A	pg/g																													

Table 5.5 - Soil: Polychlorinated Biphenyls (PCBs) Analytical Results

(continued)

Rolling Knolls Landfill

Sample Name				NJDEP Avian TEF's	ESC's	NJAC 7:26D	DP20_0.5-4.0				DP20_10.0-13.0				DP21_0.5-4.0				DP21_4.0-5.0				DP22_0.5-3.0				DP102_0.5-3.0 (DP22_0.5-3.0 duplicate)				DP22_3.0-5.0			
Sample Date/Time							05/04/2021 13:25				05/04/2021 13:00				05/07/2021 11:05				05/07/2021 11:50				05/04/2021 11:35				05/04/2021 11:35				05/04/2021 11:00			
Latitude							40.7227310				40.7227310				40.7238344				40.7238344				40.7234467				40.7234467				40.7234467			
Longitude							-74.4439070				-74.4439070				-74.4456550				-74.4456550				-74.4453029				-74.4453029				-74.4453029			
Lab Sample Name							GS-S-DPT20-SC-0.5-4				GS-S-DPT-20-SB-10-13				GS-S-DPT21-SC-0.5-4				GS-S-DPT21-SB-4-5				GS-S-DPT22-SC-0.5-3				GS-S-DPT102-SC-0.5-3				GS-S-DPT22-SB-3-5			
Lab Sample Number							460-233704-5				460-233704-6				460-233940-6				460-233940-7				460-233706-2				460-233704-7				460-233706-3			
Lab Report Number(s)				Toxicity Equivalence Factor (TEF)	Screening Criteria	(8) Soil Remediation Standards (Ing.-Derm.) - Residential	460-233704-1				460-233704-1				460-233940-1				460-233940-1				460-233706-1				460-233704-1				460-233706-1			
Analyte	CAS	Method	Units				Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)
PCB-113	68194-10-5	1668A	pg/g																													
PCB-114	74472-37-0	1668A	pg/g																													
PCB-115	74472-38-1	1668A	pg/g																													
PCB-116	18259-05-7	1668A	pg/g																													
PCB-117	68194-11-6	1668A	pg/g																													
PCB-118	31508-00-6	1668A	pg/g																													
PCB-119	56558-17-9	1668A	pg/g																													
PCB-120	68194-12-7	1668A	pg/g																													
PCB-121	56558-18-0	1668A	pg/g																													
PCB-122	76842-07-4	1668A	pg/g																													
PCB-123	65510-44-3	1668A	pg/g																													
PCB-124	70424-70-3	1668A	pg/g																													
PCB-125	74472-39-2	1668A	pg/g																													
PCB-126	57465-28-8	1668A	pg/g																													
PCB-127	39635-33-1	1668A	pg/g																													
PCB-128	38380-07-3	1668A	pg/g																													
PCB-129	55215-18-4	1668A	pg/g																													
PCB-130	52663-66-8	1668A	pg/g																													
PCB-131	61798-70-7	1668A	pg/g																													
PCB-132	38380-05-1	1668A	pg/g																													
PCB-133	35694-04-3	1668A	pg/g																													
PCB-134	52704-70-8	1668A	pg/g																													
PCB-135	52744-13-5	1668A	pg/g																													
PCB-136	38411-22-2	1668A	pg/g																													
PCB-137	35694-06-5	1668A	pg/g																													
PCB-138	35065-28-2	1668A	pg/g																													
PCB-139	56030-56-9	1668A	pg/g																													
PCB-140	59291-64-4	1668A	pg/g																													
PCB-141	52712-04-6	1668A	pg/g																													
PCB-142	41411-61-4	1668A	pg/g																													
PCB-143	68194-15-0	1668A	pg/g																													
PCB-144	68194-14-9	1668A	pg/g																													
PCB-145	74472-40-5	1668A	pg/g																													
PCB-146	51908-16-8	1668A	pg/g																													
PCB-147	68194-13-8	1668A	pg/g																													
PCB-148	74472-41-6	1668A	pg/g																													
PCB-149	38380-04-0	1668A	pg/g																													
PCB-150	68194-08-1	1668A	pg/g																													
PCB-151	52663-63-5	1668A	pg/g																													
PCB-152	68194-09-2	1668A	pg/g																													
PCB-153	35065-27-1	1668A	pg/g																													
PCB-154	60145-22-4	1668A	pg/g																													
PCB-155	33979-03-2	1668A	pg/g																													
PCB-156	38380-08-4	1668A	pg/g																													
PCB-157	69782-90-7	1668A	pg/g																													
PCB-158	74472-42-7	1668A	pg/g																													
PCB-159	39635-35-3	1668A	pg/g																													
PCB-160	41411-62-5	1668A	pg/g																													
PCB-161	74472-43-8	1668A	pg/g																													
PCB-162	39635-34-2	1668A	pg/g																													
PCB-163	74472-44-9	1668A	pg/g																													
PCB-164	74472-45-0	1668A	pg/g																													
PCB-165	74472-46-1	1668A	pg/g																													
PCB-166	41411-63-6	1668A	pg/g																													
PCB-167	52663-72-6	1668A	pg/g																													
PCB-168	59291-65-5	1668A	pg/g																													
PCB-169	32774-16-6	1668A	pg/g																													
PCB-170	35065-30-6	1668A	pg/g																													
PCB-171	52663-71-5	1668A	pg/g																													
PCB-172	52663-74-8	1668A	pg/g																													
PCB-173	68194-16-1	1668A	pg/g																													
PCB-174	38411-25-5	1668A	pg/g																													
PCB-175	40186-70-7	1668A	pg/g																													

Table 5.5 - Soil: Polychlorinated Biphenyls (PCBs) Analytical Results

(continued)

Rolling Knolls Landfill

	Sample Name			NJDEP Avian TEF's	ESC's	NJAC 7:26D	DP20_0.5-4.0				DP20_10.0-13.0				DP21_0.5-4.0				DP21_4.0-5.0				DP22_0.5-3.0				DP102_0.5-3.0 (DP22_0.5-3.0 duplicate)				DP22_3.0-5.0			
	Sample Date/Time						05/04/2021 13:25				05/04/2021 13:00				05/07/2021 11:05				05/07/2021 11:50				05/04/2021 11:35				05/04/2021 11:35				05/04/2021 11:00			
	Latitude						40.7227310				40.7227310				40.7238344				40.7238344				40.7234467				40.7234467				40.7234467			
	Longitude			Toxicity Equivalence Factor (TEF)	Screening Criteria	(8) Soil Remediation Standards (Ing.-Derm.) - Residential	-74.4439070				-74.4439070				-74.4456550				-74.4456550				-74.4453029				-74.4453029				-74.4453029			
	Lab Sample Name						GS-S-DPT20-SC-0.5-4				GS-S-DPT-20-SB-10-13				GS-S-DPT21-SC-0.5-4				GS-S-DPT21-SB-4-5				GS-S-DPT22-SC-0.5-3				GS-S-DPT102-SC-0.5-3				GS-S-DPT22-SB-3-5			
	Lab Sample Number						460-233704-5				460-233704-6				460-233940-6				460-233940-7				460-233706-2				460-233704-7				460-233706-3			
	Lab Report Number(s)						460-233704-1				460-233704-1				460-233940-1				460-233940-1				460-233706-1				460-233704-1				460-233706-1			
Analyte	CAS	Method	Units				Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)
PCB-176	52663-65-7	1668A	pg/g																													
~~PCB-177~~	~~52663-70-4~~	~~1668A~~	~~pg/g~~																													
PCB-178	52663-67-9	1668A	pg/g																													
PCB-179	52663-64-6	1668A	pg/g																													
PCB-180	35065-29-3	1668A	pg/g																													
PCB-181	74472-47-2	1668A	pg/g																													
PCB-182	60145-23-5	1668A	pg/g																													
PCB-183	52663-69-1	1668A	pg/g																													
PCB-184	74472-48-3	1668A	pg/g																													
PCB-185	52712-05-7	1668A	pg/g																													
PCB-186	74472-49-4	1668A	pg/g																													
PCB-187	52663-68-0	1668A	pg/g																													
PCB-188	74487-85-7	1668A	pg/g																													
PCB-189	39635-31-9	1668A	pg/g																													
PCB-190	41411-64-7	1668A	pg/g																													
PCB-191	74472-50-7	1668A	pg/g																													
PCB-192	74472-51-8	1668A	pg/g																													
PCB-193	69782-91-8	1668A	pg/g																													
PCB-194	35694-08-7	1668A	pg/g																													
PCB-195	52663-78-2	1668A	pg/g																													
PCB-196	42740-50-1	1668A	pg/g																													
PCB-197	33091-17-7	1668A	pg/g																													
PCB-198	68194-17-2	1668A	pg/g																													
PCB-199	52663-75-9	1668A	pg/g																													
PCB-200	52663-73-7	1668A	pg/g																													
PCB-201	40186-71-8	1668A	pg/g																													
PCB-202	2136-99-4	1668A	pg/g																													
PCB-203	52663-76-0	1668A	pg/g																													
PCB-204	74472-52-9	1668A	pg/g																													
PCB-205	74472-53-0	1668A	pg/g																													
PCB-206	40186-72-9	1668A	pg/g																													
PCB-207	52663-79-3	1668A	pg/g																													
PCB-208	52663-77-1	1668A	pg/g																													
PCB-209	2051-24-3	1668A	pg/g																													
Σ Polychlorinated biphenyls	1336-36-3	8082A	pg/g		371000 (5)	250000																										
Dioxin-Like PCB TEQ Calculation																																
PCB-77	32598-13-3	1668A	pg/g	0.05																												
PCB-81	70362-50-4	1668A	pg/g	0.1																												
PCB-105	32598-14-4	1668A	pg/g	0.0001																												
PCB-114	74472-37-0	1668A	pg/g	0.0001																												
PCB-118	31508-00-6	1668A	pg/g	0.00001																												
PCB-123	65510-44-3	1668A	pg/g	0.00001																												
PCB-126	57465-28-8	1668A	pg/g	0.1																												
PCB-156	38380-08-4	1668A	pg/g	0.0001																												
PCB-157	69782-90-7	1668A	pg/g	0.0001																												
PCB-167	52663-72-6	1668A	pg/g	0.00001																												
PCB-169	32774-16-6	1668A	pg/g	0.001																												
PCB-189	39635-31-9	1668A	pg/g	0.00001																												
Σ Polychlorinated biphenyls (PCB) TEQ	1336-36-3	8082A	pg/g		0.199 (5)																											

Table 5.5 - Soil: Polychlorinated Biphenyls (PCBs) Analytical Results

(continued)

Rolling Knolls Landfill

Sample Name				NJDEP Avian TEF's	ESC's	NJAC 7:26D	DP23_0.5-2.5				DP23_2.5-3.0				DP24_0.5-2.5				DP24_2.5-3.0				DP25_1.0-1.5				DP26_0.5-3.5				DP26_3.5-4.0			
Sample Date/Time							05/10/2021 16:05				05/10/2021 16:20				05/14/2021 10:10				05/14/2021 10:15				05/06/2021 15:20				05/07/2021 08:45				05/07/2021 09:00			
Latitude							40.7234761				40.7234761				40.7234047				40.7234047				40.7234932				40.7240722				40.7240722			
Longitude				Toxicity Equivalence Factor (TEF)	Screening Criteria	(8) Soil Remediation Standards (Ing.-Derm.) - Residential	-74.4461556				-74.4461556				-74.4467553				-74.4467553				-74.4473376				-74.4463803				-74.4463803			
Lab Sample Name							GS-S-DPT23-SC-0.5-2.5				GS-S-DPT23-SB-2.5-3.0				GS-S-DPT24-SC-0.5-2.5				GS-S-DPT24-SB-2.5-3.0				GS-S-DPT25-SB-1-1.5				GS-S-DPT26-SC-0.5-3.5				GS-S-DPT26-SB-3.5-4			
Lab Sample Number							460-234080-5				460-234080-6				460-234442-2				460-234442-3				460-233899-6				460-233940-2				460-233940-3			
Lab Report Number(s)							460-234080-1				460-234080-1				460-234442-1				460-234442-1				460-233899-1				460-233940-1				460-233940-1			
Analyte	CAS	Method	Units				Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)
Polychlorinated Biphenyls (PCBs)		8082A					•				•				•				•				•				•				•			
Aroclor 1016	12674-11-2	8082A	µg/Kg		1100 (7)		41	U	310	41	22	U	170	22	29	U	220	29	11	U	82	11	15	U	110	15	20	U	150	20	21	U	150	21
Aroclor 1221	11104-28-2	8082A	µg/Kg				41	U	310	41	22	U	170	22	29	U	220	29	11	U	82	11	15	U	110	15	20	U	150	20	21	U	150	21
Aroclor 1232	11141-16-5	8082A	µg/Kg				41	U	310	41	22	U	170	22	29	U	220	29	11	U	82	11	15	U	110	15	20	U	150	20	21	U	150	21
Aroclor 1242	53469-21-9	8082A	µg/Kg		41 (7)		41	U	310	41	22	U	170	22	29	U	220	29	11	U	82	11	15	U	110	15	20	U	150	20	21	U	150	21
Aroclor 1248	12672-29-6	8082A	µg/Kg		7.3 (7)		690		310	41	22	U	170	22	29	U	220	29	11	U	82	11	470		110	15	20	U	150	20	21	U	150	21
Aroclor 1254	11097-69-1	8082A	µg/Kg		41 (7)		42	U	310	42	23	U	170	23	260		220	30	11	U	82	11	15	U	110	15	21	U	150	21	21	U	150	21
Aroclor 1260	11096-82-5	8082A	µg/Kg		880 (7)		42	U	310	42	23	U	170	23	30	U	220	30	11	U	82	11	15	U	110	15	130	J	150	21	21	U	150	21
Aroclor 1268	11100-14-4	8082A	µg/Kg				42	U	310	42	23	U	170	23	30	U	220	30	11	U	82	11	15	U	110	15	21	U	150	21	21	U	150	21
Aroclor-1262	37324-23-5	8082A	µg/Kg				42	U	310	42	23	U	170	23	30	U	220	30	11	U	82	11	15	U	110	15	21	U	150	21	21	U	150	21
Polychlorinated biphenyls, Total	1336-36-3	8082A	µg/Kg		371 (5)	250	690		310	42	23	U	170	23	260		220	30	11	U	82	11	470		110	15	130	J	150	21	21	U	150	21
Chlorinated Biphenyl Congeners (PCBs)		1668A																																
PCB-1	2051-60-7	1668A	pg/g																															
PCB-2	2051-61-8	1668A	pg/g																															
PCB-3	2051-62-9	1668A	pg/g																															
PCB-4	13029-08-8	1668A	pg/g																															
PCB-5	16605-91-7	1668A	pg/g																															
PCB-6	25569-80-6	1668A	pg/g																															
PCB-7	33284-50-3	1668A	pg/g																															
PCB-8	34883-43-7	1668A	pg/g																															
PCB-9	34883-39-1	1668A	pg/g																															
PCB-10	33146-45-1	1668A	pg/g																															
PCB-11	2050-67-1	1668A	pg/g																															
PCB-12	2974-92-7	1668A	pg/g																															
PCB-13	2974-90-5	1668A	pg/g																															
PCB-14	34883-41-5	1668A	pg/g																															
PCB-15	2050-68-2	1668A	pg/g																															
PCB-16	38444-78-9	1668A	pg/g																															
PCB-17	37680-66-3	1668A	pg/g																															
PCB-18	37680-65-2	1668A	pg/g																															
PCB-19	38444-73-4	1668A	pg/g																															
PCB-20	38444-84-7	1668A	pg/g																															
PCB-21	55702-46-0	1668A	pg/g																															
PCB-22	38444-85-8	1668A	pg/g																															
PCB-23	55720-44-0	1668A	pg/g																															
PCB-24	55702-45-9	1668A	pg/g																															
PCB-25	55712-37-3	1668A	pg/g																															
PCB-26	38444-81-4	1668A	pg/g																															
PCB-27	38444-76-7	1668A	pg/g																															
PCB-28	7012-37-5	1668A	pg/g																															
PCB-29	15862-07-4	1668A	pg/g																															
PCB-30	35693-92-6	1668A	pg/g																															
PCB-31	16606-02-3	1668A	pg/g																															
PCB-32	38444-77-8	1668A	pg/g																															
PCB-33	38444-86-9	1668A	pg/g																															
PCB-34	37680-68-5	1668A	pg/g																															
PCB-35	37680-69-6	1668A	pg/g																															
PCB-36	38444-87-0	1668A	pg/g																															
PCB-37	38444-90-5	1668A	pg/g																															
PCB-38	53555-66-1	1668A	pg/g																															
PCB-39	38444-88-1	1668A	pg/g																															
PCB-40	38444-93-8	1668A	pg/g																															
PCB-41	52663-59-9	1668A	pg/g																															
PCB-42	36559-22-5	1668A	pg/g																															
PCB-43	70362-46-8	1668A	pg/g																															
PCB-44	41464-39-5	1668A	pg/g																															
PCB-45	70362-45-7	1668A	pg/g																															
PCB-46	41464-47-5	1668A	pg/g																															
PCB-47	2437-79-8	1668A	pg/g																															
PCB-48	70362-47-9	1668A	pg/g																															
PCB-49	41464-40-8	1668A	pg/g																															

Table 5.5 - Soil: Polychlorinated Biphenyls (PCBs) Analytical Results (continued)

Rolling Knolls Landfill

Sample Name				NJDEP Avian TEF's	ESC's	NJAC 7:26D	DP23_0.5-2.5				DP23_2.5-3.0				DP24_0.5-2.5				DP24_2.5-3.0				DP25_1.0-1.5				DP26_0.5-3.5				DP26_3.5-4.0			
Sample Date/Time							05/10/2021 16:05				05/10/2021 16:20				05/14/2021 10:10				05/14/2021 10:15				05/06/2021 15:20				05/07/2021 08:45				05/07/2021 09:00			
Latitude				Toxicity Equivalence Factor (TEF)	Screening Criteria	(8) Soil Remediation Standards (Ing.-Derm.) - Residential	40.7234761				40.7234761				40.7234047				40.7234047				40.7234932				40.7240722				40.7240722			
Longitude							-74.4461556				-74.4461556				-74.4467553				-74.4467553				-74.4473376				-74.4463803				-74.4463803			
Lab Sample Name							GS-S-DPT23-SC-0.5-2.5				GS-S-DPT23-SB-2.5-3.0				GS-S-DPT24-SC-0.5-2.5				GS-S-DPT24-SB-2.5-3.0				GS-S-DPT25-SB-1-1.5				GS-S-DPT26-SC-0.5-3.5				GS-S-DPT26-SB-3.5-4			
Lab Sample Number							460-234080-5				460-234080-6				460-234442-2				460-234442-3				460-233899-6				460-233940-2				460-233940-3			
Lab Report Number(s)							460-234080-1				460-234080-1				460-234442-1				460-234442-1				460-233899-1				460-233940-1				460-233940-1			
Analyte	CAS	Method	Units				Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)
PCB-50	62796-65-0	1668A	pg/g																															
~~PCB-51~~	~~68194-04-7~~	~~1668A~~	~~pg/g~~																															
PCB-52	35693-99-3	1668A	pg/g																															
PCB-53	41464-41-9	1668A	pg/g																															
PCB-54	15968-05-5	1668A	pg/g																															
PCB-55	74338-24-2	1668A	pg/g																															
PCB-56	41464-43-1	1668A	pg/g																															
PCB-57	70424-67-8	1668A	pg/g																															
PCB-58	41464-49-7	1668A	pg/g																															
PCB-59	74472-33-6	1668A	pg/g																															
PCB-60	33025-41-1	1668A	pg/g																															
PCB-61	33284-53-6	1668A	pg/g																															
PCB-62		1668A	pg/g																															
PCB-63	74472-34-7	1668A	pg/g																															
PCB-64	52663-58-8	1668A	pg/g																															
PCB-65	33284-54-7	1668A	pg/g																															
PCB-66	32598-10-0	1668A	pg/g																															
PCB-67	73575-53-8	1668A	pg/g																															
PCB-68	73575-52-7	1668A	pg/g																															
PCB-69	60233-24-1	1668A	pg/g																															
PCB-70	32598-11-1	1668A	pg/g																															
PCB-71	41464-46-4	1668A	pg/g																															
PCB-72	41464-42-0	1668A	pg/g																															
PCB-73	74338-23-1	1668A	pg/g																															
PCB-74	32690-93-0	1668A	pg/g																															
PCB-75	32598-12-2	1668A	pg/g																															
PCB-76	70362-48-0	1668A	pg/g																															
PCB-77	32598-13-3	1668A	pg/g																															
PCB-78	70362-49-1	1668A	pg/g																															
PCB-79	41464-48-6	1668A	pg/g																															
PCB-80	33284-52-5	1668A	pg/g																															
PCB-81	70362-50-4	1668A	pg/g																															
PCB-82	52663-62-4	1668A	pg/g																															
PCB-83	60145-20-2	1668A	pg/g																															
PCB-84	52663-60-2	1668A	pg/g																															
PCB-85	65510-45-4	1668A	pg/g																															
PCB-86	55312-69-1	1668A	pg/g																															
PCB-87	38380-02-8	1668A	pg/g																															
PCB-88	55215-17-3	1668A	pg/g																															
PCB-89	73575-57-2	1668A	pg/g																															
PCB-90	68194-07-0	1668A	pg/g																															
PCB-91	68194-05-8	1668A	pg/g																															
PCB-92	52663-61-3	1668A	pg/g																															
PCB-93	73575-56-1	1668A	pg/g																															
PCB-94	73575-55-0	1668A	pg/g																															
PCB-95	38379-99-6	1668A	pg/g																															
PCB-96	73575-54-9	1668A	pg/g																															
PCB-97	41464-51-1	1668A	pg/g																															
PCB-98	60233-25-2	1668A	pg/g																															
PCB-99	38380-01-7	1668A	pg/g																															
PCB-100	39485-83-1	1668A	pg/g																															
PCB-101	37680-73-2	1668A	pg/g																															
PCB-102	68194-06-9	1668A	pg/g																															
PCB-103	60145-21-3	1668A	pg/g																															
PCB-104	56558-16-8	1668A	pg/g																															
PCB-105	32598-14-4	1668A	pg/g																															
PCB-106	70424-69-0	1668A	pg/g																															
PCB-107	70424-68-9	1668A	pg/g																															
PCB-108	70362-41-3	1668A	pg/g																															
PCB-109	74472-35-8	1668A	pg/g																															
PCB-110	38380-03-9	1668A	pg/g																															
PCB-111	39635-32-0	1668A	pg/g																															
PCB-112	74472-36-9	1668A	pg/g																															

Table 5.5 - Soil: Polychlorinated Biphenyls (PCBs) Analytical Results (continued)

Rolling Knolls Landfill

Sample Name				NJDEP Avian TEF's	ESC's	NJAC 7:26D	DP23_0.5-2.5				DP23_2.5-3.0				DP24_0.5-2.5				DP24_2.5-3.0				DP25_1.0-1.5				DP26_0.5-3.5				DP26_3.5-4.0			
Sample Date/Time							05/10/2021 16:05				05/10/2021 16:20				05/14/2021 10:10				05/14/2021 10:15				05/06/2021 15:20				05/07/2021 08:45				05/07/2021 09:00			
Latitude				Toxicity Equivalence Factor (TEF)	Screening Criteria	(8) Soil Remediation Standards (Ing.-Derm.) - Residential	40.7234761				40.7234761				40.7234047				40.7234047				40.7234932				40.7240722				40.7240722			
Longitude							-74.4461556				-74.4461556				-74.4467553				-74.4467553				-74.4473376				-74.4463803				-74.4463803			
Lab Sample Name							GS-S-DPT23-SC-0.5-2.5				GS-S-DPT23-SB-2.5-3.0				GS-S-DPT24-SC-0.5-2.5				GS-S-DPT24-SB-2.5-3.0				GS-S-DPT25-SB-1-1.5				GS-S-DPT26-SC-0.5-3.5				GS-S-DPT26-SB-3.5-4			
Lab Sample Number							460-234080-5				460-234080-6				460-234442-2				460-234442-3				460-233899-6				460-233940-2				460-233940-3			
Lab Report Number(s)							460-234080-1				460-234080-1				460-234442-1				460-234442-1				460-233899-1				460-233940-1				460-233940-1			
Analyte	CAS	Method	Units				Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)
PCB-113	68194-10-5	1668A	pg/g																															
~~PCB-114~~	~~74472-37-0~~	~~1668A~~	pg/g																															
PCB-115	74472-38-1	1668A	pg/g																															
PCB-116	18259-05-7	1668A	pg/g																															
PCB-117	68194-11-6	1668A	pg/g																															
PCB-118	31508-00-6	1668A	pg/g																															
PCB-119	56558-17-9	1668A	pg/g																															
PCB-120	68194-12-7	1668A	pg/g																															
PCB-121	56558-18-0	1668A	pg/g																															
PCB-122	76842-07-4	1668A	pg/g																															
PCB-123	65510-44-3	1668A	pg/g																															
PCB-124	70424-70-3	1668A	pg/g																															
PCB-125	74472-39-2	1668A	pg/g																															
PCB-126	57465-28-8	1668A	pg/g																															
PCB-127	39635-33-1	1668A	pg/g																															
PCB-128	38380-07-3	1668A	pg/g																															
PCB-129	55215-18-4	1668A	pg/g																															
PCB-130	52663-66-8	1668A	pg/g																															
PCB-131	61798-70-7	1668A	pg/g																															
PCB-132	38380-05-1	1668A	pg/g																															
PCB-133	35694-04-3	1668A	pg/g																															
PCB-134	52704-70-8	1668A	pg/g																															
PCB-135	52744-13-5	1668A	pg/g																															
PCB-136	38411-22-2	1668A	pg/g																															
PCB-137	35694-06-5	1668A	pg/g																															
PCB-138	35065-28-2	1668A	pg/g																															
PCB-139	56030-56-9	1668A	pg/g																															
PCB-140	59291-64-4	1668A	pg/g																															
PCB-141	52712-04-6	1668A	pg/g																															
PCB-142	41411-61-4	1668A	pg/g																															
PCB-143	68194-15-0	1668A	pg/g																															
PCB-144	68194-14-9	1668A	pg/g																															
PCB-145	74472-40-5	1668A	pg/g																															
PCB-146	51908-16-8	1668A	pg/g																															
PCB-147	68194-13-8	1668A	pg/g																															
PCB-148	74472-41-6	1668A	pg/g																															
PCB-149	38380-04-0	1668A	pg/g																															
PCB-150	68194-08-1	1668A	pg/g																															
PCB-151	52663-63-5	1668A	pg/g																															
PCB-152	68194-09-2	1668A	pg/g																															
PCB-153	35065-27-1	1668A	pg/g																															
PCB-154	60145-22-4	1668A	pg/g																															
PCB-155	33979-03-2	1668A	pg/g																															
PCB-156	38380-08-4	1668A	pg/g																															
PCB-157	69782-90-7	1668A	pg/g																															
PCB-158	74472-42-7	1668A	pg/g																															
PCB-159	39635-35-3	1668A	pg/g																															
PCB-160	41411-62-5	1668A	pg/g																															
PCB-161	74472-43-8	1668A	pg/g																															
PCB-162	39635-34-2	1668A	pg/g																															
PCB-163	74472-44-9	1668A	pg/g																															
PCB-164	74472-45-0	1668A	pg/g																															
PCB-165	74472-46-1	1668A	pg/g																															
PCB-166	41411-63-6	1668A	pg/g																															
PCB-167	52663-72-6	1668A	pg/g																															
PCB-168	59291-65-5	1668A	pg/g																															
PCB-169	32774-16-6	1668A	pg/g																															
PCB-170	35065-30-6	1668A	pg/g																															
PCB-171	52663-71-5	1668A	pg/g																															
PCB-172	52663-74-8	1668A	pg/g																															
PCB-173	68194-16-1	1668A	pg/g																															
PCB-174	38411-25-5	1668A	pg/g																															
PCB-175	40186-70-7	1668A	pg/g																															

Table 5.5 - Soil: Polychlorinated Biphenyls (PCBs) Analytical Results

(continued)

Rolling Knolls Landfill

	Sample Name			NJDEP Avian TEF's	ESC's	NJAC 7:26D	DP23_0.5-2.5				DP23_2.5-3.0				DP24_0.5-2.5				DP24_2.5-3.0				DP25_1.0-1.5				DP26_0.5-3.5				DP26_3.5-4.0			
	Sample Date/Time						05/10/2021 16:05				05/10/2021 16:20				05/14/2021 10:10				05/14/2021 10:15				05/06/2021 15:20				05/07/2021 08:45				05/07/2021 09:00			
	Latitude			Toxicity Equivalence Factor (TEF)	Screening Criteria	(8) Soil Remediation Standards (Ing.-Derm.) - Residential	40.7234761				40.7234761				40.7234047				40.7234047				40.7234932				40.7240722				40.7240722			
	Longitude						-74.4461556				-74.4461556				-74.4467553				-74.4467553				-74.4473376				-74.4463803				-74.4463803			
	Lab Sample Name						GS-S-DPT23-SC-0.5-2.5				GS-S-DPT23-SB-2.5-3.0				GS-S-DPT24-SC-0.5-2.5				GS-S-DPT24-SB-2.5-3.0				GS-S-DPT25-SB-1-1.5				GS-S-DPT26-SC-0.5-3.5				GS-S-DPT26-SB-3.5-4			
	Lab Sample Number						460-234080-5				460-234080-6				460-234442-2				460-234442-3				460-233899-6				460-233940-2				460-233940-3			
	Lab Report Number(s)						460-234080-1				460-234080-1				460-234442-1				460-234442-1				460-233899-1				460-233940-1				460-233940-1			
Analyte	CAS	Method	Units				Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)
PCB-176	52663-65-7	1668A	pg/g																															
~~PCB-177~~	~~52663-70-4~~	~~1668A~~	~~pg/g~~																															
PCB-178	52663-67-9	1668A	pg/g																															
PCB-179	52663-64-6	1668A	pg/g																															
PCB-180	35065-29-3	1668A	pg/g																															
PCB-181	74472-47-2	1668A	pg/g																															
PCB-182	60145-23-5	1668A	pg/g																															
PCB-183	52663-69-1	1668A	pg/g																															
PCB-184	74472-48-3	1668A	pg/g																															
PCB-185	52712-05-7	1668A	pg/g																															
PCB-186	74472-49-4	1668A	pg/g																															
PCB-187	52663-68-0	1668A	pg/g																															
PCB-188	74487-85-7	1668A	pg/g																															
PCB-189	39635-31-9	1668A	pg/g																															
PCB-190	41411-64-7	1668A	pg/g																															
PCB-191	74472-50-7	1668A	pg/g																															
PCB-192	74472-51-8	1668A	pg/g																															
PCB-193	69782-91-8	1668A	pg/g																															
PCB-194	35694-08-7	1668A	pg/g																															
PCB-195	52663-78-2	1668A	pg/g																															
PCB-196	42740-50-1	1668A	pg/g																															
PCB-197	33091-17-7	1668A	pg/g																															
PCB-198	68194-17-2	1668A	pg/g																															
PCB-199	52663-75-9	1668A	pg/g																															
PCB-200	52663-73-7	1668A	pg/g																															
PCB-201	40186-71-8	1668A	pg/g																															
PCB-202	2136-99-4	1668A	pg/g																															
PCB-203	52663-76-0	1668A	pg/g																															
PCB-204	74472-52-9	1668A	pg/g																															
PCB-205	74472-53-0	1668A	pg/g																															
PCB-206	40186-72-9	1668A	pg/g																															
PCB-207	52663-79-3	1668A	pg/g																															
PCB-208	52663-77-1	1668A	pg/g																															
PCB-209	2051-24-3	1668A	pg/g																															
Σ Polychlorinated biphenyls	1336-36-3	8082A	pg/g		371000 (5)	250000																												
Dioxin-Like PCB TEQ Calculation																																		
PCB-77	32598-13-3	1668A	pg/g	0.05																														
PCB-81	70362-50-4	1668A	pg/g	0.1																														
PCB-105	32598-14-4	1668A	pg/g	0.0001																														
PCB-114	74472-37-0	1668A	pg/g	0.0001																														
PCB-118	31508-00-6	1668A	pg/g	0.00001																														
PCB-123	65510-44-3	1668A	pg/g	0.00001																														
PCB-126	57465-28-8	1668A	pg/g	0.1																														
PCB-156	38380-08-4	1668A	pg/g	0.0001																														
PCB-157	69782-90-7	1668A	pg/g	0.0001																														
PCB-167	52663-72-6	1668A	pg/g	0.00001																														
PCB-169	32774-16-6	1668A	pg/g	0.001																														
PCB-189	39635-31-9	1668A	pg/g	0.00001																														
Σ Polychlorinated biphenyls (PCB) TEQ	1336-36-3	8082A	pg/g		0.199 (5)																													

Table 5.5 - Soil: Polychlorinated Biphenyls (PCBs) Analytical Results

(continued)

Rolling Knolls Landfill

Sample Name				NJDEP Avian TEF's	ESC's	NJAC 7:26D	DP27_0.5-3.0				DP27_8.0-10.0				DP28_0.5-5.0				DP28_5.0-8.0				DP29_0.5-2.0				DP29_7.0-10.0				DP30_0.5-3.0			
Sample Date/Time							05/05/2021 14:00				05/06/2021 10:15				05/05/2021 09:10				05/05/2021 08:40				05/06/2021 12:00				05/06/2021 12:45				05/13/2021 15:40			
Latitude							40.7231759				40.7231759				40.7240805				40.7240805				40.7248365				40.7248365				40.7266724			
Longitude							-74.4437423				-74.4437423				-74.4443078				-74.4443078				-74.4434245				-74.4434245				-74.4405011			
Lab Sample Name							GS-S-DPT27-SC-0.5-3				GS-S-DPT27-SB-8-10				GS-S-DPT28-SC-0.5-5				GS-S-DPT28-SB-5-8				GS-S-DPT29-SC-0.5-2				GS-S-DPT29-SB-7-10				GS-S-DPT30-SC-0.5-3.0			
Lab Sample Number							460-233708-5				460-233899-1				460-233708-2				460-233708-3				460-233899-3				460-233899-4				460-234436-5			
Lab Report Number(s)							460-233708-1 / 460-233708-2				460-233899-1 / 460-233899-2				460-233708-1				460-233708-1				460-233899-1				460-233899-1				460-234436-1			
Analyte	CAS	Method	Units				Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)
Polychlorinated Biphenyls (PCBs)		8082A					•				•				•				•				•				•				•			
Aroclor 1016	12674-11-2	8082A	µg/Kg		1100 (7)		180	U	1300	180	10	U	77	10	27	U	210	27	11	U	83	11	29	U	220	29	58	U	440	58	42	U	320	42
Aroclor 1221	11104-28-2	8082A	µg/Kg				180	U	1300	180	10	U	77	10	27	U	210	27	11	U	83	11	29	U	220	29	58	U	440	58	42	U	320	42
Aroclor 1232	11141-16-5	8082A	µg/Kg				180	U	1300	180	10	U	77	10	27	U	210	27	11	U	83	11	29	U	220	29	58	U	440	58	42	U	320	42
Aroclor 1242	53469-21-9	8082A	µg/Kg		41 (7)		180	U	1300	180	10	U	77	10	27	U	210	27	11	U	83	11	29	U	220	29	58	U	440	58	42	U	320	42
Aroclor 1248	12672-29-6	8082A	µg/Kg		7.3 (7)		180	U	1300	180	10	U	77	10	1400		210	27	11	U	83	11	29	U	220	29	58	U	440	58	4000	J	320	42
Aroclor 1254	11097-69-1	8082A	µg/Kg		41 (7)		11000		1300	180	11	U	77	11	28	U	210	28	11	U	83	11	1900	J	220	30	60	U	440	60	44	U	320	44
Aroclor 1260	11096-82-5	8082A	µg/Kg		880 (7)		180	U	1300	180	11	U	77	11	450		210	28	11	U	83	11	30	U	220	30	60	U	440	60	640	J	320	44
Aroclor 1268	11100-14-4	8082A	µg/Kg				180	U	1300	180	11	U	77	11	28	U	210	28	11	U	83	11	30	U	220	30	60	U	440	60	44	U	320	44
Aroclor-1262	37324-23-5	8082A	µg/Kg				180	U	1300	180	11	U	77	11	28	U	210	28	11	U	83	11	30	U	220	30	60	U	440	60	44	U	320	44
Polychlorinated biphenyls, Total	1336-36-3	8082A	µg/Kg		371 (5)	250	11000		1300	180	11	U	77	11	1900		210	28	11	U	83	11	1900	J	220	30	60	U	440	60	4600	J	320	44
Chlorinated Biphenyl Congeners (PCBs)		1668A					•				•																							
PCB-1	2051-60-7	1668A	pg/g				2180		788	12.1	20.7	J	22.7	0.31																				
PCB-2	2051-61-8	1668A	pg/g				517	J	788	11.7	9.74	J	22.7	0.27																				
PCB-3	2051-62-9	1668A	pg/g				3270		788	13.7	35		22.7	0.27																				
PCB-4	13029-08-8	1668A	pg/g				1320		788	15.1	19.7	J	22.7	2.24																				
PCB-5	16605-91-7	1668A	pg/g				56.7	U	788	56.7	2.12	U	22.7	2.12																				
PCB-6	25569-80-6	1668A	pg/g				858		788	51.4	10.5	J	22.7	1.92																				
PCB-7	33284-50-3	1668A	pg/g				217	J	788	55.1	2.06	U	22.7	2.06																				
PCB-8	34883-43-7	1668A	pg/g				3510		788	47.6	22.1	J	22.7	1.78																				
PCB-9	34883-39-1	1668A	pg/g				272	J	788	54.1	2.02	U	22.7	2.02																				
PCB-10	33146-45-1	1668A	pg/g				132	J	788	13.5	2.09	U	22.7	2.09																				
PCB-11	2050-67-1	1668A	pg/g				858		788	62	12.4	J	22.7	2.31																				
PCB-12	2974-92-7	1668A	pg/g				809	J	1580	61.2	26.7	J	45.3	2.28																				
PCB-13	2974-90-5	1668A	pg/g				809	J	1580	61.2	26.7	J	45.3	2.28																				
PCB-14	34883-41-5	1668A	pg/g				59.2	U	788	59.2	2.21	U	22.7	2.21																				
PCB-15	2050-68-2	1668A	pg/g				6810		788	51.6	64.4		22.7	1.98																				
PCB-16	38444-78-9	1668A	pg/g				4110		788	29.2	22.4	J	22.7	1.08																				
PCB-17	37680-66-3	1668A	pg/g				5380		788	28.3	53.8		22.7	1.04																				
PCB-18	37680-65-2	1668A	pg/g				11100		1580	20.2	65		45.3	0.74																				
PCB-19	38444-73-4	1668A	pg/g				1340		788	28.2	30.3		22.7	0.94																				
PCB-20	38444-84-7	1668A	pg/g				44800		2360	520	880		68	11.3																				
PCB-21	55702-46-0	1668A	pg/g				10700		1580	543	45.8		45.3	11.8																				
PCB-22	38444-85-8	1668A	pg/g				11800		788	513	215		22.7	11.1																				
PCB-23	55720-44-0	1668A	pg/g				522	U	788	522	11.3	U	22.7	11.3																				
PCB-24	55702-45-9	1668A	pg/g				113	J	788	21.2	1.43	J	22.7	0.78																				
PCB-25	55712-37-3	1668A	pg/g				1900		788	473	189		22.7	10.3																				
PCB-26	38444-81-4	1668A	pg/g				4620		1580	542	302		45.3	11.8																				
PCB-27	38444-76-7	1668A	pg/g				1120		788	19.3	33.2		22.7	0.71																				
PCB-28	7012-37-5	1668A	pg/g				44800		2360	520	880		68	11.3																				
PCB-29	15862-07-4	1668A	pg/g				4620		1580	542	302		45.3	11.8																				
PCB-30	35693-92-6	1668A	pg/g				11100		1580	20.2	65		45.3	0.74																				
PCB-31	16606-02-3	1668A	pg/g				54200		788	506	1000		22.7	10.8																				
PCB-32	38444-77-8	1668A	pg/g				5380		788	19.8	202		22.7	0.73																				
PCB-33	38444-86-9	1668A	pg/g				10700		1580	543	45.8		45.3	11.8																				
PCB-34	37680-68-5	1668A	pg/g				541	U	788	541	11.7	U	22.7	11.7																				
PCB-35	37680-69-6	1668A	pg/g				596	U	788	596	12.9	U	22.7	12.9																				
PCB-36	38444-87-0	1668A	pg/g				597	U	788	597	13	U	22.7	13																				
PCB-37	38444-90-5	1668A	pg/g				22500		788	615	85.6		22.7	14.5																				
PCB-38	53555-66-1	1668A	pg/g				616	U	788	616	13.4	U	22.7	13.4																				
PCB-39	38444-88-1	1668A	pg/g				555	U	788	555	12	U	22.7	12																				
PCB-40	38444-93-8	1668A	pg/g				47100		2910	2910	313		45.3	30.1																				
PCB-41	52663-59-9	1668A	pg/g				5990	J	4430	4430	45.9	U	45.9	45.9																				
PCB-42	36559-22-5	1668A	pg/g				31900		3090	3090	290		32	32																				
PCB-43	70362-46-8	1668A	pg/g				4040		3140	3140	44.3		32.5	32.5																				
PCB-44	41464-39-5	1668A	pg/g				166000		2970	2970	1320		68	30.8																				
PCB-45	70362-45-7	1668A	pg/g				14600		4440	4440	140		45.9	45.9																				
PCB-46	41464-47-5	1668A	pg/g				4160		3760	3760	49.4		38.9	38.9																				
PCB-47	2437-79-8	1668A	pg/g				166000		2970	2970	1320		68	30.8																				
PCB-48	70362-47-9	1668A	pg/g				17400		3180	3180	85.1		33	33																				
PCB-49	41464-40-8	1668A	pg/g				115000		2630	2630	1350		45.3	27.2																				

Table 5.5 - Soil: Polychlorinated Biphenyls (PCBs) Analytical Results

(continued)

Rolling Knolls Landfill

	Sample Name			NJDEP Avian TEF's	ESC's	NJAC 7:26D	DP27_0.5-3.0				DP27_8.0-10.0				DP28_0.5-5.0				DP28_5.0-8.0				DP29_0.5-2.0				DP29_7.0-10.0				DP30_0.5-3.0			
	Sample Date/Time						05/05/2021 14:00				05/06/2021 10:15				05/05/2021 09:10				05/05/2021 08:40				05/06/2021 12:00				05/06/2021 12:45				05/13/2021 15:40			
	Latitude						40.7231759				40.7231759				40.7240805				40.7240805				40.7248365				40.7248365				40.7266724			
	Longitude			Toxicity Equivalence Factor (TEF)	Screening Criteria	(8) Soil Remediation Standards (Ing.-Derm.) - Residential	-74.4437423				-74.4437423				-74.4443078				-74.4443078				-74.4434245				-74.4434245				-74.4405011			
	Lab Sample Name						GS-S-DPT27-SC-0.5-3				GS-S-DPT27-SB-8-10				GS-S-DPT28-SC-0.5-5				GS-S-DPT28-SB-5-8				GS-S-DPT29-SC-0.5-2				GS-S-DPT29-SB-7-10				GS-S-DPT30-SC-0.5-3.0			
	Lab Sample Number						460-233708-5				460-233899-1				460-233708-2				460-233708-3				460-233899-3				460-233899-4				460-234436-5			
	Lab Report Number(s)						460-233708-1 / 460-233708-2				460-233899-1 / 460-233899-2				460-233708-1				460-233708-1				460-233899-1				460-233899-1				460-234436-1			
Analyte	CAS	Method	Units				Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)
PCB-50	62796-65-0	1668A	pg/g				15400		3690	3690	274		45.3	38.3																				
~~PCB-51~~	~~68194-04-7~~	~~1668A~~	~~pg/g~~				3070		2610	2610	60		27	27																				
PCB-52	35693-99-3	1668A	pg/g				267000	J	3120	3120	2320	J	32.3	32.3																				
PCB-53	41464-41-9	1668A	pg/g				15400		3690	3690	274		45.3	38.3																				
PCB-54	15968-05-5	1668A	pg/g				250	J	788	7.73	6.88	J	22.7	0.25																				
PCB-55	74338-24-2	1668A	pg/g				1620	U	1620	1620	5.27	U	22.7	5.27																				
PCB-56	41464-43-1	1668A	pg/g				79900	J	1910	1910	205		22.7	6.2																				
PCB-57	70424-67-8	1668A	pg/g				2070	U	2070	2070	6.73	U	22.7	6.73																				
PCB-58	41464-49-7	1668A	pg/g				1780	U	1780	1780	5.78	U	22.7	5.78																				
PCB-59	74472-33-6	1668A	pg/g				10500		2550	2550	103		68	26.4																				
PCB-60	33025-41-1	1668A	pg/g				32800		2010	2010	54.4		22.7	6.56																				
PCB-61	33284-53-6	1668A	pg/g				416000	J	3150	1930	1410		90.6	6.27																				
PCB-62		1668A	pg/g				10500		2550	2550	103		68	26.4																				
PCB-63	74472-34-7	1668A	pg/g				7960		2080	2080	56.6		22.7	6.77																				
PCB-64	52663-58-8	1668A	pg/g				69100		2340	2340	394		24.2	24.2																				
PCB-65	33284-54-7	1668A	pg/g				166000		2970	2970	1320		68	30.8																				
PCB-66	32598-10-0	1668A	pg/g				237000	J	1920	1920	973		22.7	6.25																				
PCB-67	73575-53-8	1668A	pg/g				1970		1600	1600	5.2	U	22.7	5.2																				
PCB-68	73575-52-7	1668A	pg/g				2800		1810	1810	47.1		22.7	5.88																				
PCB-69	60233-24-1	1668A	pg/g				115000		2630	2630	1350		45.3	27.2																				
PCB-70	32598-11-1	1668A	pg/g				416000	J	3150	1930	1410		90.6	6.27																				
PCB-71	41464-46-4	1668A	pg/g				47100		2910	2910	313		45.3	30.1																				
PCB-72	41464-42-0	1668A	pg/g				3860		2020	2020	57.4		22.7	6.59																				
PCB-73	74338-23-1	1668A	pg/g				2220	U	2220	2220	23	U	23	23																				
PCB-74	32690-93-0	1668A	pg/g				416000	J	3150	1930	1410		90.6	6.27																				
PCB-75	32598-12-2	1668A	pg/g				10500		2550	2550	103		68	26.4																				
PCB-76	70362-48-0	1668A	pg/g				416000	J	3150	1930	1410		90.6	6.27																				
PCB-77	32598-13-3	1668A	pg/g				20600		2360	2360	39.6		7.83	7.83																				
PCB-78	70362-49-1	1668A	pg/g				2210	U	2210	2210	7.2	U	22.7	7.2																				
PCB-79	41464-48-6	1668A	pg/g				4760		1940	1940	21	J	22.7	6.31																				
PCB-80	33284-52-5	1668A	pg/g				1770	U	1770	1770	5.77	U	22.7	5.77																				
PCB-81	70362-50-4	1668A	pg/g				2400	U	2400	2400	7.53	U	7.53	7.53																				
PCB-82	52663-62-4	1668A	pg/g				58000		5950	5950	153		33	33																				
PCB-83	60145-20-2	1668A	pg/g				35600		7690	7690	169		42.7	42.7																				
PCB-84	52663-60-2	1668A	pg/g				137000	J	6540	6540	663		36.3	36.3																				
PCB-85	65510-45-4	1668A	pg/g				98200		4660	4660	278		68	25.9																				
PCB-86	55312-69-1	1668A	pg/g				347000		4730	4680	1150		136	26																				
PCB-87	38380-02-8	1668A	pg/g				347000		4730	4680	1150		136	26																				
PCB-88	55215-17-3	1668A	pg/g				76900		5580	5580	398		45.3	31																				
PCB-89	73575-57-2	1668A	pg/g				6790		6280	6280	34.9	U	34.9	34.9																				
PCB-90	68194-07-0	1668A	pg/g				526000	J	4910	4910	2510		68	27.2																				
PCB-91	68194-05-8	1668A	pg/g				76900		5580	5580	398		45.3	31																				
PCB-92	52663-61-3	1668A	pg/g				96100	J	5650	5650	563		31.4	31.4																				
PCB-93	73575-56-1	1668A	pg/g				5400	U	5400	5400	39.9	J	45.3	30																				
PCB-94	73575-55-0	1668A	pg/g				6110	U	6110	6110	33.9	U	33.9	33.9																				
PCB-95	38379-99-6	1668A	pg/g				359000	J	5580	5580	2160		31	31																				
PCB-96	73575-54-9	1668A	pg/g				3250		788	11.3	17.9	J	22.7	0.2																				
PCB-97	41464-51-1	1668A	pg/g				347000		4730	4680	1150		136	26																				
PCB-98	60233-25-2	1668A	pg/g				16600		5340	5340	100		45.3	29.6																				
PCB-99	38380-01-7	1668A	pg/g				304000	J	4660	4660	1500		25.9	25.9																				
PCB-100	39485-83-1	1668A	pg/g				5400	U	5400	5400	39.9	J	45.3	30																				
PCB-101	37680-73-2	1668A	pg/g				526000	J	4910	4910	2510		68	27.2																				
PCB-102	68194-06-9	1668A	pg/g				16600		5340	5340	100		45.3	29.6																				
PCB-103	60145-21-3	1668A	pg/g				5100	U	5100	5100	62.7		28.3	28.3																				
PCB-104	56558-16-8	1668A	pg/g				75.1	J	788	10.9	1.32	J	22.7	0.24																				
PCB-105	32598-14-4	1668A	pg/g				178000	J	5270	5270	380		22.5	22.5																				
PCB-106	70424-69-0	1668A	pg/g				4590	U	4590	4590	25.5	U	25.5	25.5																				
PCB-107	70424-68-9	1668A	pg/g				21400		4590	4590	62.1		45.3	25.5																				
PCB-108	70362-41-3	1668A	pg/g				347000		4730	4680	1150		136	26																				
PCB-109	74472-35-8	1668A	pg/g				42100		4050	4050	168		22.7	22.5																				
PCB-110	38380-03-9	1668A	pg/g				646000	J	3990	3990	2360		45.3	22.1																				
PCB-111	39635-32-0	1668A	pg/g				4190	U	4190	4190	23.3	U	23.3	23.3																				
PCB-112	74472-36-9	1668A	pg/g				3370	U	3370	3370	18.7	U	22.7	18.7																				

Table 5.5 - Soil: Polychlorinated Biphenyls (PCBs) Analytical Results

(continued)

Rolling Knolls Landfill

Sample Name				NJDEP Avian TEF's	ESC's	NJAC 7:26D	DP27_0.5-3.0				DP27_8.0-10.0				DP28_0.5-5.0				DP28_5.0-8.0				DP29_0.5-2.0				DP29_7.0-10.0				DP30_0.5-3.0			
Sample Date/Time							05/05/2021 14:00				05/06/2021 10:15				05/05/2021 09:10				05/05/2021 08:40				05/06/2021 12:00				05/06/2021 12:45				05/13/2021 15:40			
Latitude							40.7231759				40.7231759				40.7240805				40.7240805				40.7248365				40.7248365				40.7266724			
Longitude				Toxicity Equivalence Factor (TEF)	Screening Criteria	(8) Soil Remediation Standards (Ing.-Derm.) - Residential	-74.4437423				-74.4437423				-74.4443078				-74.4443078				-74.4434245				-74.4434245				-74.4405011			
Lab Sample Name							GS-S-DPT27-SC-0.5-3				GS-S-DPT27-SB-8-10				GS-S-DPT28-SC-0.5-5				GS-S-DPT28-SB-5-8				GS-S-DPT29-SC-0.5-2				GS-S-DPT29-SB-7-10				GS-S-DPT30-SC-0.5-3.0			
Lab Sample Number							460-233708-5				460-233899-1				460-233708-2				460-233708-3				460-233899-3				460-233899-4				460-234436-5			
Lab Report Number(s)							460-233708-1 / 460-233708-2				460-233899-1 / 460-233899-2				460-233708-1				460-233708-1				460-233899-1				460-233899-1				460-234436-1			
Analyte	CAS	Method	Units				Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)
PCB-113	68194-10-5	1668A	pg/g				526000	J	4910	4910	2510		68	27.2																				
~~PCB-114~~	~~74472-37-0~~	~~1668A~~	pg/g				13000		4660	4660	24.9	U	24.9	24.9																				
PCB-115	74472-38-1	1668A	pg/g				646000	J	3990	3990	2360		45.3	22.7																				
PCB-116	18259-05-7	1668A	pg/g				98200		4660	4660	278		68	25.9																				
PCB-117	68194-11-6	1668A	pg/g				98200		4660	4660	278		68	25.9																				
PCB-118	31508-00-6	1668A	pg/g				475000	J	3730	3730	1480		22.2	22.2																				
PCB-119	56558-17-9	1668A	pg/g				347000		4730	4680	1150		136	26																				
PCB-120	68194-12-7	1668A	pg/g				3550	U	3550	3550	19.7	U	22.7	19.7																				
PCB-121	56558-18-0	1668A	pg/g				3610	U	3610	3610	20.1	U	22.7	20.1																				
PCB-122	76842-07-4	1668A	pg/g				9870		5230	5230	29	U	29	29																				
PCB-123	65510-44-3	1668A	pg/g				8720		4790	4790	25.4	U	25.4	25.4																				
PCB-124	70424-70-3	1668A	pg/g				21400		4590	4590	62.1		45.3	25.5																				
PCB-125	74472-39-2	1668A	pg/g				347000		4730	4680	1150		136	26																				
PCB-126	57465-28-8	1668A	pg/g				5170	U	5170	5170	25.8	U	25.8	25.8																				
PCB-127	39635-33-1	1668A	pg/g				5060	U	5060	5060	28.1	U	28.1	28.1																				
PCB-128	38380-07-3	1668A	pg/g				69400		1580	1490	184		45.3	6.83																				
PCB-129	55215-18-4	1668A	pg/g				398000	J	2360	1560	995		68	7.2																				
PCB-130	52663-66-8	1668A	pg/g				25700		2000	2000	80.9		22.7	9.22																				
PCB-131	61798-70-7	1668A	pg/g				5910		1780	1780	15.1	J	22.7	8.18																				
PCB-132	38380-05-1	1668A	pg/g				125000	J	1740	1740	383		22.7	8.02																				
PCB-133	35694-04-3	1668A	pg/g				4220		1700	1700	18	J	22.7	7.83																				
PCB-134	52704-70-8	1668A	pg/g				19900		1670	1670	70.1		45.3	7.66																				
PCB-135	52744-13-5	1668A	pg/g				60600		1580	1580	283		45.3	7.26																				
PCB-136	38411-22-2	1668A	pg/g				31500		1110	1110	142		22.7	5.09																				
PCB-137	35694-06-5	1668A	pg/g				26400		1680	1680	62.2		22.7	7.74																				
PCB-138	35065-28-2	1668A	pg/g				398000	J	2360	1560	995		68	7.2																				
PCB-139	56030-56-9	1668A	pg/g				9390		1580	1570	29.8	J	45.3	7.21																				
PCB-140	59291-64-4	1668A	pg/g				9390		1580	1570	29.8	J	45.3	7.21																				
PCB-141	52712-04-6	1668A	pg/g				46600	J	1670	1670	138		22.7	7.7																				
PCB-142	41411-61-4	1668A	pg/g				1740	U	1740	1740	7.99	U	22.7	7.99																				
PCB-143	68194-15-0	1668A	pg/g				19900		1670	1670	70.1		45.3	7.66																				
PCB-144	68194-14-9	1668A	pg/g				10000		1450	1450	33.1		22.7	6.65																				
PCB-145	74472-40-5	1668A	pg/g				1150	U	1150	1150	5.28	U	22.7	5.28																				
PCB-146	51908-16-8	1668A	pg/g				19200		1370	1370	137		22.7	6.3																				
PCB-147	68194-13-8	1668A	pg/g				217000	J	1580	1530	716		45.3	7.02																				
PCB-148	74472-41-6	1668A	pg/g				1460	U	1460	1460	6.71	U	22.7	6.71																				
PCB-149	38380-04-0	1668A	pg/g				217000	J	1580	1530	716		45.3	7.02																				
PCB-150	68194-08-1	1668A	pg/g				1050	U	1050	1050	4.83	U	22.7	4.83																				
PCB-151	52663-63-5	1668A	pg/g				60600		1580	1580	283		45.3	7.26																				
PCB-152	68194-09-2	1668A	pg/g				1180	U	1180	1180	5.41	U	22.7	5.41																				
PCB-153	35065-27-1	1668A	pg/g				258000	J	1580	1270	713		45.3	5.83																				
PCB-154	60145-22-4	1668A	pg/g				3870	J	1350	1350	19.2	J	22.7	6.19																				
PCB-155	33979-03-2	1668A	pg/g				1230	U	1230	1230	6.52	U	22.7	6.52																				
PCB-156	38380-08-4	1668A	pg/g				60900		503	503	154		4.53	1.14																				
PCB-157	69782-90-7	1668A	pg/g				60900		503	503	154		4.53	1.14																				
PCB-158	74472-42-7	1668A	pg/g				35500		1080	1080	91.8		22.7	4.98																				
PCB-159	39635-35-3	1668A	pg/g				1010		788	389	4.17	J	22.7	0.87																				
PCB-160	41411-62-5	1668A	pg/g				1410	U	1410	1410	6.48	U	22.7	6.48																				
PCB-161	74472-43-8	1668A	pg/g				1260	U	1260	1260	5.78	U	22.7	5.78																				
PCB-162	39635-34-2	1668A	pg/g				1410		788	403	4.54	J	22.7	0.92																				
PCB-163	74472-44-9	1668A	pg/g				398000	J	2360	1560	995		68	7.2																				
PCB-164	74472-45-0	1668A	pg/g				24900		1360	1360	83.6		22.7	6.24																				
PCB-165	74472-46-1	1668A	pg/g				1310	U	1310	1310	6.02	U	22.7	6.02																				
PCB-166	41411-63-6	1668A	pg/g				69400		1580	1490	184		45.3	6.83																				
PCB-167	52663-72-6	1668A	pg/g				19100		415	415	54.5		2.27	0.92																				
PCB-168	59291-65-5	1668A	pg/g				258000	J	1580	1270	713		45.3	5.83																				
PCB-169	32774-16-6	1668A	pg/g				519	U	519	519	1.01	U	2.27	1.01																				
PCB-170	35065-30-6	1668A	pg/g				43800		788	515	180		22.7	2.27																				
PCB-171	52663-71-5	1668A	pg/g				13400		1580	462	46.7		45.3	2.04																				
PCB-172	52663-74-8	1668A	pg/g				6520		788	504	28.4		22.7	2.22																				
PCB-173	68194-16-1	1668A	pg/g				13400		1580	462	46.7		45.3	2.04																				
PCB-174	38411-25-5	1668A	pg/g				28900		788	424	128		22.7	1.87																				
PCB-175	40186-70-7	1668A	pg/g				1880		788	23.8	5.59	J	22.7	0.19																				

Table 5.5 - Soil: Polychlorinated Biphenyls (PCBs) Analytical Results

(continued)

Rolling Knolls Landfill

Sample Name				NJDEP Avian TEF's	ESC's	NJAC 7:26D	DP27_0.5-3.0				DP27_8.0-10.0				DP28_0.5-5.0				DP28_5.0-8.0				DP29_0.5-2.0				DP29_7.0-10.0				DP30_0.5-3.0			
Sample Date/Time							05/05/2021 14:00				05/06/2021 10:15				05/05/2021 09:10				05/05/2021 08:40				05/06/2021 12:00				05/06/2021 12:45				05/13/2021 15:40			
Latitude							40.7231759				40.7231759				40.7240805				40.7240805				40.7248365				40.7248365				40.7266724			
Longitude				Toxicity Equivalence Factor (TEF)	Screening Criteria	(8) Soil Remediation Standards (Ing.-Derm.) - Residential	-74.4437423				-74.4437423				-74.4443078				-74.4443078				-74.4434245				-74.4434245				-74.4405011			
Lab Sample Name							GS-S-DPT27-SC-0.5-3				GS-S-DPT27-SB-8-10				GS-S-DPT28-SC-0.5-5				GS-S-DPT28-SB-5-8				GS-S-DPT29-SC-0.5-2				GS-S-DPT29-SB-7-10				GS-S-DPT30-SC-0.5-3.0			
Lab Sample Number							460-233708-5				460-233899-1				460-233708-2				460-233708-3				460-233899-3				460-233899-4				460-234436-5			
Lab Report Number(s)							460-233708-1 / 460-233708-2				460-233899-1 / 460-233899-2				460-233708-1				460-233708-1				460-233899-1				460-233899-1				460-234436-1			
Analyte	CAS	Method	Units				Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)
PCB-176	52663-65-7	1668A	pg/g				5000		788	17.7	17.3	J	22.7	0.14																				
~~PCB-177~~	~~52663-70-4~~	~~1668A~~	~~pg/g~~				19000		788	426	78.6		22.7	1.88																				
PCB-178	52663-67-9	1668A	pg/g				7570		788	24.8	26.5		22.7	0.19																				
PCB-179	52663-64-6	1668A	pg/g				11900		788	15.4	45		22.7	0.12																				
PCB-180	35065-29-3	1668A	pg/g				70400		1580	377	281		45.3	1.66																				
PCB-181	74472-47-2	1668A	pg/g				941		788	43	1.97	U	22.7	1.92																				
PCB-182	60145-23-5	1668A	pg/g				217	J	788	23.1	0.18	U	22.7	0.18																				
PCB-183	52663-69-1	1668A	pg/g				18900		788	372	71.1		22.7	1.64																				
PCB-184	74472-48-3	1668A	pg/g				16	U	788	16	0.13	U	22.7	0.13																				
PCB-185	52712-05-7	1668A	pg/g				6170		788	494	7.32	J	22.7	2.18																				
PCB-186	74472-49-4	1668A	pg/g				14.4	U	788	14.4	0.11	U	22.7	0.11																				
PCB-187	52663-68-0	1668A	pg/g				23600		788	19.3	132		22.7	0.15																				
PCB-188	74487-85-7	1668A	pg/g				52.9	J	788	15.7	0.48	J	22.7	0.16																				
PCB-189	39635-31-9	1668A	pg/g				2360		78.8	17.8	8.46	J	2.27	0.16																				
PCB-190	41411-64-7	1668A	pg/g				7080		788	323	31.9		22.7	1.43																				
PCB-191	74472-50-7	1668A	pg/g				2000		788	338	7.94	J	22.7	1.49																				
PCB-192	74472-51-8	1668A	pg/g				318	U	788	318	1.4	U	22.7	1.4																				
PCB-193	69782-91-8	1668A	pg/g				70400		1580	377	281		45.3	1.66																				
PCB-194	35694-08-7	1668A	pg/g				11500		788	50.2	128		22.7	0.49																				
PCB-195	52663-78-2	1668A	pg/g				4690		788	49.7	35.8		22.7	0.49																				
PCB-196	42740-50-1	1668A	pg/g				7370		788	107	45.9		22.7	0.26																				
PCB-197	33091-17-7	1668A	pg/g				417	J	788	66.6	2.17	J	22.7	0.16																				
PCB-198	68194-17-2	1668A	pg/g				14400		1580	95.4	113		45.3	0.23																				
PCB-199	52663-75-9	1668A	pg/g				14400		1580	95.4	113		45.3	0.23																				
PCB-200	52663-73-7	1668A	pg/g				967		788	81.3	10.5	J	22.7	0.2																				
PCB-201	40186-71-8	1668A	pg/g				2260		788	76.2	9.16	J	22.7	0.18																				
PCB-202	2136-99-4	1668A	pg/g				3110		788	72.7	20.5	J	22.7	0.19																				
PCB-203	52663-76-0	1668A	pg/g				8590		788	86.6	61.1		22.7	0.21																				
PCB-204	74472-52-9	1668A	pg/g				72.8	U	788	72.8	0.18	U	22.7	0.18																				
PCB-205	74472-53-0	1668A	pg/g				949		788	42.4	7.8	J	22.7	0.38																				
PCB-206	40186-72-9	1668A	pg/g				5150		788	43.2	171		22.7	0.79																				
PCB-207	52663-79-3	1668A	pg/g				891		788	33.5	6.17	J	22.7	0.53																				
PCB-208	52663-77-1	1668A	pg/g				2300		788	35.6	39.8		22.7	0.51																				
PCB-209	2051-24-3	1668A	pg/g				4790		788	3.24	148		22.7	0.077																				
Σ Polychlorinated biphenyls	1336-36-3	8082A	pg/g		371000 (5)	250000	**14,232,385**				62,683																							
Dioxin-Like PCB TEQ Calculation																																		
PCB-77	32598-13-3	1668A	pg/g	0.05			1,030				2																							
PCB-81	70362-50-4	1668A	pg/g	0.1			0				0																							
PCB-105	32598-14-4	1668A	pg/g	0.0001			18				0																							
PCB-114	74472-37-0	1668A	pg/g	0.0001			1				0																							
PCB-118	31508-00-6	1668A	pg/g	0.00001			5				0																							
PCB-123	65510-44-3	1668A	pg/g	0.00001			0				0																							
PCB-126	57465-28-8	1668A	pg/g	0.1			0				0																							
PCB-156	38380-08-4	1668A	pg/g	0.0001			6				0																							
PCB-157	69782-90-7	1668A	pg/g	0.0001			6				0																							
PCB-167	52663-72-6	1668A	pg/g	0.00001			0				0																							
PCB-169	32774-16-6	1668A	pg/g	0.001			0				0																							
PCB-189	39635-31-9	1668A	pg/g	0.00001			0				0																							
Σ Polychlorinated biphenyls (PCB) TEQ	1336-36-3	8082A	pg/g		0.199 (5)		**1066**				**2**																							

Table 5.5 - Soil: Polychlorinated Biphenyls (PCBs) Analytical Results (continued)

Rolling Knolls Landfill

Sample Name				NJDEP Avian TEF's	ESC's	NJAC 7:26D	DP30_7.5-8.0				DP30_8.0-9.0				DP31_0.5-5.0			
Sample Date/Time							05/13/2021 16:20				05/13/2021 16:20				05/14/2021 09:10			
Latitude							40.7266724				40.7266724				40.7237372			
Longitude				Toxicity Equivalence Factor (TEF)	Screening Criteria	(8) Soil Remediation Standards (Ing.-Derm.) - Residential	-74.4405011				-74.4405011				-74.4477876			
Lab Sample Name							GS-S-DPT30-SO-7.5-8.0				GS-N-DPT30-SB-8.0-9.0				GS-S-DPT31-SC-0.5-5.0			
Lab Sample Number							460-234436-6				460-234436-7				460-234442-5			
Lab Report Number(s)							460-234436-1				460-234436-1				460-234442-1			
Analyte	CAS	Method	Units				Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)
Polychlorinated Biphenyls (PCBs)		8082A					•				•				•			
Aroclor 1016	12674-11-2	8082A	µg/Kg		1100 (7)		37	U	280	37	32	U	240	32	11	U	84	11
Aroclor 1221	11104-28-2	8082A	µg/Kg				37	U	280	37	32	U	240	32	11	U	84	11
Aroclor 1232	11141-16-5	8082A	µg/Kg				37	U	280	37	32	U	240	32	11	U	84	11
Aroclor 1242	53469-21-9	8082A	µg/Kg		41 (7)		37	U	280	37	32	U	240	32	11	U	84	11
Aroclor 1248	12672-29-6	8082A	µg/Kg		7.3 (7)		210	J	280	37	3000		240	32	11	U	84	11
Aroclor 1254	11097-69-1	8082A	µg/Kg		41 (7)		38	U	280	38	33	U	240	33	11	U	84	11
Aroclor 1260	11096-82-5	8082A	µg/Kg		880 (7)		38	U	280	38	33	U	240	33	11	U	84	11
Aroclor 1268	11100-14-4	8082A	µg/Kg				38	U	280	38	33	U	240	33	11	U	84	11
Aroclor-1262	37324-23-5	8082A	µg/Kg				38	U	280	38	33	U	240	33	11	U	84	11
Polychlorinated biphenyls, Total	1336-36-3	8082A	µg/Kg		371 (5)	250	210	J	280	38	3000		240	33	11	U	84	11
Chlorinated Biphenyl Congeners (PCBs)		1668A																
PCB-1	2051-60-7	1668A	pg/g															
PCB-2	2051-61-8	1668A	pg/g															
PCB-3	2051-62-9	1668A	pg/g															
PCB-4	13029-08-8	1668A	pg/g															
PCB-5	16605-91-7	1668A	pg/g															
PCB-6	25569-80-6	1668A	pg/g															
PCB-7	33284-50-3	1668A	pg/g															
PCB-8	34883-43-7	1668A	pg/g															
PCB-9	34883-39-1	1668A	pg/g															
PCB-10	33146-45-1	1668A	pg/g															
PCB-11	2050-67-1	1668A	pg/g															
PCB-12	2974-92-7	1668A	pg/g															
PCB-13	2974-90-5	1668A	pg/g															
PCB-14	34883-41-5	1668A	pg/g															
PCB-15	2050-68-2	1668A	pg/g															
PCB-16	38444-78-9	1668A	pg/g															
PCB-17	37680-66-3	1668A	pg/g															
PCB-18	37680-65-2	1668A	pg/g															
PCB-19	38444-73-4	1668A	pg/g															
PCB-20	38444-84-7	1668A	pg/g															
PCB-21	55702-46-0	1668A	pg/g															
PCB-22	38444-85-8	1668A	pg/g															
PCB-23	55720-44-0	1668A	pg/g															
PCB-24	55702-45-9	1668A	pg/g															
PCB-25	55712-37-3	1668A	pg/g															
PCB-26	38444-81-4	1668A	pg/g															
PCB-27	38444-76-7	1668A	pg/g															
PCB-28	7012-37-5	1668A	pg/g															
PCB-29	15862-07-4	1668A	pg/g															
PCB-30	35693-92-6	1668A	pg/g															
PCB-31	16606-02-3	1668A	pg/g															
PCB-32	38444-77-8	1668A	pg/g															
PCB-33	38444-86-9	1668A	pg/g															
PCB-34	37680-68-5	1668A	pg/g															
PCB-35	37680-69-6	1668A	pg/g															
PCB-36	38444-87-0	1668A	pg/g															
PCB-37	38444-90-5	1668A	pg/g															
PCB-38	53555-66-1	1668A	pg/g															
PCB-39	38444-88-1	1668A	pg/g															
PCB-40	38444-93-8	1668A	pg/g															
PCB-41	52663-59-9	1668A	pg/g															
PCB-42	36559-22-5	1668A	pg/g															
PCB-43	70362-46-8	1668A	pg/g															
PCB-44	41464-39-5	1668A	pg/g															
PCB-45	70362-45-7	1668A	pg/g															
PCB-46	41464-47-5	1668A	pg/g															
PCB-47	2437-79-8	1668A	pg/g															
PCB-48	70362-47-9	1668A	pg/g															
PCB-49	41464-40-8	1668A	pg/g															

Table 5.5 - Soil: Polychlorinated Biphenyls (PCBs) Analytical Results (continued)

Rolling Knolls Landfill

Sample Name				NJDEP Avian TEF's	ESC's	NJAC 7:26D	DP30_7.5-8.0				DP30_8.0-9.0				DP31_0.5-5.0			
Sample Date/Time							05/13/2021 16:20				05/13/2021 16:20				05/14/2021 09:10			
Latitude							40.7266724				40.7266724				40.7237372			
Longitude				Toxicity Equivalence Factor (TEF)	Screening Criteria	(8) Soil Remediation Standards (Ing.-Derm.) - Residential	-74.4405011				-74.4405011				-74.4477876			
Lab Sample Name							GS-S-DPT30-SO-7.5-8.0				GS-N-DPT30-SB-8.0-9.0				GS-S-DPT31-SC-0.5-5.0			
Lab Sample Number							460-234436-6				460-234436-7				460-234442-5			
Lab Report Number(s)							460-234436-1				460-234436-1				460-234442-1			
Analyte	CAS	Method	Units				Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)
PCB-50	62796-65-0	1668A	pg/g															
PCB-51	68194-04-7	1668A	pg/g															
PCB-52	35693-99-3	1668A	pg/g															
PCB-53	41464-41-9	1668A	pg/g															
PCB-54	15968-05-5	1668A	pg/g															
PCB-55	74338-24-2	1668A	pg/g															
PCB-56	41464-43-1	1668A	pg/g															
PCB-57	70424-67-8	1668A	pg/g															
PCB-58	41464-49-7	1668A	pg/g															
PCB-59	74472-33-6	1668A	pg/g															
PCB-60	33025-41-1	1668A	pg/g															
PCB-61	33284-53-6	1668A	pg/g															
PCB-62		1668A	pg/g															
PCB-63	74472-34-7	1668A	pg/g															
PCB-64	52663-58-8	1668A	pg/g															
PCB-65	33284-54-7	1668A	pg/g															
PCB-66	32598-10-0	1668A	pg/g															
PCB-67	73575-53-8	1668A	pg/g															
PCB-68	73575-52-7	1668A	pg/g															
PCB-69	60233-24-1	1668A	pg/g															
PCB-70	32598-11-1	1668A	pg/g															
PCB-71	41464-46-4	1668A	pg/g															
PCB-72	41464-42-0	1668A	pg/g															
PCB-73	74338-23-1	1668A	pg/g															
PCB-74	32690-93-0	1668A	pg/g															
PCB-75	32598-12-2	1668A	pg/g															
PCB-76	70362-48-0	1668A	pg/g															
PCB-77	32598-13-3	1668A	pg/g															
PCB-78	70362-49-1	1668A	pg/g															
PCB-79	41464-48-6	1668A	pg/g															
PCB-80	33284-52-5	1668A	pg/g															
PCB-81	70362-50-4	1668A	pg/g															
PCB-82	52663-62-4	1668A	pg/g															
PCB-83	60145-20-2	1668A	pg/g															
PCB-84	52663-60-2	1668A	pg/g															
PCB-85	65510-45-4	1668A	pg/g															
PCB-86	55312-69-1	1668A	pg/g															
PCB-87	38380-02-8	1668A	pg/g															
PCB-88	55215-17-3	1668A	pg/g															
PCB-89	73575-57-2	1668A	pg/g															
PCB-90	68194-07-0	1668A	pg/g															
PCB-91	68194-05-8	1668A	pg/g															
PCB-92	52663-61-3	1668A	pg/g															
PCB-93	73575-56-1	1668A	pg/g															
PCB-94	73575-55-0	1668A	pg/g															
PCB-95	38379-99-6	1668A	pg/g															
PCB-96	73575-54-9	1668A	pg/g															
PCB-97	41464-51-1	1668A	pg/g															
PCB-98	60233-25-2	1668A	pg/g															
PCB-99	38380-01-7	1668A	pg/g															
PCB-100	39485-83-1	1668A	pg/g															
PCB-101	37680-73-2	1668A	pg/g															
PCB-102	68194-06-9	1668A	pg/g															
PCB-103	60145-21-3	1668A	pg/g															
PCB-104	56558-16-8	1668A	pg/g															
PCB-105	32598-14-4	1668A	pg/g															
PCB-106	70424-69-0	1668A	pg/g															
PCB-107	70424-68-9	1668A	pg/g															
PCB-108	70362-41-3	1668A	pg/g															
PCB-109	74472-35-8	1668A	pg/g															
PCB-110	38380-03-9	1668A	pg/g															
PCB-111	39635-32-0	1668A	pg/g															
PCB-112	74472-36-9	1668A	pg/g															

Table 5.5 - Soil: Polychlorinated Biphenyls (PCBs) Analytical Results (continued)

Rolling Knolls Landfill

Sample Name				NJDEP Avian TEF's	ESC's	NJAC 7:26D	DP30_7.5-8.0				DP30_8.0-9.0				DP31_0.5-5.0			
Sample Date/Time							05/13/2021 16:20				05/13/2021 16:20				05/14/2021 09:10			
Latitude							40.7266724				40.7266724				40.7237372			
Longitude				Toxicity Equivalence Factor (TEF)	Screening Criteria	(8) Soil Remediation Standards (Ing.-Derm.) - Residential	-74.4405011				-74.4405011				-74.4477876			
Lab Sample Name							GS-S-DPT30-SO-7.5-8.0				GS-N-DPT30-SB-8.0-9.0				GS-S-DPT31-SC-0.5-5.0			
Lab Sample Number							460-234436-6				460-234436-7				460-234442-5			
Lab Report Number(s)							460-234436-1				460-234436-1				460-234442-1			
Analyte	CAS	Method	Units				Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)
PCB-113	68194-10-5	1668A	pg/g															
PCB-114	74472-37-0	1668A	pg/g															
PCB-115	74472-38-1	1668A	pg/g															
PCB-116	18259-05-7	1668A	pg/g															
PCB-117	68194-11-6	1668A	pg/g															
PCB-118	31508-00-6	1668A	pg/g															
PCB-119	56558-17-9	1668A	pg/g															
PCB-120	68194-12-7	1668A	pg/g															
PCB-121	56558-18-0	1668A	pg/g															
PCB-122	76842-07-4	1668A	pg/g															
PCB-123	65510-44-3	1668A	pg/g															
PCB-124	70424-70-3	1668A	pg/g															
PCB-125	74472-39-2	1668A	pg/g															
PCB-126	57465-28-8	1668A	pg/g															
PCB-127	39635-33-1	1668A	pg/g															
PCB-128	38380-07-3	1668A	pg/g															
PCB-129	55215-18-4	1668A	pg/g															
PCB-130	52663-66-8	1668A	pg/g															
PCB-131	61798-70-7	1668A	pg/g															
PCB-132	38380-05-1	1668A	pg/g															
PCB-133	35694-04-3	1668A	pg/g															
PCB-134	52704-70-8	1668A	pg/g															
PCB-135	52744-13-5	1668A	pg/g															
PCB-136	38411-22-2	1668A	pg/g															
PCB-137	35694-06-5	1668A	pg/g															
PCB-138	35065-28-2	1668A	pg/g															
PCB-139	56030-56-9	1668A	pg/g															
PCB-140	59291-64-4	1668A	pg/g															
PCB-141	52712-04-6	1668A	pg/g															
PCB-142	41411-61-4	1668A	pg/g															
PCB-143	68194-15-0	1668A	pg/g															
PCB-144	68194-14-9	1668A	pg/g															
PCB-145	74472-40-5	1668A	pg/g															
PCB-146	51908-16-8	1668A	pg/g															
PCB-147	68194-13-8	1668A	pg/g															
PCB-148	74472-41-6	1668A	pg/g															
PCB-149	38380-04-0	1668A	pg/g															
PCB-150	68194-08-1	1668A	pg/g															
PCB-151	52663-63-5	1668A	pg/g															
PCB-152	68194-09-2	1668A	pg/g															
PCB-153	35065-27-1	1668A	pg/g															
PCB-154	60145-22-4	1668A	pg/g															
PCB-155	33979-03-2	1668A	pg/g															
PCB-156	38380-08-4	1668A	pg/g															
PCB-157	69782-90-7	1668A	pg/g															
PCB-158	74472-42-7	1668A	pg/g															
PCB-159	39635-35-3	1668A	pg/g															
PCB-160	41411-62-5	1668A	pg/g															
PCB-161	74472-43-8	1668A	pg/g															
PCB-162	39635-34-2	1668A	pg/g															
PCB-163	74472-44-9	1668A	pg/g															
PCB-164	74472-45-0	1668A	pg/g															
PCB-165	74472-46-1	1668A	pg/g															
PCB-166	41411-63-6	1668A	pg/g															
PCB-167	52663-72-6	1668A	pg/g															
PCB-168	59291-65-5	1668A	pg/g															
PCB-169	32774-16-6	1668A	pg/g															
PCB-170	35065-30-6	1668A	pg/g															
PCB-171	52663-71-5	1668A	pg/g															
PCB-172	52663-74-8	1668A	pg/g															
PCB-173	68194-16-1	1668A	pg/g															
PCB-174	38411-25-5	1668A	pg/g															
PCB-175	40186-70-7	1668A	pg/g															

Table 5.5 - Soil: Polychlorinated Biphenyls (PCBs) Analytical Results (continued)

Rolling Knolls Landfill

	Sample Name			NJDEP Avian TEF's	ESC's	NJAC 7:26D	DP30_7.5-8.0				DP30_8.0-9.0				DP31_0.5-5.0			
	Sample Date/Time						05/13/2021 16:20				05/13/2021 16:20				05/14/2021 09:10			
	Latitude						40.7266724				40.7266724				40.7237372			
	Longitude			Toxicity Equivalence Factor (TEF)	Screening Criteria	(8) Soil Remediation Standards (Ing.-Derm.) - Residential	-74.4405011				-74.4405011				-74.4477876			
	Lab Sample Name						GS-S-DPT30-SO-7.5-8.0				GS-N-DPT30-SB-8.0-9.0				GS-S-DPT31-SC-0.5-5.0			
	Lab Sample Number						460-234436-6				460-234436-7				460-234442-5			
	Lab Report Number(s)						460-234436-1				460-234436-1				460-234442-1			
Analyte	CAS	Method	Units				Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)
PCB-176	52663-65-7	1668A	pg/g															
~~PCB-177~~	~~52663-70-4~~	~~1668A~~	~~pg/g~~															
PCB-178	52663-67-9	1668A	pg/g															
PCB-179	52663-64-6	1668A	pg/g															
PCB-180	35065-29-3	1668A	pg/g															
PCB-181	74472-47-2	1668A	pg/g															
PCB-182	60145-23-5	1668A	pg/g															
PCB-183	52663-69-1	1668A	pg/g															
PCB-184	74472-48-3	1668A	pg/g															
PCB-185	52712-05-7	1668A	pg/g															
PCB-186	74472-49-4	1668A	pg/g															
PCB-187	52663-68-0	1668A	pg/g															
PCB-188	74487-85-7	1668A	pg/g															
PCB-189	39635-31-9	1668A	pg/g															
PCB-190	41411-64-7	1668A	pg/g															
PCB-191	74472-50-7	1668A	pg/g															
PCB-192	74472-51-8	1668A	pg/g															
PCB-193	69782-91-8	1668A	pg/g															
PCB-194	35694-08-7	1668A	pg/g															
PCB-195	52663-78-2	1668A	pg/g															
PCB-196	42740-50-1	1668A	pg/g															
PCB-197	33091-17-7	1668A	pg/g															
PCB-198	68194-17-2	1668A	pg/g															
PCB-199	52663-75-9	1668A	pg/g															
PCB-200	52663-73-7	1668A	pg/g															
PCB-201	40186-71-8	1668A	pg/g															
PCB-202	2136-99-4	1668A	pg/g															
PCB-203	52663-76-0	1668A	pg/g															
PCB-204	74472-52-9	1668A	pg/g															
PCB-205	74472-53-0	1668A	pg/g															
PCB-206	40186-72-9	1668A	pg/g															
PCB-207	52663-79-3	1668A	pg/g															
PCB-208	52663-77-1	1668A	pg/g															
PCB-209	2051-24-3	1668A	pg/g															
Σ Polychlorinated biphenyls	1336-36-3	8082A	pg/g		371000 (5)	250000												
Dioxin-Like PCB TEQ Calculation																		
PCB-77	32598-13-3	1668A	pg/g	0.05														
PCB-81	70362-50-4	1668A	pg/g	0.1														
PCB-105	32598-14-4	1668A	pg/g	0.0001														
PCB-114	74472-37-0	1668A	pg/g	0.0001														
PCB-118	31508-00-6	1668A	pg/g	0.00001														
PCB-123	65510-44-3	1668A	pg/g	0.00001														
PCB-126	57465-28-8	1668A	pg/g	0.1														
PCB-156	38380-08-4	1668A	pg/g	0.0001														
PCB-157	69782-90-7	1668A	pg/g	0.0001														
PCB-167	52663-72-6	1668A	pg/g	0.00001														
PCB-169	32774-16-6	1668A	pg/g	0.001														
PCB-189	39635-31-9	1668A	pg/g	0.00001														
Σ Polychlorinated biphenyls (PCB) TEQ	1336-36-3	8082A	pg/g		0.199 (5)													

Table 5.6 - Soil: Pesticides Analytical Results

Rolling Knolls Landfill

Sample Name				ESC's	NJAC 7:26D	SS01				SS100 (SS01 duplicate)				SS02				SS03				SS04				SS05				SS06			
Sample Date/Time						05/11/2021 08:35				05/11/2021 12:00				05/11/2021 10:10				05/11/2021 13:45				04/29/2021 10:20				04/29/2021 16:20				05/13/2021 09:00			
Latitude						40.7297321				40.7297321				40.7303542				40.7288473				40.7304704				40.7300494				40.729803			
Longitude				Screening Criteria	(8) Soil Remediation Standards (Ing.-Derm.) - Residential	-74.4419101				-74.4419101				-74.4418002				-74.441059				-74.4414832				-74.4418444				-74.441428			
Lab Sample Name						GS-N-SS01				GS-N-SS100				GS-N-SS02				GS-N-SS03				GS-N-SS04				GS-N-SS05				GS-N-SS06			
Lab Sample Number						460-234161-1				460-234161-9				460-234186-1				460-234161-3				460-233312-1				460-233312-4				460-234436-1			
Lab Report Number(s)						460-234161-1 / 460-234161-2				460-234161-1				460-234186-1				460-234161-1				460-233312-1				460-233312-1				460-234436-1			
Analyte	CAS	Method	Units			Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)
4,4'-DDD	72-54-8	8081B	µg/Kg	758	(5) 2300	2.3	U	14	2.3	2.1	U	12	2.1	1.9	U	11	1.9	2	U	11	2	65	J	13	2.1	47	J	13	2.2	62	J	15	2.6
4,4'-DDE	72-55-9	8081B	µg/Kg	596	(5) 2000	1.6	U	14	1.6	1.5	U	12	1.5	1.3	U	11	1.3	1.4	U	11	1.4	51	J	13	1.5	18	J	13	1.5	110	J	15	1.8
4,4'-DDT	50-29-3	8081B	µg/Kg	3.5	(5) 1900	2.5	U	14	2.5	2.3	U	12	2.3	2.1	U	11	2.1	2.1	U	11	2.1	13	U	13	2.3	13	U	13	2.4	74	J	15	2.8
Aldrin	309-00-2	8081B	µg/Kg	3.32	(5) 41	2	U	14	2	1.9	U	12	1.9	1.7	U	11	1.7	1.7	U	11	1.7	13	U	13	1.9	13	U	13	2	2.3	U	15	2.3
alpha-BHC	319-84-6	8081B	µg/Kg	99.4	(5) 86	1.4	U	4.1	1.4	1.3	U	3.7	1.3	1.1	U	3.4	1.1	1.2	U	3.4	1.2	3.8	U	3.8	1.3	3.9	U	3.9	1.3	1.5	U	4.5	1.5
beta-BHC	319-85-7	8081B	µg/Kg	3.98	(5) 300	1.5	U	4.1	1.5	1.4	U	3.7	1.4	1.3	U	3.4	1.3	1.3	U	3.4	1.3	3.8	U	3.8	1.4	3.9	U	3.9	1.5	1.7	U	4.5	1.7
Chlordane (technical)	57-74-9	8081B	µg/Kg	220	(7) 270	2300		140	33	920		120	30	27	U	110	27	28	U	110	28	2300	J	130	30	1100	J	130	32	36	U	150	36
delta-BHC	319-86-8	8081B	µg/Kg	70	(7)	0.83	U	4.1	0.83	0.76	U	3.7	0.76	0.69	U	3.4	0.69	0.7	U	3.4	0.7	3.8	U	3.8	0.77	3.9	U	3.9	0.8	0.92	U	4.5	0.92
Dieldrin	60-57-1	8081B	µg/Kg	4.9	(4) 34	1.8	U	4.1	1.8	1.6	U	3.7	1.6	1.5	U	3.4	1.5	1.5	U	3.4	1.5	3.8	U	3.8	1.6	3.9	U	3.9	1.7	57	J	4.5	2
Endosulfan I	959-98-8	8081B	µg/Kg	560	(7)	2.1	U	14	2.1	1.9	U	12	1.9	1.7	U	11	1.7	1.7	U	11	1.7	13	U	13	1.9	13	U	13	2	2.3	U	15	2.3
Endosulfan II	33213-65-9	8081B	µg/Kg	560	(7)	3.5	U	14	3.5	3.2	U	12	3.2	2.9	U	11	2.9	3	U	11	3	13	U	13	3.2	13	U	13	3.4	3.9	U	15	3.9
Endosulfan sulfate	1031-07-8	8081B	µg/Kg	35.8	(5)	1.7	U	14	1.7	1.6	U	12	1.6	1.4	U	11	1.4	1.4	U	11	1.4	13	U	13	1.6	13	U	13	1.6	1.9	U	15	1.9
Endrin	72-20-8	8081B	µg/Kg	10.1	(5) 19000	1.9	U	14	1.9	1.8	U	12	1.8	1.6	U	11	1.6	1.6	U	11	1.6	13	U	13	1.8	13	U	13	1.9	2.2	U	15	2.2
Endrin aldehyde	7421-93-4	8081B	µg/Kg	10.5	(5)	3.2	U	14	3.2	2.9	U	12	2.9	2.7	U	11	2.7	2.7	U	11	2.7	13	U	13	3	13	U	13	3.1	3.5	U	15	3.5
Endrin ketone	53494-70-5	8081B	µg/Kg			2.6	U	14	2.6	2.4	U	12	2.4	2.2	U	11	2.2	2.2	U	11	2.2	13	U	13	2.4	13	U	13	2.5	2.9	U	15	2.9
gamma-BHC (Lindane)	58-89-9	8081B	µg/Kg	5	(5) 570	1.3	U	4.1	1.3	1.2	U	3.7	1.2	1	U	3.4	1	1.1	U	3.4	1.1	3.8	U	3.8	1.2	3.9	U	3.9	1.2	1.4	U	4.5	1.4
Heptachlor	76-44-8	8081B	µg/Kg	5.98	(5) 150	1.6	U	14	1.6	1.5	U	12	1.5	1.3	U	11	1.3	1.4	U	11	1.4	13	U	13	1.5	13	U	13	1.5	1.8	U	15	1.8
Heptachlor epoxide	1024-57-3	8081B	µg/Kg	152	(5) 76	2	U	14	2	1.9	U	12	1.9	1.7	U	11	1.7	1.7	U	11	1.7	13	U	13	1.9	13	U	13	2	2.2	U	15	2.2
Methoxychlor	72-43-5	8081B	µg/Kg	19.9	(5) 320000	3.1	U	14	3.1	2.8	U	12	2.8	2.6	U	11	2.6	2.6	U	11	2.6	13	U	13	2.9	13	U	13	3	3.4	U	15	3.4
Toxaphene	8001-35-2	8081B	µg/Kg	119	(5) 490	49	U	140	49	45	U	120	45	41	U	110	41	42	U	110	42	130	U	130	45	130	U	130	47	54	U	150	54

Table 5.6 - Soil: Pesticides Analytical Results

(continued)

Rolling Knolls Landfill

Sample Name				ESC's	NJAC 7:26D	SS07				SS08				SS09				SS10				SS11				SS12				SS13			
Sample Date/Time						04/28/2021 00:00				05/11/2021 12:30				05/13/2021 11:10				05/13/2021 14:10				05/03/2021 10:00				05/10/2021 10:45				05/10/2021 12:10			
Latitude						40.7293038				40.72928382				40.7285174				40.7272947				40.7220743				40.7218276				40.7221319			
Longitude				Screening Criteria	(8) Soil Remediation Standards (Ing.-Derm.) - Residential	-74.4416064				-74.44108891				-74.4407729				-74.440092				-74.4442957				-74.4445596				-74.4453061			
Lab Sample Name						GS-N-SS07				GS-N-SS08				GS-N-SS09				GS-N-SS10				GS-S-SS11				GS-S-SS12				GS-S-SS13			
Lab Sample Number						460-233313-1				460-234161-6				460-234435-4				460-234436-9				460-233488-1				460-234082-1				460-234082-3			
Lab Report Number(s)						460-233313-1				460-234161-1				460-234435-1				460-234436-1				460-233488-1				460-234082-1				460-234082-1 / 460-234082-2			
Analyte	CAS	Method	Units			Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)
4,4'-DDD	72-54-8	8081B	µg/Kg	758 (5)	2300	43		15	2.6	3.2	U	19	3.2	2.5	U	15	2.5	2.9	U	17	2.9	440		24	4.2	7.8	U	46	7.8	1.9	U	11	1.9
4,4'-DDE	72-55-9	8081B	µg/Kg	596 (5)	2000	89		15	1.8	2.2	U	19	2.2	1.7	U	15	1.7	2	U	17	2	240		24	2.9	5.4	U	46	5.4	1.3	U	11	1.3
4,4'-DDT	50-29-3	8081B	µg/Kg	3.5 (5)	1900	150		15	2.8	3.5	U	19	3.5	2.7	U	15	2.7	3.1	U	17	3.1	4.5	U	24	4.5	8.4	U	46	8.4	2.1	U	11	2.1
Aldrin	309-00-2	8081B	µg/Kg	3.32 (5)	41	2.3	U	15	2.3	2.8	U	19	2.8	2.2	U	15	2.2	2.5	U	17	2.5	3.7	U	24	3.7	6.9	U	46	6.9	1.7	U	11	1.7
alpha-BHC	319-84-6	8081B	µg/Kg	99.4 (5)	86	1.5	U	4.5	1.5	1.9	U	5.6	1.9	1.5	U	4.4	1.5	1.7	U	5	1.7	2.5	U	7.3	2.5	4.6	U	14	4.6	1.1	U	3.4	1.1
beta-BHC	319-85-7	8081B	µg/Kg	3.98 (5)	300	1.7	U	4.5	1.7	2.1	U	5.6	2.1	1.7	U	4.4	1.7	1.9	U	5	1.9	2.7	U	7.3	2.7	5.1	U	14	5.1	1.3	U	3.4	1.3
Chlordane (technical)	57-74-9	8081B	µg/Kg	220 (7)	270	350	J	150	36	45	U	190	45	36	U	150	36	41	U	170	41	59	U	240	59	110	U	460	110	27	U	110	27
delta-BHC	319-86-8	8081B	µg/Kg	70 (7)		0.92	U	4.5	0.92	1.2	U	5.6	1.2	0.9	U	4.4	0.9	1	U	5	1	1.5	U	7.3	1.5	2.8	U	14	2.8	0.69	U	3.4	0.69
Dieldrin	60-57-1	8081B	µg/Kg	4.9 (4)	34	1.9	U	4.5	1.9	2.4	U	5.6	2.4	1.9	U	4.4	1.9	2.2	U	5	2.2	3.2	U	7.3	3.2	5.9	U	14	5.9	1.5	U	3.4	1.5
Endosulfan I	959-98-8	8081B	µg/Kg	560 (7)		2.3	U	15	2.3	2.9	U	19	2.9	2.2	U	15	2.2	2.6	U	17	2.6	3.7	U	24	3.7	7	U	46	7	1.7	U	11	1.7
Endosulfan II	33213-65-9	8081B	µg/Kg	560 (7)		3.9	U	15	3.9	4.8	U	19	4.8	3.8	U	15	3.8	4.3	U	17	4.3	6.3	U	24	6.3	12	U	46	12	2.9	U	11	2.9
Endosulfan sulfate	1031-07-8	8081B	µg/Kg	35.8 (5)		1.9	U	15	1.9	2.4	U	19	2.4	1.8	U	15	1.8	2.1	U	17	2.1	3.1	U	24	3.1	5.7	U	46	5.7	1.4	U	11	1.4
Endrin	72-20-8	8081B	µg/Kg	10.1 (5)	19000	2.2	U	15	2.2	2.7	U	19	2.7	2.1	U	15	2.1	2.4	U	17	2.4	3.5	U	24	3.5	6.5	U	46	6.5	1.6	U	11	1.6
Endrin aldehyde	7421-93-4	8081B	µg/Kg	10.5 (5)		3.5	U	15	3.5	4.4	U	19	4.4	3.5	U	15	3.5	4	U	17	4	5.8	U	24	5.8	11	U	46	11	2.7	U	11	2.7
Endrin ketone	53494-70-5	8081B	µg/Kg			2.9	U	15	2.9	3.6	U	19	3.6	2.9	U	15	2.9	3.3	U	17	3.3	4.8	U	24	4.8	8.9	U	46	8.9	2.2	U	11	2.2
gamma-BHC (Lindane)	58-89-9	8081B	µg/Kg	5 (5)	570	1.4	U	4.5	1.4	1.7	U	5.6	1.7	1.4	U	4.4	1.4	1.6	U	5	1.6	2.3	U	7.3	2.3	4.2	U	14	4.2	1	U	3.4	1
Heptachlor	76-44-8	8081B	µg/Kg	5.98 (5)	150	1.8	U	15	1.8	2.2	U	19	2.2	1.7	U	15	1.7	2	U	17	2	2.9	U	24	2.9	5.4	U	46	5.4	1.3	U	11	1.3
Heptachlor epoxide	1024-57-3	8081B	µg/Kg	152 (5)	76	2.2	U	15	2.2	2.8	U	19	2.8	2.2	U	15	2.2	2.5	U	17	2.5	3.7	U	24	3.7	6.8	U	46	6.8	1.7	U	11	1.7
Methoxychlor	72-43-5	8081B	µg/Kg	19.9 (5)	320000	3.4	U	15	3.4	4.3	U	19	4.3	3.4	U	15	3.4	3.8	U	17	3.8	5.6	U	24	5.6	10	U	46	10	2.6	U	11	2.6
Toxaphene	8001-35-2	8081B	µg/Kg	119 (5)	490	54	U	150	54	68	U	190	68	53	U	150	53	61	U	170	61	88	U	240	88	170	U	460	170	41	U	110	41

Table 5.6 - Soil: Pesticides Analytical Results

(continued)

Rolling Knolls Landfill

Sample Name				ESC's	NJAC 7:26D	SS14				SS102 (SS14 duplicate)				SS15				SS16				SS17				SS18				SS19			
Sample Date/Time						05/03/2021 10:40				05/03/2021 10:40				05/03/2021 15:30				05/04/2021 09:40				05/05/2021 10:05				05/10/2021 13:30				05/10/2021 08:30			
Latitude						40.7222989				40.7222989				40.7226573				40.7229083				40.723173				40.7226388				40.7236522			
Longitude				Screening Criteria	(8) Soil Remediation Standards (Ing.-Derm.) - Residential	-74.4446187				-74.4446187				-74.4446863				-74.445227				-74.443727				-74.4459762				-74.4437257			
Lab Sample Name						GS-S-SS14				GS-S-SS102				GS-S-SS15				GS-S-SS16				GS-S-SS17				GS-S-SS18				GS-S-SS19			
Lab Sample Number						460-233488-4				460-233506-1				460-233506-3				460-233704-1				460-233715-1				460-234084-1				460-234080-1			
Lab Report Number(s)						460-233488-1 / 460-233488-2				460-233506-1				460-233506-1 / 460-233506-2				460-233704-1				460-233715-1				460-234084-1				460-234080-1			
Analyte	CAS	Method	Units			Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)
4,4'-DDD	72-54-8	8081B	µg/Kg	758 (5)	2300	1300		16	2.7	720		71	12	2.1	U	12	2.1	2.8	U	16	2.8	2.1	U	12	2.1	10	UJ	60	10	2.7	U	16	2.7
4,4'-DDE	72-55-9	8081B	µg/Kg	596 (5)	2000	200		16	1.9	150		71	8.4	1.5	U	12	1.5	1.9	U	16	1.9	1.4	U	12	1.4	7	UJ	60	7	1.9	U	16	1.9
4,4'-DDT	50-29-3	8081B	µg/Kg	3.5 (5)	1900	180		16	2.9	250		71	13	2.3	U	12	2.3	3	U	16	3	2.2	U	12	2.2	11	UJ	60	11	2.9	U	16	2.9
Aldrin	309-00-2	8081B	µg/Kg	3.32 (5)	41	2.4	U	16	2.4	11	U	71	11	1.9	U	12	1.9	2.5	U	16	2.5	1.8	U	12	1.8	9	UJ	60	9	2.4	U	16	2.4
alpha-BHC	319-84-6	8081B	µg/Kg	99.4 (5)	86	1.6	U	4.7	1.6	7.2	U	21	7.2	1.3	U	3.7	1.3	1.7	U	4.9	1.7	1.2	U	3.6	1.2	6.1	UJ	18	6.1	1.6	U	4.7	1.6
beta-BHC	319-85-7	8081B	µg/Kg	3.98 (5)	300	1.8	U	4.7	1.8	8	U	21	8	1.4	U	3.7	1.4	1.8	U	4.9	1.8	1.4	U	3.6	1.4	6.7	UJ	18	6.7	1.8	U	4.7	1.8
Chlordane (technical)	57-74-9	8081B	µg/Kg	220 (7)	270	160	J	160	38	170	U	710	170	30	U	120	30	40	U	160	40	29	U	120	29	140	U	600	140	38	U	160	38
delta-BHC	319-86-8	8081B	µg/Kg	70 (7)		0.97	U	4.7	0.97	4.4	U	21	4.4	0.76	U	3.7	0.76	1	U	4.9	1	0.74	U	3.6	0.74	3.6	UJ	18	3.6	0.97	U	4.7	0.97
Dieldrin	60-57-1	8081B	µg/Kg	4.9 (4)	34	2.1	U	4.7	2.1	9.2	U	21	9.2	1.6	U	3.7	1.6	2.1	U	4.9	2.1	1.6	U	3.6	1.6	7.7	UJ	18	7.7	2.1	U	4.7	2.1
Endosulfan I	959-98-8	8081B	µg/Kg	560 (7)		2.4	U	16	2.4	11	U	71	11	1.9	U	12	1.9	2.5	U	16	2.5	1.8	U	12	1.8	9.1	UJ	60	9.1	2.4	U	16	2.4
Endosulfan II	33213-65-9	8081B	µg/Kg	560 (7)		4.1	U	16	4.1	18	U	71	18	3.2	U	12	3.2	4.2	U	16	4.2	3.1	U	12	3.1	15	UJ	60	15	4.1	U	16	4.1
Endosulfan sulfate	1031-07-8	8081B	µg/Kg	35.8 (5)		2	U	16	2	8.9	U	71	8.9	1.6	U	12	1.6	2	U	16	2	1.5	U	12	1.5	7.5	UJ	60	7.5	2	U	16	2
Endrin	72-20-8	8081B	µg/Kg	10.1 (5)	19000	2.3	U	16	2.3	10	U	71	10	1.8	U	12	1.8	2.3	U	16	2.3	1.7	U	12	1.7	8.5	UJ	60	8.5	2.3	U	16	2.3
Endrin aldehyde	7421-93-4	8081B	µg/Kg	10.5 (5)		3.7	U	16	3.7	17	U	71	17	2.9	U	12	2.9	3.9	U	16	3.9	2.8	U	12	2.8	14	UJ	60	14	3.7	U	16	3.7
Endrin ketone	53494-70-5	8081B	µg/Kg			3.1	U	16	3.1	14	U	71	14	2.4	U	12	2.4	3.2	U	16	3.2	2.3	U	12	2.3	12	UJ	60	12	3.1	U	16	3.1
gamma-BHC (Lindane)	58-89-9	8081B	µg/Kg	5 (5)	570	1.5	U	4.7	1.5	6.6	U	21	6.6	1.1	U	3.7	1.1	1.5	U	4.9	1.5	1.1	U	3.6	1.1	5.5	UJ	18	5.5	1.5	U	4.7	1.5
Heptachlor	76-44-8	8081B	µg/Kg	5.98 (5)	150	1.9	U	16	1.9	8.4	U	71	8.4	1.5	U	12	1.5	1.9	U	16	1.9	1.4	U	12	1.4	7	UJ	60	7	1.9	U	16	1.9
Heptachlor epoxide	1024-57-3	8081B	µg/Kg	152 (5)	76	2.4	U	16	2.4	11	U	71	11	1.9	U	12	1.9	2.4	U	16	2.4	1.8	U	12	1.8	8.9	UJ	60	8.9	2.4	U	16	2.4
Methoxychlor	72-43-5	8081B	µg/Kg	19.9 (5)	320000	3.6	U	16	3.6	16	U	71	16	2.8	U	12	2.8	3.7	U	16	3.7	2.8	U	12	2.8	14	UJ	60	14	3.6	U	16	3.6
Toxaphene	8001-35-2	8081B	µg/Kg	119 (5)	490	57	U	160	57	260	U	710	260	45	U	120	45	59	U	160	59	44	U	120	44	220	U	600	220	57	U	160	57

Table 5.6 - Soil: Pesticides Analytical Results

(continued)

Rolling Knolls Landfill

Sample Name				ESC's	NJAC 7:26D	SS20				SS21				SS101 (SS21 duplicate)				SS22				SS23				SS24				SS25			
Sample Date/Time						05/04/2021 12:45				05/07/2021 10:30				05/07/2021 10:30				05/04/2021 10:55				05/10/2021 15:40				05/14/2021 10:00				05/06/2021 14:55			
Latitude				Screening Criteria	(8) Soil Remediation Standards (Ing.-Derm.) - Residential	40.722731				40.7238344				40.7238344				40.7234467				40.7234761				40.7234047				40.7234932			
Longitude						-74.443907				-74.445655				-74.445655				-74.4453029				-74.4461556				-74.4467553				-74.4473376			
Lab Sample Name						GS-S-SS20				GS-S-SS21				GS-S-SS101				GS-S-SS22				GS-S-SS23				GS-S-SS24				GS-S-SS25			
Lab Sample Number						460-233704-4				460-233940-4				460-233940-5				460-233706-1				460-234080-4				460-234442-1				460-233899-5			
Lab Report Number(s)						460-233704-1				460-233940-1				460-233940-1				460-233706-1				460-234080-1				460-234442-1				460-233899-1			
Analyte	CAS	Method	Units			Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)
4,4'-DDD	72-54-8	8081B	µg/Kg	758 (5)	2300	1.4	U	8.2	1.4	2	U	12	2	9.7	J	13	2.2	29		22	3.7	3.6	U	21	3.6	44		18	3	1.7	U	9.7	1.7
4,4'-DDE	72-55-9	8081B	µg/Kg	596 (5)	2000	0.97	U	8.2	0.97	1.4	U	12	1.4	14		13	1.5	2.6	U	22	2.6	2.5	U	21	2.5	74		18	2.1	1.1	U	9.7	1.1
4,4'-DDT	50-29-3	8081B	µg/Kg	3.5 (5)	1900	9.4		8.2	1.5	2.2	U	12	2.2	21	J	13	2.4	4	U	22	4	3.9	U	21	3.9	71	J	18	3.3	1.8	U	9.7	1.8
Aldrin	309-00-2	8081B	µg/Kg	3.32 (5)	41	1.2	U	8.2	1.2	1.8	U	12	1.8	2	U	13	2	3.3	U	22	3.3	3.2	U	21	3.2	2.7	U	18	2.7	1.5	U	9.7	1.5
alpha-BHC	319-84-6	8081B	µg/Kg	99.4 (5)	86	0.83	U	2.5	0.83	1.2	U	3.6	1.2	1.3	U	3.9	1.3	2.2	U	6.6	2.2	2.1	U	6.3	2.1	1.8	U	5.3	1.8	0.99	U	2.9	0.99
beta-BHC	319-85-7	8081B	µg/Kg	3.98 (5)	300	0.92	U	2.5	0.92	1.3	U	3.6	1.3	1.5	U	3.9	1.5	2.5	U	6.6	2.5	2.4	U	6.3	2.4	2	U	5.3	2	1.1	U	2.9	1.1
Chlordane (technical)	57-74-9	8081B	µg/Kg	220 (7)	270	20	U	82	20	29	U	120	29	200		130	32	1100		220	53	51	U	210	51	43	U	180	43	23	U	97	23
delta-BHC	319-86-8	8081B	µg/Kg	70 (7)		0.5	U	2.5	0.5	0.74	U	3.6	0.74	0.8	U	3.9	0.8	1.3	U	6.6	1.3	1.3	U	6.3	1.3	1.1	U	5.3	1.1	0.59	U	2.9	0.59
Dieldrin	60-57-1	8081B	µg/Kg	4.9 (4)	34	1.1	U	2.5	1.1	1.6	U	3.6	1.6	1.7	U	3.9	1.7	2.9	U	6.6	2.9	2.7	U	6.3	2.7	24		5.3	2.3	1.3	U	2.9	1.3
Endosulfan I	959-98-8	8081B	µg/Kg	560 (7)		1.3	U	8.2	1.3	1.8	U	12	1.8	2	U	13	2	3.4	U	22	3.4	3.2	U	21	3.2	2.7	U	18	2.7	1.5	U	9.7	1.5
Endosulfan II	33213-65-9	8081B	µg/Kg	560 (7)		2.1	U	8.2	2.1	3.1	U	12	3.1	3.3	U	13	3.3	5.7	U	22	5.7	5.4	U	21	5.4	4.6	U	18	4.6	2.5	U	9.7	2.5
Endosulfan sulfate	1031-07-8	8081B	µg/Kg	35.8 (5)		1	U	8.2	1	1.5	U	12	1.5	1.6	U	13	1.6	2.8	U	22	2.8	2.6	U	21	2.6	2.2	U	18	2.2	1.2	U	9.7	1.2
Endrin	72-20-8	8081B	µg/Kg	10.1 (5)	19000	1.2	U	8.2	1.2	1.7	U	12	1.7	1.9	U	13	1.9	3.2	U	22	3.2	3	U	21	3	2.5	U	18	2.5	1.4	U	9.7	1.4
Endrin aldehyde	7421-93-4	8081B	µg/Kg	10.5 (5)		1.9	U	8.2	1.9	2.8	U	12	2.8	3.1	U	13	3.1	5.2	U	22	5.2	5	U	21	5	4.2	U	18	4.2	2.3	U	9.7	2.3
Endrin ketone	53494-70-5	8081B	µg/Kg			1.6	U	8.2	1.6	2.3	U	12	2.3	2.5	U	13	2.5	4.3	U	22	4.3	4.1	U	21	4.1	3.5	U	18	3.5	1.9	U	9.7	1.9
gamma-BHC (Lindane)	58-89-9	8081B	µg/Kg	5 (5)	570	0.76	U	2.5	0.76	1.1	U	3.6	1.1	1.2	U	3.9	1.2	2	U	6.6	2	1.9	U	6.3	1.9	39		5.3	1.6	0.9	U	2.9	0.9
Heptachlor	76-44-8	8081B	µg/Kg	5.98 (5)	150	0.97	U	8.2	0.97	1.4	U	12	1.4	1.5	U	13	1.5	2.6	U	22	2.6	2.5	U	21	2.5	2.1	U	18	2.1	1.1	U	9.7	1.1
Heptachlor epoxide	1024-57-3	8081B	µg/Kg	152 (5)	76	1.2	U	8.2	1.2	1.8	U	12	1.8	1.9	U	13	1.9	3.3	U	22	3.3	3.1	U	21	3.1	2.7	U	18	2.7	1.4	U	9.7	1.4
Methoxychlor	72-43-5	8081B	µg/Kg	19.9 (5)	320000	1.9	U	8.2	1.9	2.7	U	12	2.7	3	U	13	3	5	U	22	5	4.8	U	21	4.8	4.1	U	18	4.1	2.2	U	9.7	2.2
Toxaphene	8001-35-2	8081B	µg/Kg	119 (5)	490	30	U	82	30	43	U	120	43	47	U	130	47	80	U	220	80	76	U	210	76	64	U	180	64	35	U	97	35

Table 5.6 - Soil: Pesticides Analytical Results

(continued)

Rolling Knolls Landfill

Sample Name				ESC's	NJAC 7:26D	SS26				SS27				SS28				SS29				SS30				SS31				DP01_0.5-8.5			
Sample Date/Time						05/07/2021 08:30				05/05/2021 13:30				05/05/2021 08:20				05/06/2021 11:25				05/13/2021 15:20				05/14/2021 08:45				05/11/2021 09:10			
Latitude						40.7240722				40.7231759				40.7240805				40.7248365				40.7266724				40.7237372				40.7297321			
Longitude				Screening Criteria	(8) Soil Remediation Standards (Ing.-Derm.) - Residential	-74.4463803				-74.4437423				-74.4443078				-74.4434245				-74.4405011				-74.4477876				-74.4419101			
Lab Sample Name						GS-S-SS26				GS-S-SS27				GS-S-SS28				GS-S-SS29				GS-S-SS30				GS-S-SS31				GS-N-DPT01-SC-0.5-8.5			
Lab Sample Number						460-233940-1				460-233708-4				460-233708-1				460-233899-2				460-234436-4				460-234442-4				460-234161-2			
Lab Report Number(s)						460-233940-1				460-233708-1 / 460-233708-2				460-233708-1				460-233899-1				460-234436-1				460-234442-1				460-234161-1 / 460-234161-2			
Analyte	CAS	Method	Units			Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)
4,4'-DDD	72-54-8	8081B	µg/Kg	758 (5)	2300	1.8	U	10	1.3	1.8	U	11	1.8	22	U	130	22	4	U	24	4	2.6	U	15	2.6	1.5	U	9	1.5	2.6	U	15	2.6
4,4'-DDE	72-55-9	8081B	µg/Kg	596 (5)	2000	1.2	U	10	1.2	1.3	U	11	1.3	15	U	130	15	2.8	U	24	2.8	1.8	U	15	1.8	1.1	U	9	1.1	1.8	U	15	1.8
4,4'-DDT	50-29-3	8081B	µg/Kg	3.5 (5)	1900	1.9	U	10	1.9	2	U	11	2	390		130	24	4.4	U	24	4.4	2.8	U	15	2.8	1.7	U	9	1.7	2.8	U	15	2.8
Aldrin	309-00-2	8081B	µg/Kg	3.32 (5)	41	1.6	U	10	1.6	1.6	U	11	1.6	19	U	130	19	3.6	U	24	3.6	2.3	U	15	2.3	1.4	U	9	1.4	2.3	U	15	2.3
alpha-BHC	319-84-6	8081B	µg/Kg	99.4 (5)	86	1.1	U	3.1	1.1	1.1	U	3.2	1.1	13	U	39	13	2.4	U	7.1	2.4	1.5	U	4.5	1.5	0.92	U	2.7	0.92	1.5	U	4.5	1.5
beta-BHC	319-85-7	8081B	µg/Kg	3.98 (5)	300	1.2	U	3.1	1.2	1.2	U	3.2	1.2	14	U	39	14	2.7	U	7.1	2.7	1.7	U	4.5	1.7	1	U	2.7	1	1.7	U	4.5	1.7
Chlordane (technical)	57-74-9	8081B	µg/Kg	220 (7)	270	25	U	100	25	26	U	110	26	13000		1300	310	57	U	240	57	37	U	150	37	22	U	90	22	860		150	36
delta-BHC	319-86-8	8081B	µg/Kg	70 (7)		0.64	U	3.1	0.64	0.65	U	3.2	0.65	7.9	U	39	7.9	1.5	U	7.1	1.5	0.93	U	4.5	0.93	0.55	U	2.7	0.55	0.92	U	4.5	0.92
Dieldrin	60-57-1	8081B	µg/Kg	4.9 (4)	34	1.4	U	3.1	1.4	1.4	U	3.2	1.4	17	U	39	17	3.1	U	7.1	3.1	2	U	4.5	2	1.2	U	2.7	1.2	2	U	4.5	2
Endosulfan I	959-98-8	8081B	µg/Kg	560 (7)		1.6	U	10	1.6	1.6	U	11	1.6	20	U	130	20	3.6	U	24	3.6	2.3	U	15	2.3	1.4	U	9	1.4	2.3	U	15	2.3
Endosulfan II	33213-65-9	8081B	µg/Kg	560 (7)		2.7	U	10	2.7	2.7	U	11	2.7	33	U	130	33	6.1	U	24	6.1	3.9	U	15	3.9	2.3	U	9	2.3	3.9	U	15	3.9
Endosulfan sulfate	1031-07-8	8081B	µg/Kg	35.8 (5)		1.3	U	10	1.3	1.3	U	11	1.3	16	U	130	16	3	U	24	3	1.9	U	15	1.9	1.1	U	9	1.1	1.9	U	15	1.9
Endrin	72-20-8	8081B	µg/Kg	10.1 (5)	19000	1.5	U	10	1.5	1.5	U	11	1.5	19	U	130	19	3.4	U	24	3.4	2.2	U	15	2.2	1.3	U	9	1.3	2.2	U	15	2.2
Endrin aldehyde	7421-93-4	8081B	µg/Kg	10.5 (5)		2.5	U	10	2.5	2.5	U	11	2.5	30	U	130	30	5.6	U	24	5.6	3.6	U	15	3.6	2.1	U	9	2.1	3.6	U	15	3.6
Endrin ketone	53494-70-5	8081B	µg/Kg			2	U	10	2	2.1	U	11	2.1	25	U	130	25	4.6	U	24	4.6	2.9	U	15	2.9	1.8	U	9	1.8	2.9	U	15	2.9
gamma-BHC (Lindane)	58-89-9	8081B	µg/Kg	5 (5)	570	0.96	U	3.1	0.96	0.99	U	3.2	0.99	12	U	39	12	2.2	U	7.1	2.2	1.4	U	4.5	1.4	0.83	U	2.7	0.83	1.4	U	4.5	1.4
Heptachlor	76-44-8	8081B	µg/Kg	5.98 (5)	150	1.2	U	10	1.2	1.3	U	11	1.3	15	U	130	15	2.8	U	24	2.8	1.8	U	15	1.8	1.1	U	9	1.1	1.8	U	15	1.8
Heptachlor epoxide	1024-57-3	8081B	µg/Kg	152 (5)	76	1.6	U	10	1.6	1.6	U	11	1.6	19	U	130	19	3.5	U	24	3.5	2.3	U	15	2.3	1.3	U	9	1.3	2.2	U	15	2.2
Methoxychlor	72-43-5	8081B	µg/Kg	19.9 (5)	320000	2.4	U	10	2.4	2.4	U	11	2.4	30	U	130	30	5.4	U	24	5.4	3.5	U	15	3.5	2.1	U	9	2.1	3.4	U	15	3.4
Toxaphene	8001-35-2	8081B	µg/Kg	119 (5)	490	38	U	100	38	39	U	110	39	470	U	1300	470	86	U	240	86	55	U	150	55	33	U	90	33	54	U	150	54

Table 5.6 - Soil: Pesticides Analytical Results

(continued)

Rolling Knolls Landfill

Sample Name				ESC's	NJAC 7:26D	DP100_0.5-8.5 (DP01_0.5-8.5 duplicate)				DP02_0.5-8.5				DP02_8.5-10.0				DP03_0.5-3.5				DP03_3.5-4.0				DP04_0.5-5.0				DP04_5.0-8.0			
Sample Date/Time						05/11/2021 12:00				05/11/2021 10:40				05/11/2021 11:15				05/11/2021 14:05				05/11/2021 14:15				04/29/2021 12:50				04/29/2021 10:35			
Latitude						40.7297321				40.7303542				40.7303542				40.7288473				40.7288473				40.7304704				40.7304704			
Longitude						-74.4419101				-74.4418002				-74.4418002				-74.4410590				-74.4410590				-74.4414832				-74.4414832			
Lab Sample Name				Screening Criteria	(8) Soil Remediation Standards (Ing.-Derm.) - Residential	GS-N-DPT100-SC-0.5-8.5				GS-N-DPT02-SC-0.5-8.5				GS-N-DPT02-SB-8.5-10.0				GS-N-DPT03-SC-0.5-3.5				GS-N-DPT03-SB-3.5-4.0				GS-N-DPT04-SC-0.5-5				GS-N-DPT04--SB-5-8			
Lab Sample Number						460-234161-8				460-234186-2				460-234186-3				460-234161-4				460-234161-5				460-233312-2				460-233312-3			
Lab Report Number(s)						460-234161-1				460-234186-1				460-234186-1				460-234161-1				460-234161-1				460-233312-1				460-233312-1			
Analyte	CAS	Method	Units			Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)
4,4'-DDD	72-54-8	8081B	µg/Kg	758 (5)	2300	2.6	U	15	2.6	3.2	U	19	3.2	1.4	U	8	1.4	6.1	J	12	2.1	1.4	U	8.4	1.4	40		14	2.4	19		8.4	1.4
4,4'-DDE	72-55-9	8081B	µg/Kg	596 (5)	2000	1.8	U	15	1.8	2.2	U	19	2.2	0.95	U	8	0.95	1.5	U	12	1.5	0.99	U	8.4	0.99	93		14	1.7	9.9		8.4	0.98
4,4'-DDT	50-29-3	8081B	µg/Kg	3.5 (5)	1900	2.8	U	15	2.8	3.4	U	19	3.4	1.5	U	8	1.5	2.3	U	12	2.3	1.5	U	8.4	1.5	14	U	14	2.6	8.4	U	8.4	1.5
Aldrin	309-00-2	8081B	µg/Kg	3.32 (5)	41	2.3	U	15	2.3	2.8	U	19	2.8	1.2	U	8	1.2	1.9	U	12	1.9	1.3	U	8.4	1.3	14	U	14	2.2	8.4	U	8.4	1.3
alpha-BHC	319-84-6	8081B	µg/Kg	99.4 (5)	86	1.6	U	4.6	1.6	1.9	U	5.6	1.9	0.82	U	2.4	0.82	1.3	U	3.7	1.3	0.85	U	2.5	0.85	4.3	U	4.3	1.5	2.5	U	2.5	0.85
beta-BHC	319-85-7	8081B	µg/Kg	3.98 (5)	300	1.7	U	4.6	1.7	2.1	U	5.6	2.1	0.9	U	2.4	0.9	1.4	U	3.7	1.4	0.94	U	2.5	0.94	4.3	U	4.3	1.6	2.5	U	2.5	0.94
Chlordane (technical)	57-74-9	8081B	µg/Kg	220 (7)	270	1100		150	37	45	U	190	45	19	U	80	19	30	U	120	30	20	U	84	20	2000		140	35	190		84	20
delta-BHC	319-86-8	8081B	µg/Kg	70 (7)		0.94	U	4.6	0.94	1.1	U	5.6	1.1	0.49	U	2.4	0.49	0.76	U	3.7	0.76	0.51	U	2.5	0.51	4.3	U	4.3	0.88	2.5	U	2.5	0.51
Dieldrin	60-57-1	8081B	µg/Kg	4.9 (4)	34	2	U	4.6	2	2.4	U	5.6	2.4	1	U	2.4	1	1.6	U	3.7	1.6	1.1	U	2.5	1.1	4.3	U	4.3	1.9	2.5	U	2.5	1.1
Endosulfan I	959-98-8	8081B	µg/Kg	560 (7)		2.3	U	15	2.3	2.9	U	19	2.9	1.2	U	8	1.2	1.9	U	12	1.9	1.3	U	8.4	1.3	14	U	14	2.2	8.4	U	8.4	1.3
Endosulfan II	33213-65-9	8081B	µg/Kg	560 (7)		3.9	U	15	3.9	4.8	U	19	4.8	2.1	U	8	2.1	3.2	U	12	3.2	2.1	U	8.4	2.1	14	U	14	3.7	8.4	U	8.4	2.1
Endosulfan sulfate	1031-07-8	8081B	µg/Kg	35.8 (5)		1.9	U	15	1.9	2.3	U	19	2.3	1	U	8	1	1.5	U	12	1.5	1	U	8.4	1	14	U	14	1.8	8.4	U	8.4	1
Endrin	72-20-8	8081B	µg/Kg	10.1 (5)	19000	2.2	U	15	2.2	2.7	U	19	2.7	1.2	U	8	1.2	1.8	U	12	1.8	1.2	U	8.4	1.2	14	U	14	2.1	8.4	U	8.4	1.2
Endrin aldehyde	7421-93-4	8081B	µg/Kg	10.5 (5)		3.6	U	15	3.6	4.4	U	19	4.4	1.9	U	8	1.9	2.9	U	12	2.9	2	U	8.4	2	14	U	14	3.4	8.4	U	8.4	2
Endrin ketone	53494-70-5	8081B	µg/Kg			3	U	15	3	3.6	U	19	3.6	1.6	U	8	1.6	2.4	U	12	2.4	1.6	U	8.4	1.6	14	U	14	2.8	8.4	U	8.4	1.6
gamma-BHC (Lindane)	58-89-9	8081B	µg/Kg	5 (5)	570	1.4	U	4.6	1.4	1.7	U	5.6	1.7	0.74	U	2.4	0.74	1.1	U	3.7	1.1	0.77	U	2.5	0.77	4.3	U	4.3	1.3	2.5	U	2.5	0.77
Heptachlor	76-44-8	8081B	µg/Kg	5.98 (5)	150	1.8	U	15	1.8	2.2	U	19	2.2	0.95	U	8	0.95	1.5	U	12	1.5	0.99	U	8.4	0.99	14	U	14	1.7	8.4	U	8.4	0.98
Heptachlor epoxide	1024-57-3	8081B	µg/Kg	152 (5)	76	2.3	U	15	2.3	2.8	U	19	2.8	1.2	U	8	1.2	1.8	U	12	1.8	1.2	U	8.4	1.2	14	U	14	2.1	8.4	U	8.4	1.2
Methoxychlor	72-43-5	8081B	µg/Kg	19.9 (5)	320000	3.5	U	15	3.5	4.3	U	19	4.3	1.8	U	8	1.8	2.8	U	12	2.8	1.9	U	8.4	1.9	14	U	14	3.3	8.4	U	8.4	1.9
Toxaphene	8001-35-2	8081B	µg/Kg	119 (5)	490	55	U	150	55	68	U	190	68	29	U	80	29	45	U	120	45	30	U	84	30	140	U	140	52	84	U	84	30

Table 5.6 - Soil: Pesticides Analytical Results

(continued)

Rolling Knolls Landfill

Sample Name				ESC's	NJAC 7:26D	DP05_0.5-5.0				DP05_5.0-7.0				DP06_0.5-2.0				DP06_2.5-3.0				DP100_2.5-3.0 (DP06_2.5-3.0 duplicate)				DP07_0.5-4.5				DP07_4.5-5.0			
Sample Date/Time						04/29/2021 16:40				04/29/2021 15:50				05/13/2021 09:30				05/13/2021 09:55				05/13/2021 12:00				05/13/2021 13:10				05/13/2021 13:30			
Latitude						40.7300494				40.7300494				40.7298030				40.7298030				40.7298030				40.7293038				40.7293038			
Longitude						-74.4418444				-74.4418444				-74.4414280				-74.4414280				-74.4414280				-74.4416064				-74.4416064			
Lab Sample Name				Screening Criteria	(8) Soil Remediation Standards (Ing.-Derm.) - Residential	GS-N-DPT05--SC-0.5-5				GS-N-DPT05--SB-5-7				GS-N-DPT06-SC-0.5-2.0				GS-N-DPT06-SB-2.5-3.0				GS-N-DPT100-SB-2.5-3.0				GS-N-DPT07-SC-0.5-4.5				GS-N-DPT07-SB-4.5-5.0			
Lab Sample Number						460-233312-5				460-233312-6				460-234436-2				460-234436-3				460-234436-8				460-234435-2				460-234435-3			
Lab Report Number(s)						460-233312-1				460-233312-1				460-234436-1				460-234436-1				460-234436-1				460-234435-1				460-234435-1			
Analyte	CAS	Method	Units			Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)
4,4'-DDD	72-54-8	8081B	µg/Kg	758 (5)	2300	35		14	2.4	7.7	U	7.7	1.3	3.6	U	21	3.6	1.4	U	8.2	1.4	1.4	U	8.3	1.4	2	U	12	2				
4,4'-DDE	72-55-9	8081B	µg/Kg	596 (5)	2000	28		14	1.7	7.7	U	7.7	0.91	2.5	U	21	2.5	0.97	U	8.2	0.97	0.98	U	8.3	0.98	1.4	U	12	1.4				
4,4'-DDT	50-29-3	8081B	µg/Kg	3.5 (5)	1900	14	U	14	2.6	7.7	U	7.7	1.4	3.9	U	21	3.9	1.5	U	8.2	1.5	1.5	U	8.3	1.5	2.1	U	12	2.1				
Aldrin	309-00-2	8081B	µg/Kg	3.32 (5)	41	14	U	14	2.1	7.7	U	7.7	1.2	3.2	U	21	3.2	1.2	U	8.2	1.2	1.2	U	8.3	1.2	1.8	U	12	1.8				
alpha-BHC	319-84-6	8081B	µg/Kg	99.4 (5)	86	4.2	U	4.2	1.4	2.3	U	2.3	0.78	2.2	U	6.3	2.2	0.83	U	2.5	0.83	0.84	U	2.5	0.84	1.2	U	3.5	1.2				
beta-BHC	319-85-7	8081B	µg/Kg	3.98 (5)	300	4.2	U	4.2	1.6	2.3	U	2.3	0.86	2.4	U	6.3	2.4	0.92	U	2.5	0.92	0.93	U	2.5	0.93	1.3	U	3.5	1.3				
Chlordane (technical)	57-74-9	8081B	µg/Kg	220 (7)	270	750		140	34	77	U	77	19	51	U	210	51	20	U	82	20	20	U	83	20	28	U	120	28				
delta-BHC	319-86-8	8081B	µg/Kg	70 (7)		4.2	U	4.2	0.86	2.3	U	2.3	0.47	1.3	U	6.3	1.3	0.5	U	2.5	0.5	0.51	U	2.5	0.51	0.71	U	3.5	0.71				
Dieldrin	60-57-1	8081B	µg/Kg	4.9 (4)	34	4.2	U	4.2	1.8	2.3	U	2.3	1	2.8	U	6.3	2.8	1.1	U	2.5	1.1	1.1	U	2.5	1.1	1.5	U	3.5	1.5				
Endosulfan I	959-98-8	8081B	µg/Kg	560 (7)		14	U	14	2.1	7.7	U	7.7	1.2	3.2	U	21	3.2	1.2	U	8.2	1.2	1.3	U	8.3	1.3	1.8	U	12	1.8				
Endosulfan II	33213-65-9	8081B	µg/Kg	560 (7)		14	U	14	3.6	7.7	U	7.7	2	5.4	U	21	5.4	2.1	U	8.2	2.1	2.1	U	8.3	2.1	3	U	12	3				
Endosulfan sulfate	1031-07-8	8081B	µg/Kg	35.8 (5)		14	U	14	1.8	7.7	U	7.7	0.96	2.7	U	21	2.7	1	U	8.2	1	1	U	8.3	1	1.5	U	12	1.5				
Endrin	72-20-8	8081B	µg/Kg	10.1 (5)	19000	14	U	14	2	7.7	U	7.7	1.1	3	U	21	3	1.2	U	8.2	1.2	1.2	U	8.3	1.2	1.7	U	12	1.7				
Endrin aldehyde	7421-93-4	8081B	µg/Kg	10.5 (5)		14	U	14	3.3	7.7	U	7.7	1.8	5	U	21	5	1.9	U	8.2	1.9	2	U	8.3	2	2.7	U	12	2.7				
Endrin ketone	53494-70-5	8081B	µg/Kg			14	U	14	2.7	7.7	U	7.7	1.5	4.1	U	21	4.1	1.6	U	8.2	1.6	1.6	U	8.3	1.6	2.3	U	12	2.3				
gamma-BHC (Lindane)	58-89-9	8081B	µg/Kg	5 (5)	570	4.2	U	4.2	1.3	2.3	U	2.3	0.71	2	U	6.3	2	0.76	U	2.5	0.76	0.77	U	2.5	0.77	1.1	U	3.5	1.1				
Heptachlor	76-44-8	8081B	µg/Kg	5.98 (5)	150	14	U	14	1.7	7.7	U	7.7	0.91	2.5	U	21	2.5	0.97	U	8.2	0.97	0.98	U	8.3	0.98	1.4	U	12	1.4				
Heptachlor epoxide	1024-57-3	8081B	µg/Kg	152 (5)	76	14	U	14	2.1	7.7	U	7.7	1.3	3.2	U	21	3.2	1.2	U	8.2	1.2	1.2	U	8.3	1.2	1.7	U	12	1.7				
Methoxychlor	72-43-5	8081B	µg/Kg	19.9 (5)	320000	14	U	14	3.2	7.7	U	7.7	1.8	4.8	U	21	4.8	1.9	U	8.2	1.9	1.9	U	8.3	1.9	2.7	U	12	2.7				
Toxaphene	8001-35-2	8081B	µg/Kg	119 (5)	490	140	U	140	51	77	U	77	28	77	U	210	77	30	U	82	30	30	U	83	30	42	U	120	42				

Table 5.6 - Soil: Pesticides Analytical Results

(continued)

Rolling Knolls Landfill

Sample Name				ESC's	NJAC 7:26D	DP07_5.0-8.0				DP08_0.5-8.0				DP09_1.5-3.0				DP10_0.5-10.0				DP11_0.5-5.0				DP11_14.0-18.0				DP12_0.5-4.0			
Sample Date/Time						04/28/2021 00:00				05/11/2021 13:15				05/13/2021 11:35				05/13/2021 14:30				05/03/2021 10:10				05/03/2021 09:30				05/10/2021 11:20			
Latitude						40.7293038				40.7292838				40.7285174				40.7272947				40.7220743				40.7220743				40.7218276			
Longitude						-74.4416064				-74.4410889				-74.4407729				-74.4400920				-74.4442957				-74.4442957				-74.4445596			
Lab Sample Name				Screening Criteria	(8) Soil Remediation Standards (Ing.-Derm.) - Residential	GS-N-DPT07-SB-5-8				GS-N-DPT08-SB-0.5-8.0				GS-N-DPT09-SB-1.5-3.0				GS-N-DPT10-SC-0.5-10.0				GS-S-DPT11-SC-0.5-5				GS-S-DPT11-SB-14-18				GS-S-DPT12-SB-0.5-4.0			
Lab Sample Number						460-233313-2				460-234161-7				460-234435-5				460-234436-10				460-233488-2				460-233488-3				460-234082-2			
Lab Report Number(s)						460-233313-1				460-234161-1				460-234435-1				460-234436-1				460-233488-1				460-233488-1				460-234082-1			
Analyte	CAS	Method	Units			Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)
4,4'-DDD	72-54-8	8081B	µg/Kg	758 (5)	2300	1.4	U	8	1.4	6	U	35	6	1.4	U	8.2	1.4	3.6	U	21	3.6	250		18	3.1	2.8	J	7.7	1.3	8.7	U	51	8.7
4,4'-DDE	72-55-9	8081B	µg/Kg	596 (5)	2000	0.94	U	8	0.94	4.1	U	35	4.1	0.96	U	8.2	0.96	2.5	U	21	2.5	2.2	U	18	2.2	0.91	U	7.7	0.91	6	U	51	6
4,4'-DDT	50-29-3	8081B	µg/Kg	3.5 (5)	1900	1.5	U	8	1.5	6.5	U	35	6.5	1.5	U	8.2	1.5	3.9	U	21	3.9	3.4	U	18	3.4	1.4	U	7.7	1.4	9.4	U	51	9.4
Aldrin	309-00-2	8081B	µg/Kg	3.32 (5)	41	1.2	U	8	1.2	5.3	U	35	5.3	1.2	U	8.2	1.2	3.2	U	21	3.2	2.8	U	18	2.8	1.2	U	7.7	1.2	7.7	U	51	7.7
alpha-BHC	319-84-6	8081B	µg/Kg	99.4 (5)	86	0.81	U	2.4	0.81	3.6	U	10	3.6	0.83	U	2.4	0.83	2.1	U	6.3	2.1	1.9	U	5.5	1.9	0.78	U	2.3	0.78	5.2	U	15	5.2
beta-BHC	319-85-7	8081B	µg/Kg	3.98 (5)	300	0.89	U	2.4	0.89	3.9	U	10	3.9	0.92	U	2.4	0.92	2.4	U	6.3	2.4	2	U	5.5	2	0.87	U	2.3	0.87	5.7	U	15	5.7
Chlordane (technical)	57-74-9	8081B	µg/Kg	220 (7)	270	19	U	80	19	85	U	350	85	20	U	82	20	51	U	210	51	44	U	180	44	19	U	77	19	120	U	510	120
delta-BHC	319-86-8	8081B	µg/Kg	70 (7)		0.49	U	2.4	0.49	2.2	U	10	2.2	0.5	U	2.4	0.5	1.3	U	6.3	1.3	1.1	U	5.5	1.1	0.47	U	2.3	0.47	3.1	U	15	3.1
Dieldrin	60-57-1	8081B	µg/Kg	4.9 (4)	34	1	U	2.4	1	4.6	U	10	4.6	1.1	U	2.4	1.1	2.7	U	6.3	2.7	2.4	U	5.5	2.4	1	U	2.3	1	6.6	U	15	6.6
Endosulfan I	959-98-8	8081B	µg/Kg	560 (7)		1.2	U	8	1.2	5.4	U	35	5.4	1.2	U	8.2	1.2	3.2	U	21	3.2	2.8	U	18	2.8	1.2	U	7.7	1.2	7.8	U	51	7.8
Endosulfan II	33213-65-9	8081B	µg/Kg	560 (7)		2.1	U	8	2.1	9	U	35	9	2.1	U	8.2	2.1	5.4	U	21	5.4	4.7	U	18	4.7	2	U	7.7	2	13	U	51	13
Endosulfan sulfate	1031-07-8	8081B	µg/Kg	35.8 (5)		1	U	8	1	4.4	U	35	4.4	1	U	8.2	1	2.6	U	21	2.6	2.3	U	18	2.3	0.97	U	7.7	0.97	6.4	U	51	6.4
Endrin	72-20-8	8081B	µg/Kg	10.1 (5)	19000	1.1	U	8	1.1	5	U	35	5	1.2	U	8.2	1.2	3	U	21	3	2.6	U	18	2.6	1.1	U	7.7	1.1	7.3	U	51	7.3
Endrin aldehyde	7421-93-4	8081B	µg/Kg	10.5 (5)		1.9	U	8	1.9	8.3	U	35	8.3	1.9	U	8.2	1.9	5	U	21	5	4.3	U	18	4.3	1.8	U	7.7	1.8	12	U	51	12
Endrin ketone	53494-70-5	8081B	µg/Kg			1.6	U	8	1.6	6.8	U	35	6.8	1.6	U	8.2	1.6	4.1	U	21	4.1	3.6	U	18	3.6	1.5	U	7.7	1.5	9.9	U	51	9.9
gamma-BHC (Lindane)	58-89-9	8081B	µg/Kg	5 (5)	570	0.74	U	2.4	0.74	3.3	U	10	3.3	0.76	U	2.4	0.76	1.9	U	6.3	1.9	1.7	U	5.5	1.7	0.72	U	2.3	0.72	4.7	U	15	4.7
Heptachlor	76-44-8	8081B	µg/Kg	5.98 (5)	150	0.94	U	8	0.94	4.1	U	35	4.1	0.96	U	8.2	0.96	2.5	U	21	2.5	2.2	U	18	2.2	0.91	U	7.7	0.91	6	U	51	6
Heptachlor epoxide	1024-57-3	8081B	µg/Kg	152 (5)	76	1.2	U	8	1.2	5.2	U	35	5.2	1.2	U	8.2	1.2	3.1	U	21	3.1	2.7	U	18	2.7	1.2	U	7.7	1.2	7.6	U	51	7.6
Methoxychlor	72-43-5	8081B	µg/Kg	19.9 (5)	320000	1.8	U	8	1.8	8	U	35	8	1.9	U	8.2	1.9	4.8	U	21	4.8	4.2	U	18	4.2	1.8	U	7.7	1.8	12	U	51	12
Toxaphene	8001-35-2	8081B	µg/Kg	119 (5)	490	29	U	80	29	130	U	350	130	30	U	82	30	76	U	210	76	66	U	180	66	28	U	77	28	180	U	510	180

Table 5.6 - Soil: Pesticides Analytical Results

(continued)

Rolling Knolls Landfill

Sample Name				ESC's	NJAC 7:26D	DP13_0.5-3.0				DP13_3.0-4.0				DP14_0.5-5.0				DP101_0.5-5.0 (DP14_0.5-5.0 duplicate)				DP15_0.5-5.0				DP15_19.0-21.0				DP16_0.5-4.0			
Sample Date/Time						05/10/2021 12:20				05/10/2021 12:30				05/03/2021 11:10				05/03/2021 11:10				05/03/2021 15:55				05/03/2021 15:05				05/04/2021 10:10			
Latitude						40.7221319				40.7221319				40.7222989				40.7222989				40.7226573				40.7226573				40.7229083			
Longitude						-74.4453061				-74.4453061				-74.4446187				-74.4446187				-74.4446863				-74.4446863				-74.4452270			
Lab Sample Name				Screening Criteria	(8) Soil Remediation Standards (Ing.-Derm.) - Residential	GS-S-DPT13-SC-0.5-3.0				GS-S-DPT13-SB-3.0-4.0				GS-S-DPT14-SC-0.5-5				GS-S-DPT101-SC-0.5-5				GS-S-DPT15-SC-0.5-5				GS-S-DPT15-SB-19-21				GS-S-DPT16-SC-0.5-4			
Lab Sample Number						460-234082-4				460-234082-5				460-233488-5				460-233506-2				460-233506-4				460-233506-5				460-233704-2			
Lab Report Number(s)						460-234082-1 / 460-234082-2				460-234082-1				460-233488-1 / 460-233488-2				460-233506-1				460-233506-1 / 460-233506-2				460-233506-1				460-233704-1			
Analyte	CAS	Method	Units			Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)
4,4'-DDD	72-54-8	8081B	µg/Kg	758 (5)	2300	2.6	U	15	2.6	5.1	U	30	5.1	180		16	2.7	2.5	U	15	2.5	6.4	U	38	6.4	1.6	U	9.3	1.6	4.9	U	29	4.9
4,4'-DDE	72-55-9	8081B	µg/Kg	596 (5)	2000	1.8	U	15	1.8	3.5	U	30	3.5	91		16	1.9	1.7	U	15	1.7	4.4	U	38	4.4	1.1	U	9.3	1.1	3.4	U	29	3.4
4,4'-DDT	50-29-3	8081B	µg/Kg	3.5 (5)	1900	2.8	U	15	2.8	5.5	U	30	5.5	69	J	16	2.9	2.7	U	15	2.7	6.9	U	38	6.9	1.7	U	9.3	1.7	5.3	U	29	5.3
Aldrin	309-00-2	8081B	µg/Kg	3.32 (5)	41	2.3	U	15	2.3	4.5	U	30	4.5	2.4	U	16	2.4	2.2	U	15	2.2	5.7	U	38	5.7	1.4	U	9.3	1.4	4.4	U	29	4.4
alpha-BHC	319-84-6	8081B	µg/Kg	99.4 (5)	86	1.5	U	4.5	1.5	3	U	9	3	1.6	U	4.7	1.6	1.5	U	4.4	1.5	3.8	U	11	3.8	0.94	U	2.8	0.94	2.9	U	8.6	2.9
beta-BHC	319-85-7	8081B	µg/Kg	3.98 (5)	300	1.7	U	4.5	1.7	3.4	U	9	3.4	1.8	U	4.7	1.8	1.7	U	4.4	1.7	4.2	U	11	4.2	1	U	2.8	1	3.2	U	8.6	3.2
Chlordane (technical)	57-74-9	8081B	µg/Kg	220 (7)	270	36	U	150	36	73	U	300	73	38	U	160	38	36	U	150	36	91	U	380	91	22	U	93	22	70	U	290	70
delta-BHC	319-86-8	8081B	µg/Kg	70 (7)		0.92	U	4.5	0.92	1.8	U	9	1.8	0.97	U	4.7	0.97	0.91	U	4.4	0.91	2.3	U	11	2.3	0.57	U	2.8	0.57	1.8	U	8.6	1.8
Dieldrin	60-57-1	8081B	µg/Kg	4.9 (4)	34	1.9	U	4.5	1.9	3.9	U	9	3.9	2.1	U	4.7	2.1	1.9	U	4.4	1.9	4.9	U	11	4.9	1.2	U	2.8	1.2	3.7	U	8.6	3.7
Endosulfan I	959-98-8	8081B	µg/Kg	560 (7)		2.3	U	15	2.3	4.6	U	30	4.6	2.4	U	16	2.4	2.3	U	15	2.3	5.7	U	38	5.7	1.4	U	9.3	1.4	4.4	U	29	4.4
Endosulfan II	33213-65-9	8081B	µg/Kg	560 (7)		3.8	U	15	3.8	7.7	U	30	7.7	4.1	U	16	4.1	3.8	U	15	3.8	9.7	U	38	9.7	2.4	U	9.3	2.4	7.4	U	29	7.4
Endosulfan sulfate	1031-07-8	8081B	µg/Kg	35.8 (5)		1.9	U	15	1.9	3.8	U	30	3.8	2	U	16	2	1.9	U	15	1.9	4.7	U	38	4.7	1.2	U	9.3	1.2	3.6	U	29	3.6
Endrin	72-20-8	8081B	µg/Kg	10.1 (5)	19000	2.1	U	15	2.1	4.3	U	30	4.3	2.3	U	16	2.3	2.1	U	15	2.1	5.4	U	38	5.4	1.3	U	9.3	1.3	4.1	U	29	4.1
Endrin aldehyde	7421-93-4	8081B	µg/Kg	10.5 (5)		3.5	U	15	3.5	7.1	U	30	7.1	3.8	U	16	3.8	3.5	U	15	3.5	8.9	U	38	8.9	2.2	U	9.3	2.2	6.8	U	29	6.8
Endrin ketone	53494-70-5	8081B	µg/Kg			2.9	U	15	2.9	5.8	U	30	5.8	3.1	U	16	3.1	2.9	U	15	2.9	7.3	U	38	7.3	1.8	U	9.3	1.8	5.6	U	29	5.6
gamma-BHC (Lindane)	58-89-9	8081B	µg/Kg	5 (5)	570	1.4	U	4.5	1.4	2.8	U	9	2.8	1.5	U	4.7	1.5	1.4	U	4.4	1.4	3.5	U	11	3.5	0.86	U	2.8	0.86	2.7	U	8.6	2.7
Heptachlor	76-44-8	8081B	µg/Kg	5.98 (5)	150	1.8	U	15	1.8	3.5	U	30	3.5	1.9	U	16	1.9	1.7	U	15	1.7	4.4	U	38	4.4	1.1	U	9.3	1.1	3.4	U	29	3.4
Heptachlor epoxide	1024-57-3	8081B	µg/Kg	152 (5)	76	2.2	U	15	2.2	4.5	U	30	4.5	2.4	U	16	2.4	2.2	U	15	2.2	5.6	U	38	5.6	1.4	U	9.3	1.4	4.3	U	29	4.3
Methoxychlor	72-43-5	8081B	µg/Kg	19.9 (5)	320000	3.4	U	15	3.4	6.9	U	30	6.9	3.6	U	16	3.6	3.4	U	15	3.4	8.6	U	38	8.6	2.1	U	9.3	2.1	6.6	U	29	6.6
Toxaphene	8001-35-2	8081B	µg/Kg	119 (5)	490	54	U	150	54	110	U	300	110	57	U	160	57	54	U	150	54	140	U	380	140	33	U	93	33	100	U	290	100

Table 5.6 - Soil: Pesticides Analytical Results

(continued)

Rolling Knolls Landfill

Sample Name				ESC's	NJAC 7:26D	DP16_4.0-7.0				DP17_0.5-2.0				DP17_3.5-5.0				DP102_3.5-5.0 (DP17_3.5-5.0 duplicate)				DP18_3.5-5.0				DP19_0.5-5.0				DP19_5.0-9.0			
Sample Date/Time						05/04/2021 09:55				05/05/2021 10:45				05/05/2021 11:40				05/05/2021 11:40				05/10/2021 14:05				05/10/2021 09:00				05/10/2021 09:50			
Latitude						40.7229083				40.7231730				40.7231730				40.7231730				40.7226388				40.7236522				40.7236522			
Longitude				Screening Criteria	(8) Soil Remediation Standards (Ing.-Derm.) - Residential	-74.4452270				-74.4437270				-74.4437270				-74.4437270				-74.4459762				-74.4437257				-74.4437257			
Lab Sample Name						GS-S-DPT16-SB-4-7				GS-S-DPT17-SC-0.5-2				GS-S-DPT17-SB-3.5-5				GS-S-DP102-SB-3.5-5				GS-S-DPT13-SB-3.5-5.0				GS-S-DPT19-SC-0.5-5.0				GS-S-DPT19-SB-5.0-9.0			
Lab Sample Number						460-233704-3				460-233715-2				460-233715-3				460-233708-6				460-234082-6				460-234080-2				460-234080-3			
Lab Report Number(s)						460-233704-1				460-233715-1				460-233715-1				460-233708-1				460-234082-1				460-234080-1				460-234080-1			
Analyte	CAS	Method	Units			Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)
4,4'-DDD	72-54-8	8081B	µg/Kg	758 (5)	2300	3	U	18	3	3.6	U	21	3.6	4.1	U	24	4.1	4.5	U	27	4.5	3.1	U	19	3.1	2.8	U	16	2.8	4.2	U	25	4.2
4,4'-DDE	72-55-9	8081B	µg/Kg	596 (5)	2000	2.1	U	18	2.1	2.5	U	21	2.5	2.9	U	24	2.9	3.1	U	27	3.1	2.2	U	19	2.2	1.9	U	16	1.9	2.9	U	25	2.9
4,4'-DDT	50-29-3	8081B	µg/Kg	3.5 (5)	1900	3.2	U	18	3.2	3.9	U	21	3.9	4.4	U	24	4.4	4.9	U	27	4.9	3.4	U	19	3.4	3	U	16	3	4.5	U	25	4.5
Aldrin	309-00-2	8081B	µg/Kg	3.32 (5)	41	2.6	U	18	2.6	3.2	U	21	3.2	3.7	U	24	3.7	4	U	27	4	2.8	U	19	2.8	2.5	U	16	2.5	3.7	U	25	3.7
alpha-BHC	319-84-6	8081B	µg/Kg	99.4 (5)	86	1.8	U	5.2	1.8	2.1	U	6.3	2.1	2.5	U	7.2	2.5	2.7	U	8	2.7	1.9	U	5.5	1.9	1.7	U	4.9	1.7	2.5	U	7.4	2.5
beta-BHC	319-85-7	8081B	µg/Kg	3.98 (5)	300	2	U	5.2	2	2.4	U	6.3	2.4	2.7	U	7.2	2.7	3	U	8	3	2.1	U	5.5	2.1	1.8	U	4.9	1.8	2.8	U	7.4	2.8
Chlordane (technical)	57-74-9	8081B	µg/Kg	220 (7)	270	42	U	180	42	51	U	210	51	59	U	240	59	64	U	270	64	45	U	190	45	40	U	160	40	60	U	250	60
delta-BHC	319-86-8	8081B	µg/Kg	70 (7)		1.1	U	5.2	1.1	1.3	U	6.3	1.3	1.5	U	7.2	1.5	1.6	U	8	1.6	1.1	U	5.5	1.1	1	U	4.9	1	1.5	U	7.4	1.5
Dieldrin	60-57-1	8081B	µg/Kg	4.9 (4)	34	2.3	U	5.2	2.3	2.7	U	6.3	2.7	3.1	U	7.2	3.1	3.5	U	8	3.5	2.4	U	5.5	2.4	2.1	U	4.9	2.1	3.2	U	7.4	3.2
Endosulfan I	959-98-8	8081B	µg/Kg	560 (7)		2.7	U	18	2.7	3.2	U	21	3.2	3.7	U	24	3.7	4.1	U	27	4.1	2.8	U	19	2.8	2.5	U	16	2.5	3.8	U	25	3.8
Endosulfan II	33213-65-9	8081B	µg/Kg	560 (7)		4.5	U	18	4.5	5.4	U	21	5.4	6.2	U	24	6.2	6.8	U	27	6.8	4.8	U	19	4.8	4.2	U	16	4.2	6.3	U	25	6.3
Endosulfan sulfate	1031-07-8	8081B	µg/Kg	35.8 (5)		2.2	U	18	2.2	2.6	U	21	2.6	3	U	24	3	3.3	U	27	3.3	2.3	U	19	2.3	2.1	U	16	2.1	3.1	U	25	3.1
Endrin	72-20-8	8081B	µg/Kg	10.1 (5)	19000	2.5	U	18	2.5	3	U	21	3	3.5	U	24	3.5	3.8	U	27	3.8	2.7	U	19	2.7	2.4	U	16	2.4	3.5	U	25	3.5
Endrin aldehyde	7421-93-4	8081B	µg/Kg	10.5 (5)		4.1	U	18	4.1	5	U	21	5	5.7	U	24	5.7	6.3	U	27	6.3	4.4	U	19	4.4	3.9	U	16	3.9	5.8	U	25	5.8
Endrin ketone	53494-70-5	8081B	µg/Kg			3.4	U	18	3.4	4.1	U	21	4.1	4.7	U	24	4.7	5.2	U	27	5.2	3.6	U	19	3.6	3.2	U	16	3.2	4.8	U	25	4.8
gamma-BHC (Lindane)	58-89-9	8081B	µg/Kg	5 (5)	570	1.6	U	5.2	1.6	2	U	6.3	2	2.2	U	7.2	2.2	2.5	U	8	2.5	1.7	U	5.5	1.7	1.5	U	4.9	1.5	2.3	U	7.4	2.3
Heptachlor	76-44-8	8081B	µg/Kg	5.98 (5)	150	2.1	U	18	2.1	2.5	U	21	2.5	2.9	U	24	2.9	3.1	U	27	3.1	2.2	U	19	2.2	1.9	U	16	1.9	2.9	U	25	2.9
Heptachlor epoxide	1024-57-3	8081B	µg/Kg	152 (5)	76	2.6	U	18	2.6	3.2	U	21	3.2	3.6	U	24	3.6	4	U	27	4	2.8	U	19	2.8	2.5	U	16	2.5	3.7	U	25	3.7
Methoxychlor	72-43-5	8081B	µg/Kg	19.9 (5)	320000	4	U	18	4	4.8	U	21	4.8	5.5	U	24	5.5	6.1	U	27	6.1	4.2	U	19	4.2	3.8	U	16	3.8	5.6	U	25	5.6
Toxaphene	8001-35-2	8081B	µg/Kg	119 (5)	490	63	U	180	63	76	U	210	76	88	U	240	88	96	U	270	96	67	U	190	67	59	U	160	59	89	U	250	89

Table 5.6 - Soil: Pesticides Analytical Results

(continued)

Rolling Knolls Landfill

Sample Name				ESC's	NJAC 7:26D	DP20_0.5-4.0				DP20_10.0-13.0				DP21_0.5-4.0				DP21_4.0-5.0				DP22_0.5-3.0				DP102_0.5-3.0 (DP22_0.5-3.0 duplicate)				DP22_3.0-5.0			
Sample Date/Time						05/04/2021 13:25				05/04/2021 13:00				05/07/2021 11:05				05/07/2021 11:50				05/04/2021 11:35				05/04/2021 11:35				05/04/2021 11:00			
Latitude						40.7227310				40.7227310				40.7238344				40.7238344				40.7234467				40.7234467				40.7234467			
Longitude						-74.4439070				-74.4439070				-74.4456550				-74.4456550				-74.4453029				-74.4453029				-74.4453029			
Lab Sample Name				Screening Criteria	(8) Soil Remediation Standards (Ing.-Derm.) - Residential	GS-S-DPT20-SC-0.5-4				GS-S-DPT-20-SB-10-13				GS-S-DPT21-SC-0.5-4				GS-S-DPT21-SB-4-5				GS-S-DPT22-SC-0.5-3				GS-S-DPT102-SC-0.5-3				GS-S-DPT22-SB-3-5			
Lab Sample Number						460-233704-5				460-233704-6				460-233940-6				460-233940-7				460-233706-2				460-233704-7				460-233706-3			
Lab Report Number(s)						460-233704-1				460-233704-1				460-233940-1				460-233940-1				460-233706-1				460-233704-1				460-233706-1			
Analyte	CAS	Method	Units			Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)
4,4'-DDD	72-54-8	8081B	µg/Kg	758 (5)	2300	110	J	12	2	7.3	U	43	7.3	3.9	U	23	3.9	5.9	J	21	3.6	37		17	2.8	11	J	15	2.5	1.4	U	8.4	1.4
4,4'-DDE	72-55-9	8081B	µg/Kg	596 (5)	2000	20	J	12	1.4	5.1	U	43	5.1	2.7	U	23	2.7	2.5	U	21	2.5	17		17	2	1.8	U	15	1.8	0.99	U	8.4	0.99
4,4'-DDT	50-29-3	8081B	µg/Kg	3.5 (5)	1900	2.2	U	12	2.2	7.9	U	43	7.9	4.2	U	23	4.2	3.9	U	21	3.9	3.1	U	17	3.1	2.7	U	15	2.7	1.5	U	8.4	1.5
Aldrin	309-00-2	8081B	µg/Kg	3.32 (5)	41	1.8	U	12	1.8	6.5	U	43	6.5	3.5	U	23	3.5	3.2	U	21	3.2	2.5	U	17	2.5	2.2	U	15	2.2	1.3	U	8.4	1.3
alpha-BHC	319-84-6	8081B	µg/Kg	99.4 (5)	86	1.2	U	3.5	1.2	4.4	U	13	4.4	2.3	U	6.9	2.3	2.1	U	6.3	2.1	1.7	U	5	1.7	1.5	U	4.4	1.5	0.85	U	2.5	0.85
beta-BHC	319-85-7	8081B	µg/Kg	3.98 (5)	300	1.3	U	3.5	1.3	4.8	U	13	4.8	2.6	U	6.9	2.6	2.3	U	6.3	2.3	1.9	U	5	1.9	1.7	U	4.4	1.7	0.94	U	2.5	0.94
Chlordane (technical)	57-74-9	8081B	µg/Kg	220 (7)	270	29	U	120	29	100	U	430	100	56	U	230	56	51	U	210	51	520		170	40	36	U	150	36	20	U	84	20
delta-BHC	319-86-8	8081B	µg/Kg	70 (7)		0.73	U	3.5	0.73	2.6	U	13	2.6	1.4	U	6.9	1.4	1.3	U	6.3	1.3	1	U	5	1	0.91	U	4.4	0.91	0.51	U	2.5	0.51
Dieldrin	60-57-1	8081B	µg/Kg	4.9 (4)	34	8.8	J	3.5	1.5	5.6	U	13	5.6	3	U	6.9	3	2.7	U	6.3	2.7	2.2	U	5	2.2	1.9	U	4.4	1.9	1.1	U	2.5	1.1
Endosulfan I	959-98-8	8081B	µg/Kg	560 (7)		1.8	U	12	1.8	6.5	U	43	6.5	3.5	U	23	3.5	3.2	U	21	3.2	2.5	U	17	2.5	2.3	U	15	2.3	1.3	U	8.4	1.3
Endosulfan II	33213-65-9	8081B	µg/Kg	560 (7)		3.1	U	12	3.1	11	U	43	11	5.9	U	23	5.9	5.4	U	21	5.4	4.3	U	17	4.3	3.8	U	15	3.8	2.2	U	8.4	2.2
Endosulfan sulfate	1031-07-8	8081B	µg/Kg	35.8 (5)		1.5	U	12	1.5	5.4	U	43	5.4	2.9	U	23	2.9	2.6	U	21	2.6	2.1	U	17	2.1	1.9	U	15	1.9	1.1	U	8.4	1.1
Endrin	72-20-8	8081B	µg/Kg	10.1 (5)	19000	1.7	U	12	1.7	6.2	U	43	6.2	3.3	U	23	3.3	3	U	21	3	2.4	U	17	2.4	2.1	U	15	2.1	1.2	U	8.4	1.2
Endrin aldehyde	7421-93-4	8081B	µg/Kg	10.5 (5)		2.8	U	12	2.8	10	U	43	10	5.4	U	23	5.4	4.9	U	21	4.9	3.9	U	17	3.9	3.5	U	15	3.5	2	U	8.4	2
Endrin ketone	53494-70-5	8081B	µg/Kg			2.3	U	12	2.3	8.3	U	43	8.3	4.5	U	23	4.5	4.1	U	21	4.1	3.2	U	17	3.2	2.9	U	15	2.9	1.6	U	8.4	1.6
gamma-BHC (Lindane)	58-89-9	8081B	µg/Kg	5 (5)	570	1.1	U	3.5	1.1	4	U	13	4	2.1	U	6.9	2.1	1.9	U	6.3	1.9	1.5	U	5	1.5	1.4	U	4.4	1.4	0.78	U	2.5	0.78
Heptachlor	76-44-8	8081B	µg/Kg	5.98 (5)	150	1.4	U	12	1.4	5.1	U	43	5.1	2.7	U	23	2.7	2.5	U	21	2.5	2	U	17	2	1.8	U	15	1.8	0.99	U	8.4	0.99
Heptachlor epoxide	1024-57-3	8081B	µg/Kg	152 (5)	76	1.8	U	12	1.8	6.4	U	43	6.4	3.4	U	23	3.4	3.1	U	21	3.1	2.5	U	17	2.5	2.2	U	15	2.2	1.3	U	8.4	1.3
Methoxychlor	72-43-5	8081B	µg/Kg	19.9 (5)	320000	2.7	U	12	2.7	9.8	U	43	9.8	5.3	U	23	5.3	4.8	U	21	4.8	3.8	U	17	3.8	3.4	U	15	3.4	1.9	U	8.4	1.9
Toxaphene	8001-35-2	8081B	µg/Kg	119 (5)	490	43	U	120	43	160	U	430	160	83	U	230	83	76	U	210	76	60	U	170	60	54	U	150	54	30	U	84	30

Table 5.6 - Soil: Pesticides Analytical Results

(continued)

Rolling Knolls Landfill

	Sample Name			ESC's	NJAC 7:26D	DP23_0.5-2.5				DP23_2.5-3.0				DP24_0.5-2.5				DP24_2.5-3.0				DP25_1.0-1.5				DP26_0.5-3.5				DP26_3.5-4.0			
	Sample Date/Time					05/10/2021 16:05				05/10/2021 16:20				05/14/2021 10:10				05/14/2021 10:15				05/06/2021 15:20				05/07/2021 08:45				05/07/2021 09:00			
	Latitude					40.7234761				40.7234761				40.7234047				40.7234047				40.7234932				40.7240722				40.7240722			
	Longitude					-74.4461556				-74.4461556				-74.4467553				-74.4467553				-74.4473376				-74.4463803				-74.4463803			
	Lab Sample Name			Screening Criteria	(8) Soil Remediation Standards (Ing.-Derm.) - Residential	GS-S-DPT23-SC-0.5-2.5				GS-S-DPT23-SB-2.5-3.0				GS-S-DPT24-SC-0.5-2.5				GS-S-DPT24-SB-2.5-3.0				GS-S-DPT25-SB-1-1.5				GS-S-DPT26-SC-0.5-3.5				GS-S-DPT26-SB-3.5-4			
	Lab Sample Number					460-234080-5				460-234080-6				460-234442-2				460-234442-3				460-233899-6				460-233940-2				460-233940-3			
	Lab Report Number(s)					460-234080-1				460-234080-1				460-234442-1				460-234442-1				460-233899-1				460-233940-1				460-233940-1			
Analyte	CAS	Method	Units			Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)
4,4'-DDD	72-54-8	8081B	µg/Kg	758 (5)	2300	31	J	31	5.2	2.8	U	17	2.8	13	J	22	3.7	1.4	U	8.2	1.4	1.9	U	11	1.9	16		15	2.6	2.6	U	15	2.6
4,4'-DDE	72-55-9	8081B	µg/Kg	596 (5)	2000	13	J	31	3.6	2	U	17	2	10	J	22	2.6	0.97	U	8.2	0.97	1.3	U	11	1.3	9.3	J	15	1.8	1.8	U	15	1.8
4,4'-DDT	50-29-3	8081B	µg/Kg	3.5 (5)	1900	5.6	U	31	5.6	3.1	U	17	3.1	4	U	22	4	1.5	U	8.2	1.5	2	U	11	2	2.8	U	15	2.8	2.8	U	15	2.8
Aldrin	309-00-2	8081B	µg/Kg	3.32 (5)	41	4.6	U	31	4.6	2.5	U	17	2.5	3.3	U	22	3.3	1.2	U	8.2	1.2	1.7	U	11	1.7	2.3	U	15	2.3	2.3	U	15	2.3
alpha-BHC	319-84-6	8081B	µg/Kg	99.4 (5)	86	3.1	U	9.2	3.1	1.7	U	5	1.7	2.2	U	6.5	2.2	0.83	U	2.4	0.83	1.1	U	3.3	1.1	1.5	U	4.5	1.5	1.6	U	4.6	1.6
beta-BHC	319-85-7	8081B	µg/Kg	3.98 (5)	300	3.4	U	9.2	3.4	1.9	U	5	1.9	2.5	U	6.5	2.5	0.92	U	2.4	0.92	1.2	U	3.3	1.2	1.7	U	4.5	1.7	1.7	U	4.6	1.7
Chlordane (technical)	57-74-9	8081B	µg/Kg	220 (7)	270	74	U	310	74	40	U	170	40	53	U	220	53	20	U	82	20	27	U	110	27	37	U	150	37	37	U	150	37
delta-BHC	319-86-8	8081B	µg/Kg	70 (7)		1.9	U	9.2	1.9	1	U	5	1	1.3	U	6.5	1.3	0.5	U	2.4	0.5	0.67	U	3.3	0.67	0.93	U	4.5	0.93	0.94	U	4.6	0.94
Dieldrin	60-57-1	8081B	µg/Kg	4.9 (4)	34	4	U	9.2	4	2.2	U	5	2.2	2.8	U	6.5	2.8	1.1	U	2.4	1.1	1.4	U	3.3	1.4	2	U	4.5	2	2	U	4.6	2
Endosulfan I	959-98-8	8081B	µg/Kg	560 (7)		4.7	U	31	4.7	2.5	U	17	2.5	3.3	U	22	3.3	1.2	U	8.2	1.2	1.7	U	11	1.7	2.3	U	15	2.3	2.4	U	15	2.4
Endosulfan II	33213-65-9	8081B	µg/Kg	560 (7)		7.9	U	31	7.9	4.3	U	17	4.3	5.6	U	22	5.6	2.1	U	8.2	2.1	2.8	U	11	2.8	3.9	U	15	3.9	4	U	15	4
Endosulfan sulfate	1031-07-8	8081B	µg/Kg	35.8 (5)		3.9	U	31	3.9	2.1	U	17	2.1	2.8	U	22	2.8	1	U	8.2	1	1.4	U	11	1.4	1.9	U	15	1.9	1.9	U	15	1.9
Endrin	72-20-8	8081B	µg/Kg	10.1 (5)	19000	4.4	U	31	4.4	2.4	U	17	2.4	3.1	U	22	3.1	1.2	U	8.2	1.2	1.6	U	11	1.6	2.2	U	15	2.2	2.2	U	15	2.2
Endrin aldehyde	7421-93-4	8081B	µg/Kg	10.5 (5)		7.3	U	31	7.3	3.9	U	17	3.9	5.2	U	22	5.2	1.9	U	8.2	1.9	2.6	U	11	2.6	3.6	U	15	3.6	3.6	U	15	3.6
Endrin ketone	53494-70-5	8081B	µg/Kg			6	U	31	6	3.2	U	17	3.2	4.3	U	22	4.3	1.6	U	8.2	1.6	2.1	U	11	2.1	2.9	U	15	2.9	3	U	15	3
gamma-BHC (Lindane)	58-89-9	8081B	µg/Kg	5 (5)	570	2.8	U	9.2	2.8	1.5	U	5	1.5	2	U	6.5	2	0.76	U	2.4	0.76	1	U	3.3	1	1.4	U	4.5	1.4	1.4	U	4.6	1.4
Heptachlor	76-44-8	8081B	µg/Kg	5.98 (5)	150	3.6	U	31	3.6	2	U	17	2	2.6	U	22	2.6	0.97	U	8.2	0.97	1.3	U	11	1.3	1.8	U	15	1.8	1.8	U	15	1.8
Heptachlor epoxide	1024-57-3	8081B	µg/Kg	152 (5)	76	4.6	U	31	4.6	2.5	U	17	2.5	3.3	U	22	3.3	1.2	U	8.2	1.2	1.6	U	11	1.6	2.3	U	15	2.3	2.3	U	15	2.3
Methoxychlor	72-43-5	8081B	µg/Kg	19.9 (5)	320000	7	U	31	7	3.8	U	17	3.8	5	U	22	5	1.9	U	8.2	1.9	2.5	U	11	2.5	3.5	U	15	3.5	3.5	U	15	3.5
Toxaphene	8001-35-2	8081B	µg/Kg	119 (5)	490	110	U	310	110	60	U	170	60	79	U	220	79	30	U	82	30	40	U	110	40	55	U	150	55	56	U	150	56

Table 5.6 - Soil: Pesticides Analytical Results

(continued)

Rolling Knolls Landfill

Sample Name				ESC's	NJAC 7:26D	DP27_0.5-3.0				DP27_8.0-10.0				DP28_0.5-5.0				DP28_5.0-8.0				DP29_0.5-2.0				DP29_7.0-10.0				DP30_0.5-3.0			
Sample Date/Time						05/05/2021 14:00				05/06/2021 10:15				05/05/2021 09:10				05/05/2021 08:40				05/06/2021 12:00				05/06/2021 12:45				05/13/2021 15:40			
Latitude						40.7231759				40.7231759				40.7240805				40.7240805				40.7248365				40.7248365				40.7266724			
Longitude						-74.4437423				-74.4437423				-74.4443078				-74.4443078				-74.4434245				-74.4434245				-74.4405011			
Lab Sample Name				Screening Criteria	(8) Soil Remediation Standards (Ing.-Derm.) - Residential	GS-S-DPT27-SC-0.5-3				GS-S-DPT27-SB-8-10				GS-S-DPT28-SC-0.5-5				GS-S-DPT28-SB-5-8				GS-S-DPT29-SC-0.5-2				GS-S-DPT29-SB-7-10				GS-S-DPT30-SC-0.5-3.0			
Lab Sample Number						460-233708-5				460-233899-1				460-233708-2				460-233708-3				460-233899-3				460-233899-4				460-234436-5			
Lab Report Number(s)						460-233708-1 / 460-233708-2				460-233899-1 / 460-233899-2				460-233708-1				460-233708-1				460-233899-1				460-233899-1				460-234436-1			
Analyte	CAS	Method	Units			Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)
4,4'-DDD	72-54-8	8081B	µg/Kg	758 (5)	2300	2.3	U	13	2.3	1.3	U	7.7	1.3	54		21	3.5	1.4	U	8.3	1.4	3.7	U	22	3.7	7.5	U	44	7.5	2.7	U	16	2.7
4,4'-DDE	72-55-9	8081B	µg/Kg	596 (5)	2000	1.6	U	13	1.6	0.91	U	7.7	0.91	17	J	21	2.4	0.98	U	8.3	0.98	2.6	U	22	2.6	5.2	U	44	5.2	1.9	U	16	1.9
4,4'-DDT	50-29-3	8081B	µg/Kg	3.5 (5)	1900	2.5	U	13	2.5	1.4	U	7.7	1.4	3.8	U	21	3.8	1.5	U	8.3	1.5	4	U	22	4	8.1	U	44	8.1	2.9	U	16	2.9
Aldrin	309-00-2	8081B	µg/Kg	3.32 (5)	41	2	U	13	2	1.2	U	7.7	1.2	3.1	U	21	3.1	1.2	U	8.3	1.2	3.3	U	22	3.3	6.6	U	44	6.6	2.4	U	16	2.4
alpha-BHC	319-84-6	8081B	µg/Kg	99.4 (5)	86	1.4	U	4	1.4	0.78	U	2.3	0.78	2.1	U	6.2	2.1	0.84	U	2.5	0.84	2.2	U	6.6	2.2	4.5	U	13	4.5	1.6	U	4.8	1.6
beta-BHC	319-85-7	8081B	µg/Kg	3.98 (5)	300	1.5	U	4	1.5	0.86	U	2.3	0.86	2.3	U	6.2	2.3	0.93	U	2.5	0.93	2.5	U	6.6	2.5	4.9	U	13	4.9	1.8	U	4.8	1.8
Chlordane (technical)	57-74-9	8081B	µg/Kg	220 (7)	270	32	U	130	32	19	U	77	19	1100		210	50	20	U	83	20	53	U	220	53	110	U	440	110	39	U	160	39
delta-BHC	319-86-8	8081B	µg/Kg	70 (7)		0.82	U	4	0.82	0.47	U	2.3	0.47	1.3	U	6.2	1.3	0.51	U	2.5	0.51	1.3	U	6.6	1.3	2.7	U	13	2.7	0.98	U	4.8	0.98
Dieldrin	60-57-1	8081B	µg/Kg	4.9 (4)	34	1.7	U	4	1.7	1	U	2.3	1	2.7	U	6.2	2.7	1.1	U	2.5	1.1	2.9	U	6.6	2.9	5.7	U	13	5.7	2.1	U	4.8	2.1
Endosulfan I	959-98-8	8081B	µg/Kg	560 (7)		2	U	13	2	1.2	U	7.7	1.2	3.1	U	21	3.1	1.3	U	8.3	1.3	3.3	U	22	3.3	6.7	U	44	6.7	2.4	U	16	2.4
Endosulfan II	33213-65-9	8081B	µg/Kg	560 (7)		3.4	U	13	3.4	2	U	7.7	2	5.3	U	21	5.3	2.1	U	8.3	2.1	5.6	U	22	5.6	11	U	44	11	4.1	U	16	4.1
Endosulfan sulfate	1031-07-8	8081B	µg/Kg	35.8 (5)		1.7	U	13	1.7	0.97	U	7.7	0.97	2.6	U	21	2.6	1	U	8.3	1	2.8	U	22	2.8	5.5	U	44	5.5	2	U	16	2
Endrin	72-20-8	8081B	µg/Kg	10.1 (5)	19000	1.9	U	13	1.9	1.1	U	7.7	1.1	3	U	21	3	1.2	U	8.3	1.2	3.2	U	22	3.2	6.3	U	44	6.3	2.3	U	16	2.3
Endrin aldehyde	7421-93-4	8081B	µg/Kg	10.5 (5)		3.2	U	13	3.2	1.8	U	7.7	1.8	4.9	U	21	4.9	2	U	8.3	2	5.2	U	22	5.2	10	U	44	10	3.8	U	16	3.8
Endrin ketone	53494-70-5	8081B	µg/Kg			2.6	U	13	2.6	1.5	U	7.7	1.5	4	U	21	4	1.6	U	8.3	1.6	4.3	U	22	4.3	8.5	U	44	8.5	3.1	U	16	3.1
gamma-BHC (Lindane)	58-89-9	8081B	µg/Kg	5 (5)	570	1.2	U	4	1.2	0.71	U	2.3	0.71	1.9	U	6.2	1.9	0.77	U	2.5	0.77	2	U	6.6	2	4.1	U	13	4.1	1.5	U	4.8	1.5
Heptachlor	76-44-8	8081B	µg/Kg	5.98 (5)	150	1.6	U	13	1.6	0.91	U	7.7	0.91	2.4	U	21	2.4	0.98	U	8.3	0.98	2.6	U	22	2.6	5.2	U	44	5.2	1.9	U	16	1.9
Heptachlor epoxide	1024-57-3	8081B	µg/Kg	152 (5)	76	2	U	13	2	1.2	U	7.7	1.2	3.1	U	21	3.1	1.2	U	8.3	1.2	3.3	U	22	3.3	6.6	U	44	6.6	2.4	U	16	2.4
Methoxychlor	72-43-5	8081B	µg/Kg	19.9 (5)	320000	3.1	U	13	3.1	1.8	U	7.7	1.8	4.7	U	21	4.7	1.9	U	8.3	1.9	5	U	22	5	10	U	44	10	3.6	U	16	3.6
Toxaphene	8001-35-2	8081B	µg/Kg	119 (5)	490	48	U	130	48	28	U	77	28	74	U	210	74	30	U	83	30	79	U	220	79	160	U	440	160	58	U	160	58

Table 5.6 - Soil: Pesticides Analytical Results

(continued)

Rolling Knolls Landfill

	Sample Name			ESC's	NJAC 7:26D	DP30_7.5-8.0				DP30_8.0-9.0				DP31_0.5-5.0			
	Sample Date/Time					05/13/2021 16:20				05/13/2021 16:20				05/14/2021 09:10			
	Latitude					40.7266724				40.7266724				40.7237372			
	Longitude			Screening Criteria	(8) Soil Remediation Standards (Ing.-Derm.) - Residential	-74.4405011				-74.4405011				-74.4477876			
	Lab Sample Name					GS-S-DPT30-SO-7.5-8.0				GS-N-DPT30-SB-8.0-9.0				GS-S-DPT31-SC-0.5-5.0			
	Lab Sample Number					460-234436-6				460-234436-7				460-234442-5			
	Lab Report Number(s)					460-234436-1				460-234436-1				460-234442-1			
Analyte	CAS	Method	Units			Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)
4,4'-DDD	72-54-8	8081B	µg/Kg	758	(5) 2300	220		28	4.7	4100		240	41	1.4	U	8.4	1.4
4,4'-DDE	72-55-9	8081B	µg/Kg	596	(5) 2000	3.3	U	28	3.3	29	U	240	29	0.99	U	8.4	0.99
4,4'-DDT	50-29-3	8081B	µg/Kg	3.5	(5) 1900	5.1	U	28	5.1	44	U	240	44	1.5	U	8.4	1.5
Aldrin	309-00-2	8081B	µg/Kg	3.32	(5) 41	4.2	U	28	4.2	36	U	240	36	1.3	U	8.4	1.3
alpha-BHC	319-84-6	8081B	µg/Kg	99.4	(5) 86	2.8	U	8.2	2.8	25	U	72	25	0.85	U	2.5	0.85
beta-BHC	319-85-7	8081B	µg/Kg	3.98	(5) 300	3.1	U	8.2	3.1	27	U	72	27	0.94	U	2.5	0.94
Chlordane (technical)	57-74-9	8081B	µg/Kg	220	(7) 270	67	U	280	67	3700		2400	590	20	U	84	20
delta-BHC	319-86-8	8081B	µg/Kg	70	(7)	1.7	U	8.2	1.7	15	U	72	15	0.51	U	2.5	0.51
Dieldrin	60-57-1	8081B	µg/Kg	4.9	(4) 34	3.6	U	8.2	3.6	31	U	72	31	1.1	U	2.5	1.1
Endosulfan I	959-98-8	8081B	µg/Kg	560	(7)	4.2	U	28	4.2	37	U	240	37	1.3	U	8.4	1.3
Endosulfan II	33213-65-9	8081B	µg/Kg	560	(7)	7.1	U	28	7.1	62	U	240	62	2.1	U	8.4	2.1
Endosulfan sulfate	1031-07-8	8081B	µg/Kg	35.8	(5)	3.5	U	28	3.5	30	U	240	30	1	U	8.4	1
Endrin	72-20-8	8081B	µg/Kg	10.1	(5) 19000	4	U	28	4	35	U	240	35	1.2	U	8.4	1.2
Endrin aldehyde	7421-93-4	8081B	µg/Kg	10.5	(5)	6.5	U	28	6.5	57	U	240	57	2	U	8.4	2
Endrin ketone	53494-70-5	8081B	µg/Kg			5.4	U	28	5.4	47	U	240	47	1.6	U	8.4	1.6
gamma-BHC (Lindane)	58-89-9	8081B	µg/Kg	5	(5) 570	2.6	U	8.2	2.6	22	U	72	22	0.77	U	2.5	0.77
Heptachlor	76-44-8	8081B	µg/Kg	5.98	(5) 150	3.3	U	28	3.3	29	U	240	29	0.99	U	8.4	0.99
Heptachlor epoxide	1024-57-3	8081B	µg/Kg	152	(5) 76	4.1	U	28	4.1	36	U	240	36	1.2	U	8.4	1.2
Methoxychlor	72-43-5	8081B	µg/Kg	19.9	(5) 320000	6.3	U	28	6.3	55	U	240	55	1.9	U	8.4	1.9
Toxaphene	8001-35-2	8081B	µg/Kg	119	(5) 490	100	U	280	100	870	U	2400	870	30	U	84	30

Table 5.7 - Soil: Geotechnical

Rolling Knolls Landfill

			GT01_14.0-20.0	GT02_17.0-27.0	GT03_16.0-25.0	GT04_17.0-28.0	GT05_21.0-31.0	GT06_10.0-20.0	GT07_19.0-31.0	GT08_14.0-24.0	GT09_14.0-24.0	GT10_19.0-31.0
	Sample Date		4/28/2021 16:00	4/29/2021 16:00	4/29/2021 16:00	5/12/2021 12:15	5/24/2021 12:00	5/25/2021 10:00	5/25/2021 14:00	5/26/2021 9:00	5/26/2021 12:00	5/27/2021 10:00
	Latitude		40.7293038	40.7304704	40.7300494	40.7224800	40.7240805	40.7234761	40.7238360	40.7240722	40.7234932	40.7239420
	Longitude		-74.4416064	-74.4414832	-74.4418444	-74.4445280	-74.4443078	-74.4461556	-74.4461560	-74.4463803	-74.4473376	-74.4473750
	Lab Sample		GS-N-GT01-14-20	GS-N-GT02-17-27	GS-N-GT03-16-25	GS-S-GT04-17-28	GS-S-GT05-21-31	GS-S-GT06-10-20	GS-S-GT07-19-31	GS-S-GT08-14-24	GS-S-GT09-14-24	GS-S-GT10-19-31
	Sample Interval		14 - 16 ft bgs	24 - 26 ft bgs	20 - 22' bgs	-	21 - 31' bgs	-	19 - 31' bgs	14 - 24' bgs	14 - 24' bgs	19 - 31' bgs
	Lab Report Number(s)		CT4205SL-01-06-21	CT4205SL-01-06-21	CT4205SL-01-06-21	CT4205SL-01-06-21	CT4205SL-01-06-21	CT4205SL-01-06-21	CT4205SL-01-06-21	CT4205SL-01-06-21	CT4205SL-01-06-21	CT4205SL-01-06-21
Analyte	**Method**	**Units**										
Maximum Dry Density	ASTM D698	pcf	104.1	102.3	112.0	106.8	102.1	108.6	112.8	101.8	108.6	103.2
Optimum Moisture	ASTM D698	%	17.3	18.3	16.3	16.8	17.7	15.6	15.0	18.8	14.0	18.0
Moisture Content	ASTM D2216	%	29.9	31.8	21.5	27.8	26.5	25.4	21.5	30.2	32.0	34.1
Consolidation, Final Deformation	ASTM D2435		0.0815	0.0995	0.0867	0.0982	0.0494	0.0784	0.0328	0.0980	0.1620	0.0774
Triaxial Shear, Unconsolidatetd, Undrained	ASTM D2850	psi	1.7	3.5	-	9.4	1.7	9.9	11.5	3.6	7.2	8.6
Atterberg Limits - Liquid Limit	ASTM D4318		32	36	27	26	43	56	33	50	35	58
Atterberg Limits - Plastic Limit	ASTM D4318		21	22	19	20	23	28	22	24	21	27
Atterberg Limits - Plastic Index	ASTM D4318		11	15	8	6	20	28	11	26	14	31
Permeability	ASTM D5084	cm/sec	3.10E-07	5.30E-07	-	2.90E-07	1.50E-06	2.00E-07	2.00E-07	4.50E-07	3.40E-07	1.50E-07
Density	ASTM D7263	pcf	95.3	88.4	96.1	96.9	99.9	100.8	108.6	94.5	91.0	88.2

Table 5.8 - Soil: Summary of Exceedances

Rolling Knolls Landfill

Sample Name				ESC's	NJAC 7:26D	SS01				SS100 (SS01 duplicate)				SS02				SS03				SS04				SS05				SS06			
Sample Date/Time						05/11/2021 08:35				05/11/2021 12:00				05/11/2021 10:10				05/11/2021 13:45				04/29/2021 10:20				04/29/2021 16:20				05/13/2021 09:00			
Latitude				Screening Criteria	(8) Soil Remediation Standards (Ing.-Derm.) - Residential	40.7297321				40.7297321				40.7303542				40.7288473				40.7304704				40.7300494				40.729803			
Longitude						-74.4419101				-74.4419101				-74.4418002				-74.441059				-74.4414832				-74.4418444				-74.441428			
Lab Sample Name						GS-N-SS01				GS-N-SS100				GS-N-SS02				GS-N-SS03				GS-N-SS04				GS-N-SS05				GS-N-SS06			
Lab Sample Number						460-234161-1				460-234161-9				460-234186-1				460-234161-3				460-233312-1				460-233312-4				460-234436-1			
Lab Report Number(s)						460-234161-1 / 460-234161-2				460-234161-1				460-234186-1				460-234161-1				460-233312-1				460-233312-1				460-234436-1			
Analyte	**CAS**	**Method**	**Units**			**Result**	**LDC Flag**	**RL**	**MDL (EDL)**	**Result**	**LDC Flag**	**RL**	**MDL (EDL)**	**Result**	**LDC Flag**	**RL**	**MDL (EDL)**	**Result**	**LDC Flag**	**RL**	**MDL (EDL)**	**Result**	**LDC Flag**	**RL**	**MDL (EDL)**	**Result**	**LDC Flag**	**RL**	**MDL (EDL)**	**Result**	**LDC Flag**	**RL**	**MDL (EDL)**
Volatile Organic Compounds (VOCs)																																	
1,1,1,2-Tetrachloroethane	630-20-6	8260D	µg/Kg	225000 (6)	0.1	0.4 U		2.1	0.4	0.39 U		2.1	0.39	0.26 UJ		1.4	0.26	0.25 U		1.3	0.25	1.7 U		1.7	0.33	1.9 U		1.9	0.35	0.44 U		2.3	0.44
Acetone	67-64-1	8260D	µg/Kg	1200 (7)	70000000	12 J		13	12	12 U		12	12	170 J		8.3	7.9	8.4		8	7.7	91		10	10	30		11	11	22		14	13
m-Xylene & p-Xylene	179601-23-1	8260D	µg/Kg	4162 (7)	12000000	0.37 U		2.1	0.37	0.36 U		2.1	0.36	0.24 UJ		1.4	0.24	0.23 U		1.3	0.23	1.7 U		1.7	0.3	1.9 U		1.9	0.32	0.4 U		2.3	0.4
Semivolatile Organic Compounds (SVOCs)																																	
1,2,4,5-Tetrachlorobenzene	95-94-3	8270E	µg/Kg	2020 (5)	23000	21 U		670	21	19 U		610	19	35 U		1100	35	18 U		570	18	620 U		620	19	640 U		640	20	23 U		740	23
2,3,4,6-Tetrachlorophenol	58-90-2	8270E	µg/Kg	199 (6)	1900000	45 U		670	45	42 U		610	42	76 U		1100	76	38 U		570	38	620 U		620	42	640 U		640	44	50 U		740	50
2,4-Dimethylphenol	105-67-9	8270E	µg/Kg	10 (5)	1300000	30 U		670	30	27 U		610	27	49 U		1100	49	25 U		570	25	620 U		620	27	640 U		640	28	33 U		740	33
2,4-Dinitrophenol	51-28-5	8270E	µg/Kg	60.9 (5)	130000	330 U		540	330	300 U		500	300	550 U		900	550	280 U		460	280	500 U		500	300	520 U		520	320	360 U		600	360
2,4-Dinitrotoluene	121-14-2	8270E	µg/Kg	1280 (5)		72 U		140	72	66 U		120	66	120 U		230	120	61 U		110	61	130 U		130	67	130 U		130	69	80 U		150	80
2-Chloronaphthalene	91-58-7	8270E	µg/Kg	12.2 (5)	4800000	31 U		670	31	29 U		610	29	52 U		1100	52	26 U		570	26	620 U		620	29	640 U		640	30	34 U		740	34
2-Methylnaphthalene	91-57-6	8270E	µg/Kg	3240 (5)	240000	120 J		670	19	90 J		610	17	31 U		1100	31	16 U		570	16	25 J		620	17	45 J		640	18	21 U		740	21
2-Nitroaniline	88-74-4	8270E	µg/Kg	5300 (7)		25 U		670	25	23 U		610	23	42 U		1100	42	21 U		570	21	620 U		620	23	640 U		640	24	28 U		740	28
2-Nitrophenol	88-75-5	8270E	µg/Kg	7000 (7)		67 U		670	67	62 U		610	62	110 U		1100	110	57 U		570	57	620 U		620	62	640 U		640	65	74 U		740	74
3,3'-Dichlorobenzidine	91-94-1	8270E	µg/Kg	646 (5)	1200	100 U		270	100	93 U		250	93	170 U		450	170	86 U		230	86	250 U		250	94	260 U		260	98	110 U		300	110
3-Nitroaniline	99-09-2	8270E	µg/Kg	3160 (6)		76 U		670	76	69 U		610	69	130 U		1100	130	64 U		570	64	620 U		620	70	640 U		640	73	83 U		740	83
4-Chloroaniline	106-47-8	8270E	µg/Kg	1000 (7)	2700	120 U		670	120	110 U		610	110	200 U		1100	200	100 U		570	100	620 U		620	110	640 U		640	110	130 U		740	130
4-Nitrophenol	100-02-7	8270E	µg/Kg	5120 (5)		110 U		1400	110	100 U		1200	100	180 U		2300	180	92 U		1100	92	1300 U		1300	100	1300 U		1300	110	120 UJ		1500	120
Bis(2-chloroethyl)ether	111-44-4	8270E	µg/Kg	23700 (5)	630	23 U		67	23	21 U		61	21	39 U		110	39	20 U		57	20	62 U		62	22	64 U		64	22	26 U		74	26
Bis(2-ethylhexyl) phthalate	117-81-7	8270E	µg/Kg	925 (5)	39000	9500		670	36	13000		3100	160	13000		1100	59	230 J		570	30	6200		620	33	3600		640	34	3000		740	39
Butyl benzyl phthalate	85-68-7	8270E	µg/Kg	239 (5)	290000	430 J		670	31	570 J		610	29	3400		1100	52	27 U		570	27	52 J		620	29	430 J		640	30	110 J		740	35
Dibenzofuran	132-64-9	8270E	µg/Kg	6100 (7)		32 J		670	9.4	24 J		610	8.7	16 U		1100	16	8 U		570	8	620 U		620	8.7	640 U		640	9.1	10 U		740	10
Di-n-butyl phthalate	84-74-2	8270E	µg/Kg	150 (5)	6300000	15000		670	25	11000		610	23	500 J		1100	42	21 U		570	21	220 J		620	23	1500		640	24	270 J		740	28
Di-n-octyl phthalate	117-84-0	8270E	µg/Kg	910 (7)	630000	14000		670	36	27000		3100	160	59 U		1100	59	30 U		570	30	620 U		620	33	320 J		640	34	39 U		740	39
Hexachlorobenzene	118-74-1	8270E	µg/Kg	199 (5)	430	32 U		67	32	29 U		61	29	53 U		110	53	27 U		57	27	62 U		62	29	64 U		64	31	35 U		74	35
Hexachlorobutadiene	87-68-3	8270E	µg/Kg	39.8 (5)	8900	14 U		140	14	13 U		120	13	24 U		230	24	12 U		110	12	130 U		130	13	130 U		130	14	16 U		150	16
Hexachlorocyclopentadiene	77-47-4	8270E	µg/Kg	755 (5)	470000	59 UJ		670	59	54 UJ		610	54	98 UJ		1100	98	50 UJ		570	50	620 U		620	54	640 U		640	57	65 U		740	65
Hexachloroethane	67-72-1	8270E	µg/Kg	596 (5)	17000	23 U		67	23	21 U		61	21	38 U		110	38	19 U		57	19	62 U		62	21	64 U		64	22	25 U		74	25
N-Nitrosodi-n-propylamine	621-64-7	8270E	µg/Kg		170	49 U		67	49	45 U		61	45	81 U		110	81	41 U		57	41	62 U		62	43	64 U		64	47	54 U		74	54
N-Nitrosodiphenylamine	86-30-6	8270E	µg/Kg	545 (5)	110000	55 U		670	55	51 U		610	51	92 U		1100	92	47 U		570	47	620 U		620	51	640 U		640	53	61 U		740	61
Pentachlorophenol	87-86-5	8270E	µg/Kg	2100 (3)	1000	140 U		540	140	260 J		500	130	230 U		900	230	120 U		460	120	500 U		500	130	85 J		520	130	150 U		600	150
Polycyclic Aromatic Hydrocarbons (PAHs)																																	
Naphthalene	91-20-3	8270E	µg/Kg	99.4 (5)	2500000	170 J		670	12	180 J		610	11	42 J		1100	19	9.8 U		570	9.8	75 J		620	13	77 J		640	13	65 J		740	13
Benzo[a]anthracene	56-55-3	8270E	µg/Kg	5210 (5)	5100	180		67	23	290		61	21	39 U		110	39	20 U		57	20	150		62	22	64 U		64	23	26 U		74	26
Benzo[a]pyrene	50-32-8	8270E	µg/Kg	1520 (5)	510	130		67	18	270		61	16	30 U		110	30	47 J		57	15	110		62	17	35 J		64	17	20 U		74	20
Benzo[b]fluoranthene	205-99-2	8270E	µg/Kg	59800 (5)	5100	230		67	17	500		61	16	40 J		110	29	15 U		57	15	170		62	16	71		64	17	26 J		74	19
Chrysene	218-01-9	8270E	µg/Kg	4730 (5)	510000	210 J		670	11	390 J		610	10	19 U		1100	19	9.6 U		570	9.6	140 J		620	10	43 J		640	11	23 J		740	13
Dibenz(a,h)anthracene	53-70-3	8270E	µg/Kg	18400 (5)	510	890		67	29	27 U		61	27	48 U		110	48	50 J		57	25	62 U		62	27	64 U		64	28	32 U		74	32
Indeno[1,2,3-cd]pyrene	193-39-5	8270E	µg/Kg	109000 (5)	5100	1300		67	26	160		61	24	44 U		110	44	260		57	22	50 J		62	24	64 J		64	25	29 U		74	29
High Molecular Weight PAHs			µg/Kg	1100 (4)		5120				3117				342				696.6				1785				530				237			
Organochlorine Pesticides																																	
4,4'-DDD	72-54-8	8081B	µg/Kg	758 (5)	2300	2.3 U		14	2.3	2.1 U		12	2.1	1.9 U		11	1.9	2 U		11	2	65 J		13	2.3	47 J		13	2.2	62 J		15	2.6
4,4'-DDT	50-29-3	8081B	µg/Kg	3.5 (5)	1900	2.5 U		14	2.5	2.3 U		12	2.3	2.1 U		11	2.1	2.1 U		11	2.1	13 U		13	2.3	13 U		13	2.4	74 J		15	2.8
Aldrin	309-00-2	8081B	µg/Kg	3.32 (5)	41	2 U		14	2	1.9 U		12	1.9	1.7 U		11	1.7	1.7 U		11	1.7	13 U		13	1.9	13 U		13	2	2.3 U		15	2.3
beta-BHC	319-85-7	8081B	µg/Kg	3.98 (5)	300	1.5 U		4.1	1.5	1.4 U		3.7	1.4	1.3 U		3.4	1.3	1.3 U		3.4	1.3	3.8 U		3.8	1.4	3.9 U		3.9	1.5	1.7 U		4.5	1.7
Chlordane (technical)	57-74-9	8081B	µg/Kg	220 (7)	270	2300		140	33	920		120	30	27 U		110	27	28 U		110	28	2300 J		130	30	1100 J		130	32	36 U		150	36
Dieldrin	60-57-1	8081B	µg/Kg	4.9 (4)	34	1.8 U		4.1	1.8	1.6 U		3.7	1.6	1.5 U		3.4	1.5	1.5 U		3.4	1.5	3.8 U		3.8	1.6	3.9 U		3.9	1.7	57 J		4.5	2
Endrin	72-20-8	8081B	µg/Kg	10.1 (5)	19000	1.9 U		14	1.9	1.8 U		12	1.8	1.6 U		11	1.6	1.6 U		11	1.6	13 U		13	1.8	13 U		13	1.9	2.2 U		15	2.2
Endrin aldehyde	7421-93-4	8081B	µg/Kg	10.5 (5)		3.2 U		14	3.2	2.9 U		12	2.9	2.7 U		11	2.7	2.7 U		11	2.7	13 U		13	3	13 U		13	3.1	3.5 U		15	3.5
gamma-BHC (Lindane)	58-89-9	8081B	µg/Kg	5 (5)	570	1.3 U		4.1	1.3	1.2 U		3.7	1.2	1 U		3.4	1	1.1 U		3.4	1.1	3.8 U		3.8	1.2	3.9 U		3.9	1.2	1.4 U		4.5	1.4
Heptachlor	76-44-8	8081B	µg/Kg	5.98 (5)	150	1.6 U		14	1.6	1.5 U		12	1.5	1.3 U		11	1.3	1.4 U		11	1.4	13 U		13	1.5	13 U		13	1.5	1.8 U		15	1.8
Toxaphene	8001-35-2	8081B	µg/Kg	119 (5)	490	49 U		140	49	45 U		120	45	41 U		110	41	42 U		110	42	130 U		130	45	130 U		130	47	54 U		150	54

Table 5.8 - Soil: Summary of Exceedances

Rolling Knolls Landfill

Sample Name				ESC's	NJAC 7:26D	SS01				SS100 (SS01 duplicate)				SS02				SS03				SS04				SS05				SS06			
Sample Date/Time						05/11/2021 08:35				05/11/2021 12:00				05/11/2021 10:10				05/11/2021 13:45				04/29/2021 10:20				04/29/2021 16:20				05/13/2021 09:00			
Latitude				Screening Criteria	(8) Soil Remediation Standards (Ing.-Derm.) - Residential	40.7297321				40.7297321				40.7303542				40.7288473				40.7304704				40.7300494				40.729803			
Longitude						-74.4419101				-74.4419101				-74.4418002				-74.441059				-74.4414832				-74.4418444				-74.441428			
Lab Sample Name						GS-N-SS01				GS-N-SS100				GS-N-SS02				GS-N-SS03				GS-N-SS04				GS-N-SS05				GS-N-SS06			
Lab Sample Number						460-234161-1				460-234161-9				460-234186-1				460-234161-3				460-233312-1				460-233312-4				460-234436-1			
Lab Report Number(s)						460-234161-1 / 460-234161-2				460-234161-1				460-234186-1				460-234161-1				460-233312-1				460-233312-1				460-234436-1			
Analyte	**CAS**	**Method**	**Units**			**Result**	**LDC Flag**	**RL**	**MDL (EDL)**	**Result**	**LDC Flag**	**RL**	**MDL (EDL)**	**Result**	**LDC Flag**	**RL**	**MDL (EDL)**	**Result**	**LDC Flag**	**RL**	**MDL (EDL)**	**Result**	**LDC Flag**	**RL**	**MDL (EDL)**	**Result**	**LDC Flag**	**RL**	**MDL (EDL)**	**Result**	**LDC Flag**	**RL**	**MDL (EDL)**
Polychlorinated Biphenyls (PCBs)																																	
Aroclor 1242	53469-21-9	8082A	µg/Kg	41 (7)		18	U	140	18	17	U	120	17	75	U	570	75	15	U	110	15	250	U	250	33	130	U	130	17	40	U	300	40
Aroclor 1248	12672-29-6	8082A	µg/Kg	7.3 (7)		18	U	140	18	17	U	120	17	10000		570	75	15	U	110	15	2900		250	33	1100		130	17	3200	J	300	40
Aroclor 1254	11097-69-1	8082A	µg/Kg	41 (7)		19	U	140	19	17	U	120	17	78	U	570	78	150		110	16	250	U	250	35	130	U	130	18	41	U	300	41
Polychlorinated biphenyls, Total	1336-36-3	8082A	µg/Kg	371 (5)	250	19	U	140	19	17	U	120	17	10000		570	78	150		110	16	2900		250	35	1100		130	18	4000	J	300	41
Chlorinated Biphenyl Congeners (PCBs)																																	
Σ Polychlorinated biphenyls	1336-36-3	8082A	pg/g	371000 (5)	250000	5,212,853																											
Σ Polychlorinated biphenyls (PCB) TEQ	1336-36-3	8082A	pg/g	0.199 (5)		700																											
Dioxins and Furans																																	
2,3,7,8-TCDD	1746-01-6	8290A	pg/g	0.199 (5)	51	15.9		2.04	0.87																								
Total TCDD	41903-57-5	8290A	pg/g	0.199 (5)		192	J	2.04	0.87																								
2,3,7,8-TCDD	1746-01-6		pg/g	0.199 (5)		15.9																											
Σ Dibenzo-p-dioxin (PCDD) TEQ	30402-14-3		pg/g	0.199 (5)		67																											
Σ Dibenzofuran (PCDF) TEQ	30402-14-3		pg/g	0.199 (5)		145																											
Σ PCB TEQ + PCDD TEQ + PCDF TEQ	30402-14-3		pg/g	0.199 (5)		912																											
Metals & Cyanide																																	
Aluminum	7429-90-5	6020B	mg/Kg	50 (7)	78000	51300		183	23.8	23300		171	22.2	13700		33.8	4.4	20400		156	20.3	10600		107	13.9	7340		113	14.6	7120		42.3	5.5
Antimony	7440-36-0	6020B	mg/Kg	0.27 (4)	31	16.4		9.1	1.3	26.9		8.5	1.2	18.3		1.7	0.25	8.2		7.8	1.1	164		17.9	2.6	20.6		5.6	0.82	3.6		2.1	0.31
Arsenic	7440-38-2	6020B	mg/Kg	18 (1)	19	35.6		9.1	0.91	26.7		8.5	0.85	21.9		1.7	0.17	22.6		7.8	0.78	8.4		5.4	0.54	57.9		5.6	0.56	8.5		2.1	0.21
Barium	7440-39-3	6020B	mg/Kg	330 (2)	16000	210		18.3	1.3	237		17.1	1.2	550	J	3.4	0.24	305		15.6	1.1	171		10.7	0.78	590		11.3	0.82	212		4.2	0.31
Cadmium	7440-43-9	6020B	mg/Kg	0.36 (4)	71	26		9.1	1	15.8		8.5	0.97	13.4		1.7	0.19	21.6		7.8	0.88	13.5		5.4	0.61	37.5		5.6	0.64	7.4		2.1	0.24
Chromium	7440-47-3	6020B	mg/Kg	0.4 (5)		357		18.3	1.6	267		17.1	1.5	90.2		3.4	0.29	154		15.6	1.4	136		10.7	0.93	307		11.3	0.98	105		4.2	0.37
Cobalt	7440-48-4	6020B	mg/Kg	13 (1)	23	14.2	J	18.3	1.4	14.8	J	17.1	1.3	13.2		3.4	0.25	16.9		15.6	1.2	10.7	U	10.7	0.79	47.3		11.3	0.83	8.9		4.2	0.31
Copper	7440-50-8	6020B	mg/Kg	28 (3)	3100	3740		18.3	2	4180		17.1	1.9	743	J	3.4	0.37	1060		15.6	1.7	702		10.7	1.2	568		11.3	1.2	236		4.2	0.47
Lead	7439-92-1	6020B	mg/Kg	11 (3)	400	1630		5.5	1.8	1590		5.1	1.7	1430	J	1	0.34	1050		4.7	1.6	1060		3.2	1.1	2430		3.4	1.1	1090		1.3	0.42
Manganese	7439-96-5	6020B	mg/Kg	220 (1)	1900	1050		36.6	3.7	1080		34.2	3.4	814		6.7	0.68	989		31.2	3.1	582		21.4	2.2	1850		22.5	2.3	471		8.5	0.85
Nickel	7440-02-0	6020B	mg/Kg	38 (1)	1600	151		18.3	1.8	115		17.1	1.7	68.6	J	3.4	0.33	112		15.6	1.5	65.2		10.7	1	131		11.3	1.1	53.8		4.2	0.41
Selenium	7782-49-2	6020B	mg/Kg	0.52 (1)	390	1.9	J	11.4	1.1	1	U	10.7	1	1.2	J	2.1	0.2	3	J	9.7	0.92	6.7	U	6.7	0.63	7	U	7	0.66	0.78	J	2.6	0.25
Silver	7440-22-4	6020B	mg/Kg	4.2 (3)	390	4.2	J	9.1	0.81	5.4	J	8.5	0.76	9.8		1.7	0.15	89.6		15.6	1.4	5.4	U	5.4	0.43	5.6	U	5.6	0.5	2.8		2.1	0.19
Thallium	7440-28-0	6020B	mg/Kg	1 (5)		0.37	U	3.7	0.37	0.35	U	3.4	0.35	0.069	U	0.67	0.069	0.32	U	3.1	0.32	2.1	U	2.1	0.22	2.3	U	2.3	0.23	0.087	U	0.85	0.087
Vanadium	7440-62-2	6020B	mg/Kg	7.8 (3)	390	84		18.3	1.9	90.1		17.1	1.8	29.1		3.4	0.35	20		15.6	1.6	18.2		10.7	1.1	27.3		11.3	1.2	14.1		4.2	0.44
Zinc	7440-66-6	6020B	mg/Kg	46 (3)	23000	1300		73.1	20.9	1310		68.3	19.6	1200		13.5	3.9	2430		62.4	17.9	1850		42.9	12.3	1320		45	12.9	1050		16.9	4.8
Mercury	7439-97-6	7471B	mg/Kg	0.00051 (5)	23	37.6		1.9	0.45	34		1.1	0.27	4		0.26	0.06	2.9		0.57	0.13	3		0.15	0.036	5.5		0.15	0.034	2.5		0.19	0.045
Cyanide, Total	57-12-5	9012B	mg/Kg	1.33 (5)	47	11.5		1	0.37	23		0.97	0.35	4.2	J	0.79	0.29	1.1		0.83	0.3	4.3	J	0.38	0.2	10.9	J	0.39	0.21	1.9		1.1	0.4

Table 5.8 - Soil: Summary of Exceedances

(continued)

Rolling Knolls Landfill

Sample Name				ESC's	NJAC 7:26D	SS07				SS08				SS09				SS10				SS11				SS12				SS13			
Sample Date/Time						04/28/2021 00:00				05/11/2021 12:30				05/13/2021 11:10				05/13/2021 14:10				05/03/2021 10:00				05/10/2021 10:45				05/10/2021 12:10			
Latitude				Screening Criteria	(8) Soil Remediation Standards (Ing.-Derm.) - Residential	40.7293038				40.72928382				40.7285174				40.7272947				40.7220743				40.7218276				40.7221319			
Longitude						-74.4416064				-74.44108891				-74.4407729				-74.440092				-74.4442957				-74.4445596				-74.4453061			
Lab Sample Name						GS-N-SS07				GS-N-SS08				GS-N-SS09				GS-N-SS10				GS-S-SS11				GS-S-SS12				GS-S-SS13			
Lab Sample Number						460-233313-1				460-234161-6				460-234435-4				460-234436-9				460-233488-1				460-234082-1				460-234082-3			
Lab Report Number(s)						460-233313-1				460-234161-1				460-234435-1				460-234436-1				460-233488-1				460-234082-1				460-234082-1 / 460-234082-2			
Analyte	**CAS**	**Method**	**Units**			**Result**	**LDC Flag**	**RL**	**MDL (EDL)**	**Result**	**LDC Flag**	**RL**	**MDL (EDL)**	**Result**	**LDC Flag**	**RL**	**MDL (EDL)**	**Result**	**LDC Flag**	**RL**	**MDL (EDL)**	**Result**	**LDC Flag**	**RL**	**MDL (EDL)**	**Result**	**LDC Flag**	**RL**	**MDL (EDL)**	**Result**	**LDC Flag**	**RL**	**MDL (EDL)**
Volatile Organic Compounds (VOCs)																																	
1,1,1,2-Tetrachloroethane	630-20-6	8260D	µg/Kg	225000 (6)	0.1	0.32	U	1.7	0.32	0.54	U	2.9	0.54	0.4	U	2.1	0.4	0.54	U	2.8	0.54	0.69	UJ	3.6	0.69	1.4	U	7.1	1.4	0.42	U	2.2	0.42
Acetone	67-64-1	8260D	µg/Kg	1200 (7)	70000000	720	J	10	9.5	30		17	16	180	J	13	12	130		17	16	190		22	21	930		43	41	400		13	13
m-Xylene & p-Xylene	179601-23-1	8260D	µg/Kg	4162 (7)	12000000	0.29	U	1.7	0.29	0.5	U	2.9	0.5	0.37	U	2.1	0.37	0.49	U	2.8	0.49	0.63	U	3.6	0.63	1.2	U	7.1	1.2	0.38	U	2.2	0.38
Semivolatile Organic Compounds (SVOCs)																																	
1,2,4,5-Tetrachlorobenzene	95-94-3	8270E	µg/Kg	2020 (5)	23000	23	U	740	23	29	U	930	29	23	U	730	23	26	U	830	26	38	U	1200	38	70	U	2300	70	17	U	560	17
2,3,4,6-Tetrachlorophenol	58-90-2	8270E	µg/Kg	199 (6)	1900000	50	U	740	50	63	U	930	63	49	U	730	49	56	U	830	56	82	U	1200	82	150	U	2300	150	38	U	560	38
2,4-Dimethylphenol	105-67-9	8270E	µg/Kg	10 (5)	1300000	33	U	740	33	41	U	930	41	32	U	730	32	36	U	830	36	53	U	1200	53	99	U	2300	99	25	U	560	25
2,4-Dinitrophenol	51-28-5	8270E	µg/Kg	60.9 (5)	130000	360	UJ	600	360	460	U	750	460	360	UJ	590	360	410	U	670	410	590	U	970	590	1100	UJ	1800	1100	270	UJ	450	270
2,4-Dinitrotoluene	121-14-2	8270E	µg/Kg	1280 (5)		80	U	150	80	100	U	190	100	78	U	150	78	89	U	170	89	130	U	240	130	240	U	460	240	60	U	110	60
2-Chloronaphthalene	91-58-7	8270E	µg/Kg	12.2 (5)	4800000	34	U	740	34	43	U	930	43	34	U	730	34	38	U	830	38	56	U	1200	56	100	U	2300	100	26	U	560	26
2-Methylnaphthalene	91-57-6	8270E	µg/Kg	3240 (5)	240000	58	J	740	21	26	U	930	26	20	U	730	20	61	J	830	23	35	J	1200	34	63	U	2300	63	16	U	560	16
2-Nitroaniline	88-74-4	8270E	µg/Kg	5300 (7)		28	U	740	28	35	U	930	35	27	U	730	27	31	U	830	31	45	U	1200	45	84	U	2300	84	21	U	560	21
2-Nitrophenol	88-75-5	8270E	µg/Kg	7000 (7)		74	UJ	740	74	93	U	930	93	73	UJ	730	73	83	U	830	83	120	U	1200	120	230	UJ	2300	230	56	UJ	560	56
3,3'-Dichlorobenzidine	91-94-1	8270E	µg/Kg	646 (5)	1200	110	U	300	110	140	U	370	140	110	U	290	110	130	U	330	130	180	U	490	180	340	U	910	340	84	U	220	84
3-Nitroaniline	99-09-2	8270E	µg/Kg	3160 (6)		83	U	740	83	100	U	930	100	82	U	730	82	93	U	830	93	140	U	1200	140	250	U	2300	250	63	U	560	63
4-Chloroaniline	106-47-8	8270E	µg/Kg	1000 (7)	2700	130	U	740	130	160	U	930	160	130	U	730	130	150	U	830	150	210	U	1200	210	400	U	2300	400	99	U	560	99
4-Nitrophenol	100-02-7	8270E	µg/Kg	5120 (5)		120	U	1500	120	150	U	1900	150	120	UJ	1500	120	140	UJ	1700	140	200	U	2400	200	370	U	4600	370	91	U	1100	91
Bis(2-chloroethyl)ether	111-44-4	8270E	µg/Kg	23700 (5)	630	26	U	74	26	32	U	93	32	25	U	73	25	29	U	83	29	42	U	120	42	79	U	230	79	19	U	56	19
Bis(2-ethylhexyl) phthalate	117-81-7	8270E	µg/Kg	925 (5)	39000	6200		740	39	49	U	930	49	38	U	730	38	880		830	44	580	J	1200	64	120	U	2300	120	1500		560	30
Butyl benzyl phthalate	85-68-7	8270E	µg/Kg	239 (5)	290000	99	J	740	35	44	U	930	44	34	U	730	34	39	U	830	39	180	J	1200	57	110	U	2300	110	38	J	560	26
Dibenzofuran	132-64-9	8270E	µg/Kg	6100 (7)		23	J	740	10	13	U	930	13	10	U	730	10	12	U	830	12	17	U	1200	17	32	U	2300	32	7.8	U	560	7.8
Di-n-butyl phthalate	84-74-2	8270E	µg/Kg	150 (5)	6300000	360	J	740	28	35	U	930	35	27	U	730	27	31	U	830	31	130	J	1200	46	85	U	2300	85	460	J	560	21
Di-n-octyl phthalate	117-84-0	8270E	µg/Kg	910 (7)	630000	39	U	740	39	49	U	930	49	39	U	730	39	44	U	830	44	64	U	1200	64	120	U	2300	120	30	U	560	30
Hexachlorobenzene	118-74-1	8270E	µg/Kg	199 (5)	430	35	U	74	35	44	U	93	44	35	U	73	35	39	U	83	39	57	U	120	57	110	U	230	110	27	U	56	27
Hexachlorobutadiene	87-68-3	8270E	µg/Kg	39.8 (5)	8900	16	U	150	16	20	U	190	20	15	U	150	15	18	U	170	18	26	U	240	26	48	U	460	48	12	U	110	12
Hexachlorocyclopentadiene	77-47-4	8270E	µg/Kg	755 (5)	470000	65	U	740	65	81	UJ	930	81	64	U	730	64	73	U	830	73	110	U	1200	110	200	U	2300	200	49	U	560	49
Hexachloroethane	67-72-1	8270E	µg/Kg	596 (5)	17000	25	U	74	25	32	U	93	32	25	U	73	25	28	U	83	28	42	U	120	42	77	U	230	77	19	U	56	19
N-Nitrosodi-n-propylamine	621-64-7	8270E	µg/Kg		170	54	U	74	54	67	U	93	67	53	U	73	53	60	U	83	60	88	U	120	88	160	U	230	160	41	U	56	41
N-Nitrosodiphenylamine	86-30-6	8270E	µg/Kg	545 (5)	110000	61	U	740	61	76	U	930	76	60	U	730	60	68	U	830	68	99	U	1200	99	190	U	2300	190	46	U	560	46
Pentachlorophenol	87-86-5	8270E	µg/Kg	2100 (3)	1000	150	U	600	150	190	U	750	190	150	U	590	150	170	U	670	170	250	U	970	250	460	U	1800	460	110	U	450	110
Polycyclic Aromatic Hydrocarbons (PAHs)																																	
Naphthalene	91-20-3	8270E	µg/Kg	99.4 (5)	2500000	130	J	740	13	16	U	930	16	13	U	730	13	150	J	830	14	130	J	1200	21	39	U	2300	39	9.7	U	560	9.7
Benzo[a]anthracene	56-55-3	8270E	µg/Kg	5210 (5)	5100	85		74	26	32	U	93	32	25	U	73	25	29	U	83	29	66	J	120	42	79	U	230	79	19	U	56	19
Benzo[a]pyrene	50-32-8	8270E	µg/Kg	1520 (5)	510	75		74	20	25	U	93	25	19	U	73	19	22	U	83	22	40	J	120	32	60	U	230	60	15	U	56	15
Benzo[b]fluoranthene	205-99-2	8270E	µg/Kg	59800 (5)	5100	150		74	19	24	U	93	24	19	U	73	19	34	J	83	21	110	J	120	31	58	U	230	58	18	J	56	14
Chrysene	218-01-9	8270E	µg/Kg	4730 (5)	510000	110	J	740	13	16	U	930	16	12	U	730	12	53	J	830	14	96	J	1200	20	38	U	2300	38	9.4	U	560	9.4
Dibenz(a,h)anthracene	53-70-3	8270E	µg/Kg	18400 (5)	510	32	U	74	32	40	U	93	40	32	U	73	32	36	U	83	36	52	U	120	52	98	U	230	98	24	U	56	24
Indeno[1,2,3-cd]pyrene	193-39-5	8270E	µg/Kg	109000 (5)	5100	53	J	74	29	36	U	93	36	28	U	73	28	32	U	83	32	47	U	120	47	88	U	230	88	22	U	56	22
High Molecular Weight PAHs			µg/Kg	1100 (4)		855				280				213				329				762				667				168.4			
Organochlorine Pesticides																																	
4,4'-DDD	72-54-8	8081B	µg/Kg	758 (5)	2300	43		15	2.6	3.2	U	19	3.2	2.5	U	15	2.5	2.9	U	17	2.9	440		24	4.2	7.8	U	46	7.8	1.9	U	11	1.9
4,4'-DDT	50-29-3	8081B	µg/Kg	3.5 (5)	1900	150		15	2.8	3.5	U	19	3.5	2.7	U	15	2.7	3.1	U	17	3.1	4.5	U	24	4.5	8.4	U	46	8.4	2.1	U	11	2.1
Aldrin	309-00-2	8081B	µg/Kg	3.32 (5)	41	2.3	U	15	2.3	2.8	U	19	2.8	2.2	U	15	2.2	2.5	U	17	2.5	3.7	U	24	3.7	6.9	U	46	6.9	1.7	U	11	1.7
beta-BHC	319-85-7	8081B	µg/Kg	3.98 (5)	300	1.7	U	4.5	1.7	2.1	U	5.6	2.1	1.7	U	4.4	1.7	1.9	U	5	1.9	2.7	U	7.3	2.7	5.1	U	14	5.1	1.3	U	3.4	1.3
Chlordane (technical)	57-74-9	8081B	µg/Kg	220 (7)	270	350	J	150	36	45	U	190	45	36	U	150	36	41	U	170	41	59	U	240	59	110	U	460	110	27	U	110	27
Dieldrin	60-57-1	8081B	µg/Kg	4.9 (4)	34	1.9	U	4.5	1.9	2.4	U	5.6	2.4	1.9	U	4.4	1.9	2.2	U	5	2.2	3.2	U	7.3	3.2	5.9	U	14	5.9	1.5	U	3.4	1.5
Endrin	72-20-8	8081B	µg/Kg	10.1 (5)	19000	2.2	U	15	2.2	2.7	U	19	2.7	2.1	U	15	2.1	2.4	U	17	2.4	3.5	U	24	3.5	6.5	U	46	6.5	1.6	U	11	1.6
Endrin aldehyde	7421-93-4	8081B	µg/Kg	10.5 (5)		3.5	U	15	3.5	4.4	U	19	4.4	3.5	U	15	3.5	4	U	17	4	5.8	U	24	5.8	11	U	46	11	2.7	U	11	2.7
gamma-BHC (Lindane)	58-89-9	8081B	µg/Kg	5 (5)	570	1.4	U	4.5	1.4	1.7	U	5.6	1.7	1.4	U	4.4	1.4	1.6	U	5	1.6	2.3	U	7.3	2.3	4.2	U	14	4.2	1	U	3.4	1
Heptachlor	76-44-8	8081B	µg/Kg	5.98 (5)	150	1.8	U	15	1.8	2.2	U	19	2.2	1.7	U	15	1.7	2	U	17	2	2.9	U	24	2.9	5.4	U	46	5.4	1.3	U	11	1.3
Toxaphene	8001-35-2	8081B	µg/Kg	119 (5)	490	54	U	150	54	68	U	190	68	53	U	150	53	61	U	170	61	88	U	240	88	170	U	460	170	41	U	110	41

Table 5.8 - Soil: Summary of Exceedances

(continued)

Rolling Knolls Landfill

Sample Name				ESC's	NJAC 7:26D	SS07				SS08				SS09				SS10				SS11				SS12				SS13			
Sample Date/Time						04/28/2021 00:00				05/11/2021 12:30				05/13/2021 11:10				05/13/2021 14:10				05/03/2021 10:00				05/10/2021 10:45				05/10/2021 12:10			
Latitude				Screening Criteria	(8) Soil Remediation Standards (Ing.-Derm.) - Residential	40.7293038				40.72928382				40.7285174				40.7272947				40.7220743				40.7218276				40.7221319			
Longitude						-74.4416064				-74.44108891				-74.4407729				-74.440092				-74.4442957				-74.4445596				-74.4453061			
Lab Sample Name						GS-N-SS07				GS-N-SS08				GS-N-SS09				GS-N-SS10				GS-S-SS11				GS-S-SS12				GS-S-SS13			
Lab Sample Number						460-233313-1				460-234161-6				460-234435-4				460-234436-9				460-233488-1				460-234082-1				460-234082-3			
Lab Report Number(s)						460-233313-1				460-234161-1				460-234435-1				460-234436-1				460-233488-1				460-234082-1				460-234082-1 / 460-234082-2			
Analyte	**CAS**	**Method**	**Units**			**Result**	**LDC Flag**	**RL**	**MDL (EDL)**	**Result**	**LDC Flag**	**RL**	**MDL (EDL)**	**Result**	**LDC Flag**	**RL**	**MDL (EDL)**	**Result**	**LDC Flag**	**RL**	**MDL (EDL)**	**Result**	**LDC Flag**	**RL**	**MDL (EDL)**	**Result**	**LDC Flag**	**RL**	**MDL (EDL)**	**Result**	**LDC Flag**	**RL**	**MDL (EDL)**
Polychlorinated Biphenyls (PCBs)																															
Aroclor 1242	53469-21-9	8082A	µg/Kg	41 (7)		20	U	150	20	330		190	25	20	UJ	150	20	22	U	170	22	33	U	240	33	61	U	460	61	15	U	110	15
Aroclor 1248	12672-29-6	8082A	µg/Kg	7.3 (7)		1300		150	20	25	U	190	25	20	UJ	150	20	1400		170	22	2700		240	33	61	U	460	61	15	U	110	15
Aroclor 1254	11097-69-1	8082A	µg/Kg	41 (7)		21	U	150	21	26	U	190	26	20	UJ	150	20	23	U	170	23	34	U	240	34	63	U	460	63	2000		110	16
Polychlorinated biphenyls, Total	1336-36-3	8082A	µg/Kg	371 (5)	250	1300		150	21	330		190	26	20	UJ	150	20	1700		170	23	3400		240	34	63	U	460	63	2000		110	16
Chlorinated Biphenyl Congeners (PCBs)																															
Σ Polychlorinated biphenyls	1336-36-3	8082A	pg/g	371000 (5)	250000																									5,687,161			
Σ Polychlorinated biphenyls (PCB) TEQ	1336-36-3	8082A	pg/g	0.199 (5)																										123			
Dioxins and Furans																															
2,3,7,8-TCDD	1746-01-6	8290A	pg/g	0.199 (5)	51																									3.43		1.72	0.34
Total TCDD	41903-57-5	8290A	pg/g	0.199 (5)																										34.8		1.72	0.34
2,3,7,8-TCDD	1746-01-6		pg/g	0.199 (5)																										3.43			
Σ Dibenzo-p-dioxin (PCDD) TEQ	30402-14-3		pg/g	0.199 (5)																										21			
Σ Dibenzofuran (PCDF) TEQ	30402-14-3		pg/g	0.199 (5)																										59			
Σ PCB TEQ + PCDD TEQ + PCDF TEQ	30402-14-3		pg/g	0.199 (5)																										203			
Metals & Cyanide																															
Aluminum	7429-90-5	6020B	mg/Kg	50 (7)	78000	11900		83	10.8	8360		48	6.2	4460		38.6	5	10000		46.5	6	4430		69.6	9.1	4240		609	79.1	5370		26.4	3.4
Antimony	7440-36-0	6020B	mg/Kg	0.27 (4)	31	7		4.1	0.61	0.82	J	2.4	0.35	0.8	J	1.9	0.28	26.9		2.3	0.34	4.6		3.5	0.51	4.4	U	30.4	4.4	77.4		13.2	1.9
Arsenic	7440-38-2	6020B	mg/Kg	18 (1)	19	21.4		4.1	0.41	3.9		2.4	0.24	3.9		1.9	0.19	35.5		2.3	0.23	38.4		3.5	0.35	4.2	J	30.4	3	19.5		1.3	0.13
Barium	7440-39-3	6020B	mg/Kg	330 (2)	16000	1190		8.3	0.6	104		4.8	0.35	154		3.9	0.28	304		4.6	0.34	232		7	0.5	209		60.9	4.4	213		2.6	0.19
Cadmium	7440-43-9	6020B	mg/Kg	0.36 (4)	71	6.9		4.1	0.47	1.3	J	2.4	0.27	4		1.9	0.22	11.6		2.3	0.26	8.6		3.5	0.39	3.4	U	30.4	3.4	6		1.3	0.15
Chromium	7440-47-3	6020B	mg/Kg	0.4 (5)		74.6		8.3	0.72	19.5		4.8	0.42	13.4		3.9	0.34	110		4.6	0.4	63.5		7	0.61	9.7	J	60.9	5.3	92		2.6	0.23
Cobalt	7440-48-4	6020B	mg/Kg	13 (1)	23	12.2		8.3	0.61	2.9	J	4.8	0.36	3.5	J	3.9	0.29	17.7		4.6	0.34	20.1		7	0.52	4.5	U	60.9	4.5	16.3		2.6	0.2
Copper	7440-50-8	6020B	mg/Kg	28 (3)	3100	787		8.3	0.91	69.2		4.8	0.53	96.9		3.9	0.42	674		4.6	0.51	581		7	0.77	47.9	J	60.9	6.7	12400		26.4	2.9
Lead	7439-92-1	6020B	mg/Kg	11 (3)	400	1270		2.5	0.83	122		1.4	0.48	82.6		1.2	0.39	6000		7	2.3	595		2.1	0.7	102		18.3	6.1	4740		7.9	2.6
Manganese	7439-96-5	6020B	mg/Kg	220 (1)	1900	870		16.6	1.7	90.2		9.6	0.97	195		7.7	0.78	754		9.3	0.94	1140		13.9	1.4	157		122	12.3	1030		5.3	0.53
Nickel	7440-02-0	6020B	mg/Kg	38 (1)	1600	89.9		8.3	0.8	51.3		4.8	0.47	30.7		3.9	0.37	120		4.6	0.45	50		7	0.68	13	J	60.9	5.9	89.8		2.6	0.26
Selenium	7782-49-2	6020B	mg/Kg	0.52 (1)	390	0.8	J	5.2	0.49	0.66	J	3	0.28	0.61	J	2.4	0.23	0.46	J	2.9	0.27	1.5	J	4.4	0.41	3.6	U	38	3.6	1.4	J	1.6	0.16
Silver	7440-22-4	6020B	mg/Kg	4.2 (3)	390	13.4		4.1	0.37	0.57	J	2.4	0.21	1	J	1.9	0.17	6		2.3	0.21	5.2		3.5	0.31	2.7	U	30.4	2.7	7.1		1.3	0.12
Thallium	7440-28-0	6020B	mg/Kg	1 (5)		0.17	U	1.7	0.17	0.098	U	0.96	0.098	0.079	U	0.77	0.079	0.13	J	0.93	0.095	0.14	U	1.4	0.14	1.2	U	12.2	1.2	0.099	J	0.53	0.054
Vanadium	7440-62-2	6020B	mg/Kg	7.8 (3)	390	211		8.3	0.85	25.7		4.8	0.49	21.7		3.9	0.4	18.2		4.6	0.48	27.6		7	0.72	26.7	J	60.9	6.3	37.3		2.6	0.27
Zinc	7440-66-6	6020B	mg/Kg	46 (3)	23000	673		33.2	9.5	159		19.2	5.5	794		15.4	4.4	2020		18.6	5.3	1560		27.9	8	133	J	244	69.7	991		10.6	3
Mercury	7439-97-6	7471B	mg/Kg	0.00051 (5)	23	5.4		0.19	0.045	0.61		0.046	0.011	0.38		0.037	0.0087	2.8		0.21	0.049	3		0.062	0.015	0.32		0.11	0.027	4.2		0.14	0.033
Cyanide, Total	57-12-5	9012B	mg/Kg	1.33 (5)	47	9.7		0.54	0.29	0.87	J	1.4	0.51	0.78	J	1.1	0.4	0.71	J	1.2	0.43	9.6		0.76	0.41	1.3	U	3.6	1.3	0.87		0.84	0.3

Table 5.8 - Soil: Summary of Exceedances

(continued)

Rolling Knolls Landfill

Sample Name				ESC's	NJAC 7:26D	SS14				SS102 (SS14 duplicate)				SS15				SS16				SS17				SS18				SS19			
Sample Date/Time						05/03/2021 10:40				05/03/2021 10:40				05/03/2021 15:30				05/04/2021 09:40				05/05/2021 10:05				05/10/2021 13:30				05/10/2021 08:30			
Latitude				Screening Criteria	(8) Soil Remediation Standards (Ing.-Derm.) - Residential	40.7222989				40.7222989				40.7226573				40.7229083				40.723173				40.7226388				40.7236522			
Longitude						-74.4446187				-74.4446187				-74.4446863				-74.445227				-74.443727				-74.4459762				-74.4437257			
Lab Sample Name						GS-S-SS14				GS-S-SS102				GS-S-SS15				GS-S-SS16				GS-S-SS17				GS-S-SS18				GS-S-SS19			
Lab Sample Number						460-233488-4				460-233506-1				460-233506-3				460-233704-1				460-233715-1				460-234084-1				460-234080-1			
Lab Report Number(s)						460-233488-1 / 460-233488-2				460-233506-1				460-233506-1 / 460-233506-2				460-233704-1				460-233715-1				460-234084-1				460-234080-1			
Analyte	CAS	Method	Units			Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)
Volatile Organic Compounds (VOCs)																																	
1,1,1,2-Tetrachloroethane	630-20-6	8260D	µg/Kg	225000 (6)	0.1	0.61	UJ	3.2	0.61	0.34	U	1.8	0.34	0.36	U	1.9	0.36	0.43	U	2.2	0.43	0.34	UJ	1.8	0.34	1.7	UJ	9.2	1.7	0.44	U	2.3	0.44
Acetone	67-64-1	8260D	µg/Kg	1200 (7)	70000000	250		19	13	170		11	10	46		11	11	82		13	13	15	J	11	10	820	J	55	52	150		14	13
m-Xylene & p-Xylene	179601-23-1	8260D	µg/Kg	4162 (7)	12000000	0.56	U	3.2	0.56	0.31	U	1.8	0.31	0.33	U	1.9	0.33	0.39	U	2.2	0.39	0.31	UJ	1.8	0.31	3.4	UJ	9.2	1.6	0.4	U	2.3	0.4
Semivolatile Organic Compounds (SVOCs)																																	
1,2,4,5-Tetrachlorobenzene	95-94-3	8270E	µg/Kg	2020 (5)	23000	24	U	780	24	22	U	700	22	19	U	610	19	25	U	800	25	19	U	590	19	92	U	2900	92	24	U	780	24
2,3,4,6-Tetrachlorophenol	58-90-2	8270E	µg/Kg	199 (6)	1900000	53	U	780	53	48	U	700	48	42	U	610	42	55	U	800	55	40	U	590	40	200	U	2900	200	53	U	780	53
2,4-Dimethylphenol	105-67-9	8270E	µg/Kg	10 (5)	1300000	34	U	780	34	31	U	700	31	27	U	610	27	35	U	800	35	26	U	590	26	130	U	2900	130	34	U	780	34
2,4-Dinitrophenol	51-28-5	8270E	µg/Kg	60.9 (5)	130000	390	U	630	390	350	U	570	350	300	U	490	300	400	U	650	400	290	U	480	290	1400	U	2400	1400	380	UJ	630	380
2,4-Dinitrotoluene	121-14-2	8270E	µg/Kg	1280 (5)		84	U	160	84	76	U	140	76	66	U	120	66	87	U	160	87	64	U	120	64	320	U	600	320	84	U	160	84
2-Chloronaphthalene	91-58-7	8270E	µg/Kg	12.2 (5)	4800000	36	U	780	36	33	U	700	33	28	U	610	28	37	U	800	37	28	U	590	28	140	U	2900	140	36	U	780	36
2-Methylnaphthalene	91-57-6	8270E	µg/Kg	3240 (5)	240000	22	U	780	22	21	J	700	20	67	J	610	17	23	U	800	23	34	J	590	17	82	U	2900	82	22	U	780	22
2-Nitroaniline	88-74-4	8270E	µg/Kg	5300 (7)		29	U	780	29	26	U	700	26	23	U	610	23	30	U	800	30	22	U	590	22	110	U	2900	110	29	U	780	29
2-Nitrophenol	88-75-5	8270E	µg/Kg	7000 (7)		79	U	780	79	70	U	700	70	61	U	610	61	81	U	800	81	60	U	590	60	290	U	2900	290	78	UJ	780	78
3,3'-Dichlorobenzidine	91-94-1	8270E	µg/Kg	646 (5)	1200	120	U	320	120	110	U	280	110	93	U	250	93	120	U	320	120	90	U	240	90	440	U	1200	440	120	U	310	120
3-Nitroaniline	99-09-2	8270E	µg/Kg	3160 (6)		88	U	780	88	79	U	700	79	69	U	610	69	91	U	800	91	67	U	590	67	330	U	2900	330	88	U	780	88
4-Chloroaniline	106-47-8	8270E	µg/Kg	1000 (7)	2700	140	U	780	140	120	U	700	120	110	U	610	110	140	U	800	140	110	U	590	110	520	U	2900	520	140	U	780	140
4-Nitrophenol	100-02-7	8270E	µg/Kg	5120 (5)		130	U	1600	130	110	U	1400	110	100	U	1200	100	130	U	1600	130	97	U	1200	97	480	U	6000	480	130	U	1600	130
Bis(2-chloroethyl)ether	111-44-4	8270E	µg/Kg	23700 (5)	630	27	U	78	27	24	U	70	24	21	U	61	21	28	U	80	28	21	U	59	21	100	U	290	100	27	U	78	27
Bis(2-ethylhexyl) phthalate	117-81-7	8270E	µg/Kg	925 (5)	39000	140000		7800	410	580	J	700	37	3600		610	32	2400		800	43	1900		590	32	510	J	2900	160	41	U	780	41
Butyl benzyl phthalate	85-68-7	8270E	µg/Kg	239 (5)	290000	40000		7800	370	33	U	700	33	29	U	610	29	38	U	800	38	59	J	590	28	140	U	2900	140	210	J	780	37
Dibenzofuran	132-64-9	8270E	µg/Kg	6100 (7)		11	U	780	11	9.9	U	700	9.9	8.6	U	610	8.6	11	U	800	11	8.4	U	590	8.4	41	U	2900	41	11	U	780	11
Di-n-butyl phthalate	84-74-2	8270E	µg/Kg	150 (5)	6300000	3500		780	30	26	U	700	26	23	U	610	23	440	J	800	30	260	J	590	22	240	J	2900	110	43	J	780	29
Di-n-octyl phthalate	117-84-0	8270E	µg/Kg	910 (7)	630000	42	U	780	42	37	U	700	37	32	U	610	32	43	U	800	43	32	U	590	32	290	J	2900	160	41	U	780	41
Hexachlorobenzene	118-74-1	8270E	µg/Kg	199 (5)	430	37	U	78	37	33	U	70	33	29	U	61	29	38	U	80	38	28	U	59	28	140	U	290	140	37	U	78	37
Hexachlorobutadiene	87-68-3	8270E	µg/Kg	39.8 (5)	8900	17	U	160	17	15	U	140	15	13	U	120	13	17	U	160	17	13	U	120	13	63	U	600	63	17	U	160	17
Hexachlorocyclopentadiene	77-47-4	8270E	µg/Kg	755 (5)	470000	69	U	780	69	62	U	700	62	54	U	610	54	71	U	800	71	52	UJ	590	52	260	U	2900	260	69	U	780	69
Hexachloroethane	67-72-1	8270E	µg/Kg	596 (5)	17000	27	U	78	27	24	U	70	24	21	U	61	21	28	U	80	28	20	U	59	20	100	U	290	100	27	U	78	27
N-Nitrosodi-n-propylamine	621-64-7	8270E	µg/Kg		170	57	U	78	57	51	U	70	51	45	U	61	45	59	U	80	59	43	U	59	43	210	U	290	210	57	U	78	57
N-Nitrosodiphenylamine	86-30-6	8270E	µg/Kg	545 (5)	110000	64	U	780	64	58	U	700	58	50	U	610	50	66	U	800	66	49	U	590	49	240	U	2900	240	64	U	780	64
Pentachlorophenol	87-86-5	8270E	µg/Kg	2100 (3)	1000	160	U	630	160	140	U	570	140	130	U	490	130	170	U	650	170	120	U	480	120	600	U	2400	600	160	U	630	160
Polycyclic Aromatic Hydrocarbons (PAHs)																																	
Naphthalene	91-20-3	8270E	µg/Kg	99.4 (5)	2500000	80	J	780	14	72	J	700	12	190	J	610	11	30	J	800	14	68	J	590	10	51	U	2900	51	14	U	780	14
Benzo[a]anthracene	56-55-3	8270E	µg/Kg	5210 (5)	5100	27	U	78	27	25	U	70	25	21	U	61	21	28	U	80	28	56	J	59	21	100	U	290	100	27	U	78	27
Benzo[a]pyrene	50-32-8	8270E	µg/Kg	1520 (5)	510	21	U	78	21	20	J	70	19	29	J	61	16	28	J	80	21	16	U	59	16	78	U	290	78	21	U	78	21
Benzo[b]fluoranthene	205-99-2	8270E	µg/Kg	59800 (5)	5100	20	U	78	20	34	J	70	18	47	J	61	16	34	J	80	21	130		59	15	76	U	290	76	20	U	78	20
Chrysene	218-01-9	8270E	µg/Kg	4730 (5)	510000	13	U	780	13	12	U	700	12	61	J	610	10	31	J	800	14	97	J	590	10	50	U	2900	50	13	U	780	13
Dibenz(a,h)anthracene	53-70-3	8270E	µg/Kg	18400 (5)	510	34	U	78	34	30	U	70	30	27	U	61	27	35	U	80	35	26	U	59	26	650		290	130	34	U	78	34
Indeno[1,2,3-cd]pyrene	193-39-5	8270E	µg/Kg	109000 (5)	5100	31	U	78	31	27	U	70	27	24	U	61	24	32	U	80	32	23	U	59	23	1200		290	110	31	U	78	31
High Molecular Weight PAHs			µg/Kg	1100 (4)		241				240				390				308				675				4285				230			
Organochlorine Pesticides																																	
4,4'-DDD	72-54-8	8081B	µg/Kg	758 (5)	2300	1300		16	2.7	720		71	12	2.1	U	12	2.1	2.8	U	16	2.8	2.1	U	12	2.1	10	UJ	60	10	2.7	U	16	2.7
4,4'-DDT	50-29-3	8081B	µg/Kg	3.5 (5)	1900	180		16	2.9	250		71	13	2.3	U	12	2.3	3	U	16	3	2.2	U	12	2.2	11	UJ	60	11	2.9	U	16	2.9
Aldrin	309-00-2	8081B	µg/Kg	3.32 (5)	41	2.4	U	16	2.4	11	U	71	11	1.9	U	12	1.9	2.5	U	16	2.5	1.8	U	12	1.8	9	UJ	60	9	2.4	U	16	2.4
beta-BHC	319-85-7	8081B	µg/Kg	3.98 (5)	300	1.8	U	4.7	1.8	8	U	21	8	1.4	U	3.7	1.4	1.8	U	4.9	1.8	1.4	U	3.6	1.4	6.7	UJ	18	6.7	1.8	U	4.7	1.8
Chlordane (technical)	57-74-9	8081B	µg/Kg	220 (7)	270	160	J	160	38	170	U	710	170	30	U	120	30	40	U	160	40	29	U	120	29	140	U	600	140	38	U	160	38
Dieldrin	60-57-1	8081B	µg/Kg	4.9 (4)	34	2.1	U	4.7	2.1	9.2	U	21	9.2	1.6	U	3.7	1.6	2.1	U	4.9	2.1	1.6	U	3.6	1.6	7.7	UJ	18	7.7	2.1	U	4.7	2.1
Endrin	72-20-8	8081B	µg/Kg	10.1 (5)	19000	2.3	U	16	2.3	10	U	71	10	1.8	U	12	1.8	2.3	U	16	2.3	1.7	U	12	1.7	8.5	UJ	60	8.5	2.3	U	16	2.3
Endrin aldehyde	7421-93-4	8081B	µg/Kg	10.5 (5)		3.7	U	16	3.7	17	U	71	17	2.9	U	12	2.9	3.9	U	16	3.9	2.8	U	12	2.8	14	UJ	60	14	3.7	U	16	3.7
gamma-BHC (Lindane)	58-89-9	8081B	µg/Kg	5 (5)	570	1.5	U	4.7	1.5	6.6	U	21	6.6	1.1	U	3.7	1.1	1.5	U	4.9	1.5	1.1	U	3.6	1.1	5.5	UJ	18	5.5	1.5	U	4.7	1.5
Heptachlor	76-44-8	8081B	µg/Kg	5.98 (5)	150	1.9	U	16	1.9	8.4	U	71	8.4	1.5	U	12	1.5	1.9	U	16	1.9	1.4	U	12	1.4	7	UJ	60	7	1.9	U	16	1.9
Toxaphene	8001-35-2	8081B	µg/Kg	119 (5)	490	57	U	160	57	260	U	710	260	45	U	120	45	59	U	160	59	44	U	120	44	220	U	600	220	57	U	160	57

Table 5.8 - Soil: Summary of Exceedances

(continued)

Rolling Knolls Landfill

Sample Name				ESC's	NJAC 7:26D	SS14				SS102 (SS14 duplicate)				SS15				SS16				SS17				SS18				SS19			
Sample Date/Time						05/03/2021 10:40				05/03/2021 10:40				05/03/2021 15:30				05/04/2021 09:40				05/05/2021 10:05				05/10/2021 13:30				05/10/2021 08:30			
Latitude				Screening Criteria	(8) Soil Remediation Standards (Ing.-Derm.) - Residential	40.7222989				40.7222989				40.7226573				40.7229083				40.723173				40.7226388				40.7236522			
Longitude						-74.4446187				-74.4446187				-74.4446863				-74.445227				-74.443727				-74.4459762				-74.4437257			
Lab Sample Name						GS-S-SS14				GS-S-SS102				GS-S-SS15				GS-S-SS16				GS-S-SS17				GS-S-SS18				GS-S-SS19			
Lab Sample Number						460-233488-4				460-233506-1				460-233506-3				460-233704-1				460-233715-1				460-234084-1				460-234080-1			
Lab Report Number(s)						460-233488-1 / 460-233488-2				460-233506-1				460-233506-1 / 460-233506-2				460-233704-1				460-233715-1				460-234084-1				460-234080-1			
Analyte	**CAS**	**Method**	**Units**			**Result**	**LDC Flag**	**RL**	**MDL (EDL)**	**Result**	**LDC Flag**	**RL**	**MDL (EDL)**	**Result**	**LDC Flag**	**RL**	**MDL (EDL)**	**Result**	**LDC Flag**	**RL**	**MDL (EDL)**	**Result**	**LDC Flag**	**RL**	**MDL (EDL)**	**Result**	**LDC Flag**	**RL**	**MDL (EDL)**	**Result**	**LDC Flag**	**RL**	**MDL (EDL)**
Polychlorinated Biphenyls (PCBs)																																	
Aroclor 1242	53469-21-9	8082A	µg/Kg	41 (7)		21	U	160	21	19	U	140	19	82	U	620	82	22	U	160	22	32	U	240	32	79	U	600	79	210	U	1600	210
Aroclor 1248	12672-29-6	8082A	µg/Kg	7.3 (7)		820		160	21	19	U	140	19	6000	J	620	82	22	U	160	22	32	U	240	32	79	U	600	79	210	U	1600	210
Aroclor 1254	11097-69-1	8082A	µg/Kg	41 (7)		22	U	160	22	1400		140	20	85	U	620	85	1500		160	22	3200		240	33	82	U	600	82	220	U	1600	220
Polychlorinated biphenyls, Total	1336-36-3	8082A	µg/Kg	371 (5)	250	1100		160	22	1400		140	20	6000	J	620	85	1500		160	22	3200		240	33	82	U	600	82	15000		1600	220
Chlorinated Biphenyl Congeners (PCBs)																																	
Σ Polychlorinated biphenyls	1336-36-3	8082A	pg/g	371000 (5)	250000	4,135,306								9,699,012												3,996,791							
Σ Polychlorinated biphenyls (PCB) TEQ	1336-36-3	8082A	pg/g	0.199 (5)		332								990												249							
Dioxins and Furans																																	
2,3,7,8-TCDD	1746-01-6	8290A	pg/g	0.199 (5)	51	4.95		2.45	0.82					3.98	J	3.59	0.48									3.94	J	9.07	1.98				
Total TCDD	41903-57-5	8290A	pg/g	0.199 (5)		25.1		2.45	0.82					35.1	J	3.59	0.48									49.7	J	9.07	1.98				
2,3,7,8-TCDD	1746-01-6		pg/g	0.199 (5)		4.95								3.98												3.94							
Σ Dibenzo-p-dioxin (PCDD) TEQ	30402-14-3		pg/g	0.199 (5)		20								14												10							
Σ Dibenzofuran (PCDF) TEQ	30402-14-3		pg/g	0.199 (5)		66								50												39							
Σ PCB TEQ + PCDD TEQ + PCDF TEQ	30402-14-3		pg/g	0.199 (5)		418								1054												297							
Metals & Cyanide																																	
Aluminum	7429-90-5	6020B	mg/Kg	50 (7)	78000	5050		44.3	5.8	3850		40.5	5.3	4550		35.6	4.6	4340		142	18.5	8100		173	22.5	4680		135	17.5	6640		42.2	5.5
Antimony	7440-36-0	6020B	mg/Kg	0.27 (4)	31	7.5		2.2	0.32	12		2	0.3	7		1.8	0.26	260		71	10.4	3.7	J	8.7	1.3	18.4		6.7	0.98	2.1		2.1	0.31
Arsenic	7440-38-2	6020B	mg/Kg	18 (1)	19	51.4		2.2	0.22	55		2	0.2	17.4		1.8	0.18	19.5		7.1	0.71	15.7		8.7	0.87	51.8	J	6.7	0.67	8.3	J	2.1	0.21
Barium	7440-39-3	6020B	mg/Kg	330 (2)	16000	446		4.4	0.32	330		4	0.29	211		3.6	0.26	206		14.2	1	422		17.3	1.3	360		13.5	0.98	181		4.2	0.31
Cadmium	7440-43-9	6020B	mg/Kg	0.36 (4)	71	24.2		2.2	0.25	11.8		2	0.23	5.6		1.8	0.2	8.8		7.1	0.8	7.9	J	8.7	0.98	20.6		6.7	0.76	5		2.1	0.24
Chromium	7440-47-3	6020B	mg/Kg	0.4 (5)		233		4.4	0.39	248		4	0.35	61.9		3.6	0.31	65.8		14.2	1.2	81.2		17.3	1.5	112		13.5	1.2	56.9		4.2	0.37
Cobalt	7440-48-4	6020B	mg/Kg	13 (1)	23	54.1		4.4	0.33	36.2		4	0.3	19.1		3.6	0.26	12.5	J	14.2	1.1	15.4	J	17.3	1.3	23.1		13.5	1	10.9		4.2	0.31
Copper	7440-50-8	6020B	mg/Kg	28 (3)	3100	1050		4.4	0.49	1540		4	0.45	155		3.6	0.39	2740		14.2	1.6	333		17.3	1.9	804		13.5	1.5	360	J	4.2	0.46
Lead	7439-92-1	6020B	mg/Kg	11 (3)	400	1570		1.3	0.44	8370		6.1	2	2840		1.1	0.36	3600		4.3	1.4	1020		5.2	1.7	1290		4	1.3	529	J	1.3	0.42
Manganese	7439-96-5	6020B	mg/Kg	220 (1)	1900	1690		8.9	0.89	1640		8.1	0.82	1160		7.1	0.72	588		28.4	2.9	718		34.7	3.5	457	J	27	2.7	523		8.4	0.85
Nickel	7440-02-0	6020B	mg/Kg	38 (1)	1600	185		4.4	0.43	211		4	0.39	65.8		3.6	0.35	295		14.2	1.4	86.6		17.3	1.7	152		13.5	1.3	46		4.2	0.41
Selenium	7782-49-2	6020B	mg/Kg	0.52 (1)	390	0.72	J	2.8	0.26	0.49	J	2.5	0.24	1	J	2.2	0.21	68.1		8.9	0.84	1	U	10.8	1	2.9	J	8.4	0.8	1.4	J	2.6	0.25
Silver	7440-22-4	6020B	mg/Kg	4.2 (3)	390	12.8		2.2	0.2	10.6		2	0.18	1.9		1.8	0.16	4.1	J	7.1	0.63	2.4	J	8.7	0.77	6.8		6.7	0.6	4.7		2.1	0.19
Thallium	7440-28-0	6020B	mg/Kg	1 (5)		0.16	J	0.89	0.091	0.083	U	0.81	0.083	0.073	U	0.71	0.073	0.29	U	2.8	0.29	0.36	U	3.5	0.36	0.28	U	2.7	0.28	0.086	U	0.84	0.086
Vanadium	7440-62-2	6020B	mg/Kg	7.8 (3)	390	36.4		4.4	0.46	25.7		4	0.42	17.2		3.6	0.37	20.1		14.2	1.5	28.4		17.3	1.8	29.9		13.5	1.4	97.5		4.2	0.43
Zinc	7440-66-6	6020B	mg/Kg	46 (3)	23000	3380		17.7	5.1	1770		16.2	4.6	1640		14.3	4.1	1260		56.8	16.3	1400		69.3	19.8	3220		53.9	15.4	874		16.9	4.8
Mercury	7439-97-6	7471B	mg/Kg	0.00051 (5)	23	7.4		0.4	0.093	6.4		0.18	0.043	2.5		0.15	0.035	30.2		0.82	0.19	4.8		0.59	0.14	5.5		0.13	0.031	3.4		0.2	0.046
Cyanide, Total	57-12-5	9012B	mg/Kg	1.33 (5)	47	3		0.49	0.27	0.24	U	0.44	0.24	3.9		0.38	0.21	0.31	U	0.56	0.31	8.7		0.39	0.21	2.5	J	4.2	1.5	1.2	J	1.1	0.41

Table 5.8 - Soil: Summary of Exceedances

(continued)

Rolling Knolls Landfill

Sample Name				ESC's	NJAC 7:26D	SS20				SS21				SS101 (SS21 duplicate)				SS22				SS23				SS24				SS25			
Sample Date/Time						05/04/2021 12:45				05/07/2021 10:30				05/07/2021 10:30				05/04/2021 10:55				05/10/2021 15:40				05/14/2021 10:00				05/06/2021 14:55			
Latitude						40.722731				40.7238344				40.7238344				40.7234467				40.7234761				40.7234047				40.7234932			
Longitude				Screening Criteria	(8) Soil Remediation Standards (Ing.-Derm.) - Residential	-74.443907				-74.445655				-74.445655				-74.4453029				-74.4461556				-74.4467553				-74.4473376			
Lab Sample Name						GS-S-SS20				GS-S-SS21				GS-S-SS101				GS-S-SS22				GS-S-SS23				GS-S-SS24				GS-S-SS25			
Lab Sample Number						460-233704-4				460-233940-4				460-233940-5				460-233706-1				460-234080-4				460-234442-1				460-233899-5			
Lab Report Number(s)						460-233704-1				460-233940-1				460-233940-1				460-233706-1				460-234080-1				460-234442-1				460-233899-1			
Analyte	CAS	Method	Units			Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)
Volatile Organic Compounds (VOCs)																																	
1,1,1,2-Tetrachloroethane	630-20-6	8260D	µg/Kg	225000 (6)	0.1	0.19	U	0.97	0.19	0.47	U	2.5	0.47	0.45	U	2.4	0.45	0.71	U	3.7	0.71	0.63	U	3.3	0.63	0.45	U	2.4	0.45	0.18	U	0.96	0.18
Acetone	67-64-1	8260D	µg/Kg	1200 (7)	70000000	5.6	U	5.8	5.6	31		15	14	120		14	14	220		22	21	1600		20	19	32	J	14	14	1300		5.7	5.5
m-Xylene & p-Xylene	179601-23-1	8260D	µg/Kg	4162 (7)	12000000	0.17	U	0.97	0.17	0.43	U	2.5	0.43	0.41	U	2.4	0.41	0.65	U	3.7	0.65	1.3	J	3.3	0.58	0.42	U	2.4	0.42	0.17	U	0.96	0.17
Semivolatile Organic Compounds (SVOCs)																																	
1,2,4,5-Tetrachlorobenzene	95-94-3	8270E	µg/Kg	2020 (5)	23000	13	U	410	13	18	U	590	18	20	U	640	20	34	U	1100	34	32	U	1000	32	27	U	870	27	15	U	480	15
2,3,4,6-Tetrachlorophenol	58-90-2	8270E	µg/Kg	199 (6)	1900000	28	U	410	28	40	U	590	40	44	U	640	44	74	U	1100	74	70	U	1000	70	59	U	870	59	32	U	480	32
2,4-Dimethylphenol	105-67-9	8270E	µg/Kg	10 (5)	1300000	18	U	410	18	26	U	590	26	28	U	640	28	48	U	1100	48	46	U	1000	46	39	U	870	39	21	U	480	21
2,4-Dinitrophenol	51-28-5	8270E	µg/Kg	60.9 (5)	130000	200	U	330	200	290	U	480	290	320	U	520	320	530	U	870	530	510	UJ	830	510	430	U	710	430	230	UJ	380	230
2,4-Dinitrotoluene	121-14-2	8270E	µg/Kg	1280 (5)		44	U	82	44	64	U	120	64	69	U	130	69	120	U	220	120	110	U	210	110	94	U	180	94	51	U	97	51
2-Chloronaphthalene	91-58-7	8270E	µg/Kg	12.2 (5)	4800000	19	U	410	19	27	U	590	27	30	U	640	30	50	U	1100	50	48	U	1000	48	41	U	870	41	22	U	480	22
2-Methylnaphthalene	91-57-6	8270E	µg/Kg	3240 (5)	240000	13	J	410	11	17	U	590	17	31	J	640	18	410	J	1100	30	29	U	1000	29	25	U	870	25	13	U	480	13
2-Nitroaniline	88-74-4	8270E	µg/Kg	5300 (7)		15	U	410	15	22	U	590	22	24	U	640	24	41	U	1100	41	39	U	1000	39	33	U	870	33	18	U	480	18
2-Nitrophenol	88-75-5	8270E	µg/Kg	7000 (7)		41	U	410	41	59	U	590	59	64	U	640	64	110	U	1100	110	100	UJ	1000	100	88	U	870	88	48	UJ	480	48
3,3'-Dichlorobenzidine	91-94-1	8270E	µg/Kg	646 (5)	1200	61	U	160	61	90	U	240	90	97	U	260	97	160	U	440	160	160	U	420	160	130	U	350	130	72	U	190	72
3-Nitroaniline	99-09-2	8270E	µg/Kg	3160 (6)		46	U	410	46	67	U	590	67	72	U	640	72	120	U	1100	120	120	U	1000	120	99	U	870	99	54	U	480	54
4-Chloroaniline	106-47-8	8270E	µg/Kg	1000 (7)	2700	72	U	410	72	110	U	590	110	110	U	640	110	190	U	1100	190	180	U	1000	180	160	U	870	160	85	U	480	85
4-Nitrophenol	100-02-7	8270E	µg/Kg	5120 (5)		66	U	820	66	97	U	1200	97	100	U	1300	100	180	U	2200	180	170	U	2100	170	140	UJ	1800	140	78	U	970	78
Bis(2-chloroethyl)ether	111-44-4	8270E	µg/Kg	23700 (5)	630	14	U	41	14	21	U	59	21	22	U	64	22	38	U	110	38	36	U	100	36	31	U	87	31	17	U	48	17
Bis(2-ethylhexyl) phthalate	117-81-7	8270E	µg/Kg	925 (5)	39000	60	J	410	21	4100		590	31	12000		3200	170	810	J	1100	58	2100		1000	55	1400		870	46	25	U	480	25
Butyl benzyl phthalate	85-68-7	8270E	µg/Kg	239 (5)	290000	19	U	410	19	840		590	28	1200		640	30	51	U	1100	51	49	U	1000	49	41	U	870	41	22	U	480	22
Dibenzofuran	132-64-9	8270E	µg/Kg	6100 (7)		5.7	U	410	5.7	8.3	U	590	8.3	9	U	640	9	140	J	1100	15	15	U	1000	15	12	U	870	12	6.7	U	480	6.7
Di-n-butyl phthalate	84-74-2	8270E	µg/Kg	150 (5)	6300000	15	U	410	15	260	J	590	22	1600		640	24	77	J	1100	41	350	J	1000	39	60	J	870	33	18	U	480	18
Di-n-octyl phthalate	117-84-0	8270E	µg/Kg	910 (7)	630000	22	U	410	22	1400		590	31	16000		3200	170	58	U	1100	58	55	U	1000	55	46	U	870	46	25	U	480	25
Hexachlorobenzene	118-74-1	8270E	µg/Kg	199 (5)	430	19	U	41	19	28	U	59	28	31	U	64	31	52	U	110	52	49	U	100	49	42	U	87	42	23	U	48	23
Hexachlorobutadiene	87-68-3	8270E	µg/Kg	39.8 (5)	8900	8.6	U	82	8.6	13	U	120	13	14	U	130	14	23	U	220	23	22	U	210	22	19	U	180	19	10	U	97	10
Hexachlorocyclopentadiene	77-47-4	8270E	µg/Kg	755 (5)	470000	36	U	410	36	52	UJ	590	52	56	U	640	56	95	UJ	1100	95	91	U	1000	91	77	U	870	77	42	U	480	42
Hexachloroethane	67-72-1	8270E	µg/Kg	596 (5)	17000	14	U	41	14	20	U	59	20	22	U	64	22	37	U	110	37	36	U	100	36	30	U	87	30	16	U	48	16
N-Nitrosodi-n-propylamine	621-64-7	8270E	µg/Kg		170	29	U	41	29	43	U	59	43	47	U	64	47	79	U	110	79	75	U	100	75	64	U	87	64	35	U	48	35
N-Nitrosodiphenylamine	86-30-6	8270E	µg/Kg	545 (5)	110000	33	U	410	33	49	U	590	49	53	U	640	53	89	U	1100	89	85	U	1000	85	72	U	870	72	39	U	480	39
Pentachlorophenol	87-86-5	8270E	µg/Kg	2100 (3)	1000	83	U	330	83	120	U	480	120	130	U	520	130	220	U	870	220	210	U	830	210	180	U	710	180	98	U	380	98
Polycyclic Aromatic Hydrocarbons (PAHs)																																	
Naphthalene	91-20-3	8270E	µg/Kg	99.4 (5)	2500000	11	J	410	7	30	J	590	10	25	J	640	11	740	J	1100	19	18	U	1000	18	15	U	870	15	8.3	U	480	8.3
Benzo[a]anthracene	56-55-3	8270E	µg/Kg	5210 (5)	5100	28	J	41	14	67		59	21	64		64	22	250		110	38	36	J	100	36	31	U	87	31	17	U	48	17
Benzo[a]pyrene	50-32-8	8270E	µg/Kg	1520 (5)	510	31	J	41	11	71		59	16	76	J	64	17	240		110	29	28	U	100	28	23	U	87	23	16	J	48	13
Benzo[b]fluoranthene	205-99-2	8270E	µg/Kg	59800 (5)	5100	44		41	11	120		59	15	110		64	17	300		110	28	29	J	100	27	23	J	87	23	22	J	48	12
Chrysene	218-01-9	8270E	µg/Kg	4730 (5)	510000	35	J	410	6.9	90	J	590	10	72	J	640	11	220	J	1100	18	18	U	1000	18	15	U	870	15	8.1	U	480	8.1
Dibenz(a,h)anthracene	53-70-3	8270E	µg/Kg	18400 (5)	510	18	U	41	18	26	U	59	26	28	U	64	28	47	U	110	47	45	U	100	45	38	U	87	38	21	U	48	21
Indeno[1,2,3-cd]pyrene	193-39-5	8270E	µg/Kg	109000 (5)	5100	26	J	41	16	23	U	59	23	37	J	64	25	110		110	42	41	U	100	41	34	U	87	34	19	U	48	19
High Molecular Weight PAHs			µg/Kg	1100 (4)		304				612				610				2071				310				260				174.6			
Organochlorine Pesticides																																	
4,4'-DDD	72-54-8	8081B	µg/Kg	758 (5)	2300	1.4	U	8.2	1.4	2	U	12	2	9.7	J	13	2.2	29		22	3.7	3.6	U	21	3.6	44		18	3	1.7	U	9.7	1.7
4,4'-DDT	50-29-3	8081B	µg/Kg	3.5 (5)	1900	9.4		8.2	1.5	2.2	U	12	2.2	21	J	13	2.4	4	U	22	4	3.9	U	21	3.9	71	J	18	3.3	1.8	U	9.7	1.8
Aldrin	309-00-2	8081B	µg/Kg	3.32 (5)	41	1.2	U	8.2	1.2	1.8	U	12	1.8	2	U	13	2	3.3	U	22	3.3	3.2	U	21	3.2	2.7	U	18	2.7	1.5	U	9.7	1.5
beta-BHC	319-85-7	8081B	µg/Kg	3.98 (5)	300	0.92	U	2.5	0.92	1.3	U	3.6	1.3	1.5	U	3.9	1.5	2.5	U	6.6	2.5	2.4	U	6.3	2.4	2	U	5.3	2	1.1	U	2.9	1.1
Chlordane (technical)	57-74-9	8081B	µg/Kg	220 (7)	270	20	U	82	20	29	U	120	29	200		130	32	1100		220	53	51	U	210	51	43	U	180	43	23	U	97	23
Dieldrin	60-57-1	8081B	µg/Kg	4.9 (4)	34	1.1	U	2.5	1.1	1.6	U	3.6	1.6	1.7	U	3.9	1.7	2.9	U	6.6	2.9	2.7	U	6.3	2.7	24		5.3	2.3	1.3	U	2.9	1.3
Endrin	72-20-8	8081B	µg/Kg	10.1 (5)	19000	1.2	U	8.2	1.2	1.7	U	12	1.7	1.9	U	13	1.9	3.2	U	22	3.2	3	U	21	3	2.5	U	18	2.5	1.4	U	9.7	1.4
Endrin aldehyde	7421-93-4	8081B	µg/Kg	10.5 (5)		1.9	U	8.2	1.9	2.8	U	12	2.8	3.1	U	13	3.1	5.2	U	22	5.2	5	U	21	5	4.2	U	18	4.2	2.3	U	9.7	2.3
gamma-BHC (Lindane)	58-89-9	8081B	µg/Kg	5 (5)	570	0.76	U	2.5	0.76	1.1	U	3.6	1.1	1.2	U	3.9	1.2	2	U	6.6	2	1.9	U	6.3	1.9	39		5.3	1.6	0.9	U	2.9	0.9
Heptachlor	76-44-8	8081B	µg/Kg	5.98 (5)	150	0.97	U	8.2	0.97	1.4	U	12	1.4	1.5	U	13	1.5	2.6	U	22	2.6	2.5	U	21	2.5	2.1	U	18	2.1	1.1	U	9.7	1.1
Toxaphene	8001-35-2	8081B	µg/Kg	119 (5)	490	30	U	82	30	43	U	120	43	47	U	130	47	80	U	220	80	76	U	210	76	64	U	180	64	35	U	97	35

Table 5.8 - Soil: Summary of Exceedances

(continued)

Rolling Knolls Landfill

Sample Name				ESC's	NJAC 7:26D	SS20				SS21				SS101 (SS21 duplicate)				SS22				SS23				SS24				SS25			
Sample Date/Time						05/04/2021 12:45				05/07/2021 10:30				05/07/2021 10:30				05/04/2021 10:55				05/10/2021 15:40				05/14/2021 10:00				05/06/2021 14:55			
Latitude				Screening Criteria	(8) Soil Remediation Standards (Ing.-Derm.) - Residential	40.722731				40.7238344				40.7238344				40.7234467				40.7234761				40.7234047				40.7234932			
Longitude						-74.443907				-74.445655				-74.445655				-74.4453029				-74.4461556				-74.4467553				-74.4473376			
Lab Sample Name						GS-S-SS20				GS-S-SS21				GS-S-SS101				GS-S-SS22				GS-S-SS23				GS-S-SS24				GS-S-SS25			
Lab Sample Number						460-233704-4				460-233940-4				460-233940-5				460-233706-1				460-234080-4				460-234442-1				460-233899-5			
Lab Report Number(s)						460-233704-1				460-233940-1				460-233940-1				460-233706-1				460-234080-1				460-234442-1				460-233899-1			
Analyte	CAS	Method	Units			Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)
Polychlorinated Biphenyls (PCBs)																																	
Aroclor 1242	53469-21-9	8082A	µg/Kg	41 (7)		11	U	82	11	16	U	120	16	17	U	130	17	29	U	220	29	28	U	210	28	24	U	180	24	13	U	97	13
Aroclor 1248	12672-29-6	8082A	µg/Kg	7.3 (7)		11	U	82	11	16	U	120	16	17	U	130	17	29	U	220	29	1800	J	210	28	24	U	180	24	13	U	97	13
Aroclor 1254	11097-69-1	8082A	µg/Kg	41 (7)		11	U	82	11	17	U	120	17	220		130	18	2400	J	220	30	29	U	210	29	1100	J	180	24	13	U	97	13
Polychlorinated biphenyls, Total	1336-36-3	8082A	µg/Kg	371 (5)	250	11	U	82	11	17	U	120	17	220		130	18	2400	J	220	30	2200		210	29	1100	J	180	24	13	U	97	13
Chlorinated Biphenyl Congeners (PCBs)																																	
Σ Polychlorinated biphenyls	1336-36-3	8082A	pg/g	371000 (5)	250000																												
Σ Polychlorinated biphenyls (PCB) TEQ	1336-36-3	8082A	pg/g	0.199 (5)																													
Dioxins and Furans																																	
2,3,7,8-TCDD	1746-01-6	8290A	pg/g	0.199 (5)	51																												
Total TCDD	41903-57-5	8290A	pg/g	0.199 (5)																													
2,3,7,8-TCDD	1746-01-6		pg/g	0.199 (5)																													
Σ Dibenzo-p-dioxin (PCDD) TEQ	30402-14-3		pg/g	0.199 (5)																													
Σ Dibenzofuran (PCDF) TEQ	30402-14-3		pg/g	0.199 (5)																													
Σ PCB TEQ + PCDD TEQ + PCDF TEQ	30402-14-3		pg/g	0.199 (5)																													
Metals & Cyanide																																	
Aluminum	7429-90-5	6020B	mg/Kg	50 (7)	78000	9640		23.4	3	11600		68.4	8.9	8130		72.7	9.5	6860		62.1	8.1	4480		218	28.3	3920		49.6	6.5	11600		26.8	3.5
Antimony	7440-36-0	6020B	mg/Kg	0.27 (4)	31	4.3		1.2	0.17	4.5		3.4	0.5	6.5		3.6	0.53	5.6		3.1	0.45	7.5	J	10.9	1.6	4.7		2.5	0.36	0.62	J	1.3	0.2
Arsenic	7440-38-2	6020B	mg/Kg	18 (1)	19	26.2		1.2	0.12	23.4		3.4	0.34	19.2		3.6	0.36	18		3.1	0.31	12.3	J	10.9	1.1	12.1		2.5	0.25	3.7		1.3	0.13
Barium	7440-39-3	6020B	mg/Kg	330 (2)	16000	68.6		2.3	0.17	931		6.8	0.5	2030		7.3	0.53	245		6.2	0.45	881		21.8	1.6	400		5	0.36	27.6		2.7	0.19
Cadmium	7440-43-9	6020B	mg/Kg	0.36 (4)	71	1.2		1.2	0.13	7.8		3.4	0.39	7.6		3.6	0.41	5.2		3.1	0.35	7.5	J	10.9	1.2	6.5		2.5	0.28	0.28	J	1.3	0.15
Chromium	7440-47-3	6020B	mg/Kg	0.4 (5)		19		2.3	0.2	181	J	6.8	0.6	185	J	7.3	0.63	464		6.2	0.54	89.4		21.8	1.9	87		5	0.43	23		2.7	0.23
Cobalt	7440-48-4	6020B	mg/Kg	13 (1)	23	6.8		2.3	0.17	14		6.8	0.51	14.4		7.3	0.54	36.4		6.2	0.46	12.9	J	21.8	1.6	14		5	0.37	4.3		2.7	0.2
Copper	7440-50-8	6020B	mg/Kg	28 (3)	3100	108		2.3	0.26	548		6.8	0.75	466		7.3	0.8	470		6.2	0.68	425	J	21.8	2.4	685		5	0.55	17.4		2.7	0.3
Lead	7439-92-1	6020B	mg/Kg	11 (3)	400	179		0.7	0.23	1830		2.1	0.68	4250		2.2	0.73	2220		1.9	0.62	2960	J	6.5	2.2	1650		1.5	0.5	112		0.8	0.27
Manganese	7439-96-5	6020B	mg/Kg	220 (1)	1900	249		4.7	0.47	760		13.7	1.4	783		14.5	1.5	432		12.4	1.3	800		43.6	4.4	498		9.9	1	88.7		5.4	0.54
Nickel	7440-02-0	6020B	mg/Kg	38 (1)	1600	19.2		2.3	0.23	90.2	J	6.8	0.66	88.9	J	7.3	0.71	261		6.2	0.6	53.7		21.8	2.1	84.9		5	0.48	11.7		2.7	0.26
Selenium	7782-49-2	6020B	mg/Kg	0.52 (1)	390	0.61	J	1.5	0.14	1.4	J	4.3	0.4	1.2	J	4.5	0.43	0.89	J	3.9	0.37	1.6	J	13.6	1.3	0.77	J	3.1	0.29	0.54	J	1.7	0.16
Silver	7440-22-4	6020B	mg/Kg	4.2 (3)	390	0.34	J	1.2	0.1	7.8		3.4	0.3	8.4		3.6	0.32	6.6		3.1	0.28	6.7	J	10.9	0.97	10.9		2.5	0.22	0.12	J	1.3	0.12
Thallium	7440-28-0	6020B	mg/Kg	1 (5)		0.093	J	0.47	0.048	0.14	U	1.4	0.14	0.15	U	1.5	0.15	0.13	U	1.2	0.13	0.45	U	4.4	0.45	0.1	U	0.99	0.1	0.078	J	0.54	0.055
Vanadium	7440-62-2	6020B	mg/Kg	7.8 (3)	390	26.7		2.3	0.24	18.7		6.8	0.7	19.7		7.3	0.75	31.4		6.2	0.64	40.2		21.8	2.2	70.6		5	0.51	33.2		2.7	0.28
Zinc	7440-66-6	6020B	mg/Kg	46 (3)	23000	159		9.4	2.7	1490		27.4	7.8	3970		29.1	8.3	1050		24.8	7.1	2280		87.2	24.9	1550		19.8	5.7	53.5		10.7	3.1
Mercury	7439-97-6	7471B	mg/Kg	0.00051 (5)	23	0.37		0.02	0.0046	4.3		0.3	0.071	4.7		0.32	0.075	5.6		0.28	0.066	4.2		0.24	0.057	3.9		0.22	0.052	0.098		0.023	0.0055
Cyanide, Total	57-12-5	9012B	mg/Kg	1.33 (5)	47	0.52	J	0.25	0.14	18.1	J	4.1	1.5	5.9	J	0.92	0.33	1.8		0.7	0.38	3.3	J	1.6	0.57	3.8		1.4	0.51	0.25	U	0.69	0.25

Table 5.8 - Soil: Summary of Exceedances

(continued)

Rolling Knolls Landfill

Sample Name				ESC's	NJAC 7:26D	SS26				SS27				SS28				SS29				SS30				SS31				DP01_0.5-8.5			
Sample Date/Time						05/07/2021 08:30				05/05/2021 13:30				05/05/2021 08:20				05/06/2021 11:25				05/13/2021 15:20				05/14/2021 08:45				05/11/2021 09:10			
Latitude				Screening Criteria	(8) Soil Remediation Standards (Ing.-Derm.) - Residential	40.7240722				40.7231759				40.7240805				40.7248365				40.7266724				40.7237372				40.7297321			
Longitude						-74.4463803				-74.4437423				-74.4443078				-74.4434245				-74.4405011				-74.4477876				-74.4419101			
Lab Sample Name						GS-S-SS26				GS-S-SS27				GS-S-SS28				GS-S-SS29				GS-S-SS30				GS-S-SS31				GS-N-DPT01-SC-0.5-8.5			
Lab Sample Number						460-233940-1				460-233708-4				460-233708-1				460-233899-2				460-234436-4				460-234442-4				460-234161-2			
Lab Report Number(s)						460-233940-1				460-233708-1 / 460-233708-2				460-233708-1				460-233899-1				460-234436-1				460-234442-1				460-234161-1 / 460-234161-2			
Analyte	CAS	Method	Units			Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)
Volatile Organic Compounds (VOCs)																																	
1,1,1,2-Tetrachloroethane	630-20-6	8260D	µg/Kg	225000 (6)	0.1	0.21	U	1.1	0.21	0.28	U	1.5	0.28	0.32	U	1.7	0.32	0.7	U	3.7	0.7	0.51	U	2.7	0.51	0.24	U	1.3	0.24	0.44	U	2.3	0.44
Acetone	67-64-1	8260D	µg/Kg	1200 (7)	70000000	20		6.7	6.4	140	J	8.7	8.3	26		10	9.6	190		22	21	430		16	15	150		7.6	7.2	25		14	13
m-Xylene & p-Xylene	179601-23-1	8260D	µg/Kg	4162 (7)	12000000	0.2	U	1.1	0.2	0.25	U	1.5	0.25	0.29	U	1.7	0.29	0.64	U	3.7	0.64	0.47	U	2.7	0.47	0.22	U	1.3	0.22	0.4	U	2.3	0.4
Semivolatile Organic Compounds (SVOCs)																																	
1,2,4,5-Tetrachlorobenzene	95-94-3	8270E	µg/Kg	2020 (5)	23000	16	U	510	16	16	U	530	18	20	U	640	20	36	U	1200	36	23	U	740	23	14	U	440	14	23	U	740	23
2,3,4,6-Tetrachlorophenol	58-90-2	8270E	µg/Kg	199 (6)	1900000	35	U	510	35	36	U	530	36	43	U	640	43	79	U	1200	79	51	U	740	51	30	U	440	30	50	U	740	50
2,4-Dimethylphenol	105-67-9	8270E	µg/Kg	10 (5)	1300000	23	U	510	23	23	U	530	23	28	U	640	28	51	U	1200	51	33	U	740	33	20	U	440	20	33	U	740	33
2,4-Dinitrophenol	51-28-5	8270E	µg/Kg	60.9 (5)	130000	250	U	410	250	260	U	420	260	310	U	510	310	570	UJ	940	570	370	U	600	370	220	U	360	220	370	U	600	370
2,4-Dinitrotoluene	121-14-2	8270E	µg/Kg	1280 (5)		55	U	100	55	57	U	110	57	69	U	130	69	130	U	240	130	80	U	150	80	48	U	90	48	80	U	150	80
2-Chloronaphthalene	91-58-7	8270E	µg/Kg	12.2 (5)	4800000	24	U	510	24	24	U	530	24	30	U	640	30	54	U	1200	54	35	U	740	35	21	U	440	21	34	U	740	34
2-Methylnaphthalene	91-57-6	8270E	µg/Kg	3240 (5)	240000	14	U	510	14	21	J	530	15	490	J	640	18	78	J	1200	33	42	J	740	21	12	U	440	12	280	J	740	21
2-Nitroaniline	88-74-4	8270E	µg/Kg	5300 (7)		19	U	510	19	20	U	530	20	24	U	640	24	44	U	1200	44	28	U	740	28	17	U	440	17	28	U	740	28
2-Nitrophenol	88-75-5	8270E	µg/Kg	7000 (7)		51	U	510	51	53	U	530	53	64	U	640	64	120	UJ	1200	120	75	U	740	75	45	U	440	45	75	U	740	75
3,3'-Dichlorobenzidine	91-94-1	8270E	µg/Kg	646 (5)	1200	78	U	210	78	80	U	210	80	96	U	260	95	180	U	470	180	110	U	300	110	67	U	180	67	110	U	300	110
3-Nitroaniline	99-09-2	8270E	µg/Kg	3160 (6)		58	U	510	58	59	U	530	59	72	U	640	72	130	U	1200	130	84	U	740	84	50	U	440	50	84	U	740	84
4-Chloroaniline	106-47-8	8270E	µg/Kg	1000 (7)	2700	91	U	510	91	93	U	530	93	110	U	640	110	210	U	1200	210	130	U	740	130	79	U	440	79	130	U	740	130
4-Nitrophenol	100-02-7	8270E	µg/Kg	5120 (5)		84	U	1000	84	86	U	1100	86	100	U	1300	100	190	U	2400	190	120	UJ	1500	120	73	UJ	900	73	120	U	1500	120
Bis(2-chloroethyl)ether	111-44-4	8270E	µg/Kg	23700 (5)	630	18	U	51	18	18	U	53	18	22	U	64	22	41	U	120	41	26	U	74	26	15	U	44	15	26	U	74	26
Bis(2-ethylhexyl) phthalate	117-81-7	8270E	µg/Kg	925 (5)	39000	110	J	510	27	570		530	28	530	J	640	34	2200		1200	62	3800		740	39	24	U	440	24	11000		740	39
Butyl benzyl phthalate	85-68-7	8270E	µg/Kg	239 (5)	290000	24	U	510	24	80	J	530	25	30	U	640	30	55	U	1200	55	44	J	740	35	21	U	440	21	35	U	740	35
Dibenzofuran	132-64-9	8270E	µg/Kg	6100 (7)		7.2	U	510	7.2	7.4	U	530	7.4	24	J	640	9	70	J	1200	16	33	J	740	10	15	J	440	6.2	340	J	740	10
Di-n-butyl phthalate	84-74-2	8270E	µg/Kg	150 (5)	6300000	19	U	510	19	960		530	20	99	J	640	24	190	J	1200	44	650	J	740	28	17	U	440	17	400	J	740	28
Di-n-octyl phthalate	117-84-0	8270E	µg/Kg	910 (7)	630000	27	U	510	27	28	U	530	28	34	U	640	34	62	U	1200	62	40	U	740	40	24	U	440	24	4600		740	39
Hexachlorobenzene	118-74-1	8270E	µg/Kg	199 (5)	430	24	U	51	24	25	U	53	25	30	U	64	30	56	U	120	56	35	U	74	35	21	U	44	21	35	U	74	35
Hexachlorobutadiene	87-68-3	8270E	µg/Kg	39.8 (5)	8900	11	U	100	11	11	U	110	11	14	U	130	14	25	U	240	25	16	U	150	16	9.5	U	90	9.5	16	U	150	16
Hexachlorocyclopentadiene	77-47-4	8270E	µg/Kg	755 (5)	470000	45	U	510	45	46	U	530	46	56	U	640	56	100	U	1200	100	65	U	740	65	39	U	440	39	65	UJ	740	65
Hexachloroethane	67-72-1	8270E	µg/Kg	596 (5)	17000	18	U	51	18	18	U	53	18	22	U	64	22	40	U	120	40	26	U	74	26	15	U	44	15	26	U	74	26
N-Nitrosodi-n-propylamine	621-64-7	8270E	µg/Kg		170	37	U	51	37	38	U	53	38	46	U	64	46	85	U	120	85	54	U	74	54	32	U	44	32	54	U	74	54
N-Nitrosodiphenylamine	86-30-6	8270E	µg/Kg	545 (5)	110000	42	U	510	42	43	U	530	43	53	U	640	53	96	U	1200	96	61	U	740	61	37	U	440	37	65	J	740	61
Pentachlorophenol	87-86-5	8270E	µg/Kg	2100 (3)	1000	110	U	410	110	110	U	420	110	180	J	510	130	240	U	940	240	150	U	600	150	91	U	360	91	150	U	600	150
Polycyclic Aromatic Hydrocarbons (PAHs)																																	
Naphthalene	91-20-3	8270E	µg/Kg	99.4 (5)	2500000	8.9	U	510	8.9	38	J	530	9.1	300	J	640	11	220	J	1200	20	120	J	740	13	15	J	440	7.7	920		740	13
Benzo[a]anthracene	56-55-3	8270E	µg/Kg	5210 (5)	5100	18	J	51	18	88		53	18	120		64	22	69	J	120	41	280		74	26	16	U	44	16	2100		74	26
Benzo[a]pyrene	50-32-8	8270E	µg/Kg	1520 (5)	510	14	U	51	14	97		53	14	120		64	17	58	J	120	31	320		74	20	13	J	44	12	2000		74	20
Benzo[b]fluoranthene	205-99-2	8270E	µg/Kg	59800 (5)	5100	18	J	51	13	140		53	14	130		64	17	170		120	30	500		74	19	24	J	44	12	3100		74	19
Chrysene	218-01-9	8270E	µg/Kg	4730 (5)	510000	8.7	U	510	8.7	96	J	530	8.9	120	J	640	11	190	J	1200	20	340	J	740	13	26	J	440	7.5	2200		740	13
Dibenz(a,h)anthracene	53-70-3	8270E	µg/Kg	18400 (5)	510	22	U	51	22	24	J	53	23	28	U	64	28	51	U	120	51	61	J	74	32	19	U	44	19	140		74	32
Indeno[1,2,3-cd]pyrene	193-39-5	8270E	µg/Kg	109000 (5)	5100	20	U	51	20	85		53	21	55	J	64	25	71	J	120	46	230		74	29	17	U	44	17	980		74	29
High Molecular Weight PAHs			µg/Kg	1100 (4)		156.7				852				1116				1041				3271				181.7				22510			
Organochlorine Pesticides																																	
4,4'-DDD	72-54-8	8081B	µg/Kg	758 (5)	2300	1.8	U	10	1.8	1.8	U	11	1.8	22	U	130	22	4	U	24	4	2.6	U	15	2.6	1.5	U	9	1.5	2.6	U	15	2.6
4,4'-DDT	50-29-3	8081B	µg/Kg	3.5 (5)	1900	1.9	U	10	1.9	2	U	11	2	390		130	24	4.4	U	24	4.4	2.8	U	15	2.8	1.7	U	9	1.7	2.8	U	15	2.8
Aldrin	309-00-2	8081B	µg/Kg	3.32 (5)	41	1.6	U	10	1.6	1.6	U	11	1.6	19	U	130	19	3.6	U	24	3.6	2.3	U	15	2.3	1.4	U	9	1.4	2.3	U	15	2.3
beta-BHC	319-85-7	8081B	µg/Kg	3.98 (5)	300	1.2	U	3.1	1.2	1.2	U	3.2	1.2	14	U	39	14	2.7	U	7.1	2.7	1.7	U	4.5	1.7	1	U	2.7	1	1.7	U	4.5	1.7
Chlordane (technical)	57-74-9	8081B	µg/Kg	220 (7)	270	25	U	100	25	26	U	110	26	13000		1300	310	57	U	240	57	37	U	150	37	22	U	90	22	860		150	36
Dieldrin	60-57-1	8081B	µg/Kg	4.9 (4)	34	1.4	U	3.1	1.4	1.4	U	3.2	1.4	17	U	39	17	3.1	U	7.1	3.1	2	U	4.5	2	1.2	U	2.7	1.2	2	U	4.5	2
Endrin	72-20-8	8081B	µg/Kg	10.1 (5)	19000	1.5	U	10	1.5	1.5	U	11	1.5	19	U	130	19	3.4	U	24	3.4	2.2	U	15	2.2	1.3	U	9	1.3	2.2	U	15	2.2
Endrin aldehyde	7421-93-4	8081B	µg/Kg	10.5 (5)		2.5	U	10	2.5	2.5	U	11	2.5	30	U	130	30	5.6	U	24	5.6	3.6	U	15	3.6	2.1	U	9	2.1	3.6	U	15	3.6
gamma-BHC (Lindane)	58-89-9	8081B	µg/Kg	5 (5)	570	0.96	U	3.1	0.96	0.99	U	3.2	0.99	12	U	39	12	2.2	U	7.1	2.2	1.4	U	4.5	1.4	0.83	U	2.7	0.83	1.4	U	4.5	1.4
Heptachlor	76-44-8	8081B	µg/Kg	5.98 (5)	150	1.2	U	10	1.2	1.3	U	11	1.3	15	U	130	15	2.8	U	24	2.8	1.8	U	15	1.8	1.1	U	9	1.1	1.8	U	15	1.8
Toxaphene	8001-35-2	8081B	µg/Kg	119 (5)	490	38	U	100	38	39	U	110	39	470	U	1300	470	86	U	240	86	55	U	150	55	33	U	90	33	54	U	150	54

Table 5.8 - Soil: Summary of Exceedances

(continued)

Rolling Knolls Landfill

Sample Name				ESC's	NJAC 7:26D	SS26				SS27				SS28				SS29				SS30				SS31				DP01_0.5-8.5			
Sample Date/Time						05/07/2021 08:30				05/05/2021 13:30				05/05/2021 08:20				05/06/2021 11:25				05/13/2021 15:20				05/14/2021 08:45				05/11/2021 09:10			
Latitude				Screening Criteria	(8) Soil Remediation Standards (Ing.-Derm.) - Residential	40.7240722				40.7231759				40.7240805				40.7248365				40.7266724				40.7237372				40.7297321			
Longitude						-74.4463803				-74.4437423				-74.4443078				-74.4434245				-74.4405011				-74.4477876				-74.4419101			
Lab Sample Name						GS-S-SS26				GS-S-SS27				GS-S-SS28				GS-S-SS29				GS-S-SS30				GS-S-SS31				GS-N-DPT01-SC-0.5-8.5			
Lab Sample Number						460-233940-1				460-233708-4				460-233708-1				460-233899-2				460-234436-4				460-234442-4				460-234161-2			
Lab Report Number(s)						460-233940-1				460-233708-1 / 460-233708-2				460-233708-1				460-233899-1				460-234436-1				460-234442-1				460-234161-1 / 460-234161-2			
Analyte	**CAS**	**Method**	**Units**			**Result**	**LDC Flag**	**RL**	**MDL (EDL)**	**Result**	**LDC Flag**	**RL**	**MDL (EDL)**	**Result**	**LDC Flag**	**RL**	**MDL (EDL)**	**Result**	**LDC Flag**	**RL**	**MDL (EDL)**	**Result**	**LDC Flag**	**RL**	**MDL (EDL)**	**Result**	**LDC Flag**	**RL**	**MDL (EDL)**	**Result**	**LDC Flag**	**RL**	**MDL (EDL)**
Polychlorinated Biphenyls (PCBs)																																	
Aroclor 1242	53469-21-9	8082A	µg/Kg	41 (7)		14 U		100	14	140 U		1100	140	17 U		130	17	320 U		2400	320	20 U		150	20	12 U		90	12	20 U		150	20
Aroclor 1248	12672-29-6	8082A	µg/Kg	7.3 (7)		14 U		100	14	9900		1100	140	17 U		130	17	320 U		2400	320	20 U		150	20	12 U		90	12	1000		150	20
Aroclor 1254	11097-69-1	8082A	µg/Kg	41 (7)		14 U		100	14	150 U		1100	150	18 U		130	18	27000		2400	330	2300		150	21	12 U		90	12	21 U		150	21
Polychlorinated biphenyls, Total	1336-36-3	8082A	µg/Kg	371 (5)	250	89 J		100	14	9900		1100	150	840		130	18	27000		2400	330	2300		150	21	12 U		90	12	1000		150	21
Chlorinated Biphenyl Congeners (PCBs)																																	
Σ Polychlorinated biphenyls	1336-36-3	8082A	pg/g	371000 (5)	250000					9,949,923																				33,861,639			
Σ Polychlorinated biphenyls (PCB) TEQ	1336-36-3	8082A	pg/g	0.199 (5)						1659																				2856			
Dioxins and Furans																																	
2,3,7,8-TCDD	1746-01-6	8290A	pg/g	0.199 (5)	51					4.69		1.56	0.37																	9.24		2.27	0.7
Total TCDD	41903-57-5	8290A	pg/g	0.199 (5)						27.6 J		1.56	0.37																	63.6 J		2.27	0.7
2,3,7,8-TCDD	1746-01-6		pg/g	0.199 (5)						4.69																				9.24			
Σ Dibenzo-p-dioxin (PCDD) TEQ	30402-14-3		pg/g	0.199 (5)						19																				29			
Σ Dibenzofuran (PCDF) TEQ	30402-14-3		pg/g	0.199 (5)						61																				86			
Σ PCB TEQ + PCDD TEQ + PCDF TEQ	30402-14-3		pg/g	0.199 (5)						1739																				2972			
Metals & Cyanide																																	
Aluminum	7429-90-5	6020B	mg/Kg	50 (7)	78000	10400		30.1	3.9	6230		85.3	11.1	5410		112	14.6	12400		66.3	8.6	7400		38.2	5	9850		25.7	3.3	11300		40.9	5.3
Antimony	7440-36-0	6020B	mg/Kg	0.27 (4)	31	0.39 J		1.5	0.22	8.2		4.3	0.62	20.9		5.6	0.82	4.9		3.3	0.48	9.7		1.9	0.28	0.19 U		1.3	0.19	14.8		2	0.3
Arsenic	7440-38-2	6020B	mg/Kg	18 (1)	19	3.2		1.5	0.15	24.6		4.3	0.43	135		5.6	0.56	29.6		3.3	0.33	16.8		1.9	0.19	3.7		1.3	0.13	44.2		2	0.2
Barium	7440-39-3	6020B	mg/Kg	330 (2)	16000	61.1		3	0.22	422		8.5	0.62	520		11.2	0.82	314		6.6	0.48	608		3.8	0.28	29.8		2.6	0.19	221		4.1	0.3
Cadmium	7440-43-9	6020B	mg/Kg	0.36 (4)	71	0.86 J		1.5	0.17	14.6		4.3	0.48	9.6		5.6	0.64	11.6		3.3	0.37	131		1.9	0.22	0.17 J		1.3	0.14	23		2	0.23
Chromium	7440-47-3	6020B	mg/Kg	0.4 (5)		28 J		3	0.26	88.7		8.5	0.74	371		11.2	0.98	138		6.6	0.58	688		3.8	0.33	11.1		2.6	0.22	129		4.1	0.36
Cobalt	7440-48-4	6020B	mg/Kg	13 (1)	23	8.3		3	0.22	41.5		8.5	0.63	39.6		11.2	0.83	54.3		6.6	0.49	14.3		3.8	0.28	2.9		2.6	0.19	13		4.1	0.3
Copper	7440-50-8	6020B	mg/Kg	28 (3)	3100	108		3	0.33	875		8.5	0.94	639		11.2	1.2	4980		6.6	0.73	501		3.8	0.42	8.1		2.6	0.28	3620		4.1	0.45
Lead	7439-92-1	6020B	mg/Kg	11 (3)	400	126		0.9	0.3	1280		2.6	0.85	1060		3.4	1.1	3620		2	0.66	922		1.1	0.38	20.6		0.77	0.26	1710		6.1	2
Manganese	7439-96-5	6020B	mg/Kg	220 (1)	1900	393		6	0.61	1150		17.1	1.7	1720		22.5	2.3	759		13.3	1.3	669		7.6	0.77	73.1		5.1	0.52	925		8.2	0.82
Nickel	7440-02-0	6020B	mg/Kg	38 (1)	1600	18 J		3	0.29	115		8.5	0.83	170		11.2	1.1	265		6.6	0.64	233		3.8	0.37	6.4		2.6	0.25	98.5		4.1	0.4
Selenium	7782-49-2	6020B	mg/Kg	0.52 (1)	390	0.28 J		1.9	0.18	0.89 J		5.3	0.5	1.1 J		7	0.66	1 J		4.1	0.39	10.9		2.4	0.23	0.47 J		1.6	0.15	1.2 J		2.6	0.24
Silver	7440-22-4	6020B	mg/Kg	4.2 (3)	390	0.81 J		1.5	0.13	14.4		4.3	0.38	5.4 J		5.6	0.5	21.1		3.3	0.3	9.1		1.9	0.17	0.11 U		1.3	0.11	5.6		2	0.18
Thallium	7440-28-0	6020B	mg/Kg	1 (5)		0.086 J		0.6	0.062	0.17 U		1.7	0.17	0.23 U		2.2	0.23	0.14 U		1.3	0.14	0.078 U		0.76	0.078	0.092 J		0.51	0.053	0.42 U		4.1	0.42
Vanadium	7440-62-2	6020B	mg/Kg	7.8 (3)	390	36.8		3	0.31	122		8.5	0.88	22.3		11.2	1.2	17.3		6.6	0.68	30.8		3.8	0.39	24.5		2.6	0.26	62.4		4.1	0.42
Zinc	7440-66-6	6020B	mg/Kg	46 (3)	23000	150		12.1	3.5	830		34.1	9.8	2250		45	12.9	2220		26.5	7.6	1740		15.3	4.4	29.6		10.3	2.9	3270		16.4	4.7
Mercury	7439-97-6	7471B	mg/Kg	0.00051 (5)	23	1		0.024	0.0057	18		0.98	0.23	4.5		0.3	0.07	1770		467	110	23.1		0.85	0.2	0.061		0.022	0.0051	5		0.75	0.18
Cyanide, Total	57-12-5	9012B	mg/Kg	1.33 (5)	47	0.58 J		0.75	0.27	0.31 J		0.34	0.19	1.8 J		0.46	0.25	71.8		1.8	0.63	16.2		1.1	0.4	0.24 U		0.66	0.24	0.84 J		1.1	0.4

Table 5.8 - Soil: Summary of Exceedances

(continued)

Rolling Knolls Landfill

Sample Name				ESC's	NJAC 7:26D	DP100_0.5-8.5 (DP01_0.5-8.5 duplicate)				DP02_0.5-8.5				DP02_8.5-10.0				DP03_0.5-3.5				DP03_3.5-4.0				DP04_0.5-5.0				DP04_5.0-8.0			
Sample Date/Time						05/11/2021 12:00				05/11/2021 10:40				05/11/2021 11:15				05/11/2021 14:05				05/11/2021 14:15				04/29/2021 12:50				04/29/2021 10:35			
Latitude						40.7297321				40.7303542				40.7303542				40.7288473				40.7288473				40.7304704				40.7304704			
Longitude						-74.4419101				-74.4418002				-74.4418002				-74.4410590				-74.4410590				-74.4414832				-74.4414832			
Lab Sample Name				Screening Criteria	(8) Soil Remediation Standards (Ing.-Derm.) - Residential	GS-N-DPT100-SC-0.5-8.5				GS-N-DPT02-SC-0.5-8.5				GS-N-DPT02-SB-8.5-10.0				GS-N-DPT03-SC-0.5-3.5				GS-N-DPT03-SB-3.5-4.0				GS-N-DPT04-SC-0.5-5				GS-N-DPT04--SB-5-8			
Lab Sample Number						460-234161-8				460-234186-2				460-234186-3				460-234161-4				460-234161-5				460-233312-2				460-233312-3			
Lab Report Number(s)						460-234161-1				460-234186-1				460-234186-1				460-234161-1				460-234161-1				460-233312-1				460-233312-1			
Analyte	**CAS**	**Method**	**Units**			**Result**	**LDC Flag**	**RL**	**MDL (EDL)**	**Result**	**LDC Flag**	**RL**	**MDL (EDL)**	**Result**	**LDC Flag**	**RL**	**MDL (EDL)**	**Result**	**LDC Flag**	**RL**	**MDL (EDL)**	**Result**	**LDC Flag**	**RL**	**MDL (EDL)**	**Result**	**LDC Flag**	**RL**	**MDL (EDL)**	**Result**	**LDC Flag**	**RL**	**MDL (EDL)**
Volatile Organic Compounds (VOCs)																																
1,1,1,2-Tetrachloroethane	630-20-6	8260D	µg/Kg	225000 (6)	0.1	0.39 U		2.1	0.39	0.45 UJ		2.4	0.45	0.16 U		0.84	0.16	0.34 U		1.8	0.34	0.16 U		0.85	0.16	1.8 U		1.8	0.35	0.99 U		0.99	0.19
Acetone	67-64-1	8260D	µg/Kg	1200 (7)	70000000	25		12	12	56		14	14	30		5	4.8	10 U		11	10	26		5.1	4.9	45		11	11	82		5.9	5.7
m-Xylene & p-Xylene	179601-23-1	8260D	µg/Kg	4162 (7)	12000000	0.36 U		2.1	0.36	0.41 UJ		2.4	0.41	0.15 U		0.84	0.15	0.31 U		1.8	0.31	0.15 U		0.85	0.15	1.8 U		1.8	0.32	0.99 U		0.99	0.17
Semivolatile Organic Compounds (SVOCs)																																
1,2,4,5-Tetrachlorobenzene	95-94-3	8270E	µg/Kg	2020 (5)	23000	24 U		750	24	29 UJ		920	29	12 U		400	12	19 U		610	19	13 U		410	13	7100 U		7100	220	410 U		410	13
2,3,4,6-Tetrachlorophenol	58-90-2	8270E	µg/Kg	199 (6)	1900000	51 U		750	51	63 UJ		920	63	27 U		400	27	41 U		610	41	28 U		410	28	7100 U		7100	480	410 U		410	28
2,4-Dimethylphenol	105-67-9	8270E	µg/Kg	10 (5)	1300000	33 U		750	33	41 U		920	41	17 U		400	17	27 U		610	27	18 U		410	18	7100 U		7100	310	410 U		410	18
2,4-Dinitrophenol	51-28-5	8270E	µg/Kg	60.9 (5)	130000	370 U		610	370	450 UJ		740	450	190 U		320	190	300 U		490	300	200 U		330	200	5700 UJ		5700	3500	330 U		330	200
2,4-Dinitrotoluene	121-14-2	8270E	µg/Kg	1280 (5)		81 U		150	81	100 UJ		190	100	43 U		80	43	66 U		120	66	44 U		84	44	1400 U		1400	760	84 U		84	44
2-Chloronaphthalene	91-58-7	8270E	µg/Kg	12.2 (5)	4800000	35 U		750	35	43 UJ		920	43	18 U		400	18	28 U		610	28	19 U		410	19	7100 U		7100	330	410 U		410	19
2-Methylnaphthalene	91-57-6	8270E	µg/Kg	3240 (5)	240000	920		750	21	40 J		920	26	11 U		400	11	17 U		610	17	12 U		410	12	190 J		7100	200	410 U		410	12
2-Nitroaniline	88-74-4	8270E	µg/Kg	5300 (7)		28 U		750	28	35 UJ		920	35	15 U		400	15	23 U		610	23	15 U		410	15	7100 U		7100	270	410 U		410	15
2-Nitrophenol	88-75-5	8270E	µg/Kg	7000 (7)		76 U		750	76	93 U		920	93	40 U		400	40	61 U		610	61	41 U		410	41	7100 UJ		7100	710	410 U		410	41
3,3'-Dichlorobenzidine	91-94-1	8270E	µg/Kg	646 (5)	1200	110 U		300	110	140 UJ		370	140	60 U		160	60	92 U		250	92	62 U		170	62	2900 U		2900	1100	170 U		170	62
3-Nitroaniline	99-09-2	8270E	µg/Kg	3160 (6)		85 U		750	85	100 U		920	100	45 U		400	45	69 U		610	69	47 U		410	47	7100 U		7100	800	410 U		410	46
4-Chloroaniline	106-47-8	8270E	µg/Kg	1000 (7)	2700	130 U		750	130	160 U		920	160	70 U		400	70	110 U		610	110	73 U		410	73	7100 U		7100	1300	410 U		410	73
4-Nitrophenol	100-02-7	8270E	µg/Kg	5120 (5)		120 UJ		1500	120	150 UJ		1900	150	65 UJ		800	65	99 U		1200	99	67 U		840	67	14000 U		14000	1200	840 U		840	67
Bis(2-chloroethyl)ether	111-44-4	8270E	µg/Kg	23700 (5)	630	26 U		75	26	32 UJ		92	32	14 U		40	14	21 U		61	21	14 U		41	14	710 U		710	250	41 U		41	14
Bis(2-ethylhexyl) phthalate	117-81-7	8270E	µg/Kg	925 (5)	39000	13000		750	40	1900 J		920	49	21 U		400	21	550 J		610	32	22 U		410	22	7100 U		7100	380	170 J		410	22
Butyl benzyl phthalate	85-68-7	8270E	µg/Kg	239 (5)	290000	270 J		750	35	52 J		920	43	19 U		400	19	29 U		610	29	19 U		410	19	7100 U		7100	330	410 U		410	19
Dibenzofuran	132-64-9	8270E	µg/Kg	6100 (7)		2500		750	11	13 UJ		920	13	5.6 U		400	5.6	8.6 U		610	8.6	5.8 U		410	5.8	7100 U		7100	100	410 U		410	5.8
Di-n-butyl phthalate	84-74-2	8270E	µg/Kg	150 (5)	6300000	1900		750	28	190 J		920	35	15 U		400	15	25 J		610	23	16 U		410	16	7100 U		7100	270	410 U		410	16
Di-n-octyl phthalate	117-84-0	8270E	µg/Kg	910 (7)	630000	4800		750	40	49 UJ		920	49	21 U		400	21	32 U		610	32	22 U		410	22	7100 U		7100	380	410 U		410	22
Hexachlorobenzene	118-74-1	8270E	µg/Kg	199 (5)	430	36 U		75	36	44 UJ		92	44	19 U		40	19	29 U		61	29	20 U		41	20	710 U		710	340	41 U		41	20
Hexachlorobutadiene	87-68-3	8270E	µg/Kg	39.8 (5)	8900	16 U		150	16	20 U		190	20	8.4 U		80	8.4	13 U		120	13	8.8 U		84	8.8	1400 U		1400	150	84 U		84	8.8
Hexachlorocyclopentadiene	77-47-4	8270E	µg/Kg	755 (5)	470000	66 U		750	66	81 UJ		920	81	35 U		400	35	54 UJ		610	54	36 UJ		410	36	7100 U		7100	620	410 U		410	36
Hexachloroethane	67-72-1	8270E	µg/Kg	596 (5)	17000	26 U		75	26	32 UJ		92	32	14 U		40	14	21 U		61	21	14 U		41	14	710 U		710	240	41 U		41	14
N-Nitrosodi-n-propylamine	621-64-7	8270E	µg/Kg		170	55 U		75	55	67 UJ		92	67	29 U		40	29	44 U		61	44	30 U		41	30	710 U		710	520	41 U		41	30
N-Nitrosodiphenylamine	86-30-6	8270E	µg/Kg	545 (5)	110000	220 J		750	62	76 UJ		920	76	33 U		400	33	50 U		610	50	34 U		410	34	7100 U		7100	580	410 U		410	34
Pentachlorophenol	87-86-5	8270E	µg/Kg	2100 (3)	1000	1100		610	160	190 UJ		740	190	81 U		320	81	130 U		490	130	85 U		330	85	5700 U		5700	1500	330 U		330	85
Polycyclic Aromatic Hydrocarbons (PAHs)																																
Naphthalene	91-20-3	8270E	µg/Kg	99.4 (5)	2500000	1900		750	13	110 J		920	16	6.9 U		400	6.9	110 J		610	11	7.1 U		410	7.1	2700 J		7100	120	13 J		410	7.1
Benzo[a]anthracene	56-55-3	8270E	µg/Kg	5210 (5)	5100	16000		75	26	240		92	32	14 U		40	14	29 J		61	21	14 U		41	14	710		710	250	41 U		41	14
Benzo[a]pyrene	50-32-8	8270E	µg/Kg	1520 (5)	510	17000		75	20	380		92	25	11 U		40	11	16 U		61	16	11 U		41	11	400 J		710	190	41 U		41	11
Benzo[b]fluoranthene	205-99-2	8270E	µg/Kg	59800 (5)	5100	22000		380	98	150 J		92	24	10 U		40	10	16 U		61	16	11 U		41	11	290 J		710	180	41 U		41	11
Chrysene	218-01-9	8270E	µg/Kg	4730 (5)	510000	17000		750	13	430 J		920	16	6.7 U		400	6.7	35 J		610	10	7 U		410	7	840 J		7100	120	410 U		410	7
Dibenz(a,h)anthracene	53-70-3	8270E	µg/Kg	18400 (5)	510	2900		75	33	52 J		92	40	17 U		40	17	26 U		61	26	18 U		41	18	710 U		710	310	41 U		41	18
Indeno[1,2,3-cd]pyrene	193-39-5	8270E	µg/Kg	109000 (5)	5100	10000		75	30	110		92	36	15 U		40	15	59 J		61	24	16 U		41	16	150 J		710	280	41 U		41	16
High Molecular Weight PAHs			µg/Kg	1100 (4)		181100				2113				117.4				362				121.1				12843				1886			
Organochlorine Pesticides																																
4,4'-DDD	72-54-8	8081B	µg/Kg	758 (5)	2300	2.6 U		15	2.6	3.2 U		19	3.2	1.4 U		8	1.4	6.1 J		12	2.1	1.4 U		8.4	1.4	40		14	2.4	19		8.4	1.4
4,4'-DDT	50-29-3	8081B	µg/Kg	3.5 (5)	1900	2.8 U		15	2.8	3.4 U		19	3.4	1.5 U		8	1.5	2.3 U		12	2.3	1.5 U		8.4	1.5	14 U		14	2.6	8.4 U		8.4	1.5
Aldrin	309-00-2	8081B	µg/Kg	3.32 (5)	41	2.3 U		15	2.3	2.8 U		19	2.8	1.2 U		8	1.2	1.9 U		12	1.9	1.3 U		8.4	1.3	14 U		14	2.2	8.4 U		8.4	1.3
beta-BHC	319-85-7	8081B	µg/Kg	3.98 (5)	300	1.7 U		4.6	1.7	2.1 U		5.6	2.1	0.9 U		2.4	0.9	1.4 U		3.7	1.4	0.94 U		2.5	0.94	4.3 U		4.3	1.6	2.5 U		2.5	0.94
Chlordane (technical)	57-74-9	8081B	µg/Kg	220 (7)	270	1100		150	37	45 U		190	45	19 U		80	19	30 U		120	30	20 U		84	20	2000		140	35	190		84	20
Dieldrin	60-57-1	8081B	µg/Kg	4.9 (4)	34	2 U		4.6	2	2.4 U		5.6	2.4	1 U		2.4	1	1.6 U		3.7	1.6	1.1 U		2.5	1.1	4.3 U		4.3	1.9	2.5 U		2.5	1.1
Endrin	72-20-8	8081B	µg/Kg	10.1 (5)	19000	2.2 U		15	2.2	2.7 U		19	2.7	1.2 U		8	1.2	1.8 U		12	1.8	1.2 U		8.4	1.2	14 U		14	2.1	8.4 U		8.4	1.2
Endrin aldehyde	7421-93-4	8081B	µg/Kg	10.5 (5)		3.6 U		15	3.6	4.4 U		19	4.4	1.9 U		8	1.9	2.9 U		12	2.9	2 U		8.4	2	14 U		14	3.4	8.4 U		8.4	2
gamma-BHC (Lindane)	58-89-9	8081B	µg/Kg	5 (5)	570	1.4 U		4.6	1.4	1.7 U		5.6	1.7	0.74 U		2.4	0.74	1.1 U		3.7	1.1	0.77 U		2.5	0.77	4.3 U		4.3	1.3	2.5 U		2.5	0.77
Heptachlor	76-44-8	8081B	µg/Kg	5.98 (5)	150	1.8 U		15	1.8	2.2 U		19	2.2	0.95 U		8	0.95	1.5 U		12	1.5	0.99 U		8.4	0.99	14 U		14	1.7	8.4 U		8.4	0.98
Toxaphene	8001-35-2	8081B	µg/Kg	119 (5)	490	55 U		150	55	68 U		190	68	29 U		80	29	45 U		120	45	30 U		84	30	140 U		140	52	84 U		84	30

Table 5.8 - Soil: Summary of Exceedances

(continued)

Rolling Knolls Landfill

	Sample Name			ESC's	NJAC 7:26D	DP100_0.5-8.5 (DP01_0.5-8.5 duplicate)				DP02_0.5-8.5				DP02_8.5-10.0				DP03_0.5-3.5				DP03_3.5-4.0				DP04_0.5-5.0				DP04_5.0-8.0			
	Sample Date/Time					05/11/2021 12:00				05/11/2021 10:40				05/11/2021 11:15				05/11/2021 14:05				05/11/2021 14:15				04/29/2021 12:50				04/29/2021 10:35			
	Latitude					40.7297321				40.7303542				40.7303542				40.7288473				40.7288473				40.7304704				40.7304704			
	Longitude			Screening Criteria	(8) Soil Remediation Standards (Ing.-Derm.) - Residential	-74.4419101				-74.4418002				-74.4418002				-74.4410590				-74.4410590				-74.4414832				-74.4414832			
	Lab Sample Name					GS-N-DPT100-SC-0.5-8.5				GS-N-DPT02-SC-0.5-8.5				GS-N-DPT02-SB-8.5-10.0				GS-N-DPT03-SC-0.5-3.5				GS-N-DPT03-SB-3.5-4.0				GS-N-DPT04-SC-0.5-5				GS-N-DPT04--SB-5-8			
	Lab Sample Number					460-234161-8				460-234186-2				460-234186-3				460-234161-4				460-234161-5				460-233312-2				460-233312-3			
	Lab Report Number(s)					460-234161-1				460-234186-1				460-234186-1				460-234161-1				460-234161-1				460-233312-1				460-233312-1			
Analyte	CAS	Method	Units			Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)
Polychlorinated Biphenyls (PCBs)																																
Aroclor 1242	53469-21-9	8082A	µg/Kg	41 (7)		20	U	150	20	25	U	190	25	11	U	80	11	82	U	620	82	11	U	84	11	290	U	290	38	84	U	84	11
Aroclor 1248	12672-29-6	8082A	µg/Kg	7.3 (7)		1100		150	20	360		190	25	11	U	80	11	82	U	620	82	11	U	84	11	5100		290	38	450		84	11
Aroclor 1254	11097-69-1	8082A	µg/Kg	41 (7)		21	U	150	21	26	U	190	26	11	U	80	11	85	U	620	85	11	U	84	11	290	U	290	39	84	U	84	11
Polychlorinated biphenyls, Total	1336-36-3	8082A	µg/Kg	371 (5)	250	1100		150	21	360		190	26	11	U	80	11	4500		620	85	94		84	11	5100		290	39	450		84	11
Chlorinated Biphenyl Congeners (PCBs)																																
Σ Polychlorinated biphenyls	1336-36-3	8082A	pg/g	371000 (5)	250000																											
Σ Polychlorinated biphenyls (PCB) TEQ	1336-36-3	8082A	pg/g	0.199 (5)																												
Dioxins and Furans																																
2,3,7,8-TCDD	1746-01-6	8290A	pg/g	0.199 (5)	51																											
Total TCDD	41903-57-5	8290A	pg/g	0.199 (5)																												
2,3,7,8-TCDD	1746-01-6		pg/g	0.199 (5)																												
Σ Dibenzo-p-dioxin (PCDD) TEQ	30402-14-3		pg/g	0.199 (5)																												
Σ Dibenzofuran (PCDF) TEQ	30402-14-3		pg/g	0.199 (5)																												
Σ PCB TEQ + PCDD TEQ + PCDF TEQ	30402-14-3		pg/g	0.199 (5)																												
Metals & Cyanide																																
Aluminum	7429-90-5	6020B	mg/Kg	50 (7)	78000	16800		156	20.2	10600		153	19.8	7790		23.3	3	17800		32.9	4.3	13500		21	2.7	6760		119	15.5	4910		23.3	3
Antimony	7440-36-0	6020B	mg/Kg	0.27 (4)	31	852		77.8	11.4	7	J	7.6	1.1	0.17	U	1.2	0.17	3.3		1.6	0.24	0.15	U	1	0.15	20.4		6	0.87	6		1.2	0.17
Arsenic	7440-38-2	6020B	mg/Kg	18 (1)	19	57.8		7.8	0.78	18.3		7.6	0.76	1.4		1.2	0.12	11.9		1.6	0.16	1.3		1	0.1	16.1		6	0.6	8.8		1.2	0.12
Barium	7440-39-3	6020B	mg/Kg	330 (2)	16000	295		15.6	1.1	254		15.3	1.1	46.7		2.3	0.17	206		3.3	0.24	77.4		2.1	0.15	206		11.9	0.86	141		2.3	0.17
Cadmium	7440-43-9	6020B	mg/Kg	0.36 (4)	71	22		7.8	0.88	9.8		7.6	0.86	0.13	U	1.2	0.13	8.5		1.6	0.19	0.12	U	1	0.12	9.9		6	0.67	1.2	U	1.2	0.13
Chromium	7440-47-3	6020B	mg/Kg	0.4 (5)		96		15.6	1.4	65.1	J	15.3	1.3	18.1		2.3	0.2	72.6		3.3	0.29	21		2.1	0.18	79.2		11.9	1	27.5		2.3	0.2
Cobalt	7440-48-4	6020B	mg/Kg	13 (1)	23	15.8		15.6	1.2	9.5	J	15.3	1.1	8.3		2.3	0.17	22.1		3.3	0.24	5.4		2.1	0.16	18.7		11.9	0.88	10.3		2.3	0.17
Copper	7440-50-8	6020B	mg/Kg	28 (3)	3100	757		15.6	1.7	342		15.3	1.7	21.1		2.3	0.26	346		3.3	0.36	11.4		2.1	0.23	252		11.9	1.3	209		2.3	0.26
Lead	7439-92-1	6020B	mg/Kg	11 (3)	400	2340		4.7	1.6	478		4.6	1.5	7.7		0.7	0.23	852		0.99	0.33	11.2		0.63	0.21	852		3.6	1.2	150		0.7	0.23
Manganese	7439-96-5	6020B	mg/Kg	220 (1)	1900	708		31.1	3.1	520	J	30.5	3.1	86		4.7	0.47	582		6.6	0.66	81.7		4.2	0.42	1060		23.8	2.4	305		4.7	0.47
Nickel	7440-02-0	6020B	mg/Kg	38 (1)	1600	90.9		15.6	1.5	64.9	J	15.3	1.5	14.9		2.3	0.23	74.8		3.3	0.32	13.9		2.1	0.2	58.2		11.9	1.2	52.7		2.3	0.23
Selenium	7782-49-2	6020B	mg/Kg	0.52 (1)	390	1.2	J	9.7	0.92	0.99	J	9.5	0.9	0.14	U	1.5	0.14	1.1	J	2.1	0.19	0.19	J	1.3	0.12	7.5	U	7.5	0.7	1.5	U	1.5	0.14
Silver	7440-22-4	6020B	mg/Kg	4.2 (3)	390	6.2	J	7.8	0.69	6	J	7.6	0.68	0.1	U	1.2	0.1	4.7		1.6	0.15	0.093	U	1	0.093	6.7		6	0.53	1.2	U	1.2	0.1
Thallium	7440-28-0	6020B	mg/Kg	1 (5)		0.32	U	3.1	0.32	0.31	U	3.1	0.31	0.07	J	0.47	0.048	0.12	J	0.66	0.068	0.11	J	0.42	0.043	2.4	U	2.4	0.24	0.47	U	0.47	0.048
Vanadium	7440-62-2	6020B	mg/Kg	7.8 (3)	390	40.2		15.6	1.6	22.4		15.3	1.6	31.5		2.3	0.24	25.4		3.3	0.34	37.3		2.1	0.22	14.6		11.9	1.2	24.2		2.3	0.24
Zinc	7440-66-6	6020B	mg/Kg	46 (3)	23000	2280		62.2	17.8	2060		61	17.5	34		9.3	2.7	1080		13.2	3.8	27.5		8.4	2.4	1360		47.7	13.7	435		9.3	2.7
Mercury	7439-97-6	7471B	mg/Kg	0.00051 (5)	23	6		0.75	0.18	5.7		0.44	0.1	0.035		0.02	0.0046	3.2		0.58	0.14	0.033		0.021	0.0049	4.3		0.17	0.041	0.21		0.019	0.0045
Cyanide, Total	57-12-5	9012B	mg/Kg	1.33 (5)	47	1.4		1.2	0.43	7	J	1.5	0.54	0.22	U	0.62	0.22	0.33	U	0.91	0.33	0.21	U	0.59	0.21	10.5		2.1	1.1	0.25	UJ	0.25	0.14

Table 5.8 - Soil: Summary of Exceedances

(continued)

Rolling Knolls Landfill

Sample Name				ESC's	NJAC 7:26D	DP05_0.5-5.0				DP05_5.0-7.0				DP06_0.5-2.0				DP06_2.5-3.0				DP100_2.5-3.0 (DP06_2.5-3.0 duplicate)				DP07_0.5-4.5				DP07_5.0-8.0			
Sample Date/Time						04/29/2021 16:40				04/29/2021 15:50				05/13/2021 09:30				05/13/2021 09:55				05/13/2021 12:00				05/13/2021 13:10				04/28/2021 00:00			
Latitude						40.7300494				40.7300494				40.7298030				40.7298030				40.7298030				40.7293038				40.7293038			
Longitude				Screening Criteria	(8) Soil Remediation Standards (Ing.-Derm.) - Residential	-74.4418444				-74.4418444				-74.4414280				-74.4414280				-74.4414280				-74.4416064				-74.4416064			
Lab Sample Name						GS-N-DPT05--SC-0.5-5				GS-N-DPT05--SB-5-7				GS-N-DPT06-SC-0.5-2.0				GS-N-DPT06-SB-2.5-3.0				GS-N-DPT100-SB-2.5-3.0				GS-N-DPT07-SC-0.5-4.5				GS-N-DPT07-SB-5-8			
Lab Sample Number						460-233312-5				460-233312-6				460-234436-2				460-234436-3				460-234436-8				460-234435-2				460-233313-2			
Lab Report Number(s)						460-233312-1				460-233312-1				460-234436-1				460-234436-1				460-234436-1				460-234435-1				460-233313-1			
Analyte	CAS	Method	Units			Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)
Volatile Organic Compounds (VOCs)																																	
1,1,1,2-Tetrachloroethane	630-20-6	8260D	µg/Kg	225000 (6)	0.1	2.6	U	2.6	0.49	0.74	U	0.74	0.14	0.52	U	2.7	0.52	0.17	U	0.91	0.17	0.15	U	0.8	0.15	0.32	U	1.7	0.32				
Acetone	67-64-1	8260D	µg/Kg	1200 (7)	70000000	60		15	15	42		4.5	4.3	110		16	16	35		5.5	5.2	39		4.8	4.6	160		10	9.5				
m-Xylene & p-Xylene	179601-23-1	8260D	µg/Kg	4162 (7)	12000000	2.6	U	2.6	0.45	0.74	U	0.74	0.13	0.48	J	2.7	0.47	0.16	U	0.91	0.16	0.14	U	0.8	0.14	0.67	J	1.7	0.29				
Semivolatile Organic Compounds (SVOCs)																																	
1,2,4,5-Tetrachlorobenzene	95-94-3	8270E	µg/Kg	2020 (5)	23000	690	U	690	22	380	U	380	12	33	U	1000	33	13	U	400	13	13	U	410	13	18	U	570	18	12	U	390	12
2,3,4,6-Tetrachlorophenol	58-90-2	8270E	µg/Kg	199 (6)	1900000	690	U	690	47	380	U	380	26	71	U	1000	71	27	U	400	27	28	U	410	28	39	U	570	39	27	U	390	27
2,4-Dimethylphenol	105-67-9	8270E	µg/Kg	10 (5)	1300000	690	U	690	30	380	U	380	17	46	U	1000	46	18	U	400	18	18	U	410	18	25	U	570	25	17	U	390	17
2,4-Dinitrophenol	51-28-5	8270E	µg/Kg	60.9 (5)	130000	560	U	560	340	300	U	300	190	510	U	840	510	200	U	330	200	200	U	330	200	280	UJ	460	280	190	U	320	190
2,4-Dinitrotoluene	121-14-2	8270E	µg/Kg	1280 (5)		140	U	140	75	77	U	77	41	110	U	210	110	44	U	82	44	44	U	83	44	62	U	120	62	42	U	80	42
2-Chloronaphthalene	91-58-7	8270E	µg/Kg	12.2 (5)	4800000	690	U	690	32	380	U	380	18	48	U	1000	48	19	U	400	19	19	U	410	19	27	U	570	27	18	U	390	18
2-Methylnaphthalene	91-57-6	8270E	µg/Kg	3240 (5)	240000	33	J	690	19	380	U	380	11	34	J	1000	29	11	U	400	11	11	U	410	11	36	J	570	16	11	U	390	11
2-Nitroaniline	88-74-4	8270E	µg/Kg	5300 (7)		690	U	690	26	380	U	380	14	39	U	1000	39	15	U	400	15	15	U	410	15	21	U	570	21	15	U	390	15
2-Nitrophenol	88-75-5	8270E	µg/Kg	7000 (7)		690	U	690	69	380	U	380	38	100	U	1000	100	41	U	400	41	41	U	410	41	57	UJ	570	57	40	U	390	40
3,3'-Dichlorobenzidine	91-94-1	8270E	µg/Kg	646 (5)	1200	280	U	280	100	150	U	150	57	160	U	420	160	61	U	160	61	62	U	160	62	87	U	230	87	60	U	160	60
3-Nitroaniline	99-09-2	8270E	µg/Kg	3160 (6)		690	U	690	78	380	U	380	43	120	U	1000	120	46	U	400	46	46	U	410	46	65	U	570	65	44	U	390	44
4-Chloroaniline	106-47-8	8270E	µg/Kg	1000 (7)	2700	690	U	690	120	380	U	380	67	190	U	1000	190	72	U	400	72	72	U	410	72	100	U	570	100	70	U	390	70
4-Nitrophenol	100-02-7	8270E	µg/Kg	5120 (5)		1400	U	1400	110	770	U	770	62	170	UJ	2100	170	84	J	820	66	67	UJ	830	67	93	UJ	1200	93	64	U	800	64
Bis(2-chloroethyl)ether	111-44-4	8270E	µg/Kg	23700 (5)	630	69	U	69	24	38	U	38	13	36	U	100	36	14	U	40	14	14	U	41	14	20	U	57	20	14	U	39	14
Bis(2-ethylhexyl) phthalate	117-81-7	8270E	µg/Kg	925 (5)	39000	7500		690	37	41	J	380	20	830	J	1000	55	60	J	400	21	40	J	410	22	690		570	30	21	U	390	21
Butyl benzyl phthalate	85-68-7	8270E	µg/Kg	239 (5)	290000	110	J	690	33	380	U	380	18	150	J	1000	49	19	U	400	19	19	U	410	19	27	U	570	27	19	U	390	19
Dibenzofuran	132-64-9	8270E	µg/Kg	6100 (7)		690	U	690	9.7	380	U	380	5.3	15	U	1000	15	5.7	U	400	5.7	5.7	U	410	5.7	20	J	570	8.1	5.5	U	390	5.5
Di-n-butyl phthalate	84-74-2	8270E	µg/Kg	150 (5)	6300000	580	J	690	26	380	U	380	14	39	U	1000	39	15	U	400	15	15	U	410	15	22	U	570	22	15	U	390	15
Di-n-octyl phthalate	117-84-0	8270E	µg/Kg	910 (7)	630000	690	U	690	37	67	J	380	20	55	U	1000	55	21	U	400	21	22	U	410	22	30	U	570	30	21	U	390	21
Hexachlorobenzene	118-74-1	8270E	µg/Kg	199 (5)	430	69	U	69	33	38	U	38	18	50	U	100	50	19	U	40	19	19	U	41	19	27	U	57	27	19	U	39	19
Hexachlorobutadiene	87-68-3	8270E	µg/Kg	39.8 (5)	8900	140	U	140	15	77	U	77	8.1	22	U	210	22	8.6	U	82	8.6	8.7	U	83	8.7	12	U	120	12	8.4	U	80	8.4
Hexachlorocyclopentadiene	77-47-4	8270E	µg/Kg	755 (5)	470000	690	U	690	61	380	U	380	33	92	U	1000	92	36	U	400	36	36	U	410	36	50	U	570	50	35	U	390	35
Hexachloroethane	67-72-1	8270E	µg/Kg	596 (5)	17000	69	U	69	24	38	U	38	13	36	U	100	36	14	U	40	14	14	U	41	14	20	U	57	20	14	U	39	14
N-Nitrosodi-n-propylamine	621-64-7	8270E	µg/Kg		170	69	U	69	50	38	U	38	28	76	U	100	76	29	U	40	29	30	U	41	30	42	U	57	42	29	U	39	29
N-Nitrosodiphenylamine	86-30-6	8270E	µg/Kg	545 (5)	110000	690	U	690	57	380	U	380	31	86	U	1000	86	33	U	400	33	34	U	410	34	47	U	570	47	32	U	390	32
Pentachlorophenol	87-86-5	8270E	µg/Kg	2100 (3)	1000	55	J	560	140	300	U	300	78	210	U	840	210	83	U	330	83	84	U	330	84	120	U	460	120	81	U	320	81
Polycyclic Aromatic Hydrocarbons (PAHs)																																	
Naphthalene	91-20-3	8270E	µg/Kg	99.4 (5)	2500000	76	J	690	12	380	U	380	6.6	99	J	1000	18	7	U	400	7	7.1	U	410	7.1	140	J	570	9.9	6.8	U	390	6.8
Benzo[a]anthracene	56-55-3	8270E	µg/Kg	5210 (5)	5100	69	U	69	24	38	U	38	13	50	J	100	36	14	U	40	14	14	U	41	14	20	U	57	20	14	U	39	14
Benzo[a]pyrene	50-32-8	8270E	µg/Kg	1520 (5)	510	26	J	69	18	38	U	38	10	33	J	100	28	11	U	40	11	11	U	41	11	15	U	57	15	11	U	39	11
Benzo[b]fluoranthene	205-99-2	8270E	µg/Kg	59800 (5)	5100	43	J	69	18	38	U	38	9.8	67	J	100	27	10	U	40	10	11	U	41	11	15	U	57	15	10	U	39	10
Chrysene	218-01-9	8270E	µg/Kg	4730 (5)	510000	42	J	690	12	380	U	380	6.4	41	J	1000	18	6.8	U	400	6.8	6.9	U	410	6.9	9.7	U	570	9.7	6.7	U	390	6.7
Dibenz(a,h)anthracene	53-70-3	8270E	µg/Kg	18400 (5)	510	69	U	69	30	38	U	38	16	45	U	100	45	18	U	40	18	18	U	41	18	25	U	57	25	17	U	39	17
Indeno[1,2,3-cd]pyrene	193-39-5	8270E	µg/Kg	109000 (5)	5100	69	U	69	27	38	U	38	15	41	U	100	41	16	U	40	16	16	U	41	16	22	U	57	22	15	U	39	15
High Molecular Weight PAHs			µg/Kg	1100 (4)		1188				1748				444				119.7				120.9				190.7				117.2			
Organochlorine Pesticides																																	
4,4'-DDD	72-54-8	8081B	µg/Kg	758 (5)	2300	35		14	2.4	7.7	U	7.7	1.3	3.6	U	21	3.6	1.4	U	8.2	1.4	1.4	U	8.3	1.4	2	U	12	2	1.4	U	8	1.4
4,4'-DDT	50-29-3	8081B	µg/Kg	3.5 (5)	1900	14	U	14	2.6	7.7	U	7.7	1.4	3.9	U	21	3.9	1.5	U	8.2	1.5	1.5	U	8.3	1.5	2.1	U	12	2.1	1.5	U	8	1.5
Aldrin	309-00-2	8081B	µg/Kg	3.32 (5)	41	14	U	14	2.1	7.7	U	7.7	1.2	3.2	U	21	3.2	1.2	U	8.2	1.2	1.2	U	8.3	1.2	1.8	U	12	1.8	1.2	U	8	1.2
beta-BHC	319-85-7	8081B	µg/Kg	3.98 (5)	300	4.2	U	4.2	1.6	2.3	U	2.3	0.86	2.4	U	6.3	2.4	0.92	U	2.5	0.92	0.93	U	2.5	0.93	1.3	U	3.5	1.3	0.89	U	2.4	0.89
Chlordane (technical)	57-74-9	8081B	µg/Kg	220 (7)	270	750		140	34	77	U	77	19	51	U	210	51	20	U	82	20	20	U	83	20	28	U	120	28	19	U	80	19
Dieldrin	60-57-1	8081B	µg/Kg	4.9 (4)	34	4.2	U	4.2	1.8	2.3	U	2.3	1	2.8	U	6.3	2.8	1.1	U	2.5	1.1	1.1	U	2.5	1.1	1.5	U	3.5	1.5	1	U	2.4	1
Endrin	72-20-8	8081B	µg/Kg	10.1 (5)	19000	14	U	14	2	7.7	U	7.7	1.1	3	U	21	3	1.2	U	8.2	1.2	1.2	U	8.3	1.2	1.7	U	12	1.7	1.1	U	8	1.1
Endrin aldehyde	7421-93-4	8081B	µg/Kg	10.5 (5)		14	U	14	3.3	7.7	U	7.7	1.8	5	U	21	5	1.9	U	8.2	1.9	2	U	8.3	2	2.7	U	12	2.7	1.9	U	8	1.9
gamma-BHC (Lindane)	58-89-9	8081B	µg/Kg	5 (5)	570	4.2	U	4.2	1.3	2.3	U	2.3	0.71	2	U	6.3	2	0.76	U	2.5	0.76	0.77	U	2.5	0.77	1.1	U	3.5	1.1	0.74	U	2.4	0.74
Heptachlor	76-44-8	8081B	µg/Kg	5.98 (5)	150	14	U	14	1.7	7.7	U	7.7	0.91	2.5	U	21	2.5	0.97	U	8.2	0.97	0.98	U	8.3	0.98	1.4	U	12	1.4	0.94	U	8	0.94
Toxaphene	8001-35-2	8081B	µg/Kg	119 (5)	490	140	U	140	51	77	U	77	28	77	U	210	77	30	U	82	30	30	U	83	30	42	U	120	42	29	U	80	29

Table 5.8 - Soil: Summary of Exceedances

(continued)

Rolling Knolls Landfill

	Sample Name			ESC's	NJAC 7:26D	DP05_0.5-5.0				DP05_5.0-7.0				DP06_0.5-2.0				DP06_2.5-3.0				DP100_2.5-3.0 (DP06_2.5-3.0 duplicate)				DP07_0.5-4.5				DP07_5.0-8.0			
	Sample Date/Time					04/29/2021 16:40				04/29/2021 15:50				05/13/2021 09:30				05/13/2021 09:55				05/13/2021 12:00				05/13/2021 13:10				04/28/2021 00:00			
	Latitude					40.7300494				40.7300494				40.7298030				40.7298030				40.7298030				40.7293038				40.7293038			
	Longitude			Screening Criteria	(8) Soil Remediation Standards (Ing.-Derm.) - Residential	-74.4418444				-74.4418444				-74.4414280				-74.4414280				-74.4414280				-74.4416064				-74.4416064			
	Lab Sample Name					GS-N-DPT05--SC-0.5-5				GS-N-DPT05--SB-5-7				GS-N-DPT06-SC-0.5-2.0				GS-N-DPT06-SB-2.5-3.0				GS-N-DPT100-SB-2.5-3.0				GS-N-DPT07-SC-0.5-4.5				GS-N-DPT07-SB-5-8			
	Lab Sample Number					460-233312-5				460-233312-6				460-234436-2				460-234436-3				460-234436-8				460-234435-2				460-233313-2			
	Lab Report Number(s)					460-233312-1				460-233312-1				460-234436-1				460-234436-1				460-234436-1				460-234435-1				460-233313-1			
Analyte	CAS	Method	Units			Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)
Polychlorinated Biphenyls (PCBs)																																	
Aroclor 1242	53469-21-9	8082A	µg/Kg	41 (7)		140	U	140	19	77	U	77	10	56	U	420	56	11	U	82	11	11	U	83	11	15	U	120	15	11	U	80	11
Aroclor 1248	12672-29-6	8082A	µg/Kg	7.3 (7)		1100		140	19	77	U	77	10	7500	J	420	56	68	J	82	11	120		83	11	820		120	15	11	U	80	11
Aroclor 1254	11097-69-1	8082A	µg/Kg	41 (7)		140	U	140	19	77	U	77	11	58	U	420	58	11	U	82	11	11	U	83	11	16	U	120	16	11	U	80	11
Polychlorinated biphenyls, Total	1336-36-3	8082A	µg/Kg	371 (5)	250	1100		140	19	77	U	77	11	11000	J	420	58	68	J	82	11	120		83	11	820		120	16	11	U	80	11
Chlorinated Biphenyl Congeners (PCBs)																																	
Σ Polychlorinated biphenyls	1336-36-3	8082A	pg/g	371000 (5)	250000																												
Σ Polychlorinated biphenyls (PCB) TEQ	1336-36-3	8082A	pg/g	0.199 (5)																													
Dioxins and Furans																																	
2,3,7,8-TCDD	1746-01-6	8290A	pg/g	0.199 (5)	51																												
Total TCDD	41903-57-5	8290A	pg/g	0.199 (5)																													
2,3,7,8-TCDD	1746-01-6		pg/g	0.199 (5)																													
Σ Dibenzo-p-dioxin (PCDD) TEQ	30402-14-3		pg/g	0.199 (5)																													
Σ Dibenzofuran (PCDF) TEQ	30402-14-3		pg/g	0.199 (5)																													
Σ PCB TEQ + PCDD TEQ + PCDF TEQ	30402-14-3		pg/g	0.199 (5)																													
Metals & Cyanide																																	
Aluminum	7429-90-5	6020B	mg/Kg	50 (7)	78000	14000		115	15	4590		21.8	2.8	9990		57	7.4	8230		20.6	2.7	9490		23.3	3	109000		155	20.1	5480		22.1	2.9
Antimony	7440-36-0	6020B	mg/Kg	0.27 (4)	31	17.2		5.8	0.84	1.1	U	1.1	0.16	2.2	J	2.9	0.42	0.15	U	1	0.15	0.17	U	1.2	0.17	2.9		1.5	0.23	0.16	U	1.1	0.16
Arsenic	7440-38-2	6020B	mg/Kg	18 (1)	19	23.4		5.8	0.58	1.1		1.1	0.11	16.2		2.9	0.29	1.4		1	0.1	1.4		1.2	0.12	12.5		1.5	0.15	2.6		1.1	0.11
Barium	7440-39-3	6020B	mg/Kg	330 (2)	16000	295		11.5	0.84	20.7		2.2	0.16	297		5.7	0.41	50.8		2.1	0.15	52.5		2.3	0.17	165		3.1	0.22	26.9		2.2	0.16
Cadmium	7440-43-9	6020B	mg/Kg	0.36 (4)	71	27.3		5.8	0.65	1.1	U	1.1	0.12	8.5		2.9	0.32	0.34	J	1	0.12	0.13	U	1.2	0.13	10.1		1.5	0.17	0.12	U	1.1	0.12
Chromium	7440-47-3	6020B	mg/Kg	0.4 (5)		96.8		11.5	1	12.3		2.2	0.19	66		5.7	0.5	17.5		2.1	0.18	18.8		2.3	0.2	57.5		3.1	0.27	14.3		2.2	0.19
Cobalt	7440-48-4	6020B	mg/Kg	13 (1)	23	17.7		11.5	0.85	4.9		2.2	0.16	9.9		5.7	0.42	4		2.1	0.15	5.8		2.3	0.17	9.4		3.1	0.23	6.2		2.2	0.16
Copper	7440-50-8	6020B	mg/Kg	28 (3)	3100	960		11.5	1.3	19.4		2.2	0.24	226		5.7	0.63	20.1		2.1	0.23	14.6		2.3	0.26	321		3.1	0.34	13.1		2.2	0.24
Lead	7439-92-1	6020B	mg/Kg	11 (3)	400	1510		3.5	1.2	20.8		0.65	0.22	405		1.7	0.57	22.7		0.62	0.21	12.1		0.7	0.23	647		0.93	0.31	5.3		0.66	0.22
Manganese	7439-96-5	6020B	mg/Kg	220 (1)	1900	769		23.1	2.3	65.3		4.4	0.44	529		11.4	1.1	59.1		4.1	0.41	65.1		4.7	0.47	1520		6.2	0.62	80.5		4.4	0.45
Nickel	7440-02-0	6020B	mg/Kg	38 (1)	1600	85.1		11.5	1.1	11.5		2.2	0.21	56.6		5.7	0.55	10.3		2.1	0.2	12		2.3	0.23	108		3.1	0.3	10.1		2.2	0.21
Selenium	7782-49-2	6020B	mg/Kg	0.52 (1)	390	7.2	U	7.2	0.68	1.4	U	1.4	0.13	0.66	J	3.6	0.34	0.17	J	1.3	0.12	0.14	U	1.5	0.14	0.55	J	1.9	0.18	0.34	J	1.4	0.13
Silver	7440-22-4	6020B	mg/Kg	4.2 (3)	390	15.1		5.8	0.51	1.1	U	1.1	0.097	3.8		2.9	0.25	0.45	J	1	0.092	0.12	J	1.2	0.1	1.9		1.5	0.14	0.098	U	1.1	0.098
Thallium	7440-28-0	6020B	mg/Kg	1 (5)		2.3	U	2.3	0.24	0.44	U	0.44	0.045	0.12	U	1.1	0.12	0.062	J	0.41	0.042	0.063	J	0.47	0.048	0.063	U	0.62	0.063	0.051	J	0.44	0.045
Vanadium	7440-62-2	6020B	mg/Kg	7.8 (3)	390	24.6		11.5	1.2	21.6		2.2	0.22	31.8		5.7	0.59	31.4		2.1	0.21	34.6		2.3	0.24	14		3.1	0.32	28.5		2.2	0.23
Zinc	7440-66-6	6020B	mg/Kg	46 (3)	23000	1800		46.1	13.2	39.1		8.7	2.5	996		22.8	6.5	50.8		8.2	2.4	34.3		9.3	2.7	1130		12.4	3.5	26.6		8.8	2.5
Mercury	7439-97-6	7471B	mg/Kg	0.00051 (5)	23	4.9		0.17	0.04	0.19		0.019	0.0046	8.3		0.26	0.062	0.092		0.02	0.0047	0.042		0.021	0.0049	0.31		0.026	0.0061	0.012	J	0.02	0.0046
Cyanide, Total	57-12-5	9012B	mg/Kg	1.33 (5)	47	0.71	J	0.43	0.24	0.25	UJ	0.25	0.13	3.5		1.5	0.54	0.49	J	0.59	0.21	0.22	U	0.6	0.22	0.74	J	0.87	0.31	0.13	U	0.25	0.13

Table 5.8 - Soil: Summary of Exceedances

(continued)

Rolling Knolls Landfill

Sample Name				ESC's	NJAC 7:26D	DP08_0.5-8.0				DP09_1.5-3.0				DP10_0.5-10.0				DP11_0.5-5.0				DP11_14.0-18.0				DP12_0.5-4.0				DP13_0.5-3.0			
Sample Date/Time						05/11/2021 13:15				05/13/2021 11:35				05/13/2021 14:30				05/03/2021 10:10				05/03/2021 09:30				05/10/2021 11:20				05/10/2021 12:20			
Latitude						40.7292838				40.7285174				40.7272947				40.7220743				40.7220743				40.7218276				40.7221319			
Longitude				Screening Criteria	(8) Soil Remediation Standards (Ing.-Derm.) - Residential	-74.4410889				-74.4407729				-74.4400920				-74.4442957				-74.4442957				-74.4445596				-74.4453061			
Lab Sample Name						GS-N-DPT08-SB-0.5-8.0				GS-N-DPT09-SB-1.5-3.0				GS-N-DPT10-SC-0.5-10.0				GS-S-DPT11-SC-0.5-5				GS-S-DPT11-SB-14-18				GS-S-DPT12-SB-0.5-4.0				GS-S-DPT13-SC-0.5-3.0			
Lab Sample Number						460-234161-7				460-234435-5				460-234436-10				460-233488-2				460-233488-3				460-234082-2				460-234082-4			
Lab Report Number(s)						460-234161-1				460-234435-1				460-234436-1				460-233488-1				460-233488-1				460-234082-1				460-234082-1 / 460-234082-2			
Analyte	CAS	Method	Units			Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)
Volatile Organic Compounds (VOCs)																																
1,1,1,2-Tetrachloroethane	630-20-6	8260D	µg/Kg	225000 (6)	0.1	1.1	U	5.8	1.1	0.15	UJ	0.79	0.15	0.59	U	3.1	0.59	0.57	UJ	3	0.57	0.27	UJ	1.4	0.27	1.7	U	9	1.7	0.4	U	2.1	0.4
Acetone	67-64-1	8260D	µg/Kg	1200 (7)	70000000	400		35	33	17		4.8	4.5	240		19	18	300		18	17	120		8.5	8.1	1700		54	52	160		13	12
m-Xylene & p-Xylene	179601-23-1	8260D	µg/Kg	4162 (7)	12000000	1	U	5.8	1	0.14	UJ	0.79	0.14	0.78	J	3.1	0.54	0.52	U	3	0.52	0.25	U	1.4	0.25	1.6	U	9	1.6	0.37	U	2.1	0.37
Semivolatile Organic Compounds (SVOCs)																																
1,2,4,5-Tetrachlorobenzene	95-94-3	8270E	µg/Kg	2020 (5)	23000	54	U	1700	54	13	U	400	13	32	U	1000	32	28	U	900	28	12	U	380	12	79	U	2500	79	23	U	740	23
2,3,4,6-Tetrachlorophenol	58-90-2	8270E	µg/Kg	199 (6)	1900000	120	U	1700	120	27	U	400	27	70	U	1000	70	61	U	900	61	26	U	380	26	170	U	2500	170	50	U	740	50
2,4-Dimethylphenol	105-67-9	8270E	µg/Kg	10 (5)	1300000	76	U	1700	76	18	U	400	18	46	U	1000	46	40	U	900	40	17	U	380	17	110	U	2500	110	33	U	740	33
2,4-Dinitrophenol	51-28-5	8270E	µg/Kg	60.9 (5)	130000	850	U	1400	850	200	UJ	320	200	510	U	830	510	440	U	730	440	190	U	310	190	1200	UJ	2000	1200	360	UJ	600	360
2,4-Dinitrotoluene	121-14-2	8270E	µg/Kg	1280 (5)		190	U	350	190	44	U	82	44	110	U	210	110	97	U	180	97	41	U	77	41	270	U	510	270	80	U	150	80
2-Chloronaphthalene	91-58-7	8270E	µg/Kg	12.2 (5)	4800000	80	U	1700	80	19	U	400	19	48	U	1000	48	42	U	900	42	18	U	380	18	120	U	2500	120	34	U	740	34
2-Methylnaphthalene	91-57-6	8270E	µg/Kg	3240 (5)	240000	120	J	1700	49	11	U	400	11	96	J	1000	29	170	J	900	25	11	U	380	11	71	U	2500	71	99	J	740	21
2-Nitroaniline	88-74-4	8270E	µg/Kg	5300 (7)		65	U	1700	65	15	U	400	15	39	U	1000	39	34	U	900	34	14	U	380	14	94	U	2500	94	28	U	740	28
2-Nitrophenol	88-75-5	8270E	µg/Kg	7000 (7)		170	U	1700	170	40	UJ	400	40	100	U	1000	100	90	U	900	90	38	U	380	38	250	UJ	2500	250	74	UJ	740	74
3,3'-Dichlorobenzidine	91-94-1	8270E	µg/Kg	646 (5)	1200	260	U	700	260	61	U	160	61	160	U	420	160	140	U	360	140	58	U	150	58	380	U	1000	380	110	U	300	110
3-Nitroaniline	99-09-2	8270E	µg/Kg	3160 (6)		200	U	1700	200	46	U	400	46	120	U	1000	120	100	U	900	100	43	U	380	43	280	U	2500	280	83	U	740	83
4-Chloroaniline	106-47-8	8270E	µg/Kg	1000 (7)	2700	310	U	1700	310	72	U	400	72	180	U	1000	180	160	U	900	160	68	U	380	68	450	U	2500	450	130	U	740	130
4-Nitrophenol	100-02-7	8270E	µg/Kg	5120 (5)		280	UJ	3500	280	66	UJ	820	66	170	UJ	2100	170	150	U	1800	150	62	U	770	62	410	U	5100	410	120	U	1500	120
Bis(2-chloroethyl)ether	111-44-4	8270E	µg/Kg	23700 (5)	630	60	U	170	60	14	U	40	14	36	U	100	36	31	U	90	31	13	U	38	13	88	U	250	88	26	U	74	26
Bis(2-ethylhexyl) phthalate	117-81-7	8270E	µg/Kg	925 (5)	39000	2300		1700	92	21	U	400	21	2800		1000	55	7400		900	48	20	U	380	20	130	U	2500	130	18000		740	39
Butyl benzyl phthalate	85-68-7	8270E	µg/Kg	239 (5)	290000	81	U	1700	81	19	U	400	19	49	U	1000	49	42	U	900	42	18	U	380	18	120	U	2500	120	35	U	740	35
Dibenzofuran	132-64-9	8270E	µg/Kg	6100 (7)		84	J	1700	24	5.7	U	400	5.7	15	U	1000	15	38	J	900	13	5.4	U	380	5.4	35	U	2500	35	240	J	740	10
Di-n-butyl phthalate	84-74-2	8270E	µg/Kg	150 (5)	6300000	97	J	1700	65	15	U	400	15	39	U	1000	39	380	J	900	34	14	U	380	14	95	U	2500	95	180	J	740	28
Di-n-octyl phthalate	117-84-0	8270E	µg/Kg	910 (7)	630000	92	U	1700	92	21	U	400	21	55	U	1000	55	48	U	900	48	20	U	380	20	130	U	2500	130	120	J	740	39
Hexachlorobenzene	118-74-1	8270E	µg/Kg	199 (5)	430	82	U	170	82	19	U	40	19	49	U	100	49	43	U	90	43	18	U	38	18	120	U	250	120	35	U	74	35
Hexachlorobutadiene	87-68-3	8270E	µg/Kg	39.8 (5)	8900	37	U	350	37	8.6	U	82	8.6	22	U	210	22	19	U	180	19	8.1	U	77	8.1	54	U	510	54	16	U	150	16
Hexachlorocyclopentadiene	77-47-4	8270E	µg/Kg	755 (5)	470000	150	U	1700	150	35	U	400	35	91	U	1000	91	79	U	900	79	33	U	380	33	220	U	2500	220	65	U	740	65
Hexachloroethane	67-72-1	8270E	µg/Kg	596 (5)	17000	60	U	170	60	14	U	40	14	36	U	100	36	31	U	90	31	13	U	38	13	87	U	250	87	25	U	74	25
N-Nitrosodi-n-propylamine	621-64-7	8270E	µg/Kg		170	130	U	170	130	29	U	40	29	75	U	100	75	66	U	90	66	28	U	38	28	180	U	250	180	54	U	74	54
N-Nitrosodiphenylamine	86-30-6	8270E	µg/Kg	545 (5)	110000	230	J	1700	140	33	U	400	33	85	U	1000	85	740	J	900	74	31	U	380	31	210	U	2500	210	61	U	740	61
Pentachlorophenol	87-86-5	8270E	µg/Kg	2100 (3)	1000	360	U	1400	360	83	U	320	83	210	U	830	210	190	U	730	190	78	U	310	78	520	U	2000	520	150	U	600	150
Polycyclic Aromatic Hydrocarbons (PAHs)																																
Naphthalene	91-20-3	8270E	µg/Kg	99.4 (5)	2500000	850	J	1700	30	7	U	400	7	180	J	1000	18	380	J	900	16	6.6	U	380	6.6	44	U	2500	44	250	J	740	13
Benzo[a]anthracene	56-55-3	8270E	µg/Kg	5210 (5)	5100	65	J	170	61	14	U	40	14	36	U	100	36	32	U	90	32	13	U	38	13	88	U	250	88	2700		74	26
Benzo[a]pyrene	50-32-8	8270E	µg/Kg	1520 (5)	510	46	U	170	46	11	U	40	11	28	U	100	28	130		90	24	10	U	38	10	67	U	250	67	3300		74	20
Benzo[b]fluoranthene	205-99-2	8270E	µg/Kg	59800 (5)	5100	49	J	170	45	10	U	40	10	27	U	100	27	82	J	90	23	9.9	U	38	9.9	65	U	250	65	4000		74	19
Chrysene	218-01-9	8270E	µg/Kg	4730 (5)	510000	50	J	1700	29	6.8	U	400	6.8	56	J	1000	18	100	J	900	15	6.4	U	380	6.4	43	U	2500	43	2700		740	13
Dibenz(a,h)anthracene	53-70-3	8270E	µg/Kg	18400 (5)	510	75	U	170	75	17	U	40	17	45	U	100	45	39	U	90	39	17	U	38	17	110	U	250	110	580		74	32
Indeno[1,2,3-cd]pyrene	193-39-5	8270E	µg/Kg	109000 (5)	5100	68	U	170	68	16	U	40	16	41	U	100	41	210		90	35	15	U	38	15	99	U	250	99	2400		74	29
High Molecular Weight PAHs			µg/Kg	1100 (4)		678				118.7				346				1835				112.3				747				27780			
Organochlorine Pesticides																																
4,4'-DDD	72-54-8	8081B	µg/Kg	758 (5)	2300	6	U	35	6	1.4	U	8.2	1.4	3.6	U	21	3.6	250		18	3.4	2.8	J	7.7	1.3	8.7	U	51	8.7	2.6	U	15	2.6
4,4'-DDT	50-29-3	8081B	µg/Kg	3.5 (5)	1900	6.5	U	35	6.5	1.5	U	8.2	1.5	3.9	U	21	3.9	3.4	U	18	3.4	1.4	U	7.7	1.4	9.4	U	51	9.4	2.8	U	15	2.8
Aldrin	309-00-2	8081B	µg/Kg	3.32 (5)	41	5.3	U	35	5.3	1.2	U	8.2	1.2	3.2	U	21	3.2	2.8	U	18	2.8	1.2	U	7.7	1.2	7.7	U	51	7.7	2.3	U	15	2.3
beta-BHC	319-85-7	8081B	µg/Kg	3.98 (5)	300	3.9	U	10	3.9	0.92	U	2.4	0.92	2.4	U	6.3	2.4	2	U	5.5	2	0.87	U	2.3	0.87	5.7	U	15	5.7	1.7	U	4.5	1.7
Chlordane (technical)	57-74-9	8081B	µg/Kg	220 (7)	270	85	U	350	85	20	U	82	20	51	U	210	51	44	U	180	44	19	U	77	19	120	U	510	120	36	U	150	36
Dieldrin	60-57-1	8081B	µg/Kg	4.9 (4)	34	4.6	U	10	4.6	1.1	U	2.4	1.1	2.7	U	6.3	2.7	2.4	U	5.5	2.4	1	U	2.3	1	6.6	U	15	6.6	1.9	U	4.5	1.9
Endrin	72-20-8	8081B	µg/Kg	10.1 (5)	19000	5	U	35	5	1.2	U	8.2	1.2	3	U	21	3	2.6	U	18	2.6	1.1	U	7.7	1.1	7.3	U	51	7.3	2.1	U	15	2.1
Endrin aldehyde	7421-93-4	8081B	µg/Kg	10.5 (5)		8.3	U	35	8.3	1.9	U	8.2	1.9	5	U	21	5	4.3	U	18	4.3	1.8	U	7.7	1.8	12	U	51	12	3.5	U	15	3.5
gamma-BHC (Lindane)	58-89-9	8081B	µg/Kg	5 (5)	570	3.3	U	10	3.3	0.76	U	2.4	0.76	1.9	U	6.3	1.9	1.7	U	5.5	1.7	0.72	U	2.3	0.72	4.7	U	15	4.7	1.4	U	4.5	1.4
Heptachlor	76-44-8	8081B	µg/Kg	5.98 (5)	150	4.1	U	35	4.1	0.96	U	8.2	0.96	2.5	U	21	2.5	2.2	U	18	2.2	0.91	U	7.7	0.91	6	U	51	6	1.8	U	15	1.8
Toxaphene	8001-35-2	8081B	µg/Kg	119 (5)	490	130	U	350	130	30	U	82	30	76	U	210	76	66	U	180	66	28	U	77	28	180	U	510	180	54	U	150	54

Table 5.8 - Soil: Summary of Exceedances

(continued)

Rolling Knolls Landfill

	Sample Name			ESC's	NJAC 7:26D	DP08_0.5-8.0				DP09_1.5-3.0				DP10_0.5-10.0				DP11_0.5-5.0				DP11_14.0-18.0				DP12_0.5-4.0				DP13_0.5-3.0			
	Sample Date/Time					05/11/2021 13:15				05/13/2021 11:35				05/13/2021 14:30				05/03/2021 10:10				05/03/2021 09:30				05/10/2021 11:20				05/10/2021 12:20			
	Latitude					40.7292838				40.7285174				40.7272947				40.7220743				40.7220743				40.7218276				40.7221319			
	Longitude			Screening Criteria	(8) Soil Remediation Standards (Ing.-Derm.) - Residential	-74.4410889				-74.4407729				-74.4400920				-74.4442957				-74.4442957				-74.4445596				-74.4453061			
	Lab Sample Name					GS-N-DPT08-SB-0.5-8.0				GS-N-DPT09-SB-1.5-3.0				GS-N-DPT10-SC-0.5-10.0				GS-S-DPT11-SC-0.5-5				GS-S-DPT11-SB-14-18				GS-S-DPT12-SB-0.5-4.0				GS-S-DPT13-SC-0.5-3.0			
	Lab Sample Number					460-234161-7				460-234435-5				460-234436-10				460-233488-2				460-233488-3				460-234082-2				460-234082-4			
	Lab Report Number(s)					460-234161-1				460-234435-1				460-234436-1				460-233488-1				460-233488-1				460-234082-1				460-234082-1 / 460-234082-2			
Analyte	CAS	Method	Units			Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)
Polychlorinated Biphenyls (PCBs)																																
Aroclor 1242	53469-21-9	8082A	µg/Kg	41 (7)		47	U	350	47	11	U	82	11	3500	J	210	28	24	U	180	24	10	U	77	10	68	U	510	68	20	U	150	20
Aroclor 1248	12672-29-6	8082A	µg/Kg	7.3 (7)		47	U	350	47	11	U	82	11	28	U	210	28	1700		180	24	10	U	77	10	68	U	510	68	2100		150	20
Aroclor 1254	11097-69-1	8082A	µg/Kg	41 (7)		48	U	350	48	11	U	82	11	1600	J	210	29	25	U	180	25	11	U	77	11	70	U	510	70	21	U	150	21
Polychlorinated biphenyls, Total	1336-36-3	8082A	µg/Kg	371 (5)	250	48	U	350	48	11	U	82	11	5100	J	210	29	2100		180	25	11	U	77	11	70	U	510	70	2400		150	21
Chlorinated Biphenyl Congeners (PCBs)																																
Σ Polychlorinated biphenyls	1336-36-3	8082A	pg/g	371000 (5)	250000																									5,769,319			
Σ Polychlorinated biphenyls (PCB) TEQ	1336-36-3	8082A	pg/g	0.199 (5)																										605			
Dioxins and Furans																																
2,3,7,8-TCDD	1746-01-6	8290A	pg/g	0.199 (5)	51																									7.25		2.32	1.86
Total TCDD	41903-57-5	8290A	pg/g	0.199 (5)																										39.3		2.32	1.86
2,3,7,8-TCDD	1746-01-6		pg/g	0.199 (5)																										7.25			
Σ Dibenzo-p-dioxin (PCDD) TEQ	30402-14-3		pg/g	0.199 (5)																										43			
Σ Dibenzofuran (PCDF) TEQ	30402-14-3		pg/g	0.199 (5)																										52			
Σ PCB TEQ + PCDD TEQ + PCDF TEQ	30402-14-3		pg/g	0.199 (5)																										700			
Metals & Cyanide																																
Aluminum	7429-90-5	6020B	mg/Kg	50 (7)	78000	37800		86	11.2	7430		18.1	2.4	5890		46.1	6	3980		51.1	6.6	4210		21.6	2.8	4570		519	67.5	20700		40.7	5.3
Antimony	7440-36-0	6020B	mg/Kg	0.27 (4)	31	3.7	J	4.3	0.63	0.13	UJ	0.9	0.13	14.1		2.3	0.34	10.7		2.6	0.37	0.16	U	1.1	0.16	3.8	U	26	3.8	7.2		2	0.3
Arsenic	7440-38-2	6020B	mg/Kg	18 (1)	19	16.6		4.3	0.43	1.1		0.9	0.09	33.1		2.3	0.23	69.5		2.6	0.26	1.6		1.1	0.11	5.7	J	26	2.6	22.5		2	0.2
Barium	7440-39-3	6020B	mg/Kg	330 (2)	16000	325		8.6	0.62	21.2		1.8	0.13	159		4.6	0.33	289		5.1	0.37	18.3		2.2	0.16	197		51.9	3.8	371		4.1	0.29
Cadmium	7440-43-9	6020B	mg/Kg	0.36 (4)	71	4.1	J	4.3	0.49	0.1	U	0.9	0.1	6.8		2.3	0.26	5.7		2.6	0.29	0.12	U	1.1	0.12	2.9	U	26	2.9	9.7		2	0.23
Chromium	7440-47-3	6020B	mg/Kg	0.4 (5)		158		8.6	0.75	12.2		1.8	0.16	82.3		4.6	0.4	82.9		5.1	0.44	8.4		2.2	0.19	9.1	J	51.9	4.5	233		4.1	0.35
Cobalt	7440-48-4	6020B	mg/Kg	13 (1)	23	26.5		8.6	0.64	4		1.8	0.13	25.3		4.6	0.34	23.2		5.1	0.38	5.3		2.2	0.16	3.8	U	51.9	3.8	16		4.1	0.3
Copper	7440-50-8	6020B	mg/Kg	28 (3)	3100	227		8.6	0.95	8.5		1.8	0.2	609		4.6	0.51	426		5.1	0.56	12.2		2.2	0.24	45.1	J	51.9	5.7	1430		4.1	0.45
Lead	7439-92-1	6020B	mg/Kg	11 (3)	400	164		2.6	0.86	3.8		0.54	0.18	958		1.4	0.46	797		1.5	0.51	5.1		0.65	0.22	59.8		15.6	5.2	2250		1.2	0.41
Manganese	7439-96-5	6020B	mg/Kg	220 (1)	1900	597		17.2	1.7	57.2		3.6	0.36	655		9.2	0.93	897		10.2	1	152		4.3	0.43	133		104	10.5	695		8.1	0.82
Nickel	7440-02-0	6020B	mg/Kg	38 (1)	1600	163		8.6	0.83	8.9		1.8	0.18	200		4.6	0.45	93.8		5.1	0.5	9.2		2.2	0.21	12.9	J	51.9	5	119		4.1	0.39
Selenium	7782-49-2	6020B	mg/Kg	0.52 (1)	390	2.1	J	5.4	0.51	0.21	J	1.1	0.11	0.33	J	2.9	0.27	0.77	J	3.2	0.3	0.13	U	1.3	0.13	3.1	J	32.5	3.1	1.4	J	2.5	0.24
Silver	7440-22-4	6020B	mg/Kg	4.2 (3)	390	5.7		4.3	0.38	0.081	U	0.9	0.081	3.2		2.3	0.21	3.7		2.6	0.23	0.096	U	1.1	0.096	2.3	U	26	2.3	3		2	0.18
Thallium	7440-28-0	6020B	mg/Kg	1 (5)		0.18	U	1.7	0.18	0.037	U	0.36	0.037	0.14	J	0.92	0.095	0.1	U	1	0.1	0.045	J	0.43	0.044	1.1	U	10.4	1.1	0.11	J	0.81	0.083
Vanadium	7440-62-2	6020B	mg/Kg	7.8 (3)	390	66.6		8.6	0.89	25.8		1.8	0.19	12.8		4.6	0.48	14.9		5.1	0.53	18.7		2.2	0.22	30.2	J	51.9	5.3	33.7		4.1	0.42
Zinc	7440-66-6	6020B	mg/Kg	46 (3)	23000	704		34.4	9.9	18.9		7.2	2.1	1710		18.5	5.3	1360		20.4	5.8	26.9		8.6	2.5	144	J	208	59.5	2040		16.3	4.7
Mercury	7439-97-6	7471B	mg/Kg	0.00051 (5)	23	1.2		0.085	0.02	0.0047	U	0.02	0.0047	2		0.052	0.012	3.9		0.21	0.049	0.0043	J	0.017	0.0041	0.38		0.13	0.03	6.8		0.19	0.044
Cyanide, Total	57-12-5	9012B	mg/Kg	1.33 (5)	47	0.93	U	2.6	0.93	0.21	U	0.58	0.21	1.7		1.5	0.54	2.5		0.59	0.32	0.13	U	0.25	0.13	1.4	U	4	1.4	3.9		1.1	0.4

Table 5.8 - Soil: Summary of Exceedances

(continued)

Rolling Knolls Landfill

Sample Name				ESC's	NJAC 7:26D	DP13_3.0-4.0				DP14_0.5-5.0				DP101_0.5-5.0 (DP14_0.5-5.0 duplicate)				DP15_0.5-5.0				DP15_19.0-21.0				DP16_0.5-4.0				DP16_4.0-7.0			
Sample Date/Time						05/10/2021 12:30				05/03/2021 11:10				05/03/2021 11:10				05/03/2021 15:55				05/03/2021 15:05				05/04/2021 10:10				05/04/2021 09:55			
Latitude						40.7221319				40.7222989				40.7222989				40.7226573				40.7226573				40.7229083				40.7229083			
Longitude				Screening Criteria	(8) Soil Remediation Standards (Ing.-Derm.) - Residential	-74.4453061				-74.4446187				-74.4446187				-74.4446863				-74.4446863				-74.4452270				-74.4452270			
Lab Sample Name						GS-S-DPT13-SB-3.0-4.0				GS-S-DPT14-SC-0.5-5				GS-S-DPT101-SC-0.5-5				GS-S-DPT15-SC-0.5-5				GS-S-DPT15-SB-19-21				GS-S-DPT16-SC-0.5-4				GS-S-DPT16-SB-4-7			
Lab Sample Number						460-234082-5				460-233488-5				460-233506-2				460-233506-4				460-233506-5				460-233704-2				460-233704-3			
Lab Report Number(s)						460-234082-1				460-233488-1 / 460-233488-2				460-233506-1				460-233506-1 / 460-233506-2				460-233506-1				460-233704-1				460-233704-1			
Analyte	**CAS**	**Method**	**Units**			**Result**	**LDC Flag**	**RL**	**MDL (EDL)**	**Result**	**LDC Flag**	**RL**	**MDL (EDL)**	**Result**	**LDC Flag**	**RL**	**MDL (EDL)**	**Result**	**LDC Flag**	**RL**	**MDL (EDL)**	**Result**	**LDC Flag**	**RL**	**MDL (EDL)**	**Result**	**LDC Flag**	**RL**	**MDL (EDL)**	**Result**	**LDC Flag**	**RL**	**MDL (EDL)**
Volatile Organic Compounds (VOCs)																																	
1,1,1,2-Tetrachloroethane	630-20-6	8260D	µg/Kg	225000 (6)	0.1	0.62	U	3.2	0.62	0.35	UJ	1.8	0.35	0.36	U	1.9	0.36	1.1	U	5.9	1.1	0.3	U	1.6	0.3	0.94	U	5	0.94	0.56	U	2.9	0.56
Acetone	67-64-1	8260D	µg/Kg	1200 (7)	70000000	470	J	19	19	120		11	11	170		11	11	520		36	34	190		9.6	9.2	280		30	28	930		18	17
m-Xylene & p-Xylene	179601-23-1	8260D	µg/Kg	4162 (7)	12000000	0.57	U	3.2	0.57	0.32	U	1.8	0.32	0.33	U	1.9	0.33	1	U	5.9	1	0.28	U	1.6	0.28	0.86	U	5	0.86	0.51	U	2.9	0.51
Semivolatile Organic Compounds (SVOCs)																																	
1,2,4,5-Tetrachlorobenzene	95-94-3	8270E	µg/Kg	2020 (5)	23000	46	U	1500	46	24	U	780	24	23	U	730	23	290	U	9300	290	14	U	460	14	44	U	1400	44	27	U	870	27
2,3,4,6-Tetrachlorophenol	58-90-2	8270E	µg/Kg	199 (6)	1900000	100	U	1500	100	53	U	780	53	50	U	730	50	630	U	9300	630	31	U	460	31	97	U	1400	97	59	U	870	59
2,4-Dimethylphenol	105-67-9	8270E	µg/Kg	10 (5)	1300000	65	U	1500	65	35	U	780	35	32	U	730	32	410	U	9300	410	20	U	460	20	63	U	1400	63	38	U	870	38
2,4-Dinitrophenol	51-28-5	8270E	µg/Kg	60.9 (5)	130000	730	UJ	1200	730	390	U	630	390	360	U	590	360	4600	U	7500	4600	220	U	370	220	700	U	1100	700	430	U	700	430
2,4-Dinitrotoluene	121-14-2	8270E	µg/Kg	1280 (5)		160	U	300	160	85	U	160	85	79	U	150	79	1000	U	1900	1000	49	U	93	49	150	U	290	150	93	U	180	93
2-Chloronaphthalene	91-58-7	8270E	µg/Kg	12.2 (5)	4800000	69	U	1500	69	36	U	780	36	34	U	730	34	430	U	9300	430	21	U	460	21	66	U	1400	66	40	U	870	40
2-Methylnaphthalene	91-57-6	8270E	µg/Kg	3240 (5)	240000	41	U	1500	41	23	J	780	22	59	J	730	20	260	U	9300	260	13	U	460	13	100	J	1400	40	24	U	870	24
2-Nitroaniline	88-74-4	8270E	µg/Kg	5300 (7)		55	U	1500	55	29	U	780	29	27	U	730	27	350	U	9300	350	17	U	460	17	53	U	1400	53	32	U	870	32
2-Nitrophenol	88-75-5	8270E	µg/Kg	7000 (7)		150	UJ	1500	150	79	U	780	79	73	U	730	73	930	U	9300	930	46	U	460	46	140	U	1400	140	87	U	870	87
3,3'-Dichlorobenzidine	91-94-1	8270E	µg/Kg	646 (5)	1200	220	U	600	220	120	U	320	120	110	U	290	110	1400	U	3700	1400	69	U	180	69	220	U	570	220	130	U	350	130
3-Nitroaniline	99-09-2	8270E	µg/Kg	3160 (6)		170	U	1500	170	88	U	780	88	83	U	730	83	1000	U	9300	1000	52	U	460	52	160	U	1400	160	98	U	870	98
4-Chloroaniline	106-47-8	8270E	µg/Kg	1000 (7)	2700	260	U	1500	260	140	U	780	140	130	U	730	130	1700	U	9300	1700	81	U	460	81	250	U	1400	250	150	U	870	150
4-Nitrophenol	100-02-7	8270E	µg/Kg	5120 (5)		240	U	3000	240	130	U	1600	130	120	U	1500	120	1500	U	19000	1500	75	U	930	75	230	U	2900	230	140	U	1800	140
Bis(2-chloroethyl)ether	111-44-4	8270E	µg/Kg	23700 (5)	630	52	U	150	52	27	U	78	27	26	U	73	26	320	U	930	320	16	U	46	16	50	U	140	50	30	U	87	30
Bis(2-ethylhexyl) phthalate	117-81-7	8270E	µg/Kg	925 (5)	39000	470	J	1500	78	2600		780	42	1500		730	39	41000		9300	490	350	J	460	24	5300		1400	75	53	J	870	46
Butyl benzyl phthalate	85-68-7	8270E	µg/Kg	239 (5)	290000	69	U	1500	69	37	U	780	37	34	U	730	34	440	U	9300	440	190	J	460	21	87	J	1400	67	41	U	870	41
Dibenzofuran	132-64-9	8270E	µg/Kg	6100 (7)		75	J	1500	21	11	U	780	11	10	U	730	10	130	U	9300	130	6.4	U	460	6.4	20	U	1400	20	12	U	870	12
Di-n-butyl phthalate	84-74-2	8270E	µg/Kg	150 (5)	6300000	56	U	1500	56	150	J	780	30	28	U	730	28	350	U	9300	350	62	J	460	17	77	J	1400	54	33	U	870	33
Di-n-octyl phthalate	117-84-0	8270E	µg/Kg	910 (7)	630000	78	U	1500	78	42	U	780	42	39	U	730	39	490	U	9300	490	24	U	460	24	75	U	1400	75	46	U	870	46
Hexachlorobenzene	118-74-1	8270E	µg/Kg	199 (5)	430	70	U	150	70	37	U	78	37	35	U	73	35	440	U	930	440	22	U	46	22	68	U	140	68	41	U	87	41
Hexachlorobutadiene	87-68-3	8270E	µg/Kg	39.8 (5)	8900	32	U	300	32	17	U	160	17	16	U	150	16	200	U	1900	200	9.7	U	93	9.7	30	U	290	30	18	U	180	18
Hexachlorocyclopentadiene	77-47-4	8270E	µg/Kg	755 (5)	470000	130	U	1500	130	69	U	780	69	64	U	730	64	820	U	9300	820	40	U	460	40	130	U	1400	130	76	U	870	76
Hexachloroethane	67-72-1	8270E	µg/Kg	596 (5)	17000	51	U	150	51	27	U	78	27	25	U	73	25	320	U	930	320	16	U	46	16	49	U	140	49	30	U	87	30
N-Nitrosodi-n-propylamine	621-64-7	8270E	µg/Kg		170	110	U	150	110	57	U	78	57	53	U	73	53	680	U	930	680	33	U	46	33	100	U	140	100	63	U	87	63
N-Nitrosodiphenylamine	86-30-6	8270E	µg/Kg	545 (5)	110000	120	U	1500	120	65	U	780	65	120	J	730	60	760	U	9300	760	38	U	460	38	120	U	1400	120	71	U	870	71
Pentachlorophenol	87-86-5	8270E	µg/Kg	2100 (3)	1000	300	U	1200	300	160	U	630	160	150	U	590	150	1900	U	7500	1900	94	U	370	94	290	U	1100	290	180	U	700	180
Polycyclic Aromatic Hydrocarbons (PAHs)																																	
Naphthalene	91-20-3	8270E	µg/Kg	99.4 (5)	2500000	120	J	1500	26	130	J	780	14	300	J	730	13	160	U	9300	160	7.9	U	460	7.9	100	J	1400	25	15	U	870	15
Benzo[a]anthracene	56-55-3	8270E	µg/Kg	5210 (5)	5100	840		150	52	27	U	78	27	28	J	73	26	320	U	930	320	16	U	46	16	50	J	140	50	38	J	87	30
Benzo[a]pyrene	50-32-8	8270E	µg/Kg	1520 (5)	510	820		150	39	40	J	78	21	20	U	73	20	250	U	930	250	12	U	46	12	38	U	140	38	34	J	87	23
Benzo[b]fluoranthene	205-99-2	8270E	µg/Kg	59800 (5)	5100	1100		150	38	56	J	78	20	64	J	73	19	240	U	930	240	12	U	46	12	37	J	140	37	27	J	87	22
Chrysene	218-01-9	8270E	µg/Kg	4730 (5)	510000	760	J	1500	25	55	J	780	13	67	J	730	12	160	U	9300	160	7.7	U	460	7.7	48	J	1400	24	29	J	870	15
Dibenz(a,h)anthracene	53-70-3	8270E	µg/Kg	18400 (5)	510	150		150	64	210		78	34	32	U	73	32	400	U	930	400	20	U	46	20	62	U	140	62	38	U	87	38
Indeno[1,2,3-cd]pyrene	193-39-5	8270E	µg/Kg	109000 (5)	5100	550		150	58	350		78	31	29	U	73	29	360	U	930	360	18	U	46	18	56	U	140	56	34	U	87	34
High Molecular Weight PAHs			µg/Kg	1100 (4)		8040				1244				379				2820				134.7				571				310			
Organochlorine Pesticides																																	
4,4'-DDD	72-54-8	8081B	µg/Kg	758 (5)	2300	5.1	U	30	5.1	180		16	2.7	2.5	U	15	2.5	6.4	U	38	6.4	1.6	U	9.3	1.6	4.9	U	29	4.9	3	U	18	3
4,4'-DDT	50-29-3	8081B	µg/Kg	3.5 (5)	1900	5.5	U	30	5.5	69	J	16	2.9	2.7	U	15	2.7	6.9	U	38	6.9	1.7	U	9.3	1.7	5.3	U	29	5.3	3.2	U	18	3.2
Aldrin	309-00-2	8081B	µg/Kg	3.32 (5)	41	4.5	U	30	4.5	2.4	U	16	2.4	2.2	U	15	2.2	5.7	U	38	5.7	1.4	U	9.3	1.4	4.4	U	29	4.4	2.6	U	18	2.6
beta-BHC	319-85-7	8081B	µg/Kg	3.98 (5)	300	3.4	U	9	3.4	1.8	U	4.7	1.8	1.7	U	4.4	1.7	4.2	U	11	4.2	1	U	2.8	1	3.2	U	8.6	3.2	2	U	5.2	2
Chlordane (technical)	57-74-9	8081B	µg/Kg	220 (7)	270	73	U	300	73	38	U	160	38	36	U	150	36	91	U	380	91	22	U	93	22	70	U	290	70	42	U	180	42
Dieldrin	60-57-1	8081B	µg/Kg	4.9 (4)	34	3.9	U	9	3.9	2.1	U	4.7	2.1	1.9	U	4.4	1.9	4.9	U	11	4.9	1.2	U	2.8	1.2	3.7	U	8.6	3.7	2.3	U	5.2	2.3
Endrin	72-20-8	8081B	µg/Kg	10.1 (5)	19000	4.3	U	30	4.3	2.3	U	16	2.3	2.1	U	15	2.1	5.4	U	38	5.4	1.3	U	9.3	1.3	4.1	U	29	4.1	2.5	U	18	2.5
Endrin aldehyde	7421-93-4	8081B	µg/Kg	10.5 (5)		7.1	U	30	7.1	3.8	U	16	3.8	3.5	U	15	3.5	8.9	U	38	8.9	2.2	U	9.3	2.2	6.8	U	29	6.8	4.1	U	18	4.1
gamma-BHC (Lindane)	58-89-9	8081B	µg/Kg	5 (5)	570	2.8	U	9	2.8	1.5	U	4.7	1.5	1.4	U	4.4	1.4	3.5	U	11	3.5	0.86	U	2.8	0.86	2.7	U	8.6	2.7	1.6	U	5.2	1.6
Heptachlor	76-44-8	8081B	µg/Kg	5.98 (5)	150	3.5	U	30	3.5	1.9	U	16	1.9	1.7	U	15	1.7	4.4	U	38	4.4	1.1	U	9.3	1.1	3.4	U	29	3.4	2.1	U	18	2.1
Toxaphene	8001-35-2	8081B	µg/Kg	119 (5)	490	110	U	300	110	57	U	160	57	54	U	150	54	140	U	380	140	33	U	93	33	100	U	290	100	63	U	180	63

Table 5.8 - Soil: Summary of Exceedances

(continued)

Rolling Knolls Landfill

Sample Name				ESC's	NJAC 7:26D	DP13_3.0-4.0				DP14_0.5-5.0				DP101_0.5-5.0 (DP14_0.5-5.0 duplicate)				DP15_0.5-5.0				DP15_19.0-21.0				DP16_0.5-4.0				DP16_4.0-7.0			
Sample Date/Time						05/10/2021 12:30				05/03/2021 11:10				05/03/2021 11:10				05/03/2021 15:55				05/03/2021 15:05				05/04/2021 10:10				05/04/2021 09:55			
Latitude						40.7221319				40.7222989				40.7222989				40.7226573				40.7226573				40.7229083				40.7229083			
Longitude						-74.4453061				-74.4446187				-74.4446187				-74.4446863				-74.4446863				-74.4452270				-74.4452270			
Lab Sample Name				Screening Criteria	(8) Soil Remediation Standards (Ing.-Derm.) - Residential	GS-S-DPT13-SB-3.0-4.0				GS-S-DPT14-SC-0.5-5				GS-S-DPT101-SC-0.5-5				GS-S-DPT15-SC-0.5-5				GS-S-DPT15-SB-19-21				GS-S-DPT16-SC-0.5-4				GS-S-DPT16-SB-4-7			
Lab Sample Number						460-234082-5				460-233488-5				460-233506-2				460-233506-4				460-233506-5				460-233704-2				460-233704-3			
Lab Report Number(s)						460-234082-1				460-233488-1 / 460-233488-2				460-233506-1				460-233506-1 / 460-233506-2				460-233506-1				460-233704-1				460-233704-1			
Analyte	CAS	Method	Units			Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)
Polychlorinated Biphenyls (PCBs)																																	
Aroclor 1242	53469-21-9	8082A	µg/Kg	41 (7)		40	U	300	40	21	U	160	21	39	U	300	39	50	U	380	50	12	U	93	12	38	U	290	38	23	U	180	23
Aroclor 1248	12672-29-6	8082A	µg/Kg	7.3 (7)		450		300	40	1200	J	160	21	39	U	300	39	1600		380	50	12	U	93	12	38	U	290	38	23	U	180	23
Aroclor 1254	11097-69-1	8082A	µg/Kg	41 (7)		41	U	300	41	22	U	160	22	3400		300	41	52	U	380	52	13	U	93	13	1100		290	40	210		180	24
Polychlorinated biphenyls, Total	1336-36-3	8082A	µg/Kg	371 (5)	250	450		300	41	1500	J	160	22	3400		300	41	1600		380	52	13	U	93	13	1100		290	40	210		180	24
Chlorinated Biphenyl Congeners (PCBs)																																	
Σ Polychlorinated biphenyls	1336-36-3	8082A	pg/g	371000 (5)	250000					6,564,600								5,213,595															
Σ Polychlorinated biphenyls (PCB) TEQ	1336-36-3	8082A	pg/g	0.199 (5)						298								517															
Dioxins and Furans																																	
2,3,7,8-TCDD	1746-01-6	8290A	pg/g	0.199 (5)	51					4.99		2.31	0.2					3.11	J	11	0.43												
Total TCDD	41903-57-5	8290A	pg/g	0.199 (5)						25.2		2.31	0.2					22.9	J	11	0.43												
2,3,7,8-TCDD	1746-01-6		pg/g	0.199 (5)						4.99								3.11															
Σ Dibenzo-p-dioxin (PCDD) TEQ	30402-14-3		pg/g	0.199 (5)						27								10															
Σ Dibenzofuran (PCDF) TEQ	30402-14-3		pg/g	0.199 (5)						83								25															
Σ PCB TEQ + PCDD TEQ + PCDF TEQ	30402-14-3		pg/g	0.199 (5)						408								552															
Metals & Cyanide																																	
Aluminum	7429-90-5	6020B	mg/Kg	50 (7)	78000	14000		418	54.4	6520		44	5.7	780		41	5.3	4860		108	14.1	12400		25.6	3.3	23000		249	32.3	17900		98	12.7
Antimony	7440-36-0	6020B	mg/Kg	0.27 (4)	31	3.1	U	20.9	3.1	11.7		2.2	0.32	2.4		2.1	0.3	1.8	J	5.4	0.79	0.19	U	1.3	0.19	30.7		12.4	1.8	7.9		4.9	0.72
Arsenic	7440-38-2	6020B	mg/Kg	18 (1)	19	7.4	J	20.9	2.1	26		2.2	0.22	10.8		2.1	0.21	11		5.4	0.54	22.1		1.3	0.13	23.2		12.4	1.2	19.7		4.9	0.49
Barium	7440-39-3	6020B	mg/Kg	330 (2)	16000	177		41.8	3	676		4.4	0.32	67.5		4.1	0.3	301		10.8	0.78	75.8		2.6	0.19	337		24.9	1.8	725		9.8	0.71
Cadmium	7440-43-9	6020B	mg/Kg	0.36 (4)	71	2.4	U	20.9	2.4	15.6		2.2	0.25	2.4		2.1	0.23	2.5	J	5.4	0.61	0.24	J	1.3	0.14	9.5	J	12.4	1.4	7.1		4.9	0.55
Chromium	7440-47-3	6020B	mg/Kg	0.4 (5)		38.3	J	41.8	3.6	125		4.4	0.38	49.9		4.1	0.36	31		10.8	0.94	25.3		2.6	0.22	149		24.9	2.2	62.7		9.8	0.85
Cobalt	7440-48-4	6020B	mg/Kg	13 (1)	23	6	J	41.8	3.1	27.3		4.4	0.33	7.4		4.1	0.3	10.2	J	10.8	0.8	15.1		2.6	0.19	30.6		24.9	1.8	20.5		9.8	0.73
Copper	7440-50-8	6020B	mg/Kg	28 (3)	3100	131		41.8	4.6	1230		4.4	0.48	316		4.1	0.45	135		10.8	1.2	32.2		2.6	0.28	480		24.9	2.7	608		9.8	1.1
Lead	7439-92-1	6020B	mg/Kg	11 (3)	400	510		12.6	4.2	3260		1.3	0.44	2220		1.2	0.41	319		3.2	1.1	46.9		0.77	0.26	27900		74.6	24.9	835		2.9	0.98
Manganese	7439-96-5	6020B	mg/Kg	220 (1)	1900	221		83.7	8.4	988		8.8	0.89	332		8.2	0.83	370		21.6	2.2	458		5.1	0.52	1460		49.7	5	688		19.6	2
Nickel	7440-02-0	6020B	mg/Kg	38 (1)	1600	33.9	J	41.8	4.1	125		4.4	0.43	42.8		4.1	0.4	62.3		10.8	1	27.6		2.6	0.25	91.4		24.9	2.4	90.9		9.8	0.95
Selenium	7782-49-2	6020B	mg/Kg	0.52 (1)	390	3.6	J	26.2	2.5	0.85	J	2.7	0.26	0.24	U	2.6	0.24	2	J	6.8	0.64	0.15	U	1.6	0.15	1.9	J	15.5	1.5	0.72	J	6.1	0.58
Silver	7440-22-4	6020B	mg/Kg	4.2 (3)	390	1.9	U	20.9	1.9	39.4		11	0.98	2.2		2.1	0.18	6.4		5.4	0.48	0.23	J	1.3	0.11	3.7	J	12.4	1.1	20.5		4.9	0.44
Thallium	7440-28-0	6020B	mg/Kg	1 (5)		0.86	U	8.4	0.86	0.09	U	0.88	0.09	0.084	U	0.82	0.084	0.22	U	2.2	0.22	0.12	J	0.51	0.053	0.51	U	5	0.51	0.2	U	2	0.2
Vanadium	7440-62-2	6020B	mg/Kg	7.8 (3)	390	51		41.8	4.3	34		4.4	0.45	4.7		4.1	0.42	30.9		10.8	1.1	38		2.6	0.26	65.7		24.9	2.6	51.5		9.8	1
Zinc	7440-66-6	6020B	mg/Kg	46 (3)	23000	297		167	47.9	2700		17.6	5	362		16.4	4.7	1170		43.2	12.4	77.7		10.2	2.9	1290		99.4	28.5	2310		39.2	11.2
Mercury	7439-97-6	7471B	mg/Kg	0.00051 (5)	23	1.6		0.072	0.017	7		0.37	0.086	5.6		0.19	0.044	0.8		0.092	0.022	0.033		0.022	0.0051	26.3		1.4	0.32	2.6		0.13	0.03
Cyanide, Total	57-12-5	9012B	mg/Kg	1.33 (5)	47	0.79	U	2.2	0.79	1.6		0.51	0.28	3.1		0.47	0.26	2.7		1.2	0.68	0.17	J	0.31	0.17	3.3	J	0.92	0.5	0.51	J	0.56	0.31

Table 5.8 - Soil: Summary of Exceedances

(continued)

Rolling Knolls Landfill

Sample Name				ESC's	NJAC 7:26D	DP17_0.5-2.0				DP17_3.5-5.0				DP102_3.5-5.0 (DP17_3.5-5.0 duplicate)				DP18_3.5-5.0				DP19_0.5-5.0				DP19_5.0-9.0				DP20_0.5-4.0			
Sample Date/Time						05/05/2021 10:45				05/05/2021 11:40				05/05/2021 11:40				05/10/2021 14:05				05/10/2021 09:00				05/10/2021 09:50				05/04/2021 13:25			
Latitude				Screening Criteria	(8) Soil Remediation Standards (Ing.-Derm.) - Residential	40.7231730				40.7231730				40.7231730				40.7226388				40.7236522				40.7236522				40.7227310			
Longitude						-74.4437270				-74.4437270				-74.4437270				-74.4459762				-74.4437257				-74.4437257				-74.4439070			
Lab Sample Name						GS-S-DPT17-SC-0.5-2				GS-S-DPT17-SB-3.5-5				GS-S-DP102-SB-3.5-5				GS-S-DPT13-SB-3.5-5.0				GS-S-DPT19-SC-0.5-5.0				GS-S-DPT19-SB-5.0-9.0				GS-S-DPT20-SC-0.5-4			
Lab Sample Number						460-233715-2				460-233715-3				460-233708-6				460-234082-6				460-234080-2				460-234080-3				460-233704-5			
Lab Report Number(s)						460-233715-1				460-233715-1				460-233708-1				460-234082-1				460-234080-1				460-234080-1				460-233704-1			
Analyte	CAS	Method	Units			Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)
Volatile Organic Compounds (VOCs)																																	
1,1,1,2-Tetrachloroethane	630-20-6	8260D	µg/Kg	225000 (6)	0.1	0.49	U	2.6	0.49	0.7	U	3.7	0.7	0.89	U	4.7	0.89	0.69	U	3.6	0.69	0.46	U	2.4	0.46	0.88	UJ	4.7	0.88	0.31	U	1.6	0.31
Acetone	67-64-1	8260D	µg/Kg	1200 (7)	70000000	29		15	15	630	J	22	21	590		28	27	380		22	21	210		14	14	830	J	28	27	53		9.6	9.2
m-Xylene & p-Xylene	179601-23-1	8260D	µg/Kg	4162 (7)	12000000	0.45	U	2.6	0.45	11		3.7	0.64	21		4.7	0.82	0.63	U	3.6	0.63	0.42	U	2.4	0.42	1.1	J	4.7	0.81	0.28	U	1.6	0.28
Semivolatile Organic Compounds (SVOCs)																																	
1,2,4,5-Tetrachlorobenzene	95-94-3	8270E	µg/Kg	2020 (5)	23000	32	U	1000	32	37	U	1200	37	41	U	1300	41	28	U	910	28	25	U	810	25	38	U	1200	38	18	U	590	18
2,3,4,6-Tetrachlorophenol	58-90-2	8270E	µg/Kg	199 (6)	1900000	71	U	1000	71	81	U	1200	81	89	U	1300	89	62	U	910	62	55	U	810	55	83	U	1200	83	40	U	590	40
2,4-Dimethylphenol	105-67-9	8270E	µg/Kg	10 (5)	1300000	46	U	1000	46	53	U	1200	53	58	U	1300	58	40	U	910	40	36	U	810	36	54	U	1200	54	26	U	590	26
2,4-Dinitrophenol	51-28-5	8270E	µg/Kg	60.9 (5)	130000	510	U	840	510	590	U	960	590	650	U	1100	650	450	UJ	730	450	400	UJ	650	400	600	UJ	980	600	290	U	470	290
2,4-Dinitrotoluene	121-14-2	8270E	µg/Kg	1280 (5)		110	U	210	110	130	U	240	130	140	U	270	140	98	U	190	98	87	U	160	87	130	U	250	130	63	U	120	63
2-Chloronaphthalene	91-58-7	8270E	µg/Kg	12.2 (5)	4800000	48	U	1000	48	55	U	1200	55	61	U	1300	61	42	U	910	42	44	J	810	38	56	U	1200	56	27	U	590	27
2-Methylnaphthalene	91-57-6	8270E	µg/Kg	3240 (5)	240000	82	J	1000	29	42	J	1200	33	37	U	1300	37	26	U	910	26	43	J	810	23	34	U	1200	34	81	J	590	16
2-Nitroaniline	88-74-4	8270E	µg/Kg	5300 (7)		39	U	1000	39	45	U	1200	45	49	U	1300	49	34	U	910	34	30	U	810	30	46	U	1200	46	22	U	590	22
2-Nitrophenol	88-75-5	8270E	µg/Kg	7000 (7)		100	U	1000	100	120	U	1200	120	130	U	1300	130	92	UJ	910	92	81	UJ	810	81	120	UJ	1200	120	59	U	590	59
3,3'-Dichlorobenzidine	91-94-1	8270E	µg/Kg	646 (5)	1200	160	U	420	160	180	U	480	180	200	U	530	200	140	U	370	140	120	U	330	120	180	U	490	180	89	U	240	89
3-Nitroaniline	99-09-2	8270E	µg/Kg	3160 (6)		120	U	1000	120	130	U	1200	130	150	U	1300	150	100	U	910	100	91	U	810	91	140	U	1200	140	66	U	590	66
4-Chloroaniline	106-47-8	8270E	µg/Kg	1000 (7)	2700	180	U	1000	180	210	U	1200	210	230	U	1300	230	160	U	910	160	140	U	810	140	220	U	1200	220	100	U	590	100
4-Nitrophenol	100-02-7	8270E	µg/Kg	5120 (5)		170	U	2100	170	200	U	2400	200	210	U	2700	210	150	U	1900	150	130	U	1600	130	200	UJ	2500	200	96	U	1200	96
Bis(2-chloroethyl)ether	111-44-4	8270E	µg/Kg	23700 (5)	630	36	U	100	36	42	U	120	42	46	U	130	46	32	U	91	32	28	U	81	28	43	U	120	43	20	U	59	20
Bis(2-ethylhexyl) phthalate	117-81-7	8270E	µg/Kg	925 (5)	39000	360	J	1000	55	1200		1200	63	700	J	1300	70	48	U	910	48	41000		4000	210	1700		1200	65	310	J	590	31
Butyl benzyl phthalate	85-68-7	8270E	µg/Kg	239 (5)	290000	49	U	1000	49	56	U	1200	56	62	U	1300	62	43	U	910	43	180	J	810	38	57	U	1200	57	28	U	590	28
Dibenzofuran	132-64-9	8270E	µg/Kg	6100 (7)		15	U	1000	15	17	U	1200	17	18	U	1300	18	13	U	910	13	11	U	810	11	17	U	1200	17	8.2	U	590	8.2
Di-n-butyl phthalate	84-74-2	8270E	µg/Kg	150 (5)	6300000	55	J	1000	39	45	U	1200	45	50	U	1300	50	34	U	910	34	1500		810	31	46	U	1200	46	92	J	590	22
Di-n-octyl phthalate	117-84-0	8270E	µg/Kg	910 (7)	630000	55	U	1000	55	63	U	1200	63	70	U	1300	70	48	U	910	48	43	U	810	43	110	J	1200	65	31	U	590	31
Hexachlorobenzene	118-74-1	8270E	µg/Kg	199 (5)	430	49	U	100	49	57	U	120	57	62	U	130	62	43	U	91	43	39	U	81	39	58	U	120	58	28	U	59	28
Hexachlorobutadiene	87-68-3	8270E	µg/Kg	39.8 (5)	8900	22	U	210	22	25	U	240	25	28	U	270	28	19	U	190	19	17	U	160	17	26	U	250	26	12	U	120	12
Hexachlorocyclopentadiene	77-47-4	8270E	µg/Kg	755 (5)	470000	91	U	1000	91	100	U	1200	100	120	U	1300	120	80	U	910	80	71	U	810	71	110	U	1200	110	51	U	590	51
Hexachloroethane	67-72-1	8270E	µg/Kg	596 (5)	17000	36	U	100	36	41	U	120	41	45	U	130	45	31	U	91	31	28	U	81	28	42	U	120	42	20	U	59	20
N-Nitrosodi-n-propylamine	621-64-7	8270E	µg/Kg		170	76	U	100	76	87	U	120	87	96	U	130	96	66	U	91	66	59	U	81	59	89	U	120	89	43	U	59	43
N-Nitrosodiphenylamine	86-30-6	8270E	µg/Kg	545 (5)	110000	86	U	1000	86	98	U	1200	98	110	U	1300	110	75	U	910	75	67	U	810	67	100	U	1200	100	140	J	590	48
Pentachlorophenol	87-86-5	8270E	µg/Kg	2100 (3)	1000	210	U	840	210	250	U	960	250	270	U	1100	270	190	U	730	190	170	U	650	170	250	U	980	250	120	U	470	120
Polycyclic Aromatic Hydrocarbons (PAHs)																																	
Naphthalene	91-20-3	8270E	µg/Kg	99.4 (5)	2500000	240	J	1000	18	170	J	1200	21	150	J	1300	23	16	U	910	16	46	J	810	14	21	U	1200	21	170	J	590	10
Benzo[a]anthracene	56-55-3	8270E	µg/Kg	5210 (5)	5100	36	U	100	36	42	U	120	42	46	U	130	46	32	U	91	32	55	J	81	28	72	J	120	43	20	U	59	20
Benzo[a]pyrene	50-32-8	8270E	µg/Kg	1520 (5)	510	28	J	100	28	32	U	120	32	35	U	130	35	24	U	91	24	53	J	81	22	50	J	120	33	19	J	59	16
Benzo[b]fluoranthene	205-99-2	8270E	µg/Kg	59800 (5)	5100	60	J	100	27	44	J	120	31	34	U	130	34	24	U	91	24	92		81	21	59	J	120	32	31	J	59	15
Chrysene	218-01-9	8270E	µg/Kg	4730 (5)	510000	54	J	1000	18	36	J	1200	20	22	UJ	1300	22	15	U	910	15	52	J	810	14	47	J	1200	21	23	J	590	9.9
Dibenz(a,h)anthracene	53-70-3	8270E	µg/Kg	18400 (5)	510	45	U	100	45	52	U	120	52	57	U	130	57	40	U	91	40	35	U	81	35	53	U	120	53	25	U	59	25
Indeno[1,2,3-cd]pyrene	193-39-5	8270E	µg/Kg	109000 (5)	5100	41	U	100	41	47	U	120	47	51	U	130	51	36	U	91	36	39	J	81	32	48	U	120	48	23	U	59	23
High Molecular Weight PAHs			µg/Kg	1100 (4)		460				434				389				271				535				563				246			
Organochlorine Pesticides																																	
4,4'-DDD	72-54-8	8081B	µg/Kg	758 (5)	2300	3.6	U	21	3.6	4.1	U	24	4.1	4.5	U	27	4.5	3.1	U	19	3.1	2.8	U	16	2.8	4.2	U	25	4.2	110	J	12	2
4,4'-DDT	50-29-3	8081B	µg/Kg	3.5 (5)	1900	3.9	U	21	3.9	4.4	U	24	4.4	4.9	U	27	4.9	3.4	U	19	3.4	3	U	16	3	4.5	U	25	4.5	2.2	U	12	2.2
Aldrin	309-00-2	8081B	µg/Kg	3.32 (5)	41	3.2	U	21	3.2	3.7	U	24	3.7	4	U	27	4	2.8	U	19	2.8	2.5	U	16	2.5	3.7	U	25	3.7	1.8	U	12	1.8
beta-BHC	319-85-7	8081B	µg/Kg	3.98 (5)	300	2.4	U	6.3	2.4	2.7	U	7.2	2.7	3	U	8	3	2.1	U	5.5	2.1	1.8	U	4.9	1.8	2.8	U	7.4	2.8	1.3	U	3.5	1.3
Chlordane (technical)	57-74-9	8081B	µg/Kg	220 (7)	270	51	U	210	51	59	U	240	59	64	U	270	64	45	U	190	45	40	U	160	40	60	U	250	60	29	U	120	29
Dieldrin	60-57-1	8081B	µg/Kg	4.9 (4)	34	2.7	U	6.3	2.7	3.1	U	7.2	3.1	3.5	U	8	3.5	2.4	U	5.5	2.4	2.1	U	4.9	2.1	3.2	U	7.4	3.2	8.8	J	3.5	1.5
Endrin	72-20-8	8081B	µg/Kg	10.1 (5)	19000	3	U	21	3	3.5	U	24	3.5	3.8	U	27	3.8	2.7	U	19	2.7	2.4	U	16	2.4	3.5	U	25	3.5	1.7	U	12	1.7
Endrin aldehyde	7421-93-4	8081B	µg/Kg	10.5 (5)		5	U	21	5	5.7	U	24	5.7	6.3	U	27	6.3	4.4	U	19	4.4	3.9	U	16	3.9	5.8	U	25	5.8	2.8	U	12	2.8
gamma-BHC (Lindane)	58-89-9	8081B	µg/Kg	5 (5)	570	2	U	6.3	2	2.2	U	7.2	2.2	2.5	U	8	2.5	1.7	U	5.5	1.7	1.5	U	4.9	1.5	2.3	U	7.4	2.3	1.1	U	3.5	1.1
Heptachlor	76-44-8	8081B	µg/Kg	5.98 (5)	150	2.5	U	21	2.5	2.9	U	24	2.9	3.1	U	27	3.1	2.2	U	19	2.2	1.9	U	16	1.9	2.9	U	25	2.9	1.4	U	12	1.4
Toxaphene	8001-35-2	8081B	µg/Kg	119 (5)	490	76	U	210	76	88	U	240	88	96	U	270	96	67	U	190	67	59	U	160	59	89	U	250	89	43	U	120	43

Table 5.8 - Soil: Summary of Exceedances

(continued)

Rolling Knolls Landfill

	Sample Name			ESC's	NJAC 7:26D	DP17_0.5-2.0				DP17_3.5-5.0				DP102_3.5-5.0 (DP17_3.5-5.0 duplicate)				DP18_3.5-5.0				DP19_0.5-5.0				DP19_5.0-9.0				DP20_0.5-4.0			
	Sample Date/Time					05/05/2021 10:45				05/05/2021 11:40				05/05/2021 11:40				05/10/2021 14:05				05/10/2021 09:00				05/10/2021 09:50				05/04/2021 13:25			
	Latitude					40.7231730				40.7231730				40.7231730				40.7226388				40.7236522				40.7236522				40.7227310			
	Longitude					-74.4437270				-74.4437270				-74.4437270				-74.4459762				-74.4437257				-74.4437257				-74.4439070			
	Lab Sample Name			Screening Criteria	(8) Soil Remediation Standards (Ing.-Derm.) - Residential	GS-S-DPT17-SC-0.5-2				GS-S-DPT17-SB-3.5-5				GS-S-DP102-SB-3.5-5				GS-S-DPT13-SB-3.5-5.0				GS-S-DPT19-SC-0.5-5.0				GS-S-DPT19-SB-5.0-9.0				GS-S-DPT20-SC-0.5-4			
	Lab Sample Number					460-233715-2				460-233715-3				460-233708-6				460-234082-6				460-234080-2				460-234080-3				460-233704-5			
	Lab Report Number(s)					460-233715-1				460-233715-1				460-233708-1				460-234082-1				460-234080-1				460-234080-1				460-233704-1			
Analyte	CAS	Method	Units			Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)
Polychlorinated Biphenyls (PCBs)																																	
Aroclor 1242	53469-21-9	8082A	µg/Kg	41 (7)		28	U	210	28	32	U	240	32	35	U	270	35	25	U	190	25	22	U	160	22	510		250	33	79	U	590	79
Aroclor 1248	12672-29-6	8082A	µg/Kg	7.3 (7)		28	U	210	28	32	U	240	32	35	U	270	35	25	U	190	25	22	U	160	22	33	U	250	33	79	U	590	79
Aroclor 1254	11097-69-1	8082A	µg/Kg	41 (7)		3400		210	29	1500		240	33	430		270	37	25	U	190	25	2400		160	23	34	U	250	34	82	U	590	82
Polychlorinated biphenyls, Total	1336-36-3	8082A	µg/Kg	371 (5)	250	3400		210	29	1500		240	33	430		270	37	25	U	190	25	2400		160	23	510		250	34	9400		590	82
Chlorinated Biphenyl Congeners (PCBs)																																	
Σ Polychlorinated biphenyls	1336-36-3	8082A	pg/g	371000 (5)	250000																												
Σ Polychlorinated biphenyls (PCB) TEQ	1336-36-3	8082A	pg/g	0.199 (5)																													
Dioxins and Furans																																	
2,3,7,8-TCDD	1746-01-6	8290A	pg/g	0.199 (5)	51																												
Total TCDD	41903-57-5	8290A	pg/g	0.199 (5)																													
2,3,7,8-TCDD	1746-01-6		pg/g	0.199 (5)																													
Σ Dibenzo-p-dioxin (PCDD) TEQ	30402-14-3		pg/g	0.199 (5)																													
Σ Dibenzofuran (PCDF) TEQ	30402-14-3		pg/g	0.199 (5)																													
Σ PCB TEQ + PCDD TEQ + PCDF TEQ	30402-14-3		pg/g	0.199 (5)																													
Metals & Cyanide																																	
Aluminum	7429-90-5	6020B	mg/Kg	50 (7)	78000	11700		279	36.2	6350		317	41.3	7320		386	50.2	9170		42.5	5.5	5400		39.3	5.1	8090		68.3	8.9	9130		100	13.1
Antimony	7440-36-0	6020B	mg/Kg	0.27 (4)	31	6.1	J	13.9	2	3.1	J	15.9	2.3	2.8	J	19.3	2.8	0.31	U	2.1	0.31	7.8		2	0.29	1.1	J	3.4	0.5	5.4		5	0.73
Arsenic	7440-38-2	6020B	mg/Kg	18 (1)	19	15.1		13.9	1.4	12.7	J	15.9	1.6	17.3	J	19.3	1.9	1.9	J	2.1	0.21	33.6	J	2	0.2	7.4	J	3.4	0.34	15.1		5	0.5
Barium	7440-39-3	6020B	mg/Kg	330 (2)	16000	489		27.9	2	985		31.7	2.3	589		38.6	2.8	62.3		4.2	0.31	479		3.9	0.28	221		6.8	0.5	617		10	0.73
Cadmium	7440-43-9	6020B	mg/Kg	0.36 (4)	71	23.9		13.9	1.6	5.3	J	15.9	1.8	5	J	19.3	2.2	0.33	J	2.1	0.24	9.1		2	0.22	4		3.4	0.39	5.8		5	0.57
Chromium	7440-47-3	6020B	mg/Kg	0.4 (5)		103		27.9	2.4	56.9		31.7	2.8	72.9		38.6	3.4	19.7		4.2	0.37	52.2		3.9	0.34	36.8		6.8	0.59	46.3		10	0.87
Cobalt	7440-48-4	6020B	mg/Kg	13 (1)	23	81.9		27.9	2.1	11.5	J	31.7	2.3	15.5	J	38.6	2.9	4.3		4.2	0.31	12.1		3.9	0.29	10.1		6.8	0.51	11.8		10	0.74
Copper	7440-50-8	6020B	mg/Kg	28 (3)	3100	866		27.9	3.1	321		31.7	3.5	366		38.6	4.2	21.9		4.2	0.47	519	J	3.9	0.43	106	J	6.8	0.75	290		10	1.1
Lead	7439-92-1	6020B	mg/Kg	11 (3)	400	744		8.4	2.8	649		9.5	3.2	623		11.6	3.9	8		1.3	0.42	3370	J	1.2	0.39	162	J	2	0.68	715		3	1
Manganese	7439-96-5	6020B	mg/Kg	220 (1)	1900	1690		55.8	5.6	716		63.5	6.4	729		77.2	7.8	71.6		8.5	0.86	401		7.9	0.79	296		13.7	1.4	619		20.1	2
Nickel	7440-02-0	6020B	mg/Kg	38 (1)	1600	574		27.9	2.7	75.1		31.7	3.1	83.1		38.6	3.7	11.7		4.2	0.41	41.4		3.9	0.38	32.4		6.8	0.66	82.2		10	0.97
Selenium	7782-49-2	6020B	mg/Kg	0.52 (1)	390	1.7	J	17.4	1.6	1.9	U	19.8	1.9	2.3	U	24.1	2.3	0.62	J	2.7	0.25	0.78	J	2.5	0.23	1.9	J	4.3	0.4	0.59	U	6.3	0.59
Silver	7440-22-4	6020B	mg/Kg	4.2 (3)	390	4.8	J	13.9	1.2	1.4	U	15.9	1.4	1.7	U	19.3	1.7	0.19	U	2.1	0.19	37.5		9.8	0.87	1.9	J	3.4	0.3	10.1		5	0.45
Thallium	7440-28-0	6020B	mg/Kg	1 (5)		0.57	U	5.6	0.57	0.65	U	6.3	0.65	0.79	U	7.7	0.79	0.087	U	0.85	0.087	0.08	U	0.79	0.08	0.14	U	1.4	0.14	0.21	U	2	0.21
Vanadium	7440-62-2	6020B	mg/Kg	7.8 (3)	390	29.7		27.9	2.9	17.4	J	31.7	3.3	25.3	J	38.6	4	36.8		4.2	0.44	105		3.9	0.4	43.7		6.8	0.7	43.6		10	1
Zinc	7440-66-6	6020B	mg/Kg	46 (3)	23000	4200		112	31.9	1300		127	36.3	962		154	44.2	36.4		17	4.9	14000		78.5	22.5	701		27.3	7.8	4150		40.2	11.5
Mercury	7439-97-6	7471B	mg/Kg	0.00051 (5)	23	5.5		1.1	0.25	3.2		1.2	0.29	3.4		1.3	0.3	0.05		0.042	0.0099	5.2		0.2	0.047	0.49	J	0.061	0.014	5		0.58	0.14
Cyanide, Total	57-12-5	9012B	mg/Kg	1.33 (5)	47	3.6		0.63	0.34	0.46	U	0.83	0.46	1.4	J	0.85	0.47	0.48	U	1.3	0.48	0.61	J	1.2	0.43	0.72	UJ	2	0.72	3.3	J	0.38	0.21

Table 5.8 - Soil: Summary of Exceedances

(continued)

Rolling Knolls Landfill

Sample Name				ESC's	NJAC 7:26D	DP20_10.0-13.0				DP21_0.5-4.0				DP21_4.0-5.0				DP22_0.5-3.0				DP102_0.5-3.0 (DP22_0.5-3.0 duplicate)				DP22_3.0-5.0				DP23_0.5-2.5			
Sample Date/Time						05/04/2021 13:00				05/07/2021 11:05				05/07/2021 11:50				05/04/2021 11:35				05/04/2021 11:35				05/04/2021 11:00				05/10/2021 16:05			
Latitude						40.7227310				40.7238344				40.7238344				40.7234467				40.7234467				40.7234467				40.7234761			
Longitude				Screening Criteria	(8) Soil Remediation Standards (Ing.-Derm.) - Residential	-74.4439070				-74.4456550				-74.4456550				-74.4453029				-74.4453029				-74.4453029				-74.4461556			
Lab Sample Name						GS-S-DPT-20-SB-10-13				GS-S-DPT21-SC-0.5-4				GS-S-DPT21-SB-4-5				GS-S-DPT22-SC-0.5-3				GS-S-DPT102-SC-0.5-3				GS-S-DPT22-SB-3-5				GS-S-DPT23-SC-0.5-2.5			
Lab Sample Number						460-233704-6				460-233940-6				460-233940-7				460-233706-2				460-233704-7				460-233706-3				460-234080-5			
Lab Report Number(s)						460-233704-1				460-233940-1				460-233940-1				460-233706-1				460-233704-1				460-233706-1				460-234080-1			
Analyte	CAS	Method	Units			Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)
Volatile Organic Compounds (VOCs)																																	
1,1,1,2-Tetrachloroethane	630-20-6	8260D	µg/Kg	225000 (6)	0.1	1.5	U	8	1.5	0.81	UJ	4.3	0.81	0.92	U	4.8	0.92	0.75	U	3.9	0.75	0.33	U	1.7	0.33	0.35	U	1.8	0.35	0.87	U	4.6	0.87
Acetone	67-64-1	8260D	µg/Kg	1200 (7)	70000000	470		48	46	260		26	24	620		29	28	210		24	22	55		10	9.9	300		11	10	710		28	25
m-Xylene & p-Xylene	179601-23-1	8260D	µg/Kg	4162 (7)	12000000	1.4	U	8	1.4	0.75	UJ	4.3	0.75	1.4	J	4.8	0.84	0.68	U	3.9	0.68	0.3	U	1.7	0.3	1.3	J	1.8	0.32	2.6	J	4.6	0.8
Semivolatile Organic Compounds (SVOCs)																																	
1,2,4,5-Tetrachlorobenzene	95-94-3	8270E	µg/Kg	2020 (5)	23000	66	U	2100	66	35	UJ	1100	35	32	U	1000	32	26	U	820	26	23	U	730	23	13	U	410	13	47	U	1500	47
2,3,4,6-Tetrachlorophenol	58-90-2	8270E	µg/Kg	199 (6)	1900000	140	U	2100	140	77	UJ	1100	77	70	U	1000	70	56	U	820	56	50	U	730	50	28	U	410	28	100	U	1500	100
2,4-Dimethylphenol	105-67-9	8270E	µg/Kg	10 (5)	1300000	93	U	2100	93	50	UJ	1100	50	62	J	1000	46	36	U	820	36	32	U	730	32	18	U	410	18	67	U	1500	67
2,4-Dinitrophenol	51-28-5	8270E	µg/Kg	60.9 (5)	130000	1000	U	1700	1000	560	R	910	560	510	U	830	510	400	U	660	400	360	U	590	360	200	U	330	200	750	UJ	1200	750
2,4-Dinitrotoluene	121-14-2	8270E	µg/Kg	1280 (5)		230	U	430	230	120	UJ	230	120	110	U	210	110	89	U	170	89	79	U	150	79	45	U	84	45	160	U	310	160
2-Chloronaphthalene	91-58-7	8270E	µg/Kg	12.2 (5)	4800000	98	U	2100	98	52	UJ	1100	52	48	U	1000	48	38	U	820	38	34	U	730	34	19	U	410	19	70	U	1500	70
2-Methylnaphthalene	91-57-6	8270E	µg/Kg	3240 (5)	240000	59	U	2100	59	53	J	1100	32	46	J	1000	29	59	J	820	23	49	J	730	21	12	U	410	12	42	U	1500	42
2-Nitroaniline	88-74-4	8270E	µg/Kg	5300 (7)		79	U	2100	79	42	UJ	1100	42	39	U	1000	39	31	U	820	31	27	U	730	27	16	U	410	16	57	U	1500	57
2-Nitrophenol	88-75-5	8270E	µg/Kg	7000 (7)		210	U	2100	210	110	UJ	1100	110	100	U	1000	100	83	U	820	83	74	U	730	74	42	U	410	42	150	UJ	1500	150
3,3'-Dichlorobenzidine	91-94-1	8270E	µg/Kg	646 (5)	1200	320	U	850	320	170	UJ	460	170	160	U	420	160	120	U	330	120	110	U	300	110	63	U	170	63	230	U	610	230
3-Nitroaniline	99-09-2	8270E	µg/Kg	3160 (6)		240	U	2100	240	130	U	1100	130	120	U	1000	120	93	U	820	93	83	U	730	83	47	U	410	47	170	U	1500	170
4-Chloroaniline	106-47-8	8270E	µg/Kg	1000 (7)	2700	380	U	2100	380	200	UJ	1100	200	180	U	1000	180	150	U	820	150	130	U	730	130	74	U	410	74	270	U	1500	270
4-Nitrophenol	100-02-7	8270E	µg/Kg	5120 (5)		350	U	4300	350	180	UJ	2300	180	170	U	2100	170	130	U	1700	130	120	U	1500	120	68	U	840	68	250	U	3100	250
Bis(2-chloroethyl)ether	111-44-4	8270E	µg/Kg	23700 (5)	630	74	U	210	74	39	UJ	110	39	36	U	100	36	29	U	82	29	26	U	73	26	14	U	41	14	53	U	150	53
Bis(2-ethylhexyl) phthalate	117-81-7	8270E	µg/Kg	925 (5)	39000	110	U	2100	110	2000	J	1100	60	1300		1000	55	110	J	820	44	42	J	730	39	22	U	410	22	80	U	1500	80
Butyl benzyl phthalate	85-68-7	8270E	µg/Kg	239 (5)	290000	99	U	2100	99	590	J	1100	53	120	J	1000	49	39	U	820	39	34	U	730	34	19	U	410	19	71	U	1500	71
Dibenzofuran	132-64-9	8270E	µg/Kg	6100 (7)		30	U	2100	30	16	UJ	1100	16	31	J	1000	15	12	U	820	12	10	U	730	10	5.8	U	410	5.8	21	U	1500	21
Di-n-butyl phthalate	84-74-2	8270E	µg/Kg	150 (5)	6300000	80	U	2100	80	200	J	1100	43	140	J	1000	39	31	U	820	31	420	J	730	28	16	U	410	16	100	J	1500	57
Di-n-octyl phthalate	117-84-0	8270E	µg/Kg	910 (7)	630000	110	U	2100	110	340	J	1100	60	55	U	1000	55	44	U	820	44	39	U	730	39	22	U	410	22	80	U	1500	80
Hexachlorobenzene	118-74-1	8270E	µg/Kg	199 (5)	430	100	U	210	100	54	UJ	110	54	49	U	100	49	39	U	82	39	35	U	73	35	20	U	41	20	72	U	150	72
Hexachlorobutadiene	87-68-3	8270E	µg/Kg	39.8 (5)	8900	45	U	430	45	24	UJ	230	24	22	U	210	22	18	U	170	18	16	U	150	16	8.8	U	84	8.8	32	U	310	32
Hexachlorocyclopentadiene	77-47-4	8270E	µg/Kg	755 (5)	470000	190	U	2100	190	99	R	1100	99	91	U	1000	91	72	U	820	72	64	U	730	64	36	U	410	36	130	U	1500	130
Hexachloroethane	67-72-1	8270E	µg/Kg	596 (5)	17000	73	U	210	73	39	UJ	110	39	36	U	100	36	28	U	82	28	25	U	73	25	14	U	41	14	52	U	150	52
N-Nitrosodi-n-propylamine	621-64-7	8270E	µg/Kg		170	150	U	210	150	82	UJ	110	82	75	U	100	75	60	U	82	60	53	U	73	53	30	U	41	30	110	U	150	110
N-Nitrosodiphenylamine	86-30-6	8270E	µg/Kg	545 (5)	110000	170	U	2100	170	93	UJ	1100	93	85	U	1000	85	68	U	820	68	60	U	730	60	34	U	410	34	120	U	1500	120
Pentachlorophenol	87-86-5	8270E	µg/Kg	2100 (3)	1000	430	U	1700	430	230	U	910	230	210	U	830	210	170	U	660	170	150	U	590	150	85	U	330	85	310	U	1200	310
Polycyclic Aromatic Hydrocarbons (PAHs)																																	
Naphthalene	91-20-3	8270E	µg/Kg	99.4 (5)	2500000	37	U	2100	37	180	J	1100	20	390	J	1000	18	14	U	820	14	42	J	730	13	7.2	U	410	7.2	26	U	1500	26
Benzo[a]anthracene	56-55-3	8270E	µg/Kg	5210 (5)	5100	74	U	210	74	40	UJ	110	40	48	J	100	36	29	U	82	29	26	U	73	26	23	J	41	14	53	U	150	53
Benzo[a]pyrene	50-32-8	8270E	µg/Kg	1520 (5)	510	57	U	210	57	30	UJ	110	30	28	U	100	28	22	U	82	22	20	U	73	20	17	J	41	11	40	U	150	40
Benzo[b]fluoranthene	205-99-2	8270E	µg/Kg	59800 (5)	5100	55	U	210	55	40	J	110	29	62	J	100	27	26	J	82	21	19	U	73	19	19	J	41	11	39	U	150	39
Chrysene	218-01-9	8270E	µg/Kg	4730 (5)	510000	36	UJ	2100	36	19	UJ	1100	19	70	J	1000	18	14	UJ	820	14	12	J	730	12	17	J	410	7	26	U	1500	26
Dibenz(a,h)anthracene	53-70-3	8270E	µg/Kg	18400 (5)	510	92	U	210	92	49	UJ	110	49	45	U	100	45	36	U	82	36	32	U	73	32	18	U	41	18	66	U	150	66
Indeno[1,2,3-cd]pyrene	193-39-5	8270E	µg/Kg	109000 (5)	5100	83	U	210	83	44	UJ	110	44	40	U	100	40	32	U	82	32	29	U	73	29	16	J	41	16	59	U	150	59
High Molecular Weight PAHs			µg/Kg	1100 (4)		629				374				564				270				218				186				449			
Organochlorine Pesticides																																	
4,4'-DDD	72-54-8	8081B	µg/Kg	758 (5)	2300	7.3	U	43	7.3	3.9	U	23	3.9	5.9	J	21	3.6	37		17	2.8	11	J	15	2.5	1.4	U	8.4	1.4	31	J	31	5.2
4,4'-DDT	50-29-3	8081B	µg/Kg	3.5 (5)	1900	7.9	U	43	7.9	4.2	U	23	4.2	3.9	U	21	3.9	3.1	U	17	3.1	2.7	U	15	2.7	1.5	U	8.4	1.5	5.6	U	31	5.6
Aldrin	309-00-2	8081B	µg/Kg	3.32 (5)	41	6.5	U	43	6.5	3.5	U	23	3.5	3.2	U	21	3.2	2.5	U	17	2.5	2.2	U	15	2.2	1.3	U	8.4	1.3	4.6	U	31	4.6
beta-BHC	319-85-7	8081B	µg/Kg	3.98 (5)	300	4.8	U	13	4.8	2.6	U	6.9	2.6	2.3	U	6.3	2.3	1.9	U	5	1.9	1.7	U	4.4	1.7	0.94	U	2.5	0.94	3.4	U	9.2	3.4
Chlordane (technical)	57-74-9	8081B	µg/Kg	220 (7)	270	100	U	430	100	56	U	230	56	51	U	210	51	520		170	40	36	U	150	36	20	U	84	20	74	U	310	74
Dieldrin	60-57-1	8081B	µg/Kg	4.9 (4)	34	5.6	U	13	5.6	3	U	6.9	3	2.7	U	6.3	2.7	2.2	U	5	2.2	1.9	U	4.4	1.9	1.1	U	2.5	1.1	4	U	9.2	4
Endrin	72-20-8	8081B	µg/Kg	10.1 (5)	19000	6.2	U	43	6.2	3.3	U	23	3.3	3	U	21	3	2.4	U	17	2.4	2.1	U	15	2.1	1.2	U	8.4	1.2	4.4	U	31	4.4
Endrin aldehyde	7421-93-4	8081B	µg/Kg	10.5 (5)		10	U	43	10	5.4	U	23	5.4	4.9	U	21	4.9	3.9	U	17	3.9	3.5	U	15	3.5	2	U	8.4	2	7.3	U	31	7.3
gamma-BHC (Lindane)	58-89-9	8081B	µg/Kg	5 (5)	570	4	U	13	4	2.1	U	6.9	2.1	1.9	U	6.3	1.9	1.5	U	5	1.5	1.4	U	4.4	1.4	0.78	U	2.5	0.78	2.8	U	9.2	2.8
Heptachlor	76-44-8	8081B	µg/Kg	5.98 (5)	150	5.1	U	43	5.1	2.7	U	23	2.7	2.5	U	21	2.5	2	U	17	2	1.8	U	15	1.8	0.99	U	8.4	0.99	3.6	U	31	3.6
Toxaphene	8001-35-2	8081B	µg/Kg	119 (5)	490	160	U	430	160	83	U	230	83	76	U	210	76	60	U	170	60	54	U	150	54	30	U	84	30	110	U	310	110

Table 5.8 - Soil: Summary of Exceedances

(continued)

Rolling Knolls Landfill

	Sample Name			ESC's	NJAC 7:26D	DP20_10.0-13.0				DP21_0.5-4.0				DP21_4.0-5.0				DP22_0.5-3.0				DP102_0.5-3.0 (DP22_0.5-3.0 duplicate)				DP22_3.0-5.0				DP23_0.5-2.5			
	Sample Date/Time					05/04/2021 13:00				05/07/2021 11:05				05/07/2021 11:50				05/04/2021 11:35				05/04/2021 11:35				05/04/2021 11:00				05/10/2021 16:05			
	Latitude					40.7227310				40.7238344				40.7238344				40.7234467				40.7234467				40.7234467				40.7234761			
	Longitude			Screening Criteria	(8) Soil Remediation Standards (Ing.-Derm.) - Residential	-74.4439070				-74.4456550				-74.4456550				-74.4453029				-74.4453029				-74.4453029				-74.4461556			
	Lab Sample Name					GS-S-DPT-20-SB-10-13				GS-S-DPT21-SC-0.5-4				GS-S-DPT21-SB-4-5				GS-S-DPT22-SC-0.5-3				GS-S-DPT102-SC-0.5-3				GS-S-DPT22-SB-3-5				GS-S-DPT23-SC-0.5-2.5			
	Lab Sample Number					460-233704-6				460-233940-6				460-233940-7				460-233706-2				460-233704-7				460-233706-3				460-234080-5			
	Lab Report Number(s)					460-233704-1				460-233940-1				460-233940-1				460-233706-1				460-233704-1				460-233706-1				460-234080-1			
Analyte	CAS	Method	Units			Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)
Polychlorinated Biphenyls (PCBs)																																
Aroclor 1242	53469-21-9	8082A	µg/Kg	41 (7)		57	U	430	57	31	U	230	31	28	U	210	28	22	U	170	22	20	U	150	20	11	U	84	11	41	U	310	41
Aroclor 1248	12672-29-6	8082A	µg/Kg	7.3 (7)		57	U	430	57	31	U	230	31	28	U	210	28	820	J	170	22	240		150	20	11	U	84	11	690		310	41
Aroclor 1254	11097-69-1	8082A	µg/Kg	41 (7)		59	U	430	59	32	U	230	32	29	U	210	29	23	U	170	23	20	U	150	20	12	U	84	12	42	U	310	42
Polychlorinated biphenyls, Total	1336-36-3	8082A	µg/Kg	371 (5)	250	59	U	430	59	32	U	230	32	29	U	210	29	1100	J	170	23	240		150	20	12	U	84	12	690		310	42
Chlorinated Biphenyl Congeners (PCBs)																																
Σ Polychlorinated biphenyls	1336-36-3	8082A	pg/g	371000 (5)	250000																											
Σ Polychlorinated biphenyls (PCB) TEQ	1336-36-3	8082A	pg/g	0.199 (5)																												
Dioxins and Furans																																
2,3,7,8-TCDD	1746-01-6	8290A	pg/g	0.199 (5)	51																											
Total TCDD	41903-57-5	8290A	pg/g	0.199 (5)																												
2,3,7,8-TCDD	1746-01-6		pg/g	0.199 (5)																												
Σ Dibenzo-p-dioxin (PCDD) TEQ	30402-14-3		pg/g	0.199 (5)																												
Σ Dibenzofuran (PCDF) TEQ	30402-14-3		pg/g	0.199 (5)																												
Σ PCB TEQ + PCDD TEQ + PCDF TEQ	30402-14-3		pg/g	0.199 (5)																												
Metals & Cyanide																																
Aluminum	7429-90-5	6020B	mg/Kg	50 (7)	78000	7340		120	15.6	3500		68.6	8.9	8430		61.4	8	5220		47.9	6.2	9340		40.7	5.3	4530		23.5	3.1	6060		87.4	11.4
Antimony	7440-36-0	6020B	mg/Kg	0.27 (4)	31	0.87	U	6	0.87	3.5		3.4	0.5	5.1		3.1	0.45	4.1		2.4	0.35	4.6		2	0.3	0.17	U	1.2	0.17	3.4	J	4.4	0.64
Arsenic	7440-38-2	6020B	mg/Kg	18 (1)	19	4.3	J	6	0.6	9.7		3.4	0.34	18.1		3.1	0.31	9.3		2.4	0.24	10		2	0.2	1.3		1.2	0.12	12.2	J	4.4	0.44
Barium	7440-39-3	6020B	mg/Kg	330 (2)	16000	182		12	0.87	326		6.9	0.5	447		6.1	0.45	136		4.8	0.35	114		4.1	0.3	45.3		2.3	0.17	285		8.7	0.63
Cadmium	7440-43-9	6020B	mg/Kg	0.36 (4)	71	1.6	J	6	0.68	3.2	J	3.4	0.39	4.6		3.1	0.35	2.7		2.4	0.27	1.8	J	2	0.23	0.15	J	1.2	0.13	4.3	J	4.4	0.49
Chromium	7440-47-3	6020B	mg/Kg	0.4 (5)		16.7		12	1	75.8	J	6.9	0.6	164	J	6.1	0.53	52.8		4.8	0.42	44.7		4.1	0.35	8.4		2.3	0.2	64.9		8.7	0.76
Cobalt	7440-48-4	6020B	mg/Kg	13 (1)	23	3.8	J	12	0.89	8.8		6.9	0.51	12.3		6.1	0.45	9.6		4.8	0.35	28.1		4.1	0.3	0.94	J	2.3	0.17	12.1		8.7	0.65
Copper	7440-50-8	6020B	mg/Kg	28 (3)	3100	35		12	1.3	177		6.9	0.76	400		6.1	0.68	224		4.8	0.53	182		4.1	0.45	14.3		2.3	0.26	189	J	8.7	0.96
Lead	7439-92-1	6020B	mg/Kg	11 (3)	400	16.5		3.6	1.2	1310		2.1	0.69	511		1.8	0.61	399		1.4	0.48	185		1.2	0.41	4.9		0.7	0.23	1250	J	2.6	0.87
Manganese	7439-96-5	6020B	mg/Kg	220 (1)	1900	159		24	2.4	400		13.7	1.4	512		12.3	1.2	180		9.6	0.97	185		8.1	0.82	33.7		4.7	0.47	471		17.5	1.8
Nickel	7440-02-0	6020B	mg/Kg	38 (1)	1600	12		12	1.2	43	J	6.9	0.67	64.6	J	6.1	0.6	32.3		4.8	0.46	40		4.1	0.39	4.9		2.3	0.23	45.7		8.7	0.85
Selenium	7782-49-2	6020B	mg/Kg	0.52 (1)	390	0.89	J	7.5	0.71	0.88	J	4.3	0.41	1.4	J	3.8	0.36	1.2	J	3	0.28	0.6	J	2.5	0.24	0.6	J	1.5	0.14	2.2	J	5.5	0.52
Silver	7440-22-4	6020B	mg/Kg	4.2 (3)	390	0.53	U	6	0.53	2.2	J	3.4	0.31	2.3	J	3.1	0.27	1.7	J	2.4	0.21	0.87	J	2	0.18	0.1	U	1.2	0.1	2.6	J	4.4	0.39
Thallium	7440-28-0	6020B	mg/Kg	1 (5)		0.25	U	2.4	0.25	0.14	U	1.4	0.14	0.13	U	1.2	0.13	0.098	U	0.96	0.098	0.13	J	0.81	0.083	0.053	J	0.47	0.048	0.18	U	1.7	0.18
Vanadium	7440-62-2	6020B	mg/Kg	7.8 (3)	390	36.2		12	1.2	9		6.9	0.71	15.1		6.1	0.63	21.3		4.8	0.49	30.1		4.1	0.42	20.3		2.3	0.24	37.7		8.7	0.9
Zinc	7440-66-6	6020B	mg/Kg	46 (3)	23000	82.1		47.9	13.7	1010		27.5	7.9	1250		24.6	7	530		19.2	5.5	230		16.3	4.7	5	J	9.4	2.7	1470		35	10
Mercury	7439-97-6	7471B	mg/Kg	0.00051 (5)	23	0.025	U	0.11	0.025	6.2		0.56	0.13	1.4		0.051	0.012	0.84		0.041	0.0096	0.52		0.034	0.0081	0.0096	J	0.021	0.005	2		0.077	0.018
Cyanide, Total	57-12-5	9012B	mg/Kg	1.33 (5)	47	0.75	U	1.4	0.75	1.6	J	1.8	0.65	0.73	J	1.6	0.58	0.41	J	0.55	0.3	0.53	J	0.49	0.27	0.15	U	0.27	0.15	0.86	UJ	2.4	0.86

Table 5.8 - Soil: Summary of Exceedances

(continued)

Rolling Knolls Landfill

Sample Name				ESC's	NJAC 7:26D	DP23_2.5-3.0				DP24_0.5-2.5				DP24_2.5-3.0				DP25_1.0-1.5				DP26_0.5-3.5				DP26_3.5-4.0				DP27_0.5-3.0			
Sample Date/Time						05/10/2021 16:20				05/14/2021 10:10				05/14/2021 10:15				05/06/2021 15:20				05/07/2021 08:45				05/07/2021 09:00				05/05/2021 14:00			
Latitude						40.7234761				40.7234047				40.7234047				40.7234932				40.7240722				40.7240722				40.7231759			
Longitude				Screening Criteria	(8) Soil Remediation Standards (Ing.-Derm.) - Residential	-74.4461556				-74.4467553				-74.4467553				-74.4473376				-74.4463803				-74.4463803				-74.4437423			
Lab Sample Name						GS-S-DPT23-SB-2.5-3.0				GS-S-DPT24-SC-0.5-2.5				GS-S-DPT24-SB-2.5-3.0				GS-S-DPT25-SB-1-1.5				GS-S-DPT26-SC-0.5-3.5				GS-S-DPT26-SB-3.5-4				GS-S-DPT27-SC-0.5-3			
Lab Sample Number						460-234080-6				460-234442-2				460-234442-3				460-233899-6				460-233940-2				460-233940-3				460-233708-5			
Lab Report Number(s)						460-234080-1				460-234442-1				460-234442-1				460-233899-1				460-233940-1				460-233940-1				460-233708-1 / 460-233708-2			
Analyte	CAS	Method	Units			Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)
Volatile Organic Compounds (VOCs)																																	
1,1,1,2-Tetrachloroethane	630-20-6	8260D	µg/Kg	225000 (6)	0.1	0.48	U	2.6	0.48	0.67	U	3.5	0.67	0.16	U	0.85	0.16	0.26	U	1.4	0.26	0.5	U	2.6	0.5	0.64	U	3.4	0.64	0.36	U	1.9	0.36
Acetone	67-64-1	8260D	µg/Kg	1200 (7)	70000000	470		15	15	120		21	20	16		5.1	4.9	260		8.2	7.8	150		16	15	360		20	19	340		11	11
m-Xylene & p-Xylene	179601-23-1	8260D	µg/Kg	4162 (7)	12000000	0.44	U	2.6	0.44	0.61	U	3.5	0.61	0.15	U	0.85	0.15	0.24	U	1.4	0.24	0.46	U	2.6	0.46	2.9	J	3.4	0.59	0.42	J	1.9	0.33
Semivolatile Organic Compounds (SVOCs)																																	
1,2,4,5-Tetrachlorobenzene	95-94-3	8270E	µg/Kg	2020 (5)	23000	26	U	820	26	34	U	1100	34	13	U	400	13	17	U	540	17	23	U	750	23	24	U	760	24	21	U	660	21
2,3,4,6-Tetrachlorophenol	58-90-2	8270E	µg/Kg	199 (6)	1900000	56	U	820	56	73	U	1100	73	27	U	400	27	37	U	540	37	51	U	750	51	52	U	760	52	45	U	660	45
2,4-Dimethylphenol	105-67-9	8270E	µg/Kg	10 (5)	1300000	36	U	820	36	48	U	1100	48	18	U	400	18	24	U	540	24	33	U	750	33	33	U	760	33	29	U	660	29
2,4-Dinitrophenol	51-28-5	8270E	µg/Kg	60.9 (5)	130000	400	UJ	660	400	530	U	870	530	200	U	320	200	270	U	430	270	370	U	600	370	370	U	610	370	330	U	530	330
2,4-Dinitrotoluene	121-14-2	8270E	µg/Kg	1280 (5)		89	U	170	89	120	U	220	120	43	U	82	43	58	U	110	58	80	U	150	80	82	U	150	82	71	U	130	71
2-Chloronaphthalene	91-58-7	8270E	µg/Kg	12.2 (5)	4800000	38	U	820	38	50	U	1100	50	19	U	400	19	25	U	540	25	35	U	750	35	35	U	760	35	31	U	660	31
2-Methylnaphthalene	91-57-6	8270E	µg/Kg	3240 (5)	240000	23	U	820	23	30	U	1100	30	11	U	400	11	15	U	540	15	90	J	750	21	21	U	760	21	20	J	660	19
2-Nitroaniline	88-74-4	8270E	µg/Kg	5300 (7)		31	U	820	31	40	U	1100	40	15	U	400	15	20	U	540	20	28	U	750	28	28	U	760	28	25	U	660	25
2-Nitrophenol	88-75-5	8270E	µg/Kg	7000 (7)		82	UJ	820	82	110	U	1100	110	40	U	400	40	54	U	540	54	75	U	750	75	76	U	760	76	66	U	660	66
3,3'-Dichlorobenzidine	91-94-1	8270E	µg/Kg	646 (5)	1200	120	U	330	120	160	U	430	160	61	U	160	61	82	U	220	82	110	U	300	110	110	U	310	110	100	U	270	100
3-Nitroaniline	99-09-2	8270E	µg/Kg	3160 (6)		93	U	820	93	120	U	1100	120	45	U	400	45	61	U	540	61	84	U	750	84	86	U	760	86	75	U	660	75
4-Chloroaniline	106-47-8	8270E	µg/Kg	1000 (7)	2700	150	U	820	150	190	U	1100	190	72	U	400	72	96	U	540	96	130	U	750	130	130	U	760	130	120	U	660	120
4-Nitrophenol	100-02-7	8270E	µg/Kg	5120 (5)		130	U	1700	130	180	UJ	2200	180	66	UJ	820	66	88	U	1100	88	120	U	1500	120	120	U	1500	120	110	U	1300	110
Bis(2-chloroethyl)ether	111-44-4	8270E	µg/Kg	23700 (5)	630	29	U	82	29	38	U	110	38	14	U	40	14	19	U	54	19	26	U	75	26	26	U	76	26	23	U	66	23
Bis(2-ethylhexyl) phthalate	117-81-7	8270E	µg/Kg	925 (5)	39000	44	U	820	44	600000		54000	2900	21	U	400	21	160	J	540	29	520	J	750	40	100	J	760	40	1100		660	35
Butyl benzyl phthalate	85-68-7	8270E	µg/Kg	239 (5)	290000	39	U	820	39	51	U	1100	51	19	U	400	19	25	U	540	25	77	J	750	35	36	U	760	36	31	U	660	31
Dibenzofuran	132-64-9	8270E	µg/Kg	6100 (7)		12	U	820	12	15	U	1100	15	5.7	U	400	5.7	7.6	U	540	7.6	28	J	750	11	11	U	760	11	28	J	660	9.3
Di-n-butyl phthalate	84-74-2	8270E	µg/Kg	150 (5)	6300000	31	U	820	31	41	U	1100	41	15	U	400	15	20	U	540	20	65	J	750	28	29	U	760	29	61	J	660	25
Di-n-octyl phthalate	117-84-0	8270E	µg/Kg	910 (7)	630000	44	U	820	44	57	U	1100	57	21	U	400	21	29	U	540	29	40	U	750	40	40	U	760	40	35	U	660	35
Hexachlorobenzene	118-74-1	8270E	µg/Kg	199 (5)	430	39	U	82	39	51	U	110	51	19	U	40	19	26	U	54	26	36	U	75	36	36	U	76	36	31	U	66	31
Hexachlorobutadiene	87-68-3	8270E	µg/Kg	39.8 (5)	8900	18	U	170	18	23	U	220	23	8.6	U	82	8.6	12	U	110	12	16	U	150	16	16	U	150	16	14	U	130	14
Hexachlorocyclopentadiene	77-47-4	8270E	µg/Kg	755 (5)	470000	72	U	820	72	95	U	1100	95	35	U	400	35	47	U	540	47	66	U	750	66	67	UJ	760	67	58	U	660	58
Hexachloroethane	67-72-1	8270E	µg/Kg	596 (5)	17000	28	U	82	28	37	U	110	37	14	U	40	14	19	U	54	19	26	U	75	26	26	U	76	26	23	U	66	23
N-Nitrosodi-n-propylamine	621-64-7	8270E	µg/Kg		170	60	U	82	60	79	U	110	79	29	U	40	29	39	U	54	39	54	U	75	54	55	U	76	55	48	U	66	48
N-Nitrosodiphenylamine	86-30-6	8270E	µg/Kg	545 (5)	110000	68	U	820	68	89	U	1100	89	33	U	400	33	44	U	540	44	61	U	750	61	63	U	760	63	54	U	660	54
Pentachlorophenol	87-86-5	8270E	µg/Kg	2100 (3)	1000	170	U	660	170	220	U	870	220	83	U	320	83	110	U	430	110	150	U	600	150	160	U	610	160	160	J	530	140
Polycyclic Aromatic Hydrocarbons (PAHs)																																	
Naphthalene	91-20-3	8270E	µg/Kg	99.4 (5)	2500000	14	U	820	14	64	J	1100	19	7	U	400	7	9.3	U	540	9.3	74	J	750	13	13	U	760	13	35	J	660	11
Benzo[a]anthracene	56-55-3	8270E	µg/Kg	5210 (5)	5100	29	U	82	29	41	J	110	38	14	U	40	14	22	J	54	19	26	U	75	26	27	U	76	27	390		66	23
Benzo[a]pyrene	50-32-8	8270E	µg/Kg	1520 (5)	510	22	U	82	22	29	U	110	29	11	U	40	11	28	J	54	14	23	J	75	20	20	U	76	20	340		66	18
Benzo[b]fluoranthene	205-99-2	8270E	µg/Kg	59800 (5)	5100	21	U	82	21	59	J	110	28	10	U	40	10	47	J	54	14	41	J	75	19	20	U	76	20	440		66	17
Chrysene	218-01-9	8270E	µg/Kg	4730 (5)	510000	14	U	820	14	56	J	1100	18	6.8	U	400	6.8	27	J	540	9.1	36	J	750	13	13	U	760	13	340	J	660	11
Dibenz(a,h)anthracene	53-70-3	8270E	µg/Kg	18400 (5)	510	36	U	82	36	47	U	110	47	17	U	40	17	23	U	54	23	32	U	75	32	33	U	76	33	65	J	66	29
Indeno[1,2,3-cd]pyrene	193-39-5	8270E	µg/Kg	109000 (5)	5100	32	U	82	32	42	U	110	42	16	U	40	16	21	J	54	21	29	U	75	29	30	U	76	30	230		66	26
High Molecular Weight PAHs			µg/Kg	1100 (4)		243				445				118.7				290				355				230				3535			
Organochlorine Pesticides																																	
4,4'-DDD	72-54-8	8081B	µg/Kg	758 (5)	2300	2.8	U	17	2.8	13	J	22	3.7	1.4	U	8.2	1.4	1.9	U	11	1.9	16		15	2.6	2.6	U	15	2.6	2.3	U	13	2.3
4,4'-DDT	50-29-3	8081B	µg/Kg	3.5 (5)	1900	3.1	U	17	3.1	4	U	22	4	1.5	U	8.2	1.5	2	U	11	2	2.8	U	15	2.8	2.8	U	15	2.8	2.5	U	13	2.5
Aldrin	309-00-2	8081B	µg/Kg	3.32 (5)	41	2.5	U	17	2.5	3.3	U	22	3.3	1.2	U	8.2	1.2	1.7	U	11	1.7	2.3	U	15	2.3	2.3	U	15	2.3	2	U	13	2
beta-BHC	319-85-7	8081B	µg/Kg	3.98 (5)	300	1.9	U	5	1.9	2.5	U	6.5	2.5	0.92	U	2.4	0.92	1.2	U	3.3	1.2	1.7	U	4.5	1.7	1.7	U	4.6	1.7	1.5	U	4	1.5
Chlordane (technical)	57-74-9	8081B	µg/Kg	220 (7)	270	40	U	170	40	53	U	220	53	20	U	82	20	27	U	110	27	37	U	150	37	37	U	150	37	32	U	130	32
Dieldrin	60-57-1	8081B	µg/Kg	4.9 (4)	34	2.2	U	5	2.2	2.8	U	6.5	2.8	1.1	U	2.4	1.1	1.4	U	3.3	1.4	2	U	4.5	2	2	U	4.6	2	1.7	U	4	1.7
Endrin	72-20-8	8081B	µg/Kg	10.1 (5)	19000	2.4	U	17	2.4	3.1	U	22	3.1	1.2	U	8.2	1.2	1.6	U	11	1.6	2.2	U	15	2.2	2.2	U	15	2.2	1.9	U	13	1.9
Endrin aldehyde	7421-93-4	8081B	µg/Kg	10.5 (5)		3.9	U	17	3.9	5.2	U	22	5.2	1.9	U	8.2	1.9	2.6	U	11	2.6	3.6	U	15	3.6	3.6	U	15	3.6	3.2	U	13	3.2
gamma-BHC (Lindane)	58-89-9	8081B	µg/Kg	5 (5)	570	1.5	U	5	1.5	2	U	6.5	2	0.76	U	2.4	0.76	1	U	3.3	1	1.4	U	4.5	1.4	1.4	U	4.6	1.4	1.2	U	4	1.2
Heptachlor	76-44-8	8081B	µg/Kg	5.98 (5)	150	2	U	17	2	2.6	U	22	2.6	0.97	U	8.2	0.97	1.3	U	11	1.3	1.8	U	15	1.8	1.8	U	15	1.8	1.6	U	13	1.6
Toxaphene	8001-35-2	8081B	µg/Kg	119 (5)	490	60	U	170	60	79	U	220	79	30	U	82	30	40	U	110	40	55	U	150	55	56	U	150	56	48	U	130	48

Table 5.8 - Soil: Summary of Exceedances

(continued)

Rolling Knolls Landfill

Analyte	CAS	Method	Units	Sample Name / ESC's	NJAC 7:26D	DP23_2.5-3.0	DP24_0.5-2.5	DP24_2.5-3.0	DP25_1.0-1.5	DP26_0.5-3.5	DP26_3.5-4.0	DP27_0.5-3.0
Sample Date/Time						05/10/2021 16:20	05/14/2021 10:10	05/14/2021 10:15	05/06/2021 15:20	05/07/2021 08:45	05/07/2021 09:00	05/05/2021 14:00
Latitude						40.7234761	40.7234047	40.7234047	40.7234932	40.7240722	40.7240722	40.7231759
Longitude						-74.4461556	-74.4467553	-74.4467553	-74.4473376	-74.4463803	-74.4463803	-74.4437423
Lab Sample Name				Screening Criteria	(8) Soil Remediation Standards (Ing.-Derm.) - Residential	GS-S-DPT23-SB-2.5-3.0	GS-S-DPT24-SC-0.5-2.5	GS-S-DPT24-SB-2.5-3.0	GS-S-DPT25-SB-1-1.5	GS-S-DPT26-SC-0.5-3.5	GS-S-DPT26-SB-3.5-4	GS-S-DPT27-SC-0.5-3
Lab Sample Number						460-234080-6	460-234442-2	460-234442-3	460-233899-6	460-233940-2	460-233940-3	460-233708-5
Lab Report Number(s)						460-234080-1	460-234442-1	460-234442-1	460-233899-1	460-233940-1	460-233940-1	460-233708-1 / 460-233708-2
Polychlorinated Biphenyls (PCBs)												
Aroclor 1242	53469-21-9	8082A	µg/Kg	41 (7)		22 U 170 22	29 U 220 29	11 U 82 11	15 U 110 15	20 U 150 20	21 U 150 21	180 U 1300 180
Aroclor 1248	12672-29-6	8082A	µg/Kg	7.3 (7)		22 U 170 22	29 U 220 29	11 U 82 11	470 110 15	20 U 150 20	21 U 150 21	180 U 1300 180
Aroclor 1254	11097-69-1	8082A	µg/Kg	41 (7)		23 U 170 23	260 220 30	11 U 82 11	15 U 110 15	21 U 150 21	21 U 150 21	11000 1300 180
Polychlorinated biphenyls, Total	1336-36-3	8082A	µg/Kg	371 (5)	250	23 U 170 23	260 220 30	11 U 82 11	470 110 15	130 J 150 21	21 U 150 21	11000 1300 180
Chlorinated Biphenyl Congeners (PCBs)												
Σ Polychlorinated biphenyls	1336-36-3	8082A	pg/g	371000 (5)	250000							14,232,385
Σ Polychlorinated biphenyls (PCB) TEQ	1336-36-3	8082A	pg/g	0.199 (5)								1066
Dioxins and Furans												
2,3,7,8-TCDD	1746-01-6	8290A	pg/g	0.199 (5)	51							7.53 1.97 0.88
Total TCDD	41903-57-5	8290A	pg/g	0.199 (5)								56.8 J 1.97 0.88
2,3,7,8-TCDD	1746-01-6		pg/g	0.199 (5)								7.53
Σ Dibenzo-p-dioxin (PCDD) TEQ	30402-14-3		pg/g	0.199 (5)								41
Σ Dibenzofuran (PCDF) TEQ	30402-14-3		pg/g	0.199 (5)								98
Σ PCB TEQ + PCDD TEQ + PCDF TEQ	30402-14-3		pg/g	0.199 (5)								1206
Metals & Cyanide												
Aluminum	7429-90-5	6020B	mg/Kg	50 (7)	78000	12400 40.5 5.3	5310 57.4 7.5	7070 21.1 2.7	12400 31.5 4.1	9640 83.1 10.8	9460 42.3 5.5	4510 107 13.9
Antimony	7440-36-0	6020B	mg/Kg	0.27 (4)	31	0.3 U 2 0.3	1.1 J 2.9 0.42	0.15 U 1.1 0.15	0.55 J 1.6 0.23	3.9 J 4.2 0.61	0.59 J 2.1 0.31	33.9 5.4 0.78
Arsenic	7440-38-2	6020B	mg/Kg	18 (1)	19	2.2 J 2 0.2	5.6 2.9 0.29	0.86 J 1.1 0.11	5.6 1.6 0.16	20.8 4.2 0.42	4.4 2.1 0.21	52.9 5.4 0.54
Barium	7440-39-3	6020B	mg/Kg	330 (2)	16000	80.1 4 0.29	141 5.7 0.42	49 2.1 0.15	94.3 3.2 0.23	931 8.3 0.6	200 4.2 0.31	239 10.7 0.78
Cadmium	7440-43-9	6020B	mg/Kg	0.36 (4)	71	0.4 J 2 0.23	2.2 J 2.9 0.32	0.12 U 1.1 0.12	2.5 1.6 0.18	5 4.2 0.47	0.93 J 2.1 0.24	42.2 5.4 0.61
Chromium	7440-47-3	6020B	mg/Kg	0.4 (5)		24.3 4 0.35	22.4 5.7 0.5	11.4 2.1 0.18	155 3.2 0.27	142 J 8.3 0.72	33.3 J 4.2 0.37	2480 10.7 0.93
Cobalt	7440-48-4	6020B	mg/Kg	13 (1)	23	3.7 J 4 0.3	4.5 J 5.7 0.43	2.7 2.1 0.16	6.2 3.2 0.23	21.5 8.3 0.61	4.8 4.2 0.31	61.8 10.7 0.79
Copper	7440-50-8	6020B	mg/Kg	28 (3)	3100	24.5 J 4 0.45	247 5.7 0.63	9.9 2.1 0.23	80.7 3.2 0.35	772 8.3 0.91	101 4.2 0.47	12800 32.1 3.5
Lead	7439-92-1	6020B	mg/Kg	11 (3)	400	15.4 J 1.2 0.4	396 1.7 0.57	8.8 0.63 0.21	140 0.95 0.32	812 2.5 0.83	187 1.3 0.42	11300 9.6 3.2
Manganese	7439-96-5	6020B	mg/Kg	220 (1)	1900	84.8 8.1 0.82	82.8 11.5 1.2	29.4 4.2 0.43	197 6.3 0.63	687 16.6 1.7	167 8.5 0.85	1440 21.4 2.2
Nickel	7440-02-0	6020B	mg/Kg	38 (1)	1600	13.3 4 0.39	41.7 5.7 0.56	7 2.1 0.2	23.6 3.2 0.31	117 J 8.3 0.81	23 J 4.2 0.41	1580 10.7 1
Selenium	7782-49-2	6020B	mg/Kg	0.52 (1)	390	0.74 J 2.5 0.24	0.97 J 3.6 0.34	0.18 J 1.3 0.12	0.65 J 2 0.19	1.3 J 5.2 0.49	1.8 J 2.6 0.25	0.82 J 6.7 0.63
Silver	7440-22-4	6020B	mg/Kg	4.2 (3)	390	0.18 U 2 0.18	0.7 J 2.9 0.26	0.094 U 1.1 0.094	0.34 J 1.6 0.14	4.3 4.2 0.37	0.47 J 2.1 0.19	101 16.1 1.4
Thallium	7440-28-0	6020B	mg/Kg	1 (5)		0.083 U 0.81 0.083	0.13 J 1.1 0.12	0.056 J 0.42 0.043	0.12 J 0.63 0.065	0.17 U 1.7 0.17	0.087 U 0.85 0.087	0.22 U 2.1 0.22
Vanadium	7440-62-2	6020B	mg/Kg	7.8 (3)	390	40.9 4 0.42	27.2 5.7 0.59	24.4 2.1 0.22	32.4 3.2 0.32	161 8.3 0.86	51.9 4.2 0.44	50.6 10.7 1.1
Zinc	7440-66-6	6020B	mg/Kg	46 (3)	23000	34.8 16.2 4.6	628 23 6.6	13.6 8.4 2.4	443 12.6 3.6	1510 33.2 9.5	151 16.9 4.8	6930 42.9 12.3
Mercury	7439-97-6	7471B	mg/Kg	0.00051 (5)	23	0.048 0.037 0.0088	1.3 0.054 0.013	0.015 J 0.021 0.0049	0.28 0.027 0.0063	12.5 0.76 0.18	0.88 0.039 0.0092	11.4 0.6 0.14
Cyanide, Total	57-12-5	9012B	mg/Kg	1.33 (5)	47	0.43 UJ 1.2 0.43	0.69 J 1.6 0.59	0.21 U 0.59 0.21	0.28 U 0.79 0.28	3.6 J 1.2 0.43	0.67 J 1.2 0.44	3.6 J 0.43 0.23

Table 5.8 - Soil: Summary of Exceedances

(continued)

Rolling Knolls Landfill

Sample Name				ESC's	NJAC 7:26D	DP27_8.0-10.0				DP28_0.5-5.0				DP28_5.0-8.0				DP29_0.5-2.0				DP29_7.0-10.0				DP30_0.5-3.0				DP30_7.5-8.0			
Sample Date/Time						05/06/2021 10:15				05/05/2021 09:10				05/05/2021 08:40				05/06/2021 12:00				05/06/2021 12:45				05/13/2021 15:40				05/13/2021 16:20			
Latitude				Screening Criteria	(8) Soil Remediation Standards (Ing.-Derm.) - Residential	40.7231759				40.7240805				40.7240805				40.7248365				40.7248365				40.7266724				40.7266724			
Longitude						-74.4437423				-74.4443078				-74.4443078				-74.4434245				-74.4434245				-74.4405011				-74.4405011			
Lab Sample Name						GS-S-DPT27-SB-8-10				GS-S-DPT28-SC-0.5-5				GS-S-DPT28-SB-5-8				GS-S-DPT29-SC-0.5-2				GS-S-DPT29-SB-7-10				GS-S-DPT30-SC-0.5-3.0				GS-S-DPT30-SO-7.5-8.0			
Lab Sample Number						460-233899-1				460-233708-2				460-233708-3				460-233899-3				460-233899-4				460-234436-5				460-234436-6			
Lab Report Number(s)						460-233899-1 / 460-233899-2				460-233708-1				460-233708-1				460-233899-1				460-233899-1				460-234436-1				460-234436-1			
Analyte	CAS	Method	Units			Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)
Volatile Organic Compounds (VOCs)																																
1,1,1,2-Tetrachloroethane	630-20-6	8260D	µg/Kg	225000 (6)	0.1	0.12	U	0.66	0.12	0.63	U	3.3	0.63	0.17	U	0.92	0.17	0.52	U	2.7	0.52	1.7	U	8.8	1.7	0.44	U	2.3	0.44	160	U	740	160
Acetone	67-64-1	8260D	µg/Kg	1200 (7)	70000000	360		3.9	3.8	890		20	19	55		5.5	5.2	57		16	16	5000	J	53	51	67		14	13	4600		3700	3300
m-Xylene & p-Xylene	179601-23-1	8260D	µg/Kg	4162 (7)	12000000	0.38	J	0.66	0.11	1.3	J	3.3	0.57	0.16	U	0.92	0.16	0.48	U	2.7	0.48	21	J	8.8	1.5	0.4	U	2.3	0.4	6500		740	210
Semivolatile Organic Compounds (SVOCs)																																
1,2,4,5-Tetrachlorobenzene	95-94-3	8270E	µg/Kg	2020 (5)	23000	12	U	380	12	32	U	1000	32	13	U	410	13	34	U	1100	34	68	U	2200	68	24	U	780	24	42	U	1400	42
2,3,4,6-Tetrachlorophenol	58-90-2	8270E	µg/Kg	199 (6)	1900000	26	U	380	26	69	U	1000	69	28	U	410	28	73	U	1100	73	150	U	2200	150	53	U	780	53	92	U	1400	92
2,4-Dimethylphenol	105-67-9	8270E	µg/Kg	10 (5)	1300000	17	U	380	17	45	U	1000	45	18	U	410	18	48	U	1100	48	95	U	2200	95	42	J	780	35	60	U	1400	60
2,4-Dinitrophenol	51-28-5	8270E	µg/Kg	60.9 (5)	130000	190	UJ	310	190	500	U	820	500	200	U	330	200	530	UJ	870	530	1100	UJ	1700	1100	390	U	630	390	670	U	1100	670
2,4-Dinitrotoluene	121-14-2	8270E	µg/Kg	1280 (5)		41	U	77	41	110	U	210	110	44	U	83	44	120	U	220	120	230	U	440	230	85	U	160	85	150	U	280	150
2-Chloronaphthalene	91-58-7	8270E	µg/Kg	12.2 (5)	4800000	18	U	380	18	47	U	1000	47	19	U	410	19	50	U	1100	50	100	U	2200	100	36	U	780	36	63	U	1400	63
2-Methylnaphthalene	91-57-6	8270E	µg/Kg	3240 (5)	240000	11	U	380	11	15000		1000	28	11	U	410	11	30	U	1100	30	61	U	2200	61	22	U	780	22	61	J	1400	38
2-Nitroaniline	88-74-4	8270E	µg/Kg	5300 (7)		14	U	380	14	38	U	1000	38	15	U	410	15	41	U	1100	41	81	U	2200	81	29	U	780	29	51	U	1400	51
2-Nitrophenol	88-75-5	8270E	µg/Kg	7000 (7)		38	UJ	380	38	100	U	1000	100	41	U	410	41	110	UJ	1100	110	220	UJ	2200	220	79	U	780	79	140	U	1400	140
3,3'-Dichlorobenzidine	91-94-1	8270E	µg/Kg	646 (5)	1200	58	U	150	58	150	U	410	150	62	U	160	62	160	U	440	160	330	U	870	330	120	U	320	120	210	U	550	210
3-Nitroaniline	99-09-2	8270E	µg/Kg	3160 (6)		43	U	380	43	110	U	1000	110	46	U	410	46	120	U	1100	120	240	U	2200	240	88	U	780	88	150	U	1400	150
4-Chloroaniline	106-47-8	8270E	µg/Kg	1000 (7)	2700	68	U	380	68	180	U	1000	180	72	U	410	72	190	U	1100	190	390	U	2200	390	140	U	780	140	240	U	1400	240
4-Nitrophenol	100-02-7	8270E	µg/Kg	5120 (5)		62	U	770	62	170	U	2100	170	67	U	830	67	180	U	2200	180	350	U	4400	350	130	UJ	1600	130	220	UJ	2800	220
Bis(2-chloroethyl)ether	111-44-4	8270E	µg/Kg	23700 (5)	630	13	U	38	13	35	U	100	35	14	U	41	14	38	U	110	38	76	U	220	76	27	U	78	27	47	U	140	47
Bis(2-ethylhexyl) phthalate	117-81-7	8270E	µg/Kg	925 (5)	39000	20	U	380	20	300	J	1000	54	22	U	410	22	13000		1100	57	110	U	2200	110	730	J	780	42	130	J	1400	72
Butyl benzyl phthalate	85-68-7	8270E	µg/Kg	239 (5)	290000	18	U	380	18	48	U	1000	48	19	U	410	19	51	U	1100	51	100	U	2200	100	2400		780	37	64	U	1400	64
Dibenzofuran	132-64-9	8270E	µg/Kg	6100 (7)		5.4	U	380	5.4	120	J	1000	14	5.7	U	410	5.7	15	U	1100	15	30	U	2200	30	11	U	780	11	19	U	1400	19
Di-n-butyl phthalate	84-74-2	8270E	µg/Kg	150 (5)	6300000	14	U	380	14	4600		1000	38	15	U	410	15	230	J	1100	41	82	U	2200	82	350	J	780	30	51	U	1400	51
Di-n-octyl phthalate	117-84-0	8270E	µg/Kg	910 (7)	630000	20	U	380	20	54	U	1000	54	22	U	410	22	57	U	1100	57	110	U	2200	110	42	U	780	42	72	U	1400	72
Hexachlorobenzene	118-74-1	8270E	µg/Kg	199 (5)	430	18	U	38	18	48	U	100	48	19	U	41	19	51	U	110	51	100	U	220	100	37	U	78	37	65	U	140	65
Hexachlorobutadiene	87-68-3	8270E	µg/Kg	39.8 (5)	8900	8.1	U	77	8.1	22	U	210	22	8.7	U	83	8.7	23	U	220	23	46	U	440	46	17	U	160	17	29	U	280	29
Hexachlorocyclopentadiene	77-47-4	8270E	µg/Kg	755 (5)	470000	33	U	380	33	89	U	1000	89	36	U	410	36	95	U	1100	95	190	U	2200	190	69	U	780	69	120	U	1400	120
Hexachloroethane	67-72-1	8270E	µg/Kg	596 (5)	17000	13	U	38	13	35	U	100	35	14	U	41	14	37	U	110	37	74	U	220	74	27	U	78	27	47	U	140	47
N-Nitrosodi-n-propylamine	621-64-7	8270E	µg/Kg		170	28	U	38	28	74	U	100	74	30	U	41	30	79	U	110	79	160	U	220	160	57	U	78	57	99	U	140	99
N-Nitrosodiphenylamine	86-30-6	8270E	µg/Kg	545 (5)	110000	31	U	380	31	550	J	1000	84	34	U	410	34	89	U	1100	89	180	U	2200	180	65	U	780	65	290	J	1400	110
Pentachlorophenol	87-86-5	8270E	µg/Kg	2100 (3)	1000	78	U	310	78	210	U	820	210	84	U	330	84	220	U	870	220	440	U	1700	440	160	U	630	160	280	U	1100	280
Polycyclic Aromatic Hydrocarbons (PAHs)																																
Naphthalene	91-20-3	8270E	µg/Kg	99.4 (5)	2500000	6.6	U	380	6.6	570	J	1000	18	7.1	U	410	7.1	19	U	1100	19	38	U	2200	38	51	J	780	14	200	J	1400	24
Benzo[a]anthracene	56-55-3	8270E	µg/Kg	5210 (5)	5100	13	U	38	13	36	U	100	36	14	U	41	14	59	J	110	38	76	U	220	76	88		78	27	73	J	140	47
Benzo[a]pyrene	50-32-8	8270E	µg/Kg	1520 (5)	510	10	U	38	10	27	U	100	27	11	U	41	11	48	J	110	29	58	U	220	58	95		78	21	58	J	140	36
Benzo[b]fluoranthene	205-99-2	8270E	µg/Kg	59800 (5)	5100	9.9	U	38	9.9	32	J	100	26	11	U	41	11	75	J	110	28	56	U	220	56	160		78	20	160		140	35
Chrysene	218-01-9	8270E	µg/Kg	4730 (5)	510000	6.4	U	380	6.4	26	J	1000	17	6.9	UJ	410	6.9	63	J	1100	18	37	U	2200	37	140	J	780	13	120	J	1400	23
Dibenz(a,h)anthracene	53-70-3	8270E	µg/Kg	18400 (5)	510	16	U	38	16	44	U	100	44	18	U	41	18	47	U	110	47	94	U	220	94	34	U	78	34	59	U	140	59
Indeno[1,2,3-cd]pyrene	193-39-5	8270E	µg/Kg	109000 (5)	5100	15	U	38	15	40	U	100	40	16	U	41	16	42	U	110	42	85	U	220	85	110		78	31	91	J	140	53
High Molecular Weight PAHs			µg/Kg	1100 (4)		111.3				320				120.9				534				643				1517				999			
Organochlorine Pesticides																																
4,4'-DDD	72-54-8	8081B	µg/Kg	758 (5)	2300	1.3	U	7.7	1.3	54		21	3.5	1.4	U	8.3	1.4	3.7	U	22	3.7	7.5	U	44	7.5	2.7	U	16	2.7	220		28	4.7
4,4'-DDT	50-29-3	8081B	µg/Kg	3.5 (5)	1900	1.4	U	7.7	1.4	3.8	U	21	3.8	1.5	U	8.3	1.5	4	U	22	4	8.1	U	44	8.1	2.9	U	16	2.9	5.1	U	28	5.1
Aldrin	309-00-2	8081B	µg/Kg	3.32 (5)	41	1.2	U	7.7	1.2	3.1	U	21	3.1	1.2	U	8.3	1.2	3.3	U	22	3.3	6.6	U	44	6.6	2.4	U	16	2.4	4.2	U	28	4.2
beta-BHC	319-85-7	8081B	µg/Kg	3.98 (5)	300	0.86	U	2.3	0.86	2.3	U	6.2	2.3	0.93	U	2.5	0.93	2.5	U	6.6	2.5	4.9	U	13	4.9	1.8	U	4.8	1.8	3.1	U	8.2	3.1
Chlordane (technical)	57-74-9	8081B	µg/Kg	220 (7)	270	19	U	77	19	1100		210	50	20	U	83	20	53	U	220	53	110	U	440	110	39	U	160	39	67	U	280	67
Dieldrin	60-57-1	8081B	µg/Kg	4.9 (4)	34	1	U	2.3	1	2.7	U	6.2	2.7	1.1	U	2.5	1.1	2.9	U	6.6	2.9	5.7	U	13	5.7	2.1	U	4.8	2.1	3.6	U	8.2	3.6
Endrin	72-20-8	8081B	µg/Kg	10.1 (5)	19000	1.1	U	7.7	1.1	3	U	21	3	1.2	U	8.3	1.2	3.2	U	22	3.2	6.3	U	44	6.3	2.3	U	16	2.3	4	U	28	4
Endrin aldehyde	7421-93-4	8081B	µg/Kg	10.5 (5)		1.8	U	7.7	1.8	4.9	U	21	4.9	2	U	8.3	2	5.2	U	22	5.2	10	U	44	10	3.8	U	16	3.8	6.5	U	28	6.5
gamma-BHC (Lindane)	58-89-9	8081B	µg/Kg	5 (5)	570	0.71	U	2.3	0.71	1.9	U	6.2	1.9	0.77	U	2.5	0.77	2	U	6.6	2	4.1	U	13	4.1	1.5	U	4.8	1.5	2.6	U	8.2	2.6
Heptachlor	76-44-8	8081B	µg/Kg	5.98 (5)	150	0.91	U	7.7	0.91	2.4	U	21	2.4	0.98	U	8.3	0.98	2.6	U	22	2.6	5.2	U	44	5.2	1.9	U	16	1.9	3.3	U	28	3.3
Toxaphene	8001-35-2	8081B	µg/Kg	119 (5)	490	28	U	77	28	74	U	210	74	30	U	83	30	79	U	220	79	160	U	440	160	58	U	160	58	100	U	280	100

Table 5.8 - Soil: Summary of Exceedances

(continued)

Rolling Knolls Landfill

	Sample Name			ESC's	NJAC 7:26D	DP27_8.0-10.0				DP28_0.5-5.0				DP28_5.0-8.0				DP29_0.5-2.0				DP29_7.0-10.0				DP30_0.5-3.0				DP30_7.5-8.0			
	Sample Date/Time					05/06/2021 10:15				05/05/2021 09:10				05/05/2021 08:40				05/06/2021 12:00				05/06/2021 12:45				05/13/2021 15:40				05/13/2021 16:20			
	Latitude					40.7231759				40.7240805				40.7240805				40.7248365				40.7248365				40.7266724				40.7266724			
	Longitude			Screening Criteria	(8) Soil Remediation Standards (Ing.-Derm.) - Residential	-74.4437423				-74.4443078				-74.4443078				-74.4434245				-74.4434245				-74.4405011				-74.4405011			
	Lab Sample Name					GS-S-DPT27-SB-8-10				GS-S-DPT28-SC-0.5-5				GS-S-DPT28-SB-5-8				GS-S-DPT29-SC-0.5-2				GS-S-DPT29-SB-7-10				GS-S-DPT30-SC-0.5-3.0				GS-S-DPT30-SO-7.5-8.0			
	Lab Sample Number					460-233899-1				460-233708-2				460-233708-3				460-233899-3				460-233899-4				460-234436-5				460-234436-6			
	Lab Report Number(s)					460-233899-1 / 460-233899-2				460-233708-1				460-233708-1				460-233899-1				460-233899-1				460-234436-1				460-234436-1			
Analyte	CAS	Method	Units			Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)
Polychlorinated Biphenyls (PCBs)																																
Aroclor 1242	53469-21-9	8082A	µg/Kg	41 (7)		10	U	77	10	27	U	210	27	11	U	83	11	29	U	220	29	58	U	440	58	42	U	320	42	37	U	280	37
Aroclor 1248	12672-29-6	8082A	µg/Kg	7.3 (7)		10	U	77	10	1400		210	27	11	U	83	11	29	U	220	29	58	U	440	58	4000	J	320	42	210	J	280	37
Aroclor 1254	11097-69-1	8082A	µg/Kg	41 (7)		11	U	77	11	28	U	210	28	11	U	83	11	1900	J	220	30	60	U	440	60	44	U	320	44	38	U	280	38
Polychlorinated biphenyls, Total	1336-36-3	8082A	µg/Kg	371 (5)	250	11	U	77	11	1900		210	28	11	U	83	11	1900	J	220	30	60	U	440	60	4600	J	320	44	210	J	280	38
Chlorinated Biphenyl Congeners (PCBs)																																
Σ Polychlorinated biphenyls	1336-36-3	8082A	pg/g	371000 (5)	250000	62,683																										
Σ Polychlorinated biphenyls (PCB) TEQ	1336-36-3	8082A	pg/g	0.199 (5)		2																										
Dioxins and Furans																																
2,3,7,8-TCDD	1746-01-6	8290A	pg/g	0.199 (5)	51	0.061	U	1.13	0.012																								
Total TCDD	41903-57-5	8290A	pg/g	0.199 (5)		1.01	J	1.13	0.012																								
2,3,7,8-TCDD	1746-01-6		pg/g	0.199 (5)		0.061																										
Σ Dibenzo-p-dioxin (PCDD) TEQ	30402-14-3		pg/g	0.199 (5)		0.22																										
Σ Dibenzofuran (PCDF) TEQ	30402-14-3		pg/g	0.199 (5)		0.33																										
Σ PCB TEQ + PCDD TEQ + PCDF TEQ	30402-14-3		pg/g	0.199 (5)		2.6																										
Metals & Cyanide																																
Aluminum	7429-90-5	6020B	mg/Kg	50 (7)	78000	4400		22.1	2.9	8890		305	39.6	7030		22.6	2.9	6570		60.2	7.8	6750		126	16.4	39400		189	24.5	4230		64.9	8.4
Antimony	7440-36-0	6020B	mg/Kg	0.27 (4)	31	0.16	U	1.1	0.16	2.7	J	15.2	2.2	0.17	U	1.1	0.17	4.7		3	0.44	2.5	J	6.3	0.92	4.9		1.9	0.28	2	J	3.2	0.47
Arsenic	7440-38-2	6020B	mg/Kg	18 (1)	19	2.7		1.1	0.11	12.4	J	15.2	1.5	2.4		1.1	0.11	10.7		3	0.3	10		6.3	0.63	16.8		1.9	0.19	7.3		3.2	0.32
Barium	7440-39-3	6020B	mg/Kg	330 (2)	16000	21.3		2.2	0.16	672		30.5	2.2	35.3		2.3	0.16	534		6	0.44	165		12.6	0.92	297		3.8	0.27	101		6.5	0.47
Cadmium	7440-43-9	6020B	mg/Kg	0.36 (4)	71	0.13	U	1.1	0.13	7.1	J	15.2	1.7	0.31	J	1.1	0.13	20.9		3	0.34	1.9	J	6.3	0.71	26		1.9	0.21	1.6	J	3.2	0.37
Chromium	7440-47-3	6020B	mg/Kg	0.4 (5)		9		2.2	0.19	47.6		30.5	2.7	14.4		2.3	0.2	104		6	0.52	47.3		12.6	1.1	270		3.8	0.33	20		6.5	0.56
Cobalt	7440-48-4	6020B	mg/Kg	13 (1)	23	4.5		2.2	0.16	7.5	J	30.5	2.3	8		2.3	0.17	37.1		6	0.45	7	J	12.6	0.93	23.1		3.8	0.28	1.8	J	6.5	0.48
Copper	7440-50-8	6020B	mg/Kg	28 (3)	3100	14.1		2.2	0.24	421		30.5	3.4	20.7		2.3	0.25	3630		6	0.66	135		12.6	1.4	1970		3.8	0.42	67		6.5	0.71
Lead	7439-92-1	6020B	mg/Kg	11 (3)	400	3.7		0.66	0.22	615		9.1	3	10.2		0.68	0.23	976		1.8	0.6	188		3.8	1.3	458		1.1	0.38	102		1.9	0.65
Manganese	7439-96-5	6020B	mg/Kg	220 (1)	1900	63.4		4.4	0.45	796		61	6.1	86.6		4.5	0.46	1190		12	1.2	356		25.2	2.5	487		7.6	0.76	98.6		13	1.3
Nickel	7440-02-0	6020B	mg/Kg	38 (1)	1600	8.9		2.2	0.21	45.9		30.5	3	14.7		2.3	0.22	90.1		6	0.58	35.1		12.6	1.2	398		3.8	0.37	17.4		6.5	0.63
Selenium	7782-49-2	6020B	mg/Kg	0.52 (1)	390	0.13	U	1.4	0.13	4.2	J	19	1.8	0.15	J	1.4	0.13	1.8	J	3.8	0.36	3.1	J	7.9	0.74	1.1	J	2.4	0.22	3.3	J	4.1	0.38
Silver	7440-22-4	6020B	mg/Kg	4.2 (3)	390	0.099	U	1.1	0.099	6.5	J	15.2	1.4	0.1	U	1.1	0.1	11.5		3	0.27	1.1	J	6.3	0.56	17.5		1.9	0.17	0.78	J	3.2	0.29
Thallium	7440-28-0	6020B	mg/Kg	1 (5)		0.045	U	0.44	0.045	0.62	U	6.1	0.62	0.053	J	0.45	0.046	0.12	U	1.2	0.12	0.26	U	2.5	0.26	0.077	U	0.76	0.077	0.13	U	1.3	0.13
Vanadium	7440-62-2	6020B	mg/Kg	7.8 (3)	390	16.9		2.2	0.23	17.9	J	30.5	3.1	26.5		2.3	0.23	15		6	0.62	37.6		12.6	1.3	16.5		3.8	0.39	17.8		6.5	0.67
Zinc	7440-66-6	6020B	mg/Kg	46 (3)	23000	20.9		8.9	2.5	1690		122	34.9	46.1		9.1	2.6	2200		24.1	6.9	310		50.5	14.5	3280		15.1	4.3	133		26	7.4
Mercury	7439-97-6	7471B	mg/Kg	0.00051 (5)	23	0.0089	J	0.019	0.0044	5		0.51	0.12	0.09		0.019	0.0045	36.4		20.9	4.9	1.2		0.11	0.025	10.6		0.57	0.13	0.83		0.063	0.015
Cyanide, Total	57-12-5	9012B	mg/Kg	1.33 (5)	47	0.2	U	0.57	0.2	1.9	J	0.68	0.37	0.14	U	0.26	0.14	19.1		1.6	0.58	1.1	U	3.2	1.1	1.8		1.1	0.4	1.1	J	2	0.73

Table 5.8 - Soil: Summary of Exceedances (continued)

Rolling Knolls Landfill

Sample Name				ESC's	NJAC 7:26D	DP30_8.0-9.0				DP31_0.5-5.0			
Sample Date/Time						05/13/2021 16:20				05/14/2021 09:10			
Latitude				Screening Criteria	(8) Soil Remediation Standards (Ing.-Derm.) - Residential	40.7266724				40.7237372			
Longitude						-74.4405011				-74.4477876			
Lab Sample Name						GS-N-DPT30-SB-8.0-9.0				GS-S-DPT31-SC-0.5-5.0			
Lab Sample Number						460-234436-7				460-234442-5			
Lab Report Number(s)						460-234436-1				460-234442-1			
Analyte	**CAS**	**Method**	**Units**			**Result**	**LDC Flag**	**RL**	**MDL (EDL)**	**Result**	**LDC Flag**	**RL**	**MDL (EDL)**
Volatile Organic Compounds (VOCs)													
1,1,1,2-Tetrachloroethane	630-20-6	8260D	µg/Kg	225000 (6)	0.1	0.79	U	4.2	0.79	0.26	U	1.4	0.26
Acetone	67-64-1	8260D	µg/Kg	1200 (7)	70000000	370		25	24	7.8	U	8.2	7.8
m-Xylene & p-Xylene	179601-23-1	8260D	µg/Kg	4162 (7)	12000000	12		4.2	0.72	0.24	U	1.4	0.24
Semivolatile Organic Compounds (SVOCs)													
1,2,4,5-Tetrachlorobenzene	95-94-3	8270E	µg/Kg	2020 (5)	23000	37	U	1200	37	13	U	410	13
2,3,4,6-Tetrachlorophenol	58-90-2	8270E	µg/Kg	199 (6)	1900000	81	U	1200	81	28	U	410	28
2,4-Dimethylphenol	105-67-9	8270E	µg/Kg	10 (5)	1300000	52	U	1200	52	18	U	410	18
2,4-Dinitrophenol	51-28-5	8270E	µg/Kg	60.9 (5)	130000	590	U	960	590	200	U	330	200
2,4-Dinitrotoluene	121-14-2	8270E	µg/Kg	1280 (5)		130	U	240	130	44	U	84	44
2-Chloronaphthalene	91-58-7	8270E	µg/Kg	12.2 (5)	4800000	55	U	1200	55	19	U	410	19
2-Methylnaphthalene	91-57-6	8270E	µg/Kg	3240 (5)	240000	560	J	1200	33	12	U	410	12
2-Nitroaniline	88-74-4	8270E	µg/Kg	5300 (7)		45	U	1200	45	15	U	410	15
2-Nitrophenol	88-75-5	8270E	µg/Kg	7000 (7)		120	U	1200	120	41	U	410	41
3,3'-Dichlorobenzidine	91-94-1	8270E	µg/Kg	646 (5)	1200	180	U	480	180	62	U	170	62
3-Nitroaniline	99-09-2	8270E	µg/Kg	3160 (6)		130	U	1200	130	47	U	410	47
4-Chloroaniline	106-47-8	8270E	µg/Kg	1000 (7)	2700	210	U	1200	210	73	U	410	73
4-Nitrophenol	100-02-7	8270E	µg/Kg	5120 (5)		190	UJ	2400	190	67	UJ	840	67
Bis(2-chloroethyl)ether	111-44-4	8270E	µg/Kg	23700 (5)	630	41	U	120	41	14	U	41	14
Bis(2-ethylhexyl) phthalate	117-81-7	8270E	µg/Kg	925 (5)	39000	2400		1200	63	22	U	410	22
Butyl benzyl phthalate	85-68-7	8270E	µg/Kg	239 (5)	290000	56	U	1200	56	19	U	410	19
Dibenzofuran	132-64-9	8270E	µg/Kg	6100 (7)		100	J	1200	17	5.8	U	410	5.8
Di-n-butyl phthalate	84-74-2	8270E	µg/Kg	150 (5)	6300000	130	J	1200	45	16	U	410	16
Di-n-octyl phthalate	117-84-0	8270E	µg/Kg	910 (7)	630000	63	U	1200	63	22	U	410	22
Hexachlorobenzene	118-74-1	8270E	µg/Kg	199 (5)	430	57	U	120	57	20	U	41	20
Hexachlorobutadiene	87-68-3	8270E	µg/Kg	39.8 (5)	8900	25	U	240	25	8.8	U	84	8.8
Hexachlorocyclopentadiene	77-47-4	8270E	µg/Kg	755 (5)	470000	100	U	1200	100	36	U	410	36
Hexachloroethane	67-72-1	8270E	µg/Kg	596 (5)	17000	41	U	120	41	14	U	41	14
N-Nitrosodi-n-propylamine	621-64-7	8270E	µg/Kg		170	87	U	120	87	30	U	41	30
N-Nitrosodiphenylamine	86-30-6	8270E	µg/Kg	545 (5)	110000	13000		1200	98	34	U	410	34
Pentachlorophenol	87-86-5	8270E	µg/Kg	2100 (3)	1000	240	U	960	240	85	U	330	85
Polycyclic Aromatic Hydrocarbons (PAHs)													
Naphthalene	91-20-3	8270E	µg/Kg	99.4 (5)	2500000	790	J	1200	21	7.1	U	410	7.1
Benzo[a]anthracene	56-55-3	8270E	µg/Kg	5210 (5)	5100	96	J	120	42	14	U	41	14
Benzo[a]pyrene	50-32-8	8270E	µg/Kg	1520 (5)	510	62	J	120	32	11	U	41	11
Benzo[b]fluoranthene	205-99-2	8270E	µg/Kg	59800 (5)	5100	110	J	120	31	18	J	41	11
Chrysene	218-01-9	8270E	µg/Kg	4730 (5)	510000	130	J	1200	20	13	J	410	7
Dibenz(a,h)anthracene	53-70-3	8270E	µg/Kg	18400 (5)	510	52	U	120	52	18	U	41	18
Indeno[1,2,3-cd]pyrene	193-39-5	8270E	µg/Kg	109000 (5)	5100	56	J	120	47	16	U	41	16
High Molecular Weight PAHs			µg/Kg	1100 (4)		1045				137.1			
Organochlorine Pesticides													
4,4'-DDD	72-54-8	8081B	µg/Kg	758 (5)	2300	4100		240	41	1.4	U	8.4	1.4
4,4'-DDT	50-29-3	8081B	µg/Kg	3.5 (5)	1900	44	U	240	44	1.5	U	8.4	1.5
Aldrin	309-00-2	8081B	µg/Kg	3.32 (5)	41	36	U	240	36	1.3	U	8.4	1.3
beta-BHC	319-85-7	8081B	µg/Kg	3.98 (5)	300	27	U	72	27	0.94	U	2.5	0.94
Chlordane (technical)	57-74-9	8081B	µg/Kg	220 (7)	270	3700		2400	590	20	U	84	20
Dieldrin	60-57-1	8081B	µg/Kg	4.9 (4)	34	31	U	72	31	1.1	U	2.5	1.1
Endrin	72-20-8	8081B	µg/Kg	10.1 (5)	19000	35	U	240	35	1.2	U	8.4	1.2
Endrin aldehyde	7421-93-4	8081B	µg/Kg	10.5 (5)		57	U	240	57	2	U	8.4	2
gamma-BHC (Lindane)	58-89-9	8081B	µg/Kg	5 (5)	570	22	U	72	22	0.77	U	2.5	0.77
Heptachlor	76-44-8	8081B	µg/Kg	5.98 (5)	150	29	U	240	29	0.99	U	8.4	0.99
Toxaphene	8001-35-2	8081B	µg/Kg	119 (5)	490	870	U	2400	870	30	U	84	30

Table 5.8 - Soil: Summary of Exceedances (continued)

Rolling Knolls Landfill

	Sample Name			ESC's	NJAC 7:26D	DP30_8.0-9.0				DP31_0.5-5.0			
	Sample Date/Time					05/13/2021 16:20				05/14/2021 09:10			
	Latitude			Screening Criteria	(8) Soil Remediation Standards (Ing.-Derm.) - Residential	40.7266724				40.7237372			
	Longitude					-74.4405011				-74.4477876			
	Lab Sample Name					GS-N-DPT30-SB-8.0-9.0				GS-S-DPT31-SC-0.5-5.0			
	Lab Sample Number					460-234436-7				460-234442-5			
	Lab Report Number(s)					460-234436-1				460-234442-1			
Analyte	**CAS**	**Method**	**Units**			**Result**	**LDC Flag**	**RL**	**MDL (EDL)**	**Result**	**LDC Flag**	**RL**	**MDL (EDL)**
Polychlorinated Biphenyls (PCBs)													
Aroclor 1242	53469-21-9	8082A	µg/Kg	41 (7)		32	U	240	32	11	U	84	11
Aroclor 1248	12672-29-6	8082A	µg/Kg	7.3 (7)		3000		240	32	11	U	84	11
Aroclor 1254	11097-69-1	8082A	µg/Kg	41 (7)		33	U	240	33	11	U	84	11
Polychlorinated biphenyls, Total	1336-36-3	8082A	µg/Kg	371 (5)	250	3000		240	33	11	U	84	11
Chlorinated Biphenyl Congeners (PCBs)													
Σ Polychlorinated biphenyls	1336-36-3	8082A	pg/g	371000 (5)	250000								
Σ Polychlorinated biphenyls (PCB) TEQ	1336-36-3	8082A	pg/g	0.199 (5)									
Dioxins and Furans													
2,3,7,8-TCDD	1746-01-6	8290A	pg/g	0.199 (5)	51								
Total TCDD	41903-57-5	8290A	pg/g	0.199 (5)									
2,3,7,8-TCDD	1746-01-6		pg/g	0.199 (5)									
Σ Dibenzo-p-dioxin (PCDD) TEQ	30402-14-3		pg/g	0.199 (5)									
Σ Dibenzofuran (PCDF) TEQ	30402-14-3		pg/g	0.199 (5)									
Σ PCB TEQ + PCDD TEQ + PCDF TEQ	30402-14-3		pg/g	0.199 (5)									
Metals & Cyanide													
Aluminum	7429-90-5	6020B	mg/Kg	50 (7)	78000	4800		71.5	9.3	9830		22.5	2.9
Antimony	7440-36-0	6020B	mg/Kg	0.27 (4)	31	6.3		3.6	0.52	0.16	U	1.1	0.16
Arsenic	7440-38-2	6020B	mg/Kg	18 (1)	19	13.4		3.6	0.36	7		1.1	0.11
Barium	7440-39-3	6020B	mg/Kg	330 (2)	16000	212		7.2	0.52	32.1		2.3	0.16
Cadmium	7440-43-9	6020B	mg/Kg	0.36 (4)	71	20.6		3.6	0.4	0.13	U	1.1	0.13
Chromium	7440-47-3	6020B	mg/Kg	0.4 (5)		185		7.2	0.62	11.9		2.3	0.2
Cobalt	7440-48-4	6020B	mg/Kg	13 (1)	23	7.6		7.2	0.53	3.1		2.3	0.17
Copper	7440-50-8	6020B	mg/Kg	28 (3)	3100	427		7.2	0.79	7.7		2.3	0.25
Lead	7439-92-1	6020B	mg/Kg	11 (3)	400	776		2.1	0.72	20.5		0.68	0.23
Manganese	7439-96-5	6020B	mg/Kg	220 (1)	1900	245		14.3	1.4	50.4		4.5	0.45
Nickel	7440-02-0	6020B	mg/Kg	38 (1)	1600	123		7.2	0.69	6		2.3	0.22
Selenium	7782-49-2	6020B	mg/Kg	0.52 (1)	390	2.7	J	4.5	0.42	0.51	J	1.4	0.13
Silver	7440-22-4	6020B	mg/Kg	4.2 (3)	390	7.2		3.6	0.32	0.1	U	1.1	0.1
Thallium	7440-28-0	6020B	mg/Kg	1 (5)		0.15	U	1.4	0.15	0.078	J	0.45	0.046
Vanadium	7440-62-2	6020B	mg/Kg	7.8 (3)	390	18.8		7.2	0.74	27		2.3	0.23
Zinc	7440-66-6	6020B	mg/Kg	46 (3)	23000	1060		28.6	8.2	24.7		9	2.6
Mercury	7439-97-6	7471B	mg/Kg	0.00051 (5)	23	6.1		0.29	0.068	0.05		0.021	0.0048
Cyanide, Total	57-12-5	9012B	mg/Kg	1.33 (5)	47	3.7		1.8	0.66	0.22	U	0.61	0.22

Table 5.9 - Sediment: Properties

Rolling Knolls Landfill

Sample Name				SD01			SD100 (SD01 duplicate)			SD02			SD03			SD04			SD05			SD06			SD07		
Sample Date/Time				05/13/2021 15:30			05/13/2021 15:30			05/14/2021 09:15			05/14/2021 10:45			05/15/2021 14:05			05/16/2021 15:00			05/17/2021 11:45			05/17/2021 13:50		
Latitude				40.72679082			40.72679082			40.72715605			40.72638198			40.72348024			40.72279293			40.72236209			40.72143376		
Longitude				-74.44034521			-74.44034521			-74.43993388			-74.44081345			-74.44733898			-74.44605058			-74.44587599			-74.44468585		
Lab Sample Name				GS-S-SD01			GS-S-SD0100			GS-S-SD02			GS-S-SD03			GS-S-SD04			GS-S-SD05			GS-S-SD06			GS-S-SD07		
Lab Sample Number				460-234557-3			460-234557-4			460-234557-1			460-234557-2			460-234545-1			460-234545-2			460-234971-3 / 460-234971-7			460-234971-4 / 460-234971-8		
Lab Report Number(s)				460-234557-1 / 460-234557-2 / 460-234557-3			460-234557-1 / 460-234557-3			460-234557-1 / 460-234557-2 / 460-234557-3			460-234557-1 / 460-234557-2 / 460-234557-3			460-234545-1			460-234545-1			460-234971-1 / 460-234971-4			460-234971-1 / 460-234971-4		
Analyte	**CAS**	**Method**	**Units**	**Result**	**LDC Flag**	**RL**	**MDL**	**Result**	**LDC Flag**	**RL**	**MDL**	**Result**	**LDC Flag**	**RL**	**MDL**	**Result**	**LDC Flag**	**RL**	**MDL**	**Result**	**LDC Flag**	**RL**	**MDL**	**Result**	**LDC Flag**	**RL**	**MDL**	**Result**	**LDC Flag**	**RL**	**MDL**
Chemical Properties																															
Corrosivity		9045D	SU	6.5		0.1	0.1	6.4		0.1	0.1	6.4		0.1	0.1	6.8		0.1	0.1	6.8		0.1	0.1	7		0.1	0.1				
pH		9045D	SU	6.5		0.1	0.1	6.4		0.1	0.1	6.4		0.1	0.1	6.8		0.1	0.1	6.8		0.1	0.1	7		0.1	0.1				
Oxidation Reduction Potential		SM 2580B	millivolts	115				112				111				88				178				216							
Geotechnical																															
Gravel		D422	%	31.7				22.6				14.4				11.1				5.3				6.8							
Coarse Sand		D422	%	11.1				9.7				4.6				5.4				7.4				3.3							
Medium Sand		D422	%	12.3				11.7				12.6				14				15.2				25.3							
Sand		D422	%	36.5				39.5				33				33.4				51.2				43							
Fine Sand		D422	%	13.1				18.1				15.8				14				28.6				14.4							
Silt		D422	%	23.8				25.9				26.7				44.6				30.9				32.3							
Clay		D422	%	8				12				25.9				10.9				12.6				17.9							
Hydrometer Reading 1 - Percent Finer		D422	% Finer	21.5				21.2				44.6				31.6				24.7				40.5							
Hydrometer Reading 2 - Percent Finer		D422	% Finer	15.7				18.9				38.4				24.7				21.6				34.9							
Hydrometer Reading 3 - Percent Finer		D422	% Finer	11.8				16.6				32.2				21.3				18.6				29.2							
Hydrometer Reading 4 - Percent Finer		D422	% Finer	9.9				14.3				25.9				17.8				15.6				23.6							
Hydrometer Reading 5 - Percent Finer		D422	% Finer	8				12				25.9				10.9				12.6				17.9							
Hydrometer Reading 6 - Percent Finer		D422	% Finer	6.1				9.6				19.7				10.9				9.6				17.9							
Hydrometer Reading 7 - Percent Finer		D422	% Finer	4.2				5				13.5				7.5				6.5				12.3							
Sieve Size #10 - Percent Finer		D422	% Finer	57.2				67.7				81				83.5				87.3				89.9							
Sieve Size #100 - Percent Finer		D422	% Finer	35.5				43				58.1				59.1				52.9				52.5							
Sieve Size #20 - Percent Finer		D422	% Finer	51				62.3				73.1				74				80.2				69.6							
Sieve Size #200 - Percent Finer		D422	% Finer	31.8				37.9				52.6				55.5				43.5				50.2							
Sieve Size #4 - Percent Finer		D422	% Finer	68.3				77.4				85.6				88.9				94.7				93.2							
Sieve Size #40 - Percent Finer		D422	% Finer	44.9				56				68.4				69.5				72.1				64.6							
Sieve Size #60 - Percent Finer		D422	% Finer	39.9				50				63.4				65.4				62.5				60.2							
Sieve Size #80 - Percent Finer		D422	% Finer	37.2				46.5				60				62.7				57.3				57.3							
Sieve Size 0.375 inch - Percent Finer		D422	% Finer	87.9				100				100				100				100				100							
Sieve Size 0.75 inch - Percent Finer		D422	% Finer	100				100				100				100				100				100							
Sieve Size 1 inch - Percent Finer		D422	% Finer	100				100				100				100				100				100							
Sieve Size 1.5 inch - Percent Finer		D422	% Finer	100				100				100				100				100				100							
Sieve Size 2 inch - Percent Finer		D422	% Finer	100				100				100				100				100				100							
Sieve Size 3 inch - Percent Finer		D422	% Finer	100				100				100				100				100				100							
Total Organic Carbon	7440-44-0	Lloyd Kahn	mg/Kg	145000		38900	13000	136000		30800	10300	133000		34600	11500	217000		41700	13900	97300		21900	7300	126000		30200	10100	237000		45900	15300	138000		30300	10100
Percent Moisture		Moisture	%	78.3		1	1	78.8		1	1	82.2		1	1	83.9		1	1	72.3		1	1	71.9		1	1	83.4		1	1	75.8		1	1
Percent Solids		Moisture	%	21.7		1	1	21.2		1	1	17.8		1	1	16.1		1	1	27.7		1	1	28.1		1	1	16.6		1	1	24.2		1	1

Table 5.9 - Sediment: Properties

(continued)

Rolling Knolls Landfill

Sample Name				SD08			SD09			SD10			SD11			SD12			SD13			SD14			SD15		
Sample Date/Time				05/19/2021 13:43			05/19/2021 14:43			05/19/2021 15:45			05/17/2021 11:45			05/24/2021 09:14			05/24/2021 13:55			05/25/2021 09:00			05/25/2021 13:30		
Latitude				40.732265			40.73189675			40.73169144			40.72489948			40.73119281			40.72747591			40.72740332			40.72937246		
Longitude				-74.43997			-74.44071492			-74.44135929			-74.44253502			-74.43998828			-74.43941053			-74.43971312			-74.440396		
Lab Sample Name				GS-S-SD08			GS-S-SD09			GS-S-SD10			GS-S-SD11			GS-N-SD12			GS-N-SD13			GS-N-SD14			GS-N-SD15		
Lab Sample Number				460-235248-1			460-235248-2			460-235248-3			460-235400-2			460-235444-1 / 460-235444-6			460-235444-2 / 460-235444-7			460-235492-2 / 460-235492-6			460-235492-3 / 460-235492-7		
Lab Report Number(s)				460-235248-1 / 460-235248-3			460-235248-1 / 460-235248-3			460-235248-1 / 460-235248-3			460-235400-1 / 460-235400-3			460-235444-1 / 460-235444-3 / 460-235444-4			460-235444-1 / 460-235444-3 / 460-235444-4			460-235492-1 / 460-235492-3 / 460-235492-4			460-235492-1 / 460-235492-3 / 460-235492-4		
Analyte	**CAS**	**Method**	**Units**	**Result**	**LDC Flag**	**RL**	**MDL**	**Result**	**LDC Flag**	**RL**	**MDL**	**Result**	**LDC Flag**	**RL**	**MDL**	**Result**	**LDC Flag**	**RL**	**MDL**	**Result**	**LDC Flag**	**RL**	**MDL**	**Result**	**LDC Flag**	**RL**	**MDL**	**Result**	**LDC Flag**	**RL**	**MDL**
Chemical Properties																															
Corrosivity		9045D	SU	5.9		0.1	0.1	6.1		0.1	0.1	6.4		0.1	0.1	7.2		0.1	0.1	5.8		0.1	0.1	7.1		0.1	0.1	7.2		0.1	0.1	6.6		0.1	0.1
pH		9045D	SU	5.9		0.1	0.1	6.1		0.1	0.1	6.4		0.1	0.1	7.2		0.1	0.1	5.8		0.1	0.1	7.1		0.1	0.1	7.2		0.1	0.1	6.6		0.1	0.1
Oxidation Reduction Potential		SM 2580B	millivolts	401				316				69				182				140				162				161				425			
Geotechnical																															
Gravel		D422	%	4.5				7.6				6.4				0				22.5				0				41.3				29.4			
Coarse Sand		D422	%	7.9				8.7				7				31.3				2.8				22.6				14.8				2.9			
Medium Sand		D422	%	9.8				27.4				13.1				15.1				20.8				24.5				18.9				16.5			
Sand		D422	%	23				47.7				35.3				56				35.9				48.7				46.1				28.3			
Fine Sand		D422	%	5.3				11.6				15.2				9.6				12.3				1.6				12.4				8.9			
Silt		D422	%	50.6				33.1				38.6				35.5				32.3				39.8				9.1				33.8			
Clay		D422	%	21.9				11.6				19.7				8.5				9.3				11.5				3.5				8.5			
Hydrometer Reading 1 - Percent Finer		D422	% Finer	40.2				27.7				32.5				16.3				18.1				22.3				6.1				16.5			
Hydrometer Reading 2 - Percent Finer		D422	% Finer	34.1				22.3				29.3				12.4				15.1				18.7				5.2				13.8			
Hydrometer Reading 3 - Percent Finer		D422	% Finer	31				22.3				26.1				12.4				15.1				18.7				5.2				11.2			
Hydrometer Reading 4 - Percent Finer		D422	% Finer	28				17				22.9				8.5				12.2				15.1				4.4				11.2			
Hydrometer Reading 5 - Percent Finer		D422	% Finer	21.9				11.6				19.7				8.5				9.3				11.5				3.5				8.5			
Hydrometer Reading 6 - Percent Finer		D422	% Finer	18.8				6.3				13.3				8.5				6.4				7.8				1.8				5.8			
Hydrometer Reading 7 - Percent Finer		D422	% Finer	12.7				6.3				6.9				4.6				3.4				4.2				1				3.1			
Sieve Size #10 - Percent Finer		D422	% Finer	87.6				83.7				86.6				68.7				74.7				77.4				43.9				67.7			
Sieve Size #100 - Percent Finer		D422	% Finer	73.8				47.8				63.6				47.1				44.9				51.7				15.8				44.9			
Sieve Size #20 - Percent Finer		D422	% Finer	80.4				64.1				78.6				58.6				59.4				55				33.4				55.3			
Sieve Size #200 - Percent Finer		D422	% Finer	72.5				44.7				58.3				44				41.6				51.3				12.6				42.3			
Sieve Size #4 - Percent Finer		D422	% Finer	95.5				92.4				93.6				100				77.5				100				58.7				70.6			
Sieve Size #40 - Percent Finer		D422	% Finer	77.8				56.3				73.5				53.6				53.9				52.9				25				51.2			
Sieve Size #60 - Percent Finer		D422	% Finer	75.6				51.8				69				50.1				49.1				52				19.5				47.9			
Sieve Size #80 - Percent Finer		D422	% Finer	74.7				49.5				66				48.3				46.3				51.7				17.1				46.1			
Sieve Size 0.375 inch - Percent Finer		D422	% Finer	100				100				100				100				100				100				78.6				74.3			
Sieve Size 0.75 inch - Percent Finer		D422	% Finer	100				100				100				100				100				100				100				100			
Sieve Size 1 inch - Percent Finer		D422	% Finer	100				100				100				100				100				100				100				100			
Sieve Size 1.5 inch - Percent Finer		D422	% Finer	100				100				100				100				100				100				100				100			
Sieve Size 2 inch - Percent Finer		D422	% Finer	100				100				100				100				100				100				100				100			
Sieve Size 3 inch - Percent Finer		D422	% Finer	100				100				100				100				100				100				100				100			
Total Organic Carbon	7440-44-0	Lloyd Kahn	mg/Kg	145000		33000	11000	200000		56900	19000	182000		30700	10200	343000		940	764	96700		708	576	316000		811	659	92800		373	303	202000		1020	832
Percent Moisture		Moisture	%	79.3		1	1	87.2		1	1	76.7		1	1	89.4		1	1	85.9		1	1	87.7		1	1	73.2		1	1	90.2		1	1
Percent Solids		Moisture	%	20.7		1	1	12.8		1	1	23.3		1	1	10.6		1	1	14.1		1	1	12.3		1	1	26.8		1	1	9.8		1	1

Table 5.9 - Sediment: Properties

(continued)

Rolling Knolls Landfill

Sample Name				SD16			SD101 (SD16 Duplicate)			SD17			SD18			SD19			SD20			SD21		
Sample Date/Time				05/26/2021 15:06			05/26/2021 15:06			05/27/2021 14:18			05/28/2021 08:30			06/01/2021 09:20			06/02/2021 10:00			06/02/2021 12:28		
Latitude				40.73124954			40.73124954			40.72670262			40.73132938			40.72289188			40.73050362			40.73060101		
Longitude				-74.44141084			-74.44141084			-74.43975897			-74.44108766			-74.44904733			-74.44237712			-74.44084937		
Lab Sample Name				GS-N-SD16			GS-N-SD11-1			GS-N-SD17			GS-N-SD18			GS-N-SD19			GS-N-SD20			GS-N-SD21		
Lab Sample Number				460-235592-1 / 460-235592-6			460-235592-2 / 460-235592-7			460-235592-3 / 460-235592-8			460-235592-4 / 460-235592-9			460-235680-1 / 460-235680-4			460-235931-5 / 460-235931-7			460-235931-6 / 460-235931-8		
Lab Report Number(s)				460-235592-1 / 460-235592-3 / 460-235592-4			460-235592-1 / 460-235592-3 / 460-235592-4			460-235592-1 / 460-235592-3 / 460-235592-4			460-235592-1 / 460-235592-3 / 460-235592-4			460-235680-1 / 460-235680-3			460-235931-1 / 460-235931-3 / 460-235931-4 / 460-235931-2			460-235931-1 / 460-235931-3 / 460-235931-4		
Analyte	**CAS**	**Method**	**Units**	**Result**	**LDC Flag**	**RL**	**MDL**	**Result**	**LDC Flag**	**RL**	**MDL**	**Result**	**LDC Flag**	**RL**	**MDL**	**Result**	**LDC Flag**	**RL**	**MDL**	**Result**	**LDC Flag**	**RL**	**MDL**	**Result**	**LDC Flag**	**RL**	**MDL**
Chemical Properties																											
Corrosivity		9045D	SU	6.8		0.1	0.1	6.7		0.1	0.1	6.7		0.1	0.1	6.9		0.1	0.1	5.4		0.1	0.1	7.1		0.1	0.1	6.8		0.1	0.1
pH		9045D	SU	6.8		0.1	0.1	6.7		0.1	0.1	6.7		0.1	0.1	6.9		0.1	0.1	5.4		0.1	0.1	7.1		0.1	0.1	6.8		0.1	0.1
Oxidation Reduction Potential		SM 2580B	millivolts	209				194				259				143				529				136				99			
Geotechnical																											
Gravel		D422	%	5.1				6.5				8				1.2				10.5				18.8				11.2			
Coarse Sand		D422	%	3.4				3.1				10.9				1.7				9.2				7.4				18.4			
Medium Sand		D422	%	9.3				8.2				27.7				10.2				11.6				21.9				6.2			
Sand		D422	%	37.8				34.9				46				42.5				34.7				41.8				33.7			
Fine Sand		D422	%	25.1				23.6				7.4				30.6				13.9				12.5				9.1			
Silt		D422	%	32.5				34.3				38.4				37.5				41.8				29.8				35			
Clay		D422	%	24.6				24.3				7.6				18.8				13				9.6				20.1			
Hydrometer Reading 1 - Percent Finer		D422	% Finer	38.4				36.1				30.2				32.7				26.9				29.5				27.6			
Hydrometer Reading 2 - Percent Finer		D422	% Finer	35				34.4				14				28.8				21.3				16.2				26.1			
Hydrometer Reading 3 - Percent Finer		D422	% Finer	31.5				31.1				14				25				18.6				11.8				24.6			
Hydrometer Reading 4 - Percent Finer		D422	% Finer	28.1				27.7				10.8				21.1				17.2				11.8				21.6			
Hydrometer Reading 5 - Percent Finer		D422	% Finer	24.6				24.3				7.6				18.8				13				9.6				20.1			
Hydrometer Reading 6 - Percent Finer		D422	% Finer	19.5				19.2				4.3				12.6				7.4				9.6				18.5			
Hydrometer Reading 7 - Percent Finer		D422	% Finer	12.6				12.4				1.6				8.1				3.5				7.4				12.5			
Sieve Size #10 - Percent Finer		D422	% Finer	91.5				90.4				81.1				97.1				80.3				73.8				70.4			
Sieve Size #100 - Percent Finer		D422	% Finer	66.8				67.5				47.7				66.3				58.9				42.2				57.9			
Sieve Size #20 - Percent Finer		D422	% Finer	88				87.8				60.4				94.4				74.8				60.2				66.8			
Sieve Size #200 - Percent Finer		D422	% Finer	57.1				58.6				46				56.3				54.8				39.4				55.1			
Sieve Size #4 - Percent Finer		D422	% Finer	94.9				93.5				92				98.8				89.5				81.2				88.8			
Sieve Size #40 - Percent Finer		D422	% Finer	82.2				82.2				53.4				86.9				68.7				51.9				64.2			
Sieve Size #60 - Percent Finer		D422	% Finer	75				75.3				49.2				76.7				63.1				46.1				61.6			
Sieve Size #80 - Percent Finer		D422	% Finer	70.3				70.9				47.7				70.3				60.3				43.5				59.8			
Sieve Size 0.375 inch - Percent Finer		D422	% Finer	100				100				100				100				100				100				100			
Sieve Size 0.75 inch - Percent Finer		D422	% Finer	100				100				100				100				100				100				100			
Sieve Size 1 inch - Percent Finer		D422	% Finer	100				100				100				100				100				100				100			
Sieve Size 1.5 inch - Percent Finer		D422	% Finer	100				100				100				100				100				100				100			
Sieve Size 2 inch - Percent Finer		D422	% Finer	100				100				100				100				100				100				100			
Sieve Size 3 inch - Percent Finer		D422	% Finer	100				100				100				100				100				100				100			
Total Organic Carbon	7440-44-0	Lloyd Kahn	mg/Kg	61100		326	265	53700		295	239	217000		753	612	33800		196	159	123000		392	319	139000		16200	5410	70800		11400	3810
Percent Moisture		Moisture	%	69.3		1	1	66.1		1	1	86.7		1	1	48.9		1	1	74.5		1	1	75.7		1	1	77.3		1	1
Percent Solids		Moisture	%	30.7		1	1	33.9		1	1	13.3		1	1	51.1		1	1	25.5		1	1	24.3		1	1	22.7		1	1

Table 5.10 - Sediment: Metals, Cyanide and SEM/AVS Analytical Results

Rolling Knolls Landfill

Sample Name				ESC's	SD01			SD100 (SD01 duplicate)			SD02			SD03			SD04			SD05		
Sample Date/Time					05/13/2021 15:30			05/13/2021 15:30			05/14/2021 09:15			05/14/2021 10:45			05/15/2021 14:05			05/16/2021 15:00		
Latitude					40.72679082			40.72679082			40.72715605			40.72638198			40.72348024			40.72279293		
Longitude					-74.44034521			-74.44034521			-74.43993388			-74.44081345			-74.44733898			-74.44605058		
Lab Sample Name				Screening Criteria	GS-S-SD01			GS-S-SD0100			GS-S-SD02			GS-S-SD03			GS-S-SD04			GS-S-SD05		
Lab Sample Number					460-234557-3			460-234557-4			460-234557-1			460-234557-2			460-234545-1			460-234545-2		
Lab Report Number(s)					460-234557-1 / 460-234557-2 / 460-234557-3			460-234557-1 / 460-234557-3			460-234557-1 / 460-234557-2 / 460-234557-3			460-234557-1 / 460-234557-2 / 460-234557-3			460-234545-1			460-234545-1		
Analyte	CAS	Method	Units		Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)
Metals and Cyanide																								
Aluminum	7429-90-5	6020B	mg/Kg	25500 (9)	7260		74.5	9.7	5270		74.7	9.7	4280		112	14.6	5230		94	12.2	8850		60.2	7.8	5470		282	36.7
Antimony	7440-36-0	6020B	mg/Kg		6.3		3.7	0.54	7.2		3.7	0.55	2.8	J	5.6	0.82	6.1		4.7	0.69	2.3	J	3	0.44	2.1	U	14.1	2.1
Arsenic	7440-38-2	6020B	mg/Kg	6 (9)	11.6		3.7	0.37	11.7		3.7	0.37	4.6	J	5.6	0.56	10.9		4.7	0.47	26		3	0.3	4.4	J	14.1	1.4
Barium	7440-39-3	6020B	mg/Kg	150 (10)	236	J	7.4	0.54	312	J	7.5	0.54	204	J	11.2	0.81	319	J	9.4	0.68	341		6	0.44	325		28.2	2
Beryllium	7440-41-7	6020B	mg/Kg		0.21	U	1.5	0.21	0.21	U	1.5	0.21	0.32	J	2.2	0.32	0.27	U	1.9	0.27	0.44	J	1.2	0.17	0.8	U	5.6	0.8
Cadmium	7440-43-9	6020B	mg/Kg	0.6 (9)	11.5		3.7	0.42	14.6		3.7	0.42	4.2	J	5.6	0.63	15.4		4.7	0.53	5.4		3	0.34	6.2	J	14.1	1.6
Calcium	7440-70-2	6020B	mg/Kg		8670	J	372	63.3	13300	J	374	63.5	11000	J	562	95.5	16700	J	470	79.9	9720		301	51.2	12800		1410	240
Chromium	7440-47-3	6020B	mg/Kg	26 (9)	53.9		7.4	0.65	61.9		7.5	0.65	26.4		11.2	0.98	73.3		9.4	0.82	72.3		6	0.52	16	J	28.2	2.5
Cobalt	7440-48-4	6020B	mg/Kg	50 (9)	8.4		7.4	0.55	8.2		7.5	0.55	2.9	J	11.2	0.83	15.8		9.4	0.7	15.4		6	0.45	3.6	J	28.2	2.1
Copper	7440-50-8	6020B	mg/Kg	16 (9)	385	J	7.4	0.82	397	J	7.5	0.82	188	J	11.2	1.2	382	J	9.4	1	248		6	0.66	178		28.2	3.1
Iron	7439-89-6	6020B	mg/Kg		86200	J	223	75.2	139000	J	224	75.5	54800	J	337	114	111000	J	282	94.9	147000		181	60.8	21000		847	285
Lead	7439-92-1	6020B	mg/Kg	31 (9)	618	J	2.2	0.74	627	J	2.2	0.75	251	J	3.4	1.1	524	J	2.8	0.94	160		1.8	0.6	184		8.5	2.8
Magnesium	7439-95-4	6020B	mg/Kg		404		372	38	531		374	38.1	598		562	57.3	639		470	47.9	1240		301	30.7	671	J	1410	144
Manganese	7439-96-5	6020B	mg/Kg	630 (9)	362	J	14.9	1.5	681	J	14.9	1.5	278	J	22.5	2.3	544	J	18.8	1.9	586		12	1.2	76.7		56.4	5.7
Nickel	7440-02-0	6020B	mg/Kg	16 (9)	65.3	J	7.4	0.72	64.6	J	7.5	0.72	22.3	J	11.2	1.1	125	J	9.4	0.91	69		6	0.58	38.4		28.2	2.7
Potassium	7440-09-7	6020B	mg/Kg		120	J	372	41.7	141	J	374	41.8	184	J	562	62.9	144	J	470	52.6	395		301	33.7	292	J	1410	158
Selenium	7782-49-2	6020B	mg/Kg	0.72 (10)	1.1	J	4.7	0.44	1.3	J	4.7	0.44	1.2	J	7	0.66	1	J	5.9	0.55	1.2	J	3.8	0.36	1.8	J	17.6	1.7
Silver	7440-22-4	6020B	mg/Kg	0.5 (9)	6.7		3.7	0.33	6.5		3.7	0.33	3	J	5.6	0.5	6		4.7	0.42	0.95	J	3	0.27	1.3	J	14.1	1.3
Sodium	7440-23-5	6020B	mg/Kg		528	U	372	58.1	269	U	374	58.3	138	J	562	87.7	133	J	470	73.3	106	J	301	47	220	U	1410	220
Thallium	7440-28-0	6020B	mg/Kg		0.15	U	1.5	0.15	0.17	J	1.5	0.15	0.23	U	2.2	0.23	0.2	J	1.9	0.19	0.12	J	1.2	0.12	0.58	U	5.6	0.58
Vanadium	7440-62-2	6020B	mg/Kg		16.1		7.4	0.77	18.9		7.5	0.77	12.2		11.2	1.2	15.4		9.4	0.97	36.8		6	0.62	23.4	J	28.2	2.9
Zinc	7440-66-6	6020B	mg/Kg	120 (9)	1380	J	29.8	8.5	1580	J	29.9	8.6	516	J	45	12.9	1600	J	37.6	10.8	816		24.1	6.9	914		113	32.3
Mercury	7439-97-6	7471B	mg/Kg	0.174 (9)	4.3		0.39	0.092	5.8		0.4	0.094	2.3		0.09	0.021	5.2		0.51	0.12	1.1		0.057	0.013	1.2		0.059	0.014
Cyanide, Total	57-12-5	9012B	mg/Kg	0.0001 (9)	1.6	J	2.3	0.84	1.7	J	2.2	0.8	1	J	2.8	1	1.1	R	3.1	1.1	0.98	J	1.8	0.65	0.64	U	1.8	0.64
AVS/SEM																												
Cadmium SEM	7440-43-9	EPA 6010C	µmol/g		0.19	J	0.0056	0.00031	0.0045	J	0.0064	0.00036	0.2	J	0.0063	0.00035	0.25	J	0.0092	0.00052	0.029	J	0.0022	0.00012	0.094	J	0.0065	0.00036
Copper SEM	7440-50-8	EPA 6010C	µmol/g		9.7	J	0.049	0.018	0.34	J	0.057	0.021	9.9	J	0.056	0.02	10.4	J	0.082	0.03	1.9	J	0.019	0.0069	3.6	J	0.057	0.021
Lead SEM	7439-92-1	EPA 6010C	µmol/g		5.4	J	0.03	0.0086	0.14	J	0.007	0.002	3.1	J	0.034	0.0098	4.1	J	0.02	0.0057	0.4	J	0.0047	0.0013	1.5	J	0.0071	0.002
Mercury SEM	7439-97-6	EPA 7470A	µmol/g		0.000063	R	0.00013	0.000063	0.000073	R	0.00014	0.000073	0.000071	R	0.00014	0.000071	0.00034	J	0.00021	0.0001	0.000098	J	0.000048	0.000024	0.00012	J	0.00015	0.000074
Nickel SEM	7440-02-0	EPA 6010C	µmol/g		1.8	J	0.43	0.016	0.11	J	0.098	0.0037	1.6	J	0.48	0.018	4.1	J	0.28	0.011	0.26	J	0.066	0.0025	0.98	J	0.1	0.0038
Zinc SEM	7440-66-6	EPA 6010C	µmol/g		39	J	0.19	0.12	0.82	J	0.22	0.13	34.9	J	0.22	0.13	47.5	J	0.32	0.19	3.1	J	0.074	0.045	18.2	J	0.22	0.14
Acid Volatile Sulfides (AVS)	18496-25-8	EPA 9034	µmol/g		0.78	R	2.4	0.78	53.6	J	2.7	0.9	42	J	2.7	0.88	8.8	J	3.9	1.3	0.61	J	0.9	0.3	1.5	J	2.7	0.9
Cadmium SEM	7440-43-9	SEM	µmol/g		0.194	J	0.00111	0.000062	0.00448	J	0.00111	0.000062	0.198	J	0.00111	0.000062	0.252	J	0.00111	0.000062	0.0289	J	0.00111	0.000062	0.0941	J	0.00111	0.000062
Copper SEM	7440-50-8	SEM	µmol/g		9.75	J	0.00984	0.00086	0.341	J	0.00984	0.00086	9.92	J	0.00984	0.00086	10.4	J	0.00984	0.00086	1.85	J	0.00984	0.00086	3.61	J	0.00984	0.00086
Lead SEM	7439-92-1	SEM	µmol/g		5.41	J	0.00121	0.000344	0.139	J	0.00121	0.000344	3.09	J	0.00121	0.000344	4.11	J	0.00121	0.000344	0.396	J	0.00121	0.000344	1.51	J	0.00121	0.000344
Mercury SEM	7439-97-6	SEM	µmol/g		0.00000649	R	0.0000249	6.49E-06	0.00000649	R	0.0000249	6.49E-06	0.00000649	R	0.0000249	6.49E-06	0.000344	J	0.0000249	6.49E-06	0.0000983	J	0.0000249	6.49E-06	0.000122	J	0.0000249	6.49E-06
Nickel SEM	7440-02-0	SEM	µmol/g		1.8	J	0.017	0.00065	0.106	J	0.017	0.00065	1.55	J	0.017	0.00065	4.14	J	0.017	0.00065	0.257	J	0.017	0.00065	0.983	J	0.017	0.00065
Zinc SEM	7440-66-6	SEM	µmol/g		39	J	0.00765	0.00069	0.824	J	0.00765	0.00069	34.9	J	0.00765	0.00069	47.5	J	0.00765	0.00069	3.1	J	0.00765	0.00069	18.2	J	0.00765	0.00069
Acid Volatile Sulfides (AVS)	18496-25-8	SEM	µmol/g		0.155	R	0.499	0.155	53.6	J	0.499	0.155	42	J	0.499	0.155	8.85	J	0.499	0.155	0.61	J	0.499	0.155	1.48	J	0.499	0.155
SEM Summary		SEM	µmol/g		56.1	J	0.001	0.001	1.41	J	0.001	0.001	49.7	J	0.001	0.001	66.3	J	0.001	0.001	5.63	J	0.001	0.001	24.4	J	0.001	0.001
SEM/AVS Ratio		SEM	NONE		NC	J	0.001	NaN	0.0264	J	0.001	NaN	1.18	J	0.001	NaN	7.5	J	0.001	NaN	9.23	J	0.001	NaN	16.4	J	0.001	NaN
ΣSEM–AVS				1.00 (11)	55.9				-52.2				7.7				57.5				5.0				22.9			
(ΣSEM-AVS)/foc				130 (11)	385.8				-383.8				57.9				264.7				51.6				181.9			

Table 5.10 - Sediment: Metals, Cyanide and SEM/AVS Analytica (continued)

Rolling Knolls Landfill

Sample Name				ESC's	SD06				SD07				SD08				SD09				SD10				SD11			
Sample Date/Time					05/17/2021 11:45				05/17/2021 13:50				05/19/2021 13:43				05/19/2021 14:43				05/19/2021 15:45				05/17/2021 11:45			
Latitude					40.72236209				40.72143376				40.732265				40.73189675				40.73169144				40.72489948			
Longitude				Screening Criteria	-74.44587599				-74.44468585				-74.43997				-74.44071492				-74.44135929				-74.44253502			
Lab Sample Name					GS-S-SD06				GS-S-SD07				GS-S-SD08				GS-S-SD09				GS-S-SD10				GS-S-SD11			
Lab Sample Number					460-234971-3 / 460-234971-7				460-234971-4 / 460-234971-8				460-235248-1				460-235248-2				460-235248-3				460-235400-2			
Lab Report Number(s)					460-234971-1 / 460-234971-4				460-234971-1 / 460-234971-4				460-235248-1 / 460-235248-3				460-235248-1 / 460-235248-3				460-235248-1 / 460-235248-3				460-235400-1 / 460-235400-3			
Analyte	CAS	Method	Units		Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)
Metals and Cyanide																												
Aluminum	7429-90-5	6020B	mg/Kg	25500 (9)	15400		116	15.1	7180		66.8	8.7	23100		377	49	17900		635	82.6	16600		349	45.4	3960		176	22.8
Antimony	7440-36-0	6020B	mg/Kg		1.7	J	5.8	0.85	0.82	J	3.3	0.49	2.8	U	18.8	2.8	4.6	U	31.8	4.6	2.5	U	17.4	2.5	3.4	J	8.8	1.3
Arsenic	7440-38-2	6020B	mg/Kg	6 (9)	9.5		5.8	0.58	4.3		3.3	0.33	6.9	J	18.8	1.9	7.3	J	31.8	3.2	6.4	J	17.4	1.7	5.7	J	8.8	0.88
Barium	7440-39-3	6020B	mg/Kg	150 (10)	415		11.6	0.84	393		6.7	0.48	139		37.7	2.7	172		63.5	4.6	238		34.9	2.5	412		17.6	1.3
Beryllium	7440-41-7	6020B	mg/Kg		2.1	J	2.3	0.33	0.51	J	1.3	0.19	1.3	J	7.5	1.1	1.8	U	12.7	1.8	1.3	J	7	0.99	0.5	U	3.5	0.5
Cadmium	7440-43-9	6020B	mg/Kg	0.6 (9)	1.8	J	5.8	0.66	1.4	J	3.3	0.38	2.1	U	18.8	2.1	3.6	U	31.8	3.6	2.2	J	17.4	2	5	J	8.8	0.99
Calcium	7440-70-2	6020B	mg/Kg		17200		580	98.5	9220		334	56.8	6710		1880	320	14100		3180	540	13700		1740	297	23100		879	149
Chromium	7440-47-3	6020B	mg/Kg	26 (9)	25.4		11.6	1	12.3		6.7	0.58	29.8	J	37.7	3.3	27.1	J	63.5	5.5	24.7	J	34.9	3	70.1		17.6	1.5
Cobalt	7440-48-4	6020B	mg/Kg	50 (9)	9.8	J	11.6	0.86	5	J	6.7	0.48	5.4	J	37.7	2.8	5.1	J	63.5	4.7	3.8	J	34.9	2.6	1.5	J	17.6	1.3
Copper	7440-50-8	6020B	mg/Kg	16 (9)	79.8		11.6	1.3	55.7		6.7	0.73	42.7		37.7	4.1	51.9	J	63.5	7	47.7		34.9	3.8	82.7		17.6	1.9
Iron	7439-89-6	6020B	mg/Kg		33200		348	117	47500		200	67.5	11900		1130	381	14600		1910	642	86600		1050	352	28600		527	178
Lead	7439-92-1	6020B	mg/Kg	31 (9)	118		3.5	1.2	96.2		2	0.67	38		11.3	3.8	47.6		19.1	6.4	38.4		10.5	3.5	143		5.3	1.8
Magnesium	7439-95-4	6020B	mg/Kg		1270		580	59.1	622		334	34.1	1720	J	1880	192	2700	J	3180	324	1400	J	1740	178	851	J	879	89.6
Manganese	7439-96-5	6020B	mg/Kg	630 (9)	178		23.2	2.3	171		13.4	1.3	214		75.4	7.6	224		127	12.8	554		69.8	7	166		35.2	3.5
Nickel	7440-02-0	6020B	mg/Kg	16 (9)	23.4		11.6	1.1	26.7		6.7	0.65	15.7	J	37.7	3.7	14.8	J	63.5	6.2	17.8	J	34.9	3.4	40.8		17.6	1.7
Potassium	7440-09-7	6020B	mg/Kg		570	J	580	64.9	379		334	37.4	481	J	1880	211	416	J	3180	356	291	J	1740	195	262	J	879	98.4
Selenium	7782-49-2	6020B	mg/Kg	0.72 (10)	4.5	J	7.2	0.68	1.7	J	4.2	0.39	2.2	U	23.6	2.2	3.7	U	39.7	3.7	2.1	U	21.8	2.1	2.7	J	11	1
Silver	7440-22-4	6020B	mg/Kg	0.5 (9)	0.52	U	5.8	0.52	0.58	J	3.3	0.3	1.7	U	18.8	1.7	2.8	U	31.8	2.8	1.6	U	17.4	1.6	1.2	J	8.8	0.78
Sodium	7440-23-5	6020B	mg/Kg		313	J	580	90.4	102	J	334	52.1	616	U	1880	294	761	U	3180	495	283	J	1740	272	153	J	879	137
Thallium	7440-28-0	6020B	mg/Kg		0.37	J	2.3	0.24	0.15	J	1.3	0.14	0.77	U	7.5	0.77	1.3	U	12.7	1.3	0.72	U	7	0.72	0.36	U	3.5	0.36
Vanadium	7440-62-2	6020B	mg/Kg		43.8		11.6	1.2	23.9		6.7	0.69	40.7		37.7	3.9	47.9	J	63.5	6.5	42.8		34.9	3.6	31.2		17.6	1.8
Zinc	7440-66-6	6020B	mg/Kg	120 (9)	156		46.4	13.3	215		26.7	7.6	76.3	J	151	43.2	88.1	J	254	72.7	176		140	39.9	397		70.3	20.1
Mercury	7439-97-6	7471B	mg/Kg	0.174 (9)	0.62		0.096	0.023	0.38		0.062	0.015	0.23		0.079	0.019	0.17		0.13	0.031	0.26		0.072	0.017	0.98		0.14	0.033
Cyanide, Total	57-12-5	9012B	mg/Kg	0.0001 (9)	1.1	U	3	1.1	0.88	J	2	0.77	3.4		2.5	0.91	1.5	U	4.1	1.5	0.82	U	2.3	0.82	1.1	UJ	1.9	1.1
AVS/SEM																												
Cadmium SEM	7440-43-9	EPA 6010C	µmol/g		0.019	J	0.0065	0.00036	0.01	J	0.0038	0.00021	0.0046	J	0.0065	0.00036	0.033	J	0.011	0.00064	0.16	J	0.0049	0.00027	0.054	J	0.013	0.00074
Copper SEM	7440-50-8	EPA 6010C	µmol/g		1.1	J	0.058	0.021	0.64	J	0.033	0.012	0.18	J	0.057	0.021	0.99	J	0.1	0.037	8.5	J	0.043	0.016	0.97	J	0.12	0.042
Lead SEM	7439-92-1	EPA 6010C	µmol/g		0.71	J	0.0071	0.002	0.42	J	0.0041	0.0012	0.12	J	0.007	0.002	0.4	J	0.012	0.0035	4.3	J	0.011	0.003	0.82	J	0.014	0.0041
Mercury SEM	7439-97-6	EPA 7470A	µmol/g		0.0001	J	0.00015	0.000074	0.000066	J	0.000084	0.000043	0.000073	R	0.00015	0.000073	0.00013	R	0.00026	0.00013	0.00037	J	0.00011	0.000055	0.00015	R	0.0003	0.00015
Nickel SEM	7440-02-0	EPA 6010C	µmol/g		0.37	J	0.1	0.0038	0.33	J	0.058	0.0022	0.077	J	0.099	0.0038	0.45	J	0.18	0.0067	1.3	J	0.15	0.0057	0.74	J	0.2	0.0077
Zinc SEM	7440-66-6	EPA 6010C	µmol/g		3.6	J	0.22	0.14	2.4	J	0.13	0.079	0.72	J	0.22	0.14	4.4	J	0.39	0.24	30	J	0.17	0.1	9.4	J	0.45	0.28
Acid Volatile Sulfides (AVS)	18496-25-8	EPA 9034	µmol/g		4.9	J	2.7	0.91	3	J	1.6	0.53	1.5	J	2.7	0.91	4	J	4.8	1.6	4	J	2	0.68	15.4	J	5.5	1.8
Cadmium SEM	7440-43-9	SEM	µmol/g		0.0189	J	0.00111	0.000062	0.0105	J	0.00111	0.000062	0.00459	J	0.00111	0.000062	0.0325	J	0.00111	0.000062	0.156	J	0.00111	0.000062	0.0536	J	0.00111	0.000062
Copper SEM	7440-50-8	SEM	µmol/g		1.05	J	0.00984	0.00086	0.643	J	0.00984	0.00086	0.185	J	0.00984	0.00086	0.992	J	0.00984	0.00086	8.54	J	0.00984	0.00086	0.968	J	0.00984	0.00086
Lead SEM	7439-92-1	SEM	µmol/g		0.708	J	0.00121	0.000344	0.421	J	0.00121	0.000344	0.117	J	0.00121	0.000344	0.399	J	0.00121	0.000344	4.33	J	0.00121	0.000344	0.821	J	0.00121	0.000344
Mercury SEM	7439-97-6	SEM	µmol/g		0.000104	J	0.0000249	6.49E-06	0.0000658	J	0.0000249	6.49E-06	0.00000649	R	0.0000249	6.49E-06	0.00000649	R	0.0000249	6.49E-06	0.000375	J	0.0000249	6.49E-06	0.00000649	R	0.0000249	6.49E-06
Nickel SEM	7440-02-0	SEM	µmol/g		0.374	J	0.017	0.00065	0.329	J	0.017	0.00065	0.0774	J	0.017	0.00065	0.453	J	0.017	0.00065	1.32	J	0.017	0.00065	0.742	J	0.017	0.00065
Zinc SEM	7440-66-6	SEM	µmol/g		3.56	J	0.00765	0.00069	2.37	J	0.00765	0.00069	0.718	J	0.00765	0.00069	4.4	J	0.00765	0.00069	30	J	0.00765	0.00069	9.39	J	0.00765	0.00069
Acid Volatile Sulfides (AVS)	18496-25-8	SEM	µmol/g		4.9	J	0.499	0.155	2.99	J	0.499	0.155	1.55	J	0.499	0.155	4.02	J	0.499	0.155	4.01	J	0.499	0.155	15.4	J	0.499	0.155
SEM Summary		SEM	µmol/g		5.72		0.001	0.001	3.77		0.001	0.001	1.1	J	0.001	0.001	6.28	J	0.001	0.001	44.4	J	0.001	0.001	12	J	0.001	0.001
SEM/AVS Ratio		SEM	NONE		1.17		0.001	NaN	1.26		0.001	NaN	0.712	J	0.001	NaN	1.56	J	0.001	NaN	11.1	J	0.001	NaN	0.776	J	0.001	NaN
ΣSEM–AVS				1.00 (11)	0.8				0.8				-0.5				2.3				40.4				-3.4			
(ΣSEM-AVS)/foc				130 (11)	3.5				5.7				-3.1				11.3				221.9				-9.9			

Table 5.10 - Sediment: Metals, Cyanide and SEM/AVS Analytica

(continued)

Rolling Knolls Landfill

Sample Name				ESC's	SD12				SD13				SD14				SD15				SD16				SD101 (SD16 Duplicate)			
Sample Date/Time					05/24/2021 09:14				05/24/2021 13:55				05/25/2021 09:00				05/25/2021 13:30				05/26/2021 15:06				05/26/2021 15:06			
Latitude				Screening Criteria	40.73119281				40.72747591				40.72740332				40.72937246				40.73124954				40.73124954			
Longitude					-74.43998828				-74.43941053				-74.43971312				-74.440396				-74.44141084				-74.44141084			
Lab Sample Name					GS-N-SD12				GS-N-SD13				GS-N-SD14				GS-N-SD15				GS-N-SD16				GS-N-SD11-1			
Lab Sample Number					460-235444-1 / 460-235444-6				460-235444-2 / 460-235444-7				460-235492-2 / 460-235492-6				460-235492-3 / 460-235492-7				460-235592-1 / 460-235592-6				460-235592-2 / 460-235592-7			
Lab Report Number(s)					460-235444-1 / 460-235444-3 / 460-235444-4				460-235444-1 / 460-235444-3 / 460-235444-4				460-235492-1 / 460-235492-3 / 460-235492-4				460-235492-1 / 460-235492-3 / 460-235492-4				460-235592-1 / 460-235592-3 / 460-235592-4				460-235592-1 / 460-235592-3 / 460-235592-4			
Analyte	CAS	Method	Units		Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)
Metals and Cyanide																												
Aluminum	7429-90-5	6020B	mg/Kg	25500 (9)	9380		131	17.1	6280		153	19.9	11000		72.4	9.4	17100		195	25.3	26700		61	7.9	13700		55.6	7.2
Antimony	7440-36-0	6020B	mg/Kg		0.98	J	6.6	0.96	1.4	J	7.6	1.1	5.1		3.6	0.53	2.8	J	9.7	1.4	0.53	J	3	0.44	0.93	J	2.8	0.41
Arsenic	7440-38-2	6020B	mg/Kg	6 (9)	6.5	J	6.6	0.66	6.7	J	7.6	0.76	8.4		3.6	0.36	12.4		9.7	0.97	7.6		3	0.3	10.2		2.8	0.28
Barium	7440-39-3	6020B	mg/Kg	150 (10)	176		13.1	0.95	224		15.3	1.1	405		7.2	0.53	186		19.5	1.4	166		6.1	0.44	163		5.6	0.4
Beryllium	7440-41-7	6020B	mg/Kg		0.67	J	2.6	0.37	0.97	J	3.1	0.44	0.35	J	1.4	0.21	1.2	J	3.9	0.56	0.98	J	1.2	0.17	0.43	J	1.1	0.16
Cadmium	7440-43-9	6020B	mg/Kg	0.6 (9)	3.6	J	6.6	0.74	0.93	J	7.6	0.86	13.8		3.6	0.41	3.8	J	9.7	1.1	3.2		3	0.34	6.1		2.8	0.31
Calcium	7440-70-2	6020B	mg/Kg		6190		656	112	14600		765	130	6630		362	61.6	17800		974	166	3810		305	51.8	3650		278	47.2
Chromium	7440-47-3	6020B	mg/Kg	26 (9)	16.3		13.1	1.1	21.8		15.3	1.3	36.5		7.2	0.63	21.3		19.5	1.7	32.5		6.1	0.53	25.1		5.6	0.48
Cobalt	7440-48-4	6020B	mg/Kg	50 (9)	5.6	J	13.1	0.97	2.9	J	15.3	1.1	8.3		7.2	0.54	5.9	J	19.5	1.4	4.6	J	6.1	0.45	3.3	J	5.6	0.41
Copper	7440-50-8	6020B	mg/Kg	16 (9)	60.1		13.1	1.4	42		15.3	1.7	490		7.2	0.8	92.9		19.5	2.1	46.4		6.1	0.67	71.6		5.6	0.61
Iron	7439-89-6	6020B	mg/Kg		20100		394	133	36200		459	154	52300		217	73.2	14700		584	197	68300		183	61.6	123000		167	56.1
Lead	7439-92-1	6020B	mg/Kg	31 (9)	84.3		3.9	1.3	37		4.6	1.5	878		2.2	0.72	180		5.8	1.9	66.4		1.8	0.61	110		1.7	0.56
Magnesium	7439-95-4	6020B	mg/Kg		746		656	66.9	1420		765	79	717		362	36.9	2250		974	99.4	1560		305	31.1	887		278	28.3
Manganese	7439-96-5	6020B	mg/Kg	630 (9)	204		26.2	2.6	337		30.6	3.1	216		14.5	1.5	380		39	3.9	255		12.2	1.2	423		11.1	1.1
Nickel	7440-02-0	6020B	mg/Kg	16 (9)	19.4		13.1	1.3	20.7		15.3	1.5	99.4		7.2	0.7	34.4		19.5	1.9	24.9		6.1	0.59	28.7		5.6	0.54
Potassium	7440-09-7	6020B	mg/Kg		291	J	656	73.5	244	J	765	85.7	281	J	362	40.6	478	J	974	109	589		305	34.1	320		278	31.1
Selenium	7782-49-2	6020B	mg/Kg	0.72 (10)	2.1	J	8.2	0.77	2.7	J	9.6	0.9	1.3	J	4.5	0.43	3.1	J	12.2	1.1	1.1	J	3.8	0.36	0.92	J	3.5	0.33
Silver	7440-22-4	6020B	mg/Kg	0.5 (9)	0.58	U	6.6	0.58	0.68	U	7.6	0.68	4.1		3.6	0.32	0.87	U	9.7	0.87	0.38	J	3	0.27	0.64	J	2.8	0.25
Sodium	7440-23-5	6020B	mg/Kg		290	J	656	102	427	J	765	119	224	J	362	56.5	297	J	974	152	130	J	305	47.5	86.8	J	278	43.4
Thallium	7440-28-0	6020B	mg/Kg		0.27	U	2.6	0.27	0.31	U	3.1	0.31	0.25	U	1.4	0.15	0.7	U	3.9	0.4	0.34	J	1.2	0.12	0.19	J	1.1	0.11
Vanadium	7440-62-2	6020B	mg/Kg		26		13.1	1.4	24.7		15.3	1.6	28.6		7.2	0.75	61.6		19.5	2	33.3		6.1	0.63	22.8		5.6	0.57
Zinc	7440-66-6	6020B	mg/Kg	120 (9)	321		52.5	15	159		61.2	17.5	2150		29	8.3	389		77.9	22.3	243		24.4	7	420		22.2	6.4
Mercury	7439-97-6	7471B	mg/Kg	0.174 (9)	0.38		0.11	0.025	0.33		0.13	0.031	1.3		0.061	0.014	0.62		0.16	0.038	0.77		0.051	0.012	0.61		0.046	0.011
Cyanide, Total	57-12-5	9012B	mg/Kg	0.0001 (9)	0.93	U	1.7	0.93	0.88	U	1.6	0.88	1.9		0.83	0.45	1.2	U	2.2	1.2	9.2		0.75	0.41	7.7		0.71	0.39
AVS/SEM																												
Cadmium SEM	7440-43-9	EPA 6010C	µmol/g		0.03	J	0.009	0.0005	0.0082	J	0.011	0.00062	0.089	J	0.0044	0.00025	0.035	J	0.011	0.00061	0.061	J	0.0076	0.00042	0.067	J	0.0079	0.00044
Copper SEM	7440-50-8	EPA 6010C	µmol/g		0.81	J	0.079	0.029	0.4	J	0.098	0.036	8.7	J	0.039	0.014	0.85	J	0.096	0.035	1.2	J	0.034	0.012	1.4	J	0.035	0.013
Lead SEM	7439-92-1	EPA 6010C	µmol/g		0.49	J	0.0097	0.0028	0.23	J	0.012	0.0034	3.5	J	0.0048	0.0014	0.95	J	0.012	0.0034	0.53	J	0.0082	0.0024	0.64	J	0.0086	0.0024
Mercury SEM	7439-97-6	EPA 7470A	µmol/g		0.0001	R	0.0002	0.0001	0.00013	R	0.00025	0.00013	0.00034	R	0.000099	0.00005	0.00012	R	0.00024	0.00012	0.00051	J	0.000085	0.000043	0.00049	J	0.000089	0.000045
Nickel SEM	7440-02-0	EPA 6010C	µmol/g		0.28	J	0.14	0.0052	0.14	J	0.17	0.0064	1.2	J	0.068	0.0026	0.29	J	0.17	0.0063	0.33	J	0.058	0.0022	0.39	J	0.06	0.0023
Zinc SEM	7440-66-6	EPA 6010C	µmol/g		5.6	J	0.31	0.19	1.8	J	0.38	0.23	32.1	J	0.15	0.093	5.9	J	0.37	0.23	4.5	J	0.13	0.08	5.5	J	0.14	0.083
Acid Volatile Sulfides (AVS)	18496-25-8	EPA 9034	µmol/g		22.5	J	3.8	1.3	2	J	4.7	1.6	3.2	J	1.9	0.62	5.3	J	4.6	1.5	0.67	J	1.6	0.53	1.2	J	1.7	0.55
Cadmium SEM	7440-43-9	SEM	µmol/g		0.0302	J	0.00111	0.000062	0.00819	J	0.00111	0.000062	0.0895	J	0.00111	0.000062	0.0352	J	0.00111	0.000062	0.0607	J	0.00111	0.000062	0.0668	J	0.00111	0.000062
Copper SEM	7440-50-8	SEM	µmol/g		0.805	J	0.00984	0.00086	0.399	J	0.00984	0.00086	8.73	J	0.00984	0.00086	0.847	J	0.00984	0.00086	1.2	J	0.00984	0.00086	1.44	J	0.00984	0.00086
Lead SEM	7439-92-1	SEM	µmol/g		0.487	J	0.00121	0.000344	0.23	J	0.00121	0.000344	3.53	J	0.00121	0.000344	0.948	J	0.00121	0.000344	0.533	J	0.00121	0.000344	0.644	J	0.00121	0.000344
Mercury SEM	7439-97-6	SEM	µmol/g		0.00000649	R	0.0000249	6.49E-06	0.00000649	R	0.0000249	6.49E-06	0.000339	R	0.0000249	6.49E-06	0.00000649	R	0.0000249	6.49E-06	0.00051	J	0.0000249	6.49E-06	0.000486	J	0.0000249	6.49E-06
Nickel SEM	7440-02-0	SEM	µmol/g		0.277	J	0.017	0.00065	0.142	J	0.017	0.00065	1.22	J	0.017	0.00065	0.292	J	0.017	0.00065	0.327	J	0.017	0.00065	0.386	J	0.017	0.00065
Zinc SEM	7440-66-6	SEM	µmol/g		5.58	J	0.00765	0.00069	1.82	J	0.00765	0.00069	32.1	J	0.00765	0.00069	5.86	J	0.00765	0.00069	4.51	J	0.00765	0.00069	5.53	J	0.00765	0.00069
Acid Volatile Sulfides (AVS)	18496-25-8	SEM	µmol/g		22.5	J	0.499	0.155	1.96	J	0.499	0.155	3.19	J	0.499	0.155	5.28	J	0.499	0.155	0.672	J	0.499	0.155	1.22	J	0.499	0.155
SEM Summary		SEM	µmol/g		7.18		0.001	0.001	2.6		0.001	0.001	45.6		0.001	0.001	7.98		0.001	0.001	6.63		0.001	0.001	8.06		0.001	0.001
SEM/AVS Ratio		SEM	NONE		0.319		0.001	NaN	1.33		0.001	NaN	14.3		0.001	NaN	1.51		0.001	NaN	9.86		0.001	NaN	6.6		0.001	NaN
ΣSEM–AVS				1.00 (11)	-15.3				0.6				42.4				2.7				6.0				6.8			
(ΣSEM-AVS)/foc				130 (11)	-158.4				2.0				457.0				13.4				97.5				127.4			

Table 5.10 - Sediment: Metals, Cyanide and SEM/AVS Analytica (continued)

Rolling Knolls Landfill

Sample Name				ESC's	SD17				SD18				SD19				SD20				SD21			
Sample Date/Time					05/27/2021 14:18				05/28/2021 08:30				06/01/2021 09:20				06/02/2021 10:00				06/02/2021 12:28			
Latitude				Screening Criteria	40.72670262				40.73132938				40.72289188				40.73050362				40.73060101			
Longitude					-74.43975897				-74.44108766				-74.44904733				-74.44237712				-74.44084937			
Lab Sample Name					GS-N-SD17				GS-N-SD18				GS-N-SD19				GS-N-SD20				GS-N-SD21			
Lab Sample Number					460-235592-3 / 460-235592-8				460-235592-4 / 460-235592-9				460-235680-1 / 460-235680-4				460-235931-5 / 460-235931-7				460-235931-6 / 460-235931-8			
Lab Report Number(s)					460-235592-1 / 460-235592-3 / 460-235592-4				460-235592-1 / 460-235592-3 / 460-235592-4				460-235680-1 / 460-235680-3				460-235931-1 / 460-235931-3 / 460-235931-4 / 460-235931-2				460-235931-1 / 460-235931-3 / 460-235931-4			
Analyte	CAS	Method	Units		Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)
Metals and Cyanide																								
Aluminum	7429-90-5	6020B	mg/Kg	25500 (9)	5580		146	19	10900		36.9	4.8	15300		57.2	7.4	7010		77.5	10.1	2430		254	33.1
Antimony	7440-36-0	6020B	mg/Kg		1.4	J	7.3	1.1	0.38	J	1.8	0.27	1.5	J	2.9	0.42	27.1		3.9	0.57	2.2	J	12.7	1.9
Arsenic	7440-38-2	6020B	mg/Kg	6 (9)	6.3	J	7.3	0.73	3.4		1.8	0.18	4.2		2.9	0.29	15.2		3.9	0.39	10.3	J	12.7	1.3
Barium	7440-39-3	6020B	mg/Kg	150 (10)	283		14.6	1.1	89.3		3.7	0.27	135		5.7	0.41	492		7.8	0.56	336		25.4	1.8
Beryllium	7440-41-7	6020B	mg/Kg		1	J	2.9	0.42	0.56	J	0.74	0.11	0.68	J	1.1	0.16	0.22	U	1.6	0.22	0.72	U	5.1	0.72
Cadmium	7440-43-9	6020B	mg/Kg	0.6 (9)	1.5	J	7.3	0.83	0.68	J	1.8	0.21	2.5	J	2.9	0.32	19.4		3.9	0.44	8.6	J	12.7	1.4
Calcium	7440-70-2	6020B	mg/Kg		17600		731	124	2720		184	31.4	1660		286	48.6	13900		388	65.9	26700		1270	216
Chromium	7440-47-3	6020B	mg/Kg	26 (9)	26.2		14.6	1.3	12.6		3.7	0.32	213		5.7	0.5	58.1		7.8	0.67	16.3	J	25.4	2.2
Cobalt	7440-48-4	6020B	mg/Kg	50 (9)	4.5	J	14.6	1.1	2.6	J	3.7	0.27	3.6	J	5.7	0.42	7.8		7.8	0.57	6.6	J	25.4	1.9
Copper	7440-50-8	6020B	mg/Kg	16 (9)	52.2		14.6	1.6	17.9		3.7	0.41	140		5.7	0.63	444		7.8	0.85	84.7		25.4	2.8
Iron	7439-89-6	6020B	mg/Kg		19700		438	148	18300		111	37.3	8510		172	57.8	86800		233	78.3	513000		763	257
Lead	7439-92-1	6020B	mg/Kg	31 (9)	63		4.4	1.5	43.7		1.1	0.37	208		1.7	0.57	2000		2.3	0.78	109		7.6	2.5
Magnesium	7439-95-4	6020B	mg/Kg		1070		731	74.5	917		184	18.8	820		286	29.2	938		388	39.5	457	J	1270	130
Manganese	7439-96-5	6020B	mg/Kg	630 (9)	217		29.2	2.9	128		7.4	0.74	41		11.4	1.2	785		15.5	1.6	2440		50.8	5.1
Nickel	7440-02-0	6020B	mg/Kg	16 (9)	21.3		14.6	1.4	8.3		3.7	0.36	14.8		5.7	0.55	69.6		7.8	0.75	17	J	25.4	2.5
Potassium	7440-09-7	6020B	mg/Kg		214	J	731	81.8	265		184	20.7	475		286	32	250	J	388	43.4	142	U	1270	142
Selenium	7782-49-2	6020B	mg/Kg	0.72 (10)	2.9	J	9.1	0.86	0.75	J	2.3	0.22	1.6	J	3.6	0.34	1.2	J	4.8	0.46	1.5	U	15.9	1.5
Silver	7440-22-4	6020B	mg/Kg	0.5 (9)	0.65	U	7.3	0.65	0.18	J	1.8	0.16	2	J	2.9	0.25	4.4		3.9	0.34	1.1	U	12.7	1.1
Sodium	7440-23-5	6020B	mg/Kg		193	J	731	114	85.1	J	184	28.8	135	J	286	44.6	653		388	60.5	864	U	1270	198
Thallium	7440-28-0	6020B	mg/Kg		0.3	U	2.9	0.3	0.18	J	0.74	0.076	0.15	J	1.1	0.12	0.16	U	1.6	0.16	0.52	U	5.1	0.52
Vanadium	7440-62-2	6020B	mg/Kg		26.6		14.6	1.5	20		3.7	0.38	42		5.7	0.59	19.8		7.8	0.8	15	J	25.4	2.6
Zinc	7440-66-6	6020B	mg/Kg	120 (9)	168		58.5	16.7	76.8		14.8	4.2	414		22.9	6.5	3890		31	8.9	676		102	29.1
Mercury	7439-97-6	7471B	mg/Kg	0.174 (9)	0.45		0.12	0.028	0.17		0.033	0.0077	0.34		0.066	0.015	7.3		0.63	0.15	0.68		0.074	0.017
Cyanide, Total	57-12-5	9012B	mg/Kg	0.0001 (9)	0.95	U	1.7	0.95	0.9		0.42	0.23	0.51	U	0.94	0.51	1.6	J	2.2	0.8	7.1		2.3	0.82
AVS/SEM																								
Cadmium SEM	7440-43-9	EPA 6010C	µmol/g		0.017	J	0.011	0.00063	0.0049	J	0.0021	0.00012	0.016	J	0.0044	0.00024	0.21	J	0.0082	0.00046	0.068	J	0.027	0.0015
Copper SEM	7440-50-8	EPA 6010C	µmol/g		0.53	J	0.1	0.036	0.24	J	0.019	0.0068	1.5	J	0.039	0.014	9.1	J	0.073	0.026	1.6	J	0.048	0.018
Lead SEM	7439-92-1	EPA 6010C	µmol/g		0.39	J	0.012	0.0035	0.22	J	0.0023	0.00065	0.97	J	0.0047	0.0013	15.8	J	0.0089	0.0025	0.46	J	0.03	0.0084
Mercury SEM	7439-97-6	EPA 7470A	µmol/g		0.00013	R	0.00025	0.00013	0.000024	R	0.000047	0.000024	0.000049	R	0.000098	0.000049	0.0014	R	0.00018	0.000093	0.00019	R	0.00012	0.000062
Nickel SEM	7440-02-0	EPA 6010C	µmol/g		0.27	J	0.17	0.0066	0.078	J	0.032	0.0012	0.15	J	0.067	0.0025	1.2	J	0.13	0.0048	0.24	J	0.083	0.0032
Zinc SEM	7440-66-6	EPA 6010C	µmol/g		2.6	J	0.39	0.24	0.89	J	0.072	0.044	5.3	J	0.15	0.091	64.6	J	0.28	0.17	4.4	J	0.19	0.11
Acid Volatile Sulfides (AVS)	18496-25-8	EPA 9034	µmol/g		2.7	J	4.7	1.6	1.8	J	0.89	0.3	0.61	R	1.8	0.61	1.2	R	3.5	1.2	2.2	J	2.3	0.76
Cadmium SEM	7440-43-9	SEM	µmol/g		0.0174	J	0.00111	0.000062	0.00487	J	0.00111	0.000062	0.016	J	0.00111	0.000062	0.211	J	0.00111	0.000062	0.0684	J	0.00111	0.000062
Copper SEM	7440-50-8	SEM	µmol/g		0.532	J	0.00984	0.00086	0.241	J	0.00984	0.00086	1.54	J	0.00984	0.00086	9.14	J	0.00984	0.00086	1.62	J	0.00984	0.00086
Lead SEM	7439-92-1	SEM	µmol/g		0.387	J	0.00121	0.000344	0.222	J	0.00121	0.000344	0.972	J	0.00121	0.000344	15.8	J	0.00121	0.000344	0.459	J	0.00121	0.000344
Mercury SEM	7439-97-6	SEM	µmol/g		0.00000649	R	0.0000249	6.49E-06	0.00000649	R	0.0000249	6.49E-06	0.00000649	R	0.0000249	6.49E-06	0.00137	R	0.0000249	6.49E-06	0.000193	R	0.0000249	6.49E-06
Nickel SEM	7440-02-0	SEM	µmol/g		0.27	J	0.017	0.00065	0.0782	J	0.017	0.00065	0.154	J	0.017	0.00065	1.23	J	0.017	0.00065	0.243	J	0.017	0.00065
Zinc SEM	7440-66-6	SEM	µmol/g		2.59	J	0.00765	0.00069	0.887	J	0.00765	0.00069	5.34	J	0.00765	0.00069	64.6	J	0.00765	0.00069	4.45	J	0.00765	0.00069
Acid Volatile Sulfides (AVS)	18496-25-8	SEM	µmol/g		2.74	J	0.499	0.155	1.79	J	0.499	0.155	0.155	R	0.499	0.155	0.155	R	0.499	0.155	2.22	J	0.499	0.155
SEM Summary		SEM	µmol/g		3.8		0.001	0.001	1.43		0.001	0.001	8.02		0.001	0.001	90.9		0.001	0.001	6.83		0.001	0.001
SEM/AVS Ratio		SEM	NONE		1.39		0.001	NaN	0.8		0.001	NaN	NC		0.001	NaN	NC		0.001	NaN	3.07		0.001	NaN
ΣSEM–AVS				1.00 (11)	1.1				-0.4				7.9				90.7				4.6			
(ΣSEM-AVS)/foc				130 (11)	4.9				-10.7				63.9				652.8				65.1			

Table 5.11 - Sediment: Volatile Organic Compounds (VOCs) Analytical Results

Rolling Knolls Landfill

Sample Name				ESC's	SD01				SD100 (SD01 duplicate)				SD02				SD03				SD04				SD05				SD06			
Sample Date/Time					05/13/2021 15:30				05/13/2021 15:30				05/14/2021 09:15				05/14/2021 10:45				05/15/2021 14:05				05/16/2021 15:00				05/17/2021 11:45			
Latitude					40.72679082				40.72679082				40.72715605				40.72638198				40.72348024				40.72279293				40.72236209			
Longitude					-74.44034521				-74.44034521				-74.43993388				-74.44081345				-74.44733898				-74.44605058				-74.44587599			
Lab Sample Name				Screening Criteria	GS-S-SD01				GS-S-SD0100				GS-S-SD02				GS-S-SD03				GS-S-SD04				GS-S-SD05				GS-S-SD06			
Lab Sample Number					460-234557-3				460-234557-4				460-234557-1				460-234557-2				460-234545-1				460-234545-2				460-234971-3 / 460-234971-7			
Lab Report Number(s)					460-234557-1 / 460-234557-2 / 460-234557-3				460-234557-1 / 460-234557-3				460-234557-1 / 460-234557-2 / 460-234557-3				460-234557-1 / 460-234557-2 / 460-234557-3				460-234545-1				460-234545-1				460-234971-1 / 460-234971-4			
Analyte	CAS	Method	Units		Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)
1,1,1,2-Tetrachloroethane	630-20-6	8260D	µg/Kg		0.96	U	5.1	0.96	1	U	5.2	1	1.1	UJ	6	1.1	1.3	U	6.7	1.3	0.7	U	3.7	0.7	0.8	U	4.2	0.8	1.2	U	6.2	1.2
1,1,1-Trichloroethane	71-55-6	8260D	µg/Kg	213 (9)	1.2	U	5.1	1.2	1.2	U	5.2	1.2	1.4	U	6	1.4	1.6	U	6.7	1.6	0.86	U	3.7	0.86	0.98	U	4.2	0.98	1.4	U	6.2	1.4
1,1,2,2-Tetrachloroethane	79-34-5	8260D	µg/Kg	850 (9)	1.1	U	5.1	1.1	1.1	U	5.2	1.1	1.3	UJ	6	1.3	1.4	U	6.7	1.4	0.79	U	3.7	0.79	0.9	U	4.2	0.9	1.3	U	6.2	1.3
1,1,2-Trichloro-1,2,2-trifluoroethane	76-13-1	8260D	µg/Kg		1.5	U	5.1	1.5	1.6	U	5.2	1.6	1.8	U	6	1.8	2	U	6.7	2	1.1	U	3.7	1.1	1.3	U	4.2	1.3	1.9	UJ	6.2	1.9
1,1,2-Trichloroethane	79-00-5	8260D	µg/Kg	518 (9)	0.9	U	5.1	0.9	0.93	U	5.2	0.93	1.1	UJ	6	1.1	1.2	U	6.7	1.2	0.65	U	3.7	0.65	0.75	U	4.2	0.75	1.1	U	6.2	1.1
1,1-Dichloroethane	75-34-3	8260D	µg/Kg	8.2 (10)	1	U	5.1	1	1.1	U	5.2	1.1	1.2	U	6	1.2	1.4	U	6.7	1.4	0.76	U	3.7	0.76	0.86	U	4.2	0.86	1.3	U	6.2	1.3
1,1-Dichloroethene	75-35-4	8260D	µg/Kg	19.4 (9)	1.1	U	5.1	1.1	1.2	U	5.2	1.2	1.3	U	6	1.3	1.5	U	6.7	1.5	0.83	U	3.7	0.83	0.94	U	4.2	0.94	1.4	U	6.2	1.4
1,2,3-Trichlorobenzene	87-61-6	8260D	µg/Kg	140 (10)	0.91	U	5.1	0.91	0.95	U	5.2	0.95	1.1	UJ	6	1.1	1.2	U	6.7	1.2	0.66	U	3.7	0.66	0.76	U	4.2	0.76	1.1	U	6.2	1.1
1,2,4-Trichlorobenzene	120-82-1	8260D	µg/Kg	5062 (9)	1.8	U	5.1	1.8	1.9	U	5.2	1.9	2.1	UJ	6	2.1	2.4	U	6.7	2.4	1.3	U	3.7	1.3	1.5	U	4.2	1.5	2.2	U	6.2	2.2
1,2-Dibromo-3-Chloropropane	96-12-8	8260D	µg/Kg		2.3	U	5.1	2.3	2.4	U	5.2	2.4	2.7	U	6	2.7	3.1	U	6.7	3.1	1.7	U	3.7	1.7	1.9	U	4.2	1.9	2.8	UJ	6.2	2.8
1,2-Dichlorobenzene	95-50-1	8260D	µg/Kg	294 (9)	4.5	J	5.1	1.8	10		5.2	1.9	2.5	J	6	2.2	2.4	U	6.7	2.4	1.3	U	3.7	1.3	1.5	U	4.2	1.5	2.2	U	6.2	2.2
1,2-Dichloroethane	107-06-2	8260D	µg/Kg	260 (9)	1.5	U	5.1	1.5	1.6	U	5.2	1.6	1.8	UJ	6	1.8	2	U	6.7	2	1.1	U	3.7	1.1	1.2	U	4.2	1.2	1.8	UJ	6.2	1.8
1,2-Dichloropropane	78-87-5	8260D	µg/Kg	333 (9)	2.1	U	5.1	2.1	2.2	U	5.2	2.2	2.5	UJ	6	2.5	2.8	U	6.7	2.8	1.6	U	3.7	1.6	1.8	U	4.2	1.8	2.6	U	6.2	2.6
1,3-Dichlorobenzene	541-73-1	8260D	µg/Kg	1315 (9)	1.8	U	5.1	1.8	1.9	U	5.2	1.9	2.2	UJ	6	2.2	2.4	U	6.7	2.4	1.3	U	3.7	1.3	1.5	U	4.2	1.5	2.3	U	6.2	2.3
1,4-Dichlorobenzene	106-46-7	8260D	µg/Kg	318 (9)	17		5.1	1.1	34		5.2	1.2	22	J	6	1.3	5.3	J	6.7	1.5	0.83	U	3.7	0.83	2.1	J	4.2	0.94	1.4	U	6.2	1.4
2-Butanone (MEK)	78-93-3	8260D	µg/Kg	920 (10)	49	J	25	1.9	130	J	26	1.9	99	J	30	2.2	60	J	33	2.5	24		18	1.4	36		21	1.5	84		31	2.3
2-Hexanone	591-78-6	8260D	µg/Kg	58.2 (6)	8.6	U	25	8.6	9	U	26	9	10	U	30	10	11	U	33	11	6.3	U	18	6.3	7.2	U	21	7.2	11	UJ	31	11
2-Methyl-2-propanol	75-65-0	8260D	µg/Kg		40	U	51	40	41	U	52	41	47	UJ	60	47	52	UJ	67	52	29	UJ	37	29	33	U	42	33	49	U	62	49
4-Methyl-2-pentanone (MIBK)	108-10-1	8260D	µg/Kg	25.1 (6)	7.9	U	25	7.9	8.2	U	26	8.2	9.3	U	30	9.3	10	U	33	10	5.7	U	18	5.7	6.5	U	21	6.5	9.6	U	31	9.6
Acetone	67-64-1	8260D	µg/Kg	65 (10)	210		30	29	590		31	30	500		36	34	300		40	38	110		22	21	110		25	24	560		37	35
Benzene	71-43-2	8260D	µg/Kg	142 (9)	1.3	U	5.1	1.3	2.5	J	5.2	1.4	1.5	U	6	1.5	1.7	U	6.7	1.7	0.95	U	3.7	0.95	1.1	U	4.2	1.1	1.6	U	6.2	1.6
Bromoform	75-25-2	8260D	µg/Kg	492 (9)	2.1	U	5.1	2.1	2.2	U	5.2	2.2	2.5	U	6	2.5	2.8	U	6.7	2.8	1.6	U	3.7	1.6	1.8	U	4.2	1.8	2.6	U	6.2	2.6
Bromomethane	74-83-9	8260D	µg/Kg	1.37 (9)	5.1	UJ	10	5.1	5.2	UJ	10	5.2	6	UJ	12	6	6.7	UJ	13	6.7	3.7	UJ	7.3	3.7	4.2	UJ	8.4	4.2	6.2	U	12	6.2
Carbon disulfide	75-15-0	8260D	µg/Kg	0.42 (10)	3	J	5.1	1.3	8.3		5.2	1.4	8.1		6	1.6	3.7	J	6.7	1.8	0.98	U	3.7	0.98	1.1	U	4.2	1.1	1.6	U	6.2	1.6
Carbon tetrachloride	56-23-5	8260D	µg/Kg	1450 (9)	2	U	5.1	2	2	U	5.2	2	2.3	U	6	2.3	2.6	U	6.7	2.6	1.4	U	3.7	1.4	1.6	U	4.2	1.6	2.4	U	6.2	2.4
Chlorobenzene	108-90-7	8260D	µg/Kg	291 (9)	41		5.1	0.89	110		5.2	0.93	27	J	6	1.1	1.2	U	6.7	1.2	0.65	U	3.7	0.65	0.74	U	4.2	0.74	1.1	U	6.2	1.1
Chlorobromomethane	74-97-5	8260D	µg/Kg		1.4	U	5.1	1.4	1.5	U	5.2	1.5	1.7	UJ	6	1.7	1.9	U	6.7	1.9	1	U	3.7	1	1.2	U	4.2	1.2	1.7	U	6.2	1.7
Chlorodibromomethane	124-48-1	8260D	µg/Kg		0.98	U	5.1	0.98	1	U	5.2	1	1.2	U	6	1.2	1.3	U	6.7	1.3	0.71	U	3.7	0.71	0.81	U	4.2	0.81	1.2	U	6.2	1.2
Chloroethane	75-00-3	8260D	µg/Kg		2.6	U	5.1	2.6	2.7	U	5.2	2.7	3.1	U	6	3.1	3.5	U	6.7	3.5	1.9	U	3.7	1.9	2.2	U	4.2	2.2	3.2	U	6.2	3.2
Chloroform	67-66-3	8260D	µg/Kg	121 (9)	4.9	U	5.1	4.9	5.1	U	5.2	5.1	5.8	UJ	6	5.8	6.5	U	6.7	6.5	3.6	U	3.7	3.6	4.1	U	4.2	4.1	6	U	6.2	6
Chloromethane	74-87-3	8260D	µg/Kg		2.2	U	5.1	2.2	2.3	U	5.2	2.3	2.6	U	6	2.6	2.9	U	6.7	2.9	1.6	U	3.7	1.6	1.8	U	4.2	1.8	2.7	U	6.2	2.7
cis-1,2-Dichloroethene	156-59-2	8260D	µg/Kg		1.8	U	5.1	1.8	1.9	U	5.2	1.9	2.1	UJ	6	2.1	2.4	U	6.7	2.4	1.3	U	3.7	1.3	1.5	U	4.2	1.5	2.2	U	6.2	2.2
cis-1,3-Dichloropropene	10061-01-5	8260D	µg/Kg	0.03 (10)	1.4	U	5.1	1.4	1.4	U	5.2	1.4	1.6	U	6	1.6	1.8	U	6.7	1.8	1	U	3.7	1	1.1	U	4.2	1.1	1.7	UJ	6.2	1.7
Cyclohexane	110-82-7	8260D	µg/Kg		1.1	UJ	5.1	1.1	1.3	J	5.2	1.2	1.3	UJ	6	1.3	1.5	U	6.7	1.5	0.81	U	3.7	0.81	0.93	U	4.2	0.93	1.4	U	6.2	1.4
Dichlorobromomethane	75-27-4	8260D	µg/Kg		1.3	U	5.1	1.3	1.3	U	5.2	1.3	1.5	UJ	6	1.5	1.7	U	6.7	1.7	0.94	U	3.7	0.94	1.1	U	4.2	1.1	1.6	UJ	6.2	1.6
Dichlorodifluoromethane	75-71-8	8260D	µg/Kg		1.7	U	5.1	1.7	1.8	U	5.2	1.8	2	U	6	2	2.3	U	6.7	2.3	1.2	U	3.7	1.2	1.4	U	4.2	1.4	2.1	U	6.2	2.1
Ethylbenzene	100-41-4	8260D	µg/Kg	175 (9)	1	U	5.1	1	1	U	5.2	1	1.2	UJ	6	1.2	1.3	U	6.7	1.3	0.73	U	3.7	0.73	0.83	U	4.2	0.83	1.2	U	6.2	1.2
Ethylene Dibromide	106-93-4	8260D	µg/Kg		0.91	U	5.1	0.91	0.94	U	5.2	0.94	1.1	UJ	6	1.1	1.2	U	6.7	1.2	0.66	U	3.7	0.66	0.75	U	4.2	0.75	1.1	U	6.2	1.1
Isopropylbenzene	98-82-8	8260D	µg/Kg		1.4	U	5.1	1.4	1.5	U	5.2	1.5	1.7	UJ	6	1.7	1.9	U	6.7	1.9	1	U	3.7	1	1.2	U	4.2	1.2	1.8	U	6.2	1.8
Methyl acetate	79-20-9	8260D	µg/Kg		22	U	25	22	23	U	26	23	26	U	30	26	29	U	33	29	16	U	18	16	18	U	21	18	27	U	31	27
Methyl tert-butyl ether	1634-04-4	8260D	µg/Kg		2.6	U	5.1	2.6	2.7	U	5.2	2.7	3.1	UJ	6	3.1	3.4	U	6.7	3.4	1.9	U	3.7	1.9	2.1	U	4.2	2.1	3.2	U	6.2	3.2
Methylcyclohexane	108-87-2	8260D	µg/Kg		2.5	UJ	5.1	2.5	4.8	J	5.2	2.6	12	UJ	6	3	3.3	U	6.7	3.3	1.8	U	3.7	1.8	2.1	U	4.2	2.1	3.1	U	6.2	3.1
Methylene Chloride	75-09-2	8260D	µg/Kg	159 (9)	5.8	U	10	5.8	6	U	10	6	6.8	UJ	12	6.8	7.6	U	13	7.6	4.2	U	7.3	4.2	4.8	U	8.4	4.8	17		12	7.1
m-Xylene & p-Xylene	179601-23-1	8260D	µg/Kg	7.002 (10)	0.93	J	5.1	0.88	3.3	J	5.2	0.91	5	J	6	1	1.2	U	6.7	1.2	0.64	U	3.7	0.64	0.73	U	4.2	0.73	1.1	U	6.2	1.1
o-Xylene	95-47-6	8260D	µg/Kg	47.19 (10)	1.2	J	5.1	0.98	3.8	J	5.2	1	1.2	UJ	6	1.2	1.3	U	6.7	1.3	0.71	U	3.7	0.71	0.81	U	4.2	0.81	1.2	U	6.2	1.2
Styrene	100-42-5	8260D	µg/Kg	254 (9)	1.4	U	5.1	1.4	1.5	U	5.2	1.5	1.7	UJ	6	1.7	1.9	U	6.7	1.9	1	U	3.7	1	1.2	U	4.2	1.2	1.7	U	6.2	1.7
Tetrachloroethene	127-18-4	8260D	µg/Kg	990 (9)	1.5	U	5.1	1.5	1.6	U	5.2	1.6	1.8	UJ	6	1.8	2	U	6.7	2	1.1	U	3.7	1.1	1.3	U	4.2	1.3	1.9	U	6.2	1.9
Toluene	108-88-3	8260D	µg/Kg	1220 (9)	1.2	J	5.1	1.2	1.8	J	5.2	1.2	1.4	UJ	6	1.4	1.6	U	6.7	1.6	0.86	U	3.7	0.86	0.98	U	4.2	0.98	1.4	U	6.2	1.4
trans-1,2-Dichloroethene	156-60-5	8260D	µg/Kg	654 (9)	1.2	U	5.1	1.2	1.3	U	5.2	1.3	1.5	UJ	6	1.5	1.6	U	6.7	1.6	0.9	U	3.7	0.9	1	U	4.2	1	1.5	U	6.2	1.5
trans-1,3-Dichloropropene	10061-02-6	8260D	µg/Kg	0.03 (10)	1.3	U	5.1	1.3	1.4	U	5.2	1.4	1.6	U	6	1.6	1.8	U	6.7	1.8	0.98	U	3.7	0.98	1.1	U	4.2	1.1	1.6	UJ	6.2	1.6
Trichloroethene	79-01-6	8260D	µg/Kg	112 (9)	1.6	U	5.1	1.6	1.7	U	5.2	1.7	1.9	UJ	6	1.9	2.1	U	6.7	2.1	1.2	U	3.7	1.2	1.3	U	4.2	1.3	2	U	6.2	2
Trichlorofluoromethane	75-69-4	8260D	µg/Kg		2.1	U	5.1	2.1	2.1	U	5.2	2.1	2.4	U	6	2.4	2.7	U	6.7	2.7	1.5	U	3.7	1.5	1.7	U	4.2	1.7	2.5	U	6.2	2.5
Vinyl chloride	75-01-4	8260D	µg/Kg	202 (9)	2.8	U	5.1	2.8	2.9	U	5.2	2.9	3.3	U	6	3.3	3.6	U	6.7	3.6	2	U	3.7	2	2.3	U	4.2	2.3	3.4	U	6.2	3.4

Table 5.11 - Sediment: Volatile Organic Compounds (VOCs) Analyt (continued)

Rolling Knolls Landfill

Sample Name				ESC's	SD07				SD11				SD12				SD13				SD14				SD15				SD16			
Sample Date/Time					05/17/2021 13:50				05/17/2021 11:45				05/24/2021 09:14				05/24/2021 13:55				05/25/2021 09:00				05/25/2021 13:30				05/26/2021 15:06			
Latitude					40.72143376				40.72489948				40.73119281				40.72747591				40.72740332				40.72937246				40.73124954			
Longitude					-74.44468585				-74.44253502				-74.43998828				-74.43941053				-74.43971312				-74.440396				-74.44141084			
Lab Sample Name				Screening Criteria	GS-S-SD07				GS-S-SD11				GS-N-SD12				GS-N-SD13				GS-N-SD14				GS-N-SD15				GS-N-SD16			
Lab Sample Number					460-234971-4 / 460-234971-8				460-235400-2				460-235444-1 / 460-235444-6				460-235444-2 / 460-235444-7				460-235492-2 / 460-235492-6				460-235492-3 / 460-235492-7				460-235592-1 / 460-235592-6			
Lab Report Number(s)					460-234971-1 / 460-234971-4				460-235400-1 / 460-235400-3				460-235444-1 / 460-235444-3 / 460-235444-4				460-235444-1 / 460-235444-3 / 460-235444-4				460-235492-1 / 460-235492-3 / 460-235492-4				460-235492-1 / 460-235492-3 / 460-235492-4				460-235592-1 / 460-235592-3 / 460-235592-4			
Analyte	CAS	Method	Units		Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)
1,1,1,2-Tetrachloroethane	630-20-6	8260D	µg/Kg		0.78	U	4.1	0.78	1.6	U	8.7	1.6	1.4	U	7.1	1.4	1.7	U	8.9	1.7	0.66	U	3.5	0.66	2	U	10	2	0.56	U	3	0.56
1,1,1-Trichloroethane	71-55-6	8260D	µg/Kg	213 (9)	0.96	U	4.1	0.96	2	U	8.7	2	1.7	U	7.1	1.7	2.1	U	8.9	2.1	0.8	U	3.5	0.8	2.4	U	10	2.4	0.69	U	3	0.69
1,1,2,2-Tetrachloroethane	79-34-5	8260D	µg/Kg	850 (9)	0.88	U	4.1	0.88	1.9	U	8.7	1.9	1.5	U	7.1	1.5	1.9	U	8.9	1.9	0.74	U	3.5	0.74	2.2	U	10	2.2	0.64	U	3	0.64
1,1,2-Trichloro-1,2,2-trifluoroethane	76-13-1	8260D	µg/Kg		1.2	UJ	4.1	1.2	2.6	U	8.7	2.6	2.1	U	7.1	2.1	2.7	U	8.9	2.7	1	U	3.5	1	3.1	U	10	3.1	0.89	U	3	0.89
1,1,2-Trichloroethane	79-00-5	8260D	µg/Kg	518 (9)	0.73	U	4.1	0.73	1.5	U	8.7	1.5	1.3	U	7.1	1.3	1.6	U	8.9	1.6	0.61	U	3.5	0.61	1.9	U	10	1.9	0.53	U	3	0.53
1,1-Dichloroethane	75-34-3	8260D	µg/Kg	8.2 (10)	0.85	U	4.1	0.85	1.8	U	8.7	1.8	1.5	U	7.1	1.5	1.8	U	8.9	1.8	0.71	U	3.5	0.71	2.1	U	10	2.1	0.61	U	3	0.61
1,1-Dichloroethene	75-35-4	8260D	µg/Kg	19.4 (9)	0.92	U	4.1	0.92	2	U	8.7	2	1.6	U	7.1	1.6	2	U	8.9	2	0.78	U	3.5	0.78	2.3	U	10	2.3	0.67	U	3	0.67
1,2,3-Trichlorobenzene	87-61-6	8260D	µg/Kg	140 (10)	0.74	U	4.1	0.74	1.6	U	8.7	1.6	1.3	U	7.1	1.3	1.6	U	8.9	1.6	0.63	U	3.5	0.63	1.9	U	10	1.9	0.54	U	3	0.54
1,2,4-Trichlorobenzene	120-82-1	8260D	µg/Kg	5062 (9)	1.5	U	4.1	1.5	3.1	U	8.7	3.1	2.5	U	7.1	2.5	3.2	U	8.9	3.2	1.2	U	3.5	1.2	3.7	U	10	3.7	1.1	U	3	1.1
1,2-Dibromo-3-Chloropropane	96-12-8	8260D	µg/Kg		1.9	UJ	4.1	1.9	4	U	8.7	4	3.3	U	7.1	3.3	4.1	U	8.9	4.1	1.6	U	3.5	1.6	4.8	U	10	4.8	1.4	U	3	1.4
1,2-Dichlorobenzene	95-50-1	8260D	µg/Kg	294 (9)	1.5	U	4.1	1.5	3.1	U	8.7	3.1	2.6	U	7.1	2.6	3.2	U	8.9	3.2	1.2	U	3.5	1.2	3.8	U	10	3.8	1.1	U	3	1.1
1,2-Dichloroethane	107-06-2	8260D	µg/Kg	260 (9)	1.2	UJ	4.1	1.2	2.6	U	8.7	2.6	2.1	U	7.1	2.1	2.6	U	8.9	2.6	1	U	3.5	1	3.1	U	10	3.1	0.88	U	3	0.88
1,2-Dichloropropane	78-87-5	8260D	µg/Kg	333 (9)	1.7	U	4.1	1.7	3.7	U	8.7	3.7	3	U	7.1	3	3.8	U	8.9	3.8	1.5	U	3.5	1.5	4.4	U	10	4.4	1.3	U	3	1.3
1,3-Dichlorobenzene	541-73-1	8260D	µg/Kg	1315 (9)	1.5	U	4.1	1.5	3.2	U	8.7	3.2	2.6	U	7.1	2.6	3.3	U	8.9	3.3	1.3	U	3.5	1.3	3.8	U	10	3.8	1.1	U	3	1.1
1,4-Dichlorobenzene	106-46-7	8260D	µg/Kg	318 (9)	0.92	U	4.1	0.92	2	U	8.7	2	1.6	U	7.1	1.6	2	U	8.9	2	3.7		3.5	0.78	2.3	U	10	2.3	2.8	J	3	0.67
2-Butanone (MEK)	78-93-3	8260D	µg/Kg	920 (10)	1.5	U	21	1.5	130		43	3.2	200		36	2.6	130		45	3.3	50		17	1.3	230		52	3.8	43		15	1.1
2-Hexanone	591-78-6	8260D	µg/Kg	58.2 (6)	7	UJ	21	7	15	U	43	15	12	U	36	12	15	U	45	15	5.9	U	17	5.9	18	U	52	18	5.1	U	15	5.1
2-Methyl-2-propanol	75-65-0	8260D	µg/Kg		32	U	41	32	68	U	87	68	56	U	71	56	70	U	89	70	27	U	35	27	82	U	100	82	23	U	30	23
4-Methyl-2-pentanone (MIBK)	108-10-1	8260D	µg/Kg	25.1 (6)	6.4	U	21	6.4	13	U	43	13	11	U	36	11	14	U	45	14	5.4	U	17	5.4	16	U	52	16	4.6	U	15	4.6
Acetone	67-64-1	8260D	µg/Kg	65 (10)	55		25	23	430		52	50	610		43	41	400		54	51	180		21	20	510		63	60	190		18	17
Benzene	71-43-2	8260D	µg/Kg	142 (9)	1.1	U	4.1	1.1	2.2	U	8.7	2.2	1.8	U	7.1	1.8	2.3	U	8.9	2.3	0.89	U	3.5	0.89	2.7	U	10	2.7	0.77	U	3	0.77
Bromoform	75-25-2	8260D	µg/Kg	492 (9)	1.7	U	4.1	1.7	3.7	U	8.7	3.7	3	U	7.1	3	3.8	U	8.9	3.8	1.5	U	3.5	1.5	4.4	U	10	4.4	1.3	U	3	1.3
Bromomethane	74-83-9	8260D	µg/Kg	1.37 (9)	4.1	U	8.2	4.1	8.7	UJ	17	8.7	7.1	UJ	14	7.1	8.9	UJ	18	8.9	3.5	U	6.9	3.5	10	U	21	10	3	U	5.9	3
Carbon disulfide	75-15-0	8260D	µg/Kg	0.42 (10)	1.1	U	4.1	1.1	2.3	U	8.7	2.3	6	J	7.1	1.9	2.4	U	8.9	2.4	1.4	J	3.5	0.92	2.8	U	10	2.8	0.79	U	3	0.79
Carbon tetrachloride	56-23-5	8260D	µg/Kg	1450 (9)	1.6	U	4.1	1.6	3.4	U	8.7	3.4	2.8	U	7.1	2.8	3.5	U	8.9	3.5	1.3	U	3.5	1.3	4	U	10	4	1.1	U	3	1.1
Chlorobenzene	108-90-7	8260D	µg/Kg	291 (9)	0.73	U	4.1	0.73	1.5	U	8.7	1.5	1.3	U	7.1	1.3	1.6	U	8.9	1.6	8.8		3.5	0.61	1.8	U	10	1.8	1.4	J	3	0.53
Chlorobromomethane	74-97-5	8260D	µg/Kg		1.2	U	4.1	1.2	2.4	U	8.7	2.4	2	U	7.1	2	2.5	U	8.9	2.5	0.97	U	3.5	0.97	2.9	U	10	2.9	0.83	U	3	0.83
Chlorodibromomethane	124-48-1	8260D	µg/Kg		0.8	U	4.1	0.8	1.7	U	8.7	1.7	1.4	U	7.1	1.4	1.7	U	8.9	1.7	0.67	U	3.5	0.67	2	U	10	2	0.58	U	3	0.58
Chloroethane	75-00-3	8260D	µg/Kg		2.1	U	4.1	2.1	4.5	U	8.7	4.5	3.7	U	7.1	3.7	4.7	U	8.9	4.7	1.8	U	3.5	1.8	5.4	U	10	5.4	1.6	U	3	1.6
Chloroform	67-66-3	8260D	µg/Kg	121 (9)	4	U	4.1	4	8.4	U	8.7	8.4	6.9	U	7.1	6.9	8.7	U	8.9	8.7	3.4	U	3.5	3.4	10	U	10	10	2.9	U	3	2.9
Chloromethane	74-87-3	8260D	µg/Kg		1.8	U	4.1	1.8	3.8	U	8.7	3.8	3.1	U	7.1	3.1	3.9	U	8.9	3.9	1.5	U	3.5	1.5	4.5	U	10	4.5	1.3	U	3	1.3
cis-1,2-Dichloroethene	156-59-2	8260D	µg/Kg		1.5	U	4.1	1.5	3.1	U	8.7	3.1	2.5	U	7.1	2.5	3.2	U	8.9	3.2	1.2	U	3.5	1.2	3.7	U	10	3.7	1.1	U	3	1.1
cis-1,3-Dichloropropene	10061-01-5	8260D	µg/Kg	0.03 (10)	1.1	UJ	4.1	1.1	2.4	U	8.7	2.4	1.9	U	7.1	1.9	2.4	U	8.9	2.4	0.94	U	3.5	0.94	2.8	U	10	2.8	0.81	U	3	0.81
Cyclohexane	110-82-7	8260D	µg/Kg		0.91	U	4.1	0.91	1.9	U	8.7	1.9	1.6	U	7.1	1.6	2	U	8.9	2	0.76	U	3.5	0.76	2.3	U	10	2.3	0.66	U	3	0.66
Dichlorobromomethane	75-27-4	8260D	µg/Kg		1.1	UJ	4.1	1.1	2.2	U	8.7	2.2	1.8	U	7.1	1.8	2.3	U	8.9	2.3	0.89	U	3.5	0.89	2.7	U	10	2.7	0.76	U	3	0.76
Dichlorodifluoromethane	75-71-8	8260D	µg/Kg		1.4	U	4.1	1.4	2.9	U	8.7	2.9	2.4	U	7.1	2.4	3	U	8.9	3	1.2	U	3.5	1.2	3.5	U	10	3.5	1	U	3	1
Ethylbenzene	100-41-4	8260D	µg/Kg	175 (9)	0.82	U	4.1	0.82	1.7	U	8.7	1.7	1.4	U	7.1	1.4	1.8	U	8.9	1.8	1.3	J	3.5	0.69	2.1	U	10	2.1	0.59	U	3	0.59
Ethylene Dibromide	106-93-4	8260D	µg/Kg		0.74	U	4.1	0.74	1.6	U	8.7	1.6	1.3	U	7.1	1.3	1.6	U	8.9	1.6	0.62	U	3.5	0.62	1.9	U	10	1.9	0.53	U	3	0.53
Isopropylbenzene	98-82-8	8260D	µg/Kg		1.2	U	4.1	1.2	2.5	U	8.7	2.5	2	U	7.1	2	2.5	U	8.9	2.5	3.6		3.5	0.98	3	U	10	3	0.85	U	3	0.85
Methyl acetate	79-20-9	8260D	µg/Kg		18	U	21	18	37	U	43	37	31	U	36	31	38	U	45	38	15	U	17	15	45	U	52	45	13	U	15	13
Methyl tert-butyl ether	1634-04-4	8260D	µg/Kg		2.1	U	4.1	2.1	4.4	U	8.7	4.4	3.6	U	7.1	3.6	4.6	U	8.9	4.6	1.8	U	3.5	1.8	5.3	U	10	5.3	1.5	U	3	1.5
Methylcyclohexane	108-87-2	8260D	µg/Kg		2	U	4.1	2	4.3	U	8.7	4.3	3.5	U	7.1	3.5	4.5	U	8.9	4.5	1.7	U	3.5	1.7	5.2	U	10	5.2	1.5	U	3	1.5
Methylene Chloride	75-09-2	8260D	µg/Kg	159 (9)	17		8.2	4.7	9.9	U	17	9.9	8.1	U	14	8.1	10	U	18	10	790		6.9	4	12	U	21	12	3.4	U	5.9	3.4
m-Xylene & p-Xylene	179601-23-1	8260D	µg/Kg	7.002 (10)	0.71	U	4.1	0.71	1.5	U	8.7	1.5	1.2	U	7.1	1.2	1.6	U	8.9	1.6	6.7		3.5	0.6	1.8	U	10	1.8	0.52	U	3	0.52
o-Xylene	95-47-6	8260D	µg/Kg	47.19 (10)	0.8	U	4.1	0.8	1.7	U	8.7	1.7	1.4	U	7.1	1.4	1.7	U	8.9	1.7	2.8	J	3.5	0.67	2	U	10	2	0.58	U	3	0.58
Styrene	100-42-5	8260D	µg/Kg	254 (9)	1.1	U	4.1	1.1	2.4	U	8.7	2.4	2	U	7.1	2	2.5	U	8.9	2.5	0.96	U	3.5	0.96	2.9	U	10	2.9	0.83	U	3	0.83
Tetrachloroethene	127-18-4	8260D	µg/Kg	990 (9)	1.3	U	4.1	1.3	2.6	U	8.7	2.6	2.2	U	7.1	2.2	2.7	U	8.9	2.7	1.1	U	3.5	1.1	3.2	U	10	3.2	0.91	U	3	0.91
Toluene	108-88-3	8260D	µg/Kg	1220 (9)	0.96	U	4.1	0.96	2	U	8.7	2	1.7	U	7.1	1.7	2.1	U	8.9	2.1	5.2		3.5	0.81	2.4	U	10	2.4	0.69	U	3	0.69
trans-1,2-Dichloroethene	156-60-5	8260D	µg/Kg	654 (9)	1	U	4.1	1	2.1	U	8.7	2.1	1.7	U	7.1	1.7	2.2	U	8.9	2.2	0.85	U	3.5	0.85	2.6	U	10	2.6	0.73	U	3	0.73
trans-1,3-Dichloropropene	10061-02-6	8260D	µg/Kg	0.03 (10)	1.1	UJ	4.1	1.1	2.3	U	8.7	2.3	1.9	U	7.1	1.9	2.4	U	8.9	2.4	0.92	U	3.5	0.92	2.8	U	10	2.8	0.79	U	3	0.79
Trichloroethene	79-01-6	8260D	µg/Kg	112 (9)	1.3	U	4.1	1.3	2.8	U	8.7	2.8	2.3	U	7.1	2.3	2.9	U	8.9	2.9	1.1	U	3.5	1.1	3.4	U	10	3.4	0.95	U	3	0.95
Trichlorofluoromethane	75-69-4	8260D	µg/Kg		1.7	U	4.1	1.7	3.5	U	8.7	3.5	2.9	U	7.1	2.9	3.6	U	8.9	3.6	1.4	U	3.5	1.4	4.2	U	10	4.2	1.2	U	3	1.2
Vinyl chloride	75-01-4	8260D	µg/Kg	202 (9)	2.2	U	4.1	2.2	4.7	U	8.7	4.7	3.9	U	7.1	3.9	4.9	U	8.9	4.9	1.9	U	3.5	1.9	5.7	U	10	5.7	1.6	U	3	1.6

Table 5.11 - Sediment: Volatile Organic Compounds (VOCs) Analyt (continued)

Rolling Knolls Landfill

Sample Name				ESC's	SD101 (SD16 Duplicate)				SD17				SD18				SD19				SD20				SD21			
Sample Date/Time					05/26/2021 15:06				05/27/2021 14:18				05/28/2021 08:30				06/01/2021 09:20				06/02/2021 10:00				06/02/2021 12:28			
Latitude					40.73124954				40.72670262				40.73132938				40.72289188				40.73050362				40.73060101			
Longitude					-74.44141084				-74.43975897				-74.44108766				-74.44904733				-74.44237712				-74.44084937			
Lab Sample Name				Screening Criteria	GS-N-SD11-1				GS-N-SD17				GS-N-SD18				GS-N-SD19				GS-N-SD20				GS-N-SD21			
Lab Sample Number					460-235592-2 / 460-235592-7				460-235592-3 / 460-235592-8				460-235592-4 / 460-235592-9				460-235680-1 / 460-235680-4				460-235931-5 / 460-235931-7				460-235931-6 / 460-235931-8			
Lab Report Number(s)					460-235592-1 / 460-235592-3 / 460-235592-4				460-235592-1 / 460-235592-3 / 460-235592-4				460-235592-1 / 460-235592-3 / 460-235592-4				460-235680-1 / 460-235680-3				460-235931-1 / 460-235931-3 / 460-235931-4 / 460-235931-2				460-235931-1 / 460-235931-3 / 460-235931-4			
Analyte	CAS	Method	Units		Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)
1,1,1,2-Tetrachloroethane	630-20-6	8260D	µg/Kg		0.6	U	3.2	0.6	1.3	U	7	1.3	0.32	U	1.7	0.32	0.72	U	3.8	0.72	0.97	U	5.1	0.97	0.82	U	4.3	0.82
1,1,1-Trichloroethane	71-55-6	8260D	µg/Kg	213 (9)	0.74	U	3.2	0.74	1.6	U	7	1.6	0.39	U	1.7	0.39	0.89	U	3.8	0.89	1.2	U	5.1	1.2	1	U	4.3	1
1,1,2,2-Tetrachloroethane	79-34-5	8260D	µg/Kg	850 (9)	0.68	U	3.2	0.68	1.5	U	7	1.5	0.36	U	1.7	0.36	0.82	U	3.8	0.82	1.1	U	5.1	1.1	0.92	U	4.3	0.92
1,1,2-Trichloro-1,2,2-trifluoroethane	76-13-1	8260D	µg/Kg		0.95	U	3.2	0.95	2.1	U	7	2.1	0.5	U	1.7	0.5	1.1	U	3.8	1.1	1.5	U	5.1	1.5	1.3	U	4.3	1.3
1,1,2-Trichloroethane	79-00-5	8260D	µg/Kg	518 (9)	0.56	U	3.2	0.56	1.2	U	7	1.2	0.3	U	1.7	0.3	0.68	U	3.8	0.68	0.91	U	5.1	0.91	0.76	U	4.3	0.76
1,1-Dichloroethane	75-34-3	8260D	µg/Kg	8.2 (10)	0.65	U	3.2	0.65	1.4	U	7	1.4	0.34	U	1.7	0.34	0.79	U	3.8	0.79	1.1	U	5.1	1.1	0.88	U	4.3	0.88
1,1-Dichloroethene	75-35-4	8260D	µg/Kg	19.4 (9)	0.71	U	3.2	0.71	1.6	U	7	1.6	0.37	U	1.7	0.37	0.86	U	3.8	0.86	1.2	U	5.1	1.2	0.97	U	4.3	0.97
1,2,3-Trichlorobenzene	87-61-6	8260D	µg/Kg	140 (10)	0.57	U	3.2	0.57	1.3	U	7	1.3	0.3	U	1.7	0.3	0.69	U	3.8	0.69	0.93	U	5.1	0.93	0.78	U	4.3	0.78
1,2,4-Trichlorobenzene	120-82-1	8260D	µg/Kg	5062 (9)	1.1	U	3.2	1.1	2.5	U	7	2.5	0.6	U	1.7	0.6	1.6	UJ	3.8	1.4	1.8	U	5.1	1.8	1.5	U	4.3	1.5
1,2-Dibromo-3-Chloropropane	96-12-8	8260D	µg/Kg		1.5	U	3.2	1.5	3.2	U	7	3.2	0.77	U	1.7	0.77	1.8	U	3.8	1.8	2.4	U	5.1	2.4	2	U	4.3	2
1,2-Dichlorobenzene	95-50-1	8260D	µg/Kg	294 (9)	1.1	U	3.2	1.1	2.5	U	7	2.5	0.6	U	1.7	0.6	1.4	U	3.8	1.4	1.8	U	5.1	1.8	1.6	U	4.3	1.6
1,2-Dichloroethane	107-06-2	8260D	µg/Kg	260 (9)	0.94	U	3.2	0.94	2.1	U	7	2.1	0.49	U	1.7	0.49	1.1	U	3.8	1.1	1.5	U	5.1	1.5	1.3	U	4.3	1.3
1,2-Dichloropropane	78-87-5	8260D	µg/Kg	333 (9)	1.3	U	3.2	1.3	3	U	7	3	0.7	U	1.7	0.7	1.6	U	3.8	1.6	2.2	U	5.1	2.2	1.8	U	4.3	1.8
1,3-Dichlorobenzene	541-73-1	8260D	µg/Kg	1315 (9)	1.2	U	3.2	1.2	2.5	U	7	2.5	0.61	U	1.7	0.61	1.4	U	3.8	1.4	1.9	U	5.1	1.9	1.6	U	4.3	1.6
1,4-Dichlorobenzene	106-46-7	8260D	µg/Kg	318 (9)	2.2	J	3.2	0.71	1.6	U	7	1.6	0.37	U	1.7	0.37	1.9	J	3.8	0.86	1.2	U	5.1	1.2	0.97	U	4.3	0.97
2-Butanone (MEK)	78-93-3	8260D	µg/Kg	920 (10)	23		16	1.2	110		35	2.6	16		8.3	0.61	79		19	1.4	120		26	1.9	56		21	1.6
2-Hexanone	591-78-6	8260D	µg/Kg	58.2 (6)	5.4	U	16	5.4	12	U	35	12	2.8	U	8.3	2.8	6.5	U	19	6.5	8.8	U	26	8.8	7.3	U	21	7.3
2-Methyl-2-propanol	75-65-0	8260D	µg/Kg		25	U	32	25	55	U	70	55	13	U	17	13	30	UJ	38	30	40	U	51	40	34	U	43	34
4-Methyl-2-pentanone (MIBK)	108-10-1	8260D	µg/Kg	25.1 (6)	4.9	U	16	4.9	11	U	35	11	2.6	U	8.3	2.6	5.9	U	19	5.9	8	U	26	8	6.7	U	21	6.7
Acetone	67-64-1	8260D	µg/Kg	65 (10)	94		19	18	360		42	40	69		10	9.5	350	J	23	22	540		31	29	240		26	25
Benzene	71-43-2	8260D	µg/Kg	142 (9)	0.82	U	3.2	0.82	1.8	U	7	1.8	0.43	U	1.7	0.43	0.98	U	3.8	0.98	1.3	U	5.1	1.3	1.1	U	4.3	1.1
Bromoform	75-25-2	8260D	µg/Kg	492 (9)	1.3	U	3.2	1.3	3	U	7	3	0.71	U	1.7	0.71	1.6	U	3.8	1.6	2.2	U	5.1	2.2	1.8	U	4.3	1.8
Bromomethane	74-83-9	8260D	µg/Kg	1.37 (9)	3.2	U	6.3	3.2	7	U	14	7	1.7	U	3.3	1.7	3.8	U	7.6	3.8	5.1	UJ	10	5.1	4.3	UJ	8.6	4.3
Carbon disulfide	75-15-0	8260D	µg/Kg	0.42 (10)	0.84	U	3.2	0.84	1.9	U	7	1.9	0.61	J	1.7	0.44	1	U	3.8	1	1.4	U	5.1	1.4	1.1	U	4.3	1.1
Carbon tetrachloride	56-23-5	8260D	µg/Kg	1450 (9)	1.2	U	3.2	1.2	2.7	U	7	2.7	0.64	U	1.7	0.64	1.5	U	3.8	1.5	2	U	5.1	2	1.7	U	4.3	1.7
Chlorobenzene	108-90-7	8260D	µg/Kg	291 (9)	1.3	J	3.2	0.56	1.2	U	7	1.2	0.29	U	1.7	0.29	1.3	J	3.8	0.67	0.91	U	5.1	0.91	0.76	U	4.3	0.76
Chlorobromomethane	74-97-5	8260D	µg/Kg		0.89	U	3.2	0.89	2	U	7	2	0.47	U	1.7	0.47	1.1	U	3.8	1.1	1.4	U	5.1	1.4	1.2	U	4.3	1.2
Chlorodibromomethane	124-48-1	8260D	µg/Kg		0.61	U	3.2	0.61	1.4	U	7	1.4	0.32	U	1.7	0.32	0.74	U	3.8	0.74	0.99	U	5.1	0.99	0.83	U	4.3	0.83
Chloroethane	75-00-3	8260D	µg/Kg		1.6	U	3.2	1.6	3.6	U	7	3.6	0.87	U	1.7	0.87	2	U	3.8	2	2.7	UJ	5.1	2.7	2.2	UJ	4.3	2.2
Chloroform	67-66-3	8260D	µg/Kg	121 (9)	3.1	U	3.2	3.1	6.8	U	7	6.8	1.6	U	1.7	1.6	3.7	U	3.8	3.7	5	U	5.1	5	4.2	U	4.3	4.2
Chloromethane	74-87-3	8260D	µg/Kg		1.4	U	3.2	1.4	3	U	7	3	0.72	U	1.7	0.72	1.7	U	3.8	1.7	2.2	U	5.1	2.2	1.9	U	4.3	1.9
cis-1,2-Dichloroethene	156-59-2	8260D	µg/Kg		1.1	U	3.2	1.1	2.5	U	7	2.5	0.6	U	1.7	0.6	1.4	U	3.8	1.4	1.8	U	5.1	1.8	1.5	U	4.3	1.5
cis-1,3-Dichloropropene	10061-01-5	8260D	µg/Kg	0.03 (10)	0.86	U	3.2	0.86	1.9	U	7	1.9	0.45	U	1.7	0.45	1	U	3.8	1	1.4	U	5.1	1.4	1.2	U	4.3	1.2
Cyclohexane	110-82-7	8260D	µg/Kg		0.7	U	3.2	0.7	1.5	U	7	1.5	0.37	U	1.7	0.37	0.84	U	3.8	0.84	1.1	U	5.1	1.1	0.95	U	4.3	0.95
Dichlorobromomethane	75-27-4	8260D	µg/Kg		0.81	U	3.2	0.81	1.8	U	7	1.8	0.43	U	1.7	0.43	0.98	U	3.8	0.98	1.3	U	5.1	1.3	1.1	U	4.3	1.1
Dichlorodifluoromethane	75-71-8	8260D	µg/Kg		1.1	U	3.2	1.1	2.4	U	7	2.4	0.56	U	1.7	0.56	1.3	U	3.8	1.3	1.7	U	5.1	1.7	1.5	U	4.3	1.5
Ethylbenzene	100-41-4	8260D	µg/Kg	175 (9)	0.63	U	3.2	0.63	1.4	U	7	1.4	0.33	U	1.7	0.33	0.76	U	3.8	0.76	1	U	5.1	1	0.85	U	4.3	0.85
Ethylene Dibromide	106-93-4	8260D	µg/Kg		0.57	U	3.2	0.57	1.3	U	7	1.3	0.3	U	1.7	0.3	0.69	U	3.8	0.69	0.92	U	5.1	0.92	0.77	U	4.3	0.77
Isopropylbenzene	98-82-8	8260D	µg/Kg		0.9	U	3.2	0.9	2	U	7	2	0.47	U	1.7	0.47	1.1	U	3.8	1.1	1.5	U	5.1	1.5	1.2	U	4.3	1.2
Methyl acetate	79-20-9	8260D	µg/Kg		14	U	16	14	30	U	35	30	7.2	U	8.3	7.2	16	U	19	16	22	U	26	22	18	U	21	18
Methyl tert-butyl ether	1634-04-4	8260D	µg/Kg		1.6	U	3.2	1.6	3.6	U	7	3.6	0.85	U	1.7	0.85	2	U	3.8	2	2.6	U	5.1	2.6	2.2	U	4.3	2.2
Methylcyclohexane	108-87-2	8260D	µg/Kg		1.6	U	3.2	1.6	3.5	U	7	3.5	0.83	U	1.7	0.83	1.9	U	3.8	1.9	2.6	U	5.1	2.6	2.1	U	4.3	2.1
Methylene Chloride	75-09-2	8260D	µg/Kg	159 (9)	3.6	U	6.3	3.6	8	U	14	8	1.9	U	3.3	1.9	4.4	U	7.6	4.4	5.9	U	10	5.9	4.9	U	8.6	4.9
m-Xylene & p-Xylene	179601-23-1	8260D	µg/Kg	7.002 (10)	0.55	U	3.2	0.55	1.2	U	7	1.2	0.29	U	1.7	0.29	0.66	U	3.8	0.66	0.89	U	5.1	0.89	0.75	U	4.3	0.75
o-Xylene	95-47-6	8260D	µg/Kg	47.19 (10)	0.61	U	3.2	0.61	1.4	U	7	1.4	0.32	U	1.7	0.32	0.74	U	3.8	0.74	0.99	U	5.1	0.99	0.83	U	4.3	0.83
Styrene	100-42-5	8260D	µg/Kg	254 (9)	0.88	U	3.2	0.88	1.9	U	7	1.9	0.46	U	1.7	0.46	1.1	U	3.8	1.1	1.4	U	5.1	1.4	1.2	U	4.3	1.2
Tetrachloroethene	127-18-4	8260D	µg/Kg	990 (9)	0.96	U	3.2	0.96	2.1	U	7	2.1	0.51	U	1.7	0.51	1.2	U	3.8	1.2	1.6	U	5.1	1.6	1.3	U	4.3	1.3
Toluene	108-88-3	8260D	µg/Kg	1220 (9)	0.74	U	3.2	0.74	1.6	U	7	1.6	0.39	U	1.7	0.39	2.9	J	3.8	0.89	2.1	J	5.1	1.2	2.5	J	4.3	1
trans-1,2-Dichloroethene	156-60-5	8260D	µg/Kg	654 (9)	0.78	U	3.2	0.78	1.7	U	7	1.7	0.41	U	1.7	0.41	0.94	U	3.8	0.94	1.3	U	5.1	1.3	1.1	U	4.3	1.1
trans-1,3-Dichloropropene	10061-02-6	8260D	µg/Kg	0.03 (10)	0.84	U	3.2	0.84	1.9	U	7	1.9	0.44	U	1.7	0.44	1	U	3.8	1	1.4	U	5.1	1.4	1.1	U	4.3	1.1
Trichloroethene	79-01-6	8260D	µg/Kg	112 (9)	1	U	3.2	1	2.2	U	7	2.2	0.53	U	1.7	0.53	1.2	U	3.8	1.2	1.6	U	5.1	1.6	1.4	U	4.3	1.4
Trichlorofluoromethane	75-69-4	8260D	µg/Kg		1.3	U	3.2	1.3	2.8	U	7	2.8	0.68	U	1.7	0.68	1.5	U	3.8	1.5	2.1	U	5.1	2.1	1.7	U	4.3	1.7
Vinyl chloride	75-01-4	8260D	µg/Kg	202 (9)	1.7	U	3.2	1.7	3.8	U	7	3.8	0.91	U	1.7	0.91	2.1	U	3.8	2.1	2.8	U	5.1	2.8	2.3	U	4.3	2.3

Table 5.12 - Sediment: Semi-Volatile Organic Compounds (SVOCs) Analytical Results

Rolling Knolls Landfill

Sample Name				ESC's	SD01				SD100 (SD01 duplicate)				SD02				SD03				SD04				SD05				SD06			
Sample Date/Time					05/13/2021 15:30				05/13/2021 15:30				05/14/2021 09:15				05/14/2021 10:45				05/15/2021 14:05				05/16/2021 15:00				05/17/2021 11:45			
Latitude					40.72679082				40.72679082				40.72715605				40.72638198				40.72348024				40.72279293				40.72236209			
Longitude					-74.44034521				-74.44034521				-74.43993388				-74.44081345				-74.44733898				-74.44605058				-74.44587599			
Lab Sample Name				Screening Criteria	GS-S-SD01				GS-S-SD0100				GS-S-SD02				GS-S-SD03				GS-S-SD04				GS-S-SD05				GS-S-SD06			
Lab Sample Number					460-234557-3				460-234557-4				460-234557-1				460-234557-2				460-234545-1				460-234545-2				460-234971-3 / 460-234971-7			
Lab Report Number(s)					460-234557-1 / 460-234557-2 / 460-234557-3				460-234557-1 / 460-234557-3				460-234557-1 / 460-234557-2 / 460-234557-3				460-234557-1 / 460-234557-2 / 460-234557-3				460-234545-1				460-234545-1				460-234971-1 / 460-234971-4			
Analyte	CAS	Method	Units		Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)
1,1'-Biphenyl	92-52-4	8270E	µg/Kg		20	U	1500	20	21	U	1600	21	25	U	1900	25	27	U	2000	27	16	U	1200	16	16	U	1200	16	26	U	2000	26
1,2,4,5-Tetrachlorobenzene	95-94-3	8270E	µg/Kg	1252 (9)	48	U	1500	48	49	U	1600	49	58	U	1900	58	64	U	2000	64	37	U	1200	37	37	U	1200	37	62	U	2000	62
1,4-Dioxane	123-91-1	8270E	µg/Kg	119 (6)	130	UJ	150	130	140	UJ	160	140	160	UJ	190	160	180	UJ	200	180	100	UJ	120	100	100	UJ	120	100	170	U	200	170
2,2'-oxybis[1-chloropropane]	108-60-1	8270E	µg/Kg		28	U	1500	28	28	U	1600	28	34	U	1900	34	37	U	2000	37	22	U	1200	22	21	U	1200	21	36	U	2000	36
2,3,4,6-Tetrachlorophenol	58-90-2	8270E	µg/Kg	129 (6)	100	U	1500	100	110	U	1600	110	130	U	1900	130	140	U	2000	140	81	U	1200	81	80	U	1200	80	140	U	2000	140
2,4,5-Trichlorophenol	95-95-4	8270E	µg/Kg		160	U	1500	160	160	U	1600	160	190	U	1900	190	210	U	2000	210	120	U	1200	120	120	U	1200	120	200	U	2000	200
2,4,6-Trichlorophenol	88-06-2	8270E	µg/Kg	208 (9)	200	U	610	200	200	U	630	200	240	U	750	240	260	U	820	260	150	U	480	150	150	U	470	150	260	U	800	260
2,4-Dichlorophenol	120-83-2	8270E	µg/Kg	81.7 (9)	98	U	610	98	100	U	630	100	120	U	750	120	130	U	820	130	77	U	480	77	75	U	470	75	130	U	800	130
2,4-Dimethylphenol	105-67-9	8270E	µg/Kg	304 (9)	67	U	1500	67	68	U	1600	68	82	U	1900	82	90	U	2000	90	53	U	1200	53	52	U	1200	52	88	U	2000	88
2,4-Dinitrophenol	51-28-5	8270E	µg/Kg	6.21 (9)	750	UJ	1200	750	760	UJ	1300	760	910	UJ	1500	910	1000	UJ	1600	1000	590	UJ	960	590	580	UJ	950	580	980	U	1600	980
2,4-Dinitrotoluene	121-14-2	8270E	µg/Kg	14.4 (9)	160	U	310	160	170	U	320	170	200	U	380	200	220	U	420	220	130	U	240	130	130	U	240	130	210	U	400	210
2,6-Dinitrotoluene	606-20-2	8270E	µg/Kg	39.8 (6)	110	UJ	310	110	110	UJ	320	110	130	UJ	380	130	150	UJ	420	150	86	UJ	240	86	85	UJ	240	85	140	U	400	140
2-Chloronaphthalene	91-58-7	8270E	µg/Kg	417 (9)	71	U	1500	71	72	U	1600	72	86	U	1900	86	95	U	2000	95	55	U	1200	55	54	U	1200	54	92	U	2000	92
2-Chlorophenol	95-57-8	8270E	µg/Kg	31.9 (9)	54	U	1500	54	55	U	1600	55	66	U	1900	66	73	U	2000	73	43	U	1200	43	42	U	1200	42	71	U	2000	71
2-Methylnaphthalene	91-57-6	8270E	µg/Kg	20.2 (9)	43	U	1500	43	47	J	1600	44	52	U	1900	52	57	U	2000	57	33	U	1200	33	33	U	1200	33	56	U	2000	56
2-Methylphenol	95-48-7	8270E	µg/Kg	11.86 (10)	57	U	1500	57	58	U	1600	58	69	U	1900	69	77	U	2000	77	45	U	1200	45	44	U	1200	44	74	U	2000	74
2-Nitroaniline	88-74-4	8270E	µg/Kg		57	U	1500	57	58	U	1600	58	69	U	1900	69	77	U	2000	77	45	U	1200	45	44	U	1200	44	75	U	2000	75
2-Nitrophenol	88-75-5	8270E	µg/Kg		150	UJ	1500	150	160	UJ	1600	160	190	UJ	1900	190	210	UJ	2000	210	120	UJ	1200	120	120	UJ	1200	120	200	U	2000	200
3,3'-Dichlorobenzidine	91-94-1	8270E	µg/Kg	127 (9)	230	U	610	230	240	U	630	240	280	U	750	280	310	U	820	310	180	U	480	180	180	U	470	180	300	U	800	300
3-Nitroaniline	99-09-2	8270E	µg/Kg		170	U	1500	170	180	U	1600	180	210	U	1900	210	230	U	2000	230	130	U	1200	130	130	U	1200	130	220	U	2000	220
4,6-Dinitro-2-methylphenol	534-52-1	8270E	µg/Kg		620	UJ	1200	620	640	UJ	1300	640	760	UJ	1500	760	840	UJ	1600	840	490	UJ	960	490	480	UJ	950	480	810	U	1600	810
4-Bromophenyl phenyl ether	101-55-3	8270E	µg/Kg	255 (10)	61	U	1500	61	62	U	1600	62	74	U	1900	74	81	U	2000	81	47	U	1200	47	47	U	1200	47	79	U	2000	79
4-Chloro-3-methylphenol	59-50-7	8270E	µg/Kg		86	U	1500	86	87	U	1600	87	100	U	1900	100	120	U	2000	120	67	U	1200	67	66	U	1200	66	110	U	2000	110
4-Chloroaniline	106-47-8	8270E	µg/Kg		270	U	1500	270	280	U	1600	280	330	U	1900	330	360	U	2000	360	210	U	1200	210	210	U	1200	210	350	U	2000	350
4-Chlorophenyl phenyl ether	7005-72-3	8270E	µg/Kg		54	U	1500	54	55	U	1600	55	66	U	1900	66	72	U	2000	72	42	U	1200	42	42	U	1200	42	70	U	2000	70
4-Methylphenol	106-44-5	8270E	µg/Kg		95	U	1500	95	97	U	1600	97	120	U	1900	120	130	U	2000	130	75	U	1200	75	73	U	1200	73	120	U	2000	120
4-Nitroaniline	100-01-6	8270E	µg/Kg		180	U	1500	180	180	U	1600	180	210	U	1900	210	240	U	2000	240	140	U	1200	140	140	U	1200	140	230	U	2000	230
4-Nitrophenol	100-02-7	8270E	µg/Kg	13.3 (9)	250	U	3100	250	250	U	3200	250	300	U	3800	300	330	U	4200	330	190	U	2400	190	190	U	2400	190	320	U	4000	320
Acetophenone	98-86-2	8270E	µg/Kg		75	U	1500	75	76	U	1600	76	91	U	1900	91	100	U	2000	100	59	U	1200	59	58	U	1200	58	98	U	2000	98
Atrazine	1912-24-9	8270E	µg/Kg		90	U	610	90	92	U	630	92	110	U	750	110	120	U	820	120	70	U	480	70	69	U	470	69	120	U	800	120
Benzaldehyde	100-52-7	8270E	µg/Kg		250	UJ	1500	250	260	UJ	1600	260	310	UJ	1900	310	340	UJ	2000	340	200	UJ	1200	200	190	UJ	1200	190	330	UJ	2000	330
Bis(2-chloroethoxy)methane	111-91-1	8270E	µg/Kg		120	U	1500	120	120	U	1600	120	140	U	1900	140	160	U	2000	160	93	U	1200	93	92	U	1200	92	160	U	2000	160
Bis(2-chloroethyl)ether	111-44-4	8270E	µg/Kg	3520 (9)	53	U	150	53	54	U	160	54	65	U	190	65	71	U	200	71	42	U	120	42	41	U	120	41	69	U	200	69
Bis(2-ethylhexyl) phthalate	117-81-7	8270E	µg/Kg	182 (9)	630	J	1500	81	82	U	1600	82	33000	J	1900	98	110	U	2000	110	620	J	1200	63	62	U	1200	62	1700	J	2000	110
Butyl benzyl phthalate	85-68-7	8270E	µg/Kg	1970 (9)	72	U	1500	72	73	U	1600	73	6700	J	1900	87	96	U	2000	96	56	U	1200	56	55	U	1200	55	94	U	2000	94
Caprolactam	105-60-2	8270E	µg/Kg		240	U	1500	240	240	U	1600	240	290	U	1900	290	320	U	2000	320	190	U	1200	190	180	U	1200	180	310	U	2000	310
Carbazole	86-74-8	8270E	µg/Kg		58	U	1500	58	59	U	1600	59	71	U	1900	71	78	U	2000	78	46	U	1200	46	45	U	1200	45	76	U	2000	76
Dibenzofuran	132-64-9	8270E	µg/Kg	300.74 (10)	21	U	1500	21	22	U	1600	22	26	U	1900	26	29	U	2000	29	17	U	1200	17	17	U	1200	17	28	U	2000	28
Diethyl phthalate	84-66-2	8270E	µg/Kg	295 (9)	22	U	1500	22	23	U	1600	23	27	U	1900	27	30	U	2000	30	17	U	1200	17	17	U	1200	17	29	U	2000	29
Dimethyl phthalate	131-11-3	8270E	µg/Kg		350	U	1500	350	350	U	1600	350	420	U	1900	420	470	U	2000	470	270	U	1200	270	270	U	1200	270	450	U	2000	450
Di-n-butyl phthalate	84-74-2	8270E	µg/Kg	1114 (9)	58	U	1500	58	59	U	1600	59	440	J	1900	70	77	U	2000	77	45	U	1200	45	44	U	1200	44	75	U	2000	75
Di-n-octyl phthalate	117-84-0	8270E	µg/Kg		81	U	1500	81	82	U	1600	82	98	U	1900	98	110	U	2000	110	63	U	1200	63	62	U	1200	62	110	U	2000	110
Hexachlorobenzene	118-74-1	8270E	µg/Kg	20 (9)	73	U	150	73	74	U	160	74	88	U	190	88	97	U	200	97	57	U	120	57	56	U	120	56	95	U	200	95
Hexachlorobutadiene	87-68-3	8270E	µg/Kg	26.5 (9)	33	U	310	33	33	U	320	33	40	U	380	40	44	U	420	44	25	U	240	25	25	U	240	25	42	U	400	42
Hexachlorocyclopentadiene	77-47-4	8270E	µg/Kg	901 (9)	130	U	1500	130	140	U	1600	140	160	U	1900	160	180	U	2000	180	100	U	1200	100	100	U	1200	100	170	U	2000	170
Hexachloroethane	67-72-1	8270E	µg/Kg	584 (9)	52	U	150	52	53	U	160	53	64	U	190	64	70	U	200	70	41	U	120	41	40	U	120	40	68	U	200	68
Isophorone	78-59-1	8270E	µg/Kg	432 (9)	440	U	610	440	450	U	630	450	540	U	750	540	590	U	820	590	350	U	480	350	340	U	470	340	580	U	800	580
Nitrobenzene	98-95-3	8270E	µg/Kg	145 (9)	37	U	150	37	37	U	160	37	45	U	190	45	49	U	200	49	29	U	120	29	28	U	120	28	48	U	200	48
N-Nitrosodi-n-propylamine	621-64-7	8270E	µg/Kg		110	U	150	110	110	U	160	110	140	U	190	140	150	U	200	150	87	U	120	87	85	U	120	85	140	U	200	140
N-Nitrosodiphenylamine	86-30-6	8270E	µg/Kg	516 (10)	130	U	1500	130	130	U	1600	130	150	U	1900	150	170	U	2000	170	98	U	1200	98	97	U	1200	97	160	U	2000	160
Pentachlorophenol	87-86-5	8270E	µg/Kg	23000 (9)	310	U	1200	310	320	U	1300	320	380	U	1500	380	420	U	1600	420	250	U	960	250	240	U	950	240	410	U	1600	410
Phenol	108-95-2	8270E	µg/Kg	49.1 (9)	56	U	1500	56	57	U	1600	57	68	U	1900	68	75	U	2000	75	44	U	1200	44	43	U	1200	43	73	U	2000	73

Table 5.12 - Sediment: Semi-Volatile Organic Compounds (SVOCs) Analytical Results

Rolling Knolls Landfill

Sample Name				ESC's	SD01				SD100 (SD01 duplicate)				SD02				SD03				SD04				SD05				SD06			
Sample Date/Time					05/13/2021 15:30				05/13/2021 15:30				05/14/2021 09:15				05/14/2021 10:45				05/15/2021 14:05				05/16/2021 15:00				05/17/2021 11:45			
Latitude					40.72679082				40.72679082				40.72715605				40.72638198				40.72348024				40.72279293				40.72236209			
Longitude					-74.44034521				-74.44034521				-74.43993388				-74.44081345				-74.44733898				-74.44605058				-74.44587599			
Lab Sample Name				Screening Criteria	GS-S-SD01				GS-S-SD0100				GS-S-SD02				GS-S-SD03				GS-S-SD04				GS-S-SD05				GS-S-SD06			
Lab Sample Number					460-234557-3				460-234557-4				460-234557-1				460-234557-2				460-234545-1				460-234545-2				460-234971-3 / 460-234971-7			
Lab Report Number(s)					460-234557-1 / 460-234557-2 / 460-234557-3				460-234557-1 / 460-234557-3				460-234557-1 / 460-234557-2 / 460-234557-3				460-234557-1 / 460-234557-2 / 460-234557-3				460-234545-1				460-234545-1				460-234971-1 / 460-234971-4			
Analyte	CAS	Method	Units		Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)
Polycyclic Aromatic Hydrocarbons (PAHs)																																
Acenaphthene	83-32-9	8270E	µg/Kg	6.71 (9)	44	U	1500	44	44	U	1600	44	53	U	1900	53	58	U	2000	58	34	U	1200	34	34	U	1200	34	57	U	2000	57
Acenaphthylene	208-96-8	8270E	µg/Kg	5.87 (9)	15	U	1500	15	16	U	1600	16	19	U	1900	19	21	U	2000	21	12	U	1200	12	12	U	1200	12	20	U	2000	20
Anthracene	120-12-7	8270E	µg/Kg	57.2 (9)	46	U	1500	46	47	U	1600	47	57	U	1900	57	62	U	2000	62	36	U	1200	36	36	U	1200	36	61	U	2000	61
Fluorene	86-73-7	8270E	µg/Kg	77.4 (9)	21	U	1500	21	21	U	1600	21	25	U	1900	25	28	U	2000	28	16	U	1200	16	16	U	1200	16	27	U	2000	27
Naphthalene	91-20-3	8270E	µg/Kg	176 (9)	73	J	1500	26	190	J	1600	27	94	J	1900	32	35	U	2000	35	21	U	1200	21	20	U	1200	20	34	U	2000	34
Phenanthrene	85-01-8	8270E	µg/Kg	204 (9)	58	J	1500	27	56	J	1600	27	33	U	1900	33	36	U	2000	36	21	U	1200	21	21	U	1200	21	35	U	2000	35
Benzo[a]anthracene	56-55-3	8270E	µg/Kg	108 (9)	63	J	150	53	54	U	160	54	65	U	190	65	72	U	200	72	42	U	120	42	41	U	120	41	70	U	200	70
Benzo[a]pyrene	50-32-8	8270E	µg/Kg	150 (9)	58	J	150	41	41	U	160	41	50	U	190	50	55	U	200	55	32	U	120	32	31	U	120	31	53	U	200	53
Benzo[b]fluoranthene	205-99-2	8270E	µg/Kg	10400 (9)	71	J	150	40	40	U	160	40	48	U	190	48	53	U	200	53	31	U	120	31	30	U	120	30	52	U	200	52
Benzo[g,h,i]perylene	191-24-2	8270E	µg/Kg	170 (9)	45	U	1500	45	46	U	1600	46	55	U	1900	55	61	U	2000	61	35	U	1200	35	35	U	1200	35	59	U	2000	59
Benzo[k]fluoranthene	207-08-9	8270E	µg/Kg	240 (9)	30	U	150	30	31	U	160	31	36	U	190	36	40	U	200	40	23	U	120	23	23	U	120	23	39	U	200	39
Chrysene	218-01-9	8270E	µg/Kg	166 (9)	47	J	1500	26	26	U	1600	26	31	U	1900	31	35	U	2000	35	20	U	1200	20	20	U	1200	20	34	U	2000	34
Dibenz(a,h)anthracene	53-70-3	8270E	µg/Kg	33 (9)	66	U	150	66	67	U	160	67	80	U	190	80	89	U	200	89	52	U	120	52	51	U	120	51	86	U	200	86
Fluoranthene	206-44-0	8270E	µg/Kg	423 (9)	53	U	1500	53	54	U	1600	54	65	U	1900	65	72	U	2000	72	42	U	1200	42	41	U	1200	41	70	U	2000	70
Indeno[1,2,3-cd]pyrene	193-39-5	8270E	µg/Kg	200 (9)	60	U	150	60	61	U	160	61	73	U	190	73	80	U	200	80	47	U	120	47	46	U	120	46	78	U	200	78
Pyrene	129-00-0	8270E	µg/Kg	195 (9)	38	U	1500	38	39	U	1600	39	46	U	1900	46	51	U	2000	51	30	U	1200	30	29	U	1200	29	50	U	2000	50
Total PAHs			µg/Kg	4000 (9)	788				833				830				848				494				486				825			

Table 5.12 - Sediment: Semi-Volatile Organic Compounds (SVOCs) Analyt (continued)

Rolling Knolls Landfill

	Sample Name			ESC's	SD07				SD08				SD09				SD10				SD11				SD12				SD13			
	Sample Date/Time				05/17/2021 13:50				05/19/2021 13:43				05/19/2021 14:43				05/19/2021 15:45				05/17/2021 11:45				05/24/2021 09:14				05/24/2021 13:55			
	Latitude				40.72143376				40.732265				40.73189675				40.73169144				40.72489948				40.73119281				40.72747591			
	Longitude				-74.44468585				-74.43997				-74.44071492				-74.44135929				-74.44253502				-74.43998828				-74.43941053			
	Lab Sample Name			Screening Criteria	GS-S-SD07				GS-S-SD08				GS-S-SD09				GS-S-SD10				GS-S-SD11				GS-N-SD12				GS-N-SD13			
	Lab Sample Number				460-234971-4 / 460-234971-8				460-235248-1				460-235248-2				460-235248-3				460-235400-2				460-235444-1 / 460-235444-6				460-235444-2 / 460-235444-7			
	Lab Report Number(s)				460-234971-1 / 460-234971-4				460-235248-1 / 460-235248-3				460-235248-1 / 460-235248-3				460-235248-1 / 460-235248-3				460-235400-1 / 460-235400-3				460-235444-1 / 460-235444-3 / 460-235444-4				460-235444-1 / 460-235444-3 / 460-235444-4			
Analyte	CAS	Method	Units		Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)
1,1'-Biphenyl	92-52-4	8270E	µg/Kg		18	U	1400	18	21	U	1600	21	34	U	2600	34	19	U	1400	19	41	U	3100	41	31	U	2300	31	36	U	2700	36
1,2,4,5-Tetrachlorobenzene	95-94-3	8270E	µg/Kg	1252 (9)	43	U	1400	43	50	U	1600	50	81	U	2600	81	44	U	1400	44	97	U	3100	97	73	U	2300	73	84	U	2700	84
1,4-Dioxane	123-91-1	8270E	µg/Kg	119 (6)	120	U	140	120	140	U	160	140	230	U	260	230	120	U	140	120	270	U	310	270	200	U	230	200	230	U	270	230
2,2'-oxybis[1-chloropropane]	108-60-1	8270E	µg/Kg		25	U	1400	25	29	UJ	1600	29	47	UJ	2600	47	26	UJ	1400	26	56	U	3100	56	42	U	2300	42	49	U	2700	49
2,3,4,6-Tetrachlorophenol	58-90-2	8270E	µg/Kg	129 (6)	93	U	1400	93	110	U	1600	110	180	U	2600	180	96	U	1400	96	210	U	3100	210	160	U	2300	160	180	U	2700	180
2,4,5-Trichlorophenol	95-95-4	8270E	µg/Kg		140	U	1400	140	160	U	1600	160	260	U	2600	260	140	U	1400	140	320	U	3100	320	240	U	2300	240	270	U	2700	270
2,4,6-Trichlorophenol	88-06-2	8270E	µg/Kg	208 (9)	180	U	550	180	200	U	640	200	330	U	1000	330	180	U	570	180	400	U	1300	400	300	U	940	300	340	U	1100	340
2,4-Dichlorophenol	120-83-2	8270E	µg/Kg	81.7 (9)	88	U	550	88	100	U	640	100	170	U	1000	170	91	U	570	91	200	U	1300	200	150	U	940	150	170	U	1100	170
2,4-Dimethylphenol	105-67-9	8270E	µg/Kg	304 (9)	60	U	1400	60	70	U	1600	70	110	U	2600	110	62	U	1400	62	140	U	3100	140	100	U	2300	100	120	U	2700	120
2,4-Dinitrophenol	51-28-5	8270E	µg/Kg	6.21 (9)	670	U	1100	670	780	UJ	1300	780	1300	UJ	2100	1300	700	UJ	1100	700	1500	U	2500	1500	1200	U	1900	1200	1300	U	2200	1300
2,4-Dinitrotoluene	121-14-2	8270E	µg/Kg	14.4 (9)	150	U	280	150	170	UJ	320	170	280	UJ	520	280	150	UJ	290	150	330	U	630	330	250	U	470	250	290	U	540	290
2,6-Dinitrotoluene	606-20-2	8270E	µg/Kg	39.8 (6)	99	U	280	99	120	UJ	320	120	190	UJ	520	190	100	UJ	290	100	220	U	630	220	170	U	470	170	190	U	540	190
2-Chloronaphthalene	91-58-7	8270E	µg/Kg	417 (9)	63	U	1400	63	74	U	1600	74	120	U	2600	120	66	U	1400	66	140	U	3100	140	110	U	2300	110	120	U	2700	120
2-Chlorophenol	95-57-8	8270E	µg/Kg	31.9 (9)	49	U	1400	49	57	U	1600	57	92	U	2600	92	51	U	1400	51	110	U	3100	110	83	U	2300	83	95	U	2700	95
2-Methylnaphthalene	91-57-6	8270E	µg/Kg	20.2 (9)	38	U	1400	38	45	U	1600	45	72	U	2600	72	40	U	1400	40	87	U	3100	87	66	U	2300	66	75	U	2700	75
2-Methylphenol	95-48-7	8270E	µg/Kg	11.86 (10)	51	U	1400	51	60	U	1600	60	96	U	2600	96	53	U	1400	53	120	U	3100	120	87	U	2300	87	100	U	2700	100
2-Nitroaniline	88-74-4	8270E	µg/Kg		51	U	1400	51	60	U	1600	60	97	U	2600	97	53	U	1400	53	120	U	3100	120	88	U	2300	88	100	U	2700	100
2-Nitrophenol	88-75-5	8270E	µg/Kg		140	U	1400	140	160	UJ	1600	160	260	UJ	2600	260	140	UJ	1400	140	310	U	3100	310	230	U	2300	230	270	U	2700	270
3,3'-Dichlorobenzidine	91-94-1	8270E	µg/Kg	127 (9)	210	U	550	210	240	U	640	240	390	U	1000	390	210	U	570	210	470	U	1300	470	350	U	940	350	410	U	1100	410
3-Nitroaniline	99-09-2	8270E	µg/Kg		150	U	1400	150	180	U	1600	180	290	U	2600	290	160	U	1400	160	350	U	3100	350	260	U	2300	260	300	U	2700	300
4,6-Dinitro-2-methylphenol	534-52-1	8270E	µg/Kg		560	U	1100	560	650	UJ	1300	650	1100	UJ	2100	1100	580	UJ	1100	580	1300	U	2500	1300	960	U	1900	960	1100	U	2200	1100
4-Bromophenyl phenyl ether	101-55-3	8270E	µg/Kg	255 (10)	54	U	1400	54	63	U	1600	63	100	U	2600	100	56	U	1400	56	120	U	3100	120	93	U	2300	93	110	U	2700	110
4-Chloro-3-methylphenol	59-50-7	8270E	µg/Kg		77	U	1400	77	90	U	1600	90	140	U	2600	140	80	U	1400	80	170	U	3100	170	130	U	2300	130	150	U	2700	150
4-Chloroaniline	106-47-8	8270E	µg/Kg		240	U	1400	240	280	U	1600	280	460	U	2600	460	250	U	1400	250	550	U	3100	550	420	U	2300	420	480	U	2700	480
4-Chlorophenyl phenyl ether	7005-72-3	8270E	µg/Kg		48	U	1400	48	56	U	1600	56	91	U	2600	91	50	U	1400	50	110	U	3100	110	83	U	2300	83	95	U	2700	95
4-Methylphenol	106-44-5	8270E	µg/Kg		86	U	1400	86	100	U	1600	100	160	U	2600	160	89	U	1400	89	190	U	3100	190	150	U	2300	150	170	U	2700	170
4-Nitroaniline	100-01-6	8270E	µg/Kg		160	U	1400	160	180	U	1600	180	300	U	2600	300	160	U	1400	160	360	U	3100	360	270	U	2300	270	310	U	2700	310
4-Nitrophenol	100-02-7	8270E	µg/Kg	13.3 (9)	220	U	2800	220	260	U	3200	260	420	U	5200	420	230	U	2900	230	510	U	6300	510	380	U	4700	380	440	U	5400	440
Acetophenone	98-86-2	8270E	µg/Kg		67	U	1400	67	78	U	1600	78	130	U	2600	130	70	U	1400	70	150	U	3100	150	120	U	2300	120	130	U	2700	130
Atrazine	1912-24-9	8270E	µg/Kg		81	U	550	81	94	U	640	94	150	U	1000	150	84	U	570	84	180	U	1300	180	140	U	940	140	160	U	1100	160
Benzaldehyde	100-52-7	8270E	µg/Kg		230	UJ	1400	230	260	UJ	1600	260	430	UJ	2600	430	230	UJ	1400	230	510	UJ	3100	510	400	J	2300	390	440	UJ	2700	440
Bis(2-chloroethoxy)methane	111-91-1	8270E	µg/Kg		110	U	1400	110	120	U	1600	120	200	U	2600	200	110	U	1400	110	240	U	3100	240	180	U	2300	180	210	U	2700	210
Bis(2-chloroethyl)ether	111-44-4	8270E	µg/Kg	3520 (9)	48	U	140	48	56	U	160	56	90	U	260	90	49	U	140	49	110	U	310	110	82	U	230	82	93	U	270	93
Bis(2-ethylhexyl) phthalate	117-81-7	8270E	µg/Kg	182 (9)	72	U	1400	72	84	U	1600	84	140	U	2600	140	75	U	1400	75	870	J	3100	160	120	U	2300	120	140	U	2700	140
Butyl benzyl phthalate	85-68-7	8270E	µg/Kg	1970 (9)	64	U	1400	64	75	U	1600	75	120	U	2600	120	67	U	1400	67	150	U	3100	150	110	U	2300	110	130	U	2700	130
Caprolactam	105-60-2	8270E	µg/Kg		210	U	1400	210	250	U	1600	250	400	U	2600	400	220	U	1400	220	480	U	3100	480	360	U	2300	360	420	U	2700	420
Carbazole	86-74-8	8270E	µg/Kg		52	U	1400	52	61	U	1600	61	98	U	2600	98	54	U	1400	54	120	U	3100	120	89	U	2300	89	100	U	2700	100
Dibenzofuran	132-64-9	8270E	µg/Kg	300.74 (10)	19	U	1400	19	22	U	1600	22	36	U	2600	36	20	U	1400	20	44	U	3100	44	33	U	2300	33	38	U	2700	38
Diethyl phthalate	84-66-2	8270E	µg/Kg	295 (9)	20	U	1400	20	23	U	1600	23	37	U	2600	37	21	U	1400	21	45	U	3100	45	34	U	2300	34	39	U	2700	39
Dimethyl phthalate	131-11-3	8270E	µg/Kg		310	U	1400	310	360	U	1600	360	590	U	2600	590	320	U	1400	320	710	U	3100	710	530	U	2300	530	610	U	2700	610
Di-n-butyl phthalate	84-74-2	8270E	µg/Kg	1114 (9)	52	U	1400	52	60	U	1600	60	97	U	2600	97	53	U	1400	53	120	U	3100	120	88	U	2300	88	100	U	2700	100
Di-n-octyl phthalate	117-84-0	8270E	µg/Kg		73	U	1400	73	85	U	1600	85	140	U	2600	140	75	U	1400	75	160	U	3100	160	120	U	2300	120	140	U	2700	140
Hexachlorobenzene	118-74-1	8270E	µg/Kg	20 (9)	65	U	140	65	76	U	160	76	120	U	260	120	67	U	140	67	150	U	310	150	110	U	230	110	130	U	270	130
Hexachlorobutadiene	87-68-3	8270E	µg/Kg	26.5 (9)	29	U	280	29	34	U	320	34	55	U	520	55	30	U	290	30	66	U	630	66	50	U	470	50	57	U	540	57
Hexachlorocyclopentadiene	77-47-4	8270E	µg/Kg	901 (9)	120	U	1400	120	140	U	1600	140	230	U	2600	230	120	U	1400	120	270	U	3100	270	210	U	2300	210	240	U	2700	240
Hexachloroethane	67-72-1	8270E	µg/Kg	584 (9)	47	U	140	47	55	U	160	55	89	U	260	89	49	U	140	49	110	U	310	110	80	U	230	80	92	U	270	92
Isophorone	78-59-1	8270E	µg/Kg	432 (9)	400	U	550	400	460	U	640	460	750	U	1000	750	410	U	570	410	900	U	1300	900	680	U	940	680	780	U	1100	780
Nitrobenzene	98-95-3	8270E	µg/Kg	145 (9)	33	U	140	33	38	U	160	38	62	U	260	62	34	U	140	34	75	U	310	75	56	U	230	56	64	U	270	64
N-Nitrosodi-n-propylamine	621-64-7	8270E	µg/Kg		99	U	140	99	120	U	160	120	190	U	260	190	100	U	140	100	230	U	310	230	170	U	230	170	190	U	270	190
N-Nitrosodiphenylamine	86-30-6	8270E	µg/Kg	516 (10)	110	U	1400	110	130	U	1600	130	210	U	2600	210	120	U	1400	120	260	U	3100	260	190	U	2300	190	220	U	2700	220
Pentachlorophenol	87-86-5	8270E	µg/Kg	23000 (9)	280	U	1100	280	330	U	1300	330	530	U	2100	530	290	U	1100	290	640	U	2500	640	480	UJ	1900	480	550	UJ	2200	550
Phenol	108-95-2	8270E	µg/Kg	49.1 (9)	50	U	1400	50	59	U	1600	59	95	U	2600	95	52	U	1400	52	110	U	3100	110	86	U	2300	86	99	U	2700	99

Table 5.12 - Sediment: Semi-Volatile Organic Compounds (SVOCs) Analyt (continued)

Rolling Knolls Landfill

Sample Name				ESC's	SD07				SD08				SD09				SD10				SD11				SD12				SD13			
Sample Date/Time					05/17/2021 13:50				05/19/2021 13:43				05/19/2021 14:43				05/19/2021 15:45				05/17/2021 11:45				05/24/2021 09:14				05/24/2021 13:55			
Latitude					40.72143376				40.732265				40.73189675				40.73169144				40.72489948				40.73119281				40.72747591			
Longitude					-74.44468585				-74.43997				-74.44071492				-74.44135929				-74.44253502				-74.43998828				-74.43941053			
Lab Sample Name				Screening	GS-S-SD07				GS-S-SD08				GS-S-SD09				GS-S-SD10				GS-S-SD11				GS-N-SD12				GS-N-SD13			
Lab Sample Number				Criteria	460-234971-4 / 460-234971-8				460-235248-1				460-235248-2				460-235248-3				460-235400-2				460-235444-1 / 460-235444-6				460-235444-2 / 460-235444-7			
Lab Report Number(s)					460-234971-1 / 460-234971-4				460-235248-1 / 460-235248-3				460-235248-1 / 460-235248-3				460-235248-1 / 460-235248-3				460-235400-1 / 460-235400-3				460-235444-1 / 460-235444-3 / 460-235444-4				460-235444-1 / 460-235444-3 / 460-235444-4			
Analyte	CAS	Method	Units		Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)
Polycyclic Aromatic Hydrocarbons (PAHs)																																
Acenaphthene	83-32-9	8270E	µg/Kg	6.71 (9)	39	U	1400	39	45	U	1600	45	74	U	2600	74	40	U	1400	40	89	U	3100	89	67	U	2300	67	76	U	2700	76
Acenaphthylene	208-96-8	8270E	µg/Kg	5.87 (9)	14	U	1400	14	16	U	1600	16	26	U	2600	26	14	U	1400	14	31	U	3100	31	24	U	2300	24	27	U	2700	27
Anthracene	120-12-7	8270E	µg/Kg	57.2 (9)	42	U	1400	42	49	U	1600	49	79	U	2600	79	43	U	1400	43	95	U	3100	95	71	U	2300	71	82	U	2700	82
Fluorene	86-73-7	8270E	µg/Kg	77.4 (9)	19	U	1400	19	22	U	1600	22	35	U	2600	35	19	U	1400	19	42	U	3100	42	32	U	2300	32	36	U	2700	36
Naphthalene	91-20-3	8270E	µg/Kg	176 (9)	24	U	1400	24	28	U	1600	28	45	U	2600	45	25	U	1400	25	54	U	3100	54	57	J	2300	41	220	J	2700	46
Phenanthrene	85-01-8	8270E	µg/Kg	204 (9)	24	U	1400	24	28	U	1600	28	45	U	2600	45	25	U	1400	25	55	U	3100	55	94	J	2300	41	150	J	2700	47
Benzo[a]anthracene	56-55-3	8270E	µg/Kg	108 (9)	48	U	140	48	56	U	160	56	90	U	260	90	50	U	140	50	110	U	310	110	82	U	230	82	94	U	270	94
Benzo[a]pyrene	50-32-8	8270E	µg/Kg	150 (9)	36	U	140	36	43	U	160	43	69	U	260	69	38	U	140	38	83	U	310	83	62	U	230	62	71	U	270	71
Benzo[b]fluoranthene	205-99-2	8270E	µg/Kg	10400 (9)	35	U	140	35	41	U	160	41	67	U	260	67	37	U	140	37	80	U	310	80	61	U	230	61	69	U	270	69
Benzo[g,h,i]perylene	191-24-2	8270E	µg/Kg	170 (9)	40	U	1400	40	47	U	1600	47	76	U	2600	76	42	U	1400	42	92	U	3100	92	69	U	2300	69	79	U	2700	79
Benzo[k]fluoranthene	207-08-9	8270E	µg/Kg	240 (9)	27	U	140	27	31	U	160	31	51	U	260	51	28	U	140	28	61	U	310	61	46	U	230	46	53	U	270	53
Chrysene	218-01-9	8270E	µg/Kg	166 (9)	23	U	1400	23	27	U	1600	27	44	U	2600	44	24	U	1400	24	53	U	3100	53	55	J	2300	40	45	U	2700	45
Dibenz(a,h)anthracene	53-70-3	8270E	µg/Kg	33 (9)	59	U	140	59	69	U	160	69	110	U	260	110	61	U	140	61	130	U	310	130	100	U	230	100	120	U	270	120
Fluoranthene	206-44-0	8270E	µg/Kg	423 (9)	48	U	1400	48	56	U	1600	56	90	U	2600	90	50	U	1400	50	110	U	3100	110	100	J	2300	82	94	U	2700	94
Indeno[1,2,3-cd]pyrene	193-39-5	8270E	µg/Kg	200 (9)	53	U	140	53	62	UJ	160	62	100	UJ	260	100	55	UJ	140	55	120	U	310	120	92	U	230	92	100	U	270	100
Pyrene	129-00-0	8270E	µg/Kg	195 (9)	34	U	1400	34	40	U	1600	40	64	U	2600	64	35	U	1400	35	77	U	3100	77	88	J	2300	58	67	U	2700	67
Total PAHs			µg/Kg	4000 (9)	565				660				1065				586				1282				1100				1383			

Table 5.12 - Sediment: Semi-Volatile Organic Compounds (SVOCs) Analyt (continued)

Rolling Knolls Landfill

Sample Name				ESC's	SD14				SD15				SD16				SD101 (SD16 Duplicate)				SD17				SD18				SD19			
Sample Date/Time					05/25/2021 09:00				05/25/2021 13:30				05/26/2021 15:06				05/26/2021 15:06				05/27/2021 14:18				05/28/2021 08:30				06/01/2021 09:20			
Latitude					40.72740332				40.72937246				40.73124954				40.73124954				40.72670262				40.73132938				40.72289188			
Longitude					-74.43971312				-74.440396				-74.44141084				-74.44141084				-74.43975897				-74.44108766				-74.44904733			
Lab Sample Name				Screening Criteria	GS-N-SD14				GS-N-SD15				GS-N-SD16				GS-N-SD11-1				GS-N-SD17				GS-N-SD18				GS-N-SD19			
Lab Sample Number					460-235492-2 / 460-235492-6				460-235492-3 / 460-235492-7				460-235592-1 / 460-235592-6				460-235592-2 / 460-235592-7				460-235592-3 / 460-235592-8				460-235592-4 / 460-235592-9				460-235680-1 / 460-235680-4			
Lab Report Number(s)					460-235492-1 / 460-235492-3 / 460-235492-4				460-235492-1 / 460-235492-3 / 460-235492-4				460-235592-1 / 460-235592-3 / 460-235592-4				460-235592-1 / 460-235592-3 / 460-235592-4				460-235592-1 / 460-235592-3 / 460-235592-4				460-235592-1 / 460-235592-3 / 460-235592-4				460-235680-1 / 460-235680-3			
Analyte	CAS	Method	Units		Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)
1,1'-Biphenyl	92-52-4	8270E	µg/Kg		16	U	1200	16	45	U	3400	45	14	U	1100	14	13	U	970	13	33	U	2500	33	8.6	U	640	8.6	17	U	1300	17
1,2,4,5-Tetrachlorobenzene	95-94-3	8270E	µg/Kg	1252 (9)	38	U	1200	38	110	U	3400	110	34	U	1100	34	30	U	970	30	78	U	2500	78	20	U	640	20	40	U	1300	40
1,4-Dioxane	123-91-1	8270E	µg/Kg	119 (6)	110	U	120	110	300	U	340	300	94	U	110	94	85	U	97	85	220	U	250	220	56	U	64	56	110	U	130	110
2,2'-oxybis[1-chloropropane]	108-60-1	8270E	µg/Kg		22	UJ	1200	22	61	U	3400	61	19	UJ	1100	19	18	UJ	970	18	45	UJ	2500	45	12	UJ	640	12	23	U	1300	23
2,3,4,6-Tetrachlorophenol	58-90-2	8270E	µg/Kg	129 (6)	84	U	1200	84	230	U	3400	230	73	U	1100	73	66	U	970	66	170	U	2500	170	44	U	640	44	88	U	1300	88
2,4,5-Trichlorophenol	95-95-4	8270E	µg/Kg		130	U	1200	130	340	U	3400	340	110	U	1100	110	99	U	970	99	250	U	2500	250	66	U	640	66	130	U	1300	130
2,4,6-Trichlorophenol	88-06-2	8270E	µg/Kg	208 (9)	160	U	500	160	430	U	1400	430	140	U	430	140	120	U	390	120	320	U	1000	320	83	U	260	83	170	U	520	170
2,4-Dichlorophenol	120-83-2	8270E	µg/Kg	81.7 (9)	79	U	500	79	220	U	1400	220	69	U	430	69	62	U	390	62	160	U	1000	160	41	U	260	41	83	U	520	83
2,4-Dimethylphenol	105-67-9	8270E	µg/Kg	304 (9)	54	U	1200	54	150	U	3400	150	47	U	1100	47	43	U	970	43	110	U	2500	110	28	U	640	28	57	U	1300	57
2,4-Dinitrophenol	51-28-5	8270E	µg/Kg	6.21 (9)	610	UJ	990	610	1700	U	2700	1700	530	U	860	530	480	U	780	480	1200	U	2000	1200	320	U	520	320	640	U	1000	640
2,4-Dinitrotoluene	121-14-2	8270E	µg/Kg	14.4 (9)	130	UJ	250	130	360	U	690	360	120	U	220	120	100	U	200	100	270	U	500	270	70	U	130	70	140	U	260	140
2,6-Dinitrotoluene	606-20-2	8270E	µg/Kg	39.8 (6)	89	UJ	250	89	240	U	690	240	78	U	220	78	70	U	200	70	180	U	500	180	47	U	130	47	94	U	260	94
2-Chloronaphthalene	91-58-7	8270E	µg/Kg	417 (9)	57	U	1200	57	160	U	3400	160	50	U	1100	50	45	U	970	45	120	U	2500	120	30	U	640	30	60	U	1300	60
2-Chlorophenol	95-57-8	8270E	µg/Kg	31.9 (9)	44	U	1200	44	120	U	3400	120	38	U	1100	38	35	U	970	35	89	U	2500	89	23	U	640	23	46	U	1300	46
2-Methylnaphthalene	91-57-6	8270E	µg/Kg	20.2 (9)	35	U	1200	35	95	U	3400	95	30	U	1100	30	27	U	970	27	70	U	2500	70	18	U	640	18	36	U	1300	36
2-Methylphenol	95-48-7	8270E	µg/Kg	11.86 (10)	46	U	1200	46	130	U	3400	130	40	U	1100	40	36	U	970	36	93	U	2500	93	24	U	640	24	48	U	1300	48
2-Nitroaniline	88-74-4	8270E	µg/Kg		46	U	1200	46	130	U	3400	130	40	UJ	1100	40	36	UJ	970	36	93	UJ	2500	93	24	UJ	640	24	48	U	1300	48
2-Nitrophenol	88-75-5	8270E	µg/Kg		120	UJ	1200	120	340	U	3400	340	110	U	1100	110	97	U	970	97	250	U	2500	250	65	U	640	65	130	U	1300	130
3,3'-Dichlorobenzidine	91-94-1	8270E	µg/Kg	127 (9)	190	UJ	500	190	510	U	1400	510	160	U	430	160	150	U	390	150	380	U	1000	380	98	U	260	98	200	U	520	200
3-Nitroaniline	99-09-2	8270E	µg/Kg		140	U	1200	140	380	U	3400	380	120	U	1100	120	110	U	970	110	280	U	2500	280	73	U	640	73	150	U	1300	150
4,6-Dinitro-2-methylphenol	534-52-1	8270E	µg/Kg		500	UJ	990	500	1400	U	2700	1400	440	U	860	440	400	U	780	400	1000	U	2000	1000	260	U	520	260	530	U	1000	530
4-Bromophenyl phenyl ether	101-55-3	8270E	µg/Kg	255 (10)	49	U	1200	49	130	U	3400	130	43	U	1100	43	39	U	970	39	99	U	2500	99	26	U	640	26	51	U	1300	51
4-Chloro-3-methylphenol	59-50-7	8270E	µg/Kg		69	U	1200	69	190	U	3400	190	60	U	1100	60	54	U	970	54	140	U	2500	140	36	U	640	36	73	U	1300	73
4-Chloroaniline	106-47-8	8270E	µg/Kg		220	U	1200	220	600	U	3400	600	190	U	1100	190	170	U	970	170	440	U	2500	440	110	U	640	110	230	U	1300	230
4-Chlorophenyl phenyl ether	7005-72-3	8270E	µg/Kg		44	U	1200	44	120	U	3400	120	38	U	1100	38	34	U	970	34	88	U	2500	88	23	U	640	23	46	U	1300	46
4-Methylphenol	106-44-5	8270E	µg/Kg		77	U	1200	77	210	U	3400	210	67	U	1100	67	61	U	970	61	160	U	2500	160	40	U	640	40	81	U	1300	81
4-Nitroaniline	100-01-6	8270E	µg/Kg		140	U	1200	140	390	U	3400	390	120	U	1100	120	110	U	970	110	290	U	2500	290	74	U	640	74	150	U	1300	150
4-Nitrophenol	100-02-7	8270E	µg/Kg	13.3 (9)	200	U	2500	200	550	U	6900	550	180	UJ	2200	180	160	UJ	2000	160	410	UJ	5000	410	110	UJ	1300	110	210	U	2600	210
Acetophenone	98-86-2	8270E	µg/Kg		61	U	1200	61	170	U	3400	170	53	U	1100	53	48	U	970	48	120	U	2500	120	32	U	640	32	64	U	1300	64
Atrazine	1912-24-9	8270E	µg/Kg		73	U	500	73	200	U	1400	200	63	U	430	63	57	U	390	57	150	U	1000	150	38	U	260	38	76	U	520	76
Benzaldehyde	100-52-7	8270E	µg/Kg		200	UJ	1200	200	620	J	3400	560	180	UJ	1100	180	160	UJ	970	160	410	UJ	2500	410	110	UJ	640	110	210	UJ	1300	210
Bis(2-chloroethoxy)methane	111-91-1	8270E	µg/Kg		96	U	1200	96	260	U	3400	260	84	U	1100	84	76	U	970	76	190	U	2500	190	50	U	640	50	100	U	1300	100
Bis(2-chloroethyl)ether	111-44-4	8270E	µg/Kg	3520 (9)	43	U	120	43	120	U	340	120	37	U	110	37	34	U	97	34	87	U	250	87	23	U	64	23	45	U	130	45
Bis(2-ethylhexyl) phthalate	117-81-7	8270E	µg/Kg	182 (9)	3600	J	1200	65	180	U	3400	180	110	J	1100	57	69	J	970	51	130	U	2500	130	34	U	640	34	69	U	1300	69
Butyl benzyl phthalate	85-68-7	8270E	µg/Kg	1970 (9)	58	UJ	1200	58	160	U	3400	160	50	U	1100	50	46	U	970	46	120	U	2500	120	30	U	640	30	61	U	1300	61
Caprolactam	105-60-2	8270E	µg/Kg		190	U	1200	190	530	U	3400	530	170	UJ	1100	170	150	UJ	970	150	390	UJ	2500	390	100	UJ	640	100	200	U	1300	200
Carbazole	86-74-8	8270E	µg/Kg		47	U	1200	47	130	U	3400	130	41	U	1100	41	37	U	970	37	95	U	2500	95	25	U	640	25	49	U	1300	49
Dibenzofuran	132-64-9	8270E	µg/Kg	300.74 (10)	150	J	1200	17	48	U	3400	48	15	U	1100	15	14	U	970	14	35	U	2500	35	9.1	U	640	9.1	18	U	1300	18
Diethyl phthalate	84-66-2	8270E	µg/Kg	295 (9)	18	U	1200	18	49	U	3400	49	16	U	1100	16	14	U	970	14	36	U	2500	36	9.4	U	640	9.4	19	U	1300	19
Dimethyl phthalate	131-11-3	8270E	µg/Kg		280	U	1200	280	770	U	3400	770	240	U	1100	240	220	U	970	220	570	U	2500	570	150	U	640	150	290	U	1300	290
Di-n-butyl phthalate	84-74-2	8270E	µg/Kg	1114 (9)	800	J	1200	46	130	U	3400	130	40	U	1100	40	37	U	970	37	94	U	2500	94	24	U	640	24	49	U	1300	49
Di-n-octyl phthalate	117-84-0	8270E	µg/Kg		65	UJ	1200	65	180	U	3400	180	57	U	1100	57	51	U	970	51	130	U	2500	130	34	U	640	34	69	U	1300	69
Hexachlorobenzene	118-74-1	8270E	µg/Kg	20 (9)	59	U	120	59	160	U	340	160	51	U	110	51	46	U	97	46	120	U	250	120	31	U	64	31	62	U	130	62
Hexachlorobutadiene	87-68-3	8270E	µg/Kg	26.5 (9)	26	U	250	26	72	U	690	72	23	U	220	23	21	U	200	21	53	U	500	53	14	U	130	14	28	U	260	28
Hexachlorocyclopentadiene	77-47-4	8270E	µg/Kg	901 (9)	110	U	1200	110	300	U	3400	300	94	U	1100	94	85	U	970	85	220	U	2500	220	57	U	640	57	110	U	1300	110
Hexachloroethane	67-72-1	8270E	µg/Kg	584 (9)	42	U	120	42	120	U	340	120	37	U	110	37	33	U	97	33	85	U	250	85	22	U	64	22	44	U	130	44
Isophorone	78-59-1	8270E	µg/Kg	432 (9)	360	U	500	360	980	U	1400	980	310	U	430	310	280	U	390	280	720	U	1000	720	190	U	260	190	370	U	520	370
Nitrobenzene	98-95-3	8270E	µg/Kg	145 (9)	30	U	120	30	81	U	340	81	26	U	110	26	23	U	97	23	60	U	250	60	16	U	64	16	31	U	130	31
N-Nitrosodi-n-propylamine	621-64-7	8270E	µg/Kg		90	U	120	90	250	U	340	250	78	U	110	78	71	U	97	71	180	U	250	180	47	U	64	47	94	U	130	94
N-Nitrosodiphenylamine	86-30-6	8270E	µg/Kg	516 (10)	100	U	1200	100	280	U	3400	280	88	U	1100	88	80	U	970	80	200	U	2500	200	53	U	640	53	110	U	1300	110
Pentachlorophenol	87-86-5	8270E	µg/Kg	23000 (9)	250	U	990	250	690	UJ	2700	690	220	U	860	220	200	U	780	200	510	U	2000	510	130	U	520	130	270	U	1000	270
Phenol	108-95-2	8270E	µg/Kg	49.1 (9)	45	U	1200	45	120	U	3400	120	40	U	1100	40	36	U	970	36	92	U	2500	92	24	U	640	24	48	U	1300	48

Table 5.12 - Sediment: Semi-Volatile Organic Compounds (SVOCs) Analyt (continued)

Rolling Knolls Landfill

	Sample Name			ESC's	SD14				SD15				SD16				SD101 (SD16 Duplicate)				SD17				SD18				SD19			
	Sample Date/Time				05/25/2021 09:00				05/25/2021 13:30				05/26/2021 15:06				05/26/2021 15:06				05/27/2021 14:18				05/28/2021 08:30				06/01/2021 09:20			
	Latitude				40.72740332				40.72937246				40.73124954				40.73124954				40.72670262				40.73132938				40.72289188			
	Longitude				-74.43971312				-74.440396				-74.44141084				-74.44141084				-74.43975897				-74.44108766				-74.44904733			
	Lab Sample Name			Screening Criteria	GS-N-SD14				GS-N-SD15				GS-N-SD16				GS-N-SD11-1				GS-N-SD17				GS-N-SD18				GS-N-SD19			
	Lab Sample Number				460-235492-2 / 460-235492-6				460-235492-3 / 460-235492-7				460-235592-1 / 460-235592-6				460-235592-2 / 460-235592-7				460-235592-3 / 460-235592-8				460-235592-4 / 460-235592-9				460-235680-1 / 460-235680-4			
	Lab Report Number(s)				460-235492-1 / 460-235492-3 / 460-235492-4				460-235492-1 / 460-235492-3 / 460-235492-4				460-235592-1 / 460-235592-3 / 460-235592-4				460-235592-1 / 460-235592-3 / 460-235592-4				460-235592-1 / 460-235592-3 / 460-235592-4				460-235592-1 / 460-235592-3 / 460-235592-4				460-235680-1 / 460-235680-3			
Analyte	CAS	Method	Units		Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)
Polycyclic Aromatic Hydrocarbons (PAHs)																																
Acenaphthene	83-32-9	8270E	µg/Kg	6.71 (9)	35	U	1200	35	96	U	3400	96	31	U	1100	31	28	U	970	28	71	U	2500	71	18	U	640	18	37	UJ	1300	37
Acenaphthylene	208-96-8	8270E	µg/Kg	5.87 (9)	12	U	1200	12	34	U	3400	34	11	U	1100	11	9.8	U	970	9.8	25	U	2500	25	6.5	U	640	6.5	13	U	1300	13
Anthracene	120-12-7	8270E	µg/Kg	57.2 (9)	38	U	1200	38	100	U	3400	100	33	U	1100	33	30	U	970	30	76	U	2500	76	20	U	640	20	39	U	1300	39
Fluorene	86-73-7	8270E	µg/Kg	77.4 (9)	17	U	1200	17	46	U	3400	46	15	U	1100	15	13	U	970	13	34	U	2500	34	8.8	U	640	8.8	34	J	1300	18
Naphthalene	91-20-3	8270E	µg/Kg	176 (9)	180	J	1200	21	220	J	3400	58	65	J	1100	19	46	J	970	17	43	U	2500	43	11	U	640	11	22	U	1300	22
Phenanthrene	85-01-8	8270E	µg/Kg	204 (9)	51	J	1200	22	94	J	3400	59	70	J	1100	19	49	J	970	17	48	J	2500	44	32	J	640	11	160	J	1300	23
Benzo[a]anthracene	56-55-3	8270E	µg/Kg	108 (9)	43	UJ	120	43	120	U	340	120	54	J	110	38	40	J	97	34	87	U	250	87	27	J	64	23	62	J	130	45
Benzo[a]pyrene	50-32-8	8270E	µg/Kg	150 (9)	33	UJ	120	33	90	U	340	90	44	J	110	29	30	J	97	26	66	U	250	66	24	J	64	17	44	J	130	35
Benzo[b]fluoranthene	205-99-2	8270E	µg/Kg	10400 (9)	32	UJ	120	32	88	U	340	88	74	J	110	28	52	J	97	25	66	J	250	64	44	J	64	17	63	J	130	34
Benzo[g,h,i]perylene	191-24-2	8270E	µg/Kg	170 (9)	36	UJ	1200	36	100	U	3400	100	52	J	1100	32	31	J	970	29	73	U	2500	73	20	J	640	19	38	U	1300	39
Benzo[k]fluoranthene	207-08-9	8270E	µg/Kg	240 (9)	24	UJ	120	24	66	U	340	66	25	J	110	21	19	J	97	19	49	U	250	49	17	J	64	13	25	U	130	25
Chrysene	218-01-9	8270E	µg/Kg	166 (9)	21	UJ	1200	21	57	U	3400	57	61	J	1100	18	44	J	970	16	49	J	2500	42	31	J	640	11	51	J	1300	22
Dibenz(a,h)anthracene	53-70-3	8270E	µg/Kg	33 (9)	53	UJ	120	53	150	U	340	150	47	U	110	47	42	U	97	42	110	U	250	110	28	U	64	28	56	U	130	56
Fluoranthene	206-44-0	8270E	µg/Kg	423 (9)	43	U	1200	43	120	U	3400	120	76	J	1100	38	59	J	970	34	87	U	2500	87	41	J	640	23	100	J	1300	45
Indeno[1,2,3-cd]pyrene	193-39-5	8270E	µg/Kg	200 (9)	48	UJ	120	48	130	U	340	130	50	J	110	42	38	U	97	38	97	U	250	97	25	U	64	25	51	U	130	51
Pyrene	129-00-0	8270E	µg/Kg	195 (9)	31	UJ	1200	31	87	J	3400	84	92	J	1100	27	62	J	970	24	62	U	2500	62	42	J	640	16	90	J	1300	32
Total PAHs			µg/Kg	4000 (9)	697				1598				800				592.8				1043				395.3				885			

Table 5.12 - Sediment: Semi-Volatile Organic Compounds (SVOCs) Analyt (continued)

Rolling Knolls Landfill

	Sample Name			ESC's	SD20				SD21			
	Sample Date/Time				06/02/2021 10:00				06/02/2021 12:28			
	Latitude				40.73050362				40.73060101			
	Longitude				-74.44237712				-74.44084937			
	Lab Sample Name			Screening Criteria	GS-N-SD20				GS-N-SD21			
	Lab Sample Number				460-235931-5 / 460-235931-7				460-235931-6 / 460-235931-8			
	Lab Report Number(s)				460-235931-1 / 460-235931-3 / 460-235931-4 / 460-235931-2				460-235931-1 / 460-235931-3 / 460-235931-4			
Analyte	CAS	Method	Units		Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)
1,1'-Biphenyl	92-52-4	8270E	µg/Kg		89	J	1400	18	19	U	1500	19
1,2,4,5-Tetrachlorobenzene	95-94-3	8270E	µg/Kg	1252 (9)	42	U	1400	42	45	U	1500	45
1,4-Dioxane	123-91-1	8270E	µg/Kg	119 (6)	120	U	140	120	130	U	150	130
2,2'-oxybis[1-chloropropane]	108-60-1	8270E	µg/Kg		25	U	1400	25	26	U	1500	26
2,3,4,6-Tetrachlorophenol	58-90-2	8270E	µg/Kg	129 (6)	92	U	1400	92	99	U	1500	99
2,4,5-Trichlorophenol	95-95-4	8270E	µg/Kg		140	U	1400	140	150	U	1500	150
2,4,6-Trichlorophenol	88-06-2	8270E	µg/Kg	208 (9)	170	U	550	170	190	U	590	190
2,4-Dichlorophenol	120-83-2	8270E	µg/Kg	81.7 (9)	87	U	550	87	93	U	590	93
2,4-Dimethylphenol	105-67-9	8270E	µg/Kg	304 (9)	60	U	1400	60	64	U	1500	64
2,4-Dinitrophenol	51-28-5	8270E	µg/Kg	6.21 (9)	670	U	1100	670	720	U	1200	720
2,4-Dinitrotoluene	121-14-2	8270E	µg/Kg	14.4 (9)	150	U	280	150	160	U	300	160
2,6-Dinitrotoluene	606-20-2	8270E	µg/Kg	39.8 (6)	98	U	280	98	110	U	300	110
2-Chloronaphthalene	91-58-7	8270E	µg/Kg	417 (9)	63	U	1400	63	67	U	1500	67
2-Chlorophenol	95-57-8	8270E	µg/Kg	31.9 (9)	48	U	1400	48	52	U	1500	52
2-Methylnaphthalene	91-57-6	8270E	µg/Kg	20.2 (9)	38	U	1400	38	41	U	1500	41
2-Methylphenol	95-48-7	8270E	µg/Kg	11.86 (10)	51	U	1400	51	54	U	1500	54
2-Nitroaniline	88-74-4	8270E	µg/Kg		51	U	1400	51	54	U	1500	54
2-Nitrophenol	88-75-5	8270E	µg/Kg		140	U	1400	140	150	U	1500	150
3,3'-Dichlorobenzidine	91-94-1	8270E	µg/Kg	127 (9)	210	U	550	210	220	U	590	220
3-Nitroaniline	99-09-2	8270E	µg/Kg		150	U	1400	150	160	U	1500	160
4,6-Dinitro-2-methylphenol	534-52-1	8270E	µg/Kg		550	U	1100	550	590	U	1200	590
4-Bromophenyl phenyl ether	101-55-3	8270E	µg/Kg	255 (10)	54	U	1400	54	58	U	1500	58
4-Chloro-3-methylphenol	59-50-7	8270E	µg/Kg		76	U	1400	76	82	U	1500	82
4-Chloroaniline	106-47-8	8270E	µg/Kg		240	U	1400	240	260	U	1500	260
4-Chlorophenyl phenyl ether	7005-72-3	8270E	µg/Kg		48	U	1400	48	51	U	1500	51
4-Methylphenol	106-44-5	8270E	µg/Kg		85	J	1400	85	91	U	1500	91
4-Nitroaniline	100-01-6	8270E	µg/Kg		160	U	1400	160	170	U	1500	170
4-Nitrophenol	100-02-7	8270E	µg/Kg	13.3 (9)	220	U	2800	220	240	U	3000	240
Acetophenone	98-86-2	8270E	µg/Kg		67	U	1400	67	72	U	1500	72
Atrazine	1912-24-9	8270E	µg/Kg		80	U	550	80	86	U	590	86
Benzaldehyde	100-52-7	8270E	µg/Kg		220	UJ	1400	220	240	UJ	1500	240
Bis(2-chloroethoxy)methane	111-91-1	8270E	µg/Kg		110	U	1400	110	110	U	1500	110
Bis(2-chloroethyl)ether	111-44-4	8270E	µg/Kg	3520 (9)	47	U	140	47	51	U	150	51
Bis(2-ethylhexyl) phthalate	117-81-7	8270E	µg/Kg	182 (9)	**690**	J	1400	72	77	U	1500	77
Butyl benzyl phthalate	85-68-7	8270E	µg/Kg	1970 (9)	110	J	1400	64	68	U	1500	68
Caprolactam	105-60-2	8270E	µg/Kg		210	U	1400	210	230	U	1500	230
Carbazole	86-74-8	8270E	µg/Kg		150	J	1400	52	56	U	1500	56
Dibenzofuran	132-64-9	8270E	µg/Kg	300.74 (10)	40	J	1400	19	20	U	1500	20
Diethyl phthalate	84-66-2	8270E	µg/Kg	295 (9)	20	U	1400	20	21	U	1500	21
Dimethyl phthalate	131-11-3	8270E	µg/Kg		310	U	1400	310	330	U	1500	330
Di-n-butyl phthalate	84-74-2	8270E	µg/Kg	1114 (9)	110	J	1400	51	55	U	1500	55
Di-n-octyl phthalate	117-84-0	8270E	µg/Kg		72	U	1400	72	77	U	1500	77
Hexachlorobenzene	118-74-1	8270E	µg/Kg	20 (9)	**370**		140	65	69	U	150	69
Hexachlorobutadiene	87-68-3	8270E	µg/Kg	26.5 (9)	29	U	280	29	31	U	300	31
Hexachlorocyclopentadiene	77-47-4	8270E	µg/Kg	901 (9)	120	U	1400	120	130	U	1500	130
Hexachloroethane	67-72-1	8270E	µg/Kg	584 (9)	47	U	140	47	50	U	150	50
Isophorone	78-59-1	8270E	µg/Kg	432 (9)	390	U	550	390	420	U	590	420
Nitrobenzene	98-95-3	8270E	µg/Kg	145 (9)	33	U	140	33	35	U	150	35
N-Nitrosodi-n-propylamine	621-64-7	8270E	µg/Kg		99	U	140	99	110	U	150	110
N-Nitrosodiphenylamine	86-30-6	8270E	µg/Kg	516 (10)	110	U	1400	110	120	U	1500	120
Pentachlorophenol	87-86-5	8270E	µg/Kg	23000 (9)	280	U	1100	280	300	U	1200	300
Phenol	108-95-2	8270E	µg/Kg	49.1 (9)	50	U	1400	50	54	U	1500	54

Table 5.12 - Sediment: Semi-Volatile Organic Compounds (SVOCs) Analyt (continued)

Rolling Knolls Landfill

	Sample Name			ESC's	SD20				SD21			
	Sample Date/Time				06/02/2021 10:00				06/02/2021 12:28			
	Latitude				40.73050362				40.73060101			
	Longitude				-74.44237712				-74.44084937			
	Lab Sample Name			Screening Criteria	GS-N-SD20				GS-N-SD21			
	Lab Sample Number				460-235931-5 / 460-235931-7				460-235931-6 / 460-235931-8			
	Lab Report Number(s)				460-235931-1 / 460-235931-3 / 460-235931-4 / 460-235931-2				460-235931-1 / 460-235931-3 / 460-235931-4			
Analyte	CAS	Method	Units		Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)
Polycyclic Aromatic Hydrocarbons (PAHs)												
Acenaphthene	83-32-9	8270E	µg/Kg	6.71 (9)	69	J	1400	39	42	UJ	1500	42
Acenaphthylene	208-96-8	8270E	µg/Kg	5.87 (9)	65	J	1400	14	15	U	1500	15
Anthracene	120-12-7	8270E	µg/Kg	57.2 (9)	190	J	1400	41	44	U	1500	44
Fluorene	86-73-7	8270E	µg/Kg	77.4 (9)	77	J	1400	18	20	U	1500	20
Naphthalene	91-20-3	8270E	µg/Kg	176 (9)	70	J	1400	23	31	J	1500	25
Phenanthrene	85-01-8	8270E	µg/Kg	204 (9)	750	J	1400	24	56	J	1500	26
Benzo[a]anthracene	56-55-3	8270E	µg/Kg	108 (9)	1600		140	47	51	U	150	51
Benzo[a]pyrene	50-32-8	8270E	µg/Kg	150 (9)	2200		140	36	39	U	150	39
Benzo[b]fluoranthene	205-99-2	8270E	µg/Kg	10400 (9)	3000		140	35	60	J	150	38
Benzo[g,h,i]perylene	191-24-2	8270E	µg/Kg	170 (9)	930	J	1400	40	43	U	1500	43
Benzo[k]fluoranthene	207-08-9	8270E	µg/Kg	240 (9)	1100		140	27	29	U	150	29
Chrysene	218-01-9	8270E	µg/Kg	166 (9)	1700		1400	23	33	J	1500	25
Dibenz(a,h)anthracene	53-70-3	8270E	µg/Kg	33 (9)	270		140	59	63	U	150	63
Fluoranthene	206-44-0	8270E	µg/Kg	423 (9)	2200		1400	47	52	J	1500	51
Indeno[1,2,3-cd]pyrene	193-39-5	8270E	µg/Kg	200 (9)	1000	J	140	53	57	UJ	150	57
Pyrene	129-00-0	8270E	µg/Kg	195 (9)	1700		1400	34	53	J	1500	36
Total PAHs			µg/Kg	4000 (9)	16921				688			

Table 5.13 - Sediment: Dioxins and Furans Analytical Results

Rolling Knolls Landfill

	Sample Name			NJDEP Avian TEF's	ESC's	SD02			
	Sample Date/Time					05/14/2021 09:15			
	Latitude			Toxicity Equivalence Factor (TEF)	Screening Criteria	40.72715605			
	Longitude					-74.43993388			
	Lab Sample Name					GS-S-SD02			
	Lab Sample Number					460-234557-1			
	Lab Report Number(s)					460-234557-1 / 460-234557-2 / 460-234557-3			
Analyte	CAS	Method	Units			Result	LDC Flag	RL	MDL (EDL)
1,2,3,4,6,7,8-HpCDD	35822-46-9	8290A	pg/g			1180		51.8	12.6
1,2,3,4,6,7,8-HpCDF	67562-39-4	8290A	pg/g			142		51.8	2.82
1,2,3,4,7,8,9-HpCDF	55673-89-7	8290A	pg/g			10.8	J	51.8	3.4
1,2,3,4,7,8-HxCDD	39227-28-6	8290A	pg/g			8.37	J	51.8	1.06
1,2,3,4,7,8-HxCDF	70648-26-9	8290A	pg/g			26.3	J	51.8	1.03
1,2,3,6,7,8-HxCDD	57653-85-7	8290A	pg/g			36.2	J	51.8	0.94
1,2,3,6,7,8-HxCDF	57117-44-9	8290A	pg/g			13.3	J	51.8	0.95
1,2,3,7,8,9-HxCDD	19408-74-3	8290A	pg/g			26.5	J	51.8	0.9
1,2,3,7,8,9-HxCDF	72918-21-9	8290A	pg/g			8.58	J	51.8	1.07
1,2,3,7,8-PeCDD	40321-76-4	8290A	pg/g			1.42	U	51.8	1.42
1,2,3,7,8-PeCDF	57117-41-6	8290A	pg/g			9.05	J	51.8	1.41
2,3,4,6,7,8-HxCDF	60851-34-5	8290A	pg/g			7.81	J	51.8	0.97
2,3,4,7,8-PeCDF	57117-31-4	8290A	pg/g			11.8	J	51.8	1.44
2,3,7,8-TCDD	1746-01-6	8290A	pg/g		0.12 (9)	**5.11**	J	10.4	0.45
2,3,7,8-TCDF	51207-31-9	8290A	pg/g			21.6		10.4	3.85
OCDD	3268-87-9	8290A	pg/g			17700		104	17.6
OCDF	39001-02-0	8290A	pg/g			458		104	0.6
Total HpCDD	37871-00-4	8290A	pg/g			2360		51.8	12.6
Total HpCDF	38998-75-3	8290A	pg/g			527		51.8	3.11
Total HxCDD	34465-46-8	8290A	pg/g			344		51.8	0.96
Total HxCDF	55684-94-1	8290A	pg/g			193		51.8	1.01
Total PeCDD	36088-22-9	8290A	pg/g			112	J	51.8	1.42
Total PeCDF	30402-15-4	8290A	pg/g			150	J	51.8	1.43
Total TCDD	41903-57-5	8290A	pg/g		0.12 (9)	**69**	J	10.4	0.45
Total TCDF	30402-14-3	8290A	pg/g			223		10.4	2.2
Chlorinated Dibenzo-p-dioxin TEQ Calculation									
1,2,3,4,6,7,8-HpCDD	35822-46-9	PCDD	pg/g	0.001		1.18			
1,2,3,4,7,8-HxCDD	39227-28-6	PCDD	pg/g	0.05		0.4185			
1,2,3,6,7,8-HxCDD	57653-85-7	PCDD	pg/g	0.01		0.362			
1,2,3,7,8,9-HxCDD	19408-74-3	PCDD	pg/g	0.1		2.65			
1,2,3,7,8-PeCDD	40321-76-4	PCDD	pg/g	1		0			
2,3,7,8-TCDD	1746-01-6	PCDD	pg/g	1		**5.11**			
OCDD	3268-87-9	PCDD	pg/g	0.0001		1.77			
Σ Dibenzo-p-dioxin (PCDD) TEQ	30402-14-3		pg/g		0.12 (9)	**11.5**			
Chlorinated dibenzofuran TEQ Calculation									
1,2,3,4,6,7,8-HpCDF	67562-39-4	PCDF	pg/g	0.01		1.42			
1,2,3,4,7,8,9-HpCDF	55673-89-7	PCDF	pg/g	0.01		0.108			
1,2,3,4,7,8-HxCDF	70648-26-9	PCDF	pg/g	0.1		2.63			
1,2,3,6,7,8-HxCDF	57117-44-9	PCDF	pg/g	0.1		1.33			
1,2,3,7,8,9-HxCDF	72918-21-9	PCDF	pg/g	0.1		0.858			
1,2,3,7,8-PeCDF	57117-41-6	PCDF	pg/g	0.1		0.905			
2,3,4,6,7,8-HxCDF	60851-34-5	PCDF	pg/g	0.1		0.781			
2,3,4,7,8-PeCDF	57117-31-4	PCDF	pg/g	1		11.8			
2,3,7,8-TCDF	51207-31-9	PCDF	pg/g	1		21.6			
OCDF	39001-02-0	PCDF	pg/g	0.0001		0.0458			
Σ Dibenzofuran (PCDF) TEQ	30402-14-3		pg/g		0.12 (9)	**41.4**			
Σ PCB TEQ + PCDD TEQ + PCDF TEQ	30402-14-3		pg/g		0.12 (9)	**188.9**			

Table 5.14 - Sediment: Polychlorinated Biphenyls (PCBs) Analytical Results

Rolling Knolls Landfill

Sample Name				NJDEP Avian TEF's	ESC's	SD01				SD100 (SD01 duplicate)				SD02				SD03				SD08				SD09				SD10			
Sample Date/Time						05/13/2021 15:30				05/13/2021 15:30				05/14/2021 09:15				05/14/2021 10:45				05/19/2021 13:43				05/19/2021 14:43				05/19/2021 15:45			
Latitude				Toxicity Equivalence Factor (TEF)	Screening Criteria	40.72679082				40.72679082				40.72715605				40.72638198				40.732265				40.73189675				40.73169144			
Longitude						-74.44034521				-74.44034521				-74.43993388				-74.44081345				-74.43997				-74.44071492				-74.44135929			
Lab Sample Name						GS-S-SD01				GS-S-SD0100				GS-S-SD02				GS-S-SD03				GS-S-SD08				GS-S-SD09				GS-S-SD10			
Lab Sample Number						460-234557-3				460-234557-4				460-234557-1				460-234557-2				460-235248-1				460-235248-2				460-235248-3			
Lab Report Number(s)						460-234557-1 / 460-234557-2 / 460-234557-3				460-234557-1 / 460-234557-3				460-234557-1 / 460-234557-2 / 460-234557-3				460-234557-1 / 460-234557-2 / 460-234557-3				460-235248-1 / 460-235248-3				460-235248-1 / 460-235248-3				460-235248-1 / 460-235248-3			
Analyte	CAS	Method	Units			Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)
Polychlorinated Biphenyls (PCBs)																																	
Aroclor 1016	12674-11-2	8082A	µg/Kg		7 (9)	41	U	310	41	42	U	320	42	50	U	380	50	55	U	420	59	43	U	320	43	70	U	520	70	38	U	290	38
Aroclor 1221	11104-28-2	8082A	µg/Kg			41	U	310	41	42	U	320	42	50	U	380	50	55	U	420	59	43	U	320	43	70	U	520	70	38	U	290	38
Aroclor 1232	11141-16-5	8082A	µg/Kg			41	U	310	41	42	U	320	42	50	U	380	50	55	U	420	59	43	U	320	43	70	U	520	70	38	U	290	38
Aroclor 1242	53469-21-9	8082A	µg/Kg		59 (10)	41	U	310	41	42	U	320	42	50	U	380	50	55	U	420	59	43	U	320	43	70	U	520	70	38	U	290	38
Aroclor 1248	12672-29-6	8082A	µg/Kg		30 (9)	700		310	41	1300		320	42	1200		380	50	1200		420	55	43	U	320	43	70	U	520	70	38	U	290	38
Aroclor 1254	11097-69-1	8082A	µg/Kg		60 (9)	42	U	310	42	43	U	320	43	52	U	380	52	57	U	420	57	44	U	320	44	72	U	520	72	39	U	290	39
Aroclor 1260	11096-82-5	8082A	µg/Kg		5 (9)	42	U	310	42	240	J	320	43	52	U	380	52	57	U	420	57	44	U	320	44	72	U	520	72	39	U	290	39
Aroclor 1268	11100-14-4	8082A	µg/Kg			42	U	310	42	43	U	320	43	52	U	380	52	57	U	420	57	44	U	320	44	72	U	520	72	39	U	290	39
Aroclor-1262	37324-23-5	8082A	µg/Kg			42	U	310	42	43	U	320	43	52	U	380	52	57	U	420	57	44	U	320	44	72	U	520	72	39	U	290	39
Polychlorinated biphenyls, Total	1336-36-3	8082A	µg/Kg		59.8 (9)	700		310	42	1500		320	43	1200		380	52	1200		420	57	44	U	320	44	72	U	520	72	39	U	290	39
Chlorinated Biphenyl Congeners (PCBs)																																	
PCB-1	2051-60-7	1668A	pg/g			43500		585	196					42400		1060	114	41800		940	199												
PCB-2	2051-61-8	1668A	pg/g			3770		585	169					2050		1060	104	6110		940	178												
PCB-3	2051-62-9	1668A	pg/g			17000		585	174					10400		1060	115	33700		940	192												
PCB-4	13029-08-8	1668A	pg/g			48300		585	160					14800		1060	359	49600		940	290												
PCB-5	16605-91-7	1668A	pg/g			819		585	443					736	U	1060	736	1510	J	1320	1320												
PCB-6	25569-80-6	1668A	pg/g			20700		585	401					6160		1060	666	65600		1190	1190												
PCB-7	33284-50-3	1668A	pg/g			2580		585	431					981	J	1060	715	5460		1280	1280												
PCB-8	34883-43-7	1668A	pg/g			34300		585	372					11400		1060	617	81500		1100	1100												
PCB-9	34883-39-1	1668A	pg/g			3630		585	423					1310		1060	701	6580		1250	1250												
PCB-10	33146-45-1	1668A	pg/g			6030		585	133					1990		1060	346	3970	J	940	273												
PCB-11	2050-67-1	1668A	pg/g			2550		585	485					804	U	1060	804	3230		1440	1440												
PCB-12	2974-92-7	1668A	pg/g			10300		1170	478					2390		2120	793	20800		1880	1420												
PCB-13	2974-90-5	1668A	pg/g			10300		1170	478					2390		2120	793	20800		1880	1420												
PCB-14	34883-41-5	1668A	pg/g			463	U	585	463					768	U	1060	768	1370	U	1370	1370												
PCB-15	2050-68-2	1668A	pg/g			24900		585	385					9360		1060	704	56000		1240	1240												
PCB-16	38444-78-9	1668A	pg/g			21100		585	58.1					8190		1060	58.8	57100		940	204												
PCB-17	37680-66-3	1668A	pg/g			39600		585	56.3					12100		1060	57	75400		940	197												
PCB-18	37680-65-2	1668A	pg/g			43500		1170	40.2					13600		2120	40.7	88300		1880	141												
PCB-19	38444-73-4	1668A	pg/g			16400		585	47.6					5460		1060	47.3	30800		940	169												
PCB-20	38444-84-7	1668A	pg/g			90600		1750	952					28800		3180	398	205000	J	2820	1750												
PCB-21	55702-46-0	1668A	pg/g			27800		1170	995					10100		2120	416	49200		1880	1830												
PCB-22	38444-85-8	1668A	pg/g			22700		941	941					7220		1060	394	46800		1730	1730												
PCB-23	55720-44-0	1668A	pg/g			957	U	957	957					401	U	1060	401	1760	U	1760	1760												
PCB-24	55702-45-9	1668A	pg/g			42.2	U	585	42.2					42.7	U	1060	42.7	148	U	940	148												
PCB-25	55712-37-3	1668A	pg/g			18800		867	867					5840		1060	363	44300		1590	1590												
PCB-26	38444-81-4	1668A	pg/g			31600		1170	993					9500		2120	415	75300		1880	1820												
PCB-27	38444-76-7	1668A	pg/g			7870		585	38.5					2950		1060	38.9	16200		940	135												
PCB-28	7012-37-5	1668A	pg/g			90600		1750	952					28800		3180	398	205000	J	2820	1750												
PCB-29	15862-07-4	1668A	pg/g			31600		1170	993					9500		2120	415	75300		1880	1820												
PCB-30	35693-92-6	1668A	pg/g			43500		1170	40.2					13600		2120	40.7	88300		1880	141												
PCB-31	16606-02-3	1668A	pg/g			77000	J	916	916					22500		1060	383	169000	J	1680	1680												
PCB-32	38444-77-8	1668A	pg/g			31900		585	39.5					11000		1060	39.9	65900		940	138												
PCB-33	38444-86-9	1668A	pg/g			27800		1170	995					10100		2120	416	49200		1880	1830												
PCB-34	37680-68-5	1668A	pg/g			1100		992	992					415	U	1060	415	1890		1820	1820												
PCB-35	37680-69-6	1668A	pg/g			1370	J	1090	1090					457	U	1060	457	2010	U	2010	2010												
PCB-36	38444-87-0	1668A	pg/g			1090	U	1090	1090					458	U	1060	458	2010	U	2010	2010												
PCB-37	38444-90-5	1668A	pg/g			22700		1290	1290					7720		1060	549	36500		2390	2390												
PCB-38	53555-66-1	1668A	pg/g			1130	U	1130	1130					472	U	1060	472	2070	U	2070	2070												
PCB-39	38444-88-1	1668A	pg/g			1020	U	1020	1020					426	U	1060	426	1870	U	1870	1870												
PCB-40	38444-93-8	1668A	pg/g			41300		1650	1650					13700		2120	473	70300		3960	3960												
PCB-41	52663-59-9	1668A	pg/g			3460	J	2520	2520					958	J	1060	721	6030	U	6030	6030												
PCB-42	36559-22-5	1668A	pg/g			26100		1760	1760					8650		1060	503	43600		4200	4200												
PCB-43	70362-46-8	1668A	pg/g			3960		1780	1780					1190		1060	510	7990		4270	4270												
PCB-44	41464-39-5	1668A	pg/g			112000		1750	1690					38000		3180	484	177000		4050	4050												
PCB-45	70362-45-7	1668A	pg/g			13900		2520	2520					3380		1060	722	29800		6040	6040												
PCB-46	41464-47-5	1668A	pg/g			7390		2140	2140					3330		1060	612	14100		5120	5120												
PCB-47	2437-79-8	1668A	pg/g			112000		1750	1690					38000		3180	484	177000		4050	4050												
PCB-48	70362-47-9	1668A	pg/g			13100		1810	1810					3570		1060	518	19100		4330	4330												
PCB-49	41464-40-8	1668A	pg/g			78200		1490	1490					28000		2120	428	117000		3580	3580												

Table 5.14 - Sediment: Polychlorinated Biphenyls (PCBs) Analytical Results

Rolling Knolls Landfill

Sample Name				NJDEP Avian TEF's	ESC's	SD01				SD100 (SD01 duplicate)				SD02				SD03				SD08				SD09				SD10			
Sample Date/Time						05/13/2021 15:30				05/13/2021 15:30				05/14/2021 09:15				05/14/2021 10:45				05/19/2021 13:43				05/19/2021 14:43				05/19/2021 15:45			
Latitude				Toxicity Equivalence Factor (TEF)	Screening Criteria	40.72679082				40.72679082				40.72715605				40.72638198				40.732265				40.73189675				40.73169144			
Longitude						-74.44034521				-74.44034521				-74.43993388				-74.44081345				-74.43997				-74.44071492				-74.44135929			
Lab Sample Name						GS-S-SD01				GS-S-SD0100				GS-S-SD02				GS-S-SD03				GS-S-SD08				GS-S-SD09				GS-S-SD10			
Lab Sample Number						460-234557-3				460-234557-4				460-234557-1				460-234557-2				460-235248-1				460-235248-2				460-235248-3			
Lab Report Number(s)						460-234557-1 / 460-234557-2 / 460-234557-3				460-234557-1 / 460-234557-3				460-234557-1 / 460-234557-2 / 460-234557-3				460-234557-1 / 460-234557-2 / 460-234557-3				460-235248-1 / 460-235248-3				460-235248-1 / 460-235248-3				460-235248-1 / 460-235248-3			
Analyte	CAS	Method	Units			Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)
PCB-50	62796-65-0	1668A	pg/g			24900		2100	2100					11700		2120	601	41800		5030	5030												
PCB-51	68194-04-7	1668A	pg/g			10300		1480	1480					5230		1060	424	14000		3550	3550												
PCB-52	35693-99-3	1668A	pg/g			133000	J	1770	1770					41600		1060	508	212000	J	4250	4250												
PCB-53	41464-41-9	1668A	pg/g			24900		2100	2100					11700		2120	601	41800		5030	5030												
PCB-54	15968-05-5	1668A	pg/g			1590		585	3.91					1010	J	1060	10.8	2560		940	11.1												
PCB-55	74338-24-2	1668A	pg/g			494	U	585	494					170	U	1060	170	760	U	940	760												
PCB-56	41464-43-1	1668A	pg/g			30200		585	581					8670		1060	200	41400		940	894												
PCB-57	70424-67-8	1668A	pg/g			630	U	630	630					217	U	1060	217	970	U	970	970												
PCB-58	41464-49-7	1668A	pg/g			542	U	585	542					187	U	1060	187	834	U	940	834												
PCB-59	74472-33-6	1668A	pg/g			8310		1750	1450					2580	J	3180	414	14500		3460	3460												
PCB-60	33025-41-1	1668A	pg/g			9430		614	614					2780		1060	212	12400		945	945												
PCB-61	33284-53-6	1668A	pg/g			117000		2340	587					34900		4240	202	153000		3760	904												
PCB-62		1668A	pg/g			8310		1750	1450					2580	J	3180	414	14500		3460	3460												
PCB-63	74472-34-7	1668A	pg/g			3370	J	634	634					1380		1060	218	5590		976	976												
PCB-64	52663-58-8	1668A	pg/g			32900		1330	1330					8730		1060	380	52800		3180	3180												
PCB-65	33284-54-7	1668A	pg/g			112000		1750	1690					38000		3180	484	177000		4050	4050												
PCB-66	32598-10-0	1668A	pg/g			74400	J	585	585					24000		1060	202	101000	J	940	900												
PCB-67	73575-53-8	1668A	pg/g			1510	J	585	487					508	J	1060	168	2200	J	940	750												
PCB-68	73575-52-7	1668A	pg/g			1680		585	551					802	J	1060	190	1750	J	940	848												
PCB-69	60233-24-1	1668A	pg/g			78200		1490	1490					28000		2120	428	117000		3580	3580												
PCB-70	32598-11-1	1668A	pg/g			117000		2340	587					34900		4240	202	153000		3760	904												
PCB-71	41464-46-4	1668A	pg/g			41300		1650	1650					13700		2120	473	70300		3960	3960												
PCB-72	41464-42-0	1668A	pg/g			1970		617	617					946	J	1060	213	2520	J	949	949												
PCB-73	74338-23-1	1668A	pg/g			1260	U	1260	1260					362	U	1060	362	3030	U	3030	3030												
PCB-74	32690-93-0	1668A	pg/g			117000		2340	587					34900		4240	202	153000		3760	904												
PCB-75	32598-12-2	1668A	pg/g			8310		1750	1450					2580	J	3180	414	14500		3460	3460												
PCB-76	70362-48-0	1668A	pg/g			117000		2340	587					34900		4240	202	153000		3760	904												
PCB-77	32598-13-3	1668A	pg/g			7860		732	732					2670		260	260	10200	J	1140	1140												
PCB-78	70362-49-1	1668A	pg/g			674	U	674	674					232	U	1060	232	1040	U	1040	1040												
PCB-79	41464-48-6	1668A	pg/g			1040		591	591					204	U	1060	204	1270		940	910												
PCB-80	33284-52-5	1668A	pg/g			540	U	585	540					186	U	1060	186	831	U	940	831												
PCB-81	70362-50-4	1668A	pg/g			716	U	716	716					251	U	251	251	1080	U	1080	1080												
PCB-82	52663-62-4	1668A	pg/g			14400		1770	1770					4770		1060	886	17700		2690	2690												
PCB-83	60145-20-2	1668A	pg/g			7890		2290	2290					2540		1150	1150	11100		3480	3480												
PCB-84	52663-60-2	1668A	pg/g			37400		1940	1940					12400		1060	973	47600		2960	2960												
PCB-85	65510-45-4	1668A	pg/g			23000		1750	1390					6820		3180	694	27300		2820	2110												
PCB-86	55312-69-1	1668A	pg/g			81600		3510	1390					25600		6360	697	102000		5640	2120												
PCB-87	38380-02-8	1668A	pg/g			81600		3510	1390					25600		6360	697	102000		5640	2120												
PCB-88	55215-17-3	1668A	pg/g			22700		1660	1660					8210		2120	831	28100		2530	2530												
PCB-89	73575-57-2	1668A	pg/g			2320		1870	1870					936	U	1060	936	3200		2850	2850												
PCB-90	68194-07-0	1668A	pg/g			130000		1750	1460					41100		3180	731	161000		2820	2220												
PCB-91	68194-05-8	1668A	pg/g			22700		1660	1660					8210		2120	831	28100		2530	2530												
PCB-92	52663-61-3	1668A	pg/g			28600		1680	1680					10000		1060	842	38400		2560	2560												
PCB-93	73575-56-1	1668A	pg/g			3110		1610	1610					1770	J	2120	804	4210		2440	2440												
PCB-94	73575-55-0	1668A	pg/g			1820	U	1820	1820					1000	J	1060	910	3050		2770	2770												
PCB-95	38379-99-6	1668A	pg/g			95400	J	1660	1660					30400		1060	831	118000	J	2530	2530												
PCB-96	73575-54-9	1668A	pg/g			1660		585	4.23					572	J	1060	5.33	2140		940	8.96												
PCB-97	41464-51-1	1668A	pg/g			81600		3510	1390					25600		6360	697	102000		5640	2120												
PCB-98	60233-25-2	1668A	pg/g			5800		1590	1590					2090	J	2120	795	7470		2420	2420												
PCB-99	38380-01-7	1668A	pg/g			65500	J	1390	1390					20900		1060	694	79800		2110	2110												
PCB-100	39485-83-1	1668A	pg/g			3110		1610	1610					1770	J	2120	804	4210		2440	2440												
PCB-101	37680-73-2	1668A	pg/g			130000		1750	1460					41100		3180	731	161000		2820	2220												
PCB-102	68194-06-9	1668A	pg/g			5800		1590	1590					2090	J	2120	795	7470		2420	2420												
PCB-103	60145-21-3	1668A	pg/g			2130		1520	1520					1090		1060	759	2990		2310	2310												
PCB-104	56558-16-8	1668A	pg/g			251	J	585	4.3					169	J	1060	6.02	405	J	940	10.7												
PCB-105	32598-14-4	1668A	pg/g			36800		1280	1280					11800		639	639	40200		1930	1930												
PCB-106	70424-69-0	1668A	pg/g			1360	U	1360	1360					683	U	1060	683	2080	U	2080	2080												
PCB-107	70424-68-9	1668A	pg/g			4600		1360	1360					1510	J	2120	683	5240		2080	2080												
PCB-108	70362-41-3	1668A	pg/g			81600		3510	1390					25600		6360	697	102000		5640	2120												
PCB-109	74472-35-8	1668A	pg/g			9220		1200	1200					3540		1060	603	11100		1830	1830												
PCB-110	38380-03-9	1668A	pg/g			144000	J	1190	1190					45000		2120	594	181000		1880	1810												
PCB-111	39635-32-0	1668A	pg/g			1250	U	1250	1250					624	U	1060	624	1900	U	1900	1900												

Table 5.14 - Sediment: Polychlorinated Biphenyls (PCBs) Analytical Results

Rolling Knolls Landfill

Sample Name				NJDEP Avian TEF's	ESC's	SD01				SD100 (SD01 duplicate)				SD02				SD03				SD08				SD09				SD10			
Sample Date/Time						05/13/2021 15:30				05/13/2021 15:30				05/14/2021 09:15				05/14/2021 10:45				05/19/2021 13:43				05/19/2021 14:43				05/19/2021 15:45			
Latitude				Toxicity Equivalence Factor (TEF)	Screening Criteria	40.72679082				40.72679082				40.72715605				40.72638198				40.732265				40.73189675				40.73169144			
Longitude						-74.44034521				-74.44034521				-74.43993388				-74.44081345				-74.43997				-74.44071492				-74.44135929			
Lab Sample Name						GS-S-SD01				GS-S-SD0100				GS-S-SD02				GS-S-SD03				GS-S-SD08				GS-S-SD09				GS-S-SD10			
Lab Sample Number						460-234557-3				460-234557-4				460-234557-1				460-234557-2				460-235248-1				460-235248-2				460-235248-3			
Lab Report Number(s)						460-234557-1 / 460-234557-2 / 460-234557-3				460-234557-1 / 460-234557-3				460-234557-1 / 460-234557-2 / 460-234557-3				460-234557-1 / 460-234557-2 / 460-234557-3				460-235248-1 / 460-235248-3				460-235248-1 / 460-235248-3				460-235248-1 / 460-235248-3			
Analyte	CAS	Method	Units			Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)
PCB-112	74472-36-9	1668A	pg/g			1000	U	1000	1000					502	U	1060	502	1530	U	1530	1530												
PCB-113	68194-10-5	1668A	pg/g			130000		1750	1460					41100		3180	731	161000		2820	2220												
PCB-114	74472-37-0	1668A	pg/g			2310	J	1350	1350					722	J	674	674	2600		2040	2040												
PCB-115	74472-38-1	1668A	pg/g			144000	J	1190	1190					45000		2120	594	181000		1880	1810												
PCB-116	18259-05-7	1668A	pg/g			23000		1750	1390					6820		3180	694	27300		2820	2110												
PCB-117	68194-11-6	1668A	pg/g			23000		1750	1390					6820		3180	694	27300		2820	2110												
PCB-118	31508-00-6	1668A	pg/g			105000	J	1230	1230					34200		601	601	121000	J	1770	1770												
PCB-119	56558-17-9	1668A	pg/g			81600		3510	1390					25600		6360	697	102000		5640	2120												
PCB-120	68194-12-7	1668A	pg/g			1060	U	1060	1060					528	U	1060	528	1610	U	1610	1610												
PCB-121	56558-18-0	1668A	pg/g			1070	U	1070	1070					538	U	1060	538	1640	U	1640	1640												
PCB-122	76842-07-4	1668A	pg/g			2210		1550	1550					814	J	1060	778	2930		2370	2370												
PCB-123	65510-44-3	1668A	pg/g			2300		1430	1430					810		669	669	2330		2030	2030												
PCB-124	70424-70-3	1668A	pg/g			4600		1360	1360					1510	J	2120	683	5240		2080	2080												
PCB-125	74472-39-2	1668A	pg/g			81600		3510	1390					25600		6360	697	102000		5640	2120												
PCB-126	57465-28-8	1668A	pg/g			1680	U	1680	1680					792	U	792	792	2650	U	2650	2650												
PCB-127	39635-33-1	1668A	pg/g			1500	U	1500	1500					753	U	1060	753	2290	U	2290	2290												
PCB-128	38380-07-3	1668A	pg/g			16000		1170	377					6020		2120	177	19000		1880	693												
PCB-129	55215-18-4	1668A	pg/g			94900		1750	397					32700		3180	187	122000		2820	730												
PCB-130	52663-66-8	1668A	pg/g			7230		585	509					2730		1060	239	8570		940	935												
PCB-131	61798-70-7	1668A	pg/g			1510		585	451					476	J	1060	212	1860		940	830												
PCB-132	38380-05-1	1668A	pg/g			442	U	585	442					11000		1060	208	40800		940	814												
PCB-133	35694-04-3	1668A	pg/g			2020		585	432					679	J	1060	203	2830		940	795												
PCB-134	52704-70-8	1668A	pg/g			5690		1170	423					1990	J	2120	199	6740		1880	778												
PCB-135	52744-13-5	1668A	pg/g			26900		1170	400					9030		2120	188	38900		1880	736												
PCB-136	38411-22-2	1668A	pg/g			10400		585	281					3560		1060	132	13700		940	517												
PCB-137	35694-06-5	1668A	pg/g			4880		585	427					1790		1060	201	5630		940	785												
PCB-138	35065-28-2	1668A	pg/g			94900		1750	397					32700		3180	187	122000		2820	730												
PCB-139	56030-56-9	1668A	pg/g			2410		1170	398					774	J	2120	187	2890		1880	731												
PCB-140	59291-64-4	1668A	pg/g			2410		1170	398					774	J	2120	187	2890		1880	731												
PCB-141	52712-04-6	1668A	pg/g			14400		585	425					5140		1060	200	781	U	940	781												
PCB-142	41411-61-4	1668A	pg/g			33600		585	441					207	U	1060	207	811	U	940	811												
PCB-143	68194-15-0	1668A	pg/g			5690		1170	423					1990	J	2120	199	6740		1880	778												
PCB-144	68194-14-9	1668A	pg/g			3360		585	367					1140		1060	173	4710		940	675												
PCB-145	74472-40-5	1668A	pg/g			291	U	585	291					137	U	1060	137	535	U	940	535												
PCB-146	51908-16-8	1668A	pg/g			12900		585	347					3990		1060	163	16000		940	639												
PCB-147	68194-13-8	1668A	pg/g			68000		1170	387					21800		2120	182	91700		1880	712												
PCB-148	74472-41-6	1668A	pg/g			370	U	585	370					174	U	1060	174	791	J	940	681												
PCB-149	38380-04-0	1668A	pg/g			68000		1170	387					21800		2120	182	91700		1880	712												
PCB-150	68194-08-1	1668A	pg/g			266	U	585	266					125	U	1060	125	490	U	940	490												
PCB-151	52663-63-5	1668A	pg/g			26900		1170	400					9030		2120	188	38900		1880	736												
PCB-152	68194-09-2	1668A	pg/g			299	U	585	299					140	U	1060	140	549	U	940	549												
PCB-153	35065-27-1	1668A	pg/g			68600		1170	321					22900		2120	151	94100		1880	591												
PCB-154	60145-22-4	1668A	pg/g			1840		585	341					602	J	1060	161	2870		940	628												
PCB-155	33979-03-2	1668A	pg/g			286	U	585	286					145	U	1060	145	527	U	940	527												
PCB-156	38380-08-4	1668A	pg/g			10600		119	119					4260		212	57.8	12500		188	129												
PCB-157	69782-90-7	1668A	pg/g			10600		119	119					4260		212	57.8	12500		188	129												
PCB-158	74472-42-7	1668A	pg/g			8330		585	275					3090		1060	129	10400		940	505												
PCB-159	39635-35-3	1668A	pg/g			497	J	585	88.4					196	J	1060	43.9	932	J	940	95.6												
PCB-160	41411-62-5	1668A	pg/g			357	U	585	357					168	U	1060	168	657	U	940	657												
PCB-161	74472-43-8	1668A	pg/g			319	U	585	319					150	U	1060	150	587	U	940	587												
PCB-162	39635-34-2	1668A	pg/g			687		585	92.8					134	J	1060	46.1	331	J	940	100												
PCB-163	74472-44-9	1668A	pg/g			94900		1750	397					32700		3180	187	122000		2820	730												
PCB-164	74472-45-0	1668A	pg/g			6840	J	585	344					2720		1060	162	9170		940	633												
PCB-165	74472-46-1	1668A	pg/g			332	U	585	332					156	U	1060	156	610	U	940	610												
PCB-166	41411-63-6	1668A	pg/g			16000		1170	377					6020		2120	177	19000		1880	693												
PCB-167	52663-72-6	1668A	pg/g			3700		92.8	92.8					1540		106	45.7	4500		99.2	99.2												
PCB-168	59291-65-5	1668A	pg/g			68600		1170	321					22900		2120	151	94100		1880	591												
PCB-169	32774-16-6	1668A	pg/g			124	U	124	124					59.8	U	106	59.8	136	U	136	136												
PCB-170	35065-30-6	1668A	pg/g			14300		585	224					5930		1060	101	19100		940	395												
PCB-171	52663-71-5	1668A	pg/g			4900		1170	201					1980	J	2120	90.9	7300		1880	359												
PCB-172	52663-74-8	1668A	pg/g			2940		585	220					1240		1060	99.1	4270		940	387												
PCB-173	68194-16-1	1668A	pg/g			4900		1170	201					1980	J	2120	90.9	7300		1880	359												

Table 5.14 - Sediment: Polychlorinated Biphenyls (PCBs) Analytical Results

Rolling Knolls Landfill

Sample Name				NJDEP Avian TEF's	ESC's	SD01				SD100 (SD01 duplicate)				SD02				SD03				SD08				SD09				SD10			
Sample Date/Time						05/13/2021 15:30				05/13/2021 15:30				05/14/2021 09:15				05/14/2021 10:45				05/19/2021 13:43				05/19/2021 14:43				05/19/2021 15:45			
Latitude				Toxicity Equivalence Factor (TEF)	Screening Criteria	40.72679082				40.72679082				40.72715605				40.72638198				40.732265				40.73189675				40.73169144			
Longitude						-74.44034521				-74.44034521				-74.43993388				-74.44081345				-74.43997				-74.44071492				-74.44135929			
Lab Sample Name						GS-S-SD01				GS-S-SD0100				GS-S-SD02				GS-S-SD03				GS-S-SD08				GS-S-SD09				GS-S-SD10			
Lab Sample Number						460-234557-3				460-234557-4				460-234557-1				460-234557-2				460-235248-1				460-235248-2				460-235248-3			
Lab Report Number(s)						460-234557-1 / 460-234557-2 / 460-234557-3				460-234557-1 / 460-234557-3				460-234557-1 / 460-234557-2 / 460-234557-3				460-234557-1 / 460-234557-2 / 460-234557-3				460-235248-1 / 460-235248-3				460-235248-1 / 460-235248-3				460-235248-1 / 460-235248-3			
Analyte	CAS	Method	Units			Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)
PCB-174	38411-25-5	1668A	pg/g			15700		585	185					5930		1060	83.5	27800		940	326												
PCB-175	40186-70-7	1668A	pg/g			907		585	12.9					274	J	1060	9.05	1310		940	22.7												
PCB-176	52663-65-7	1668A	pg/g			2490		585	9.59					802	J	1060	6.72	3930		940	16.9												
PCB-177	52663-70-4	1668A	pg/g			8550		585	185					3410		1060	83.7	14400		940	327												
PCB-178	52663-67-9	1668A	pg/g			4220		585	13.2					1450		1060	9.27	7170		940	23.3												
PCB-179	52663-64-6	1668A	pg/g			6890		585	8.35					2280		1060	5.85	12200		940	14.7												
PCB-180	35065-29-3	1668A	pg/g			29800		1170	164					11300		2120	74.2	46800		1880	289												
PCB-181	74472-47-2	1668A	pg/g			200	J	585	190					85.6	U	1060	85.6	334	U	940	334												
PCB-182	60145-23-5	1668A	pg/g			12.5	U	585	12.5					8.76	U	1060	8.76	375	J	940	22												
PCB-183	52663-69-1	1668A	pg/g			7680		585	162					3000		1060	73.1	14600		940	285												
PCB-184	74472-48-3	1668A	pg/g			35.2	J	585	8.68					6.08	U	1060	6.08	15.3	U	940	15.3												
PCB-185	52712-05-7	1668A	pg/g			2590		585	215					944	J	1060	97.2	4310		940	379												
PCB-186	74472-49-4	1668A	pg/g			7.79	U	585	7.79					5.46	U	1060	5.46	13.7	U	940	13.7												
PCB-187	52663-68-0	1668A	pg/g			20900		585	10.5					6660		1060	7.39	34100		940	18.6												
PCB-188	74487-85-7	1668A	pg/g			88.7	J	585	8.01					52.8	J	1060	6.66	130	J	940	15.8												
PCB-189	39635-31-9	1668A	pg/g			684		58.5	9.14					242	J	106	5.71	757		94	11.2												
PCB-190	41411-64-7	1668A	pg/g			2620		585	141					1050	J	1060	63.6	3600		940	248												
PCB-191	74472-50-7	1668A	pg/g			699		585	147					279	J	1060	66.5	947		940	260												
PCB-192	74472-51-8	1668A	pg/g			139	U	585	139					62.6	U	1060	62.6	244	U	940	244												
PCB-193	69782-91-8	1668A	pg/g			29800		1170	164					11300		2120	74.2	46800		1880	289												
PCB-194	35694-08-7	1668A	pg/g			7440		585	15.2					2950		1060	8.12	11300		940	28.4												
PCB-195	52663-78-2	1668A	pg/g			2630		585	15.1					1100		1060	8.04	3910		940	28.1												
PCB-196	42740-50-1	1668A	pg/g			5550		585	31.4					1980		1060	21.4	8110		940	40.8												
PCB-197	33091-17-7	1668A	pg/g			378	J	585	19.6					148	J	1060	13.3	541	J	940	25.5												
PCB-198	68194-17-2	1668A	pg/g			15700		1170	28					4340		2120	19.1	20600		1880	36.5												
PCB-199	52663-75-9	1668A	pg/g			15700		1170	28					4340		2120	19.1	20600		1880	36.5												
PCB-200	52663-73-7	1668A	pg/g			1890		585	23.9					526	J	1060	16.3	2730		940	31.1												
PCB-201	40186-71-8	1668A	pg/g			1890		585	22.4					623	J	1060	15.3	3250		940	29.2												
PCB-202	2136-99-4	1668A	pg/g			4080		585	19.6					1030	J	1060	14.7	5510		940	27												
PCB-203	52663-76-0	1668A	pg/g			9730		585	25.5					2620		1060	17.4	12600		940	33.1												
PCB-204	74472-52-9	1668A	pg/g			21.4	U	585	21.4					14.6	U	1060	14.6	27.8	U	940	27.8												
PCB-205	74472-53-0	1668A	pg/g			528	J	585	14.3					196	J	1060	6.82	720	J	940	24.9												
PCB-206	40186-72-9	1668A	pg/g			22100		585	15.9					3690		1060	7.79	14600		940	29.3												
PCB-207	52663-79-3	1668A	pg/g			2530		585	10.2					580	J	1060	5.11	2110		940	18.8												
PCB-208	52663-77-1	1668A	pg/g			9230		585	9.56					1450		1060	4.85	5090		940	17.6												
PCB-209	2051-24-3	1668A	pg/g			24200		585	4.52					3980		1060	2.89	14100		940	4.48												
Σ Polychlorinated biphenyls	1336-36-3	8082A	pg/g		59800 (9)	**5,171,284**								**1,710,494**				**7,532,339**															
Dioxin-Like PCB TEQ Calculation																																	
PCB-77	32598-13-3	1668A	pg/g	0.05		393								134				510															
PCB-81	70362-50-4	1668A	pg/g	0.1		0								0				0															
PCB-105	32598-14-4	1668A	pg/g	0.0001		4								1				4															
PCB-114	74472-37-0	1668A	pg/g	0.0001		0								0				0															
PCB-118	31508-00-6	1668A	pg/g	0.00001		1								0				1															
PCB-123	65510-44-3	1668A	pg/g	0.00001		0								0				0															
PCB-126	57465-28-8	1668A	pg/g	0.1		0								0				0															
PCB-156	38380-08-4	1668A	pg/g	0.0001		1								0				1															
PCB-157	69782-90-7	1668A	pg/g	0.0001		1								0				1															
PCB-167	52663-72-6	1668A	pg/g	0.00001		0								0				0															
PCB-169	32774-16-6	1668A	pg/g	0.001		0								0				0															
PCB-189	39635-31-9	1668A	pg/g	0.00001		0								0				0															
Σ Polychlorinated biphenyls (PCB) TEQ	1336-36-3	8082A	pg/g		0.12 (9)	**400**								**136**				**518**															

Table 5.14 - Sediment: Polychlorinated Biphenyls (PCBs) Analytical R

(continued)

Rolling Knolls Landfill

Sample Name			NJDEP Avian TEF's	ESC's	SD11				SD12				SD13				SD14				SD15				SD16				SD101 (SD16 Duplicate)			
Sample Date/Time					05/17/2021 11:45				05/24/2021 09:14				05/24/2021 13:55				05/25/2021 09:00				05/25/2021 13:30				05/26/2021 15:06				05/26/2021 15:06			
Latitude			Toxicity Equivalence Factor (TEF)	Screening Criteria	40.72489948				40.73119281				40.72747591				40.72740332				40.72937246				40.73124954				40.73124954			
Longitude					-74.44253502				-74.43998828				-74.43941053				-74.43971312				-74.440396				-74.44141084				-74.44141084			
Lab Sample Name					GS-S-SD11				GS-N-SD12				GS-N-SD13				GS-N-SD14				GS-N-SD15				GS-N-SD16				GS-N-SD11-1			
Lab Sample Number					460-235400-2				460-235444-1 / 460-235444-6				460-235444-2 / 460-235444-7				460-235492-2 / 460-235492-6				460-235492-3 / 460-235492-7				460-235592-1 / 460-235592-6				460-235592-2 / 460-235592-7			
Lab Report Number(s)					460-235400-1 / 460-235400-3				460-235444-1 / 460-235444-3 / 460-235444-4				460-235444-1 / 460-235444-3 / 460-235444-4				460-235492-1 / 460-235492-3 / 460-235492-4				460-235492-1 / 460-235492-3 / 460-235492-4				460-235592-1 / 460-235592-3 / 460-235592-4				460-235592-1 / 460-235592-3 / 460-235592-4			
Analyte	CAS	Method	Units		Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)
Polychlorinated Biphenyls (PCBs)																																
Aroclor 1016	12674-11-2	8082A	µg/Kg		7 (9)		84	U	630	84	63	U	470	63	72	U	540	72	33	U	250	33	91	U	690	91	29	U	220	29	26	U	200	26
Aroclor 1221	11104-28-2	8082A	µg/Kg				84	U	630	84	63	U	470	63	72	U	540	72	33	U	250	33	91	U	690	91	29	U	220	29	26	U	200	26
Aroclor 1232	11141-16-5	8082A	µg/Kg				84	U	630	84	63	U	470	63	72	U	540	72	33	U	250	33	91	U	690	91	29	U	220	29	26	U	200	26
Aroclor 1242	53469-21-9	8082A	µg/Kg		59 (10)		84	U	630	84	63	U	470	63	72	U	540	72	33	U	250	33	91	U	690	91	29	U	220	29	26	U	200	26
Aroclor 1248	12672-29-6	8082A	µg/Kg		30 (9)		84	U	630	84	63	U	470	63	72	U	540	72	33	U	250	33	91	U	690	91	340		220	29	26	U	200	26
Aroclor 1254	11097-69-1	8082A	µg/Kg		60 (9)		87	U	630	87	65	U	470	65	75	U	540	75	34	U	250	34	94	U	690	94	30	U	220	30	27	U	200	27
Aroclor 1260	11096-82-5	8082A	µg/Kg		5 (9)		87	U	630	87	65	U	470	65	75	U	540	75	34	U	250	34	94	U	690	94	30	U	220	30	27	U	200	27
Aroclor 1268	11100-14-4	8082A	µg/Kg				87	U	630	87	65	U	470	65	75	U	540	75	34	U	250	34	94	U	690	94	30	U	220	30	27	U	200	27
Aroclor-1262	37324-23-5	8082A	µg/Kg				87	U	630	87	65	U	470	65	75	U	540	75	34	U	250	34	94	U	690	94	30	U	220	30	27	U	200	27
Polychlorinated biphenyls, Total	1336-36-3	8082A	µg/Kg		59.8 (9)		87	U	630	87	65	U	470	65	75	U	540	75	34	U	250	34	94	U	690	94	340		220	30	27	U	200	27
Chlorinated Biphenyl Congeners (PCBs)																																
PCB-1	2051-60-7	1668A	pg/g																													
PCB-2	2051-61-8	1668A	pg/g																													
PCB-3	2051-62-9	1668A	pg/g																													
PCB-4	13029-08-8	1668A	pg/g																													
PCB-5	16605-91-7	1668A	pg/g																													
PCB-6	25569-80-6	1668A	pg/g																													
PCB-7	33284-50-3	1668A	pg/g																													
PCB-8	34883-43-7	1668A	pg/g																													
PCB-9	34883-39-1	1668A	pg/g																													
PCB-10	33146-45-1	1668A	pg/g																													
PCB-11	2050-67-1	1668A	pg/g																													
PCB-12	2974-92-7	1668A	pg/g																													
PCB-13	2974-90-5	1668A	pg/g																													
PCB-14	34883-41-5	1668A	pg/g																													
PCB-15	2050-68-2	1668A	pg/g																													
PCB-16	38444-78-9	1668A	pg/g																													
PCB-17	37680-66-3	1668A	pg/g																													
PCB-18	37680-65-2	1668A	pg/g																													
PCB-19	38444-73-4	1668A	pg/g																													
PCB-20	38444-84-7	1668A	pg/g																													
PCB-21	55702-46-0	1668A	pg/g																													
PCB-22	38444-85-8	1668A	pg/g																													
PCB-23	55720-44-0	1668A	pg/g																													
PCB-24	55702-45-9	1668A	pg/g																													
PCB-25	55712-37-3	1668A	pg/g																													
PCB-26	38444-81-4	1668A	pg/g																													
PCB-27	38444-76-7	1668A	pg/g																													
PCB-28	7012-37-5	1668A	pg/g																													
PCB-29	15862-07-4	1668A	pg/g																													
PCB-30	35693-92-6	1668A	pg/g																													
PCB-31	16606-02-3	1668A	pg/g																													
PCB-32	38444-77-8	1668A	pg/g																													
PCB-33	38444-86-9	1668A	pg/g																													
PCB-34	37680-68-5	1668A	pg/g																													
PCB-35	37680-69-6	1668A	pg/g																													
PCB-36	38444-87-0	1668A	pg/g																													
PCB-37	38444-90-5	1668A	pg/g																													
PCB-38	53555-66-1	1668A	pg/g																													
PCB-39	38444-88-1	1668A	pg/g																													
PCB-40	38444-93-8	1668A	pg/g																													
PCB-41	52663-59-9	1668A	pg/g																													
PCB-42	36559-22-5	1668A	pg/g																													
PCB-43	70362-46-8	1668A	pg/g																													
PCB-44	41464-39-5	1668A	pg/g																													
PCB-45	70362-45-7	1668A	pg/g																													
PCB-46	41464-47-5	1668A	pg/g																													
PCB-47	2437-79-8	1668A	pg/g																													
PCB-48	70362-47-9	1668A	pg/g																													
PCB-49	41464-40-8	1668A	pg/g																													

Table 5.14 - Sediment: Polychlorinated Biphenyls (PCBs) Analytical R

(continued)

Rolling Knolls Landfill

Sample Name				NJDEP Avian TEF's	ESC's	SD11				SD12				SD13				SD14				SD15				SD16				SD101 (SD16 Duplicate)			
Sample Date/Time						05/17/2021 11:45				05/24/2021 09:14				05/24/2021 13:55				05/25/2021 09:00				05/25/2021 13:30				05/26/2021 15:06				05/26/2021 15:06			
Latitude				Toxicity Equivalence Factor (TEF)	Screening Criteria	40.72489948				40.73119281				40.72747591				40.72740332				40.72937246				40.73124954				40.73124954			
Longitude						-74.44253502				-74.43998828				-74.43941053				-74.43971312				-74.440396				-74.44141084				-74.44141084			
Lab Sample Name						GS-S-SD11				GS-N-SD12				GS-N-SD13				GS-N-SD14				GS-N-SD15				GS-N-SD16				GS-N-SD11-1			
Lab Sample Number						460-235400-2				460-235444-1 / 460-235444-6				460-235444-2 / 460-235444-7				460-235492-2 / 460-235492-6				460-235492-3 / 460-235492-7				460-235592-1 / 460-235592-6				460-235592-2 / 460-235592-7			
Lab Report Number(s)						460-235400-1 / 460-235400-3				460-235444-1 / 460-235444-3 / 460-235444-4				460-235444-1 / 460-235444-3 / 460-235444-4				460-235492-1 / 460-235492-3 / 460-235492-4				460-235492-1 / 460-235492-3 / 460-235492-4				460-235592-1 / 460-235592-3 / 460-235592-4				460-235592-1 / 460-235592-3 / 460-235592-4			
Analyte	CAS	Method	Units			Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)
PCB-50	62796-65-0	1668A	pg/g																														
PCB-51	68194-04-7	1668A	pg/g																														
PCB-52	35693-99-3	1668A	pg/g																														
PCB-53	41464-41-9	1668A	pg/g																														
PCB-54	15968-05-5	1668A	pg/g																														
PCB-55	74338-24-2	1668A	pg/g																														
PCB-56	41464-43-1	1668A	pg/g																														
PCB-57	70424-67-8	1668A	pg/g																														
PCB-58	41464-49-7	1668A	pg/g																														
PCB-59	74472-33-6	1668A	pg/g																														
PCB-60	33025-41-1	1668A	pg/g																														
PCB-61	33284-53-6	1668A	pg/g																														
PCB-62		1668A	pg/g																														
PCB-63	74472-34-7	1668A	pg/g																														
PCB-64	52663-58-8	1668A	pg/g																														
PCB-65	33284-54-7	1668A	pg/g																														
PCB-66	32598-10-0	1668A	pg/g																														
PCB-67	73575-53-8	1668A	pg/g																														
PCB-68	73575-52-7	1668A	pg/g																														
PCB-69	60233-24-1	1668A	pg/g																														
PCB-70	32598-11-1	1668A	pg/g																														
PCB-71	41464-46-4	1668A	pg/g																														
PCB-72	41464-42-0	1668A	pg/g																														
PCB-73	74338-23-1	1668A	pg/g																														
PCB-74	32690-93-0	1668A	pg/g																														
PCB-75	32598-12-2	1668A	pg/g																														
PCB-76	70362-48-0	1668A	pg/g																														
PCB-77	32598-13-3	1668A	pg/g																														
PCB-78	70362-49-1	1668A	pg/g																														
PCB-79	41464-48-6	1668A	pg/g																														
PCB-80	33284-52-5	1668A	pg/g																														
PCB-81	70362-50-4	1668A	pg/g																														
PCB-82	52663-62-4	1668A	pg/g																														
PCB-83	60145-20-2	1668A	pg/g																														
PCB-84	52663-60-2	1668A	pg/g																														
PCB-85	65510-45-4	1668A	pg/g																														
PCB-86	55312-69-1	1668A	pg/g																														
PCB-87	38380-02-8	1668A	pg/g																														
PCB-88	55215-17-3	1668A	pg/g																														
PCB-89	73575-57-2	1668A	pg/g																														
PCB-90	68194-07-0	1668A	pg/g																														
PCB-91	68194-05-8	1668A	pg/g																														
PCB-92	52663-61-3	1668A	pg/g																														
PCB-93	73575-56-1	1668A	pg/g																														
PCB-94	73575-55-0	1668A	pg/g																														
PCB-95	38379-99-6	1668A	pg/g																														
PCB-96	73575-54-9	1668A	pg/g																														
PCB-97	41464-51-1	1668A	pg/g																														
PCB-98	60233-25-2	1668A	pg/g																														
PCB-99	38380-01-7	1668A	pg/g																														
PCB-100	39485-83-1	1668A	pg/g																														
PCB-101	37680-73-2	1668A	pg/g																														
PCB-102	68194-06-9	1668A	pg/g																														
PCB-103	60145-21-3	1668A	pg/g																														
PCB-104	56558-16-8	1668A	pg/g																														
PCB-105	32598-14-4	1668A	pg/g																														
PCB-106	70424-69-0	1668A	pg/g																														
PCB-107	70424-68-9	1668A	pg/g																														
PCB-108	70362-41-3	1668A	pg/g																														
PCB-109	74472-35-8	1668A	pg/g																														
PCB-110	38380-03-9	1668A	pg/g																														
PCB-111	39635-32-0	1668A	pg/g																														

Table 5.14 - Sediment: Polychlorinated Biphenyls (PCBs) Analytical R

(continued)

Rolling Knolls Landfill

Sample Name				NJDEP Avian TEF's	ESC's	SD11				SD12				SD13				SD14				SD15				SD16				SD101 (SD16 Duplicate)			
Sample Date/Time						05/17/2021 11:45				05/24/2021 09:14				05/24/2021 13:55				05/25/2021 09:00				05/25/2021 13:30				05/26/2021 15:06				05/26/2021 15:06			
Latitude				Toxicity Equivalence Factor (TEF)	Screening Criteria	40.72489948				40.73119281				40.72747591				40.72740332				40.72937246				40.73124954				40.73124954			
Longitude						-74.44253502				-74.43998828				-74.43941053				-74.43971312				-74.440396				-74.44141084				-74.44141084			
Lab Sample Name						GS-S-SD11				GS-N-SD12				GS-N-SD13				GS-N-SD14				GS-N-SD15				GS-N-SD16				GS-N-SD11-1			
Lab Sample Number						460-235400-2				460-235444-1 / 460-235444-6				460-235444-2 / 460-235444-7				460-235492-2 / 460-235492-6				460-235492-3 / 460-235492-7				460-235592-1 / 460-235592-6				460-235592-2 / 460-235592-7			
Lab Report Number(s)						460-235400-1 / 460-235400-3				460-235444-1 / 460-235444-3 / 460-235444-4				460-235444-1 / 460-235444-3 / 460-235444-4				460-235492-1 / 460-235492-3 / 460-235492-4				460-235492-1 / 460-235492-3 / 460-235492-4				460-235592-1 / 460-235592-3 / 460-235592-4				460-235592-1 / 460-235592-3 / 460-235592-4			
Analyte	CAS	Method	Units			Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)
PCB-112	74472-36-9	1668A	pg/g																														
PCB-113	68194-10-5	1668A	pg/g																														
PCB-114	74472-37-0	1668A	pg/g																														
PCB-115	74472-38-1	1668A	pg/g																														
PCB-116	18259-05-7	1668A	pg/g																														
PCB-117	68194-11-6	1668A	pg/g																														
PCB-118	31508-00-6	1668A	pg/g																														
PCB-119	56558-17-9	1668A	pg/g																														
PCB-120	68194-12-7	1668A	pg/g																														
PCB-121	56558-18-0	1668A	pg/g																														
PCB-122	76842-07-4	1668A	pg/g																														
PCB-123	65510-44-3	1668A	pg/g																														
PCB-124	70424-70-3	1668A	pg/g																														
PCB-125	74472-39-2	1668A	pg/g																														
PCB-126	57465-28-8	1668A	pg/g																														
PCB-127	39635-33-1	1668A	pg/g																														
PCB-128	38380-07-3	1668A	pg/g																														
PCB-129	55215-18-4	1668A	pg/g																														
PCB-130	52663-66-8	1668A	pg/g																														
PCB-131	61798-70-7	1668A	pg/g																														
PCB-132	38380-05-1	1668A	pg/g																														
PCB-133	35694-04-3	1668A	pg/g																														
PCB-134	52704-70-8	1668A	pg/g																														
PCB-135	52744-13-5	1668A	pg/g																														
PCB-136	38411-22-2	1668A	pg/g																														
PCB-137	35694-06-5	1668A	pg/g																														
PCB-138	35065-28-2	1668A	pg/g																														
PCB-139	56030-56-9	1668A	pg/g																														
PCB-140	59291-64-4	1668A	pg/g																														
PCB-141	52712-04-6	1668A	pg/g																														
PCB-142	41411-61-4	1668A	pg/g																														
PCB-143	68194-15-0	1668A	pg/g																														
PCB-144	68194-14-9	1668A	pg/g																														
PCB-145	74472-40-5	1668A	pg/g																														
PCB-146	51908-16-8	1668A	pg/g																														
PCB-147	68194-13-8	1668A	pg/g																														
PCB-148	74472-41-6	1668A	pg/g																														
PCB-149	38380-04-0	1668A	pg/g																														
PCB-150	68194-08-1	1668A	pg/g																														
PCB-151	52663-63-5	1668A	pg/g																														
PCB-152	68194-09-2	1668A	pg/g																														
PCB-153	35065-27-1	1668A	pg/g																														
PCB-154	60145-22-4	1668A	pg/g																														
PCB-155	33979-03-2	1668A	pg/g																														
PCB-156	38380-08-4	1668A	pg/g																														
PCB-157	69782-90-7	1668A	pg/g																														
PCB-158	74472-42-7	1668A	pg/g																														
PCB-159	39635-35-3	1668A	pg/g																														
PCB-160	41411-62-5	1668A	pg/g																														
PCB-161	74472-43-8	1668A	pg/g																														
PCB-162	39635-34-2	1668A	pg/g																														
PCB-163	74472-44-9	1668A	pg/g																														
PCB-164	74472-45-0	1668A	pg/g																														
PCB-165	74472-46-1	1668A	pg/g																														
PCB-166	41411-63-6	1668A	pg/g																														
PCB-167	52663-72-6	1668A	pg/g																														
PCB-168	59291-65-5	1668A	pg/g																														
PCB-169	32774-16-6	1668A	pg/g																														
PCB-170	35065-30-6	1668A	pg/g																														
PCB-171	52663-71-5	1668A	pg/g																														
PCB-172	52663-74-8	1668A	pg/g																														
PCB-173	68194-16-1	1668A	pg/g																														

Table 5.14 - Sediment: Polychlorinated Biphenyls (PCBs) Analytical R

(continued)

Rolling Knolls Landfill

Sample Name				NJDEP Avian TEF's	ESC's	SD11				SD12				SD13				SD14				SD15				SD16				SD101 (SD16 Duplicate)			
Sample Date/Time						05/17/2021 11:45				05/24/2021 09:14				05/24/2021 13:55				05/25/2021 09:00				05/25/2021 13:30				05/26/2021 15:06				05/26/2021 15:06			
Latitude				Toxicity Equivalence Factor (TEF)	Screening Criteria	40.72489948				40.73119281				40.72747591				40.72740332				40.72937246				40.73124954				40.73124954			
Longitude						-74.44253502				-74.43998828				-74.43941053				-74.43971312				-74.440396				-74.44141084				-74.44141084			
Lab Sample Name						GS-S-SD11				GS-N-SD12				GS-N-SD13				GS-N-SD14				GS-N-SD15				GS-N-SD16				GS-N-SD11-1			
Lab Sample Number						460-235400-2				460-235444-1 / 460-235444-6				460-235444-2 / 460-235444-7				460-235492-2 / 460-235492-6				460-235492-3 / 460-235492-7				460-235592-1 / 460-235592-6				460-235592-2 / 460-235592-7			
Lab Report Number(s)						460-235400-1 / 460-235400-3				460-235444-1 / 460-235444-3 / 460-235444-4				460-235444-1 / 460-235444-3 / 460-235444-4				460-235492-1 / 460-235492-3 / 460-235492-4				460-235492-1 / 460-235492-3 / 460-235492-4				460-235592-1 / 460-235592-3 / 460-235592-4				460-235592-1 / 460-235592-3 / 460-235592-4			
Analyte	CAS	Method	Units			Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)
PCB-174	38411-25-5	1668A	pg/g																														
PCB-175	40186-70-7	1668A	pg/g																														
PCB-176	52663-65-7	1668A	pg/g																														
PCB-177	52663-70-4	1668A	pg/g																														
PCB-178	52663-67-9	1668A	pg/g																														
PCB-179	52663-64-6	1668A	pg/g																														
PCB-180	35065-29-3	1668A	pg/g																														
PCB-181	74472-47-2	1668A	pg/g																														
PCB-182	60145-23-5	1668A	pg/g																														
PCB-183	52663-69-1	1668A	pg/g																														
PCB-184	74472-48-3	1668A	pg/g																														
PCB-185	52712-05-7	1668A	pg/g																														
PCB-186	74472-49-4	1668A	pg/g																														
PCB-187	52663-68-0	1668A	pg/g																														
PCB-188	74487-85-7	1668A	pg/g																														
PCB-189	39635-31-9	1668A	pg/g																														
PCB-190	41411-64-7	1668A	pg/g																														
PCB-191	74472-50-7	1668A	pg/g																														
PCB-192	74472-51-8	1668A	pg/g																														
PCB-193	69782-91-8	1668A	pg/g																														
PCB-194	35694-08-7	1668A	pg/g																														
PCB-195	52663-78-2	1668A	pg/g																														
PCB-196	42740-50-1	1668A	pg/g																														
PCB-197	33091-17-7	1668A	pg/g																														
PCB-198	68194-17-2	1668A	pg/g																														
PCB-199	52663-75-9	1668A	pg/g																														
PCB-200	52663-73-7	1668A	pg/g																														
PCB-201	40186-71-8	1668A	pg/g																														
PCB-202	2136-99-4	1668A	pg/g																														
PCB-203	52663-76-0	1668A	pg/g																														
PCB-204	74472-52-9	1668A	pg/g																														
PCB-205	74472-53-0	1668A	pg/g																														
PCB-206	40186-72-9	1668A	pg/g																														
PCB-207	52663-79-3	1668A	pg/g																														
PCB-208	52663-77-1	1668A	pg/g																														
PCB-209	2051-24-3	1668A	pg/g																														
Σ Polychlorinated biphenyls	1336-36-3	8082A	pg/g		59800 (9)																												
Dioxin-Like PCB TEQ Calculation																																	
PCB-77	32598-13-3	1668A	pg/g	0.05																													
PCB-81	70362-50-4	1668A	pg/g	0.1																													
PCB-105	32598-14-4	1668A	pg/g	0.0001																													
PCB-114	74472-37-0	1668A	pg/g	0.0001																													
PCB-118	31508-00-6	1668A	pg/g	0.00001																													
PCB-123	65510-44-3	1668A	pg/g	0.00001																													
PCB-126	57465-28-8	1668A	pg/g	0.1																													
PCB-156	38380-08-4	1668A	pg/g	0.0001																													
PCB-157	69782-90-7	1668A	pg/g	0.0001																													
PCB-167	52663-72-6	1668A	pg/g	0.00001																													
PCB-169	32774-16-6	1668A	pg/g	0.001																													
PCB-189	39635-31-9	1668A	pg/g	0.00001																													
Σ Polychlorinated biphenyls (PCB) TEQ	1336-36-3	8082A	pg/g		0.12 (9)																												

Table 5.14 - Sediment: Polychlorinated Biphenyls (PCBs) Analytical R

(continued)

Rolling Knolls Landfill

Sample Name				NJDEP Avian TEF's	ESC's	SD17				SD18				SD19				SD20				SD21			
Sample Date/Time						05/27/2021 14:18				05/28/2021 08:30				06/01/2021 09:20				06/02/2021 10:00				06/02/2021 12:28			
Latitude				Toxicity Equivalence Factor (TEF)	Screening Criteria	40.72670262				40.73132938				40.72289188				40.73050362				40.73060101			
Longitude						-74.43975897				-74.44108766				-74.44904733				-74.44237712				-74.44084937			
Lab Sample Name						GS-N-SD17				GS-N-SD18				GS-N-SD19				GS-N-SD20				GS-N-SD21			
Lab Sample Number						460-235592-3 / 460-235592-8				460-235592-4 / 460-235592-9				460-235680-1 / 460-235680-4				460-235931-5 / 460-235931-7				460-235931-6 / 460-235931-8			
Lab Report Number(s)						460-235592-1 / 460-235592-3 / 460-235592-4				460-235592-1 / 460-235592-3 / 460-235592-4				460-235680-1 / 460-235680-3				460-235931-1 / 460-235931-3 / 460-235931-4 / 460-235931-2				460-235931-1 / 460-235931-3 / 460-235931-4			
Analyte	CAS	Method	Units			Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)
Polychlorinated Biphenyls (PCBs)																									
Aroclor 1016	12674-11-2	8082A	µg/Kg		7 (9)	67	U	500	67	17	U	130	17	35	U	260	35	37	U	280	37	39	U	300	39
Aroclor 1221	11104-28-2	8082A	µg/Kg			67	U	500	67	17	U	130	17	35	U	260	35	37	U	280	37	39	U	300	39
Aroclor 1232	11141-16-5	8082A	µg/Kg			67	U	500	67	17	U	130	17	35	U	260	35	37	U	280	37	39	U	300	39
Aroclor 1242	53469-21-9	8082A	µg/Kg		59 (10)	67	U	500	67	17	U	130	17	35	U	260	35	37	U	280	37	39	U	300	39
Aroclor 1248	12672-29-6	8082A	µg/Kg		30 (9)	67	U	500	67	17	U	130	17	35	U	260	35	37	U	280	37	39	U	300	39
Aroclor 1254	11097-69-1	8082A	µg/Kg		60 (9)	69	U	500	69	18	U	130	18	36	U	260	36	38	U	280	38	41	U	300	41
Aroclor 1260	11096-82-5	8082A	µg/Kg		5 (9)	69	U	500	69	18	U	130	18	36	U	260	36	38	U	280	38	41	U	300	41
Aroclor 1268	11100-14-4	8082A	µg/Kg			69	U	500	69	18	U	130	18	36	U	260	36	38	U	280	38	41	U	300	41
Aroclor-1262	37324-23-5	8082A	µg/Kg			69	U	500	69	18	U	130	18	36	U	260	36	38	U	280	38	41	U	300	41
Polychlorinated biphenyls, Total	1336-36-3	8082A	µg/Kg		59.8 (9)	69	U	500	69	18	U	130	18	36	U	260	36	38	U	280	38	41	U	300	41
Chlorinated Biphenyl Congeners (PCBs)																									
PCB-1	2051-60-7	1668A	pg/g															1370		437	26.5				
PCB-2	2051-61-8	1668A	pg/g															600	J	437	25.1				
PCB-3	2051-62-9	1668A	pg/g															3410		437	28.5				
PCB-4	13029-08-8	1668A	pg/g															1300		437	180				
PCB-5	16605-91-7	1668A	pg/g															380	U	437	380				
PCB-6	25569-80-6	1668A	pg/g															1080		437	344				
PCB-7	33284-50-3	1668A	pg/g															369	U	437	369				
PCB-8	34883-43-7	1668A	pg/g															4100		437	319				
PCB-9	34883-39-1	1668A	pg/g															362	U	437	362				
PCB-10	33146-45-1	1668A	pg/g															175	U	437	175				
PCB-11	2050-67-1	1668A	pg/g															2150		437	415				
PCB-12	2974-92-7	1668A	pg/g															1960		874	410				
PCB-13	2974-90-5	1668A	pg/g															1960		874	410				
PCB-14	34883-41-5	1668A	pg/g															396	U	437	396				
PCB-15	2050-68-2	1668A	pg/g															18000		437	366				
PCB-16	38444-78-9	1668A	pg/g															1870		437	20.4				
PCB-17	37680-66-3	1668A	pg/g															3200		437	19.7				
PCB-18	37680-65-2	1668A	pg/g															4910		874	14.1				
PCB-19	38444-73-4	1668A	pg/g															811		437	16.5				
PCB-20	38444-84-7	1668A	pg/g															15500		1310	483				
PCB-21	55702-46-0	1668A	pg/g															5870		874	504				
PCB-22	38444-85-8	1668A	pg/g															6420		477	477				
PCB-23	55720-44-0	1668A	pg/g															485	U	485	485				
PCB-24	55702-45-9	1668A	pg/g															118	J	437	14.8				
PCB-25	55712-37-3	1668A	pg/g															1330		439	439				
PCB-26	38444-81-4	1668A	pg/g															3280		874	503				
PCB-27	38444-76-7	1668A	pg/g															915		437	13.5				
PCB-28	7012-37-5	1668A	pg/g															15500		1310	483				
PCB-29	15862-07-4	1668A	pg/g															3280		874	503				
PCB-30	35693-92-6	1668A	pg/g															4910		874	14.1				
PCB-31	16606-02-3	1668A	pg/g															26100		464	464				
PCB-32	38444-77-8	1668A	pg/g															2890		437	13.8				
PCB-33	38444-86-9	1668A	pg/g															5870		874	504				
PCB-34	37680-68-5	1668A	pg/g															503	U	503	503				
PCB-35	37680-69-6	1668A	pg/g															553	U	553	553				
PCB-36	38444-87-0	1668A	pg/g															554	U	554	554				
PCB-37	38444-90-5	1668A	pg/g															27700		660	660				
PCB-38	53555-66-1	1668A	pg/g															572	U	572	572				
PCB-39	38444-88-1	1668A	pg/g															516	U	516	516				
PCB-40	38444-93-8	1668A	pg/g															7640		874	710				
PCB-41	52663-59-9	1668A	pg/g															1100		1080	1080				
PCB-42	36559-22-5	1668A	pg/g															5520		755	755				
PCB-43	70362-46-8	1668A	pg/g															935		766	766				
PCB-44	41464-39-5	1668A	pg/g															27100		1310	727				
PCB-45	70362-45-7	1668A	pg/g															2750		1080	1080				
PCB-46	41464-47-5	1668A	pg/g															919	U	919	919				
PCB-47	2437-79-8	1668A	pg/g															27100		1310	727				
PCB-48	70362-47-9	1668A	pg/g															3330		778	778				
PCB-49	41464-40-8	1668A	pg/g															28100		874	642				

Table 5.14 - Sediment: Polychlorinated Biphenyls (PCBs) Analytical R

(continued)

Rolling Knolls Landfill

	Sample Name			NJDEP Avian TEF's	ESC's	SD17				SD18				SD19				SD20				SD21			
	Sample Date/Time					05/27/2021 14:18				05/28/2021 08:30				06/01/2021 09:20				06/02/2021 10:00				06/02/2021 12:28			
	Latitude			Toxicity Equivalence Factor (TEF)	Screening Criteria	40.72670262				40.73132938				40.72289188				40.73050362				40.73060101			
	Longitude					-74.43975897				-74.44108766				-74.44904733				-74.44237712				-74.44084937			
	Lab Sample Name					GS-N-SD17				GS-N-SD18				GS-N-SD19				GS-N-SD20				GS-N-SD21			
	Lab Sample Number					460-235592-3 / 460-235592-8				460-235592-4 / 460-235592-9				460-235680-1 / 460-235680-4				460-235931-5 / 460-235931-7				460-235931-6 / 460-235931-8			
	Lab Report Number(s)					460-235592-1 / 460-235592-3 / 460-235592-4				460-235592-1 / 460-235592-3 / 460-235592-4				460-235680-1 / 460-235680-3				460-235931-1 / 460-235931-3 / 460-235931-4 / 460-235931-2				460-235931-1 / 460-235931-3 / 460-235931-4			
Analyte	CAS	Method	Units			Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)
PCB-50	62796-65-0	1668A	pg/g															3210		903	903				
PCB-51	68194-04-7	1668A	pg/g															637	U	637	637				
PCB-52	35693-99-3	1668A	pg/g															39200		763	763				
PCB-53	41464-41-9	1668A	pg/g															3210		903	903				
PCB-54	15968-05-5	1668A	pg/g															74.2	J	437	5.23				
PCB-55	74338-24-2	1668A	pg/g															476	U	476	476				
PCB-56	41464-43-1	1668A	pg/g															24500		560	560				
PCB-57	70424-67-8	1668A	pg/g															607	U	607	607				
PCB-58	41464-49-7	1668A	pg/g															522	U	522	522				
PCB-59	74472-33-6	1668A	pg/g															3750		1310	622				
PCB-60	33025-41-1	1668A	pg/g															12300		592	592				
PCB-61	33284-53-6	1668A	pg/g															102000		1750	566				
PCB-62		1668A	pg/g															3750		1310	622				
PCB-63	74472-34-7	1668A	pg/g															2840		611	611				
PCB-64	52663-58-8	1668A	pg/g															23900		571	571				
PCB-65	33284-54-7	1668A	pg/g															27100		1310	727				
PCB-66	32598-10-0	1668A	pg/g															76800	J	564	564				
PCB-67	73575-53-8	1668A	pg/g															683		469	469				
PCB-68	73575-52-7	1668A	pg/g															573		531	531				
PCB-69	60233-24-1	1668A	pg/g															28100		874	642				
PCB-70	32598-11-1	1668A	pg/g															102000		1750	566				
PCB-71	41464-46-4	1668A	pg/g															7640		874	710				
PCB-72	41464-42-0	1668A	pg/g															887		594	594				
PCB-73	74338-23-1	1668A	pg/g															543	U	543	543				
PCB-74	32690-93-0	1668A	pg/g															102000		1750	566				
PCB-75	32598-12-2	1668A	pg/g															3750		1310	622				
PCB-76	70362-48-0	1668A	pg/g															102000		1750	566				
PCB-77	32598-13-3	1668A	pg/g															15900		713	713				
PCB-78	70362-49-1	1668A	pg/g															650	U	650	650				
PCB-79	41464-48-6	1668A	pg/g															570	U	570	570				
PCB-80	33284-52-5	1668A	pg/g															520	U	520	520				
PCB-81	70362-50-4	1668A	pg/g															702	U	702	702				
PCB-82	52663-62-4	1668A	pg/g															7610		1670	1670				
PCB-83	60145-20-2	1668A	pg/g															3000		2160	2160				
PCB-84	52663-60-2	1668A	pg/g															9380		1830	1830				
PCB-85	65510-45-4	1668A	pg/g															24300		1310	1310				
PCB-86	55312-69-1	1668A	pg/g															46600		2620	1310				
PCB-87	38380-02-8	1668A	pg/g															46600		2620	1310				
PCB-88	55215-17-3	1668A	pg/g															13000		1560	1560				
PCB-89	73575-57-2	1668A	pg/g															1760	U	1760	1760				
PCB-90	68194-07-0	1668A	pg/g															70400		1380	1380				
PCB-91	68194-05-8	1668A	pg/g															13000		1560	1560				
PCB-92	52663-61-3	1668A	pg/g															16000		1580	1580				
PCB-93	73575-56-1	1668A	pg/g															1510	U	1510	1510				
PCB-94	73575-55-0	1668A	pg/g															1710	U	1710	1710				
PCB-95	38379-99-6	1668A	pg/g															41900		1560	1560				
PCB-96	73575-54-9	1668A	pg/g															407	J	437	4.07				
PCB-97	41464-51-1	1668A	pg/g															46600		2620	1310				
PCB-98	60233-25-2	1668A	pg/g															1970		1500	1500				
PCB-99	38380-01-7	1668A	pg/g															51700	J	1310	1310				
PCB-100	39485-83-1	1668A	pg/g															1510	U	1510	1510				
PCB-101	37680-73-2	1668A	pg/g															70400		1380	1380				
PCB-102	68194-06-9	1668A	pg/g															1970		1500	1500				
PCB-103	60145-21-3	1668A	pg/g															1430	U	1430	1430				
PCB-104	56558-16-8	1668A	pg/g															17.1	J	437	4.23				
PCB-105	32598-14-4	1668A	pg/g															47600	J	1180	1180				
PCB-106	70424-69-0	1668A	pg/g															1290	U	1290	1290				
PCB-107	70424-68-9	1668A	pg/g															5410		1290	1290				
PCB-108	70362-41-3	1668A	pg/g															46600		2620	1310				
PCB-109	74472-35-8	1668A	pg/g															8200		1130	1130				
PCB-110	38380-03-9	1668A	pg/g															104000	J	1120	1120				
PCB-111	39635-32-0	1668A	pg/g															1170	U	1170	1170				

Table 5.14 - Sediment: Polychlorinated Biphenyls (PCBs) Analytical R

(continued)

Rolling Knolls Landfill

Sample Name				NJDEP Avian TEF's	ESC's	SD17				SD18				SD19				SD20				SD21			
Sample Date/Time						05/27/2021 14:18				05/28/2021 08:30				06/01/2021 09:20				06/02/2021 10:00				06/02/2021 12:28			
Latitude				Toxicity Equivalence Factor (TEF)	Screening Criteria	40.72670262				40.73132938				40.72289188				40.73050362				40.73060101			
Longitude						-74.43975897				-74.44108766				-74.44904733				-74.44237712				-74.44084937			
Lab Sample Name						GS-N-SD17				GS-N-SD18				GS-N-SD19				GS-N-SD20				GS-N-SD21			
Lab Sample Number						460-235592-3 / 460-235592-8				460-235592-4 / 460-235592-9				460-235680-1 / 460-235680-4				460-235931-5 / 460-235931-7				460-235931-6 / 460-235931-8			
Lab Report Number(s)						460-235592-1 / 460-235592-3 / 460-235592-4				460-235592-1 / 460-235592-3 / 460-235592-4				460-235680-1 / 460-235680-3				460-235931-1 / 460-235931-3 / 460-235931-4 / 460-235931-2				460-235931-1 / 460-235931-3 / 460-235931-4			
Analyte	CAS	Method	Units			Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)
PCB-112	74472-36-9	1668A	pg/g															944	U	944	944				
PCB-113	68194-10-5	1668A	pg/g															70400		1380	1380				
PCB-114	74472-37-0	1668A	pg/g															1920		1340	1340				
PCB-115	74472-38-1	1668A	pg/g															104000	J	1120	1120				
PCB-116	18259-05-7	1668A	pg/g															24300		1310	1310				
PCB-117	68194-11-6	1668A	pg/g															24300		1310	1310				
PCB-118	31508-00-6	1668A	pg/g															101000	J	1140	1140				
PCB-119	56558-17-9	1668A	pg/g															46600		2620	1310				
PCB-120	68194-12-7	1668A	pg/g															994	U	994	994				
PCB-121	56558-18-0	1668A	pg/g															1010	U	1010	1010				
PCB-122	76842-07-4	1668A	pg/g															2870		1460	1460				
PCB-123	65510-44-3	1668A	pg/g															3560		1300	1300				
PCB-124	70424-70-3	1668A	pg/g															5410		1290	1290				
PCB-125	74472-39-2	1668A	pg/g															46600		2620	1310				
PCB-126	57465-28-8	1668A	pg/g															1570	U	1570	1570				
PCB-127	39635-33-1	1668A	pg/g															1420	U	1420	1420				
PCB-128	38380-07-3	1668A	pg/g															13900		874	310				
PCB-129	55215-18-4	1668A	pg/g															86400		1310	326				
PCB-130	52663-66-8	1668A	pg/g															6290		437	418				
PCB-131	61798-70-7	1668A	pg/g															1040		437	371				
PCB-132	38380-05-1	1668A	pg/g															20300		437	363				
PCB-133	35694-04-3	1668A	pg/g															1320		437	355				
PCB-134	52704-70-8	1668A	pg/g															3420		874	347				
PCB-135	52744-13-5	1668A	pg/g															18700		874	329				
PCB-136	38411-22-2	1668A	pg/g															5520		437	231				
PCB-137	35694-06-5	1668A	pg/g															4350		437	351				
PCB-138	35065-28-2	1668A	pg/g															86400		1310	326				
PCB-139	56030-56-9	1668A	pg/g															1750		874	327				
PCB-140	59291-64-4	1668A	pg/g															1750		874	327				
PCB-141	52712-04-6	1668A	pg/g															12400		437	349				
PCB-142	41411-61-4	1668A	pg/g															362	U	437	362				
PCB-143	68194-15-0	1668A	pg/g															3420		874	347				
PCB-144	68194-14-9	1668A	pg/g															2570		437	301				
PCB-145	74472-40-5	1668A	pg/g															239	U	437	239				
PCB-146	51908-16-8	1668A	pg/g															9260		437	285				
PCB-147	68194-13-8	1668A	pg/g															46900		874	318				
PCB-148	74472-41-6	1668A	pg/g															304	U	437	304				
PCB-149	38380-04-0	1668A	pg/g															46900		874	318				
PCB-150	68194-08-1	1668A	pg/g															219	U	437	219				
PCB-151	52663-63-5	1668A	pg/g															18700		874	329				
PCB-152	68194-09-2	1668A	pg/g															245	U	437	245				
PCB-153	35065-27-1	1668A	pg/g															55800		874	264				
PCB-154	60145-22-4	1668A	pg/g															770		437	280				
PCB-155	33979-03-2	1668A	pg/g															237	U	437	237				
PCB-156	38380-08-4	1668A	pg/g															10100		119	119				
PCB-157	69782-90-7	1668A	pg/g															10100		119	119				
PCB-158	74472-42-7	1668A	pg/g															7590		437	226				
PCB-159	39635-35-3	1668A	pg/g															429	J	437	85.6				
PCB-160	41411-62-5	1668A	pg/g															293	U	437	293				
PCB-161	74472-43-8	1668A	pg/g															262	U	437	262				
PCB-162	39635-34-2	1668A	pg/g															300	J	437	89.8				
PCB-163	74472-44-9	1668A	pg/g															86400		1310	326				
PCB-164	74472-45-0	1668A	pg/g															6710		437	283				
PCB-165	74472-46-1	1668A	pg/g															273	U	437	273				
PCB-166	41411-63-6	1668A	pg/g															13900		874	310				
PCB-167	52663-72-6	1668A	pg/g															3540		88.2	88.2				
PCB-168	59291-65-5	1668A	pg/g															55800		874	264				
PCB-169	32774-16-6	1668A	pg/g															115	U	115	115				
PCB-170	35065-30-6	1668A	pg/g															12600		437	167				
PCB-171	52663-71-5	1668A	pg/g															4020		874	150				
PCB-172	52663-74-8	1668A	pg/g															2530		437	164				
PCB-173	68194-16-1	1668A	pg/g															4020		874	150				

Table 5.14 - Sediment: Polychlorinated Biphenyls (PCBs) Analytical R (continued)

Rolling Knolls Landfill

Sample Name				NJDEP Avian TEF's	ESC's	SD17				SD18				SD19				SD20				SD21			
Sample Date/Time						05/27/2021 14:18				05/28/2021 08:30				06/01/2021 09:20				06/02/2021 10:00				06/02/2021 12:28			
Latitude				Toxicity Equivalence Factor (TEF)	Screening Criteria	40.72670262				40.73132938				40.72289188				40.73050362				40.73060101			
Longitude						-74.43975897				-74.44108766				-74.44904733				-74.44237712				-74.44084937			
Lab Sample Name						GS-N-SD17				GS-N-SD18				GS-N-SD19				GS-N-SD20				GS-N-SD21			
Lab Sample Number						460-235592-3 / 460-235592-8				460-235592-4 / 460-235592-9				460-235680-1 / 460-235680-4				460-235931-5 / 460-235931-7				460-235931-6 / 460-235931-8			
Lab Report Number(s)						460-235592-1 / 460-235592-3 / 460-235592-4				460-235592-1 / 460-235592-3 / 460-235592-4				460-235680-1 / 460-235680-3				460-235931-1 / 460-235931-3 / 460-235931-4 / 460-235931-2				460-235931-1 / 460-235931-3 / 460-235931-4			
Analyte	CAS	Method	Units			Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)
PCB-174	38411-25-5	1668A	pg/g															12500		437	138				
PCB-175	40186-70-7	1668A	pg/g															549		437	10				
PCB-176	52663-65-7	1668A	pg/g															1620		437	7.44				
PCB-177	52663-70-4	1668A	pg/g															7100		437	138				
PCB-178	52663-67-9	1668A	pg/g															3430		437	10.3				
PCB-179	52663-64-6	1668A	pg/g															4960		437	6.49				
PCB-180	35065-29-3	1668A	pg/g															22600		874	122				
PCB-181	74472-47-2	1668A	pg/g															141	U	437	141				
PCB-182	60145-23-5	1668A	pg/g															145	J	437	9.71				
PCB-183	52663-69-1	1668A	pg/g															5670		437	121				
PCB-184	74472-48-3	1668A	pg/g															6.74	U	437	6.74				
PCB-185	52712-05-7	1668A	pg/g															2390		437	160				
PCB-186	74472-49-4	1668A	pg/g															6.05	U	437	6.05				
PCB-187	52663-68-0	1668A	pg/g															17500		437	8.19				
PCB-188	74487-85-7	1668A	pg/g															42.8	J	437	6.78				
PCB-189	39635-31-9	1668A	pg/g															594		43.7	8.8				
PCB-190	41411-64-7	1668A	pg/g															2670		437	105				
PCB-191	74472-50-7	1668A	pg/g															489		437	110				
PCB-192	74472-51-8	1668A	pg/g															103	U	437	103				
PCB-193	69782-91-8	1668A	pg/g															22600		874	122				
PCB-194	35694-08-7	1668A	pg/g															4880		437	21.7				
PCB-195	52663-78-2	1668A	pg/g															2260		437	21.5				
PCB-196	42740-50-1	1668A	pg/g															3320		437	15.8				
PCB-197	33091-17-7	1668A	pg/g															206	J	437	9.88				
PCB-198	68194-17-2	1668A	pg/g															10200		874	14.2				
PCB-199	52663-75-9	1668A	pg/g															10200		874	14.2				
PCB-200	52663-73-7	1668A	pg/g															1190		437	12.1				
PCB-201	40186-71-8	1668A	pg/g															949		437	11.3				
PCB-202	2136-99-4	1668A	pg/g															2510		437	10.6				
PCB-203	52663-76-0	1668A	pg/g															5510		437	12.8				
PCB-204	74472-52-9	1668A	pg/g															10.8	U	437	10.8				
PCB-205	74472-53-0	1668A	pg/g															408	J	437	18.7				
PCB-206	40186-72-9	1668A	pg/g															23500		437	58.9				
PCB-207	52663-79-3	1668A	pg/g															1820		437	38.7				
PCB-208	52663-77-1	1668A	pg/g															10600		437	36.6				
PCB-209	2051-24-3	1668A	pg/g															33800		437	7.64				
Σ Polychlorinated biphenyls	1336-36-3	8082A	pg/g		59800 (9)													2,945,882							
Dioxin-Like PCB TEQ Calculation																									
PCB-77	32598-13-3	1668A	pg/g	0.05														795							
PCB-81	70362-50-4	1668A	pg/g	0.1														0							
PCB-105	32598-14-4	1668A	pg/g	0.0001														5							
PCB-114	74472-37-0	1668A	pg/g	0.0001														0							
PCB-118	31508-00-6	1668A	pg/g	0.00001														1							
PCB-123	65510-44-3	1668A	pg/g	0.00001														0							
PCB-126	57465-28-8	1668A	pg/g	0.1														0							
PCB-156	38380-08-4	1668A	pg/g	0.0001														1							
PCB-157	69782-90-7	1668A	pg/g	0.0001														1							
PCB-167	52663-72-6	1668A	pg/g	0.00001														0							
PCB-169	32774-16-6	1668A	pg/g	0.001														0							
PCB-189	39635-31-9	1668A	pg/g	0.00001														0							
Σ Polychlorinated biphenyls (PCB) TEQ	1336-36-3	8082A	pg/g		0.12 (9)													803							

Table 5.15 - Sediment: Pesticides Analytical Results

Rolling Knolls Landfill

Sample Name				ESC's	SD01				SD100 (SD01 duplicate)				SD02				SD03				SD04				SD05				SD06			
Sample Date/Time					05/13/2021 15:30				05/13/2021 15:30				05/14/2021 09:15				05/14/2021 10:45				05/15/2021 14:05				05/16/2021 15:00				05/17/2021 11:45			
Latitude					40.72679082				40.72679082				40.72715605				40.72638198				40.72348024				40.72279293				40.72236209			
Longitude				Screening Criteria	-74.44034521				-74.44034521				-74.43993388				-74.44081345				-74.44733898				-74.44605058				-74.44587599			
Lab Sample Name					GS-S-SD01				GS-S-SD0100				GS-S-SD02				GS-S-SD03				GS-S-SD04				GS-S-SD05				GS-S-SD06			
Lab Sample Number					460-234557-3				460-234557-4				460-234557-1				460-234557-2				460-234545-1				460-234545-2				460-234971-3 / 460-234971-7			
Lab Report Number(s)					460-234557-1 / 460-234557-2 / 460-234557-3				460-234557-1 / 460-234557-3				460-234557-1 / 460-234557-2 / 460-234557-3				460-234557-1 / 460-234557-2 / 460-234557-3				460-234545-1				460-234545-1				460-234971-1 / 460-234971-4			
Analyte	CAS	Method	Units		Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)
4,4'-DDD	72-54-8	8081B	µg/Kg	4.88 (9)	32		31	5.3	5.4	U	32	5.4	6.4	U	38	6.4	7.1	U	42	7.1	4.1	U	24	4.1	4.1	U	24	4.1	6.9	U	40	6.9
4,4'-DDE	72-55-9	8081B	µg/Kg	3.16 (9)	3.6	U	31	3.6	3.7	U	32	3.7	4.4	U	38	4.4	4.9	U	42	4.9	2.9	U	24	2.9	2.8	U	24	2.8	4.8	U	40	4.8
4,4'-DDT	50-29-3	8081B	µg/Kg	4.16 (9)	5.7	U	31	5.7	5.8	U	32	5.8	6.9	U	38	6.9	7.6	U	42	7.6	4.4	U	24	4.4	4.4	U	24	4.4	7.4	U	40	7.4
Aldrin	309-00-2	8081B	µg/Kg	2 (9)	4.7	U	31	4.7	4.8	U	32	4.8	5.7	U	38	5.7	6.3	U	42	6.3	3.7	U	24	3.7	3.6	U	24	3.6	6.1	U	40	6.1
alpha-BHC	319-84-6	8081B	µg/Kg	6 (9)	3.1	U	9.2	3.1	3.2	U	9.4	3.2	3.8	U	11	3.8	4.2	U	12	4.2	2.5	U	7.2	2.5	2.4	U	7.1	2.4	4.1	U	12	4.1
beta-BHC	319-85-7	8081B	µg/Kg	5 (9)	3.5	U	9.2	3.5	3.5	U	9.4	3.5	4.2	U	11	4.2	4.7	U	12	4.7	2.7	U	7.2	2.7	2.7	U	7.1	2.7	4.5	U	12	4.5
Chlordane (technical)	57-74-9	8081B	µg/Kg	3.248 (9)	75	U	310	75	76	U	320	76	91	U	380	91	100	U	420	100	59	U	240	59	58	U	240	58	98	U	400	98
delta-BHC	319-86-8	8081B	µg/Kg	138.81 (10)	1.9	U	9.2	1.9	1.9	U	9.4	1.9	2.3	U	11	2.3	2.5	U	12	2.5	1.5	U	7.2	1.5	1.5	U	7.1	1.5	2.5	U	12	2.5
Dieldrin	60-57-1	8081B	µg/Kg	1.9 (9)	4	U	9.2	4	4.1	U	9.4	4.1	4.9	U	11	4.9	5.4	U	12	5.4	3.1	U	7.2	3.1	3.1	U	7.1	3.1	5.2	U	12	5.2
Endosulfan I	959-98-8	8081B	µg/Kg	0.00642 (10)	4.7	U	31	4.7	4.8	U	32	4.8	5.7	U	38	5.7	6.3	U	42	6.3	3.7	U	24	3.7	3.6	U	24	3.6	6.1	U	40	6.1
Endosulfan II	33213-65-9	8081B	µg/Kg	0.00642 (10)	7.9	U	31	7.9	8.1	U	32	8.1	9.7	U	38	9.7	11	U	42	11	6.2	U	24	6.2	6.1	U	24	6.1	10	U	40	10
Endosulfan sulfate	1031-07-8	8081B	µg/Kg	34.6 (9)	3.9	U	31	3.9	4	U	32	4	4.7	U	38	4.7	5.2	U	42	5.2	3	U	24	3	3	U	24	3	5.1	U	40	5.1
Endrin	72-20-8	8081B	µg/Kg	2.22 (9)	4.4	U	31	4.4	4.5	U	32	4.5	5.4	U	38	5.4	6	U	42	6	3.5	U	24	3.5	3.4	U	24	3.4	5.8	U	40	5.8
Endrin aldehyde	7421-93-4	8081B	µg/Kg	480 (9)	7.3	U	31	7.3	7.4	U	32	7.4	8.9	U	38	8.9	9.8	U	42	9.8	5.7	U	24	5.7	5.6	U	24	5.6	9.5	U	40	9.5
Endrin ketone	53494-70-5	8081B	µg/Kg		6	U	31	6	6.1	U	32	6.1	7.3	U	38	7.3	8.1	U	42	8.1	4.7	U	24	4.7	4.6	U	24	4.6	7.8	U	40	7.8
gamma-BHC (Lindane)	58-89-9	8081B	µg/Kg	3 (9)	2.9	U	9.2	2.9	2.9	U	9.4	2.9	3.5	U	11	3.5	3.8	U	12	3.8	2.2	U	7.2	2.2	2.2	U	7.1	2.2	3.7	U	12	3.7
Heptachlor	76-44-8	8081B	µg/Kg	0.6 (9)	3.6	U	31	3.6	3.7	U	32	3.7	4.4	U	38	4.4	4.9	U	42	4.9	2.9	U	24	2.9	2.8	U	24	2.8	4.8	U	40	4.8
Heptachlor epoxide	1024-57-3	8081B	µg/Kg	2.47 (9)	4.6	U	31	4.6	4.7	U	32	4.7	5.6	U	38	5.6	6.2	U	42	6.2	3.6	U	24	3.6	3.6	U	24	3.6	6	U	40	6
Methoxychlor	72-43-5	8081B	µg/Kg	13.6 (9)	7.1	U	31	7.1	7.2	U	32	7.2	8.6	U	38	8.6	9.5	U	42	9.5	5.5	U	24	5.5	5.4	U	24	5.4	9.2	U	40	9.2
Toxaphene	8001-35-2	8081B	µg/Kg	0.077 (9)	110	U	310	110	110	U	320	110	140	U	380	140	150	U	420	150	87	U	240	87	86	U	240	86	150	U	400	150

Table 5.15 - Sediment: Pesticides Analytical Results

(continued)

Rolling Knolls Landfill

Sample Name				ESC's	SD07				SD08				SD09				SD10				SD11				SD12				SD13			
Sample Date/Time					05/17/2021 13:50				05/19/2021 13:43				05/19/2021 14:43				05/19/2021 15:45				05/17/2021 11:45				05/24/2021 09:14				05/24/2021 13:55			
Latitude					40.72143376				40.732265				40.73189675				40.73169144				40.72489948				40.73119281				40.72747591			
Longitude					-74.44468585				-74.43997				-74.44071492				-74.44135929				-74.44253502				-74.43998828				-74.43941053			
Lab Sample Name				Screening Criteria	GS-S-SD07				GS-S-SD08				GS-S-SD09				GS-S-SD10				GS-S-SD11				GS-N-SD12				GS-N-SD13			
Lab Sample Number					460-234971-4 / 460-234971-8				460-235248-1				460-235248-2				460-235248-3				460-235400-2				460-235444-1 / 460-235444-6				460-235444-2 / 460-235444-7			
Lab Report Number(s)					460-234971-1 / 460-234971-4				460-235248-1 / 460-235248-3				460-235248-1 / 460-235248-3				460-235248-1 / 460-235248-3				460-235400-1 / 460-235400-3				460-235444-1 / 460-235444-3 / 460-235444-4				460-235444-1 / 460-235444-3 / 460-235444-4			
Analyte	CAS	Method	Units		Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)
4,4'-DDD	72-54-8	8081B	µg/Kg	4.88 (9)	4.7 U		28	4.7	5.5 U		32	5.5	8.9 U		52	8.9	4.9 U		29	4.9	11 U		63	11	27 J		47	8.1	9.2 U		54	9.2
4,4'-DDE	72-55-9	8081B	µg/Kg	3.16 (9)	4.8 J		28	3.3	3.8 U		32	3.8	6.2 U		52	6.2	3.4 U		29	3.4	7.4 U		63	7.4	5.6 U		47	5.6	6.4 U		54	6.4
4,4'-DDT	50-29-3	8081B	µg/Kg	4.16 (9)	5.1 U		28	5.1	5.9 U		32	5.9	9.6 U		52	9.6	5.3 U		29	5.3	12 U		63	12	8.7 U		47	8.7	10 U		54	10
Aldrin	309-00-2	8081B	µg/Kg	2 (9)	4.2 U		28	4.2	4.9 U		32	4.9	7.9 U		52	7.9	4.3 U		29	4.3	9.5 U		63	9.5	7.2 U		47	7.2	8.2 U		54	8.2
alpha-BHC	319-84-6	8081B	µg/Kg	6 (9)	2.8 U		8.3	2.8	3.3 U		9.7	3.3	5.3 U		16	5.3	2.9 U		8.6	2.9	6.4 U		19	6.4	4.8 U		14	4.8	5.5 U		16	5.5
beta-BHC	319-85-7	8081B	µg/Kg	5 (9)	3.1 U		8.3	3.1	3.6 U		9.7	3.6	5.9 U		16	5.9	3.2 U		8.6	3.2	7.1 U		19	7.1	5.3 U		14	5.3	6.1 U		16	6.1
Chlordane (technical)	57-74-9	8081B	µg/Kg	3.248 (9)	67 U		280	67	78 U		320	78	130 U		520	130	70 U		290	70	150 U		630	150	110 U		470	110	130 U		540	130
delta-BHC	319-86-8	8081B	µg/Kg	138.81 (10)	1.7 U		8.3	1.7	2 U		9.7	2	3.2 U		16	3.2	1.8 U		8.6	1.8	3.9 U		19	3.9	2.9 U		14	2.9	3.3 U		16	3.3
Dieldrin	60-57-1	8081B	µg/Kg	1.9 (9)	3.6 U		8.3	3.6	4.2 U		9.7	4.2	6.8 U		16	6.8	3.7 U		8.6	3.7	8.2 U		19	8.2	6.2 U		14	6.2	7.1 U		16	7.1
Endosulfan I	959-98-8	8081B	µg/Kg	0.00642 (10)	4.2 U		28	4.2	4.9 U		32	4.9	8 U		52	8	4.4 U		29	4.4	9.6 U		63	9.6	7.2 U		47	7.2	8.3 U		54	8.3
Endosulfan II	33213-65-9	8081B	µg/Kg	0.00642 (10)	7.1 U		28	7.1	8.3 UJ		32	8.3	13 UJ		52	13	7.4 UJ		29	7.4	16 U		63	16	12 U		47	12	14 U		54	14
Endosulfan sulfate	1031-07-8	8081B	µg/Kg	34.6 (9)	3.5 U		28	3.5	4.1 U		32	4.1	6.6 U		52	6.6	3.6 U		29	3.6	7.9 U		63	7.9	6 U		47	6	6.8 U		54	6.8
Endrin	72-20-8	8081B	µg/Kg	2.22 (9)	4 U		28	4	4.6 U		32	4.6	7.5 U		52	7.5	4.1 U		29	4.1	9 U		63	9	6.8 U		47	6.8	7.8 U		54	7.8
Endrin aldehyde	7421-93-4	8081B	µg/Kg	480 (9)	6.5 U		28	6.5	7.6 U		32	7.6	12 U		52	12	6.8 U		29	6.8	15 U		63	15	11 U		47	11	13 U		54	13
Endrin ketone	53494-70-5	8081B	µg/Kg		5.4 U		28	5.4	6.3 U		32	6.3	10 U		52	10	5.6 U		29	5.6	12 U		63	12	9.2 U		47	9.2	11 U		54	11
gamma-BHC (Lindane)	58-89-9	8081B	µg/Kg	3 (9)	2.6 U		8.3	2.6	3 U		9.7	3	4.8 U		16	4.8	2.7 U		8.6	2.7	5.8 U		19	5.8	4.4 U		14	4.4	5 U		16	5
Heptachlor	76-44-8	8081B	µg/Kg	0.6 (9)	3.3 U		28	3.3	3.8 U		32	3.8	6.2 U		52	6.2	3.4 U		29	3.4	7.4 U		63	7.4	5.6 U		47	5.6	6.4 U		54	6.4
Heptachlor epoxide	1024-57-3	8081B	µg/Kg	2.47 (9)	4.1 U		28	4.1	4.8 U		32	4.8	7.8 U		52	7.8	4.3 U		29	4.3	9.4 U		63	9.4	7.1 U		47	7.1	8.1 U		54	8.1
Methoxychlor	72-43-5	8081B	µg/Kg	13.6 (9)	6.3 U		28	6.3	7.4 U		32	7.4	12 U		52	12	6.6 U		29	6.6	14 U		63	14	11 U		47	11	12 U		54	12
Toxaphene	8001-35-2	8081B	µg/Kg	0.077 (9)	100 U		280	100	120 U		320	120	190 U		520	190	100 U		290	100	230 U		630	230	170 U		470	170	200 U		540	200

Table 5.15 - Sediment: Pesticides Analytical Results

(continued)

Rolling Knolls Landfill

Sample Name				ESC's	SD14				SD15				SD16				SD101 (SD16 Duplicate)				SD17				SD18				SD19			
Sample Date/Time					05/25/2021 09:00				05/25/2021 13:30				05/26/2021 15:06				05/26/2021 15:06				05/27/2021 14:18				05/28/2021 08:30				06/01/2021 09:20			
Latitude					40.72740332				40.72937246				40.73124954				40.73124954				40.72670262				40.73132938				40.72289188			
Longitude				Screening Criteria	-74.43971312				-74.440396				-74.44141084				-74.44141084				-74.43975897				-74.44108766				-74.44904733			
Lab Sample Name					GS-N-SD14				GS-N-SD15				GS-N-SD16				GS-N-SD11-1				GS-N-SD17				GS-N-SD18				GS-N-SD19			
Lab Sample Number					460-235492-2 / 460-235492-6				460-235492-3 / 460-235492-7				460-235592-1 / 460-235592-6				460-235592-2 / 460-235592-7				460-235592-3 / 460-235592-8				460-235592-4 / 460-235592-9				460-235680-1 / 460-235680-4			
Lab Report Number(s)					460-235492-1 / 460-235492-3 / 460-235492-4				460-235492-1 / 460-235492-3 / 460-235492-4				460-235592-1 / 460-235592-3 / 460-235592-4				460-235592-1 / 460-235592-3 / 460-235592-4				460-235592-1 / 460-235592-3 / 460-235592-4				460-235592-1 / 460-235592-3 / 460-235592-4				460-235680-1 / 460-235680-3			
Analyte	CAS	Method	Units		Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)
4,4'-DDD	72-54-8	8081B	µg/Kg	4.88 (9)	4.3 U		25	4.3	24 J		69	12	16 J		22	3.7	14 J		20	3.4	8.6 U		50	8.6	5.9 J		13	2.2	4.5 U		26	4.5
4,4'-DDE	72-55-9	8081B	µg/Kg	3.16 (9)	2.9 U		25	2.9	18 J		69	8.1	13 J		22	2.6	12 J		20	2.3	5.9 U		50	5.9	3.3 J		13	1.5	3.1 U		26	3.1
4,4'-DDT	50-29-3	8081B	µg/Kg	4.16 (9)	4.6 U		25	4.6	13 U		69	13	4 U		22	4	3.6 U		20	3.6	9.3 U		50	9.3	2.4 U		13	2.4	4.8 U		26	4.8
Aldrin	309-00-2	8081B	µg/Kg	2 (9)	3.8 U		25	3.8	10 U		69	10	3.3 U		22	3.3	3 U		20	3	7.6 U		50	7.6	2 U		13	2	4 U		26	4
alpha-BHC	319-84-6	8081B	µg/Kg	6 (9)	2.5 U		7.5	2.5	7 U		20	7	2.2 U		6.5	2.2	2 U		5.9	2	5.1 U		15	5.1	1.3 U		3.9	1.3	2.7 U		7.8	2.7
beta-BHC	319-85-7	8081B	µg/Kg	5 (9)	2.8 U		7.5	2.8	7.7 U		20	7.7	2.4 U		6.5	2.4	2.2 U		5.9	2.2	5.6 U		15	5.6	1.5 U		3.9	1.5	2.9 U		7.8	2.9
Chlordane (technical)	57-74-9	8081B	µg/Kg	3.248 (9)	60 U		250	60	170 U		690	170	53 U		220	53	48 U		200	48	120 U		500	120	32 U		130	32	63 U		260	63
delta-BHC	319-86-8	8081B	µg/Kg	138.81 (10)	1.5 U		7.5	1.5	4.2 U		20	4.2	1.3 U		6.5	1.3	1.2 U		5.9	1.2	3.1 U		15	3.1	0.8 U		3.9	0.8	1.6 U		7.8	1.6
Dieldrin	60-57-1	8081B	µg/Kg	1.9 (9)	3.2 U		7.5	3.2	8.9 U		20	8.9	2.8 U		6.5	2.8	2.6 U		5.9	2.6	6.5 U		15	6.5	1.7 U		3.9	1.7	3.4 U		7.8	3.4
Endosulfan I	959-98-8	8081B	µg/Kg	0.00642 (10)	3.8 U		25	3.8	10 U		69	10	3.3 U		22	3.3	3 U		20	3	7.7 U		50	7.7	2 U		13	2	4 U		26	4
Endosulfan II	33213-65-9	8081B	µg/Kg	0.00642 (10)	6.4 U		25	6.4	18 U		69	18	5.6 U		22	5.6	5.1 U		20	5.1	13 U		50	13	3.4 U		13	3.4	6.7 U		26	6.7
Endosulfan sulfate	1031-07-8	8081B	µg/Kg	34.6 (9)	3.1 U		25	3.1	8.6 U		69	8.6	2.7 U		22	2.7	2.5 U		20	2.5	6.3 U		50	6.3	1.6 U		13	1.6	3.3 U		26	3.3
Endrin	72-20-8	8081B	µg/Kg	2.22 (9)	3.6 U		25	3.6	9.8 U		69	9.8	3.1 U		22	3.1	2.8 U		20	2.8	7.2 U		50	7.2	1.9 U		13	1.9	3.8 U		26	3.8
Endrin aldehyde	7421-93-4	8081B	µg/Kg	480 (9)	5.9 U		25	5.9	16 U		69	16	5.2 U		22	5.2	4.7 U		20	4.7	12 U		50	12	3.1 U		13	3.1	6.2 U		26	6.2
Endrin ketone	53494-70-5	8081B	µg/Kg		4.8 U		25	4.8	13 U		69	13	4.2 U		22	4.2	3.8 U		20	3.8	9.8 U		50	9.8	2.5 U		13	2.5	5.1 U		26	5.1
gamma-BHC (Lindane)	58-89-9	8081B	µg/Kg	3 (9)	2.3 U		7.5	2.3	6.3 U		20	6.3	2 U		6.5	2	1.8 U		5.9	1.8	4.7 U		15	4.7	1.2 U		3.9	1.2	2.4 U		7.8	2.4
Heptachlor	76-44-8	8081B	µg/Kg	0.6 (9)	2.9 U		25	2.9	8.1 U		69	8.1	2.6 U		22	2.6	2.3 U		20	2.3	5.9 U		50	5.9	1.5 U		13	1.5	3.1 U		26	3.1
Heptachlor epoxide	1024-57-3	8081B	µg/Kg	2.47 (9)	3.7 U		25	3.7	10 U		69	10	3.3 U		22	3.3	2.9 U		20	2.9	7.5 U		50	7.5	2 U		13	2	3.9 U		26	3.9
Methoxychlor	72-43-5	8081B	µg/Kg	13.6 (9)	5.7 U		25	5.7	16 U		69	16	5 U		22	5	4.5 U		20	4.5	12 U		50	12	3 U		13	3	6 U		26	6
Toxaphene	8001-35-2	8081B	µg/Kg	0.077 (9)	90 U		250	90	250 U		690	250	79 U		220	79	71 U		200	71	180 U		500	180	47 U		130	47	95 U		260	95

Table 5.15 - Sediment: Pesticides Analytical Results (continued)

Rolling Knolls Landfill

	Sample Name			ESC's	SD20				SD21			
	Sample Date/Time				06/02/2021 10:00				06/02/2021 12:28			
	Latitude				40.73050362				40.73060101			
	Longitude				-74.44237712				-74.44084937			
	Lab Sample Name			Screening Criteria	GS-N-SD20				GS-N-SD21			
	Lab Sample Number				460-235931-5 / 460-235931-7				460-235931-6 / 460-235931-8			
	Lab Report Number(s)				460-235931-1 / 460-235931-3 / 460-235931-4 / 460-235931-2				460-235931-1 / 460-235931-3 / 460-235931-4			
Analyte	CAS	Method	Units		Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)
4,4'-DDD	72-54-8	8081B	µg/Kg	4.88 (9)	4.7	U	28	4.7	5	U	30	5
4,4'-DDE	72-55-9	8081B	µg/Kg	3.16 (9)	9.9	J	28	3.2	3.5	U	30	3.5
4,4'-DDT	50-29-3	8081B	µg/Kg	4.16 (9)	5.1	U	28	5.1	5.4	U	30	5.4
Aldrin	309-00-2	8081B	µg/Kg	2 (9)	4.1	U	28	4.1	4.5	U	30	4.5
alpha-BHC	319-84-6	8081B	µg/Kg	6 (9)	2.8	U	8.2	2.8	3	U	8.8	3
beta-BHC	319-85-7	8081B	µg/Kg	5 (9)	3.1	U	8.2	3.1	3.3	U	8.8	3.3
Chlordane (technical)	57-74-9	8081B	µg/Kg	3.248 (9)	410		280	67	71	U	300	71
delta-BHC	319-86-8	8081B	µg/Kg	138.81 (10)	1.7	U	8.2	1.7	1.8	U	8.8	1.8
Dieldrin	60-57-1	8081B	µg/Kg	1.9 (9)	3.6	U	8.2	3.6	3.8	U	8.8	3.8
Endosulfan I	959-98-8	8081B	µg/Kg	0.00642 (10)	4.2	U	28	4.2	4.5	U	30	4.5
Endosulfan II	33213-65-9	8081B	µg/Kg	0.00642 (10)	7.1	U	28	7.1	7.6	U	30	7.6
Endosulfan sulfate	1031-07-8	8081B	µg/Kg	34.6 (9)	3.5	U	28	3.5	3.7	U	30	3.7
Endrin	72-20-8	8081B	µg/Kg	2.22 (9)	3.9	U	28	3.9	4.2	U	30	4.2
Endrin aldehyde	7421-93-4	8081B	µg/Kg	480 (9)	6.5	U	28	6.5	7	U	30	7
Endrin ketone	53494-70-5	8081B	µg/Kg		5.3	U	28	5.3	5.7	U	30	5.7
gamma-BHC (Lindane)	58-89-9	8081B	µg/Kg	3 (9)	2.5	U	8.2	2.5	2.7	U	8.8	2.7
Heptachlor	76-44-8	8081B	µg/Kg	0.6 (9)	3.2	U	28	3.2	3.5	U	30	3.5
Heptachlor epoxide	1024-57-3	8081B	µg/Kg	2.47 (9)	4.1	U	28	4.1	4.4	U	30	4.4
Methoxychlor	72-43-5	8081B	µg/Kg	13.6 (9)	6.3	U	28	6.3	6.7	U	30	6.7
Toxaphene	8001-35-2	8081B	µg/Kg	0.077 (9)	99	U	280	99	110	U	300	110

Table 5.16 - Sediment: Summary of Exceedances

Rolling Knolls Landfill

Sample Name				ESC's	SD01				SD100 (SD01 duplicate)				SD02				SD03				SD04				SD05				SD06			
Sample Date/Time					05/13/2021 15:30				05/13/2021 15:30				05/14/2021 09:15				05/14/2021 10:45				05/15/2021 14:05				05/16/2021 15:00				05/17/2021 11:45			
Latitude					40.72679082				40.72679082				40.72715605				40.72638198				40.72348024				40.72279293				40.72236209			
Longitude					-74.44034521				-74.44034521				-74.43993388				-74.44081345				-74.44733898				-74.44605058				-74.44587599			
Lab Sample Name				Screening Criteria	GS-S-SD01				GS-S-SD0100				GS-S-SD02				GS-S-SD03				GS-S-SD04				GS-S-SD05				GS-S-SD06			
Lab Sample Number					460-234557-3				460-234557-4				460-234557-1				460-234557-2				460-234545-1				460-234545-2				460-234971-3 / 460-234971-7			
Lab Report Number(s)					460-234557-1 / 460-234557-2 / 460-234557-3				460-234557-1 / 460-234557-3				460-234557-1 / 460-234557-2 / 460-234557-3				460-234557-1 / 460-234557-2 / 460-234557-3				460-234545-1				460-234545-1				460-234971-1 / 460-234971-4			
Analyte	**CAS**	**Method**	**Units**		**Result**	**LDC Flag**	**RL**	**MDL (EDL)**	**Result**	**LDC Flag**	**RL**	**MDL (EDL)**	**Result**	**LDC Flag**	**RL**	**MDL (EDL)**	**Result**	**LDC Flag**	**RL**	**MDL (EDL)**	**Result**	**LDC Flag**	**RL**	**MDL (EDL)**	**Result**	**LDC Flag**	**RL**	**MDL (EDL)**	**Result**	**LDC Flag**	**RL**	**MDL (EDL)**
Volatile Organic Compounds (VOCs)																																
Acetone	67-64-1	8260D	µg/Kg	65 (10)	210		30	29	590		31	30	500		36	34	300		40	38	110		22	21	110		25	24	560		37	35
Carbon disulfide	75-15-0	8260D	µg/Kg	0.42 (10)	3	J	5.1	1.3	8.3		5.2	1.4	8.1		6	1.6	3.7	J	6.7	1.8	0.98	U	3.7	0.98	1.1	U	4.2	1.1	1.6	U	6.2	1.6
Methylene Chloride	75-09-2	8260D	µg/Kg	159 (9)	5.8	U	10	5.8	6	U	10	6	6.8	UJ	12	6.8	7.6	U	13	7.6	4.2	U	7.3	4.2	4.8	U	8.4	4.8	17		12	7.1
Semivolatile Organic Compounds (SVOCs)																																
2-Methylnaphthalene	91-57-6	8270E	µg/Kg	20.2 (9)	43	U	1500	43	47	J	1600	44	52	U	1900	52	57	U	2000	57	33	U	1200	33	33	U	1200	33	56	U	2000	56
Bis(2-ethylhexyl) phthalate	117-81-7	8270E	µg/Kg	182 (9)	630	J	1500	81	82	U	1600	82	33000	J	1900	98	110	U	2000	110	620	J	1200	63	62	U	1200	62	1700	J	2000	110
Butyl benzyl phthalate	85-68-7	8270E	µg/Kg	1970 (9)	72	U	1500	72	73	U	1600	73	6700	J	1900	87	96	U	2000	96	56	U	1200	56	55	U	1200	55	94	U	2000	94
Hexachlorobenzene	118-74-1	8270E	µg/Kg	20 (9)	73	U	150	73	74	U	160	74	88	U	190	88	97	U	200	97	57	U	120	57	56	U	120	56	95	U	200	95
Polycyclic Aromatic Hydrocarbons (PAHs)																																
Acenaphthene	83-32-9	8270E	µg/Kg	6.71 (9)	44	U	1500	44	44	U	1600	44	53	U	1900	53	58	U	2000	58	34	U	1200	34	34	U	1200	34	57	U	2000	57
Acenaphthylene	208-96-8	8270E	µg/Kg	5.87 (9)	15	U	1500	15	16	U	1600	16	19	U	1900	19	21	U	2000	21	12	U	1200	12	12	U	1200	12	20	U	2000	20
Anthracene	120-12-7	8270E	µg/Kg	57.2 (9)	46	U	1500	46	47	U	1600	47	57	U	1900	57	62	U	2000	62	36	U	1200	36	36	U	1200	36	61	U	2000	61
Naphthalene	91-20-3	8270E	µg/Kg	176 (9)	73	J	1500	26	190	J	1600	27	94	J	1900	32	35	U	2000	35	21	U	1200	21	20	U	1200	20	34	U	2000	34
Phenanthrene	85-01-8	8270E	µg/Kg	204 (9)	58	J	1500	27	56	J	1600	27	33	U	1900	33	36	U	2000	36	21	U	1200	21	21	U	1200	21	35	U	2000	35
Benzo[a]anthracene	56-55-3	8270E	µg/Kg	108 (9)	63	J	150	53	54	U	160	54	65	U	190	65	72	U	200	72	42	U	120	42	41	U	120	41	70	U	200	70
Benzo[a]pyrene	50-32-8	8270E	µg/Kg	150 (9)	58	J	150	41	41	U	160	41	50	U	190	50	55	U	200	55	32	U	120	32	31	U	120	31	53	U	200	53
Benzo[g,h,i]perylene	191-24-2	8270E	µg/Kg	170 (9)	45	U	1500	45	46	U	1600	46	55	U	1900	55	61	U	2000	61	35	U	1200	35	35	U	1200	35	59	U	2000	59
Benzo[k]fluoranthene	207-08-9	8270E	µg/Kg	240 (9)	30	U	150	30	31	U	160	31	36	U	190	36	40	U	200	40	23	U	120	23	23	U	120	23	39	U	200	39
Chrysene	218-01-9	8270E	µg/Kg	166 (9)	47	J	1500	26	26	U	1600	26	31	U	1900	31	35	U	2000	35	20	U	1200	20	20	U	1200	20	34	U	2000	34
Dibenz(a,h)anthracene	53-70-3	8270E	µg/Kg	33 (9)	66	U	150	66	67	U	160	67	80	U	190	80	89	U	200	89	52	U	120	52	51	U	120	51	86	U	200	86
Fluoranthene	206-44-0	8270E	µg/Kg	423 (9)	53	U	1500	53	54	U	1600	54	65	U	1900	65	72	U	2000	72	42	U	1200	42	41	U	1200	41	70	U	2000	70
Indeno[1,2,3-cd]pyrene	193-39-5	8270E	µg/Kg	200 (9)	60	U	150	60	61	U	160	61	73	U	190	73	80	U	200	80	47	U	120	47	46	U	120	46	78	U	200	78
Pyrene	129-00-0	8270E	µg/Kg	195 (9)	38	U	1500	38	39	U	1600	39	46	U	1900	46	51	U	2000	51	30	U	1200	30	29	U	1200	29	50	U	2000	50
Total PAHs			µg/Kg	4000 (9)	788				833				830				848				494				486				825			
Polychlorinated Biphenyls (PCBs)																																
Aroclor 1248	12672-29-6	8082A	µg/Kg	30 (9)	700		310	41	1300		320	42	1200		380	50	1200		420	55												
Aroclor 1260	11096-82-5	8082A	µg/Kg	5 (9)	42	U	310	42	240	J	320	43	52	U	380	52	57	U	420	57												
Polychlorinated biphenyls, Total	1336-36-3	8082A	µg/Kg	59.8 (9)	700		310	42	1500		320	43	1200		380	52	1200		420	57												
Chlorinated Biphenyl Congeners (PCBs)																																
Σ Polychlorinated biphenyls	1336-36-3	8082A	pg/g	59800 (9)	5,171,284								1,710,494				7,532,339															
Σ Polychlorinated biphenyls (PCB) TEQ	1336-36-3	8082A	pg/g	0.12 (9)	400								136				518															
Dioxins and Furans																																
2,3,7,8-TCDD	1746-01-6	8290A	pg/g	0.12 (9)									5.11	J	10.4	0.45																
Total TCDD	41903-57-5	8290A	pg/g	0.12 (9)									69	J	10.4	0.45																
Σ Dibenzo-p-dioxin (PCDD) TEQ	30402-14-3		pg/g	0.12 (9)									11.5																			
Σ Dibenzofuran (PCDF) TEQ	30402-14-3		pg/g	0.12 (9)									41.4																			
Σ PCB TEQ + PCDD TEQ + PCDF TEQ	30402-14-3		pg/g	0.12 (9)									188.9																			
Organochlorine Pesticides																																
4,4'-DDD	72-54-8	8081B	µg/Kg	4.88 (9)	32		31	5.3	5.4	U	32	5.4	6.4	U	38	6.4	7.1	U	42	7.1	4.1	U	24	4.1	4.1	U	24	4.1	6.9	U	40	6.9
4,4'-DDE	72-55-9	8081B	µg/Kg	3.16 (9)	3.6	U	31	3.6	3.7	U	32	3.7	4.4	U	38	4.4	4.9	U	42	4.9	2.9	U	24	2.9	2.8	U	24	2.8	4.8	U	40	4.8
Chlordane (technical)	57-74-9	8081B	µg/Kg	3.248 (9)	75	U	310	75	76	U	320	76	91	U	380	91	100	U	420	100	59	U	240	59	58	U	240	58	98	U	400	98

Table 5.16 - Sediment: Summary of Exceedances

Rolling Knolls Landfill

	Sample Name			ESC's	SD01				SD100 (SD01 duplicate)				SD02				SD03				SD04				SD05				SD06			
	Sample Date/Time				05/13/2021 15:30				05/13/2021 15:30				05/14/2021 09:15				05/14/2021 10:45				05/15/2021 14:05				05/16/2021 15:00				05/17/2021 11:45			
	Latitude				40.72679082				40.72679082				40.72715605				40.72638198				40.72348024				40.72279293				40.72236209			
	Longitude				-74.44034521				-74.44034521				-74.43993388				-74.44081345				-74.44733898				-74.44605058				-74.44587599			
	Lab Sample Name			Screening Criteria	GS-S-SD01				GS-S-SD0100				GS-S-SD02				GS-S-SD03				GS-S-SD04				GS-S-SD05				GS-S-SD06			
	Lab Sample Number				460-234557-3				460-234557-4				460-234557-1				460-234557-2				460-234545-1				460-234545-2				460-234971-3 / 460-234971-7			
	Lab Report Number(s)				460-234557-1 / 460-234557-2 / 460-234557-3				460-234557-1 / 460-234557-3				460-234557-1 / 460-234557-2 / 460-234557-3				460-234557-1 / 460-234557-2 / 460-234557-3				460-234545-1				460-234545-1				460-234971-1 / 460-234971-4			
Analyte	CAS	Method	Units		Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)
Metals and Cyanide																																
Aluminum	7429-90-5	6020B	mg/Kg	25500 (9)	7260		74.5	9.7	5270		74.7	9.7	4280		112	14.6	5230		94	12.2	8850		60.2	7.8	5470		282	36.7	15400		116	15.1
Arsenic	7440-38-2	6020B	mg/Kg	6 (9)	11.6		3.7	0.37	11.7		3.7	0.37	4.6	J	5.6	0.56	10.9		4.7	0.47	26		3	0.3	4.4	J	14.1	1.4	9.5		5.8	0.58
Barium	7440-39-3	6020B	mg/Kg	150 (10)	236	J	7.4	0.54	312	J	7.5	0.54	204	J	11.2	0.81	319	J	9.4	0.68	341		6	0.44	325		28.2	2	415		11.6	0.84
Cadmium	7440-43-9	6020B	mg/Kg	0.6 (9)	11.5		3.7	0.42	14.6		3.7	0.42	4.2	J	5.6	0.63	15.4		4.7	0.53	5.4		3	0.34	6.2	J	14.1	1.6	1.8	J	5.8	0.66
Chromium	7440-47-3	6020B	mg/Kg	26 (9)	53.9		7.4	0.65	61.9		7.5	0.65	26.4		11.2	0.98	73.3		9.4	0.82	72.3		6	0.52	16	J	28.2	2.5	25.4		11.6	1
Copper	7440-50-8	6020B	mg/Kg	16 (9)	385	J	7.4	0.82	397	J	7.5	0.82	188	J	11.2	1.2	382	J	9.4	1	248		6	0.66	178		28.2	3.1	79.8		11.6	1.3
Lead	7439-92-1	6020B	mg/Kg	31 (9)	618	J	2.2	0.74	627	J	2.2	0.75	251	J	3.4	1.1	524	J	2.8	0.94	160		1.8	0.6	184		8.5	2.8	118		3.5	1.2
Manganese	7439-96-5	6020B	mg/Kg	630 (9)	362	J	14.9	1.5	681	J	14.9	1.5	278	J	22.5	2.3	544	J	18.8	1.9	586		12	1.2	76.7		56.4	5.7	178		23.2	2.3
Nickel	7440-02-0	6020B	mg/Kg	16 (9)	65.3	J	7.4	0.72	64.6	J	7.5	0.72	22.3	J	11.2	1.1	125	J	9.4	0.91	69		6	0.58	38.4		28.2	2.7	23.4		11.6	1.1
Selenium	7782-49-2	6020B	mg/Kg	0.72 (10)	1.1	J	4.7	0.44	1.3	J	4.7	0.44	1.2	J	7	0.66	1	J	5.9	0.55	1.2	J	3.8	0.36	1.8	J	17.6	1.7	4.5	J	7.2	0.68
Silver	7440-22-4	6020B	mg/Kg	0.5 (9)	6.7		3.7	0.33	6.5		3.7	0.33	3	J	5.6	0.5	6		4.7	0.42	0.95	J	3	0.27	1.3	J	14.1	1.3	0.52	U	5.8	0.52
Zinc	7440-66-6	6020B	mg/Kg	120 (9)	1380	J	29.8	8.5	1580	J	29.9	8.6	516	J	45	12.9	1600	J	37.6	10.8	816		24.1	6.9	914		113	32.3	156		46.4	13.3
Mercury	7439-97-6	7471B	mg/Kg	0.174 (9)	4.3		0.39	0.092	5.8		0.4	0.094	2.3		0.09	0.021	5.2		0.51	0.12	1.1		0.057	0.013	1.2		0.059	0.014	0.62		0.096	0.023
Cyanide, Total	57-12-5	9012B	mg/Kg	0.0001 (9)	1.6	J	2.3	0.84	1.7	J	2.2	0.8	1	J	2.8	1	1.1	R	3.1	1.1	0.98	J	1.8	0.65	0.64	U	1.8	0.64	1.1	U	3	1.1
AVS/SEM																																
ΣSEM–AVS				1.00 (11)	55.9				-52.2				7.7				57.5				5.0				22.9				0.8			
(ΣSEM-AVS)/foc				130 (11)	385.8				-383.8				57.9				264.7				51.6				181.9				3.5			

Table 5.16 - Sediment: Summary of Exceedances

(continued)

Rolling Knolls Landfill

Sample Name				ESC's	SD07				SD08				SD09				SD10				SD11				SD12				SD13			
Sample Date/Time					05/17/2021 13:50				05/19/2021 13:43				05/19/2021 14:43				05/19/2021 15:45				05/17/2021 11:45				05/24/2021 09:14				05/24/2021 13:55			
Latitude					40.72143376				40.732265				40.73189675				40.73169144				40.72489948				40.73119281				40.72747591			
Longitude				Screening Criteria	-74.44468585				-74.43997				-74.44071492				-74.44135929				-74.44253502				-74.43998828				-74.43941053			
Lab Sample Name					GS-S-SD07				GS-S-SD08				GS-S-SD09				GS-S-SD10				GS-S-SD11				GS-N-SD12				GS-N-SD13			
Lab Sample Number					460-234971-4 / 460-234971-8				460-235248-1				460-235248-2				460-235248-3				460-235400-2				460-235444-1 / 460-235444-6				460-235444-2 / 460-235444-7			
Lab Report Number(s)					460-234971-1 / 460-234971-4				460-235248-1 / 460-235248-3				460-235248-1 / 460-235248-3				460-235248-1 / 460-235248-3				460-235400-1 / 460-235400-3				460-235444-1 / 460-235444-3 / 460-235444-4				460-235444-1 / 460-235444-3 / 460-235444-4			
Analyte	**CAS**	**Method**	**Units**		**Result**	**LDC Flag**	**RL**	**MDL (EDL)**	**Result**	**LDC Flag**	**RL**	**MDL (EDL)**	**Result**	**LDC Flag**	**RL**	**MDL (EDL)**	**Result**	**LDC Flag**	**RL**	**MDL (EDL)**	**Result**	**LDC Flag**	**RL**	**MDL (EDL)**	**Result**	**LDC Flag**	**RL**	**MDL (EDL)**	**Result**	**LDC Flag**	**RL**	**MDL (EDL)**
Volatile Organic Compounds (VOCs)																																
Acetone	67-64-1	8260D	µg/Kg	65 (10)	55		25	23													430		52	50	610		43	41	400		54	51
Carbon disulfide	75-15-0	8260D	µg/Kg	0.42 (10)	1.1	U	4.1	1.1													2.3	U	8.7	2.3	6	J	7.1	1.9	2.4	U	8.9	2.4
Methylene Chloride	75-09-2	8260D	µg/Kg	159 (9)	17		8.2	4.7													9.9	U	17	9.9	8.1	U	14	8.1	10	U	18	10
Semivolatile Organic Compounds (SVOCs)																																
2-Methylnaphthalene	91-57-6	8270E	µg/Kg	20.2 (9)	38	U	1400	38	45	U	1600	45	72	U	2600	72	40	U	1400	40	87	U	3100	87	66	U	2300	66	75	U	2700	75
Bis(2-ethylhexyl) phthalate	117-81-7	8270E	µg/Kg	182 (9)	72	U	1400	72	84	U	1600	84	140	U	2600	140	75	U	1400	75	870	J	3100	160	120	U	2300	120	140	U	2700	140
Butyl benzyl phthalate	85-68-7	8270E	µg/Kg	1970 (9)	64	U	1400	64	75	U	1600	75	120	U	2600	120	67	U	1400	67	150	U	3100	150	110	U	2300	110	130	U	2700	130
Hexachlorobenzene	118-74-1	8270E	µg/Kg	20 (9)	65	U	140	65	76	U	160	76	120	U	260	120	67	U	140	67	150	U	310	150	110	U	230	110	130	U	270	130
Polycyclic Aromatic Hydrocarbons (PAHs)																																
Acenaphthene	83-32-9	8270E	µg/Kg	6.71 (9)	39	U	1400	39	45	U	1600	45	74	U	2600	74	40	U	1400	40	89	U	3100	89	67	U	2300	67	76	U	2700	76
Acenaphthylene	208-96-8	8270E	µg/Kg	5.87 (9)	14	U	1400	14	16	U	1600	16	26	U	2600	26	14	U	1400	14	31	U	3100	31	24	U	2300	24	27	U	2700	27
Anthracene	120-12-7	8270E	µg/Kg	57.2 (9)	42	U	1400	42	49	U	1600	49	79	U	2600	79	43	U	1400	43	95	U	3100	95	71	U	2300	71	82	U	2700	82
Naphthalene	91-20-3	8270E	µg/Kg	176 (9)	24	U	1400	24	28	U	1600	28	45	U	2600	45	25	U	1400	25	54	U	3100	54	57	J	2300	41	220	J	2700	46
Phenanthrene	85-01-8	8270E	µg/Kg	204 (9)	24	U	1400	24	28	U	1600	28	45	U	2600	45	25	U	1400	25	55	U	3100	55	94	J	2300	41	150	J	2700	47
Benzo[a]anthracene	56-55-3	8270E	µg/Kg	108 (9)	48	U	140	48	56	U	160	56	90	U	260	90	50	U	140	50	110	U	310	110	82	U	230	82	94	U	270	94
Benzo[a]pyrene	50-32-8	8270E	µg/Kg	150 (9)	36	U	140	36	43	U	160	43	69	U	260	69	38	U	140	38	83	U	310	83	62	U	230	62	71	U	270	71
Benzo[g,h,i]perylene	191-24-2	8270E	µg/Kg	170 (9)	40	U	1400	40	47	U	1600	47	76	U	2600	76	42	U	1400	42	92	U	3100	92	69	U	2300	69	79	U	2700	79
Benzo[k]fluoranthene	207-08-9	8270E	µg/Kg	240 (9)	27	U	140	27	31	U	160	31	51	U	260	51	28	U	140	28	61	U	310	61	46	U	230	46	53	U	270	53
Chrysene	218-01-9	8270E	µg/Kg	166 (9)	23	U	1400	23	27	U	1600	27	44	U	2600	44	24	U	1400	24	53	U	3100	53	55	J	2300	40	45	U	2700	45
Dibenz(a,h)anthracene	53-70-3	8270E	µg/Kg	33 (9)	59	U	140	59	69	U	160	69	110	U	260	110	61	U	140	61	130	U	310	130	100	U	230	100	120	U	270	120
Fluoranthene	206-44-0	8270E	µg/Kg	423 (9)	48	U	1400	48	56	U	1600	56	90	U	2600	90	50	U	1400	50	110	U	3100	110	100	J	2300	82	94	U	2700	94
Indeno[1,2,3-cd]pyrene	193-39-5	8270E	µg/Kg	200 (9)	53	U	140	53	62	UJ	160	62	100	UJ	260	100	55	UJ	140	55	120	U	310	120	92	U	230	92	100	U	270	100
Pyrene	129-00-0	8270E	µg/Kg	195 (9)	34	U	1400	34	40	U	1600	40	64	U	2600	64	35	U	1400	35	77	U	3100	77	88	J	2300	58	67	U	2700	67
Total PAHs			µg/Kg	4000 (9)	565				660				1065				586				1282				1100				1383			
Polychlorinated Biphenyls (PCBs)																																
Aroclor 1248	12672-29-6	8082A	µg/Kg	30 (9)					43	U	320	43	70	U	520	70	38	U	290	38	84	U	630	84	63	U	470	63	72	U	540	72
Aroclor 1260	11096-82-5	8082A	µg/Kg	5 (9)					44	U	320	44	72	U	520	72	39	U	290	39	87	U	630	87	65	U	470	65	75	U	540	75
Polychlorinated biphenyls, Total	1336-36-3	8082A	µg/Kg	59.8 (9)					44	U	320	44	72	U	520	72	39	U	290	39	87	U	630	87	65	U	470	65	75	U	540	75
Chlorinated Biphenyl Congeners (PCBs)																																
Σ Polychlorinated biphenyls	1336-36-3	8082A	pg/g	59800 (9)																												
Σ Polychlorinated biphenyls (PCB) TEQ	1336-36-3	8082A	pg/g	0.12 (9)																												
Dioxins and Furans																																
2,3,7,8-TCDD	1746-01-6	8290A	pg/g	0.12 (9)																												
Total TCDD	41903-57-5	8290A	pg/g	0.12 (9)																												
Σ Dibenzo-p-dioxin (PCDD) TEQ	30402-14-3		pg/g	0.12 (9)																												
Σ Dibenzofuran (PCDF) TEQ	30402-14-3		pg/g	0.12 (9)																												
Σ PCB TEQ + PCDD TEQ + PCDF TEQ	30402-14-3		pg/g	0.12 (9)																												
Organochlorine Pesticides																																
4,4'-DDD	72-54-8	8081B	µg/Kg	4.88 (9)	4.7	U	28	4.7	5.5	U	32	5.5	8.9	U	52	8.9	4.9	U	29	4.9	11	U	63	11	27	J	47	8.1	9.2	U	54	9.2
4,4'-DDE	72-55-9	8081B	µg/Kg	3.16 (9)	4.8	J	28	3.3	3.8	U	32	3.8	6.2	U	52	6.2	3.4	U	29	3.4	7.4	U	63	7.4	5.6	U	47	5.6	6.4	U	54	6.4
Chlordane (technical)	57-74-9	8081B	µg/Kg	3.248 (9)	67	U	280	67	78	U	320	78	130	U	520	130	70	U	290	70	150	U	630	150	110	U	470	110	130	U	540	130

Table 5.16 - Sediment: Summary of Exceedances

(continued)

Rolling Knolls Landfill

	Sample Name			ESC's	SD07				SD08				SD09				SD10				SD11				SD12				SD13			
	Sample Date/Time				05/17/2021 13:50				05/19/2021 13:43				05/19/2021 14:43				05/19/2021 15:45				05/17/2021 11:45				05/24/2021 09:14				05/24/2021 13:55			
	Latitude				40.72143376				40.732265				40.73189675				40.73169144				40.72489948				40.73119281				40.72747591			
	Longitude				-74.44468585				-74.43997				-74.44071492				-74.44135929				-74.44253502				-74.43998828				-74.43941053			
	Lab Sample Name			Screening Criteria	GS-S-SD07				GS-S-SD08				GS-S-SD09				GS-S-SD10				GS-S-SD11				GS-N-SD12				GS-N-SD13			
	Lab Sample Number				460-234971-4 / 460-234971-8				460-235248-1				460-235248-2				460-235248-3				460-235400-2				460-235444-1 / 460-235444-6				460-235444-2 / 460-235444-7			
	Lab Report Number(s)				460-234971-1 / 460-234971-4				460-235248-1 / 460-235248-3				460-235248-1 / 460-235248-3				460-235248-1 / 460-235248-3				460-235400-1 / 460-235400-3				460-235444-1 / 460-235444-3 / 460-235444-4				460-235444-1 / 460-235444-3 / 460-235444-4			
Analyte	CAS	Method	Units		Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)
Metals and Cyanide																																
Aluminum	7429-90-5	6020B	mg/Kg	25500 (9)	7180		66.8	8.7	23100		377	49	17900		635	82.6	16600		349	45.4	3960		176	22.8	9380		131	17.1	6280		153	19.9
Arsenic	7440-38-2	6020B	mg/Kg	6 (9)	4.3		3.3	0.33	6.9	J	18.8	1.9	7.3	J	31.8	3.2	6.4	J	17.4	1.7	5.7	J	8.8	0.88	6.5	J	6.6	0.66	6.7	J	7.6	0.76
Barium	7440-39-3	6020B	mg/Kg	150 (10)	393		6.7	0.48	139		37.7	2.7	172		63.5	4.6	238		34.9	2.5	412		17.6	1.3	176		13.1	0.95	224		15.3	1.1
Cadmium	7440-43-9	6020B	mg/Kg	0.6 (9)	1.4	J	3.3	0.38	2.1	U	18.8	2.1	3.6	U	31.8	3.6	2.2	J	17.4	2	5	J	8.8	0.99	3.6	J	6.6	0.74	0.93	J	7.6	0.86
Chromium	7440-47-3	6020B	mg/Kg	26 (9)	12.3		6.7	0.58	29.8	J	37.7	3.3	27.1	J	63.5	5.5	24.7	J	34.9	3	70.1		17.6	1.5	16.3		13.1	1.1	21.8		15.3	1.3
Copper	7440-50-8	6020B	mg/Kg	16 (9)	55.7		6.7	0.73	42.7		37.7	4.1	51.9	J	63.5	7	47.7		34.9	3.8	82.7		17.6	1.9	60.1		13.1	1.4	42		15.3	1.7
Lead	7439-92-1	6020B	mg/Kg	31 (9)	96.2		2	0.67	38		11.3	3.8	47.6		19.1	6.4	38.4		10.5	3.5	143		5.3	1.8	84.3		3.9	1.3	37		4.6	1.5
Manganese	7439-96-5	6020B	mg/Kg	630 (9)	171		13.4	1.3	214		75.4	7.6	224		127	12.8	554		69.8	7	166		35.2	3.5	204		26.2	2.6	337		30.6	3.1
Nickel	7440-02-0	6020B	mg/Kg	16 (9)	26.7		6.7	0.65	15.7	J	37.7	3.7	14.8	J	63.5	6.2	17.8	J	34.9	3.4	40.8		17.6	1.7	19.4		13.1	1.3	20.7		15.3	1.5
Selenium	7782-49-2	6020B	mg/Kg	0.72 (10)	1.7	J	4.2	0.39	2.2	U	23.6	2.2	3.7	U	39.7	3.7	2.1	U	21.8	2.1	2.7	J	11	1	2.1	J	8.2	0.77	2.7	J	9.6	0.9
Silver	7440-22-4	6020B	mg/Kg	0.5 (9)	0.58	J	3.3	0.3	1.7	U	18.8	1.7	2.8	U	31.8	2.8	1.6	U	17.4	1.6	1.2	J	8.8	0.78	0.58	U	6.6	0.58	0.68	U	7.6	0.68
Zinc	7440-66-6	6020B	mg/Kg	120 (9)	215		26.7	7.6	76.3	J	151	43.2	88.1	J	254	72.7	176		140	39.9	397		70.3	20.1	321		52.5	15	159		61.2	17.5
Mercury	7439-97-6	7471B	mg/Kg	0.174 (9)	0.38		0.062	0.015	0.23		0.079	0.019	0.17		0.13	0.031	0.26		0.072	0.017	0.98		0.14	0.033	0.38		0.11	0.025	0.33		0.13	0.031
Cyanide, Total	57-12-5	9012B	mg/Kg	0.0001 (9)	0.88	J	2	0.74	3.4		2.5	0.91	1.5	U	4.1	1.5	0.82	U	2.3	0.82	1.1	UJ	1.9	1.1	0.93	U	1.7	0.93	0.88	U	1.6	0.88
AVS/SEM																																
ΣSEM–AVS				1.00 (11)	0.8				-0.5				2.3				40.4				-3.4				-15.3				0.6			
(ΣSEM-AVS)/foc				130 (11)	5.7				-3.1				11.3				221.9				-9.9				-158.4				2.0			

Table 5.16 - Sediment: Summary of Exceedances

(continued)

Rolling Knolls Landfill

Sample Name				ESC's	SD14				SD15				SD16				SD101 (SD16 Duplicate)				SD17				SD18				SD19			
Sample Date/Time					05/25/2021 09:00				05/25/2021 13:30				05/26/2021 15:06				05/26/2021 15:06				05/27/2021 14:18				05/28/2021 08:30				06/01/2021 09:20			
Latitude					40.72740332				40.72937246				40.73124954				40.73124954				40.72670262				40.73132938				40.72289188			
Longitude					-74.43971312				-74.440396				-74.44141084				-74.44141084				-74.43975897				-74.44108766				-74.44904733			
Lab Sample Name				Screening Criteria	GS-N-SD14				GS-N-SD15				GS-N-SD16				GS-N-SD11-1				GS-N-SD17				GS-N-SD18				GS-N-SD19			
Lab Sample Number					460-235492-2 / 460-235492-6				460-235492-3 / 460-235492-7				460-235592-1 / 460-235592-6				460-235592-2 / 460-235592-7				460-235592-3 / 460-235592-8				460-235592-4 / 460-235592-9				460-235680-1 / 460-235680-4			
Lab Report Number(s)					460-235492-1 / 460-235492-3 / 460-235492-4				460-235492-1 / 460-235492-3 / 460-235492-4				460-235592-1 / 460-235592-3 / 460-235592-4				460-235592-1 / 460-235592-3 / 460-235592-4				460-235592-1 / 460-235592-3 / 460-235592-4				460-235592-1 / 460-235592-3 / 460-235592-4				460-235680-1 / 460-235680-3			
Analyte	CAS	Method	Units		Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)
Volatile Organic Compounds (VOCs)																																
Acetone	67-64-1	8260D	µg/Kg	65 (10)	180		21	20	510		63	60	190		18	17	94		19	18	360		42	40	69		10	9.5	350	J	23	22
Carbon disulfide	75-15-0	8260D	µg/Kg	0.42 (10)	1.4	J	3.5	0.92	2.8	U	10	2.8	0.79	U	3	0.79	0.84	U	3.2	0.84	1.9	U	7	1.9	0.61	J	1.7	0.44	1	U	3.8	1
Methylene Chloride	75-09-2	8260D	µg/Kg	159 (9)	790		6.9	4	12	U	21	12	3.4	U	5.9	3.4	3.6	U	6.3	3.6	8	U	14	8	1.9	U	3.3	1.9	4.4	U	7.6	4.4
Semivolatile Organic Compounds (SVOCs)																																
2-Methylnaphthalene	91-57-6	8270E	µg/Kg	20.2 (9)	35	U	1200	35	95	U	3400	95	30	U	1100	30	27	U	970	27	70	U	2500	70	18	U	640	18	36	U	1300	36
Bis(2-ethylhexyl) phthalate	117-81-7	8270E	µg/Kg	182 (9)	3600	J	1200	65	180	U	3400	180	110	J	1100	57	69	J	970	51	130	U	2500	130	34	U	640	34	69	U	1300	69
Butyl benzyl phthalate	85-68-7	8270E	µg/Kg	1970 (9)	58	UJ	1200	58	160	U	3400	160	50	U	1100	50	46	U	970	46	120	U	2500	120	30	U	640	30	61	U	1300	61
Hexachlorobenzene	118-74-1	8270E	µg/Kg	20 (9)	59	U	120	59	160	U	340	160	51	U	110	51	46	U	97	46	120	U	250	120	31	U	64	31	62	U	130	62
Polycyclic Aromatic Hydrocarbons (PAHs)																																
Acenaphthene	83-32-9	8270E	µg/Kg	6.71 (9)	35	U	1200	35	96	U	3400	96	31	U	1100	31	28	U	970	28	71	U	2500	71	18	U	640	18	37	UJ	1300	37
Acenaphthylene	208-96-8	8270E	µg/Kg	5.87 (9)	12	U	1200	12	34	U	3400	34	11	U	1100	11	9.8	U	970	9.8	25	U	2500	25	6.5	U	640	6.5	13	U	1300	13
Anthracene	120-12-7	8270E	µg/Kg	57.2 (9)	38	U	1200	38	100	U	3400	100	33	U	1100	33	30	U	970	30	76	U	2500	76	20	U	640	20	39	U	1300	39
Naphthalene	91-20-3	8270E	µg/Kg	176 (9)	180	J	1200	21	220	J	3400	58	65	J	1100	19	46	J	970	17	43	U	2500	43	11	U	640	11	22	U	1300	22
Phenanthrene	85-01-8	8270E	µg/Kg	204 (9)	51	J	1200	22	94	J	3400	59	70	J	1100	19	49	J	970	17	48	J	2500	44	32	J	640	11	160	J	1300	23
Benzo[a]anthracene	56-55-3	8270E	µg/Kg	108 (9)	43	UJ	120	43	120	U	340	120	54	J	110	38	40	J	97	34	87	U	250	87	27	J	64	23	62	J	130	45
Benzo[a]pyrene	50-32-8	8270E	µg/Kg	150 (9)	33	UJ	120	33	90	U	340	90	44	J	110	29	30	J	97	26	66	U	250	66	24	J	64	17	44	J	130	35
Benzo[g,h,i]perylene	191-24-2	8270E	µg/Kg	170 (9)	36	UJ	1200	36	100	U	3400	100	52	J	1100	32	31	J	970	29	73	U	2500	73	20	J	640	19	38	U	1300	38
Benzo[k]fluoranthene	207-08-9	8270E	µg/Kg	240 (9)	24	UJ	120	24	66	U	340	66	25	J	110	21	19	J	97	19	49	U	250	49	17	J	64	13	25	U	130	25
Chrysene	218-01-9	8270E	µg/Kg	166 (9)	21	UJ	1200	21	57	U	3400	57	61	J	1100	18	44	J	970	16	49	J	2500	42	31	J	640	11	51	J	1300	22
Dibenz(a,h)anthracene	53-70-3	8270E	µg/Kg	33 (9)	53	UJ	120	53	150	U	340	150	47	U	110	47	42	U	97	42	110	U	250	110	28	U	64	28	56	U	130	56
Fluoranthene	206-44-0	8270E	µg/Kg	423 (9)	43	U	1200	43	120	U	3400	120	76	J	1100	38	59	J	970	34	87	U	2500	87	41	J	640	23	100	J	1300	45
Indeno[1,2,3-cd]pyrene	193-39-5	8270E	µg/Kg	200 (9)	48	UJ	120	48	130	U	340	130	50	J	110	42	38	U	97	38	97	U	250	97	25	U	64	25	51	U	130	51
Pyrene	129-00-0	8270E	µg/Kg	195 (9)	31	UJ	1200	31	87	J	3400	84	92	J	1100	27	62	J	970	24	62	U	2500	62	42	J	640	16	90	J	1300	32
Total PAHs			µg/Kg	4000 (9)	697				1598				800				592.8				1043				395.3				885			
Polychlorinated Biphenyls (PCBs)																																
Aroclor 1248	12672-29-6	8082A	µg/Kg	30 (9)	33	U	250	33	91	U	690	91	340		220	29	26	U	200	26	67	U	500	67	17	U	130	17	35	U	260	35
Aroclor 1260	11096-82-5	8082A	µg/Kg	5 (9)	34	U	250	34	94	U	690	94	30	U	220	30	27	U	200	27	69	U	500	69	18	U	130	18	36	U	260	36
Polychlorinated biphenyls, Total	1336-36-3	8082A	µg/Kg	59.8 (9)	34	U	250	34	94	U	690	94	340		220	30	27	U	200	27	69	U	500	69	18	U	130	18	36	U	260	36
Chlorinated Biphenyl Congeners (PCBs)																																
Σ Polychlorinated biphenyls	1336-36-3	8082A	pg/g	59800 (9)																												
Σ Polychlorinated biphenyls (PCB) TEQ	1336-36-3	8082A	pg/g	0.12 (9)																												
Dioxins and Furans																																
2,3,7,8-TCDD	1746-01-6	8290A	pg/g	0.12 (9)																												
Total TCDD	41903-57-5	8290A	pg/g	0.12 (9)																												
Σ Dibenzo-p-dioxin (PCDD) TEQ	30402-14-3		pg/g	0.12 (9)																												
Σ Dibenzofuran (PCDF) TEQ	30402-14-3		pg/g	0.12 (9)																												
Σ PCB TEQ + PCDD TEQ + PCDF TEQ	30402-14-3		pg/g	0.12 (9)																												
Organochlorine Pesticides																																
4,4'-DDD	72-54-8	8081B	µg/Kg	4.88 (9)	4.3	U	25	4.3	24	J	69	12	16	J	22	3.7	14	J	20	3.4	8.6	U	50	8.6	5.9	J	13	2.2	4.5	U	26	4.5
4,4'-DDE	72-55-9	8081B	µg/Kg	3.16 (9)	2.9	U	25	2.9	18	J	69	8.1	13	J	22	2.6	12	J	20	2.3	5.9	U	50	5.9	3.3	J	13	1.5	3.1	U	26	3.1
Chlordane (technical)	57-74-9	8081B	µg/Kg	3.248 (9)	60	U	250	60	170	U	690	170	53	U	220	53	48	U	200	48	120	U	500	120	32	U	130	32	63	U	260	63

Table 5.16 - Sediment: Summary of Exceedances

(continued)

Rolling Knolls Landfill

	Sample Name			ESC's	SD14				SD15				SD16				SD101 (SD16 Duplicate)				SD17				SD18				SD19			
	Sample Date/Time				05/25/2021 09:00				05/25/2021 13:30				05/26/2021 15:06				05/26/2021 15:06				05/27/2021 14:18				05/28/2021 08:30				06/01/2021 09:20			
	Latitude				40.72740332				40.72937246				40.73124954				40.73124954				40.72670262				40.73132938				40.72289188			
	Longitude				-74.43971312				-74.440396				-74.44141084				-74.44141084				-74.43975897				-74.44108766				-74.44904733			
	Lab Sample Name			Screening Criteria	GS-N-SD14				GS-N-SD15				GS-N-SD16				GS-N-SD11-1				GS-N-SD17				GS-N-SD18				GS-N-SD19			
	Lab Sample Number				460-235492-2 / 460-235492-6				460-235492-3 / 460-235492-7				460-235592-1 / 460-235592-6				460-235592-2 / 460-235592-7				460-235592-3 / 460-235592-8				460-235592-4 / 460-235592-9				460-235680-1 / 460-235680-4			
	Lab Report Number(s)				460-235492-1 / 460-235492-3 / 460-235492-4				460-235492-1 / 460-235492-3 / 460-235492-4				460-235592-1 / 460-235592-3 / 460-235592-4				460-235592-1 / 460-235592-3 / 460-235592-4				460-235592-1 / 460-235592-3 / 460-235592-4				460-235592-1 / 460-235592-3 / 460-235592-4				460-235680-1 / 460-235680-3			
Analyte	CAS	Method	Units		Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)
Metals and Cyanide																																
Aluminum	7429-90-5	6020B	mg/Kg	25500 (9)	11000		72.4	9.4	17100		195	25.3	**26700**		61	7.9	13700		55.6	7.2	5580		146	19	10900		36.9	4.8	15300		57.2	7.4
Arsenic	7440-38-2	6020B	mg/Kg	6 (9)	**8.4**		3.6	0.36	**12.4**		9.7	0.97	**7.6**		3	0.3	**10.2**		2.8	0.28	**6.3**	J	7.3	0.73	3.4		1.8	0.18	4.2		2.9	0.29
Barium	7440-39-3	6020B	mg/Kg	150 (10)	**405**		7.2	0.53	**186**		19.5	1.4	**166**		6.1	0.44	**163**		5.6	0.4	**283**		14.6	1.1	89.3		3.7	0.27	135		5.7	0.41
Cadmium	7440-43-9	6020B	mg/Kg	0.6 (9)	**13.8**		3.6	0.41	**3.8**	J	9.7	1.1	**3.2**		3	0.34	**6.1**		2.8	0.31	**1.5**	J	7.3	0.83	**0.68**	J	1.8	0.21	**2.5**	J	2.9	0.32
Chromium	7440-47-3	6020B	mg/Kg	26 (9)	**36.5**		7.2	0.63	21.3		19.5	1.7	**32.5**		6.1	0.53	25.1		5.6	0.48	**26.2**		14.6	1.3	12.6		3.7	0.32	**213**		5.7	0.5
Copper	7440-50-8	6020B	mg/Kg	16 (9)	**490**		7.2	0.8	**92.9**		19.5	2.1	**46.4**		6.1	0.67	**71.6**		5.6	0.61	**52.2**		14.6	1.6	**17.9**		3.7	0.41	**140**		5.7	0.63
Lead	7439-92-1	6020B	mg/Kg	31 (9)	**878**		2.2	0.72	**180**		5.8	1.9	**66.4**		1.8	0.61	**110**		1.7	0.56	**63**		4.4	1.5	**43.7**		1.1	0.37	**208**		1.7	0.57
Manganese	7439-96-5	6020B	mg/Kg	630 (9)	216		14.5	1.5	380		39	3.9	255		12.2	1.2	423		11.1	1.1	217		29.2	2.9	128		7.4	0.74	41		11.4	1.2
Nickel	7440-02-0	6020B	mg/Kg	16 (9)	**99.4**		7.2	0.7	**34.4**		19.5	1.9	**24.9**		6.1	0.59	**28.7**		5.6	0.54	**21.3**		14.6	1.4	8.3		3.7	0.36	14.8		5.7	0.55
Selenium	7782-49-2	6020B	mg/Kg	0.72 (10)	**1.3**	J	4.5	0.43	**3.1**	J	12.2	1.1	**1.1**	J	3.8	0.36	**0.92**	J	3.5	0.33	**2.9**	J	9.1	0.86	**0.75**	J	2.3	0.22	**1.6**	J	3.6	0.34
Silver	7440-22-4	6020B	mg/Kg	0.5 (9)	**4.1**		3.6	0.32	0.87	U	9.7	0.87	0.38	J	3	0.27	**0.64**	J	2.8	0.25	0.65	U	7.3	0.65	0.18	J	1.8	0.16	**2**	J	2.9	0.25
Zinc	7440-66-6	6020B	mg/Kg	120 (9)	**2150**		29	8.3	**389**		77.9	22.3	**243**		24.4	7	**420**		22.2	6.4	**168**		58.5	16.7	76.8		14.8	4.2	**414**		22.9	6.5
Mercury	7439-97-6	7471B	mg/Kg	0.174 (9)	**1.3**		0.061	0.014	**0.62**		0.16	0.038	**0.77**		0.051	0.012	**0.61**		0.046	0.011	**0.45**		0.12	0.028	0.17		0.033	0.0077	**0.34**		0.066	0.015
Cyanide, Total	57-12-5	9012B	mg/Kg	0.0001 (9)	**1.9**		0.83	0.45	1.2	U	2.2	1.2	**9.2**		0.75	0.41	**7.7**		0.71	0.39	0.95	U	1.7	0.95	**0.9**		0.42	0.23	0.51	U	0.94	0.51
AVS/SEM																																
ΣSEM–AVS				1.00 (11)	**42.4**				**2.7**				**6.0**				**6.8**				**1.1**				-0.4				**7.9**			
(ΣSEM-AVS)/foc				130 (11)	**457.0**				13.4				97.5				127.4				4.9				-10.7				63.9			

Table 5.16 - Sediment: Summary of Exceedances (continued)

Rolling Knolls Landfill

Sample Name				ESC's	SD20				SD21			
Sample Date/Time					06/02/2021 10:00				06/02/2021 12:28			
Latitude					40.73050362				40.73060101			
Longitude					-74.44237712				-74.44084937			
Lab Sample Name				Screening Criteria	GS-N-SD20				GS-N-SD21			
Lab Sample Number					460-235931-5 / 460-235931-7				460-235931-6 / 460-235931-8			
Lab Report Number(s)					460-235931-1 / 460-235931-3 / 460-235931-4 / 460-235931-2				460-235931-1 / 460-235931-3 / 460-235931-4			
Analyte	**CAS**	**Method**	**Units**		**Result**	**LDC Flag**	**RL**	**MDL (EDL)**	**Result**	**LDC Flag**	**RL**	**MDL (EDL)**
Volatile Organic Compounds (VOCs)												
Acetone	67-64-1	8260D	µg/Kg	65 (10)	540		31	29	240		26	25
Carbon disulfide	75-15-0	8260D	µg/Kg	0.42 (10)	1.4	U	5.1	1.4	1.1	U	4.3	1.1
Methylene Chloride	75-09-2	8260D	µg/Kg	159 (9)	5.9	U	10	5.9	4.9	U	8.6	4.9
Semivolatile Organic Compounds (SVOCs)												
2-Methylnaphthalene	91-57-6	8270E	µg/Kg	20.2 (9)	38	U	1400	38	41	U	1500	41
Bis(2-ethylhexyl) phthalate	117-81-7	8270E	µg/Kg	182 (9)	690	J	1400	72	77	U	1500	77
Butyl benzyl phthalate	85-68-7	8270E	µg/Kg	1970 (9)	110	J	1400	64	68	U	1500	68
Hexachlorobenzene	118-74-1	8270E	µg/Kg	20 (9)	370		140	65	69	U	150	69
Polycyclic Aromatic Hydrocarbons (PAHs)												
Acenaphthene	83-32-9	8270E	µg/Kg	6.71 (9)	69	J	1400	39	42	UJ	1500	42
Acenaphthylene	208-96-8	8270E	µg/Kg	5.87 (9)	65	J	1400	14	15	U	1500	15
Anthracene	120-12-7	8270E	µg/Kg	57.2 (9)	190	J	1400	41	44	U	1500	44
Naphthalene	91-20-3	8270E	µg/Kg	176 (9)	70	J	1400	23	31	J	1500	25
Phenanthrene	85-01-8	8270E	µg/Kg	204 (9)	750	J	1400	24	56	J	1500	26
Benzo[a]anthracene	56-55-3	8270E	µg/Kg	108 (9)	1600		140	47	51	U	150	51
Benzo[a]pyrene	50-32-8	8270E	µg/Kg	150 (9)	2200		140	36	39	U	150	39
Benzo[g,h,i]perylene	191-24-2	8270E	µg/Kg	170 (9)	930	J	1400	40	43	U	1500	43
Benzo[k]fluoranthene	207-08-9	8270E	µg/Kg	240 (9)	1100		140	27	29	U	150	29
Chrysene	218-01-9	8270E	µg/Kg	166 (9)	1700		1400	23	33	J	1500	25
Dibenz(a,h)anthracene	53-70-3	8270E	µg/Kg	33 (9)	270		140	59	63	U	150	63
Fluoranthene	206-44-0	8270E	µg/Kg	423 (9)	2200		1400	47	52	J	1500	51
Indeno[1,2,3-cd]pyrene	193-39-5	8270E	µg/Kg	200 (9)	1000	J	140	53	57	UJ	150	57
Pyrene	129-00-0	8270E	µg/Kg	195 (9)	1700		1400	34	53	J	1500	36
Total PAHs			µg/Kg	4000 (9)	16921				688			
Polychlorinated Biphenyls (PCBs)												
Aroclor 1248	12672-29-6	8082A	µg/Kg	30 (9)	37	U	280	37	39	U	300	39
Aroclor 1260	11096-82-5	8082A	µg/Kg	5 (9)	38	U	280	38	41	U	300	41
Polychlorinated biphenyls, Total	1336-36-3	8082A	µg/Kg	59.8 (9)	38	U	280	38	41	U	300	41
Chlorinated Biphenyl Congeners (PCBs)												
Σ Polychlorinated biphenyls	1336-36-3	8082A	pg/g	59800 (9)	2,945,882							
Σ Polychlorinated biphenyls (PCB) TEQ	1336-36-3	8082A	pg/g	0.12 (9)	803							
Dioxins and Furans												
2,3,7,8-TCDD	1746-01-6	8290A	pg/g	0.12 (9)								
Total TCDD	41903-57-5	8290A	pg/g	0.12 (9)								
Σ Dibenzo-p-dioxin (PCDD) TEQ	30402-14-3		pg/g	0.12 (9)								
Σ Dibenzofuran (PCDF) TEQ	30402-14-3		pg/g	0.12 (9)								
Σ PCB TEQ + PCDD TEQ + PCDF TEQ	30402-14-3		pg/g	0.12 (9)								
Organochlorine Pesticides												
4,4'-DDD	72-54-8	8081B	µg/Kg	4.88 (9)	4.7	U	28	4.7	5	U	30	5
4,4'-DDE	72-55-9	8081B	µg/Kg	3.16 (9)	9.9	J	28	3.2	3.5	U	30	3.5
Chlordane (technical)	57-74-9	8081B	µg/Kg	3.248 (9)	410		280	67	71	U	300	71

Table 5.16 - Sediment: Summary of Exceedances (continued)

Rolling Knolls Landfill

	Sample Name			ESC's	SD20			SD21		
	Sample Date/Time				06/02/2021 10:00			06/02/2021 12:28		
	Latitude				40.73050362			40.73060101		
	Longitude				-74.44237712			-74.44084937		
	Lab Sample Name			Screening Criteria	GS-N-SD20			GS-N-SD21		
	Lab Sample Number				460-235931-5 / 460-235931-7			460-235931-6 / 460-235931-8		
	Lab Report Number(s)				460-235931-1 / 460-235931-3 / 460-235931-4 / 460-235931-2			460-235931-1 / 460-235931-3 / 460-235931-4		
Analyte	CAS	Method	Units		Result LDC Flag	RL	MDL (EDL)	Result LDC Flag	RL	MDL (EDL)
Metals and Cyanide										
Aluminum	7429-90-5	6020B	mg/Kg	25500 (9)	7010	77.5	10.1	2430	254	33.1
Arsenic	7440-38-2	6020B	mg/Kg	6 (9)	**15.2**	3.9	0.39	**10.3** J	12.7	1.3
Barium	7440-39-3	6020B	mg/Kg	150 (10)	**492**	7.8	0.56	**336**	25.4	1.8
Cadmium	7440-43-9	6020B	mg/Kg	0.6 (9)	**19.4**	3.9	0.44	**8.6** J	12.7	1.4
Chromium	7440-47-3	6020B	mg/Kg	26 (9)	**58.1**	7.8	0.67	16.3 J	25.4	2.2
Copper	7440-50-8	6020B	mg/Kg	16 (9)	**444**	7.8	0.85	**84.7**	25.4	2.8
Lead	7439-92-1	6020B	mg/Kg	31 (9)	**2000**	2.3	0.78	**109**	7.6	2.5
Manganese	7439-96-5	6020B	mg/Kg	630 (9)	**785**	15.5	1.6	**2440**	50.8	5.1
Nickel	7440-02-0	6020B	mg/Kg	16 (9)	**69.6**	7.8	0.75	**17** J	25.4	2.5
Selenium	7782-49-2	6020B	mg/Kg	0.72 (10)	**1.2** J	4.8	0.46	1.5 U	15.9	1.5
Silver	7440-22-4	6020B	mg/Kg	0.5 (9)	**4.4**	3.9	0.34	1.1 U	12.7	1.1
Zinc	7440-66-6	6020B	mg/Kg	120 (9)	**3890**	31	8.9	**676**	102	29.1
Mercury	7439-97-6	7471B	mg/Kg	0.174 (9)	**7.3**	0.63	0.15	**0.68**	0.074	0.017
Cyanide, Total	57-12-5	9012B	mg/Kg	0.0001 (9)	**1.6** J	2.2	0.8	**7.1**	2.3	0.82
AVS/SEM										
ΣSEM–AVS				1.00 (11)	**90.7**			**4.6**		
(ΣSEM-AVS)/foc				130 (11)	**652.8**			65.1		

Table 5.17 - Pore Water: Water Quality Parameters

Rolling Knolls Landfill

	Sample Name			PW01_1.5-2.5				PW02_1.5-2.5				PW03_1.5-2.5				PW04_1.0-2.0				PW05_1.0-2.0				PW06.1_1.0-2.0				PW06.2_0.1-1.1			
	Sample Date/Time			05/14/2021 15:00				05/16/2021 15:00				05/14/2021 17:05				05/16/2021 10:15				05/16/2021 11:05				05/16/2021 13:20				05/17/2021 09:25			
	Latitude			40.72335535				40.72342503				40.72348017				40.72314304				40.72273853				40.72279294				40.72246175			
	Longitude			-74.4485393				-74.44713409				-74.44733933				-74.44743098				-74.44624019				-74.44605059				-74.44573414			
	Lab Sample Name			GS-S-PWT01-1.5-2.5				GS-S-PWT02-1.5-2.5				GS-S-PWT03-1.5-2.5				GS-S-PWD04-1.0-2.0				GS-S-PWT05-1.0-2.0				GS-S-PWT06-1.0-2.0				GS-S-PWT06_0.1-1.1			
	Lab Sample Number			460-234559-1				460-234561-3				460-234559-2				460-234561-4				460-234561-2				460-234561-1				460-234970-1			
	Lab Report Number(s)			460-234559-1				460-234561-1				460-234559-1				460-234561-1				460-234561-1				460-234561-1				460-234970-1			
Analyte	CAS	Method	Units	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)
Field Parameters																															
pH												7.94																			
Fe+2 Hach				1				2.5				6.5				3.5				2				3.5				3.5			
Turbidity			NTU									0.7																			
Temperature			°C									11.92																			
Oxidation-Reduction Potential (ORP)			mV									-143																			
Dissolved Oxygen (DO)			mg/L									10.11																			
Conductivity			mS/cm									0.529																			
Chemical Properties																															
Dissolved Organic Carbon	7440-44-0	9060A	mg/L																												
Total Organic Carbon	7440-44-0	9060A	mg/L																												
Alkalinity		SM 2320B	mg/L	201		5	5	344		5	5	216		5	5					337		5	5	307		5	5	270		5	5
Bicarbonate Alkalinity as CaCO3		SM 2320B	mg/L	201		5	5	344		5	5	216		5	5					337		5	5	307		5	5	270		5	5
Carbonate Alkalinity as CaCO3		SM 2320B	mg/L	5	U	5	5	5	U	5	5	5	U	5	5					5	U	5	5	5	U	5	5	5	U	5	5
Hydroxide Alkalinity		SM 2320B	mg/L	5	U	5	5	5	U	5	5	5	U	5	5					5	U	5	5	5	U	5	5	5	U	5	5
Hardness as calcium carbonate		SM 2340B	mg/L	196		33.1	33.1	324		33.1	33.1	194		33.1	33.1					308		33.1	33.1	296		33.1	33.1	247		33.1	33.1

Table 5.17 - Pore Water: Water Quality Parameters

(continued)

Rolling Knolls Landfill

	Sample Name			PW07_0.1-1.1				PW08_0.1-1.1				PW09_0.1-1.1				PW10_0.1-1.1				PW11_0.1-1.1				PW12_0.1-1.1				PW13_0.1-1.1			
	Sample Date/Time			05/17/2021 10:31				05/17/2021 13:00				05/17/2021 15:26				05/18/2021 10:42				05/18/2021 11:05				05/18/2021 12:30				05/18/2021 14:30			
	Latitude			40.72236214				40.72182294				40.72166473				40.72164542				40.72137772				40.72190822				40.72201291			
	Longitude			-74.44587602				-74.44481466				-74.44497878				-74.44442768				-74.44406378				-74.44321078				-74.44347746			
	Lab Sample Name			GS-S-PWT07_0.1-1.1				GS-S-PWT08_0.1-1.1				GS-S-PWT09_0.1-1.1				GS-S-PWT10_0.1-1.1				GS-S-PWT11_0.1-1.1				GS-S-PWT12_0.1-1.1				GS-S-PWT13_0.1-1.1			
	Lab Sample Number			460-234970-2				460-234969-1				460-234970-3				460-234971-1				460-234971-2				460-234969-2				460-234969-3			
	Lab Report Number(s)			460-234970-1				460-234969-1				460-234970-1				460-234971-1				460-234971-1				460-234969-1				460-234969-1			
Analyte	CAS	Method	Units	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)
Field Parameters																															
pH																								7.49				6.99			
Fe+2 Hach				7								2				2				2				5.5				5			
Turbidity			NTU																					2.6				0			
Temperature			°C																					22.96				17.22			
Oxidation-Reduction Potential (ORP)			mV																					-109				-153			
Dissolved Oxygen (DO)			mg/L																					12.14				7.15			
Conductivity			mS/cm																					0.548				0.328			
Chemical Properties																															
Dissolved Organic Carbon	7440-44-0	9060A	mg/L																	26.4		1.0	0.53								
Total Organic Carbon	7440-44-0	9060A	mg/L																	30.0		1.0	0.53								
Alkalinity		SM 2320B	mg/L	241		5	5	192		5	5	176		5	5					288		5	5	221		5	5	250		5	5
Bicarbonate Alkalinity as CaCO3		SM 2320B	mg/L	241		5	5	192		5	5	176		5	5					288		5	5	221		5	5	250		5	5
Carbonate Alkalinity as CaCO3		SM 2320B	mg/L	5	U	5	5	5	U	5	5	5	U	5	5					5	U	5	5	5	U	5	5	5	U	5	5
Hydroxide Alkalinity		SM 2320B	mg/L	5	U	5	5	5	U	5	5	5	U	5	5					5	U	5	5	5	U	5	5	5	U	5	5
Hardness as calcium carbonate		SM 2340B	mg/L	230		33.1	33.1	167		33.1	33.1	167		33.1	33.1					283		33.1	33.1	229		33.1	33.1	238		33.1	33.1

Table 5.17 - Pore Water: Water Quality Parameters

(continued)

Rolling Knolls Landfill

	Sample Name			PW14_0.1-1.1				PW15_0.1-1.1				PW16_0.1-1.1				PW17_0.1-1.1				PW18_0.1-1.1				PW19_0.1-1.1				PW20_0.1-1.1			
	Sample Date/Time			05/19/2021 10:00				05/19/2021 12:30				05/19/2021 14:00				05/20/2021 09:38				05/20/2021 09:45				05/20/2021 11:34				05/20/2021 16:30			
	Latitude			40.72248719				40.7230347				40.72345333				40.72380268				40.7238223				40.72418595				40.72413425			
	Longitude			-74.44316647				-74.44314728				-74.44320064				-74.44314573				-74.44300078				-74.44291979				-74.44283622			
	Lab Sample Name			GS-S-PWT014-0.1-1.1				GS-S-PWT015-0.1-1.1				GS-S-PWT016-0.1-1.1				GS-S-PWT017-0.1-1.1				GS-S-PWT018-0.1-1.1				GS-S-PWT019-0.1-1.1				GS-S-PWT020-0.1-1.1			
	Lab Sample Number			460-234972-2				460-235250-1				460-235250-2				460-234972-1				460-234972-3				460-235250-3				460-235250-4			
	Lab Report Number(s)			460-234972-1				460-235250-1				460-235250-1				460-234972-1				460-234972-1				460-235250-1				460-235250-1			
Analyte	CAS	Method	Units	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)
Field Parameters																															
pH								7.21								6.75												7.52			
Fe+2 Hach				4.5				4.5				4.5				5				5				4				5.5			
Turbidity			NTU					5																							
Temperature			°C					23.21								14.56												15.59			
Oxidation-Reduction Potential (ORP)			mV					-156								-27												-106			
Dissolved Oxygen (DO)			mg/L													9.87												7.33			
Conductivity			mS/cm					0.68								0.725												15			
Chemical Properties																															
Dissolved Organic Carbon	7440-44-0	9060A	mg/L													20.8		1	0.53	17.2		1	0.53								
Total Organic Carbon	7440-44-0	9060A	mg/L					15.6		1	0.53	19.3		1	0.53	22.7		1	0.53	18.7		1	0.53	14.5		1	0.53	16.2		1	0.53
Alkalinity		SM 2320B	mg/L	228		5	5	303		5	5	304		5	5	447		5	5	319		5	5	385		5	5	326		5	5
Bicarbonate Alkalinity as CaCO3		SM 2320B	mg/L	228		5	5	303		5	5	304		5	5	447		5	5	319		5	5	385		5	5	326		5	5
Carbonate Alkalinity as CaCO3		SM 2320B	mg/L	5	U	5	5	5	U	5	5	5	U	5	5	5	U	5	5	5	U	5	5	5	U	5	5	5	U	5	5
Hydroxide Alkalinity		SM 2320B	mg/L	5	U	5	5	5	U	5	5	5	U	5	5	5	U	5	5	5	U	5	5	5	U	5	5	5	U	5	5
Hardness as calcium carbonate		SM 2340B	mg/L	227		33.1	33.1	292		33.1	33.1	294		33.1	33.1	443		33.1	33.1	325		33.1	33.1	378		33.1	33.1	326		33.1	33.1

Table 5.17 - Pore Water: Water Quality Parameters

(continued)

Rolling Knolls Landfill

	Sample Name			PW21_0.1-1.1				PW22_0.1-1.1				PW102_0.1-1.1 (PW22_0.1-1.1 duplicate)				PW23_0.2-1.2				PW24_0.1-1.1				PW25_0.2-1.2				PW26_0.1-1.1			
	Sample Date/Time			05/21/2021 08:43				05/21/2021 09:10				05/21/2021 09:10				05/21/2021 12:37				05/21/2021 13:08				05/23/2021 11:48				05/23/2021 12:00			
	Latitude			40.72457915				40.72444765				40.72444765				40.7247828				40.72489946				40.72512321				40.72504571			
	Longitude			-74.44297636				-74.44258986				-74.44258986				-74.44247662				-74.44253506				-74.44235862				-74.44201259			
	Lab Sample Name			GS-S-PWT021-0.1-1.1				GS-S-PWT22-0.1-1.1				GS-S-PWT102-0.1-1.1				GS-S-PWT23-0.2-1.2				GS-S-PWT24-0.1-1.1				GS-S-PWT25-0.2-1.2				GS-S-PWT026-0.1-1.1			
	Lab Sample Number			460-235398-1				460-235399-4				460-235399-5				460-235398-2				460-235399-3				460-235399-2				460-235399-1			
	Lab Report Number(s)			460-235398-1				460-235399-1				460-235399-1				460-235398-1				460-235399-1				460-235399-1				460-235399-1			
Analyte	CAS	Method	Units	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)
Field Parameters																															
pH				5.59				5.51				5.51				7.16				6.96								7.16			
Fe+2 Hach				2.5				2.5				2.5				5				5				4				3.5			
Turbidity			NTU																												
Temperature			°C	15.75				14.08				14.08				16.71				14.11								14.19			
Oxidation-Reduction Potential (ORP)			mV	-96.4				-101				-101				-27.6				-28.1								-57.6			
Dissolved Oxygen (DO)			mg/L	10.32				10.9				10.9				10.75				0.79								2.6			
Conductivity			mS/cm	0.443				0.454				0.454				0.472				0.487								0.462			
Chemical Properties																															
Dissolved Organic Carbon	7440-44-0	9060A	mg/L	11.8		1	0.53	14.7		1	0.53	14.6		1	0.53	11.7		1	0.53	12.9		1	0.53					13		1	0.53
Total Organic Carbon	7440-44-0	9060A	mg/L	12.4		1	0.53	14.5		1	0.53	14.6		1	0.53	11.6		1	0.53	10.7		1	0.53					12.7		1	0.53
Alkalinity		SM 2320B	mg/L	235		5	5	294		5	5	275		5	5	294		5	5	332		5	5					280		5	5
Bicarbonate Alkalinity as CaCO3		SM 2320B	mg/L	235		5	5	294		5	5	275		5	5	294		5	5	332		5	5					280		5	5
Carbonate Alkalinity as CaCO3		SM 2320B	mg/L	5	U	5	5	5	U	5	5	5	U	5	5	5	U	5	5	5	U	5	5					5	U	5	5
Hydroxide Alkalinity		SM 2320B	mg/L	5	U	5	5	5	U	5	5	5	U	5	5	5	U	5	5	5	U	5	5					5	U	5	5
Hardness as calcium carbonate		SM 2340B	mg/L	273		33.1	33.1	275		33.1	33.1	270		33.1	33.1	285		33.1	33.1	343		33.1	33.1					298		33.1	33.1

Table 5.17 - Pore Water: Water Quality Parameters

(continued)

Rolling Knolls Landfill

	Sample Name			PW27_0.1-1.1				PW28_0.1-1.1				PW29_0.2-1.2				PW30_0.1-1.1				PW31_0.1-1.1				PW32_0.3-1.3				PW33_0.1-1.1			
	Sample Date/Time			05/24/2021 09:00				05/24/2021 10:00				05/24/2021 11:12				05/24/2021 11:30				05/24/2021 16:00				05/24/2021 17:00				05/25/2021 10:20			
	Latitude			40.72541272				40.72552247				40.7258865				40.72580561				40.7274107				40.72740334				40.72829546			
	Longitude			-74.44125584				-74.44165043				-74.44140482				-74.44119472				-74.43949673				-74.43971321				-74.44055948			
	Lab Sample Name			GS-S-PWT27-0.1-1.1				GS-S-PWT28-0.1-1.1				GS-S-PWT029-0.2-1.2				GS-S-PWT30-0.1-1.1				GS-S-PWT31.0-1-1.1				GS-N-PWT032-0.3-1.3				GS-N-PWT33_0.1-1.1			
	Lab Sample Number			460-235498-3				460-235498-2				460-235438-1				460-235498-4				460-235438-2				460-235498-1				460-235492-1			
	Lab Report Number(s)			460-235498-1				460-235498-1				460-235438-1				460-235498-1				460-235438-1				460-235498-1				460-235492-1			
Analyte	CAS	Method	Units	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)
Field Parameters																															
pH				6.88								9.99												10.07				8.12			
Fe+2 Hach				3.5				4.5				4								2.5				3.5				2.5			
Turbidity			NTU																												
Temperature			°C	13.99								13.35												11.86				12.65			
Oxidation-Reduction Potential (ORP)			mV	-105								-116												-54				-199			
Dissolved Oxygen (DO)			mg/L	1.88								10.02												0.66				0.57			
Conductivity			mS/cm	0.479								0.545												0.35				0.394			
Chemical Properties																															
Dissolved Organic Carbon	7440-44-0	9060A	mg/L	13.3		1	0.53					11.1		1	0.53	11.3		1	0.53	11.9		1	0.53	8.7		1	0.53	11.3		1	0.53
Total Organic Carbon	7440-44-0	9060A	mg/L	12.6		1	0.53					11.4		1	0.53	10.9		1	0.53	12.4		1	0.53	8.7		1	0.53	11		1	0.53
Alkalinity		SM 2320B	mg/L	210		5	5					271		5	5	250		5	5	171		5	5	178		5	5	231		5	5
Bicarbonate Alkalinity as CaCO3		SM 2320B	mg/L	210		5	5					271		5	5	250		5	5	171		5	5	178		5	5	231		5	5
Carbonate Alkalinity as CaCO3		SM 2320B	mg/L	5	U	5	5					5	U	5	5	5	U	5	5	5	U	5	5	5	U	5	5	5	U	5	5
Hydroxide Alkalinity		SM 2320B	mg/L	5	U	5	5					5	U	5	5	5	U	5	5	5	U	5	5	5	U	5	5	5	U	5	5
Hardness as calcium carbonate		SM 2340B	mg/L	213		33.1	33.1					270		33.1	33.1	248		33.1	33.1	164		33.1	33.1	224		33.1	33.1	232		33.1	33.1

Table 5.17 - Pore Water: Water Quality Parameters

(continued)

Rolling Knolls Landfill

Sample Name				PW34_0.2-1.2				PW35_0.2-1.2				PW36_0.4-1.4				PW103_0.4-1.4 (PW36_0.4-1.4 duplicate)				PW37_0.2-1.2				PW38_0.1-1.1				PW39_0.2-1.2			
Sample Date/Time				05/25/2021 12:06				05/25/2021 13:19				05/25/2021 16:08				05/25/2021 16:08				05/26/2021 10:18				05/26/2021 11:40				05/26/2021 14:19			
Latitude				40.72830226				40.72937246				40.7301228				40.7301228				40.73049011				40.73060103				40.73124949			
Longitude				-74.44017466				-74.440396				-74.44071487				-74.44071487				-74.44113923				-74.44084939				-74.44141117			
Lab Sample Name				GS-N-PWT34-0.2-1.2				GS-N-PWT35-0.2-1.2				GS-N-PWT36-0.4-1.4				GS-N-PWT103-0.4-1.4				GS-N-PWT037-0.2-1.2				GS-N-PWT38-0.1-1.1				GS-N-PWT39-0.2-1.2			
Lab Sample Number				460-235495-1				460-235495-2				460-235495-3				460-235495-4				460-235554-1				460-235554-2				460-235554-4			
Lab Report Number(s)				460-235495-1				460-235495-1				460-235495-1				460-235495-1				460-235554-1				460-235554-1				460-235554-1			
Analyte	**CAS**	**Method**	**Units**	**Result**	**LDC Flag**	**RL**	**MDL (EDL)**	**Result**	**LDC Flag**	**RL**	**MDL (EDL)**	**Result**	**LDC Flag**	**RL**	**MDL (EDL)**	**Result**	**LDC Flag**	**RL**	**MDL (EDL)**	**Result**	**LDC Flag**	**RL**	**MDL (EDL)**	**Result**	**LDC Flag**	**RL**	**MDL (EDL)**	**Result**	**LDC Flag**	**RL**	**MDL (EDL)**
Field Parameters																															
pH												7.78				7.78															
Fe+2 Hach				2				2				3				3				5.5				3.5				5.5			
Turbidity			NTU																												
Temperature			°C									13.69				13.69															
Oxidation-Reduction Potential (ORP)			mV									-113				-113															
Dissolved Oxygen (DO)			mg/L									0.62				0.62															
Conductivity			mS/cm									0.266				0.266															
Chemical Properties																															
Dissolved Organic Carbon	7440-44-0	9060A	mg/L	26.4		1	0.53	19.1		1	0.53	38.3		1	0.53	38.4		1	0.53	14.7		1	0.53								
Total Organic Carbon	7440-44-0	9060A	mg/L	19.7		1	0.53	18.5		1	0.53	38.5		1	0.53	38.7		1	0.53	14.5		1	0.53								
Alkalinity		SM 2320B	mg/L	153		5	5	104		5	5	142		5	5	141		5	5	239		5	5								
Bicarbonate Alkalinity as CaCO3		SM 2320B	mg/L	153		5	5	104		5	5	142		5	5	141		5	5	239		5	5								
Carbonate Alkalinity as CaCO3		SM 2320B	mg/L	5	U	5	5	5	U	5	5	5	U	5	5	5	U	5	5	5	U	5	5								
Hydroxide Alkalinity		SM 2320B	mg/L	5	U	5	5	5	U	5	5	5	U	5	5	5	U	5	5	5	U	5	5								
Hardness as calcium carbonate		SM 2340B	mg/L	152		33.1	33.1	86		33.1	33.1	154		33.1	33.1	154		33.1	33.1	244		33.1	33.1								

Table 5.17 - Pore Water: Water Quality Parameters

(continued)

Rolling Knolls Landfill

	Sample Name			PW40_0.1-1.1				PW41_0.2-1.2				PW42_0.1-1.1				PW43_0.4-1.4				PW44_0.1-1.1				PW45_0.1-1.1				PW100_0.1-1.1 (PW45_0.1-1.1 duplicate)			
	Sample Date/Time			05/26/2021 14:20				05/27/2021 10:44				05/27/2021 10:50				05/27/2021 13:00				06/01/2021 11:05				06/01/2021 13:50				06/01/2021 13:50			
	Latitude			40.73132942				40.72630201				40.7267825				40.72743339				40.72381503				40.72413479				40.72413479			
	Longitude			-74.4410877				-74.44023138				-74.4399115				-74.44007544				-74.44982242				-74.4444308				-74.4444308			
	Lab Sample Name			GS-N-PWT40-0.1-1.1				GS-N-PWT41-0.2-1.2				GS-N-PWT42-0.1-1.1				GS-N-PWT43-0.4-1.4				GS-S-PWT44-0.1-1.1				GS-S-PWT45-0.1-1.1				GS-S-PWT100-0.1-1.1			
	Lab Sample Number			460-235554-3				460-235584-1				460-235584-2				460-235584-3				460-235699-1				460-235699-2				460-235699-3			
	Lab Report Number(s)			460-235554-1				460-235584-1				460-235584-1				460-235584-1				460-235699-1				460-235699-1				460-235699-1			
Analyte	CAS	Method	Units	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)
Field Parameters																															
pH								7.36																							
Fe+2 Hach				6.5				3.5				7				3.5				0.5				3				3			
Turbidity			NTU																												
Temperature			°C					23.19																							
Oxidation-Reduction Potential (ORP)			mV					-141																							
Dissolved Oxygen (DO)			mg/L					9.09																							
Conductivity			mS/cm					0.363																							
Chemical Properties																															
Dissolved Organic Carbon	7440-44-0	9060A	mg/L					19.4		1	0.53	11.9		1	0.53	14.5		1	0.53	25		1	0.53	11.5		1	0.53	11.3		1	0.53
Total Organic Carbon	7440-44-0	9060A	mg/L					20.8		1	0.53	12.9		1	0.53	14.9		1	0.53	23.2		1	0.53	11.4		1	0.53	11.3		1	0.53
Alkalinity		SM 2320B	mg/L					158		5	5	199		5	5	220		5	5	68.8		5	5	391		5	5	387		5	5
Bicarbonate Alkalinity as CaCO3		SM 2320B	mg/L					158		5	5	199		5	5	220		5	5	68.8		5	5	391		5	5	387		5	5
Carbonate Alkalinity as CaCO3		SM 2320B	mg/L					5	U	5	5	5	U	5	5	5	U	5	5	5	U	5	5	5	U	5	5	5	U	5	5
Hydroxide Alkalinity		SM 2320B	mg/L					5	U	5	5	5	U	5	5	5	U	5	5	5	U	5	5	5	U	5	5	5	U	5	5
Hardness as calcium carbonate		SM 2340B	mg/L					123		33.1	33.1	181		33.1	33.1	200		33.1	33.1	61.2		33.1	33.1	363		33.1	33.1	300		33.1	33.1

Table 5.17 - Pore Water: Water Quality Parameters (continued)

Rolling Knolls Landfill

	Sample Name			PW46_0.3-1.3				PW101_0.3-1.3 (PW46-0.3-1.3 duplicate)				PW47_0.1-1.1			
	Sample Date/Time			06/02/2021 10:20				06/02/2021 10:20				06/02/2021 12:50			
	Latitude			40.72975399				40.72975399				40.73048521			
	Longitude			-74.44129459				-74.44129459				-74.44164343			
	Lab Sample Name			GS-N-PWT46-0.3-1.3				GS-N-PWT101-0.3-1.3				GS-PWT47-0.1-1.1			
	Lab Sample Number			460-235933-1				460-235933-2				460-235933-3			
	Lab Report Number(s)			460-235933-1				460-235933-1				460-235933-1			
Analyte	CAS	Method	Units	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)
Field Parameters															
pH				6.71				6.71				6.62			
Fe+2 Hach				6.5				6.5				2			
Turbidity			NTU												
Temperature			°C	11.82				11.82				15.21			
Oxidation-Reduction Potential (ORP)			mV	-193				-193				-183			
Dissolved Oxygen (DO)			mg/L	1.22				1.22				0.79			
Conductivity			mS/cm	0.407				0.407				0.398			
Chemical Properties															
Dissolved Organic Carbon	7440-44-0	9060A	mg/L	13.3		1	0.53	12.7		1	0.53	13.4		1	0.53
Total Organic Carbon	7440-44-0	9060A	mg/L	13.3		1	0.53	13.1		1	0.53	14.1		1	0.53
Alkalinity		SM 2320B	mg/L	223		5	5	220		5	5	231		5	5
Bicarbonate Alkalinity as CaCO3		SM 2320B	mg/L	223		5	5	220		5	5	231		5	5
Carbonate Alkalinity as CaCO3		SM 2320B	mg/L	5	U	5	5	5	U	5	5	5	U	5	5
Hydroxide Alkalinity		SM 2320B	mg/L	5	U	5	5	5	U	5	5	5	U	5	5
Hardness as calcium carbonate		SM 2340B	mg/L												

Table 5.18 - Pore Water: Metals and Cyanide Analytical Results

Rolling Knolls Landfill

Sample Name				ESC's	PW01_1.5-2.5					PW02_1.5-2.5					PW03_1.5-2.5					PW04_1.0-2.0					PW05_1.0-2.0					PW06.1_1.0-2.0				
Sample Date/Time					05/14/2021 15:00					05/16/2021 15:00					05/14/2021 17:05					05/16/2021 10:15					05/16/2021 11:05					05/16/2021 13:20				
Latitude					40.72335535					40.72342503					40.72348017					40.72314304					40.72273853					40.72279294				
Longitude					-74.4485393					-74.44713409					-74.44733933					-74.44743098					-74.44624019					-74.44605059				
Lab Sample Name				Screening Criteria	GS-S-PWT01-1.5-2.5					GS-S-PWT02-1.5-2.5					GS-S-PWT03-1.5-2.5					GS-S-PWD04-1.0-2.0					GS-S-PWT05-1.0-2.0					GS-S-PWT06-1.0-2.0				
Lab Sample Number					460-234559-1					460-234561-3					460-234559-2					460-234561-4					460-234561-2					460-234561-1				
Lab Report Number(s)					460-234559-1					460-234561-1					460-234559-1					460-234561-1					460-234561-1					460-234561-1				
Analyte	CAS	Method	Units		Result	LDC Flag	RL	MDL (EDL)	ESC	Result	LDC Flag	RL	MDL (EDL)	ESC	Result	LDC Flag	RL	MDL (EDL)	ESC	Result	LDC Flag	RL	MDL (EDL)	ESC	Result	LDC Flag	RL	MDL (EDL)	ESC	Result	LDC Flag	RL	MDL (EDL)	ESC
Metals (Total)																																	
Aluminum	7429-90-5	6020B	µg/L		**50.6**		40	19.5		19.5	U	40	19.5		19.5	U	40	19.5							19.5	U	40	19.5		19.5	U	40	19.5	
Antimony	7440-36-0	6020B	µg/L	80 (12)	0.76	U	2	0.76	80	0.76	U	2	0.76	80	0.76	U	2	0.76	80						0.76	U	2	0.76	80	0.76	U	2	0.76	80
Arsenic	7440-38-2	6020B	µg/L		**0.93**	J	2	0.89		0.89	U	2	0.89		0.89	U	2	0.89							0.89	U	2	0.89		0.89	U	2	0.89	
Barium	7440-39-3	6020B	µg/L	220 (12)	185		4	0.91	220	**399**		4	0.91	220	**337**		4	0.91	220						**421**		4	0.91	220	**424**		4	0.91	220
Beryllium	7440-41-7	6020B	µg/L	3.6 (12)	0.13	U	0.8	0.13	3.6	0.13	U	0.8	0.13	3.6	0.13	U	0.8	0.13	3.6						0.13	U	0.8	0.13	3.6	0.13	U	0.8	0.13	3.6
Cadmium	7440-43-9	6020B	µg/L		0.39	U	2	0.39		0.39	U	2	0.39		0.39	U	2	0.39							0.39	U	2	0.39		0.39	U	2	0.39	
Calcium	7440-70-2	6020B	µg/L		**66100**		500	53.6		**116000**		500	53.6		**68300**		500	53.6							**106000**		500	53.6		**102000**		500	53.6	
Chromium	7440-47-3	6020B	µg/L	42 (12)	2.5	U	4	2.5	42	2.5	U	4	2.5	42	2.5	U	4	2.5	42						2.5	U	4	2.5	42	2.5	U	4	2.5	42
Cobalt	7440-48-4	6020B	µg/L	24 (12)	0.71	U	4	0.71	24	1.5	J	4	0.71	24	1.2	J	4	0.71	24						1.5	J	4	0.71	24	1.2	J	4	0.71	24
Copper	7440-50-8	6020B	µg/L		2.5	U	4	2.5		2.5	U	4	2.5		2.5	U	4	2.5							2.5	U	4	2.5		2.5	U	4	2.5	
Iron	7439-89-6	6020B	µg/L		**2120**		120	58.2		**26900**		120	58.2		**1980**		120	58.2							**5390**		120	58.2		**7180**		120	58.2	
Lead	7439-92-1	6020B	µg/L		0.84	U	1.2	0.84		0.84	U	1.2	0.84		0.84	U	1.2	0.84							0.84	U	1.2	0.84		0.84	U	1.2	0.84	
Magnesium	7439-95-4	6020B	µg/L		**7610**		200	46.9		**8100**		200	46.9		**5750**		200	46.9							**10200**		200	46.9		**9980**		200	46.9	
Manganese	7439-96-5	6020B	µg/L		**194**		8	1.5		**267**		8	1.5		**379**		8	1.5							**448**		8	1.5		**221**		8	1.5	
Nickel	7440-02-0	6020B	µg/L		**2**	J	4	0.91		**3.5**	J	4	0.91		**6.3**		4	0.91							**5.2**		4	0.91		**6.4**		4	0.91	
Potassium	7440-09-7	6020B	µg/L		**3980**		200	112		**3960**		200	112		**3000**		200	112							**6180**		200	112		**5190**		200	112	
Selenium	7782-49-2	6020B	µg/L		0.59	U	2.5	0.59		0.59	U	2.5	0.59		0.59	U	2.5	0.59							0.59	U	2.5	0.59		0.59	U	2.5	0.59	
Silver	7440-22-4	6020B	µg/L	0.12 (12)	0.29	U	2	0.29	0.12	0.29	U	2	0.29	0.12	0.29	U	2	0.29	0.12						0.29	U	2	0.29	0.12	0.29	U	2	0.29	0.12
Sodium	7440-23-5	6020B	µg/L		**7370**		500	163		**6420**		500	163		**4450**		500	163							**6430**		500	163		**7100**		500	163	
Thallium	7440-28-0	6020B	µg/L	10 (12)	0.21	U	0.8	0.21	10	0.21	U	0.8	0.21	10	0.21	U	0.8	0.21	10						0.21	U	0.8	0.21	10	0.21	U	0.8	0.21	10
Vanadium	7440-62-2	6020B	µg/L	12 (12)	0.68	U	4	0.68	12	0.68	U	4	0.68	12	0.68	U	4	0.68	12						0.68	U	4	0.68	12	0.68	U	4	0.68	12
Zinc	7440-66-6	6020B	µg/L		6.5	U	16	6.5		6.5	U	16	6.5		6.5	U	16	6.5							**7.1**	J	16	6.5		**6.8**	J	16	6.5	
Mercury	7439-97-6	7470A	µg/L		0.091	U	0.2	0.091		0.091	U	0.2	0.091		0.091	U	0.2	0.091							0.091	U	0.2	0.091		0.091	U	0.2	0.091	
Cyanide, Total	57-12-5	9012B	mg/L	0.0052 (12)	0.005	U	0.01	0.005	0.0052	0.005	U	0.01	0.005	0.0052	**0.032**		0.01	0.005	0.0052						0.005	U	0.01	0.005	0.0052	0.005	U	0.01	0.005	0.0052
Metals (Dissolved)																																	
Aluminum	7429-90-5	6020B	µg/L	100 (15)	19.5	U	40	19.5	100	19.5	U	40	19.5	100	19.5	U	40	19.5	100	19.5	U	40	19.5	100	19.5	U	40	19.5	100	19.5	U	40	19.5	100
Antimony	7440-36-0	6020B	µg/L	80 (12)	0.76	U	2	0.76	80	0.76	U	2	0.76	80	0.76	U	2	0.76	80	0.76	U	2	0.76	80	0.76	U	2	0.76	80	0.76	U	2	0.76	80
Arsenic	7440-38-2	6020B	µg/L	150 (12)	0.89	U	2	0.89	150	0.89	U	2	0.89	150	0.89	U	2	0.89	150	0.89	U	2	0.89	150	0.89	U	2	0.89	150	0.89	U	2	0.89	150
Barium	7440-39-3	6020B	µg/L	220 (12)	185		4	0.91	220	**418**		4	0.91	220	**234**		4	0.91	220	158		4	0.91	220	**446**		4	0.91	220	**440**		4	0.91	220
Beryllium	7440-41-7	6020B	µg/L	3.6 (12)	0.13	U	0.8	0.13	3.6	0.13	U	0.8	0.13	3.6	0.13	U	0.8	0.13	3.6	0.13	U	0.8	0.13	3.6	0.13	U	0.8	0.13	3.6	0.13	U	0.8	0.13	3.6
Cadmium	7440-43-9	6020B	µg/L	Hard calc (12)	0.39	U	2	0.39	0.29	0.39	U	2	0.39	0.42	0.39	U	2	0.39	0.29	0.39	U	2	0.39	No Calc	0.39	U	2	0.39	0.41	0.39	U	2	0.39	0.39
Calcium	7440-70-2	6020B	µg/L		66900		500	53.6		121000		500	53.6		78200		500	53.6		111000		500	53.6		110000		500	53.6		101000		500	53.6	
Chromium	7440-47-3	6020B	µg/L	42 (12)	2.5	U	4	2.5	42	2.5	U	4	2.5	42	2.5	U	4	2.5	42	2.5	U	4	2.5	42	2.5	U	4	2.5	42	2.5	U	4	2.5	42
Cobalt	7440-48-4	6020B	µg/L	24 (12)	0.71	U	4	0.71	24	1.5	J	4	0.71	24	0.71	U	4	0.71	24	0.71	U	4	0.71	24	1.6	J	4	0.71	24	1.1	J	4	0.71	24
Copper	7440-50-8	6020B	µg/L	Hard calc (12)	2.5	U	4	2.5	15.05	2.5	U	4	2.5	23.13	2.5	U	4	2.5	14.92	3.5	J	4	2.5	No Calc	2.5	U	4	2.5	22.15	2.5	U	4	2.5	21.41
Iron	7439-89-6	6020B	µg/L	158 (14)	**1030**		120	58.2	158	**27200**		120	58.2	158	58.2	U	120	58.2	158	58.2	U	120	58.2	158	**5370**		120	58.2	158	**6890**		120	58.2	158
Lead	7439-92-1	6020B	µg/L	5.4 (12)	0.84	U	1.2	0.84	5.4	0.84	U	1.2	0.84	5.4	0.84	U	1.2	0.84	5.4	0.84	U	1.2	0.84	5.4	0.84	U	1.2	0.84	5.4	0.84	U	1.2	0.84	5.4
Magnesium	7439-95-4	6020B	µg/L		7940		200	46.9		8740		200	46.9		7140		200	46.9		14600		200	46.9		11100		200	46.9		10700		200	46.9	
Manganese	7439-96-5	6020B	µg/L	112 (14)	**186**		8	1.5	112	**271**		8	1.5	112	48.6		8	1.5	112	3.2	J	8	1.5	112	**460**		8	1.5	112	**220**		8	1.5	112
Nickel	7440-02-0	6020B	µg/L	Hard calc (12)	1.6	J	4	0.91	77.98	3	J	4	0.91	119.30	4.9		4	0.91	77.31	13.5		4	0.91	No Calc	5.4		4	0.91	114.30	5.8		4	0.91	110.52
Potassium	7440-09-7	6020B	µg/L		4060		200	112		4210		200	112		5270		200	112		3640		200	112		6620		200	112		5450		200	112	
Selenium	7782-49-2	6020B	µg/L	5 (12)	0.59	U	2.5	0.59	5	0.59	U	2.5	0.59	5	0.59	U	2.5	0.59	5	0.59	U	2.5	0.59	5	0.59	U	2.5	0.59	5	0.59	U	2.5	0.59	5
Silver	7440-22-4	6020B	µg/L	0.12 (12)	0.29	U	2	0.29	0.12	0.29	U	2	0.29	0.12	0.29	U	2	0.29	0.12	0.29	U	2	0.29	0.12	0.29	U	2	0.29	0.12	0.29	U	2	0.29	0.12
Sodium	7440-23-5	6020B	µg/L		7570		500	163		6900		500	163		5110		500	163		12600		500	163		6960		500	163		7410		500	163	
Thallium	7440-28-0	6020B	µg/L	0.03 (14)	0.21	U	0.8	0.21	0.03	0.21	U	0.8	0.21	0.03	0.21	U	0.8	0.21	0.03	0.21	U	0.8	0.21	0.03	0.21	U	0.8	0.21	0.03	0.21	U	0.8	0.21	0.03
Vanadium	7440-62-2	6020B	µg/L	12 (12)	0.68	U	4	0.68	12	0.68	U	4	0.68	12	0.68	U	4	0.68	12	0.68	U	4	0.68	12	0.68	U	4	0.68	12	0.68	U	4	0.68	12
Zinc	7440-66-6	6020B	µg/L	Hard calc (12)	6.5	U	16	6.5	201.31	6.5	U	16	6.5	308.19	6.5	U	16	6.5	199.57	6.5	U	16	6.5	No Calc	6.5	U	16	6.5	295.25	7	J	16	6.5	285.47
Mercury	7439-97-6	7470A	µg/L	0.77 (12)	0.091	U	0.2	0.091	0.77	0.091	U	0.2	0.091	0.77	0.091	U	0.2	0.091	0.77	0.091	U	0.2	0.091	0.77	0.091	U	0.2	0.091	0.77	0.091	U	0.2	0.091	0.77

Table 5.18 - Pore Water: Metals and Cyanide Analytical Results (continued)

Rolling Knolls Landfill

Sample Name				ESC's	PW06.2_0.1-1.1					PW07_0.1-1.1					PW08_0.1-1.1					PW09_0.1-1.1					PW10_0.1-1.1					PW11_0.1-1.1				
Sample Date/Time					05/17/2021 09:25					05/17/2021 10:31					05/17/2021 13:00					05/17/2021 15:26					05/18/2021 10:42					05/18/2021 11:05				
Latitude					40.72246175					40.72236214					40.72182294					40.72166473					40.72164542					40.72137772				
Longitude					-74.44573414					-74.44587602					-74.44481466					-74.44497878					-74.44442768					-74.44406378				
Lab Sample Name				Screening Criteria	GS-S-PWT06_0.1-1.1					GS-S-PWT07_0.1-1.1					GS-S-PWT08_0.1-1.1					GS-S-PWT09_0.1-1.1					GS-S-PWT10_0.1-1.1					GS-S-PWT11_0.1-1.1				
Lab Sample Number					460-234970-1					460-234970-2					460-234969-1					460-234970-3					460-234971-1					460-234971-2				
Lab Report Number(s)					460-234970-1					460-234970-1					460-234969-1					460-234970-1					460-234971-1					460-234971-1				
Analyte	**CAS**	**Method**	**Units**		**Result**	**LDC Flag**	**RL**	**MDL (EDL)**	**ESC**	**Result**	**LDC Flag**	**RL**	**MDL (EDL)**	**ESC**	**Result**	**LDC Flag**	**RL**	**MDL (EDL)**	**ESC**	**Result**	**LDC Flag**	**RL**	**MDL (EDL)**	**ESC**	**Result**	**LDC Flag**	**RL**	**MDL (EDL)**	**ESC**	**Result**	**LDC Flag**	**RL**	**MDL (EDL)**	**ESC**
Metals (Total)																																	
Aluminum	7429-90-5	6020B	µg/L		**43.2**		40	19.5		**38.2**	J	40	19.5		**96**		40	19.5		**170**		40	19.5							**175**		40	19.5	
Antimony	7440-36-0	6020B	µg/L	80 (12)	0.76	U	2	0.76	80	0.76	U	2	0.76	80	0.76	U	2	0.76	80	0.76	U	2	0.76	80					0.76	U	2	0.76	80
Arsenic	7440-38-2	6020B	µg/L		**1**	J	2	0.89		**1.8**	J	2	0.89		**1**	J	2	0.89		0.89	U	2	0.89							**7.6**		2	0.89	
Barium	7440-39-3	6020B	µg/L	220 (12)	**423**		4	0.91	220	**477**		4	0.91	220	**264**		4	0.91	220	**258**		4	0.91	220						208		4	0.91	220
Beryllium	7440-41-7	6020B	µg/L	3.6 (12)	0.13	U	0.8	0.13	3.6	0.13	U	0.8	0.13	3.6	0.13	U	0.8	0.13	3.6	0.13	U	0.8	0.13	3.6					0.13	U	0.8	0.13	3.6
Cadmium	7440-43-9	6020B	µg/L		0.39	U	2	0.39		0.39	U	2	0.39		0.39	U	2	0.39		0.39	U	2	0.39							0.39	U	2	0.39	
Calcium	7440-70-2	6020B	µg/L		**83200**		500	53.6		**76300**		500	53.6		**52600**		500	53.6		**55000**		500	53.6							**89100**		500	53.6	
Chromium	7440-47-3	6020B	µg/L	42 (12)	2.5	U	4	2.5	42	2.5	U	4	2.5	42	2.5	U	4	2.5	42	2.5	U	4	2.5	42					2.5	U	4	2.5	42
Cobalt	7440-48-4	6020B	µg/L	24 (12)	1.2	J	4	0.71	24	2.4	J	4	0.71	24	1.2	J	4	0.71	24	4.6		4	0.71	24						4		4	0.71	24
Copper	7440-50-8	6020B	µg/L		**2.9**	J	4	2.5		2.5	U	4	2.5		2.5	U	4	2.5		2.5	U	4	2.5							2.5	U	4	2.5	
Iron	7439-89-6	6020B	µg/L		**22600**		120	58.2		**58200**		120	58.2		**72900**		120	58.2		**16500**		120	58.2							**29500**		120	58.2	
Lead	7439-92-1	6020B	µg/L		**2.8**		1.2	0.84		0.84	U	1.2	0.84		**3.7**		1.2	0.84		**1.2**		1.2	0.84							**3.2**		1.2	0.84	
Magnesium	7439-95-4	6020B	µg/L		**9640**		200	46.9		**9570**		200	46.9		**8570**		200	46.9		**7190**		200	46.9							**14700**		200	46.9	
Manganese	7439-96-5	6020B	µg/L		**433**		8	1.5		**728**		8	1.5		**376**		8	1.5		**676**		8	1.5							**1110**		8	1.5	
Nickel	7440-02-0	6020B	µg/L		**6.9**		4	0.91		**4.2**		4	0.91		**1.8**	J	4	0.91		**6.3**		4	0.91							**7.3**		4	0.91	
Potassium	7440-09-7	6020B	µg/L		**5350**		200	112		**4970**		200	112		**3060**		200	112		**5700**		200	112							**3500**		200	112	
Selenium	7782-49-2	6020B	µg/L		0.59	U	2.5	0.59		0.59	U	2.5	0.59		0.59	U	2.5	0.59		0.59	U	2.5	0.59							0.59	U	2.5	0.59	
Silver	7440-22-4	6020B	µg/L	0.12 (12)	0.29	U	2	0.29	0.12	0.29	U	2	0.29	0.12	0.29	U	2	0.29	0.12	0.29	U	2	0.29	0.12						0.29	U	2	0.29	0.12
Sodium	7440-23-5	6020B	µg/L		**7220**		500	163		**6580**		500	163		**12100**		500	163		**5890**		500	163							**13500**		500	163	
Thallium	7440-28-0	6020B	µg/L	10 (12)	0.21	U	0.8	0.21	10	0.21	U	0.8	0.21	10	0.21	U	0.8	0.21	10	0.21	U	0.8	0.21	10						0.21	U	0.8	0.21	10
Vanadium	7440-62-2	6020B	µg/L	12 (12)	0.68	U	4	0.68	12	0.68	U	4	0.68	12	0.8	J	4	0.68	12	1.2	J	4	0.68	12						2.8	J	4	0.68	12
Zinc	7440-66-6	6020B	µg/L		**17.2**		16	6.5		**8.2**	J	16	6.5		**23.6**		16	6.5		**18.3**		16	6.5							**27.5**		16	6.5	
Mercury	7439-97-6	7470A	µg/L		0.091	U	0.2	0.091		0.091	U	0.2	0.091		0.091	U	0.2	0.091		0.091	U	0.2	0.091							0.091	U	0.2	0.091	
Cyanide, Total	57-12-5	9012B	mg/L	0.0052 (12)	0.005	U	0.01	0.005	0.0052	0.005	U	0.01	0.005	0.0052	0.005	U	0.01	0.005	0.0052	0.005	U	0.01	0.005	0.0052						0.005	U	0.01	0.005	0.0052
Metals (Dissolved)																																	
Aluminum	7429-90-5	6020B	µg/L	100 (15)	19.5	U	40	19.5	100	25.9	J	40	19.5	100	38.8	J	40	19.5	100	63.2		40	19.5	100	19.5	U	40	19.5	100	52		40	19.5	100
Antimony	7440-36-0	6020B	µg/L	80 (12)	0.76	U	2	0.76	80	0.76	U	2	0.76	80	0.76	U	2	0.76	80	0.76	U	2	0.76	80	0.76	U	2	0.76	80	0.76	U	2	0.76	80
Arsenic	7440-38-2	6020B	µg/L	150 (12)	0.93	J	2	0.89	150	1.2	J	2	0.89	150	0.89	U	2	0.89	150	0.89	J	2	0.89	150	0.89	U	2	0.89	150	7.2		2	0.89	150
Barium	7440-39-3	6020B	µg/L	220 (12)	**415**		4	0.91	220	**455**		4	0.91	220	**238**		4	0.91	220	**256**		4	0.91	220	121		4	0.91	220	163		4	0.91	220
Beryllium	7440-41-7	6020B	µg/L	3.6 (12)	0.13	U	0.8	0.13	3.6	0.13	U	0.8	0.13	3.6	0.13	U	0.8	0.13	3.6	0.13	U	0.8	0.13	3.6	0.13	U	0.8	0.13	3.6	0.13	U	0.8	0.13	3.6
Cadmium	7440-43-9	6020B	µg/L	Hard calc (12)	0.39	U	2	0.39	0.34	0.39	U	2	0.39	0.33	0.39	U	2	0.39	0.26	0.39	U	2	0.39	0.26	0.39	U	2	0.39	No Calc	0.39	U	2	0.39	0.38
Calcium	7440-70-2	6020B	µg/L		87000		500	53.6		74400		500	53.6		52400		500	53.6		54400		500	53.6		41800		500	53.6		84900		500	53.6	
Chromium	7440-47-3	6020B	µg/L	42 (12)	2.5	U	4	2.5	42	2.5	U	4	2.5	42	2.5	U	4	2.5	42	2.5	U	4	2.5	42	2.5	U	4	2.5	42	2.5	U	4	2.5	42
Cobalt	7440-48-4	6020B	µg/L	24 (12)	1.1	J	4	0.71	24	2.4	J	4	0.71	24	0.98	J	4	0.71	24	4.4		4	0.71	24	0.71	U	4	0.71	24	4		4	0.71	24
Copper	7440-50-8	6020B	µg/L	Hard calc (12)	2.5	U	4	2.5	18.34	2.5	U	4	2.5	17.26	2.5	U	4	2.5	13.13	2.5	U	4	2.5	13.13	2.5	U	4	2.5	No Calc	2.5	U	4	2.5	20.60
Iron	7439-89-6	6020B	µg/L	158 (14)	**23000**		120	58.2	158	**57300**		120	58.2	158	**56900**		120	58.2	158	**16300**		120	58.2	158	**325**		120	58.2	158	**24600**		120	58.2	158
Lead	7439-92-1	6020B	µg/L	5.4 (12)	0.84	U	1.2	0.84	5.4	0.84	U	1.2	0.84	5.4	0.84	U	1.2	0.84	5.4	0.84	U	1.2	0.84	5.4	0.84	U	1.2	0.84	5.4	0.84	U	1.2	0.84	5.4
Magnesium	7439-95-4	6020B	µg/L		9840		200	46.9		9360		200	46.9		8440		200	46.9		6880		200	46.9		6120		200	46.9		15100		200	46.9	
Manganese	7439-96-5	6020B	µg/L	112 (14)	**446**		8	1.5	112	**700**		8	1.5	112	**389**		8	1.5	112	**684**		8	1.5	112	1.6	J	8	1.5	112	**1110**		8	1.5	112
Nickel	7440-02-0	6020B	µg/L	Hard calc (12)	6.1		4	0.91	94.83	4.1		4	0.91	89.28	3.7	J	4	0.91	68.10	5.2		4	0.91	68.10	3	J	4	0.91	No Calc	5.8		4	0.91	106.40
Potassium	7440-09-7	6020B	µg/L		5630		200	112		4850		200	112		2930		200	112		5760		200	112		5470		200	112		3410		200	112	
Selenium	7782-49-2	6020B	µg/L	5 (12)	0.59	U	2.5	0.59	5	0.59	U	2.5	0.59	5	0.59	U	2.5	0.59	5	0.59	U	2.5	0.59	5	0.59	U	2.5	0.59	5	0.59	U	2.5	0.59	5
Silver	7440-22-4	6020B	µg/L	0.12 (12)	0.29	U	2	0.29	0.12	0.29	U	2	0.29	0.12	0.29	U	2	0.29	0.12	0.29	U	2	0.29	0.12	0.29	U	2	0.29	0.12	0.29	U	2	0.29	0.12
Sodium	7440-23-5	6020B	µg/L		7210		500	163		6130		500	163		11900		500	163		5460		500	163		4740	J	500	163		12700		500	163	
Thallium	7440-28-0	6020B	µg/L	0.03 (14)	0.21	U	0.8	0.21	0.03	0.21	U	0.8	0.21	0.03	0.21	U	0.8	0.21	0.03	0.21	U	0.8	0.21	0.03	0.21	U	0.8	0.21	0.03	0.21	U	0.8	0.21	0.03
Vanadium	7440-62-2	6020B	µg/L	12 (12)	0.68	U	4	0.68	12	0.68	U	4	0.68	12	0.68	U	4	0.68	12	0.68	U	4	0.68	12	0.68	U	4	0.68	12	2	J	4	0.68	12
Zinc	7440-66-6	6020B	µg/L	Hard calc (12)	6.5	U	16	6.5	244.89	6.5	U	16	6.5	230.53	26.5		16	6.5	175.77	6.5	U	16	6.5	175.77	17.3		16	6.5	No Calc	10.1	J	16	6.5	274.81
Mercury	7439-97-6	7470A	µg/L	0.77 (12)	0.091	U	0.2	0.091	0.77	0.091	U	0.2	0.091	0.77	0.12	J	0.2	0.091	0.77	0.091	U	0.2	0.091	0.77	0.091	U	0.2	0.091	0.77	0.091	U	0.2	0.091	0.77

Table 5.18 - Pore Water: Metals and Cyanide Analytical Results (continued)

Rolling Knolls Landfill

Sample Name				ESC's	PW12_0.1-1.1					PW13_0.1-1.1					PW14_0.1-1.1					PW15_0.1-1.1					PW16_0.1-1.1					PW17_0.1-1.1				
Sample Date/Time					05/18/2021 12:30					05/18/2021 14:30					05/19/2021 10:00					05/19/2021 12:30					05/19/2021 14:00					05/20/2021 09:38				
Latitude					40.72190822					40.72201291					40.72248719					40.7230347					40.72345333					40.72380268				
Longitude					-74.44321078					-74.44347746					-74.44316647					-74.44314728					-74.44320064					-74.44314573				
Lab Sample Name				Screening Criteria	GS-S-PWT12_0.1-1.1					GS-S-PWT13_0.1-1.1					GS-S-PWT014-0.1-1.1					GS-S-PWT015-0.1-1.1					GS-S-PWT016-0.1-1.1					GS-S-PWT017-0.1-1.1				
Lab Sample Number					460-234969-2					460-234969-3					460-234972-2					460-235250-1					460-235250-2					460-234972-1				
Lab Report Number(s)					460-234969-1					460-234969-1					460-234972-1					460-235250-1					460-235250-1					460-234972-1				
Analyte	**CAS**	**Method**	**Units**		**Result**	**LDC Flag**	**RL**	**MDL (EDL)**	**ESC**	**Result**	**LDC Flag**	**RL**	**MDL (EDL)**	**ESC**	**Result**	**LDC Flag**	**RL**	**MDL (EDL)**	**ESC**	**Result**	**LDC Flag**	**RL**	**MDL (EDL)**	**ESC**	**Result**	**LDC Flag**	**RL**	**MDL (EDL)**	**ESC**	**Result**	**LDC Flag**	**RL**	**MDL (EDL)**	**ESC**
Metals (Total)																																	
Aluminum	7429-90-5	6020B	µg/L		**22**	J	40	19.5		**25.5**	J	40	19.5		**31.4**	J	40	19.5		19.5	U	40	19.5		19.5	U	40	19.5		**26.5**	J	40	19.5	
Antimony	7440-36-0	6020B	µg/L	80 (12)	0.76	U	2	0.76	80	0.76	U	2	0.76	80	0.76	U	2	0.76	80	0.76	U	2	0.76	80	0.76	U	2	0.76	80	0.76	U	2	0.76	80
Arsenic	7440-38-2	6020B	µg/L		**2.3**		2	0.89		**1.4**	J	2	0.89		**4**		2	0.89		0.89	U	2	0.89		0.89	U	2	0.89		0.89	U	2	0.89	
Barium	7440-39-3	6020B	µg/L	220 (12)	**303**		4	0.91	220	**370**		4	0.91	220	**390**		4	0.91	220	**392**		4	0.91	220	**442**		4	0.91	220	**366**		4	0.91	220
Beryllium	7440-41-7	6020B	µg/L	3.6 (12)	0.13	U	0.8	0.13	3.6	0.13	U	0.8	0.13	3.6	0.13	U	0.8	0.13	3.6	0.13	U	0.8	0.13	3.6	0.13	U	0.8	0.13	3.6	0.13	U	0.8	0.13	3.6
Cadmium	7440-43-9	6020B	µg/L		0.39	U	2	0.39		0.39	U	2	0.39		0.39	U	2	0.39		0.39	U	2	0.39		0.39	U	2	0.39		0.39	U	2	0.39	
Calcium	7440-70-2	6020B	µg/L		**78500**		500	53.6		**83200**		500	53.6		**78500**		500	53.6		**102000**		500	53.6		**102000**		500	53.6		**154000**		500	53.6	
Chromium	7440-47-3	6020B	µg/L	42 (12)	2.5	U	4	2.5	42	2.5	U	4	2.5	42	2.5	U	4	2.5	42	2.5	U	4	2.5	42	2.5	U	4	2.5	42	2.5	U	4	2.5	42
Cobalt	7440-48-4	6020B	µg/L	24 (12)	0.71	U	4	0.71	24	1.9	J	4	0.71	24	0.71	U	4	0.71	24	0.71	U	4	0.71	24	0.82	J	4	0.71	24	0.71	U	4	0.71	24
Copper	7440-50-8	6020B	µg/L		2.5	U	4	2.5		2.5	U	4	2.5		2.5	U	4	2.5		2.5	U	4	2.5		2.5	U	4	2.5		2.5	U	4	2.5	
Iron	7439-89-6	6020B	µg/L		**29600**		120	58.2		**24100**		120	58.2		**89400**		120	58.2		**28300**		120	58.2		**37200**		120	58.2		**41600**		120	58.2	
Lead	7439-92-1	6020B	µg/L		0.84	U	1.2	0.84		0.84	U	1.2	0.84		0.84	U	1.2	0.84		0.84	U	1.2	0.84		0.84	U	1.2	0.84		0.84	U	1.2	0.84	
Magnesium	7439-95-4	6020B	µg/L		**8080**		200	46.9		**7290**		200	46.9		**7630**		200	46.9		**9010**		200	46.9		**9230**		200	46.9		**14300**		200	46.9	
Manganese	7439-96-5	6020B	µg/L		**747**		8	1.5		**1080**		8	1.5		**356**		8	1.5		**411**		8	1.5		**524**		8	1.5		**575**		8	1.5	
Nickel	7440-02-0	6020B	µg/L		0.91	U	4	0.91		**2.1**	J	4	0.91		**2.2**	J	4	0.91		**3.1**	J	4	0.91		**3.9**	J	4	0.91		**1.7**	J	4	0.91	
Potassium	7440-09-7	6020B	µg/L		**1130**		200	112		**2630**		200	112		**632**		200	112		**2980**		200	112		**3090**		200	112		**612**		200	112	
Selenium	7782-49-2	6020B	µg/L		0.59	U	2.5	0.59		0.59	U	2.5	0.59		0.59	U	2.5	0.59		0.59	U	2.5	0.59		0.59	U	2.5	0.59		0.59	U	2.5	0.59	
Silver	7440-22-4	6020B	µg/L	0.12 (12)	0.29	U	2	0.29	0.12	0.29	U	2	0.29	0.12	0.29	U	2	0.29	0.12	0.29	U	2	0.29	0.12	0.29	U	2	0.29	0.12	0.29	U	2	0.29	0.12
Sodium	7440-23-5	6020B	µg/L		**7740**		500	163		**5880**		500	163		**9570**		500	163		**8200**		500	163		**9480**		500	163		**10600**		500	163	
Thallium	7440-28-0	6020B	µg/L	10 (12)	0.21	U	0.8	0.21	10	0.21	U	0.8	0.21	10	0.21	U	0.8	0.21	10	0.21	U	0.8	0.21	10	0.21	U	0.8	0.21	10	0.21	U	0.8	0.21	10
Vanadium	7440-62-2	6020B	µg/L	12 (12)	0.68	U	4	0.68	12	0.68	U	4	0.68	12	0.68	U	4	0.68	12	0.68	U	4	0.68	12	0.68	U	4	0.68	12	0.68	U	4	0.68	12
Zinc	7440-66-6	6020B	µg/L		**13.6**	J	16	6.5		6.5	U	16	6.5		6.5	U	16	6.5		6.5	U	16	6.5		6.5	U	16	6.5		6.5	U	16	6.5	
Mercury	7439-97-6	7470A	µg/L		0.091	U	0.2	0.091		0.091	U	0.2	0.091		0.091	U	0.2	0.091		0.091	U	0.2	0.091		0.091	U	0.2	0.091		0.091	U	0.2	0.091	
Cyanide, Total	57-12-5	9012B	mg/L	0.0052 (12)	0.005	U	0.01	0.005	0.0052	0.005	U	0.01	0.005	0.0052	0.005	U	0.01	0.005	0.0052	0.004	U	0.01	0.004	0.0052	0.004	U	0.01	0.004	0.0052	0.005	U	0.01	0.005	0.0052
Metals (Dissolved)																																	
Aluminum	7429-90-5	6020B	µg/L	100 (15)	19.5	U	40	19.5	100	29.2	J	40	19.5	100	21.9	J	40	19.5	100	19.5	U	40	19.5	100	19.5	U	40	19.5	100	20	J	40	19.5	100
Antimony	7440-36-0	6020B	µg/L	80 (12)	0.76	U	2	0.76	80	0.76	U	2	0.76	80	0.76	U	2	0.76	80	0.76	U	2	0.76	80	0.76	U	2	0.76	80	0.76	U	2	0.76	80
Arsenic	7440-38-2	6020B	µg/L	150 (12)	2.1		2	0.89	150	1.2	J	2	0.89	150	2.6		2	0.89	150	0.89	U	2	0.89	150	0.89	U	2	0.89	150	0.89	U	2	0.89	150
Barium	7440-39-3	6020B	µg/L	220 (12)	**256**		4	0.91	220	**383**		4	0.91	220	**389**		4	0.91	220	**408**		4	0.91	220	**446**		4	0.91	220	**345**		4	0.91	220
Beryllium	7440-41-7	6020B	µg/L	3.6 (12)	0.13	U	0.8	0.13	3.6	0.13	U	0.8	0.13	3.6	0.13	U	0.8	0.13	3.6	0.13	U	0.8	0.13	3.6	0.13	U	0.8	0.13	3.6	0.13	U	0.8	0.13	3.6
Cadmium	7440-43-9	6020B	µg/L	Hard calc (12)	0.39	U	2	0.39	0.33	0.39	U	2	0.39	0.33	0.39	U	2	0.39	0.32	0.39	U	2	0.39	0.39	0.39	U	2	0.39	0.39	0.39	U	2	0.39	0.53
Calcium	7440-70-2	6020B	µg/L		76600		500	53.6		85800		500	53.6		75900		500	53.6		99600		500	53.6		101000		500	53.6		147000		500	53.6	
Chromium	7440-47-3	6020B	µg/L	42 (12)	2.5	U	4	2.5	42	2.5	U	4	2.5	42	2.5	U	4	2.5	42	2.5	U	4	2.5	42	2.5	U	4	2.5	42	2.5	U	4	2.5	42
Cobalt	7440-48-4	6020B	µg/L	24 (12)	0.71	U	4	0.71	24	1.9	J	4	0.71	24	0.71	U	4	0.71	24	0.71	U	4	0.71	24	0.91	J	4	0.71	24	0.71	U	4	0.71	24
Copper	7440-50-8	6020B	µg/L	Hard calc (12)	2.5	U	4	2.5	17.19	2.5	U	4	2.5	17.77	2.5	U	4	2.5	17.07	2.5	U	4	2.5	21.16	2.5	U	4	2.5	21.29	2.5	U	4	2.5	30.22
Iron	7439-89-6	6020B	µg/L	158 (14)	**24300**		120	58.2	158	**25600**		120	58.2	158	**89600**		120	58.2	158	**28000**		120	58.2	158	**36200**		120	58.2	158	**40600**		120	58.2	158
Lead	7439-92-1	6020B	µg/L	5.4 (12)	0.84	U	1.2	0.84	5.4	0.84	U	1.2	0.84	5.4	0.84	U	1.2	0.84	5.4	0.84	U	1.2	0.84	5.4	0.84	U	1.2	0.84	5.4	0.84	U	1.2	0.84	5.4
Magnesium	7439-95-4	6020B	µg/L		7900		200	46.9		7540		200	46.9		7340		200	46.9		9110		200	46.9		9140		200	46.9		13400		200	46.9	
Manganese	7439-96-5	6020B	µg/L	112 (14)	**735**		8	1.5	112	**1150**		8	1.5	112	**331**		8	1.5	112	**394**		8	1.5	112	**503**		8	1.5	112	**524**		8	1.5	112
Nickel	7440-02-0	6020B	µg/L	Hard calc (12)	4		4	0.91	88.95	3.8	J	4	0.91	91.90	1.9	J	4	0.91	88.29	2.1	J	4	0.91	109.26	5		4	0.91	109.89	1.4	J	4	0.91	155.45
Potassium	7440-09-7	6020B	µg/L		1130		200	112		2620		200	112		612		200	112		3060		200	112		3130		200	112		549		200	112	
Selenium	7782-49-2	6020B	µg/L	5 (12)	0.59	U	2.5	0.59	5	0.59	U	2.5	0.59	5	0.59	U	2.5	0.59	5	0.59	U	2.5	0.59	5	0.59	U	2.5	0.59	5	0.59	U	2.5	0.59	5
Silver	7440-22-4	6020B	µg/L	0.12 (12)	0.29	U	2	0.29	0.12	0.29	U	2	0.29	0.12	0.29	U	2	0.29	0.12	0.29	U	2	0.29	0.12	0.29	U	2	0.29	0.12	0.29	U	2	0.29	0.12
Sodium	7440-23-5	6020B	µg/L		7800		500	163		6100	J	500	163		9050		500	163		7660		500	163		6920		500	163		9920		500	163	
Thallium	7440-28-0	6020B	µg/L	0.03 (14)	0.21	U	0.8	0.21	0.03	0.21	U	0.8	0.21	0.03	0.21	U	0.8	0.21	0.03	0.21	U	0.8	0.21	0.03	0.21	U	0.8	0.21	0.03	0.21	U	0.8	0.21	0.03
Vanadium	7440-62-2	6020B	µg/L	12 (12)	0.68	U	4	0.68	12	0.68	U	4	0.68	12	0.68	U	4	0.68	12	0.68	U	4	0.68	12	0.68	U	4	0.68	12	0.68	U	4	0.68	12
Zinc	7440-66-6	6020B	µg/L	Hard calc (12)	12.9	J	16	6.5	229.68	11.7	J	16	6.5	237.31	6.5	U	16	6.5	227.98	6.5	U	16	6.5	282.20	6.5	U	16	6.5	283.84	6.5	U	16	6.5	401.73
Mercury	7439-97-6	7470A	µg/L	0.77 (12)	0.12	J	0.2	0.091	0.77	0.11	J	0.2	0.091	0.77	0.091	U	0.2	0.091	0.77	0.13	J	0.2	0.091	0.77	0.12	J	0.2	0.091	0.77	0.091	U	0.2	0.091	0.77

Table 5.18 - Pore Water: Metals and Cyanide Analytical Results

(continued)

Rolling Knolls Landfill

Sample Name				ESC's	PW18_0.1-1.1					PW19_0.1-1.1					PW20_0.1-1.1					PW21_0.1-1.1					PW22_0.1-1.1					PW102_0.1-1.1 (PW22_0.1-1.1 duplicate)				
Sample Date/Time					05/20/2021 09:45					05/20/2021 11:34					05/20/2021 16:30					05/21/2021 08:43					05/21/2021 09:10					05/21/2021 09:10				
Latitude					40.7238223					40.72418595					40.72413425					40.72457915					40.72444765					40.72444765				
Longitude					-74.44300078					-74.44291979					-74.44283622					-74.44297636					-74.44258986					-74.44258986				
Lab Sample Name				Screening Criteria	GS-S-PWT018-0.1-1.1					GS-S-PWT019-0.1-1.1					GS-S-PWT020-0.1-1.1					GS-S-PWT021-0.1-1.1					GS-S-PWT22-0.1-1.1					GS-S-PWT102-0.1-1.1				
Lab Sample Number					460-234972-3					460-235250-3					460-235250-4					460-235398-1					460-235399-4					460-235399-5				
Lab Report Number(s)					460-234972-1					460-235250-1					460-235250-1					460-235398-1					460-235399-1					460-235399-1				
Analyte	**CAS**	**Method**	**Units**		**Result**	**LDC Flag**	**RL**	**MDL (EDL)**	**ESC**	**Result**	**LDC Flag**	**RL**	**MDL (EDL)**	**ESC**	**Result**	**LDC Flag**	**RL**	**MDL (EDL)**	**ESC**	**Result**	**LDC Flag**	**RL**	**MDL (EDL)**	**ESC**	**Result**	**LDC Flag**	**RL**	**MDL (EDL)**	**ESC**	**Result**	**LDC Flag**	**RL**	**MDL (EDL)**	**ESC**
Metals (Total)																																
Aluminum	7429-90-5	6020B	µg/L		**25.1**	J	40	19.5		**21**	J	40	19.5		19.5	U	40	19.5		19.5	U	40	19.5		**26.3**	J	40	19.5		**23.7**	J	40	19.5	
Antimony	7440-36-0	6020B	µg/L	80 (12)	0.76	U	2	0.76	80	0.76	U	2	0.76	80	0.76	U	2	0.76	80	0.76	U	2	0.76	80	0.76	U	2	0.76	80	0.76	U	2	0.76	80
Arsenic	7440-38-2	6020B	µg/L		**1.1**	J	2	0.89		0.89	U	2	0.89		0.89	U	2	0.89		**1.4**	J	2	0.89		0.89	U	2	0.89		0.89	U	2	0.89	
Barium	7440-39-3	6020B	µg/L	220 (12)	**234**		4	0.91	220	**416**		4	0.91	220	**337**		4	0.91	220	**494**		4	0.91	220	**335**		4	0.91	220	**330**		4	0.91	220
Beryllium	7440-41-7	6020B	µg/L	3.6 (12)	0.13	U	0.8	0.13	3.6	0.13	U	0.8	0.13	3.6	0.13	U	0.8	0.13	3.6	0.13	U	0.8	0.13	3.6	0.13	U	0.8	0.13	3.6	0.13	U	0.8	0.13	3.6
Cadmium	7440-43-9	6020B	µg/L		0.39	U	2	0.39		0.39	U	2	0.39		0.39	U	2	0.39		0.39	U	2	0.39		0.39	U	2	0.39		0.39	U	2	0.39	
Calcium	7440-70-2	6020B	µg/L		**110000**		500	53.6		**133000**		500	53.6		**113000**		500	53.6		**96200**		500	53.6		**94500**		500	53.6		**92700**		500	53.6	
Chromium	7440-47-3	6020B	µg/L	42 (12)	2.5	U	4	2.5	42	2.5	U	4	2.5	42	2.5	U	4	2.5	42	2.5	U	4	2.5	42	2.5	U	4	2.5	42	2.5	U	4	2.5	42
Cobalt	7440-48-4	6020B	µg/L	24 (12)	0.71	U	4	0.71	24	0.73	J	4	0.71	24	0.71	U	4	0.71	24	1.2	J	4	0.71	24	0.75	J	4	0.71	24	0.71	U	4	0.71	24
Copper	7440-50-8	6020B	µg/L		2.5	U	4	2.5		2.5	U	4	2.5		2.5	U	4	2.5		**2.7**	J	4	2.5		2.5	U	4	2.5		2.5	U	4	2.5	
Iron	7439-89-6	6020B	µg/L		**8700**		120	58.2		**38000**		120	58.2		**22800**		120	58.2		**25800**		120	58.2		**22200**		120	58.2		**22100**		120	58.2	
Lead	7439-92-1	6020B	µg/L		0.84	U	1.2	0.84		0.84	U	1.2	0.84		0.84	U	1.2	0.84		**1.2**		1.2	0.84		0.84	U	1.2	0.84		**1**	U	1.2	0.84	
Magnesium	7439-95-4	6020B	µg/L		**12100**		200	46.9		**11300**		200	46.9		**10500**		200	46.9		**7990**		200	46.9		**9500**		200	46.9		**9230**		200	46.9	
Manganese	7439-96-5	6020B	µg/L		**589**		8	1.5		**408**		8	1.5		**481**		8	1.5		**191**		8	1.5		**622**		8	1.5		**581**		8	1.5	
Nickel	7440-02-0	6020B	µg/L		**2.4**	J	4	0.91		**4**		4	0.91		**6.2**		4	0.91		**9.9**		4	0.91		**5.1**		4	0.91		**4.9**		4	0.91	
Potassium	7440-09-7	6020B	µg/L		**1050**		200	112		**1470**		200	112		**2520**		200	112		**5230**		200	112		**2270**		200	112		**2010**		200	112	
Selenium	7782-49-2	6020B	µg/L		0.59	U	2.5	0.59		0.59	U	2.5	0.59		0.59	U	2.5	0.59		0.59	U	2.5	0.59		0.59	U	2.5	0.59		0.59	U	2.5	0.59	
Silver	7440-22-4	6020B	µg/L	0.12 (12)	0.29	U	2	0.29	0.12	0.29	U	2	0.29	0.12	0.29	U	2	0.29	0.12	0.29	U	2	0.29	0.12	0.29	U	2	0.29	0.12	0.29	U	2	0.29	0.12
Sodium	7440-23-5	6020B	µg/L		**9900**		500	163		**8280**		500	163		**10600**		500	163		**7600**		500	163		**7570**		500	163		**7170**		500	163	
Thallium	7440-28-0	6020B	µg/L	10 (12)	0.21	U	0.8	0.21	10	0.21	U	0.8	0.21	10	0.21	U	0.8	0.21	10	0.21	U	0.8	0.21	10	0.21	U	0.8	0.21	10	0.26	U	0.8	0.21	10
Vanadium	7440-62-2	6020B	µg/L	12 (12)	0.68	U	4	0.68	12	0.68	U	4	0.68	12	0.68	U	4	0.68	12	0.68	U	4	0.68	12	0.68	U	4	0.68	12	0.68	U	4	0.68	12
Zinc	7440-66-6	6020B	µg/L		6.5	U	16	6.5		6.5	U	16	6.5		6.5	U	16	6.5		**141**		16	6.5		6.5	U	16	6.5		6.5	U	16	6.5	
Mercury	7439-97-6	7470A	µg/L		0.091	U	0.2	0.091		0.091	U	0.2	0.091		0.091	U	0.2	0.091		0.091	U	0.2	0.091		0.091	U	0.2	0.091		0.091	U	0.2	0.091	
Cyanide, Total	57-12-5	9012B	mg/L	0.0052 (12)					0.0052	0.004	U	0.01	0.004	0.0052	0.004	U	0.01	0.004	0.0052	0.004	U	0.01	0.004	0.0052	0.004	U	0.01	0.004	0.0052	0.004	U	0.01	0.004	0.0052
Metals (Dissolved)																																
Aluminum	7429-90-5	6020B	µg/L	100 (15)	22.8	J	40	19.5	100	19.5	U	40	19.5	100	19.5	U	40	19.5	100	19.5	U	40	19.5	100	19.5	U	40	19.5	100	19.5	U	40	19.5	100
Antimony	7440-36-0	6020B	µg/L	80 (12)	0.76	U	2	0.76	80	0.76	U	2	0.76	80	0.76	U	2	0.76	80	0.76	U	2	0.76	80	0.76	U	2	0.76	80	0.76	U	2	0.76	80
Arsenic	7440-38-2	6020B	µg/L	150 (12)	0.89	U	2	0.89	150	0.89	U	2	0.89	150	0.89	U	2	0.89	150	1.1	J	2	0.89	150	0.89	U	2	0.89	150	0.89	U	2	0.89	150
Barium	7440-39-3	6020B	µg/L	220 (12)	**252**		4	0.91	220	**420**		4	0.91	220	**346**		4	0.91	220	**423**		4	0.91	220	**344**		4	0.91	220	**339**		4	0.91	220
Beryllium	7440-41-7	6020B	µg/L	3.6 (12)	0.13	U	0.8	0.13	3.6	0.13	U	0.8	0.13	3.6	0.13	U	0.8	0.13	3.6	0.13	U	0.8	0.13	3.6	0.13	U	0.8	0.13	3.6	0.13	U	0.8	0.13	3.6
Cadmium	7440-43-9	6020B	µg/L	Hard calc (12)	0.39	U	2	0.39	0.42	0.39	U	2	0.39	0.47	0.39	U	2	0.39	0.42	0.39	U	2	0.39	0.37	0.39	U	2	0.39	0.37	0.39	U	2	0.39	0.37
Calcium	7440-70-2	6020B	µg/L		114000		500	53.6		132000		500	53.6		111000		500	53.6		92000		500	53.6		94100		500	53.6		94400		500	53.6	
Chromium	7440-47-3	6020B	µg/L	42 (12)	2.5	U	4	2.5	42	2.5	U	4	2.5	42	2.5	U	4	2.5	42	2.5	U	4	2.5	42	2.5	U	4	2.5	42	2.5	U	4	2.5	42
Cobalt	7440-48-4	6020B	µg/L	24 (12)	0.75	J	4	0.71	24	0.75	J	4	0.71	24	0.72	J	4	0.71	24	1.1	J	4	0.71	24	0.78	J	4	0.71	24	0.79	J	4	0.71	24
Copper	7440-50-8	6020B	µg/L	Hard calc (12)	2.5	U	4	2.5	23.19	2.5	U	4	2.5	26.39	2.5	U	4	2.5	23.25	2.6	J	4	2.5	19.98	2.5	U	4	2.5	20.11	2.5	U	4	2.5	19.79
Iron	7439-89-6	6020B	µg/L	158 (14)	**9140**		120	58.2	158	**38000**		120	58.2	158	**23000**		120	58.2	158	**23700**		120	58.2	158	**22300**		120	58.2	158	**22400**		120	58.2	158
Lead	7439-92-1	6020B	µg/L	5.4 (12)	0.84	U	1.2	0.84	5.4	0.84	U	1.2	0.84	5.4	0.84	U	1.2	0.84	5.4	0.96	J	1.2	0.84	5.4	0.84	U	1.2	0.84	5.4	0.84	U	1.2	0.84	5.4
Magnesium	7439-95-4	6020B	µg/L		12600		200	46.9		11500		200	46.9		10600		200	46.9		7260		200	46.9		9610		200	46.9		9690		200	46.9	
Manganese	7439-96-5	6020B	µg/L	112 (14)	**608**		8	1.5	112	**399**		8	1.5	112	**472**		8	1.5	112	**178**		8	1.5	112	**581**		8	1.5	112	**582**		8	1.5	112
Nickel	7440-02-0	6020B	µg/L	Hard calc (12)	2.4	J	4	0.91	119.62	3.3	J	4	0.91	135.92	4.7		4	0.91	119.93	8.4		4	0.91	103.21	4.1		4	0.91	103.85	4.4		4	0.91	102.25
Potassium	7440-09-7	6020B	µg/L		1080		200	112		1570		200	112		2760		200	112		4780		200	112		2100		200	112		2110		200	112	
Selenium	7782-49-2	6020B	µg/L	5 (12)	0.59	U	2.5	0.59	5	0.59	U	2.5	0.59	5	0.59	U	2.5	0.59	5	0.59	U	2.5	0.59	5	0.59	U	2.5	0.59	5	0.59	U	2.5	0.59	5
Silver	7440-22-4	6020B	µg/L	0.12 (12)	0.29	U	2	0.29	0.12	0.29	U	2	0.29	0.12	0.29	U	2	0.29	0.12	0.29	U	2	0.29	0.12	0.29	U	2	0.29	0.12	0.29	U	2	0.29	0.12
Sodium	7440-23-5	6020B	µg/L		9970		500	163		8450		500	163		9600		500	163		7030		500	163		7530		500	163		7600		500	163	
Thallium	7440-28-0	6020B	µg/L	0.03 (14)	0.21	U	0.8	0.21	0.03	0.21	U	0.8	0.21	0.03	0.21	U	0.8	0.21	0.03	0.21	U	0.8	0.21	0.03	0.21	U	0.8	0.21	0.03	0.21	U	0.8	0.21	0.03
Vanadium	7440-62-2	6020B	µg/L	12 (12)	0.68	U	4	0.68	12	0.68	U	4	0.68	12	0.68	U	4	0.68	12	0.68	U	4	0.68	12	0.68	U	4	0.68	12	0.68	U	4	0.68	12
Zinc	7440-66-6	6020B	µg/L	Hard calc (12)	6.5	U	16	6.5	309.00	6.5	U	16	6.5	351.20	6.5	U	16	6.5	309.81	135		16	6.5	266.56	6.5	U	16	6.5	268.22	6.5	U	16	6.5	264.08
Mercury	7439-97-6	7470A	µg/L	0.77 (12)	0.091	U	0.2	0.091	0.77	0.15	J	0.2	0.091	0.77	0.15	J	0.2	0.091	0.77	0.091	U	0.2	0.091	0.77	0.091	U	0.2	0.091	0.77	0.091	U	0.2	0.091	0.77

Table 5.18 - Pore Water: Metals and Cyanide Analytical Results

(continued)

Rolling Knolls Landfill

Sample Name				ESC's	PW23_0.2-1.2					PW24_0.1-1.1					PW25_0.2-1.2					PW26_0.1-1.1					PW27_0.1-1.1					PW28_0.1-1.1				
Sample Date/Time					05/21/2021 12:37					05/21/2021 13:08					05/23/2021 11:48					05/23/2021 12:00					05/24/2021 09:00					05/24/2021 10:00				
Latitude					40.7247828					40.72489946					40.72512321					40.72504571					40.72541272					40.72552247				
Longitude					-74.44247662					-74.44253506					-74.44235862					-74.44201259					-74.44125584					-74.44165043				
Lab Sample Name				Screening Criteria	GS-S-PWT23-0.2-1.2					GS-S-PWT24-0.1-1.1					GS-S-PWT25-0.2-1.2					GS-S-PWT026-0.1-1.1					GS-S-PWT27-0.1-1.1					GS-S-PWT28-0.1-1.1				
Lab Sample Number					460-235398-2					460-235399-3					460-235399-2					460-235399-1					460-235498-3					460-235498-2				
Lab Report Number(s)					460-235398-1					460-235399-1					460-235399-1					460-235399-1					460-235498-1					460-235498-1				
Analyte	CAS	Method	Units		Result	LDC Flag	RL	MDL (EDL)	ESC	Result	LDC Flag	RL	MDL (EDL)	ESC	Result	LDC Flag	RL	MDL (EDL)	ESC	Result	LDC Flag	RL	MDL (EDL)	ESC	Result	LDC Flag	RL	MDL (EDL)	ESC	Result	LDC Flag	RL	MDL (EDL)	ESC
Metals (Total)																																	
Aluminum	7429-90-5	6020B	µg/L		**23**	J	40	19.5		19.5	U	40	19.5							**29.6**	J	40	19.5		**23.2**	J	40	19.5						
Antimony	7440-36-0	6020B	µg/L	80 (12)	0.76	U	2	0.76	80	0.76	U	2	0.76	80						0.76	U	2	0.76	80	0.76	U	2	0.76	80					
Arsenic	7440-38-2	6020B	µg/L		0.89	U	2	0.89		0.89	U	2	0.89							**1**	J	2	0.89		**1.2**	J	2	0.89						
Barium	7440-39-3	6020B	µg/L	220 (12)	**368**		4	0.91	220	**450**		4	0.91	220						**241**		4	0.91	220	**257**		4	0.91	220					
Beryllium	7440-41-7	6020B	µg/L	3.6 (12)	0.13	U	0.8	0.13	3.6	0.13	U	0.8	0.13	3.6						0.13	U	0.8	0.13	3.6	0.13	U	0.8	0.13	3.6					
Cadmium	7440-43-9	6020B	µg/L		0.39	U	2	0.39		0.39	U	2	0.39							0.39	U	2	0.39		0.39	U	2	0.39						
Calcium	7440-70-2	6020B	µg/L		**97700**		500	53.6		**119000**		500	53.6							**99300**		500	53.6		**73400**		500	53.6						
Chromium	7440-47-3	6020B	µg/L	42 (12)	2.5	U	4	2.5	42	2.5	U	4	2.5	42						2.5	U	4	2.5	42	2.5	U	4	2.5	42					
Cobalt	7440-48-4	6020B	µg/L	24 (12)	0.71	U	4	0.71	24	0.71	U	4	0.71	24						0.71	U	4	0.71	24	0.87	J	4	0.71	24					
Copper	7440-50-8	6020B	µg/L		2.5	U	4	2.5		2.5	U	4	2.5							2.5	U	4	2.5		**2.9**	J	4	2.5						
Iron	7439-89-6	6020B	µg/L		**15300**		120	58.2		**11500**		120	58.2							**15800**		120	58.2		**18300**		120	58.2						
Lead	7439-92-1	6020B	µg/L		**1**	U	1.2	0.84		0.84	U	1.2	0.84							0.84	U	1.2	0.84		0.84	U	1.2	0.84						
Magnesium	7439-95-4	6020B	µg/L		**10000**		200	46.9		**11000**		200	46.9							**12200**		200	46.9		**7120**		200	46.9						
Manganese	7439-96-5	6020B	µg/L		**359**		8	1.5		**407**		8	1.5							**491**		8	1.5		**582**		8	1.5						
Nickel	7440-02-0	6020B	µg/L		**3.8**	J	4	0.91		**3.7**	J	4	0.91							**2**	J	4	0.91		**2.7**	U	4	0.91						
Potassium	7440-09-7	6020B	µg/L		**3050**		200	112		**4780**		200	112							**2130**		200	112		**3100**		200	112						
Selenium	7782-49-2	6020B	µg/L		0.59	U	2.5	0.59		0.59	U	2.5	0.59							0.59	U	2.5	0.59		0.59	U	2.5	0.59						
Silver	7440-22-4	6020B	µg/L	0.12 (12)	0.29	U	2	0.29	0.12	0.29	U	2	0.29	0.12						0.29	U	2	0.29	0.12	0.29	U	2	0.29	0.12					
Sodium	7440-23-5	6020B	µg/L		**7960**		500	163		**8000**		500	163							**11300**		500	163		**5340**		500	163						
Thallium	7440-28-0	6020B	µg/L	10 (12)	0.28	U	0.8	0.21	10	0.21	U	0.8	0.21	10						0.21	U	0.8	0.21	10	0.21	U	0.8	0.21	10					
Vanadium	7440-62-2	6020B	µg/L	12 (12)	0.68	U	4	0.68	12	0.68	U	4	0.68	12						0.68	U	4	0.68	12	0.68	U	4	0.68	12					
Zinc	7440-66-6	6020B	µg/L		6.5	U	16	6.5		6.5	U	16	6.5							6.5	U	16	6.5		**22.5**		16	6.5						
Mercury	7439-97-6	7470A	µg/L		0.091	U	0.2	0.091		0.091	U	0.2	0.091							0.091	U	0.2	0.091		0.091	U	0.2	0.091						
Cyanide, Total	57-12-5	9012B	mg/L	0.0052 (12)	**0.0096**	J	0.01	0.004	0.0052	0.004	U	0.01	0.004	0.0052						0.004	U	0.01	0.004	0.0052	0.004	U	0.01	0.004	0.0052					
Metals (Dissolved)																																	
Aluminum	7429-90-5	6020B	µg/L	100 (15)	19.5	U	40	19.5	100	19.5	U	40	19.5	100	19.5	U	40	19.5	100	19.5	U	40	19.5	100	22.1	J	40	19.5	100	23.1	J	40	19.5	100
Antimony	7440-36-0	6020B	µg/L	80 (12)	0.76	U	2	0.76	80	0.76	U	2	0.76	80	0.76	U	2	0.76	80	0.76	U	2	0.76	80	0.76	U	2	0.76	80	0.76	U	2	0.76	80
Arsenic	7440-38-2	6020B	µg/L	150 (12)	0.89	U	2	0.89	150	0.89	U	2	0.89	150	0.89	U	2	0.89	150	0.89	U	2	0.89	150	1.2	J	2	0.89	150	1.1	J	2	0.89	150
Barium	7440-39-3	6020B	µg/L	220 (12)	**358**		4	0.91	220	**417**		4	0.91	220	**279**		4	0.91	220	**236**		4	0.91	220	**228**		4	0.91	220	**479**		4	0.91	220
Beryllium	7440-41-7	6020B	µg/L	3.6 (12)	0.13	U	0.8	0.13	3.6	0.13	U	0.8	0.13	3.6	0.13	U	0.8	0.13	3.6	0.13	U	0.8	0.13	3.6	0.13	U	0.8	0.13	3.6	0.13	U	0.8	0.13	3.6
Cadmium	7440-43-9	6020B	µg/L	Hard calc (12)	0.39	U	2	0.39	0.38	0.39	U	2	0.39	0.44	0.39	U	2	0.39	No Calc	0.39	U	2	0.39	0.40	0.39	U	2	0.39	0.31	0.39	U	2	0.39	No Calc
Calcium	7440-70-2	6020B	µg/L		96800		500	53.6		108000		500	53.6		98600		500	53.6		93700		500	53.6		65500		500	53.6		54900		500	53.6	
Chromium	7440-47-3	6020B	µg/L	42 (12)	2.5	U	4	2.5	42	2.5	U	4	2.5	42	2.5	U	4	2.5	42	2.5	U	4	2.5	42	2.5	U	4	2.5	42	2.5	U	4	2.5	42
Cobalt	7440-48-4	6020B	µg/L	24 (12)	0.71	U	4	0.71	24	0.71	U	4	0.71	24	0.71	U	4	0.71	24	0.71	U	4	0.71	24	0.73	J	4	0.71	24	1.8	J	4	0.71	24
Copper	7440-50-8	6020B	µg/L	Hard calc (12)	2.5	U	4	2.5	20.73	2.5	U	4	2.5	24.28	2.5	U	4	2.5	No Calc	2.5	U	4	2.5	21.53	2.5	U	4	2.5	16.16	6.9		4	2.5	No Calc
Iron	7439-89-6	6020B	µg/L	158 (14)	**14500**		120	58.2	158	**10400**		120	58.2	158	**11000**		120	58.2	158	**14800**		120	58.2	158	**16900**		120	58.2	158	**39500**		120	58.2	158
Lead	7439-92-1	6020B	µg/L	5.4 (12)	0.84	U	1.2	0.84	5.4	0.84	U	1.2	0.84	5.4	0.84	U	1.2	0.84	5.4	0.84	U	1.2	0.84	5.4	0.84	U	1.2	0.84	5.4	**10.4**		1.2	0.84	5.4
Magnesium	7439-95-4	6020B	µg/L		9640		200	46.9		10200		200	46.9		12200		200	46.9		11900		200	46.9		6590		200	46.9		5790		200	46.9	
Manganese	7439-96-5	6020B	µg/L	112 (14)	**342**		8	1.5	112	**363**		8	1.5	112	**291**		8	1.5	112	**464**		8	1.5	112	**558**		8	1.5	112	**688**		8	1.5	112
Nickel	7440-02-0	6020B	µg/L	Hard calc (12)	2.9	J	4	0.91	107.04	2.9	J	4	0.91	125.20	1.4	J	4	0.91	No Calc	1.4	J	4	0.91	111.15	1.4	U	4	0.91	83.66	10.4		4	0.91	No Calc
Potassium	7440-09-7	6020B	µg/L		2960		200	112		4420		200	112		1590		200	112		2060		200	112		2750		200	112		2750		200	112	
Selenium	7782-49-2	6020B	µg/L	5 (12)	0.59	U	2.5	0.59	5	0.59	U	2.5	0.59	5	0.59	U	2.5	0.59	5	0.59	U	2.5	0.59	5	0.59	U	2.5	0.59	5	0.59	U	2.5	0.59	5
Silver	7440-22-4	6020B	µg/L	0.12 (12)	0.29	U	2	0.29	0.12	0.29	U	2	0.29	0.12	0.29	U	2	0.29	0.12	0.29	U	2	0.29	0.12	0.29	U	2	0.29	0.12	0.29	U	2	0.29	0.12
Sodium	7440-23-5	6020B	µg/L		7440		500	163		7370		500	163		8120		500	163		7970		500	163		4950		500	163		5930		500	163	
Thallium	7440-28-0	6020B	µg/L	0.03 (14)	0.21	U	0.8	0.21	0.03	0.21	U	0.8	0.21	0.03	0.21	U	0.8	0.21	0.03	0.21	U	0.8	0.21	0.03	0.21	U	0.8	0.21	0.03	0.21	U	0.8	0.21	0.03
Vanadium	7440-62-2	6020B	µg/L	12 (12)	0.68	U	4	0.68	12	0.68	U	4	0.68	12	0.68	U	4	0.68	12	0.68	U	4	0.68	12	0.68	U	4	0.68	12	0.68	U	4	0.68	12
Zinc	7440-66-6	6020B	µg/L	Hard calc (12)	6.5	U	16	6.5	276.46	6.5	U	16	6.5	323.44	6.5	U	16	6.5	No Calc	6.5	U	16	6.5	287.11	6.5	U	16	6.5	216.01	41		16	6.5	No Calc
Mercury	7439-97-6	7470A	µg/L	0.77 (12)	0.091	U	0.2	0.091	0.77	0.091	U	0.2	0.091	0.77	0.091	U	0.2	0.091	0.77	0.091	U	0.2	0.091	0.77	0.091	U	0.2	0.091	0.77	0.091	J	0.2	0.091	0.77

Table 5.18 - Pore Water: Metals and Cyanide Analytical Results

(continued)

Rolling Knolls Landfill

Sample Name				ESC's	PW29_0.2-1.2					PW30_0.1-1.1					PW31_0.1-1.1					PW32_0.3-1.3					PW33_0.1-1.1					PW34_0.2-1.2				
Sample Date/Time					05/24/2021 11:12					05/24/2021 11:30					05/24/2021 16:00					05/24/2021 17:00					05/25/2021 10:20					05/25/2021 12:06				
Latitude					40.7258865					40.72580561					40.7274107					40.72740334					40.72829546					40.72830226				
Longitude					-74.44140482					-74.44119472					-74.43949673					-74.43971321					-74.44055948					-74.44017466				
Lab Sample Name				Screening Criteria	GS-S-PWT029-0.2-1.2					GS-S-PWT30-0.1-1.1					GS-S-PWT31.0-1-1.1					GS-N-PWT032-0.3-1.3					GS-N-PWT33_0.1-1.1					GS-N-PWT34-0.2-1.2				
Lab Sample Number					460-235438-1					460-235498-4					460-235438-2					460-235498-1					460-235492-1					460-235495-1				
Lab Report Number(s)					460-235438-1					460-235498-1					460-235438-1					460-235498-1					460-235492-1					460-235495-1				
Analyte	CAS	Method	Units		Result	LDC Flag	RL	MDL (EDL)	ESC	Result	LDC Flag	RL	MDL (EDL)	ESC	Result	LDC Flag	RL	MDL (EDL)	ESC	Result	LDC Flag	RL	MDL (EDL)	ESC	Result	LDC Flag	RL	MDL (EDL)	ESC	Result	LDC Flag	RL	MDL (EDL)	ESC
Metals (Total)																																	
Aluminum	7429-90-5	6020B	µg/L		19.5	U	40	19.5		19.5	U	40	19.5		**24.9**	J	40	19.5		**22.7**	J	40	19.5		19.5	U	40	19.5		**94.6**		40	19.5	
Antimony	7440-36-0	6020B	µg/L	80 (12)	0.76	U	2	0.76	80	0.76	U	2	0.76	80	0.76	U	2	0.76	80	0.76	U	2	0.76	80	0.76	U	2	0.76	80	0.76	U	2	0.76	80
Arsenic	7440-38-2	6020B	µg/L		0.89	U	2	0.89		**1.4**	J	2	0.89		**1.1**	J	2	0.89		**2.9**		2	0.89		**1.6**	J	2	0.89		0.89	U	2	0.89	
Barium	7440-39-3	6020B	µg/L	220 (12)	**527**		4	0.91	220	**463**		4	0.91	220	202		4	0.91	220	**225**		4	0.91	220	**435**		4	0.91	220	74.4		4	0.91	220
Beryllium	7440-41-7	6020B	µg/L	3.6 (12)	0.13	U	0.8	0.13	3.6	0.13	U	0.8	0.13	3.6	0.13	U	0.8	0.13	3.6	0.13	U	0.8	0.13	3.6	0.13	U	0.8	0.13	3.6	0.13	U	0.8	0.13	3.6
Cadmium	7440-43-9	6020B	µg/L		0.39	U	2	0.39		0.39	U	2	0.39		0.39	U	2	0.39		0.39	U	2	0.39		0.39	U	2	0.39		0.39	U	2	0.39	
Calcium	7440-70-2	6020B	µg/L		**95100**		500	53.6		**86600**		500	53.6		**55200**		500	53.6		**76500**		500	53.6		**81900**		500	53.6		**44800**		500	53.6	
Chromium	7440-47-3	6020B	µg/L	42 (12)	2.5	U	4	2.5	42	2.5	U	4	2.5	42	2.5	U	4	2.5	42	2.5	U	4	2.5	42	2.5	U	4	2.5	42	2.5	U	4	2.5	42
Cobalt	7440-48-4	6020B	µg/L	24 (12)	1.5	J	4	0.71	24	1.6	J	4	0.71	24	2.1	J	4	0.71	24	1.6	J	4	0.71	24	2.8	J	4	0.71	24	1.8	J	4	0.71	24
Copper	7440-50-8	6020B	µg/L		2.5	U	4	2.5		2.5	U	4	2.5		2.5	U	4	2.5		2.5	U	4	2.5		**8.1**		4	2.5		2.5	U	4	2.5	
Iron	7439-89-6	6020B	µg/L		**19100**		120	58.2		**24600**		120	58.2		**25600**		120	58.2		**17200**		120	58.2		**32900**		120	58.2		**15900**		120	58.2	
Lead	7439-92-1	6020B	µg/L		0.84	U	1.2	0.84		0.84	U	1.2	0.84		0.84	U	1.2	0.84		0.84	U	1.2	0.84		**3.4**		1.2	0.84		0.84	U	1.2	0.84	
Magnesium	7439-95-4	6020B	µg/L		**7900**		200	46.9		**7730**		200	46.9		**6410**		200	46.9		**8070**		200	46.9		**6790**		200	46.9		**9820**		200	46.9	
Manganese	7439-96-5	6020B	µg/L		**602**		8	1.5		**477**		8	1.5		**1060**		8	1.5		**407**		8	1.5		**887**		8	1.5		**875**		8	1.5	
Nickel	7440-02-0	6020B	µg/L		**6.7**		4	0.91		**4.8**		4	0.91		**5.7**		4	0.91		**5.4**		4	0.91		**18.5**		4	0.91		**5.8**		4	0.91	
Potassium	7440-09-7	6020B	µg/L		**3100**		200	112		**3080**		200	112		**3150**		200	112		**2240**		200	112		**2560**		200	112		**1830**		200	112	
Selenium	7782-49-2	6020B	µg/L		0.59	U	2.5	0.59		0.59	U	2.5	0.59		0.59	U	2.5	0.59		0.59	U	2.5	0.59		0.59	U	2.5	0.59		0.59	U	2.5	0.59	
Silver	7440-22-4	6020B	µg/L	0.12 (12)	0.29	U	2	0.29	0.12	0.29	U	2	0.29	0.12	0.29	U	2	0.29	0.12	0.29	U	2	0.29	0.12	0.29	U	2	0.29	0.12	0.29	U	2	0.29	0.12
Sodium	7440-23-5	6020B	µg/L		**5570**		500	163		**5580**		500	163		**9370**		500	163		**6470**		500	163		**6530**		500	163		**10600**		500	163	
Thallium	7440-28-0	6020B	µg/L	10 (12)	0.21	U	0.8	0.21	10	0.21	U	0.8	0.21	10	0.21	U	0.8	0.21	10	0.21	U	0.8	0.21	10	0.21	U	0.8	0.21	10	0.21	U	0.8	0.21	10
Vanadium	7440-62-2	6020B	µg/L	12 (12)	0.68	U	4	0.68	12	0.68	U	4	0.68	12	0.68	U	4	0.68	12	0.68	U	4	0.68	12	0.68	U	4	0.68	12	1.3	J	4	0.68	12
Zinc	7440-66-6	6020B	µg/L		**11.1**	J	16	6.5		**7.2**	J	16	6.5		**8.1**	J	16	6.5		**7.1**	J	16	6.5		**30.1**		16	6.5		**9.7**	J	16	6.5	
Mercury	7439-97-6	7470A	µg/L		0.091	U	0.2	0.091		0.091	U	0.2	0.091		0.091	U	0.2	0.091		0.091	U	0.2	0.091		0.091	U	0.2	0.091		0.091	U	0.2	0.091	
Cyanide, Total	57-12-5	9012B	mg/L	0.0052 (12)	0.005	U	0.01	0.005	0.0052	0.004	U	0.01	0.004	0.0052	0.005	U	0.01	0.005	0.0052	0.004	U	0.01	0.004	0.0052	0.004	U	0.01	0.004	0.0052	0.004	U	0.01	0.004	0.0052
Metals (Dissolved)																																	
Aluminum	7429-90-5	6020B	µg/L	100 (15)	19.5	U	40	19.5	100	19.5	U	40	19.5	100	19.5	U	40	19.5	100	19.5	U	40	19.5	100	19.5	U	40	19.5	100	77.5		40	19.5	100
Antimony	7440-36-0	6020B	µg/L	80 (12)	0.76	U	2	0.76	80	0.76	U	2	0.76	80	0.76	U	2	0.76	80	0.76	U	2	0.76	80	0.76	U	2	0.76	80	0.76	U	2	0.76	80
Arsenic	7440-38-2	6020B	µg/L	150 (12)	0.89	U	2	0.89	150	1.3	J	2	0.89	150	1.1	J	2	0.89	150	1.1	J	2	0.89	150	1.4	J	2	0.89	150	0.89	U	2	0.89	150
Barium	7440-39-3	6020B	µg/L	220 (12)	**523**		4	0.91	220	**419**		4	0.91	220	202		4	0.91	220	**476**		4	0.91	220	**387**		4	0.91	220	66.5		4	0.91	220
Beryllium	7440-41-7	6020B	µg/L	3.6 (12)	0.13	U	0.8	0.13	3.6	0.13	U	0.8	0.13	3.6	0.13	U	0.8	0.13	3.6	0.13	U	0.8	0.13	3.6	0.13	U	0.8	0.13	3.6	0.13	U	0.8	0.13	3.6
Cadmium	7440-43-9	6020B	µg/L	Hard calc (12)	0.39	U	2	0.39	0.37	0.39	U	2	0.39	0.35	0.39	U	2	0.39	0.25	0.39	U	2	0.39	0.32	0.39	U	2	0.39	0.33	0.39	U	2	0.39	0.24
Calcium	7440-70-2	6020B	µg/L		92000		500	53.6		78100		500	53.6		53200		500	53.6		53900		500	53.6		71200		500	53.6		41700		500	53.6	
Chromium	7440-47-3	6020B	µg/L	42 (12)	2.5	U	4	2.5	42	2.5	U	4	2.5	42	2.5	U	4	2.5	42	2.5	U	4	2.5	42	2.5	U	4	2.5	42	2.5	U	4	2.5	42
Cobalt	7440-48-4	6020B	µg/L	24 (12)	1.5	J	4	0.71	24	1.5	J	4	0.71	24	1.9	J	4	0.71	24	1.7	J	4	0.71	24	2.5	J	4	0.71	24	1.6	J	4	0.71	24
Copper	7440-50-8	6020B	µg/L	Hard calc (12)	2.5	U	4	2.5	19.79	2.5	U	4	2.5	18.41	2.5	U	4	2.5	12.93	2.5	U	4	2.5	16.87	2.5	U	4	2.5	17.39	2.5	U	4	2.5	12.11
Iron	7439-89-6	6020B	µg/L	158 (14)	**18300**		120	58.2	158	**22800**		120	58.2	158	**23000**		120	58.2	158	**38100**		120	58.2	158	**29200**		120	58.2	158	**14600**		120	58.2	158
Lead	7439-92-1	6020B	µg/L	5.4 (12)	0.84	U	1.2	0.84	5.4	0.84	U	1.2	0.84	5.4	0.84	U	1.2	0.84	5.4	0.84	U	1.2	0.84	5.4	0.84	U	1.2	0.84	5.4	0.84	U	1.2	0.84	5.4
Magnesium	7439-95-4	6020B	µg/L		8060		200	46.9		7130		200	46.9		6240		200	46.9		5870		200	46.9		6200		200	46.9		9590		200	46.9	
Manganese	7439-96-5	6020B	µg/L	112 (14)	**624**		8	1.5	112	**434**		8	1.5	112	**996**		8	1.5	112	**687**		8	1.5	112	**802**		8	1.5	112	**814**		8	1.5	112
Nickel	7440-02-0	6020B	µg/L	Hard calc (12)	6.2		4	0.91	102.25	3.2	U	4	0.91	95.16	4.4		4	0.91	67.06	10		4	0.91	87.31	15.4		4	0.91	89.94	4.2		4	0.91	62.89
Potassium	7440-09-7	6020B	µg/L		3290		200	112		2710		200	112		3170		200	112		2780		200	112		2240		200	112		1730		200	112	
Selenium	7782-49-2	6020B	µg/L	5 (12)	0.59	U	2.5	0.59	5	0.59	U	2.5	0.59	5	0.59	U	2.5	0.59	5	0.59	U	2.5	0.59	5	0.59	U	2.5	0.59	5	0.59	U	2.5	0.59	5
Silver	7440-22-4	6020B	µg/L	0.12 (12)	0.29	U	2	0.29	0.12	0.29	U	2	0.29	0.12	0.29	U	2	0.29	0.12	0.29	U	2	0.29	0.12	0.29	U	2	0.29	0.12	0.29	U	2	0.29	0.12
Sodium	7440-23-5	6020B	µg/L		5640		500	163		5130		500	163		8780		500	163		5880		500	163		5940		500	163		10200		500	163	
Thallium	7440-28-0	6020B	µg/L	0.03 (14)	0.21	U	0.8	0.21	0.03	0.21	U	0.8	0.21	0.03	0.21	U	0.8	0.21	0.03	0.21	U	0.8	0.21	0.03	0.21	U	0.8	0.21	0.03	0.21	U	0.8	0.21	0.03
Vanadium	7440-62-2	6020B	µg/L	12 (12)	0.68	U	4	0.68	12	0.68	U	4	0.68	12	0.68	U	4	0.68	12	0.68	U	4	0.68	12	0.68	U	4	0.68	12	1.4	J	4	0.68	12
Zinc	7440-66-6	6020B	µg/L	Hard calc (12)	6.5	U	16	6.5	264.08	6.8	J	16	6.5	245.73	6.5	U	16	6.5	173.09	32.6		16	6.5	225.43	23.7		16	6.5	232.23	6.5	U	16	6.5	162.30
Mercury	7439-97-6	7470A	µg/L	0.77 (12)	0.091	U	0.2	0.091	0.77	0.091	U	0.2	0.091	0.77	0.091	U	0.2	0.091	0.77	0.091	U	0.2	0.091	0.77	0.091	U	0.2	0.091	0.77	0.091	U	0.2	0.091	0.77

Table 5.18 - Pore Water: Metals and Cyanide Analytical Results (continued)

Rolling Knolls Landfill

Sample Name				ESC's	PW35_0.2-1.2					PW36_0.4-1.4					PW103_0.4-1.4 (PW36_0.4-1.4 duplicate)					PW37_0.2-1.2					PW38_0.1-1.1					PW39_0.2-1.2				
Sample Date/Time					05/25/2021 13:19					05/25/2021 16:08					05/25/2021 16:08					05/26/2021 10:18					05/26/2021 11:40					05/26/2021 14:19				
Latitude					40.72937246					40.7301228					40.7301228					40.73049011					40.73060103					40.73124949				
Longitude					-74.440396					-74.44071487					-74.44071487					-74.44113923					-74.44084939					-74.44141117				
Lab Sample Name				Screening Criteria	GS-N-PWT35-0.2-1.2					GS-N-PWT36-0.4-1.4					GS-N-PWT103-0.4-1.4					GS-N-PWT037-0.2-1.2					GS-N-PWT38-0.1-1.1					GS-N-PWT39-0.2-1.2				
Lab Sample Number					460-235495-2					460-235495-3					460-235495-4					460-235554-1					460-235554-2					460-235554-4				
Lab Report Number(s)					460-235495-1					460-235495-1					460-235495-1					460-235554-1					460-235554-1					460-235554-1				
Analyte	**CAS**	**Method**	**Units**		**Result**	**LDC Flag**	**RL**	**MDL (EDL)**	**ESC**	**Result**	**LDC Flag**	**RL**	**MDL (EDL)**	**ESC**	**Result**	**LDC Flag**	**RL**	**MDL (EDL)**	**ESC**	**Result**	**LDC Flag**	**RL**	**MDL (EDL)**	**ESC**	**Result**	**LDC Flag**	**RL**	**MDL (EDL)**	**ESC**	**Result**	**LDC Flag**	**RL**	**MDL (EDL)**	**ESC**
Metals (Total)																																	
Aluminum	7429-90-5	6020B	µg/L		**86.9**		40	19.5		**473**		40	19.5		**490**		40	19.5		**37.4**	J	40	19.5							**20.7**	J	40	19.5	
Antimony	7440-36-0	6020B	µg/L	80 (12)	0.76	U	2	0.76	80	0.76	U	2	0.76	80	0.76	U	2	0.76	80	0.76	U	2	0.76	80					0.76	U	2	0.76	80
Arsenic	7440-38-2	6020B	µg/L		0.89	U	2	0.89		**1.7**	J	2	0.89		**2**		2	0.89		**1.7**	J	2	0.89							**2**		2	0.89	
Barium	7440-39-3	6020B	µg/L	220 (12)	90.1		4	0.91	220	129		4	0.91	220	122		4	0.91	220	**472**		4	0.91	220						**634**		4	0.91	220
Beryllium	7440-41-7	6020B	µg/L	3.6 (12)	0.13	U	0.8	0.13	3.6	0.13	U	0.8	0.13	3.6	0.13	U	0.8	0.13	3.6	0.13	U	0.8	0.13	3.6					0.13	U	0.8	0.13	3.6
Cadmium	7440-43-9	6020B	µg/L		0.39	U	2	0.39		0.39	U	2	0.39		0.39	U	2	0.39		0.39	J	2	0.39							**0.45**	J	2	0.39	
Calcium	7440-70-2	6020B	µg/L		**25300**		500	53.6		**47700**		500	53.6		**48100**		500	53.6		**86800**		500	53.6							**61100**		500	53.6	
Chromium	7440-47-3	6020B	µg/L	42 (12)	2.5	U	4	2.5	42	2.5	U	4	2.5	42	2.5	U	4	2.5	42	2.5	U	4	2.5	42					2.5	U	4	2.5	42
Cobalt	7440-48-4	6020B	µg/L	24 (12)	0.71	U	4	0.71	24	5.1		4	0.71	24	5.2		4	0.71	24	3	J	4	0.71	24						1.8	J	4	0.71	24
Copper	7440-50-8	6020B	µg/L		2.5	U	4	2.5		2.5	U	4	2.5		2.5	U	4	2.5		**21.3**		4	2.5							**4.7**		4	2.5	
Iron	7439-89-6	6020B	µg/L		**9120**		120	58.2		**17000**		120	58.2		**17600**		120	58.2		**55800**		120	58.2							**97700**		120	58.2	
Lead	7439-92-1	6020B	µg/L		**0.9**	J	1.2	0.84		**1.3**		1.2	0.84		**1.3**		1.2	0.84		**7.1**		1.2	0.84							**4.8**		1.2	0.84	
Magnesium	7439-95-4	6020B	µg/L		**5510**		200	46.9		**8400**		200	46.9		**8160**		200	46.9		**6710**		200	46.9							**6060**		200	46.9	
Manganese	7439-96-5	6020B	µg/L		**540**		8	1.5		**655**		8	1.5		**653**		8	1.5		**780**		8	1.5							**850**		8	1.5	
Nickel	7440-02-0	6020B	µg/L		**2.2**	U	4	0.91		**5.6**		4	0.91		**5.7**		4	0.91		**13.7**		4	0.91							**11.3**		4	0.91	
Potassium	7440-09-7	6020B	µg/L		**2700**		200	112		**2170**		200	112		**2200**		200	112		**2280**		200	112							**3290**		200	112	
Selenium	7782-49-2	6020B	µg/L		0.59	U	2.5	0.59		0.59	U	2.5	0.59		0.59	U	2.5	0.59		0.59	U	2.5	0.59							0.59	U	2.5	0.59	
Silver	7440-22-4	6020B	µg/L	0.12 (12)	0.29	U	2	0.29	0.12	0.29	U	2	0.29	0.12	0.29	U	2	0.29	0.12	0.29	U	2	0.29	0.12					0.29	U	2	0.29	0.12
Sodium	7440-23-5	6020B	µg/L		**23300**		500	163		**5130**		500	163		**5130**		500	163		**7940**		500	163							**7040**		500	163	
Thallium	7440-28-0	6020B	µg/L	10 (12)	0.21	U	0.8	0.21	10	0.21	U	0.8	0.21	10	0.21	U	0.8	0.21	10	0.21	U	0.8	0.21	10					0.21	U	0.8	0.21	10
Vanadium	7440-62-2	6020B	µg/L	12 (12)	1.5	J	4	0.68	12	2.6	J	4	0.68	12	2.7	J	4	0.68	12	0.68	U	4	0.68	12					0.68	U	4	0.68	12
Zinc	7440-66-6	6020B	µg/L		6.5	U	16	6.5		**8.8**	J	16	6.5		**14.8**	J	16	6.5		**60.7**		16	6.5							**73.3**		16	6.5	
Mercury	7439-97-6	7470A	µg/L		0.091	U	0.2	0.091		0.091	U	0.2	0.091		0.091	U	0.2	0.091		0.091	U	0.2	0.091							0.091	U	0.2	0.091	
Cyanide, Total	57-12-5	9012B	mg/L	0.0052 (12)	0.004	U	0.01	0.004	0.0052	0.004	U	0.01	0.004	0.0052	0.004	U	0.01	0.004	0.0052	0.004	U	0.01	0.004	0.0052									0.0052
Metals (Dissolved)																																	
Aluminum	7429-90-5	6020B	µg/L	100 (15)	70.1		40	19.5	100	**440**		40	19.5	100	**440**		40	19.5	100	19.5	U	40	19.5	100	19.5	U	40	19.5	100	19.5	U	40	19.5	100
Antimony	7440-36-0	6020B	µg/L	80 (12)	0.76	U	2	0.76	80	0.76	U	2	0.76	80	0.76	U	2	0.76	80	0.76	U	2	0.76	80	0.76	U	2	0.76	80	0.76	U	2	0.76	80
Arsenic	7440-38-2	6020B	µg/L	150 (12)	0.89	U	2	0.89	150	1.5	J	2	0.89	150	1.6	J	2	0.89	150	1.7	J	2	0.89	150	0.89	U	2	0.89	150	0.89	U	2	0.89	150
Barium	7440-39-3	6020B	µg/L	220 (12)	86.4		4	0.91	220	114		4	0.91	220	117		4	0.91	220	**446**		4	0.91	220	**849**		4	0.91	220	**452**		4	0.91	220
Beryllium	7440-41-7	6020B	µg/L	3.6 (12)	0.13	U	0.8	0.13	3.6	0.13	U	0.8	0.13	3.6	0.13	U	0.8	0.13	3.6	0.13	U	0.8	0.13	3.6	0.13	U	0.8	0.13	3.6	0.13	U	0.8	0.13	3.6
Cadmium	7440-43-9	6020B	µg/L	Hard calc (12)	0.39	U	2	0.39	0.16	0.39	U	2	0.39	0.24	0.39	U	2	0.39	0.24	0.39	U	2	0.39	0.34	0.39	U	2	0.39	No Calc	0.39	U	2	0.39	No Calc
Calcium	7440-70-2	6020B	µg/L		25900		500	53.6		46200		500	53.6		45700		500	53.6		85300		500	53.6		96000		500	53.6		60200		500	53.6	
Chromium	7440-47-3	6020B	µg/L	42 (12)	2.5	U	4	2.5	42	2.5	U	4	2.5	42	2.5	U	4	2.5	42	2.5	U	4	2.5	42	2.5	U	4	2.5	42	2.5	U	4	2.5	42
Cobalt	7440-48-4	6020B	µg/L	24 (12)	0.71	U	4	0.71	24	4.8		4	0.71	24	4.7		4	0.71	24	2.9	J	4	0.71	24	2.9	J	4	0.71	24	1.6	J	4	0.71	24
Copper	7440-50-8	6020B	µg/L	Hard calc (12)	2.5	U	4	2.5	7.45	2.5	U	4	2.5	12.25	2.5	U	4	2.5	12.25	3.6	J	4	2.5	18.15	2.5	U	4	2.5	No Calc	2.5	U	4	2.5	No Calc
Iron	7439-89-6	6020B	µg/L	158 (14)	**8750**		120	58.2	158	**16500**		120	58.2	158	**16000**		120	58.2	158	**51600**		120	58.2	158	**81200**		120	58.2	158	**41400**		120	58.2	158
Lead	7439-92-1	6020B	µg/L	5.4 (12)	0.84	U	1.2	0.84	5.4	0.84	U	1.2	0.84	5.4	0.84	U	1.2	0.84	5.4	0.99	J	1.2	0.84	5.4	0.84	U	1.2	0.84	5.4	0.84	U	1.2	0.84	5.4
Magnesium	7439-95-4	6020B	µg/L		5610		200	46.9		8140		200	46.9		8150		200	46.9		6750		200	46.9		7700		200	46.9		6290		200	46.9	
Manganese	7439-96-5	6020B	µg/L	112 (14)	**528**		8	1.5	112	**625**		8	1.5	112	**627**		8	1.5	112	**733**		8	1.5	112	**2030**		8	1.5	112	**793**		8	1.5	112
Nickel	7440-02-0	6020B	µg/L	Hard calc (12)	1.8	J	4	0.91	38.84	5.2		4	0.91	63.59	5.3		4	0.91	63.59	11.9		4	0.91	93.86	4.8		4	0.91	No Calc	8.9		4	0.91	No Calc
Potassium	7440-09-7	6020B	µg/L		2740		200	112		2120		200	112		2100		200	112		2320		200	112		1070		200	112		3260		200	112	
Selenium	7782-49-2	6020B	µg/L	5 (12)	0.59	U	2.5	0.59	5	0.59	U	2.5	0.59	5	0.59	U	2.5	0.59	5	0.59	U	2.5	0.59	5	0.59	U	2.5	0.59	5	0.59	U	2.5	0.59	5
Silver	7440-22-4	6020B	µg/L	0.12 (12)	0.29	U	2	0.29	0.12	0.29	U	2	0.29	0.12	0.29	U	2	0.29	0.12	0.29	U	2	0.29	0.12	0.29	U	2	0.29	0.12	0.29	U	2	0.29	0.12
Sodium	7440-23-5	6020B	µg/L		24300		500	163		4940		500	163		4980		500	163		8150		500	163		7210		500	163		7920		500	163	
Thallium	7440-28-0	6020B	µg/L	0.03 (14)	0.21	U	0.8	0.21	0.03	0.21	U	0.8	0.21	0.03	0.21	U	0.8	0.21	0.03	0.21	U	0.8	0.21	0.03	0.21	U	0.8	0.21	0.03	0.21	U	0.8	0.21	0.03
Vanadium	7440-62-2	6020B	µg/L	12 (12)	1.3	J	4	0.68	12	2.7	J	4	0.68	12	2.7	J	4	0.68	12	0.68	U	4	0.68	12	0.68	U	4	0.68	12	0.68	U	4	0.68	12
Zinc	7440-66-6	6020B	µg/L	Hard calc (12)	6.5	U	16	6.5	100.17	10.4	J	16	6.5	164.11	10	J	16	6.5	164.11	42.3		16	6.5	242.37	7.8	J	16	6.5	No Calc	14.3	J	16	6.5	No Calc
Mercury	7439-97-6	7470A	µg/L	0.77 (12)	0.091	U	0.2	0.091	0.77	0.091	U	0.2	0.091	0.77	0.091	U	0.2	0.091	0.77	0.091	U	0.2	0.091	0.77	0.091	U	0.2	0.091	0.77	0.091	U	0.2	0.091	0.77

Table 5.18 - Pore Water: Metals and Cyanide Analytical Results

(continued)

Rolling Knolls Landfill

Sample Name				ESC's	PW40_0.1-1.1					PW41_0.2-1.2					PW42_0.1-1.1					PW43_0.4-1.4					PW44_0.1-1.1					PW45_0.1-1.1				
Sample Date/Time					05/26/2021 14:20					05/27/2021 10:44					05/27/2021 10:50					05/27/2021 13:00					06/01/2021 11:05					06/01/2021 13:50				
Latitude					40.73132942					40.72630201					40.7267825					40.72743339					40.72381503					40.72413479				
Longitude					-74.4410877					-74.44023138					-74.4399115					-74.44007544					-74.44982242					-74.4444308				
Lab Sample Name				Screening Criteria	GS-N-PWT40-0.1-1.1					GS-N-PWT41-0.2-1.2					GS-N-PWT42-0.1-1.1					GS-N-PWT43-0.4-1.4					GS-S-PWT44-0.1-1.1					GS-S-PWT45-0.1-1.1				
Lab Sample Number					460-235554-3					460-235584-1					460-235584-2					460-235584-3					460-235699-1					460-235699-2				
Lab Report Number(s)					460-235554-1					460-235584-1					460-235584-1					460-235584-1					460-235699-1					460-235699-1				
Analyte	**CAS**	**Method**	**Units**		**Result**	**LDC Flag**	**RL**	**MDL (EDL)**	**ESC**	**Result**	**LDC Flag**	**RL**	**MDL (EDL)**	**ESC**	**Result**	**LDC Flag**	**RL**	**MDL (EDL)**	**ESC**	**Result**	**LDC Flag**	**RL**	**MDL (EDL)**	**ESC**	**Result**	**LDC Flag**	**RL**	**MDL (EDL)**	**ESC**	**Result**	**LDC Flag**	**RL**	**MDL (EDL)**	**ESC**
Metals (Total)																																	
Aluminum	7429-90-5	6020B	µg/L							**26.2**	J	40	19.5		**81.8**		40	19.5		19.5	U	40	19.5		**216**		40	19.5		19.5	U	40	19.5	
Antimony	7440-36-0	6020B	µg/L	80 (12)						0.76	U	2	0.76	80	0.76	U	2	0.76	80	0.76	U	2	0.76	80	0.76	U	2	0.76	80	0.76	U	2	0.76	80
Arsenic	7440-38-2	6020B	µg/L							**1.4**	J	2	0.89		0.89	U	2	0.89		**1.6**	J	2	0.89		**1.6**	J	2	0.89		0.89	U	2	0.89	
Barium	7440-39-3	6020B	µg/L	220 (12)						**329**		4	0.91	220	**624**		4	0.91	220	**488**		4	0.91	220	50		4	0.91	220	**495**		4	0.91	220
Beryllium	7440-41-7	6020B	µg/L	3.6 (12)						0.13	U	0.8	0.13	3.6	0.13	U	0.8	0.13	3.6	0.13	U	0.8	0.13	3.6	0.13	U	0.8	0.13	3.6	0.13	U	0.8	0.13	3.6
Cadmium	7440-43-9	6020B	µg/L							0.39	U	2	0.39		0.39	U	2	0.39		0.39	U	2	0.39		0.39	U	2	0.39		0.39	U	2	0.39	
Calcium	7440-70-2	6020B	µg/L							**40800**		500	53.6		**62700**		500	53.6		**69800**		500	53.6		**17600**		500	53.6		**129000**		500	53.6	
Chromium	7440-47-3	6020B	µg/L	42 (12)						2.5	U	4	2.5	42	2.5	U	4	2.5	42	2.5	U	4	2.5	42	2.5	U	4	2.5	42	2.5	U	4	2.5	42
Cobalt	7440-48-4	6020B	µg/L	24 (12)						1.7	J	4	0.71	24	5.2		4	0.71	24	2.4	J	4	0.71	24	1.7	J	4	0.71	24	3.4	J	4	0.71	24
Copper	7440-50-8	6020B	µg/L							2.5	U	4	2.5		**22.2**		4	2.5		2.5	U	4	2.5		2.5	U	4	2.5		2.5	U	4	2.5	
Iron	7439-89-6	6020B	µg/L							**45700**		120	58.2		**50500**		120	58.2		**31400**		120	58.2		**2080**		120	58.2		**37200**		120	58.2	
Lead	7439-92-1	6020B	µg/L							**2.7**		1.2	0.84		**22.2**		1.2	0.84		0.84	U	1.2	0.84		**1.2**		1.2	0.84		0.84	U	1.2	0.84	
Magnesium	7439-95-4	6020B	µg/L							**5110**		200	46.9		**5920**		200	46.9		**6260**		200	46.9		**4190**		200	46.9		**10200**		200	46.9	
Manganese	7439-96-5	6020B	µg/L							**344**		8	1.5		**785**		8	1.5		**487**		8	1.5		**95.5**		8	1.5		**496**		8	1.5	
Nickel	7440-02-0	6020B	µg/L							**7.6**		4	0.91		**15.8**		4	0.91		**11.9**		4	0.91		**2.6**	J	4	0.91		**7.6**		4	0.91	
Potassium	7440-09-7	6020B	µg/L							**4750**		200	112		**2240**		200	112		**3830**		200	112		**1330**		200	112		**1860**		200	112	
Selenium	7782-49-2	6020B	µg/L							0.59	U	2.5	0.59		0.59	U	2.5	0.59		0.59	U	2.5	0.59		0.59	U	2.5	0.59		0.59	U	2.5	0.59	
Silver	7440-22-4	6020B	µg/L	0.12 (12)						0.29	U	2	0.29	0.12	0.29	U	2	0.29	0.12	0.29	U	2	0.29	0.12	0.29	U	2	0.29	0.12	0.29	U	2	0.29	0.12
Sodium	7440-23-5	6020B	µg/L							**5860**		500	163		**5340**		500	163		**5660**		500	163		**8480**		500	163		**7110**		500	163	
Thallium	7440-28-0	6020B	µg/L	10 (12)						0.21	U	0.8	0.21	10	0.21	U	0.8	0.21	10	0.21	U	0.8	0.21	10	0.21	U	0.8	0.21	10	0.21	U	0.8	0.21	10
Vanadium	7440-62-2	6020B	µg/L	12 (12)						0.68	U	4	0.68	12	0.68	U	4	0.68	12	0.68	U	4	0.68	12	2.3	J	4	0.68	12	0.68	U	4	0.68	12
Zinc	7440-66-6	6020B	µg/L							**19.1**		16	6.5		**104**		16	6.5		**22.7**		16	6.5		**10.6**	J	16	6.5		**14.7**	J	16	6.5	
Mercury	7439-97-6	7470A	µg/L							0.091	U	0.2	0.091		0.091	U	0.2	0.091		0.091	U	0.2	0.091		0.091	U	0.2	0.091		0.091	U	0.2	0.091	
Cyanide, Total	57-12-5	9012B	mg/L	0.0052 (12)						0.004	J	0.01	0.004	0.0052	**0.013**		0.01	0.004	0.0052	**0.028**		0.01	0.004	0.0052	**0.021**	J	0.01	0.004	0.0052	0.004	U	0.01	0.004	0.0052
Metals (Dissolved)																																	
Aluminum	7429-90-5	6020B	µg/L	100 (15)	19.5	U	40	19.5	100	19.5	U	40	19.5	100	19.5	U	40	19.5	100	19.5	U	40	19.5	100	**227**		40	19.5	100	19.5	U	40	19.5	100
Antimony	7440-36-0	6020B	µg/L	80 (12)	0.76	U	2	0.76	80	0.76	U	2	0.76	80	0.76	U	2	0.76	80	0.76	U	2	0.76	80	0.76	U	2	0.76	80	0.76	U	2	0.76	80
Arsenic	7440-38-2	6020B	µg/L	150 (12)	0.89	U	2	0.89	150	1.2	J	2	0.89	150	0.96	J	2	0.89	150	1.4	J	2	0.89	150	1.6	J	2	0.89	150	0.89	U	2	0.89	150
Barium	7440-39-3	6020B	µg/L	220 (12)	**237**		4	0.91	220	**336**		4	0.91	220	**685**		4	0.91	220	**525**		4	0.91	220	46.2		4	0.91	220	**468**		4	0.91	220
Beryllium	7440-41-7	6020B	µg/L	3.6 (12)	0.13	U	0.8	0.13	3.6	0.13	U	0.8	0.13	3.6	0.13	U	0.8	0.13	3.6	0.13	U	0.8	0.13	3.6	0.13	U	0.8	0.13	3.6	0.13	U	0.8	0.13	3.6
Cadmium	7440-43-9	6020B	µg/L	Hard calc (12)	0.39	U	2	0.39	No Calc	0.39	U	2	0.39	0.21	0.39	U	2	0.39	0.27	0.39	U	2	0.39	0.29	0.39	U	2	0.39	0.12	0.39	U	2	0.39	0.46
Calcium	7440-70-2	6020B	µg/L		58900		500	53.6		47600		500	53.6		68900		500	53.6		74300		500	53.6		17200		500	53.6		121000		500	53.6	
Chromium	7440-47-3	6020B	µg/L	42 (12)	2.5	U	4	2.5	42	2.5	U	4	2.5	42	2.5	U	4	2.5	42	2.5	U	4	2.5	42	2.5	U	4	2.5	42	2.5	U	4	2.5	42
Cobalt	7440-48-4	6020B	µg/L	24 (12)	0.71	U	4	0.71	24	1.9	J	4	0.71	24	5.7		4	0.71	24	2.4	J	4	0.71	24	1.6	J	4	0.71	24	3.3	J	4	0.71	24
Copper	7440-50-8	6020B	µg/L	Hard calc (12)	2.5	U	4	2.5	No Calc	2.5	U	4	2.5	10.11	3	J	4	2.5	14.06	2.5	U	4	2.5	15.32	2.6	J	4	2.5	5.57	2.5	U	4	2.5	25.49
Iron	7439-89-6	6020B	µg/L	158 (14)	**21100**		120	58.2	158	**41900**		120	58.2	158	**56400**		120	58.2	158	**33600**		120	58.2	158	**2250**		120	58.2	158	**34900**		120	58.2	158
Lead	7439-92-1	6020B	µg/L	5.4 (12)	0.84	U	1.2	0.84	5.4	0.84	U	1.2	0.84	5.4	2.2		1.2	0.84	5.4	0.84	U	1.2	0.84	5.4	1.9		1.2	0.84	5.4	0.84	U	1.2	0.84	5.4
Magnesium	7439-95-4	6020B	µg/L		7490		200	46.9		6590		200	46.9		6910		200	46.9		7190		200	46.9		4160		200	46.9		9960		200	46.9	
Manganese	7439-96-5	6020B	µg/L	112 (14)	**684**		8	1.5	112	**384**		8	1.5	112	**850**		8	1.5	112	**515**		8	1.5	112	93		8	1.5	112	**484**		8	1.5	112
Nickel	7440-02-0	6020B	µg/L	Hard calc (12)	1.3	J	4	0.91	No Calc	6.9		4	0.91	52.58	16.7		4	0.91	72.90	12.8		4	0.91	79.32	4.5		4	0.91	29.13	8		4	0.91	131.35
Potassium	7440-09-7	6020B	µg/L		2290		200	112		4950		200	112		2490		200	112		4030		200	112		1350		200	112		1770		200	112	
Selenium	7782-49-2	6020B	µg/L	5 (12)	0.59	U	2.5	0.59	5	0.59	U	2.5	0.59	5	0.59	U	2.5	0.59	5	0.59	U	2.5	0.59	5	0.59	U	2.5	0.59	5	0.59	U	2.5	0.59	5
Silver	7440-22-4	6020B	µg/L	0.12 (12)	0.29	U	2	0.29	0.12	0.29	U	2	0.29	0.12	0.29	U	2	0.29	0.12	0.29	U	2	0.29	0.12	0.29	U	2	0.29	0.12	0.29	U	2	0.29	0.12
Sodium	7440-23-5	6020B	µg/L		9990		500	163		7380		500	163		6200		500	163		6390		500	163		8550		500	163		7160		500	163	
Thallium	7440-28-0	6020B	µg/L	0.03 (14)	0.21	U	0.8	0.21	0.03	0.21	U	0.8	0.21	0.03	0.21	U	0.8	0.21	0.03	0.21	U	0.8	0.21	0.03	0.21	U	0.8	0.21	0.03	0.21	U	0.8	0.21	0.03
Vanadium	7440-62-2	6020B	µg/L	12 (12)	0.68	U	4	0.68	12	0.68	U	4	0.68	12	0.68	U	4	0.68	12	0.68	U	4	0.68	12	2.2	J	4	0.68	12	0.68	U	4	0.68	12
Zinc	7440-66-6	6020B	µg/L	Hard calc (12)	6.5	U	16	6.5	No Calc	6.5	U	16	6.5	135.65	93.5		16	6.5	188.18	24.1		16	6.5	204.79	14.6	J	16	6.5	75.09	9.3	J	16	6.5	339.35
Mercury	7439-97-6	7470A	µg/L	0.77 (12)	0.091	U	0.2	0.091	0.77	0.16	J	0.2	0.091	0.77	0.2		0.2	0.091	0.77	0.19	J	0.2	0.091	0.77	0.091	U	0.2	0.091	0.77	0.091	U	0.2	0.091	0.77

Table 5.18 - Pore Water: Metals and Cyanide Analytical Results (continued)

Rolling Knolls Landfill

Sample Name				ESC's	PW100_0.1-1.1 (PW45_0.1-1.1 duplicate)					PW46_0.3-1.3					PW101_0.3-1.3 (PW46-0.3-1.3 duplicate)					PW47_0.1-1.1				
Sample Date/Time					06/01/2021 13:50					06/02/2021 10:20					06/02/2021 10:20					06/02/2021 12:50				
Latitude					40.72413479					40.72975399					40.72975399					40.73048521				
Longitude					-74.4444308					-74.44129459					-74.44129459					-74.44164343				
Lab Sample Name				Screening Criteria	GS-S-PWT100-0.1-1.1					GS-N-PWT46-0.3-1.3					GS-N-PWT101-0.3-1.3					GS-PWT47-0.1-1.1				
Lab Sample Number					460-235699-3					460-235933-1					460-235933-2					460-235933-3				
Lab Report Number(s)					460-235699-1					460-235933-1					460-235933-1					460-235933-1				
Analyte	**CAS**	**Method**	**Units**		**Result**	**LDC Flag**	**RL**	**MDL (EDL)**	**ESC**	**Result**	**LDC Flag**	**RL**	**MDL (EDL)**	**ESC**	**Result**	**LDC Flag**	**RL**	**MDL (EDL)**	**ESC**	**Result**	**LDC Flag**	**RL**	**MDL (EDL)**	**ESC**
Metals (Total)																								
Aluminum	7429-90-5	6020B	µg/L		**22.4**	J	40	19.5		**23**	J	40	19.5		**35.9**	J	40	19.5		**29.5**	J	40	19.5	
Antimony	7440-36-0	6020B	µg/L	80 (12)	0.76	U	2	0.76	80	0.76	U	2	0.76	80	0.76	U	2	0.76	80	1.5	J	2	0.76	80
Arsenic	7440-38-2	6020B	µg/L		0.89	U	2	0.89		**3.6**		2	0.89		**4.3**		2	0.89		0.89	U	2	0.89	
Barium	7440-39-3	6020B	µg/L	220 (12)	**414**		4	0.91	220	**389**		4	0.91	220	**392**		4	0.91	220	**408**		4	0.91	220
Beryllium	7440-41-7	6020B	µg/L	3.6 (12)	0.13	U	0.8	0.13	3.6	0.13	U	0.8	0.13	3.6	0.13	U	0.8	0.13	3.6	0.13	U	0.8	0.13	3.6
Cadmium	7440-43-9	6020B	µg/L		0.39	U	2	0.39		0.39	U	2	0.39		**0.64**	J	2	0.39		**4.7**		2	0.39	
Calcium	7440-70-2	6020B	µg/L		**106000**		500	53.6		**79300**		500	53.6		**78200**		500	53.6		**78900**		500	53.6	
Chromium	7440-47-3	6020B	µg/L	42 (12)	2.5	U	4	2.5	42	2.5	U	4	2.5	42	2.5	U	4	2.5	42	2.5	U	4	2.5	42
Cobalt	7440-48-4	6020B	µg/L	24 (12)	2.8	J	4	0.71	24	4.6		4	0.71	24	4.9		4	0.71	24	3.6	J	4	0.71	24
Copper	7440-50-8	6020B	µg/L		**2.7**	J	4	2.5		2.5	U	4	2.5		**12.5**		4	2.5		**59.3**		4	2.5	
Iron	7439-89-6	6020B	µg/L		**29700**		120	58.2		**51200**		120	58.2		**54300**		120	58.2		**6460**		120	58.2	
Lead	7439-92-1	6020B	µg/L		0.84	U	1.2	0.84		**1.9**		1.2	0.84		**11.5**		1.2	0.84		**6.4**		1.2	0.84	
Magnesium	7439-95-4	6020B	µg/L		**8440**		200	46.9		**6290**		200	46.9		**6840**		200	46.9		**7150**		200	46.9	
Manganese	7439-96-5	6020B	µg/L		**420**		8	1.5		**771**		8	1.5		**841**		8	1.5		**1260**		8	1.5	
Nickel	7440-02-0	6020B	µg/L		**7.9**		4	0.91		**27.2**		4	0.91		**30.5**		4	0.91		**21.8**		4	0.91	
Potassium	7440-09-7	6020B	µg/L		**1550**		200	112		**2030**		200	112		**2150**		200	112		**5220**		200	112	
Selenium	7782-49-2	6020B	µg/L		0.59	U	2.5	0.59		0.59	U	2.5	0.59		0.59	U	2.5	0.59		0.59	U	2.5	0.59	
Silver	7440-22-4	6020B	µg/L	0.12 (12)	0.29	U	2	0.29	0.12	0.29	U	2	0.29	0.12	0.29	U	2	0.29	0.12	**0.38**	J	2	0.29	0.12
Sodium	7440-23-5	6020B	µg/L		**6000**		500	163		**7370**		500	163		**7750**		500	163		**8110**		500	163	
Thallium	7440-28-0	6020B	µg/L	10 (12)	0.21	U	0.8	0.21	10	0.21	U	0.8	0.21	10	0.21	U	0.8	0.21	10	0.21	U	0.8	0.21	10
Vanadium	7440-62-2	6020B	µg/L	12 (12)	0.68	U	4	0.68	12	0.68	U	4	0.68	12	0.68	U	4	0.68	12	0.68	U	4	0.68	12
Zinc	7440-66-6	6020B	µg/L		**45.2**		16	6.5		**42.5**		16	6.5		**50.9**		16	6.5		**411**		16	6.5	
Mercury	7439-97-6	7470A	µg/L		0.091	U	0.2	0.091		0.091	U	0.2	0.091		0.091	U	0.2	0.091		**0.42**		0.2	0.091	
Cyanide, Total	57-12-5	9012B	mg/L	0.0052 (12)	0.004	U	0.01	0.004	0.0052	0.005	U	0.01	0.005	0.0052	0.005	U	0.01	0.005	0.0052	0.005	U	0.01	0.005	0.0052
Metals (Dissolved)																								
Aluminum	7429-90-5	6020B	µg/L	100 (15)	19.5	U	40	19.5	100	28.5	J	40	19.5	100	20	J	40	19.5	100	19.5	U	40	19.5	100
Antimony	7440-36-0	6020B	µg/L	80 (12)	0.76	U	2	0.76	80	0.76	U	2	0.76	80	0.76	U	2	0.76	80	1.3	J	2	0.76	80
Arsenic	7440-38-2	6020B	µg/L	150 (12)	0.89	U	2	0.89	150	3.2		2	0.89	150	3.6		2	0.89	150	0.89	U	2	0.89	150
Barium	7440-39-3	6020B	µg/L	220 (12)	**516**		4	0.91	220	**408**		4	0.91	220	**409**		4	0.91	220	**430**		4	0.91	220
Beryllium	7440-41-7	6020B	µg/L	3.6 (12)	0.13	U	0.8	0.13	3.6	0.13	U	0.8	0.13	3.6	0.13	U	0.8	0.13	3.6	0.13	U	0.8	0.13	3.6
Cadmium	7440-43-9	6020B	µg/L	Hard calc (12)	0.39	U	2	0.39	0.40	0.57	J	2	0.39	No Calc	0.39	U	2	0.39	No Calc	4.2		2	0.39	No Calc
Calcium	7440-70-2	6020B	µg/L		135000		500	53.6		79900		500	53.6		81300		500	53.6		79200		500	53.6	
Chromium	7440-47-3	6020B	µg/L	42 (12)	2.5	U	4	2.5	42	2.5	U	4	2.5	42	2.5	U	4	2.5	42	2.5	U	4	2.5	42
Cobalt	7440-48-4	6020B	µg/L	24 (12)	3.6	J	4	0.71	24	4.4		4	0.71	24	4.3		4	0.71	24	3.3	J	4	0.71	24
Copper	7440-50-8	6020B	µg/L	Hard calc (12)	2.5	U	4	2.5	21.66	10.8		4	2.5	No Calc	2.5	U	4	2.5	No Calc	25.8		4	2.5	No Calc
Iron	7439-89-6	6020B	µg/L	158 (14)	**36800**		120	58.2	158	**51500**		120	58.2	158	**52000**		120	58.2	158	**6770**		120	58.2	158
Lead	7439-92-1	6020B	µg/L	5.4 (12)	0.84	U	1.2	0.84	5.4	**10.3**		1.2	0.84	5.4	0.87	J	1.2	0.84	5.4	1.1	J	1.2	0.84	5.4
Magnesium	7439-95-4	6020B	µg/L		10600		200	46.9		6270		200	46.9		6320		200	46.9		6680		200	46.9	
Manganese	7439-96-5	6020B	µg/L	112 (14)	**528**		8	1.5	112	**782**		8	1.5	112	**761**		8	1.5	112	**1220**		8	1.5	112
Nickel	7440-02-0	6020B	µg/L	Hard calc (12)	8.6		4	0.91	111.78	27.8		4	0.91	No Calc	27.5		4	0.91	No Calc	20.3		4	0.91	No Calc
Potassium	7440-09-7	6020B	µg/L		2000		200	112		2090		200	112		2090		200	112		5070		200	112	
Selenium	7782-49-2	6020B	µg/L	5 (12)	0.59	U	2.5	0.59	5	0.59	U	2.5	0.59	5	0.59	U	2.5	0.59	5	0.59	U	2.5	0.59	5
Silver	7440-22-4	6020B	µg/L	0.12 (12)	0.29	U	2	0.29	0.12	0.29	U	2	0.29	0.12	0.29	U	2	0.29	0.12	0.29	U	2	0.29	0.12
Sodium	7440-23-5	6020B	µg/L		7680		500	163		8280		500	163		7380		500	163		7890		500	163	
Thallium	7440-28-0	6020B	µg/L	0.03 (14)	0.21	U	0.8	0.21	0.03	0.21	U	0.8	0.21	0.03	0.21	U	0.8	0.21	0.03	0.21	U	0.8	0.21	0.03
Vanadium	7440-62-2	6020B	µg/L	12 (12)	0.68	U	4	0.68	12	0.68	U	4	0.68	12	0.68	U	4	0.68	12	0.68	U	4	0.68	12
Zinc	7440-66-6	6020B	µg/L	Hard calc (12)	7.6	J	16	6.5	288.74	47.2		16	6.5	No Calc	38.7		16	6.5	No Calc	353		16	6.5	No Calc
Mercury	7439-97-6	7470A	µg/L	0.77 (12)	0.091	U	0.2	0.091	0.77	0.091	U	0.2	0.091	0.77	0.091	U	0.2	0.091	0.77	0.1	J	0.2	0.091	0.77

Table 5.19 - Pore Water: Volatile Organic Compounds (VOCs) Analytical Results

Rolling Knolls Landfill

	Sample Name			ESC's	PW01_1.5-2.5				PW02_1.5-2.5				PW03_1.5-2.5				PW05_1.0-2.0				PW06.1_1.0-2.0				PW06.2_0.1-1.1				PW07_0.1-1.1			
	Sample Date/Time				05/14/2021 15:00				05/16/2021 15:00				05/14/2021 17:05				05/16/2021 11:05				05/16/2021 13:20				05/17/2021 09:25				05/17/2021 10:31			
	Latitude				40.72335535				40.72342503				40.72348017				40.72273853				40.72279294				40.72246175				40.72236214			
	Longitude				-74.4485393				-74.44713409				-74.44733933				-74.44624019				-74.44605059				-74.44573414				-74.44587602			
	Lab Sample Name			Screening Criteria	GS-S-PWT01-1.5-2.5				GS-S-PWT02-1.5-2.5				GS-S-PWT03-1.5-2.5				GS-S-PWT05-1.0-2.0				GS-S-PWT06-1.0-2.0				GS-S-PWT06_0.1-1.1				GS-S-PWT07_0.1-1.1			
	Lab Sample Number				460-234559-1				460-234561-3				460-234559-2				460-234561-2				460-234561-1				460-234970-1				460-234970-2			
	Lab Report Number(s)				460-234559-1				460-234561-1				460-234559-1				460-234561-1				460-234561-1				460-234970-1				460-234970-1			
Analyte	CAS	Method	Units		Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)
1,1,1-Trichloroethane	71-55-6	8260D	µg/L	76 (12)	0.24	U	1	0.24	0.24	U	1	0.24	0.24	U	1	0.24	0.24	U	1	0.24	0.24	U	1	0.24	0.24	U	1	0.24	0.24	U	1	0.24
1,1,2,2-Tetrachloroethane	79-34-5	8260D	µg/L	380 (12)	0.37	U	1	0.37	0.37	U	1	0.37	0.37	U	1	0.37	0.37	U	1	0.37	0.37	U	1	0.37	0.37	U	1	0.37	0.37	U	1	0.37
1,1,2-Trichloro-1,2,2-trifluoroethane	76-13-1	8260D	µg/L		0.31	U	1	0.31	0.31	U	1	0.31	0.31	U	1	0.31	0.31	U	1	0.31	0.31	U	1	0.31	0.31	U	1	0.31	0.31	U	1	0.31
1,1,2-Trichloroethane	79-00-5	8260D	µg/L	500 (12)	0.2	U	1	0.2	0.2	U	1	0.2	0.2	U	1	0.2	0.2	U	1	0.2	0.2	U	1	0.2	0.2	U	1	0.2	0.2	U	1	0.2
1,1-Dichloroethane	75-34-3	8260D	µg/L	47 (14)	0.26	U	1	0.26	0.26	U	1	0.26	0.26	U	1	0.26	0.26	U	1	0.26	0.26	U	1	0.26	0.26	U	1	0.26	0.26	U	1	0.26
1,1-Dichloroethene	75-35-4	8260D	µg/L	65 (12)	0.26	U	1	0.26	0.26	U	1	0.26	0.26	U	1	0.26	0.26	U	1	0.26	0.26	U	1	0.26	0.26	U	1	0.26	0.26	U	1	0.26
1,2,3-Trichlorobenzene	87-61-6	8260D	µg/L	8 (14)	0.36	U	1	0.36	0.36	U	1	0.36	0.36	U	1	0.36	0.36	U	1	0.36	0.36	U	1	0.36	0.36	U	1	0.36	0.36	U	1	0.36
1,2,4-Trichlorobenzene	120-82-1	8260D	µg/L	30 (12)	0.37	U	1	0.37	0.37	U	1	0.37	0.37	U	1	0.37	0.37	U	1	0.37	0.37	U	1	0.37	0.37	U	1	0.37	0.37	U	1	0.37
1,2-Dibromo-3-Chloropropane	96-12-8	8260D	µg/L		0.38	UJ	1	0.38	0.38	U	1	0.38	0.38	UJ	1	0.38	0.38	U	1	0.38	0.38	U	1	0.38	0.38	U	1	0.38	0.38	U	1	0.38
1,2-Dichlorobenzene	95-50-1	8260D	µg/L	14 (12)	0.21	U	1	0.21	0.21	U	1	0.21	0.21	U	1	0.21	0.21	U	1	0.21	0.21	U	1	0.21	0.21	U	1	0.21	0.21	U	1	0.21
1,2-Dichloroethane	107-06-2	8260D	µg/L	910 (12)	0.43	U	1	0.43	0.43	U	1	0.43	0.43	U	1	0.43	0.43	U	1	0.43	0.43	U	1	0.43	0.43	U	1	0.43	0.43	U	1	0.43
1,2-Dichloropropane	78-87-5	8260D	µg/L	360 (12)	0.35	U	1	0.35	0.35	U	1	0.35	0.35	U	1	0.35	0.35	U	1	0.35	0.35	U	1	0.35	0.35	U	1	0.35	0.35	U	1	0.35
1,3-Dichlorobenzene	541-73-1	8260D	µg/L	38 (12)	0.34	U	1	0.34	0.34	U	1	0.34	0.34	U	1	0.34	0.34	U	1	0.34	0.34	U	1	0.34	0.34	U	1	0.34	0.34	U	1	0.34
1,4-Dichlorobenzene	106-46-7	8260D	µg/L	9.4 (12)	0.33	U	1	0.33	0.33	U	1	0.33	0.33	U	1	0.33	0.33	U	1	0.33	0.33	U	1	0.33	0.33	U	1	0.33	0.33	U	1	0.33
1,4-Dioxane	123-91-1	8260D	µg/L	22000 (6)	28	U	50	28	28	U	50	28	28	U	50	28	28	U	50	28	28	U	50	28	28	U	50	28	28	U	50	28
2-Butanone (MEK)	78-93-3	8260D	µg/L	7200 (14)	1.9	U	5	1.9	1.9	U	5	1.9	1.9	U	5	1.9	1.9	U	5	1.9	1.9	U	5	1.9	1.9	U	5	1.9	1.9	U	5	1.9
2-Hexanone	591-78-6	8260D	µg/L	99 (14)	1.1	U	5	1.1	1.1	U	5	1.1	1.1	U	5	1.1	1.1	U	5	1.1	1.1	U	5	1.1	1.1	U	5	1.1	1.1	U	5	1.1
4-Methyl-2-pentanone (MIBK)	108-10-1	8260D	µg/L	170 (14)	1.3	U	5	1.3	1.3	U	5	1.3	1.3	U	5	1.3	1.3	U	5	1.3	1.3	U	5	1.3	1.3	U	5	1.3	1.3	U	5	1.3
Acetone	67-64-1	8260D	µg/L	1500 (14)	4.4	U	5	4.4	4.4	U	5	4.4	4.4	U	5	4.4	5.2		5	4.4	4.4	U	5	4.4	4.4	U	5	4.4	4.4	U	5	4.4
Benzene	71-43-2	8260D	µg/L	114 (12)	0.2	U	1	0.2	0.2	U	1	0.2	0.2	U	1	0.2	0.2	U	1	0.2	0.2	U	1	0.2	0.2	U	1	0.2	0.2	U	1	0.2
Bromoform	75-25-2	8260D	µg/L	230 (12)	0.54	UJ	1	0.54	0.54	U	1	0.54	0.54	UJ	1	0.54	0.54	U	1	0.54	0.54	U	1	0.54	0.54	U	1	0.54	0.54	U	1	0.54
Bromomethane	74-83-9	8260D	µg/L	16 (12)	0.55	UJ	1	0.55	0.55	UJ	1	0.55	0.55	UJ	1	0.55	0.55	UJ	1	0.55	0.55	UJ	1	0.55	0.55	U	1	0.55	0.55	U	1	0.55
Carbon disulfide	75-15-0	8260D	µg/L	0.92 (14)	0.82	U	1	0.82	0.82	U	1	0.82	0.82	U	1	0.82	0.82	U	1	0.82	0.82	U	1	0.82	0.82	U	1	0.82	0.82	U	1	0.82
Carbon tetrachloride	56-23-5	8260D	µg/L	240 (12)	0.21	U	1	0.21	0.21	U	1	0.21	0.21	U	1	0.21	0.21	U	1	0.21	0.21	U	1	0.21	0.21	U	1	0.21	0.21	U	1	0.21
Chlorobenzene	108-90-7	8260D	µg/L	47 (12)	0.38	U	1	0.38	0.38	U	1	0.38	0.38	U	1	0.38	0.38	U	1	0.38	0.38	U	1	0.38	4.1		1	0.38	0.38	U	1	0.38
Chlorobromomethane	74-97-5	8260D	µg/L		0.41	U	1	0.41	0.41	U	1	0.41	0.41	U	1	0.41	0.41	U	1	0.41	0.41	U	1	0.41	0.41	U	1	0.41	0.41	U	1	0.41
Chlorodibromomethane	124-48-1	8260D	µg/L		0.28	U	1	0.28	0.28	U	1	0.28	0.28	U	1	0.28	0.28	U	1	0.28	0.28	U	1	0.28	0.28	U	1	0.28	0.28	U	1	0.28
Chloroethane	75-00-3	8260D	µg/L		0.32	U	1	0.32	0.32	U	1	0.32	0.32	U	1	0.32	0.32	U	1	0.32	0.32	U	1	0.32	0.32	U	1	0.32	0.32	U	1	0.32
Chloroform	67-66-3	8260D	µg/L	140 (12)	0.33	U	1	0.33	0.33	U	1	0.33	0.33	U	1	0.33	0.33	U	1	0.33	0.33	U	1	0.33	0.33	U	1	0.33	0.33	U	1	0.33
Chloromethane	74-87-3	8260D	µg/L		0.4	UJ	1	0.4	0.4	U	1	0.4	0.4	UJ	1	0.4	0.4	U	1	0.4	0.4	U	1	0.4	0.4	U	1	0.4	0.4	U	1	0.4
cis-1,2-Dichloroethene	156-59-2	8260D	µg/L	590 (14)	0.22	U	1	0.22	0.22	U	1	0.22	0.22	U	1	0.22	0.22	U	1	0.22	0.22	U	1	0.22	0.22	U	1	0.22	0.22	U	1	0.22
cis-1,3-Dichloropropene	10061-01-5	8260D	µg/L	0.055 (14)	0.22	U	1	0.22	0.22	U	1	0.22	0.22	U	1	0.22	0.22	U	1	0.22	0.22	U	1	0.22	0.22	U	1	0.22	0.22	U	1	0.22
Cyclohexane	110-82-7	8260D	µg/L		0.32	U	1	0.32	0.32	U	1	0.32	0.32	U	1	0.32	0.32	U	1	0.32	0.32	U	1	0.32	0.32	U	1	0.32	0.32	U	1	0.32
Dichlorobromomethane	75-27-4	8260D	µg/L		0.34	U	1	0.34	0.34	U	1	0.34	0.34	U	1	0.34	0.34	U	1	0.34	0.34	U	1	0.34	0.34	U	1	0.34	0.34	U	1	0.34
Dichlorodifluoromethane	75-71-8	8260D	µg/L		0.31	U	1	0.31	0.31	UJ	1	0.31	0.31	U	1	0.31	0.31	UJ	1	0.31	0.31	UJ	1	0.31	0.31	U	1	0.31	0.31	U	1	0.31
Ethylbenzene	100-41-4	8260D	µg/L	14 (12)	0.3	U	1	0.3	0.3	U	1	0.3	0.3	U	1	0.3	0.3	U	1	0.3	0.3	U	1	0.3	0.3	U	1	0.3	0.3	U	1	0.3
Ethylene Dibromide	106-93-4	8260D	µg/L		0.5	U	1	0.5	0.5	U	1	0.5	0.5	U	1	0.5	0.5	U	1	0.5	0.5	U	1	0.5	0.5	U	1	0.5	0.5	U	1	0.5
Isopropylbenzene	98-82-8	8260D	µg/L		0.34	U	1	0.34	0.34	U	1	0.34	0.34	U	1	0.34	0.34	U	1	0.34	0.34	U	1	0.34	0.34	U	1	0.34	0.34	U	1	0.34
Methyl acetate	79-20-9	8260D	µg/L		0.79	U	5	0.79	0.79	U	5	0.79	0.79	U	5	0.79	0.79	U	5	0.79	0.79	U	5	0.79	0.79	U	5	0.79	0.79	U	5	0.79
Methyl tert-butyl ether	1634-04-4	8260D	µg/L	51000 (12)	0.22	U	1	0.22	0.22	U	1	0.22	0.22	U	1	0.22	0.22	U	1	0.22	0.22	U	1	0.22	0.22	U	1	0.22	0.22	U	1	0.22
Methylcyclohexane	108-87-2	8260D	µg/L		0.71	U	1	0.71	0.71	U	1	0.71	0.71	U	1	0.71	0.71	U	1	0.71	0.71	U	1	0.71	0.71	U	1	0.71	0.71	U	1	0.71
Methylene Chloride	75-09-2	8260D	µg/L	940 (12)	0.32	U	1	0.32	0.32	U	1	0.32	0.32	U	1	0.32	0.34	J	1	0.32	0.32	U	1	0.32	0.6	J	1	0.32	0.32	U	1	0.32
m-Xylene & p-Xylene	179601-23-1	8260D	µg/L	1.8 (14)	0.3	U	1	0.3	0.3	U	1	0.3	0.3	U	1	0.3	0.3	U	1	0.3	0.3	U	1	0.3	0.3	U	1	0.3	0.3	U	1	0.3
o-Xylene	95-47-6	8260D	µg/L	13 (14)	0.36	U	1	0.36	0.36	U	1	0.36	0.36	U	1	0.36	0.36	U	1	0.36	0.36	U	1	0.36	0.36	U	1	0.36	0.36	U	1	0.36
Styrene	100-42-5	8260D	µg/L	32 (14)	0.42	U	1	0.42	0.42	U	1	0.42	0.42	U	1	0.42	0.42	U	1	0.42	0.42	U	1	0.42	0.42	U	1	0.42	0.42	U	1	0.42
Tetrachloroethene	127-18-4	8260D	µg/L	45 (12)	0.25	U	1	0.25	0.25	U	1	0.25	0.25	U	1	0.25	0.25	U	1	0.25	0.25	U	1	0.25	0.25	U	1	0.25	0.25	U	1	0.25
Toluene	108-88-3	8260D	µg/L	253 (12)	0.38	U	1	0.38	0.38	U	1	0.38	0.38	U	1	0.38	0.38	U	1	0.38	0.38	U	1	0.38	1.1		1	0.38	0.38	U	1	0.38
trans-1,2-Dichloroethene	156-60-5	8260D	µg/L	970 (12)	0.24	U	1	0.24	0.24	U	1	0.24	0.24	U	1	0.24	0.24	U	1	0.24	0.24	U	1	0.24	0.24	U	1	0.24	0.24	U	1	0.24
trans-1,3-Dichloropropene	10061-02-6	8260D	µg/L	0.055 (14)	0.22	U	1	0.22	0.22	U	1	0.22	0.22	U	1	0.22	0.22	U	1	0.22	0.22	U	1	0.22	0.22	U	1	0.22	0.22	U	1	0.22
Trichloroethene	79-01-6	8260D	µg/L	47 (12)	0.31	U	1	0.31	0.31	U	1	0.31	0.31	U	1	0.31	0.31	U	1	0.31	0.31	U	1	0.31	0.31	U	1	0.31	0.31	U	1	0.31
Trichlorofluoromethane	75-69-4	8260D	µg/L		0.32	U	1	0.32	0.32	U	1	0.32	0.32	U	1	0.32	0.32	U	1	0.32	0.32	U	1	0.32	0.32	U	1	0.32	0.32	U	1	0.32
Vinyl chloride	75-01-4	8260D	µg/L	930 (12)	0.17	U	1	0.17	0.17	UJ	1	0.17	0.17	U	1	0.17	0.17	UJ	1	0.17	0.17	UJ	1	0.17	0.17	U	1	0.17	0.17	U	1	0.17
1,2-Dibromo-3-Chloropropane	96-12-8	8260D SIM	µg/L		0.38	UJ	1	0.38	0.38	U	1	0.38	0.38	UJ	1	0.38	0.38	U	1	0.38	0.38	U	1	0.38	0.38	U	1	0.38	0.38	U	1	0.38
1,4-Dioxane	123-91-1	8260D SIM	µg/L	22000 (6)	28	U	50	28	28	U	50	28	28	U	50	28	28	U	50	28	28	U	50	28	28	U	50	28	28	U	50	28
Ethylene Dibromide	106-93-4	8260D SIM	µg/L		0.5	U	1	0.5	0.5	U	1	0.5	0.5	U	1	0.5	0.5	U	1	0.5	0.5	U	1	0.5	0.5	U	1	0.5	0.5	U	1	0.5

Table 5.19 - Pore Water: Volatile Organic Compounds (VOCs) Analytical Results (continued)

Rolling Knolls Landfill

	Sample Name			ESC's	PW08_0.1-1.1				PW09_0.1-1.1				PW11_0.1-1.1				PW12_0.1-1.1				PW13_0.1-1.1				PW14_0.1-1.1				PW15_0.1-1.1			
	Sample Date/Time				05/17/2021 13:00				05/17/2021 15:26				05/18/2021 11:05				05/18/2021 12:30				05/18/2021 14:30				05/19/2021 10:00				05/19/2021 12:30			
	Latitude				40.72182294				40.72166473				40.72137772				40.72190822				40.72201291				40.72248719				40.7230347			
	Longitude			Screening Criteria	-74.44481466				-74.44497878				-74.44406378				-74.44321078				-74.44347746				-74.44316647				-74.44314728			
	Lab Sample Name				GS-S-PWT08_0.1-1.1				GS-S-PWT09_0.1-1.1				GS-S-PWT11_0.1-1.1				GS-S-PWT12_0.1-1.1				GS-S-PWT13_0.1-1.1				GS-S-PWT014-0.1-1.1				GS-S-PWT015-0.1-1.1			
	Lab Sample Number				460-234969-1				460-234970-3				460-234971-2				460-234969-2				460-234969-3				460-234972-2				460-235250-1			
	Lab Report Number(s)				460-234969-1				460-234970-1				460-234971-1				460-234969-1				460-234969-1				460-234972-1				460-235250-1			
Analyte	CAS	Method	Units		Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)
1,1,1-Trichloroethane	71-55-6	8260D	µg/L	76 (12)	0.24	U	1	0.24	0.24	U	1	0.24	0.24	U	1	0.24	0.24	U	1	0.24	0.24	U	1	0.24	0.24	U	1	0.24	0.24	U	1	0.24
1,1,2,2-Tetrachloroethane	79-34-5	8260D	µg/L	380 (12)	0.37	U	1	0.37	0.37	U	1	0.37	0.37	U	1	0.37	0.37	U	1	0.37	0.37	U	1	0.37	0.37	U	1	0.37	0.37	U	1	0.37
1,1,2-Trichloro-1,2,2-trifluoroethane	76-13-1	8260D	µg/L		0.31	UJ	1	0.31	0.31	U	1	0.31	0.31	U	1	0.31	0.31	UJ	1	0.31	0.31	UJ	1	0.31	0.31	U	1	0.31	0.31	U	1	0.31
1,1,2-Trichloroethane	79-00-5	8260D	µg/L	500 (12)	0.2	U	1	0.2	0.2	U	1	0.2	0.2	U	1	0.2	0.2	U	1	0.2	0.2	U	1	0.2	0.2	U	1	0.2	0.2	U	1	0.2
1,1-Dichloroethane	75-34-3	8260D	µg/L	47 (14)	0.26	U	1	0.26	0.26	U	1	0.26	0.26	U	1	0.26	0.26	U	1	0.26	0.26	U	1	0.26	0.26	U	1	0.26	0.26	U	1	0.26
1,1-Dichloroethene	75-35-4	8260D	µg/L	65 (12)	0.26	U	1	0.26	0.26	U	1	0.26	0.26	U	1	0.26	0.26	U	1	0.26	0.26	U	1	0.26	0.26	U	1	0.26	0.26	U	1	0.26
1,2,3-Trichlorobenzene	87-61-6	8260D	µg/L	8 (14)	0.36	UJ	1	0.36	0.36	U	1	0.36	0.36	U	1	0.36	0.36	UJ	1	0.36	0.36	UJ	1	0.36	0.36	UJ	1	0.36	0.36	U	1	0.36
1,2,4-Trichlorobenzene	120-82-1	8260D	µg/L	30 (12)	0.37	U	1	0.37	0.37	U	1	0.37	0.37	U	1	0.37	0.37	U	1	0.37	0.37	U	1	0.37	0.37	UJ	1	0.37	0.37	U	1	0.37
1,2-Dibromo-3-Chloropropane	96-12-8	8260D	µg/L		0.38	U	1	0.38	0.38	U	1	0.38	0.38	U	1	0.38	0.38	U	1	0.38	0.38	U	1	0.38	0.38	UJ	1	0.38	0.38	U	1	0.38
1,2-Dichlorobenzene	95-50-1	8260D	µg/L	14 (12)	0.21	U	1	0.21	0.21	U	1	0.21	0.21	U	1	0.21	0.21	U	1	0.21	0.21	U	1	0.21	0.21	U	1	0.21	0.21	U	1	0.21
1,2-Dichloroethane	107-06-2	8260D	µg/L	910 (12)	0.43	U	1	0.43	0.43	U	1	0.43	0.43	U	1	0.43	0.43	U	1	0.43	0.43	U	1	0.43	0.43	U	1	0.43	0.43	U	1	0.43
1,2-Dichloropropane	78-87-5	8260D	µg/L	360 (12)	0.35	U	1	0.35	0.35	U	1	0.35	0.35	U	1	0.35	0.35	U	1	0.35	0.35	U	1	0.35	0.35	U	1	0.35	0.35	U	1	0.35
1,3-Dichlorobenzene	541-73-1	8260D	µg/L	38 (12)	0.35	J	1	0.34	0.34	U	1	0.34	0.34	U	1	0.34	0.34	U	1	0.34	0.34	U	1	0.34	0.34	U	1	0.34	0.34	U	1	0.34
1,4-Dichlorobenzene	106-46-7	8260D	µg/L	9.4 (12)	0.33	U	1	0.33	0.33	U	1	0.33	0.33	U	1	0.33	0.33	U	1	0.33	0.33	U	1	0.33	0.33	U	1	0.33	0.33	U	1	0.33
1,4-Dioxane	123-91-1	8260D	µg/L	22000 (6)	28	U	50	28	28	U	50	28	28	U	50	28	28	U	50	28	28	U	50	28	28	U	50	28	28	U	50	28
2-Butanone (MEK)	78-93-3	8260D	µg/L	7200 (14)	1.9	U	5	1.9	1.9	U	5	1.9	1.9	U	5	1.9	1.9	U	5	1.9	1.9	U	5	1.9	1.9	U	5	1.9	1.9	UJ	5	1.9
2-Hexanone	591-78-6	8260D	µg/L	99 (14)	1.1	U	5	1.1	1.1	U	5	1.1	1.1	U	5	1.1	1.1	U	5	1.1	1.1	U	5	1.1	1.1	U	5	1.1	1.1	UJ	5	1.1
4-Methyl-2-pentanone (MIBK)	108-10-1	8260D	µg/L	170 (14)	1.3	U	5	1.3	1.3	U	5	1.3	1.3	U	5	1.3	1.3	U	5	1.3	1.3	U	5	1.3	1.3	U	5	1.3	1.3	UJ	5	1.3
Acetone	67-64-1	8260D	µg/L	1500 (14)	11	UJ	5	4.4	4.4	U	5	4.4	13		5	4.4	4.4	UJ	5	4.4	4.4	UJ	5	4.4	4.4	UJ	5	4.4	11		5	4.4
Benzene	71-43-2	8260D	µg/L	114 (12)	0.2	U	1	0.2	0.2	U	1	0.2	0.2	U	1	0.2	0.2	U	1	0.2	0.2	U	1	0.2	0.2	U	1	0.2	0.2	U	1	0.2
Bromoform	75-25-2	8260D	µg/L	230 (12)	0.54	UJ	1	0.54	0.54	U	1	0.54	0.54	U	1	0.54	0.54	UJ	1	0.54	0.54	UJ	1	0.54	0.54	U	1	0.54	0.54	U	1	0.54
Bromomethane	74-83-9	8260D	µg/L	16 (12)	0.55	U	1	0.55	0.55	U	1	0.55	0.55	U	1	0.55	0.55	U	1	0.55	0.55	U	1	0.55	0.55	U	1	0.55	0.55	U	1	0.55
Carbon disulfide	75-15-0	8260D	µg/L	0.92 (14)	0.82	U	1	0.82	0.82	U	1	0.82	0.82	U	1	0.82	0.82	U	1	0.82	0.82	U	1	0.82	0.82	U	1	0.82	0.82	U	1	0.82
Carbon tetrachloride	56-23-5	8260D	µg/L	240 (12)	0.21	UJ	1	0.21	0.21	U	1	0.21	0.21	U	1	0.21	0.21	UJ	1	0.21	0.21	UJ	1	0.21	0.21	U	1	0.21	0.21	U	1	0.21
Chlorobenzene	108-90-7	8260D	µg/L	47 (12)	0.38	U	1	0.38	0.38	U	1	0.38	0.38	U	1	0.38	0.38	U	1	0.38	0.38	U	1	0.38	0.38	U	1	0.38	0.38	U	1	0.38
Chlorobromomethane	74-97-5	8260D	µg/L		0.41	U	1	0.41	0.41	U	1	0.41	0.41	U	1	0.41	0.41	U	1	0.41	0.41	U	1	0.41	0.41	U	1	0.41	0.41	UJ	1	0.41
Chlorodibromomethane	124-48-1	8260D	µg/L		0.28	U	1	0.28	0.28	U	1	0.28	0.28	U	1	0.28	0.28	U	1	0.28	0.28	U	1	0.28	0.28	U	1	0.28	0.28	U	1	0.28
Chloroethane	75-00-3	8260D	µg/L		0.32	U	1	0.32	0.32	U	1	0.32	0.32	U	1	0.32	0.32	U	1	0.32	0.32	U	1	0.32	0.32	UJ	1	0.32	0.32	U	1	0.32
Chloroform	67-66-3	8260D	µg/L	140 (12)	0.33	U	1	0.33	0.33	U	1	0.33	0.33	U	1	0.33	0.33	U	1	0.33	0.33	U	1	0.33	0.33	U	1	0.33	0.33	U	1	0.33
Chloromethane	74-87-3	8260D	µg/L		0.4	U	1	0.4	0.4	U	1	0.4	0.4	U	1	0.4	0.4	U	1	0.4	0.4	U	1	0.4	0.4	U	1	0.4	0.4	UJ	1	0.4
cis-1,2-Dichloroethene	156-59-2	8260D	µg/L	590 (14)	0.22	U	1	0.22	0.22	U	1	0.22	0.22	U	1	0.22	0.22	U	1	0.22	0.22	U	1	0.22	0.22	U	1	0.22	0.22	U	1	0.22
cis-1,3-Dichloropropene	10061-01-5	8260D	µg/L	0.055 (14)	0.22	U	1	0.22	0.22	U	1	0.22	0.22	U	1	0.22	0.22	U	1	0.22	0.22	U	1	0.22	0.22	U	1	0.22	0.22	U	1	0.22
Cyclohexane	110-82-7	8260D	µg/L		0.32	U	1	0.32	0.32	U	1	0.32	0.32	U	1	0.32	0.32	U	1	0.32	0.32	U	1	0.32	0.32	U	1	0.32	0.32	U	1	0.32
Dichlorobromomethane	75-27-4	8260D	µg/L		0.34	U	1	0.34	0.34	U	1	0.34	0.34	U	1	0.34	0.34	U	1	0.34	0.34	U	1	0.34	0.34	U	1	0.34	0.34	U	1	0.34
Dichlorodifluoromethane	75-71-8	8260D	µg/L		0.31	U	1	0.31	0.31	U	1	0.31	0.31	U	1	0.31	0.31	U	1	0.31	0.31	U	1	0.31	0.31	U	1	0.31	0.31	U	1	0.31
Ethylbenzene	100-41-4	8260D	µg/L	14 (12)	0.3	U	1	0.3	0.3	U	1	0.3	0.3	U	1	0.3	0.3	U	1	0.3	0.3	U	1	0.3	0.3	U	1	0.3	0.3	U	1	0.3
Ethylene Dibromide	106-93-4	8260D	µg/L		0.5	U	1	0.5	0.5	U	1	0.5	0.5	U	1	0.5	0.5	U	1	0.5	0.5	U	1	0.5	0.5	U	1	0.5	0.5	U	1	0.5
Isopropylbenzene	98-82-8	8260D	µg/L		0.34	U	1	0.34	0.34	U	1	0.34	0.34	U	1	0.34	0.34	U	1	0.34	0.34	U	1	0.34	0.34	U	1	0.34	0.34	U	1	0.34
Methyl acetate	79-20-9	8260D	µg/L		0.79	U	5	0.79	0.79	U	5	0.79	0.79	U	5	0.79	0.79	U	5	0.79	0.79	U	5	0.79	0.79	U	5	0.79	0.79	U	5	0.79
Methyl tert-butyl ether	1634-04-4	8260D	µg/L	51000 (12)	0.22	U	1	0.22	0.22	U	1	0.22	0.22	U	1	0.22	0.22	U	1	0.22	0.22	U	1	0.22	0.22	U	1	0.22	0.22	U	1	0.22
Methylcyclohexane	108-87-2	8260D	µg/L		0.71	U	1	0.71	0.71	U	1	0.71	0.71	U	1	0.71	0.71	U	1	0.71	0.71	U	1	0.71	0.71	U	1	0.71	0.71	UJ	1	0.71
Methylene Chloride	75-09-2	8260D	µg/L	940 (12)	0.32	U	1	0.32	0.32	U	1	0.32	0.32	U	1	0.32	0.32	U	1	0.32	0.32	U	1	0.32	0.32	U	1	0.32	0.32	U	1	0.32
m-Xylene & p-Xylene	179601-23-1	8260D	µg/L	1.8 (14)	0.3	U	1	0.3	0.3	U	1	0.3	0.3	U	1	0.3	0.3	U	1	0.3	0.3	U	1	0.3	0.3	U	1	0.3	0.3	U	1	0.3
o-Xylene	95-47-6	8260D	µg/L	13 (14)	0.36	U	1	0.36	0.36	U	1	0.36	0.36	U	1	0.36	0.36	U	1	0.36	0.36	U	1	0.36	0.36	U	1	0.36	0.36	U	1	0.36
Styrene	100-42-5	8260D	µg/L	32 (14)	0.42	U	1	0.42	0.42	U	1	0.42	0.42	U	1	0.42	0.42	U	1	0.42	0.42	U	1	0.42	0.42	U	1	0.42	0.42	U	1	0.42
Tetrachloroethene	127-18-4	8260D	µg/L	45 (12)	0.25	U	1	0.25	0.25	U	1	0.25	0.25	U	1	0.25	0.25	U	1	0.25	0.25	U	1	0.25	0.25	U	1	0.25	0.25	U	1	0.25
Toluene	108-88-3	8260D	µg/L	253 (12)	0.59	J	1	0.38	0.38	U	1	0.38	1		1	0.38	0.38	U	1	0.38	0.38	U	1	0.38	0.38	U	1	0.38	0.38	U	1	0.38
trans-1,2-Dichloroethene	156-60-5	8260D	µg/L	970 (12)	0.24	U	1	0.24	0.24	U	1	0.24	0.24	U	1	0.24	0.24	U	1	0.24	0.24	U	1	0.24	0.24	U	1	0.24	0.24	UJ	1	0.24
trans-1,3-Dichloropropene	10061-02-6	8260D	µg/L	0.055 (14)	0.22	U	1	0.22	0.22	U	1	0.22	0.22	U	1	0.22	0.22	U	1	0.22	0.22	U	1	0.22	0.22	U	1	0.22	0.22	U	1	0.22
Trichloroethene	79-01-6	8260D	µg/L	47 (12)	0.31	U	1	0.31	0.31	U	1	0.31	0.31	U	1	0.31	0.31	U	1	0.31	0.31	U	1	0.31	0.31	U	1	0.31	0.31	U	1	0.31
Trichlorofluoromethane	75-69-4	8260D	µg/L		0.32	U	1	0.32	0.32	U	1	0.32	0.32	U	1	0.32	0.32	U	1	0.32	0.32	U	1	0.32	0.32	U	1	0.32	0.32	U	1	0.32
Vinyl chloride	75-01-4	8260D	µg/L	930 (12)	0.17	U	1	0.17	0.17	U	1	0.17	0.17	U	1	0.17	0.17	U	1	0.17	0.17	U	1	0.17	0.17	U	1	0.17	0.17	U	1	0.17
1,2-Dibromo-3-Chloropropane	96-12-8	8260D SIM	µg/L		0.38	U	1	0.38	0.38	U	1	0.38	0.38	U	1	0.38	0.38	U	1	0.38	0.38	U	1	0.38	0.38	UJ	1	0.38	0.38	U	1	0.38
1,4-Dioxane	123-91-1	8260D SIM	µg/L	22000 (6)	28	U	50	28	28	U	50	28	28	U	50	28	28	U	50	28	28	U	50	28	28	U	50	28	28	U	50	28
Ethylene Dibromide	106-93-4	8260D SIM	µg/L		0.5	U	1	0.5	0.5	U	1	0.5	0.5	U	1	0.5	0.5	U	1	0.5	0.5	U	1	0.5	0.5	U	1	0.5	0.5	U	1	0.5

Table 5.19 - Pore Water: Volatile Organic Compounds (VOCs) Analytical Results (continued)

Rolling Knolls Landfill

	Sample Name			ESC's	PW16_0.1-1.1				PW17_0.1-1.1				PW19_0.1-1.1				PW20_0.1-1.1				PW21_0.1-1.1				PW22_0.1-1.1				PW102_0.1-1.1 (PW22_0.1-1.1 duplicate)			
	Sample Date/Time				05/19/2021 14:00				05/20/2021 09:38				05/20/2021 11:34				05/20/2021 16:30				05/21/2021 08:43				05/21/2021 09:10				05/21/2021 09:10			
	Latitude				40.72345333				40.72380268				40.72418595				40.72413425				40.72457915				40.72444765				40.72444765			
	Longitude				-74.44320064				-74.44314573				-74.44291979				-74.44283622				-74.44297636				-74.44258986				-74.44258986			
	Lab Sample Name			Screening Criteria	GS-S-PWT016-0.1-1.1				GS-S-PWT017-0.1-1.1				GS-S-PWT019-0.1-1.1				GS-S-PWT020-0.1-1.1				GS-S-PWT021-0.1-1.1				GS-S-PWT22-0.1-1.1				GS-S-PWT102-0.1-1.1			
	Lab Sample Number				460-235250-2				460-234972-1				460-235250-3				460-235250-4				460-235398-1				460-235399-4				460-235399-5			
	Lab Report Number(s)				460-235250-1				460-234972-1				460-235250-1				460-235250-1				460-235398-1				460-235399-1				460-235399-1			
Analyte	CAS	Method	Units		Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)
1,1,1-Trichloroethane	71-55-6	8260D	µg/L	76 (12)	0.24	U	1	0.24	0.24	U	1	0.24	0.24	U	1	0.24	0.24	U	1	0.24	0.24	U	1	0.24	0.24	U	1	0.24	0.24	U	1	0.24
1,1,2,2-Tetrachloroethane	79-34-5	8260D	µg/L	380 (12)	0.37	U	1	0.37	0.37	U	1	0.37	0.37	U	1	0.37	0.37	U	1	0.37	0.37	U	1	0.37	0.37	U	1	0.37	0.37	U	1	0.37
1,1,2-Trichloro-1,2,2-trifluoroethane	76-13-1	8260D	µg/L		0.31	U	1	0.31	0.31	U	1	0.31	0.31	U	1	0.31	0.31	U	1	0.31	0.31	U	1	0.31	0.31	U	1	0.31	0.31	U	1	0.31
1,1,2-Trichloroethane	79-00-5	8260D	µg/L	500 (12)	0.2	U	1	0.2	0.2	U	1	0.2	0.2	U	1	0.2	0.2	U	1	0.2	0.2	U	1	0.2	0.2	U	1	0.2	0.2	U	1	0.2
1,1-Dichloroethane	75-34-3	8260D	µg/L	47 (14)	0.26	U	1	0.26	0.26	U	1	0.26	0.26	U	1	0.26	0.26	U	1	0.26	0.26	U	1	0.26	0.26	U	1	0.26	0.26	U	1	0.26
1,1-Dichloroethene	75-35-4	8260D	µg/L	65 (12)	0.26	U	1	0.26	0.26	U	1	0.26	0.26	U	1	0.26	0.26	U	1	0.26	0.26	U	1	0.26	0.26	U	1	0.26	0.26	U	1	0.26
1,2,3-Trichlorobenzene	87-61-6	8260D	µg/L	8 (14)	0.36	U	1	0.36	0.36	UJ	1	0.36	0.36	U	1	0.36	0.36	U	1	0.36	0.36	UJ	1	0.36	0.36	U	1	0.36	0.36	U	1	0.36
1,2,4-Trichlorobenzene	120-82-1	8260D	µg/L	30 (12)	0.37	U	1	0.37	0.37	UJ	1	0.37	0.37	U	1	0.37	0.37	U	1	0.37	0.37	UJ	1	0.37	0.37	U	1	0.37	0.37	U	1	0.37
1,2-Dibromo-3-Chloropropane	96-12-8	8260D	µg/L		0.38	U	1	0.38	0.38	UJ	1	0.38	0.38	U	1	0.38	0.38	U	1	0.38	0.38	U	1	0.38	0.38	UJ	1	0.38	0.38	UJ	1	0.38
1,2-Dichlorobenzene	95-50-1	8260D	µg/L	14 (12)	0.21	U	1	0.21	0.21	U	1	0.21	0.21	U	1	0.21	0.21	U	1	0.21	0.21	U	1	0.21	0.21	U	1	0.21	0.21	U	1	0.21
1,2-Dichloroethane	107-06-2	8260D	µg/L	910 (12)	0.43	U	1	0.43	0.43	U	1	0.43	0.43	U	1	0.43	0.43	U	1	0.43	0.43	U	1	0.43	0.43	U	1	0.43	0.43	U	1	0.43
1,2-Dichloropropane	78-87-5	8260D	µg/L	360 (12)	0.35	U	1	0.35	0.35	U	1	0.35	0.35	U	1	0.35	0.35	U	1	0.35	0.35	U	1	0.35	0.35	U	1	0.35	0.35	U	1	0.35
1,3-Dichlorobenzene	541-73-1	8260D	µg/L	38 (12)	0.34	U	1	0.34	0.34	U	1	0.34	0.34	U	1	0.34	0.34	U	1	0.34	0.34	U	1	0.34	0.34	U	1	0.34	0.34	U	1	0.34
1,4-Dichlorobenzene	106-46-7	8260D	µg/L	9.4 (12)	0.33	U	1	0.33	0.33	U	1	0.33	0.33	U	1	0.33	0.33	U	1	0.33	0.33	U	1	0.33	0.33	U	1	0.33	0.33	U	1	0.33
1,4-Dioxane	123-91-1	8260D	µg/L	22000 (6)	28	U	50	28	28	U	50	28	28	U	50	28	28	U	50	28	28	U	50	28	28	U	50	28	28	U	50	28
2-Butanone (MEK)	78-93-3	8260D	µg/L	7200 (14)	1.9	UJ	5	1.9	1.9	U	5	1.9	1.9	UJ	5	1.9	1.9	UJ	5	1.9	1.9	U	5	1.9	1.9	U	5	1.9	1.9	U	5	1.9
2-Hexanone	591-78-6	8260D	µg/L	99 (14)	1.1	UJ	5	1.1	1.1	U	5	1.1	1.1	UJ	5	1.1	1.1	UJ	5	1.1	1.1	U	5	1.1	1.1	U	5	1.1	1.1	U	5	1.1
4-Methyl-2-pentanone (MIBK)	108-10-1	8260D	µg/L	170 (14)	1.3	UJ	5	1.3	1.3	U	5	1.3	1.3	UJ	5	1.3	1.3	UJ	5	1.3	1.3	U	5	1.3	1.3	U	5	1.3	1.3	U	5	1.3
Acetone	67-64-1	8260D	µg/L	1500 (14)	4.4	U	5	4.4	4.4	UJ	5	4.4	4.4	U	5	4.4	4.4	U	5	4.4	7.2		5	4.4	4.4	U	5	4.4	6.3	U	5	4.4
Benzene	71-43-2	8260D	µg/L	114 (12)	0.2	U	1	0.2	0.2	U	1	0.2	0.2	U	1	0.2	0.2	U	1	0.2	0.2	U	1	0.2	0.2	U	1	0.2	0.2	U	1	0.2
Bromoform	75-25-2	8260D	µg/L	230 (12)	0.54	U	1	0.54	0.54	U	1	0.54	0.54	U	1	0.54	0.54	U	1	0.54	0.54	U	1	0.54	0.54	U	1	0.54	0.54	U	1	0.54
Bromomethane	74-83-9	8260D	µg/L	16 (12)	0.55	U	1	0.55	0.55	U	1	0.55	0.55	UJ	1	0.55	0.55	U	1	0.55	0.55	U	1	0.55	0.55	U	1	0.55	0.55	U	1	0.55
Carbon disulfide	75-15-0	8260D	µg/L	0.92 (14)	0.82	U	1	0.82	0.82	U	1	0.82	0.82	U	1	0.82	0.82	U	1	0.82	0.82	U	1	0.82	0.82	U	1	0.82	0.82	U	1	0.82
Carbon tetrachloride	56-23-5	8260D	µg/L	240 (12)	0.21	U	1	0.21	0.21	U	1	0.21	0.21	U	1	0.21	0.21	U	1	0.21	0.21	U	1	0.21	0.21	U	1	0.21	0.21	U	1	0.21
Chlorobenzene	108-90-7	8260D	µg/L	47 (12)	0.38	U	1	0.38	0.38	U	1	0.38	0.38	U	1	0.38	0.38	U	1	0.38	0.38	U	1	0.38	0.38	U	1	0.38	0.38	U	1	0.38
Chlorobromomethane	74-97-5	8260D	µg/L		0.41	UJ	1	0.41	0.41	U	1	0.41	0.41	UJ	1	0.41	0.41	UJ	1	0.41	0.41	U	1	0.41	0.41	U	1	0.41	0.41	U	1	0.41
Chlorodibromomethane	124-48-1	8260D	µg/L		0.28	U	1	0.28	0.28	U	1	0.28	0.28	U	1	0.28	0.28	U	1	0.28	0.28	U	1	0.28	0.28	U	1	0.28	0.28	U	1	0.28
Chloroethane	75-00-3	8260D	µg/L		0.32	U	1	0.32	0.32	UJ	1	0.32	0.32	U	1	0.32	0.32	U	1	0.32	0.32	U	1	0.32	0.32	U	1	0.32	0.32	U	1	0.32
Chloroform	67-66-3	8260D	µg/L	140 (12)	0.33	U	1	0.33	0.33	U	1	0.33	0.33	U	1	0.33	0.33	U	1	0.33	0.33	U	1	0.33	0.33	U	1	0.33	0.33	U	1	0.33
Chloromethane	74-87-3	8260D	µg/L		0.4	UJ	1	0.4	0.4	U	1	0.4	0.4	U	1	0.4	0.4	UJ	1	0.4	0.4	U	1	0.4	0.4	U	1	0.4	0.4	U	1	0.4
cis-1,2-Dichloroethene	156-59-2	8260D	µg/L	590 (14)	0.22	U	1	0.22	0.22	U	1	0.22	0.22	U	1	0.22	0.22	U	1	0.22	0.22	U	1	0.22	0.22	U	1	0.22	0.22	U	1	0.22
cis-1,3-Dichloropropene	10061-01-5	8260D	µg/L	0.055 (14)	0.22	U	1	0.22	0.22	U	1	0.22	0.22	U	1	0.22	0.22	U	1	0.22	0.22	U	1	0.22	0.22	U	1	0.22	0.22	U	1	0.22
Cyclohexane	110-82-7	8260D	µg/L		0.32	U	1	0.32	0.32	U	1	0.32	0.32	U	1	0.32	0.32	U	1	0.32	0.32	U	1	0.32	0.32	U	1	0.32	0.32	U	1	0.32
Dichlorobromomethane	75-27-4	8260D	µg/L		0.34	U	1	0.34	0.34	U	1	0.34	0.34	U	1	0.34	0.34	U	1	0.34	0.34	U	1	0.34	0.34	U	1	0.34	0.34	U	1	0.34
Dichlorodifluoromethane	75-71-8	8260D	µg/L		0.31	U	1	0.31	0.31	U	1	0.31	0.31	UJ	1	0.31	0.31	U	1	0.31	0.31	U	1	0.31	0.31	U	1	0.31	0.31	U	1	0.31
Ethylbenzene	100-41-4	8260D	µg/L	14 (12)	0.3	U	1	0.3	0.3	U	1	0.3	0.3	U	1	0.3	0.3	U	1	0.3	0.3	U	1	0.3	0.3	U	1	0.3	0.3	U	1	0.3
Ethylene Dibromide	106-93-4	8260D	µg/L		0.5	U	1	0.5	0.5	U	1	0.5	0.5	U	1	0.5	0.5	U	1	0.5	0.5	U	1	0.5	0.5	U	1	0.5	0.5	U	1	0.5
Isopropylbenzene	98-82-8	8260D	µg/L		0.34	U	1	0.34	0.34	U	1	0.34	0.34	U	1	0.34	0.34	U	1	0.34	0.34	U	1	0.34	0.34	U	1	0.34	0.34	U	1	0.34
Methyl acetate	79-20-9	8260D	µg/L		0.79	U	5	0.79	0.79	U	5	0.79	0.79	UJ	5	0.79	0.79	U	5	0.79	0.79	U	5	0.79	0.79	U	5	0.79	0.79	U	5	0.79
Methyl tert-butyl ether	1634-04-4	8260D	µg/L	51000 (12)	0.22	U	1	0.22	0.22	U	1	0.22	0.22	U	1	0.22	0.22	U	1	0.22	0.22	U	1	0.22	0.22	U	1	0.22	0.22	U	1	0.22
Methylcyclohexane	108-87-2	8260D	µg/L		0.71	UJ	1	0.71	0.71	U	1	0.71	0.71	UJ	1	0.71	0.71	UJ	1	0.71	0.71	U	1	0.71	0.71	U	1	0.71	0.71	U	1	0.71
Methylene Chloride	75-09-2	8260D	µg/L	940 (12)	0.32	U	1	0.32	0.32	U	1	0.32	0.32	U	1	0.32	0.32	U	1	0.32	0.32	U	1	0.32	0.32	U	1	0.32	2.4		1	0.32
m-Xylene & p-Xylene	179601-23-1	8260D	µg/L	1.8 (14)	0.3	U	1	0.3	0.3	U	1	0.3	0.3	U	1	0.3	0.3	U	1	0.3	0.3	U	1	0.3	0.3	U	1	0.3	0.3	U	1	0.3
o-Xylene	95-47-6	8260D	µg/L	13 (14)	0.36	U	1	0.36	0.36	U	1	0.36	0.36	U	1	0.36	0.36	U	1	0.36	0.36	U	1	0.36	0.36	U	1	0.36	0.36	U	1	0.36
Styrene	100-42-5	8260D	µg/L	32 (14)	0.42	U	1	0.42	0.42	U	1	0.42	0.42	U	1	0.42	0.42	U	1	0.42	0.42	U	1	0.42	0.42	U	1	0.42	0.42	U	1	0.42
Tetrachloroethene	127-18-4	8260D	µg/L	45 (12)	0.25	U	1	0.25	0.25	U	1	0.25	0.25	U	1	0.25	0.25	U	1	0.25	0.25	U	1	0.25	0.25	U	1	0.25	0.25	U	1	0.25
Toluene	108-88-3	8260D	µg/L	253 (12)	0.38	U	1	0.38	0.38	U	1	0.38	0.38	U	1	0.38	0.38	U	1	0.38	0.48	J	1	0.38	0.38	U	1	0.38	0.38	U	1	0.38
trans-1,2-Dichloroethene	156-60-5	8260D	µg/L	970 (12)	0.24	UJ	1	0.24	0.24	U	1	0.24	0.24	U	1	0.24	0.24	UJ	1	0.24	0.24	U	1	0.24	0.24	U	1	0.24	0.24	U	1	0.24
trans-1,3-Dichloropropene	10061-02-6	8260D	µg/L	0.055 (14)	0.22	U	1	0.22	0.22	U	1	0.22	0.22	U	1	0.22	0.22	U	1	0.22	0.22	U	1	0.22	0.22	U	1	0.22	0.22	U	1	0.22
Trichloroethene	79-01-6	8260D	µg/L	47 (12)	0.31	U	1	0.31	0.31	U	1	0.31	0.31	U	1	0.31	0.31	U	1	0.31	0.31	U	1	0.31	0.31	U	1	0.31	0.31	U	1	0.31
Trichlorofluoromethane	75-69-4	8260D	µg/L		0.32	U	1	0.32	0.32	U	1	0.32	0.32	U	1	0.32	0.32	U	1	0.32	0.32	U	1	0.32	0.32	U	1	0.32	0.32	U	1	0.32
Vinyl chloride	75-01-4	8260D	µg/L	930 (12)	0.17	U	1	0.17	0.17	U	1	0.17	0.17	U	1	0.17	0.17	U	1	0.17	0.17	U	1	0.17	0.17	U	1	0.17	0.17	U	1	0.17
1,2-Dibromo-3-Chloropropane	96-12-8	8260D SIM	µg/L		0.38	U	1	0.38	0.38	UJ	1	0.38	0.38	U	1	0.38	0.38	U	1	0.38	0.38	U	1	0.38	0.38	UJ	1	0.38	0.38	UJ	1	0.38
1,4-Dioxane	123-91-1	8260D SIM	µg/L	22000 (6)	28	U	50	28	28	U	50	28	28	U	50	28	28	U	50	28	28	U	50	28	28	U	50	28	28	U	50	28
Ethylene Dibromide	106-93-4	8260D SIM	µg/L		0.5	U	1	0.5	0.5	U	1	0.5	0.5	U	1	0.5	0.5	U	1	0.5	0.5	U	1	0.5	0.5	U	1	0.5	0.5	U	1	0.5

Table 5.19 - Pore Water: Volatile Organic Compounds (VOCs) Analytical Results (continued)

Rolling Knolls Landfill

Sample Name				ESC's	PW23_0.2-1.2				PW24_0.1-1.1				PW26_0.1-1.1				PW27_0.1-1.1				PW29_0.2-1.2				PW30_0.1-1.1				PW31_0.1-1.1			
Sample Date/Time					05/21/2021 12:37				05/21/2021 13:08				05/23/2021 12:00				05/24/2021 09:00				05/24/2021 11:12				05/24/2021 11:30				05/24/2021 16:00			
Latitude					40.7247828				40.72489946				40.72504571				40.72541272				40.7258865				40.72580561				40.7274107			
Longitude					-74.44247662				-74.44253506				-74.44201259				-74.44125584				-74.44140482				-74.44119472				-74.43949673			
Lab Sample Name				Screening Criteria	GS-S-PWT23-0.2-1.2				GS-S-PWT24-0.1-1.1				GS-S-PWT026-0.1-1.1				GS-S-PWT27-0.1-1.1				GS-S-PWT029-0.2-1.2				GS-S-PWT30-0.1-1.1				GS-S-PWT31.0-1-1.1			
Lab Sample Number					460-235398-2				460-235399-3				460-235399-1				460-235498-3				460-235438-1				460-235498-4				460-235438-2			
Lab Report Number(s)					460-235398-1				460-235399-1				460-235399-1				460-235498-1				460-235438-1				460-235498-1				460-235438-1			
Analyte	CAS	Method	Units		Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)
1,1,1-Trichloroethane	71-55-6	8260D	µg/L	76 (12)	0.24	U	1	0.24	0.24	U	1	0.24	0.24	U	1	0.24	0.24	U	1	0.24	0.24	U	1	0.24	0.24	U	1	0.24	0.24	U	1	0.24
1,1,2,2-Tetrachloroethane	79-34-5	8260D	µg/L	380 (12)	0.37	U	1	0.37	0.37	U	1	0.37	0.37	U	1	0.37	0.37	U	1	0.37	0.37	U	1	0.37	0.37	U	1	0.37	0.37	U	1	0.37
1,1,2-Trichloro-1,2,2-trifluoroethane	76-13-1	8260D	µg/L		0.31	U	1	0.31	0.31	U	1	0.31	0.31	U	1	0.31	0.31	U	1	0.31	0.31	U	1	0.31	0.31	U	1	0.31	0.31	U	1	0.31
1,1,2-Trichloroethane	79-00-5	8260D	µg/L	500 (12)	0.2	U	1	0.2	0.2	U	1	0.2	0.2	U	1	0.2	0.2	U	1	0.2	0.2	U	1	0.2	0.2	U	1	0.2	0.2	U	1	0.2
1,1-Dichloroethane	75-34-3	8260D	µg/L	47 (14)	0.26	U	1	0.26	0.26	U	1	0.26	0.26	U	1	0.26	0.26	U	1	0.26	0.26	U	1	0.26	0.26	U	1	0.26	0.26	U	1	0.26
1,1-Dichloroethene	75-35-4	8260D	µg/L	65 (12)	0.26	U	1	0.26	0.26	U	1	0.26	0.26	U	1	0.26	0.26	U	1	0.26	0.26	U	1	0.26	0.26	U	1	0.26	0.26	U	1	0.26
1,2,3-Trichlorobenzene	87-61-6	8260D	µg/L	8 (14)	0.36	UJ	1	0.36	0.36	U	1	0.36	0.36	U	1	0.36	0.36	U	1	0.36	0.36	U	1	0.36	0.36	U	1	0.36	0.36	U	1	0.36
1,2,4-Trichlorobenzene	120-82-1	8260D	µg/L	30 (12)	0.37	UJ	1	0.37	0.37	U	1	0.37	0.37	U	1	0.37	0.37	U	1	0.37	0.37	U	1	0.37	0.37	U	1	0.37	0.37	U	1	0.37
1,2-Dibromo-3-Chloropropane	96-12-8	8260D	µg/L		0.38	U	1	0.38	0.38	UJ	1	0.38	0.38	UJ	1	0.38	0.38	UJ	1	0.38	0.38	UJ	1	0.38	0.38	UJ	1	0.38	0.38	UJ	1	0.38
1,2-Dichlorobenzene	95-50-1	8260D	µg/L	14 (12)	0.21	U	1	0.21	0.21	U	1	0.21	0.21	U	1	0.21	0.21	U	1	0.21	0.21	U	1	0.21	0.21	U	1	0.21	0.21	U	1	0.21
1,2-Dichloroethane	107-06-2	8260D	µg/L	910 (12)	0.43	U	1	0.43	0.43	U	1	0.43	0.43	U	1	0.43	0.43	U	1	0.43	0.43	U	1	0.43	0.43	U	1	0.43	0.43	U	1	0.43
1,2-Dichloropropane	78-87-5	8260D	µg/L	360 (12)	0.35	U	1	0.35	0.35	U	1	0.35	0.35	U	1	0.35	0.35	U	1	0.35	0.35	U	1	0.35	0.35	U	1	0.35	0.35	U	1	0.35
1,3-Dichlorobenzene	541-73-1	8260D	µg/L	38 (12)	0.34	U	1	0.34	0.34	U	1	0.34	0.34	U	1	0.34	0.34	U	1	0.34	0.34	U	1	0.34	0.34	U	1	0.34	0.34	U	1	0.34
1,4-Dichlorobenzene	106-46-7	8260D	µg/L	9.4 (12)	0.33	U	1	0.33	0.33	U	1	0.33	0.33	U	1	0.33	0.33	U	1	0.33	0.33	U	1	0.33	0.33	U	1	0.33	0.33	U	1	0.33
1,4-Dioxane	123-91-1	8260D	µg/L	22000 (6)	28	U	50	28	28	U	50	28	28	U	50	28	28	U	50	28	28	U	50	28	28	U	50	28	28	U	50	28
2-Butanone (MEK)	78-93-3	8260D	µg/L	7200 (14)	1.9	U	5	1.9	1.9	U	5	1.9	1.9	U	5	1.9	1.9	U	5	1.9	1.9	U	5	1.9	1.9	U	5	1.9	1.9	U	5	1.9
2-Hexanone	591-78-6	8260D	µg/L	99 (14)	1.1	U	5	1.1	1.1	U	5	1.1	1.1	U	5	1.1	1.1	U	5	1.1	1.1	U	5	1.1	1.1	U	5	1.1	1.1	U	5	1.1
4-Methyl-2-pentanone (MIBK)	108-10-1	8260D	µg/L	170 (14)	1.3	U	5	1.3	1.3	U	5	1.3	1.3	U	5	1.3	1.3	U	5	1.3	1.3	U	5	1.3	1.3	U	5	1.3	1.3	U	5	1.3
Acetone	67-64-1	8260D	µg/L	1500 (14)	4.4	U	5	4.4	4.4	U	5	4.4	4.4	U	5	4.4	4.4	U	5	4.4	4.4	U	5	4.4	4.4	U	5	4.4	4.4	U	5	4.4
Benzene	71-43-2	8260D	µg/L	114 (12)	0.2	U	1	0.2	0.2	U	1	0.2	0.2	U	1	0.2	0.2	U	1	0.2	0.2	U	1	0.2	0.2	U	1	0.2	0.2	U	1	0.2
Bromoform	75-25-2	8260D	µg/L	230 (12)	0.54	U	1	0.54	0.54	U	1	0.54	0.54	U	1	0.54	0.54	U	1	0.54	0.54	U	1	0.54	0.54	U	1	0.54	0.54	U	1	0.54
Bromomethane	74-83-9	8260D	µg/L	16 (12)	0.55	U	1	0.55	0.55	U	1	0.55	0.55	U	1	0.55	0.55	U	1	0.55	0.55	U	1	0.55	0.55	U	1	0.55	0.55	U	1	0.55
Carbon disulfide	75-15-0	8260D	µg/L	0.92 (14)	0.82	U	1	0.82	0.82	U	1	0.82	0.82	U	1	0.82	0.82	U	1	0.82	0.82	U	1	0.82	0.82	U	1	0.82	0.82	U	1	0.82
Carbon tetrachloride	56-23-5	8260D	µg/L	240 (12)	0.21	U	1	0.21	0.21	U	1	0.21	0.21	U	1	0.21	0.21	U	1	0.21	0.21	U	1	0.21	0.21	U	1	0.21	0.21	U	1	0.21
Chlorobenzene	108-90-7	8260D	µg/L	47 (12)	0.38	U	1	0.38	0.38	U	1	0.38	0.38	U	1	0.38	0.38	U	1	0.38	0.38	U	1	0.38	0.38	U	1	0.38	0.38	U	1	0.38
Chlorobromomethane	74-97-5	8260D	µg/L		0.41	U	1	0.41	0.41	U	1	0.41	0.41	U	1	0.41	0.41	U	1	0.41	0.41	U	1	0.41	0.41	U	1	0.41	0.41	U	1	0.41
Chlorodibromomethane	124-48-1	8260D	µg/L		0.28	U	1	0.28	0.28	U	1	0.28	0.28	U	1	0.28	0.28	U	1	0.28	0.28	U	1	0.28	0.28	U	1	0.28	0.28	U	1	0.28
Chloroethane	75-00-3	8260D	µg/L		0.32	U	1	0.32	0.32	U	1	0.32	0.32	U	1	0.32	0.32	U	1	0.32	0.32	U	1	0.32	0.32	U	1	0.32	0.32	U	1	0.32
Chloroform	67-66-3	8260D	µg/L	140 (12)	0.33	U	1	0.33	0.33	U	1	0.33	0.33	U	1	0.33	0.33	U	1	0.33	0.33	U	1	0.33	0.33	U	1	0.33	0.33	U	1	0.33
Chloromethane	74-87-3	8260D	µg/L		0.4	U	1	0.4	0.4	U	1	0.4	0.4	U	1	0.4	0.4	U	1	0.4	0.4	U	1	0.4	0.4	U	1	0.4	0.4	U	1	0.4
cis-1,2-Dichloroethene	156-59-2	8260D	µg/L	590 (14)	0.22	U	1	0.22	0.22	U	1	0.22	0.22	U	1	0.22	0.22	U	1	0.22	0.22	U	1	0.22	0.22	U	1	0.22	0.22	U	1	0.22
cis-1,3-Dichloropropene	10061-01-5	8260D	µg/L	0.055 (14)	0.22	U	1	0.22	0.22	U	1	0.22	0.22	U	1	0.22	0.22	U	1	0.22	0.22	U	1	0.22	0.22	U	1	0.22	0.22	U	1	0.22
Cyclohexane	110-82-7	8260D	µg/L		0.32	U	1	0.32	0.32	U	1	0.32	0.32	U	1	0.32	0.32	U	1	0.32	0.32	U	1	0.32	0.32	U	1	0.32	0.32	U	1	0.32
Dichlorobromomethane	75-27-4	8260D	µg/L		0.34	U	1	0.34	0.34	U	1	0.34	0.34	U	1	0.34	0.34	U	1	0.34	0.34	U	1	0.34	0.34	U	1	0.34	0.34	U	1	0.34
Dichlorodifluoromethane	75-71-8	8260D	µg/L		0.31	U	1	0.31	0.31	U	1	0.31	0.31	U	1	0.31	0.31	U	1	0.31	0.31	U	1	0.31	0.31	U	1	0.31	0.31	U	1	0.31
Ethylbenzene	100-41-4	8260D	µg/L	14 (12)	0.3	U	1	0.3	0.3	U	1	0.3	0.3	U	1	0.3	0.3	U	1	0.3	0.3	U	1	0.3	0.3	U	1	0.3	0.3	U	1	0.3
Ethylene Dibromide	106-93-4	8260D	µg/L		0.5	U	1	0.5	0.5	U	1	0.5	0.5	U	1	0.5	0.5	U	1	0.5	0.5	U	1	0.5	0.5	U	1	0.5	0.5	U	1	0.5
Isopropylbenzene	98-82-8	8260D	µg/L		0.34	U	1	0.34	0.34	U	1	0.34	0.34	U	1	0.34	0.34	U	1	0.34	0.34	U	1	0.34	0.34	U	1	0.34	0.34	U	1	0.34
Methyl acetate	79-20-9	8260D	µg/L		0.79	U	5	0.79	0.79	U	5	0.79	0.79	U	5	0.79	0.79	U	5	0.79	0.79	U	5	0.79	0.79	U	5	0.79	0.79	U	5	0.79
Methyl tert-butyl ether	1634-04-4	8260D	µg/L	51000 (12)	0.22	U	1	0.22	0.22	U	1	0.22	0.22	U	1	0.22	0.22	U	1	0.22	0.22	U	1	0.22	0.22	U	1	0.22	0.22	U	1	0.22
Methylcyclohexane	108-87-2	8260D	µg/L		0.71	U	1	0.71	0.71	U	1	0.71	0.71	U	1	0.71	0.71	U	1	0.71	0.71	U	1	0.71	0.71	U	1	0.71	0.71	U	1	0.71
Methylene Chloride	75-09-2	8260D	µg/L	940 (12)	0.32	U	1	0.32	0.32	U	1	0.32	0.32	U	1	0.32	0.32	U	1	0.32	0.32	U	1	0.32	0.32	U	1	0.32	0.32	U	1	0.32
m-Xylene & p-Xylene	179601-23-1	8260D	µg/L	1.8 (14)	0.3	U	1	0.3	0.3	U	1	0.3	0.3	U	1	0.3	0.3	U	1	0.3	0.3	U	1	0.3	0.3	U	1	0.3	0.3	U	1	0.3
o-Xylene	95-47-6	8260D	µg/L	13 (14)	0.36	U	1	0.36	0.36	U	1	0.36	0.36	U	1	0.36	0.36	U	1	0.36	0.36	U	1	0.36	0.36	U	1	0.36	0.36	U	1	0.36
Styrene	100-42-5	8260D	µg/L	32 (14)	0.42	U	1	0.42	0.42	U	1	0.42	0.42	U	1	0.42	0.42	U	1	0.42	0.42	U	1	0.42	0.42	U	1	0.42	0.42	U	1	0.42
Tetrachloroethene	127-18-4	8260D	µg/L	45 (12)	0.25	U	1	0.25	0.25	U	1	0.25	0.25	U	1	0.25	0.25	U	1	0.25	0.25	U	1	0.25	0.25	U	1	0.25	0.25	U	1	0.25
Toluene	108-88-3	8260D	µg/L	253 (12)	0.38	U	1	0.38	5.7		1	0.38	0.38	U	1	0.38	0.38	U	1	0.38	0.38	U	1	0.38	0.38	U	1	0.38	0.38	U	1	0.38
trans-1,2-Dichloroethene	156-60-5	8260D	µg/L	970 (12)	0.24	U	1	0.24	0.24	U	1	0.24	0.24	U	1	0.24	0.24	U	1	0.24	0.24	U	1	0.24	0.24	U	1	0.24	0.24	U	1	0.24
trans-1,3-Dichloropropene	10061-02-6	8260D	µg/L	0.055 (14)	0.22	U	1	0.22	0.22	U	1	0.22	0.22	U	1	0.22	0.22	U	1	0.22	0.22	U	1	0.22	0.22	U	1	0.22	0.22	U	1	0.22
Trichloroethene	79-01-6	8260D	µg/L	47 (12)	0.31	U	1	0.31	0.31	U	1	0.31	0.31	U	1	0.31	0.31	U	1	0.31	0.31	U	1	0.31	0.31	U	1	0.31	0.31	U	1	0.31
Trichlorofluoromethane	75-69-4	8260D	µg/L		0.32	U	1	0.32	0.32	U	1	0.32	0.32	U	1	0.32	0.32	U	1	0.32	0.32	U	1	0.32	0.32	U	1	0.32	0.32	U	1	0.32
Vinyl chloride	75-01-4	8260D	µg/L	930 (12)	0.17	U	1	0.17	0.17	U	1	0.17	0.17	U	1	0.17	0.17	U	1	0.17	0.17	U	1	0.17	0.17	U	1	0.17	0.17	U	1	0.17
1,2-Dibromo-3-Chloropropane	96-12-8	8260D SIM	µg/L		0.38	U	1	0.38	0.38	UJ	1	0.38	0.38	UJ	1	0.38	0.38	UJ	1	0.38	0.38	UJ	1	0.38	0.38	UJ	1	0.38	0.38	UJ	1	0.38
1,4-Dioxane	123-91-1	8260D SIM	µg/L	22000 (6)	28	U	50	28	28	U	50	28	28	U	50	28	28	U	50	28	28	U	50	28	28	U	50	28	28	U	50	28
Ethylene Dibromide	106-93-4	8260D SIM	µg/L		0.5	U	1	0.5	0.5	U	1	0.5	0.5	U	1	0.5	0.5	U	1	0.5	0.5	U	1	0.5	0.5	U	1	0.5	0.5	U	1	0.5

Table 5.19 - Pore Water: Volatile Organic Compounds (VOCs) Analytical Results (continued)

Rolling Knolls Landfill

	Sample Name			ESC's	PW32_0.3-1.3				PW33_0.1-1.1				PW34_0.2-1.2				PW35_0.2-1.2				PW36_0.4-1.4				PW103_0.4-1.4 (PW36_0.4-1.4 duplicate)				PW37_0.2-1.2			
	Sample Date/Time				05/24/2021 17:00				05/25/2021 10:20				05/25/2021 12:06				05/25/2021 13:19				05/25/2021 16:08				05/25/2021 16:08				05/26/2021 10:18			
	Latitude				40.72740334				40.72829546				40.72830226				40.72937246				40.7301228				40.7301228				40.73049011			
	Longitude				-74.43971321				-74.44055948				-74.44017466				-74.440396				-74.44071487				-74.44071487				-74.44113923			
	Lab Sample Name			Screening Criteria	GS-N-PWT032-0.3-1.3				GS-N-PWT33_0.1-1.1				GS-N-PWT34-0.2-1.2				GS-N-PWT35-0.2-1.2				GS-N-PWT36-0.4-1.4				GS-N-PWT103-0.4-1.4				GS-N-PWT037-0.2-1.2			
	Lab Sample Number				460-235498-1				460-235492-1				460-235495-1				460-235495-2				460-235495-3				460-235495-4				460-235554-1			
	Lab Report Number(s)				460-235498-1				460-235492-1				460-235495-1				460-235495-1				460-235495-1				460-235495-1				460-235554-1			
Analyte	CAS	Method	Units		Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)
1,1,1-Trichloroethane	71-55-6	8260D	µg/L	76 (12)	0.24	U	1	0.24	0.24	U	1	0.24	0.24	U	1	0.24	0.24	U	1	0.24	0.24	UJ	1	0.24	0.24	U	1	0.24	0.24	U	1	0.24
1,1,2,2-Tetrachloroethane	79-34-5	8260D	µg/L	380 (12)	0.37	U	1	0.37	0.37	U	1	0.37	0.37	U	1	0.37	0.37	U	1	0.37	0.37	UJ	1	0.37	0.37	U	1	0.37	0.37	U	1	0.37
1,1,2-Trichloro-1,2,2-trifluoroethane	76-13-1	8260D	µg/L		0.31	U	1	0.31	0.31	U	1	0.31	0.31	U	1	0.31	0.31	U	1	0.31	0.31	UJ	1	0.31	0.31	U	1	0.31	0.31	U	1	0.31
1,1,2-Trichloroethane	79-00-5	8260D	µg/L	500 (12)	0.2	U	1	0.2	0.2	U	1	0.2	0.2	U	1	0.2	0.2	U	1	0.2	0.2	UJ	1	0.2	0.2	U	1	0.2	0.2	U	1	0.2
1,1-Dichloroethane	75-34-3	8260D	µg/L	47 (14)	0.26	U	1	0.26	0.26	U	1	0.26	0.26	U	1	0.26	0.26	U	1	0.26	0.26	UJ	1	0.26	0.26	U	1	0.26	0.26	U	1	0.26
1,1-Dichloroethene	75-35-4	8260D	µg/L	65 (12)	0.26	U	1	0.26	0.26	U	1	0.26	0.26	U	1	0.26	0.26	U	1	0.26	0.26	UJ	1	0.26	0.26	U	1	0.26	0.26	U	1	0.26
1,2,3-Trichlorobenzene	87-61-6	8260D	µg/L	8 (14)	0.36	U	1	0.36	0.36	U	1	0.36	0.36	U	1	0.36	0.36	U	1	0.36	0.36	UJ	1	0.36	0.36	U	1	0.36	0.36	U	1	0.36
1,2,4-Trichlorobenzene	120-82-1	8260D	µg/L	30 (12)	0.37	U	1	0.37	0.37	U	1	0.37	0.37	U	1	0.37	0.37	U	1	0.37	0.37	UJ	1	0.37	0.37	U	1	0.37	0.37	U	1	0.37
1,2-Dibromo-3-Chloropropane	96-12-8	8260D	µg/L		0.38	UJ	1	0.38	0.38	UJ	1	0.38	0.38	U	1	0.38	0.38	U	1	0.38	0.38	UJ	1	0.38	0.38	U	1	0.38	0.38	U	1	0.38
1,2-Dichlorobenzene	95-50-1	8260D	µg/L	14 (12)	0.21	U	1	0.21	0.21	U	1	0.21	0.21	U	1	0.21	0.21	U	1	0.21	0.21	UJ	1	0.21	0.21	U	1	0.21	0.21	U	1	0.21
1,2-Dichloroethane	107-06-2	8260D	µg/L	910 (12)	0.43	U	1	0.43	0.43	U	1	0.43	0.43	U	1	0.43	0.43	U	1	0.43	0.43	UJ	1	0.43	0.43	U	1	0.43	0.43	U	1	0.43
1,2-Dichloropropane	78-87-5	8260D	µg/L	360 (12)	0.35	U	1	0.35	0.35	U	1	0.35	0.35	U	1	0.35	0.35	U	1	0.35	0.35	UJ	1	0.35	0.35	U	1	0.35	0.35	U	1	0.35
1,3-Dichlorobenzene	541-73-1	8260D	µg/L	38 (12)	0.34	U	1	0.34	0.34	U	1	0.34	0.34	U	1	0.34	0.34	U	1	0.34	0.34	UJ	1	0.34	0.34	U	1	0.34	0.34	U	1	0.34
1,4-Dichlorobenzene	106-46-7	8260D	µg/L	9.4 (12)	0.66	J	1	0.33	0.33	U	1	0.33	0.33	U	1	0.33	0.33	U	1	0.33	0.33	UJ	1	0.33	0.33	U	1	0.33	0.33	U	1	0.33
1,4-Dioxane	123-91-1	8260D	µg/L	22000 (6)	28	U	50	28	28	U	50	28	28	U	50	28	28	U	50	28	28	UJ	50	28	28	U	50	28	28	U	50	28
2-Butanone (MEK)	78-93-3	8260D	µg/L	7200 (14)	1.9	U	5	1.9	1.9	U	5	1.9	1.9	U	5	1.9	1.9	U	5	1.9	1.9	UJ	5	1.9	1.9	U	5	1.9	3.5	J	5	1.9
2-Hexanone	591-78-6	8260D	µg/L	99 (14)	1.1	U	5	1.1	1.1	U	5	1.1	1.1	UJ	5	1.1	1.1	UJ	5	1.1	1.1	UJ	5	1.1	1.1	UJ	5	1.1	1.1	U	5	1.1
4-Methyl-2-pentanone (MIBK)	108-10-1	8260D	µg/L	170 (14)	1.3	U	5	1.3	1.3	U	5	1.3	1.3	UJ	5	1.3	1.3	UJ	5	1.3	1.3	UJ	5	1.3	1.3	UJ	5	1.3	1.3	U	5	1.3
Acetone	67-64-1	8260D	µg/L	1500 (14)	4.4	U	5	4.4	4.4	U	5	4.4	4.4	UJ	5	4.4	4.4	UJ	5	4.4	4.4	UJ	5	4.4	4.4	UJ	5	4.4	8.5	U	5	4.4
Benzene	71-43-2	8260D	µg/L	114 (12)	0.2	U	1	0.2	0.2	U	1	0.2	0.2	U	1	0.2	0.2	U	1	0.2	0.2	UJ	1	0.2	0.2	U	1	0.2	0.2	U	1	0.2
Bromoform	75-25-2	8260D	µg/L	230 (12)	0.54	U	1	0.54	0.54	U	1	0.54	0.54	U	1	0.54	0.54	U	1	0.54	0.54	UJ	1	0.54	0.54	U	1	0.54	0.54	U	1	0.54
Bromomethane	74-83-9	8260D	µg/L	16 (12)	0.55	U	1	0.55	0.55	U	1	0.55	0.55	U	1	0.55	0.55	U	1	0.55	0.55	UJ	1	0.55	0.55	U	1	0.55	0.55	UJ	1	0.55
Carbon disulfide	75-15-0	8260D	µg/L	0.92 (14)	0.82	U	1	0.82	0.82	U	1	0.82	0.82	U	1	0.82	0.82	U	1	0.82	0.82	UJ	1	0.82	0.82	U	1	0.82	0.82	U	1	0.82
Carbon tetrachloride	56-23-5	8260D	µg/L	240 (12)	0.21	U	1	0.21	0.21	U	1	0.21	0.21	U	1	0.21	0.21	U	1	0.21	0.21	UJ	1	0.21	0.21	U	1	0.21	0.21	U	1	0.21
Chlorobenzene	108-90-7	8260D	µg/L	47 (12)	1.6		1	0.38	0.38	U	1	0.38	0.38	U	1	0.38	0.38	U	1	0.38	0.38	UJ	1	0.38	0.38	U	1	0.38	0.38	U	1	0.38
Chlorobromomethane	74-97-5	8260D	µg/L		0.41	U	1	0.41	0.41	U	1	0.41	0.41	U	1	0.41	0.41	U	1	0.41	0.41	UJ	1	0.41	0.41	U	1	0.41	0.41	U	1	0.41
Chlorodibromomethane	124-48-1	8260D	µg/L		0.28	U	1	0.28	0.28	U	1	0.28	0.28	U	1	0.28	0.28	U	1	0.28	0.28	UJ	1	0.28	0.28	U	1	0.28	0.28	U	1	0.28
Chloroethane	75-00-3	8260D	µg/L		0.32	U	1	0.32	0.32	U	1	0.32	0.32	U	1	0.32	0.32	U	1	0.32	0.32	UJ	1	0.32	0.32	U	1	0.32	0.32	UJ	1	0.32
Chloroform	67-66-3	8260D	µg/L	140 (12)	0.33	U	1	0.33	0.33	U	1	0.33	0.33	U	1	0.33	0.33	U	1	0.33	0.33	UJ	1	0.33	0.33	U	1	0.33	0.33	U	1	0.33
Chloromethane	74-87-3	8260D	µg/L		0.4	U	1	0.4	0.4	U	1	0.4	0.4	UJ	1	0.4	0.4	UJ	1	0.4	0.4	UJ	1	0.4	0.4	UJ	1	0.4	0.4	UJ	1	0.4
cis-1,2-Dichloroethene	156-59-2	8260D	µg/L	590 (14)	0.22	U	1	0.22	0.22	U	1	0.22	0.22	U	1	0.22	0.22	U	1	0.22	0.22	UJ	1	0.22	0.22	U	1	0.22	0.22	U	1	0.22
cis-1,3-Dichloropropene	10061-01-5	8260D	µg/L	0.055 (14)	0.22	U	1	0.22	0.22	U	1	0.22	0.22	U	1	0.22	0.22	U	1	0.22	0.22	UJ	1	0.22	0.22	U	1	0.22	0.22	U	1	0.22
Cyclohexane	110-82-7	8260D	µg/L		0.32	U	1	0.32	0.32	U	1	0.32	0.32	U	1	0.32	0.32	U	1	0.32	0.32	UJ	1	0.32	0.32	U	1	0.32	0.32	U	1	0.32
Dichlorobromomethane	75-27-4	8260D	µg/L		0.34	U	1	0.34	0.34	U	1	0.34	0.34	U	1	0.34	0.34	U	1	0.34	0.34	UJ	1	0.34	0.34	U	1	0.34	0.34	U	1	0.34
Dichlorodifluoromethane	75-71-8	8260D	µg/L		0.31	U	1	0.31	0.31	U	1	0.31	0.31	UJ	1	0.31	0.31	UJ	1	0.31	0.31	UJ	1	0.31	0.31	UJ	1	0.31	0.31	U	1	0.31
Ethylbenzene	100-41-4	8260D	µg/L	14 (12)	0.3	U	1	0.3	0.3	U	1	0.3	0.3	U	1	0.3	0.3	U	1	0.3	0.3	UJ	1	0.3	0.3	U	1	0.3	0.3	U	1	0.3
Ethylene Dibromide	106-93-4	8260D	µg/L		0.5	U	1	0.5	0.5	U	1	0.5	0.5	U	1	0.5	0.5	U	1	0.5	0.5	UJ	1	0.5	0.5	U	1	0.5	0.5	U	1	0.5
Isopropylbenzene	98-82-8	8260D	µg/L		0.34	U	1	0.34	0.34	U	1	0.34	0.34	U	1	0.34	0.34	U	1	0.34	0.34	UJ	1	0.34	0.34	U	1	0.34	0.34	U	1	0.34
Methyl acetate	79-20-9	8260D	µg/L		0.79	U	5	0.79	0.79	U	5	0.79	0.79	U	5	0.79	0.79	U	5	0.79	0.79	UJ	5	0.79	0.79	U	5	0.79	0.79	U	5	0.79
Methyl tert-butyl ether	1634-04-4	8260D	µg/L	51000 (12)	0.22	U	1	0.22	0.22	U	1	0.22	0.22	U	1	0.22	0.22	U	1	0.22	0.22	UJ	1	0.22	0.22	U	1	0.22	0.22	U	1	0.22
Methylcyclohexane	108-87-2	8260D	µg/L		0.71	U	1	0.71	0.71	U	1	0.71	0.71	U	1	0.71	0.71	U	1	0.71	0.71	UJ	1	0.71	0.71	U	1	0.71	0.71	U	1	0.71
Methylene Chloride	75-09-2	8260D	µg/L	940 (12)	0.32	U	1	0.32	0.32	U	1	0.32	0.32	U	1	0.32	0.32	U	1	0.32	0.32	UJ	1	0.32	0.32	U	1	0.32	0.32	U	1	0.32
m-Xylene & p-Xylene	179601-23-1	8260D	µg/L	1.8 (14)	1.5		1	0.3	0.3	U	1	0.3	0.3	U	1	0.3	0.3	U	1	0.3	0.3	UJ	1	0.3	0.3	U	1	0.3	0.3	U	1	0.3
o-Xylene	95-47-6	8260D	µg/L	13 (14)	0.36	U	1	0.36	0.36	U	1	0.36	0.36	U	1	0.36	0.36	U	1	0.36	0.36	UJ	1	0.36	0.36	U	1	0.36	0.36	U	1	0.36
Styrene	100-42-5	8260D	µg/L	32 (14)	0.42	U	1	0.42	0.42	U	1	0.42	0.42	U	1	0.42	0.42	U	1	0.42	0.42	UJ	1	0.42	0.42	U	1	0.42	0.42	U	1	0.42
Tetrachloroethene	127-18-4	8260D	µg/L	45 (12)	0.25	U	1	0.25	0.25	U	1	0.25	0.25	U	1	0.25	0.25	U	1	0.25	0.25	UJ	1	0.25	0.25	U	1	0.25	0.25	U	1	0.25
Toluene	108-88-3	8260D	µg/L	253 (12)	0.38	U	1	0.38	0.38	U	1	0.38	0.38	U	1	0.38	0.38	U	1	0.38	0.38	UJ	1	0.38	0.38	U	1	0.38	1.9		1	0.38
trans-1,2-Dichloroethene	156-60-5	8260D	µg/L	970 (12)	0.24	U	1	0.24	0.24	U	1	0.24	0.24	U	1	0.24	0.24	U	1	0.24	0.24	UJ	1	0.24	0.24	U	1	0.24	0.24	U	1	0.24
trans-1,3-Dichloropropene	10061-02-6	8260D	µg/L	0.055 (14)	0.22	U	1	0.22	0.22	U	1	0.22	0.22	U	1	0.22	0.22	U	1	0.22	0.22	UJ	1	0.22	0.22	U	1	0.22	0.22	U	1	0.22
Trichloroethene	79-01-6	8260D	µg/L	47 (12)	0.31	U	1	0.31	0.31	U	1	0.31	0.31	U	1	0.31	0.31	U	1	0.31	0.31	UJ	1	0.31	0.31	U	1	0.31	0.31	U	1	0.31
Trichlorofluoromethane	75-69-4	8260D	µg/L		0.32	U	1	0.32	0.32	U	1	0.32	0.32	U	1	0.32	0.32	U	1	0.32	0.32	UJ	1	0.32	0.32	U	1	0.32	0.32	UJ	1	0.32
Vinyl chloride	75-01-4	8260D	µg/L	930 (12)	0.17	U	1	0.17	0.17	U	1	0.17	0.17	UJ	1	0.17	0.17	UJ	1	0.17	0.17	UJ	1	0.17	0.17	UJ	1	0.17	0.17	UJ	1	0.17
1,2-Dibromo-3-Chloropropane	96-12-8	8260D SIM	µg/L		0.38	UJ	1	0.38	0.38	UJ	1	0.38	0.38	U	1	0.38	0.38	U	1	0.38	0.38	UJ	1	0.38	0.38	U	1	0.38	0.38	U	1	0.38
1,4-Dioxane	123-91-1	8260D SIM	µg/L	22000 (6)	28	U	50	28	28	U	50	28	28	U	50	28	28	U	50	28	28	UJ	50	28	28	U	50	28	28	U	50	28
Ethylene Dibromide	106-93-4	8260D SIM	µg/L		0.5	U	1	0.5	0.5	U	1	0.5	0.5	U	1	0.5	0.5	U	1	0.5	0.5	UJ	1	0.5	0.5	U	1	0.5	0.5	U	1	0.5

Table 5.19 - Pore Water: Volatile Organic Compounds (VOCs) Analytical Results (continued)

Rolling Knolls Landfill

	Sample Name			ESC's	PW41_0.2-1.2				PW42_0.1-1.1				PW43_0.4-1.4				PW44_0.1-1.1				PW45_0.1-1.1				PW100_0.1-1.1 (PW45_0.1-1.1 duplicate)				PW46_0.3-1.3			
	Sample Date/Time				05/27/2021 10:44				05/27/2021 10:50				05/27/2021 13:00				06/01/2021 11:05				06/01/2021 13:50				06/01/2021 13:50				06/02/2021 10:20			
	Latitude				40.72630201				40.7267825				40.72743339				40.72381503				40.72413479				40.72413479				40.72975399			
	Longitude				-74.44023138				-74.4399115				-74.44007544				-74.44982242				-74.4444308				-74.4444308				-74.44129459			
	Lab Sample Name			Screening Criteria	GS-N-PWT41-0.2-1.2				GS-N-PWT42-0.1-1.1				GS-N-PWT43-0.4-1.4				GS-S-PWT44-0.1-1.1				GS-S-PWT45-0.1-1.1				GS-S-PWT100-0.1-1.1				GS-N-PWT46-0.3-1.3			
	Lab Sample Number				460-235584-1				460-235584-2				460-235584-3				460-235699-1				460-235699-2				460-235699-3				460-235933-1			
	Lab Report Number(s)				460-235584-1				460-235584-1				460-235584-1				460-235699-1				460-235699-1				460-235699-1				460-235933-1			
Analyte	CAS	Method	Units		Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)
1,1,1-Trichloroethane	71-55-6	8260D	µg/L	76 (12)	0.24	U	1	0.24	0.24	U	1	0.24	0.24	U	1	0.24	0.24	U	1	0.24	0.24	U	1	0.24	0.24	U	1	0.24	0.24	U	1	0.24
1,1,2,2-Tetrachloroethane	79-34-5	8260D	µg/L	380 (12)	0.37	U	1	0.37	0.37	U	1	0.37	0.37	U	1	0.37	0.37	U	1	0.37	0.37	U	1	0.37	0.37	U	1	0.37	0.37	U	1	0.37
1,1,2-Trichloro-1,2,2-trifluoroethane	76-13-1	8260D	µg/L		0.31	U	1	0.31	0.31	U	1	0.31	0.31	U	1	0.31	0.31	U	1	0.31	0.31	U	1	0.31	0.31	UJ	1	0.31	0.31	U	1	0.31
1,1,2-Trichloroethane	79-00-5	8260D	µg/L	500 (12)	0.2	U	1	0.2	0.2	U	1	0.2	0.2	U	1	0.2	0.2	U	1	0.2	0.2	U	1	0.2	0.2	U	1	0.2	0.2	U	1	0.2
1,1-Dichloroethane	75-34-3	8260D	µg/L	47 (14)	0.26	U	1	0.26	0.26	U	1	0.26	0.26	U	1	0.26	0.26	U	1	0.26	0.26	U	1	0.26	0.26	U	1	0.26	0.26	U	1	0.26
1,1-Dichloroethene	75-35-4	8260D	µg/L	65 (12)	0.26	U	1	0.26	0.26	U	1	0.26	0.26	U	1	0.26	0.26	U	1	0.26	0.26	U	1	0.26	0.26	U	1	0.26	0.26	U	1	0.26
1,2,3-Trichlorobenzene	87-61-6	8260D	µg/L	8 (14)	0.36	U	1	0.36	0.36	U	1	0.36	0.36	U	1	0.36	0.36	U	1	0.36	0.36	U	1	0.36	0.36	U	1	0.36	0.36	U	1	0.36
1,2,4-Trichlorobenzene	120-82-1	8260D	µg/L	30 (12)	0.37	U	1	0.37	0.37	U	1	0.37	0.37	U	1	0.37	0.37	U	1	0.37	0.37	U	1	0.37	0.37	U	1	0.37	0.37	U	1	0.37
1,2-Dibromo-3-Chloropropane	96-12-8	8260D	µg/L		0.38	UJ	1	0.38	0.38	U	1	0.38	0.38	U	1	0.38	0.38	UJ	1	0.38	0.38	U	1	0.38	0.38	UJ	1	0.38	0.38	U	1	0.38
1,2-Dichlorobenzene	95-50-1	8260D	µg/L	14 (12)	0.21	U	1	0.21	0.21	U	1	0.21	0.21	U	1	0.21	0.21	U	1	0.21	0.21	U	1	0.21	0.21	U	1	0.21	0.21	U	1	0.21
1,2-Dichloroethane	107-06-2	8260D	µg/L	910 (12)	0.43	U	1	0.43	0.43	U	1	0.43	0.43	U	1	0.43	0.43	U	1	0.43	0.43	U	1	0.43	0.43	U	1	0.43	0.43	U	1	0.43
1,2-Dichloropropane	78-87-5	8260D	µg/L	360 (12)	0.35	U	1	0.35	0.35	U	1	0.35	0.35	U	1	0.35	0.35	U	1	0.35	0.35	U	1	0.35	0.35	U	1	0.35	0.35	U	1	0.35
1,3-Dichlorobenzene	541-73-1	8260D	µg/L	38 (12)	0.34	U	1	0.34	0.34	U	1	0.34	0.34	U	1	0.34	0.34	U	1	0.34	0.34	U	1	0.34	0.34	U	1	0.34	0.34	U	1	0.34
1,4-Dichlorobenzene	106-46-7	8260D	µg/L	9.4 (12)	0.33	U	1	0.33	0.33	U	1	0.33	0.33	U	1	0.33	0.33	U	1	0.33	0.33	U	1	0.33	0.33	U	1	0.33	0.33	U	1	0.33
1,4-Dioxane	123-91-1	8260D	µg/L	22000 (6)	28	U	50	28	28	U	50	28	28	U	50	28	28	U	50	28	28	U	50	28	28	UJ	50	28	28	UJ	50	28
2-Butanone (MEK)	78-93-3	8260D	µg/L	7200 (14)	4.4	J	5	1.9	1.9	U	5	1.9	1.9	U	5	1.9	1.9	U	5	1.9	5.5	U	5	1.9	4.3	U	5	1.9	1.9	U	5	1.9
2-Hexanone	591-78-6	8260D	µg/L	99 (14)	1.1	U	5	1.1	1.1	U	5	1.1	1.1	U	5	1.1	1.1	U	5	1.1	1.1	U	5	1.1	1.1	U	5	1.1	1.1	U	5	1.1
4-Methyl-2-pentanone (MIBK)	108-10-1	8260D	µg/L	170 (14)	1.3	U	5	1.3	1.3	U	5	1.3	1.3	U	5	1.3	1.3	U	5	1.3	1.3	U	5	1.3	1.3	U	5	1.3	1.3	U	5	1.3
Acetone	67-64-1	8260D	µg/L	1500 (14)	28		5	4.4	4.4	U	5	4.4	10		5	4.4	5.2	U	5	4.4	10	U	5	4.4	7.5	U	5	4.4	4.4	U	5	4.4
Benzene	71-43-2	8260D	µg/L	114 (12)	0.2	U	1	0.2	0.2	U	1	0.2	0.2	U	1	0.2	0.2	U	1	0.2	0.2	U	1	0.2	0.2	U	1	0.2	0.2	U	1	0.2
Bromoform	75-25-2	8260D	µg/L	230 (12)	0.54	U	1	0.54	0.54	U	1	0.54	0.54	U	1	0.54	0.54	U	1	0.54	0.54	U	1	0.54	0.54	U	1	0.54	0.54	U	1	0.54
Bromomethane	74-83-9	8260D	µg/L	16 (12)	0.55	U	1	0.55	0.55	UJ	1	0.55	0.55	UJ	1	0.55	0.55	U	1	0.55	0.55	U	1	0.55	0.55	U	1	0.55	0.55	U	1	0.55
Carbon disulfide	75-15-0	8260D	µg/L	0.92 (14)	0.82	U	1	0.82	0.82	U	1	0.82	0.82	U	1	0.82	0.82	U	1	0.82	0.82	U	1	0.82	0.82	U	1	0.82	0.82	U	1	0.82
Carbon tetrachloride	56-23-5	8260D	µg/L	240 (12)	0.21	U	1	0.21	0.21	U	1	0.21	0.21	U	1	0.21	0.21	U	1	0.21	0.21	U	1	0.21	0.21	U	1	0.21	0.21	U	1	0.21
Chlorobenzene	108-90-7	8260D	µg/L	47 (12)	0.38	U	1	0.38	0.38	U	1	0.38	0.38	U	1	0.38	0.38	U	1	0.38	0.38	U	1	0.38	0.38	U	1	0.38	0.49	J	1	0.38
Chlorobromomethane	74-97-5	8260D	µg/L		0.41	U	1	0.41	0.41	U	1	0.41	0.41	U	1	0.41	0.41	U	1	0.41	0.41	U	1	0.41	0.41	U	1	0.41	0.41	U	1	0.41
Chlorodibromomethane	124-48-1	8260D	µg/L		0.28	U	1	0.28	0.28	U	1	0.28	0.28	U	1	0.28	0.28	U	1	0.28	0.28	U	1	0.28	0.28	U	1	0.28	0.28	U	1	0.28
Chloroethane	75-00-3	8260D	µg/L		0.32	U	1	0.32	0.32	UJ	1	0.32	0.32	UJ	1	0.32	0.32	U	1	0.32	0.32	U	1	0.32	0.32	U	1	0.32	0.32	U	1	0.32
Chloroform	67-66-3	8260D	µg/L	140 (12)	0.33	U	1	0.33	0.33	U	1	0.33	0.33	U	1	0.33	0.33	U	1	0.33	0.33	U	1	0.33	0.33	U	1	0.33	0.33	U	1	0.33
Chloromethane	74-87-3	8260D	µg/L		0.4	U	1	0.4	0.4	UJ	1	0.4	0.4	UJ	1	0.4	0.4	U	1	0.4	0.4	U	1	0.4	0.4	U	1	0.4	0.4	U	1	0.4
cis-1,2-Dichloroethene	156-59-2	8260D	µg/L	590 (14)	0.22	U	1	0.22	0.22	U	1	0.22	0.22	U	1	0.22	0.22	U	1	0.22	0.22	U	1	0.22	0.22	U	1	0.22	0.22	U	1	0.22
cis-1,3-Dichloropropene	10061-01-5	8260D	µg/L	0.055 (14)	0.22	U	1	0.22	0.22	U	1	0.22	0.22	U	1	0.22	0.22	U	1	0.22	0.22	U	1	0.22	0.22	U	1	0.22	0.22	U	1	0.22
Cyclohexane	110-82-7	8260D	µg/L		0.32	U	1	0.32	0.32	U	1	0.32	0.32	U	1	0.32	0.32	U	1	0.32	0.32	U	1	0.32	0.32	UJ	1	0.32	0.32	U	1	0.32
Dichlorobromomethane	75-27-4	8260D	µg/L		0.34	U	1	0.34	0.34	U	1	0.34	0.34	U	1	0.34	0.34	U	1	0.34	0.34	U	1	0.34	0.34	U	1	0.34	0.34	U	1	0.34
Dichlorodifluoromethane	75-71-8	8260D	µg/L		0.31	U	1	0.31	0.31	U	1	0.31	0.31	U	1	0.31	0.31	U	1	0.31	0.31	U	1	0.31	0.31	U	1	0.31	0.31	U	1	0.31
Ethylbenzene	100-41-4	8260D	µg/L	14 (12)	0.3	U	1	0.3	0.3	U	1	0.3	0.3	U	1	0.3	0.3	U	1	0.3	0.3	U	1	0.3	0.3	U	1	0.3	0.3	U	1	0.3
Ethylene Dibromide	106-93-4	8260D	µg/L		0.5	U	1	0.5	0.5	U	1	0.5	0.5	U	1	0.5	0.5	U	1	0.5	0.5	U	1	0.5	0.5	U	1	0.5	0.5	U	1	0.5
Isopropylbenzene	98-82-8	8260D	µg/L		0.34	U	1	0.34	0.34	U	1	0.34	0.34	U	1	0.34	0.34	U	1	0.34	0.34	U	1	0.34	0.34	U	1	0.34	0.34	U	1	0.34
Methyl acetate	79-20-9	8260D	µg/L		0.79	UJ	5	0.79	0.79	U	5	0.79	0.79	U	5	0.79	0.79	U	5	0.79	0.79	U	5	0.79	0.79	U	5	0.79	0.79	U	5	0.79
Methyl tert-butyl ether	1634-04-4	8260D	µg/L	51000 (12)	0.22	U	1	0.22	0.22	U	1	0.22	0.22	U	1	0.22	0.22	U	1	0.22	0.22	U	1	0.22	0.22	U	1	0.22	0.22	U	1	0.22
Methylcyclohexane	108-87-2	8260D	µg/L		0.71	U	1	0.71	0.71	U	1	0.71	0.71	U	1	0.71	0.71	U	1	0.71	0.71	U	1	0.71	0.71	UJ	1	0.71	0.71	U	1	0.71
Methylene Chloride	75-09-2	8260D	µg/L	940 (12)	0.81	J	1	0.32	0.32	U	1	0.32	0.46	J	1	0.32	1.7		1	0.32	0.32	U	1	0.32	0.63	J	1	0.32	1.1		1	0.32
m-Xylene & p-Xylene	179601-23-1	8260D	µg/L	1.8 (14)	0.3	U	1	0.3	0.3	U	1	0.3	0.3	U	1	0.3	0.3	U	1	0.3	0.3	U	1	0.3	0.3	U	1	0.3	0.3	U	1	0.3
o-Xylene	95-47-6	8260D	µg/L	13 (14)	0.36	U	1	0.36	0.36	U	1	0.36	0.36	U	1	0.36	0.36	U	1	0.36	0.36	U	1	0.36	0.36	U	1	0.36	0.36	U	1	0.36
Styrene	100-42-5	8260D	µg/L	32 (14)	0.42	U	1	0.42	0.42	U	1	0.42	0.42	U	1	0.42	0.42	U	1	0.42	0.42	U	1	0.42	0.42	U	1	0.42	0.42	U	1	0.42
Tetrachloroethene	127-18-4	8260D	µg/L	45 (12)	0.25	U	1	0.25	0.25	U	1	0.25	0.25	U	1	0.25	0.25	U	1	0.25	0.25	U	1	0.25	0.25	U	1	0.25	0.25	U	1	0.25
Toluene	108-88-3	8260D	µg/L	253 (12)	0.38	U	1	0.38	0.38	U	1	0.38	1.3		1	0.38	0.38	U	1	0.38	0.38	U	1	0.38	0.38	U	1	0.38	0.38	U	1	0.38
trans-1,2-Dichloroethene	156-60-5	8260D	µg/L	970 (12)	0.24	U	1	0.24	0.24	U	1	0.24	0.24	U	1	0.24	0.24	U	1	0.24	0.24	U	1	0.24	0.24	U	1	0.24	0.24	U	1	0.24
trans-1,3-Dichloropropene	10061-02-6	8260D	µg/L	0.055 (14)	0.22	U	1	0.22	0.22	U	1	0.22	0.22	U	1	0.22	0.22	U	1	0.22	0.22	U	1	0.22	0.22	U	1	0.22	0.22	U	1	0.22
Trichloroethene	79-01-6	8260D	µg/L	47 (12)	0.31	U	1	0.31	0.31	U	1	0.31	0.31	U	1	0.31	0.31	U	1	0.31	0.31	U	1	0.31	0.31	U	1	0.31	0.31	U	1	0.31
Trichlorofluoromethane	75-69-4	8260D	µg/L		0.32	UJ	1	0.32	0.32	UJ	1	0.32	0.32	UJ	1	0.32	0.32	U	1	0.32	0.32	U	1	0.32	0.32	U	1	0.32	0.32	U	1	0.32
Vinyl chloride	75-01-4	8260D	µg/L	930 (12)	0.17	U	1	0.17	0.17	UJ	1	0.17	0.17	UJ	1	0.17	0.17	U	1	0.17	0.17	U	1	0.17	0.17	U	1	0.17	0.17	U	1	0.17
1,2-Dibromo-3-Chloropropane	96-12-8	8260D SIM	µg/L		0.38	UJ	1	0.38	0.38	U	1	0.38	0.38	U	1	0.38	0.38	UJ	1	0.38	0.38	U	1	0.38	0.38	UJ	1	0.38	0.38	U	1	0.38
1,4-Dioxane	123-91-1	8260D SIM	µg/L	22000 (6)	28	U	50	28	28	U	50	28	28	U	50	28	28	U	50	28	28	U	50	28	28	UJ	50	28	28	UJ	50	28
Ethylene Dibromide	106-93-4	8260D SIM	µg/L		0.5	U	1	0.5	0.5	U	1	0.5	0.5	U	1	0.5	0.5	U	1	0.5	0.5	U	1	0.5	0.5	U	1	0.5	0.5	U	1	0.5

Table 5.19 - Pore Water: Volatile Organic Compounds (VOCs) Analytical Results (continued)

Rolling Knolls Landfill

Sample Name				ESC's	PW101_0.3-1.3 (PW46-0.3-1.3 duplicate)				PW47_0.1-1.1			
Sample Date/Time					06/02/2021 10:20				06/02/2021 12:50			
Latitude					40.72975399				40.73048521			
Longitude					-74.44129459				-74.44164343			
Lab Sample Name				Screening Criteria	GS-N-PWT101-0.3-1.3				GS-PWT47-0.1-1.1			
Lab Sample Number					460-235933-2				460-235933-3			
Lab Report Number(s)					460-235933-1				460-235933-1			
Analyte	**CAS**	**Method**	**Units**		**Result**	**LDC Flag**	**RL**	**MDL (EDL)**	**Result**	**LDC Flag**	**RL**	**MDL (EDL)**
1,1,1-Trichloroethane	71-55-6	8260D	µg/L	76 (12)	0.24	U	1	0.24	0.24	U	1	0.24
1,1,2,2-Tetrachloroethane	79-34-5	8260D	µg/L	380 (12)	0.37	U	1	0.37	0.37	U	1	0.37
1,1,2-Trichloro-1,2,2-trifluoroethane	76-13-1	8260D	µg/L		0.31	U	1	0.31	0.31	U	1	0.31
1,1,2-Trichloroethane	79-00-5	8260D	µg/L	500 (12)	0.2	U	1	0.2	0.2	U	1	0.2
1,1-Dichloroethane	75-34-3	8260D	µg/L	47 (14)	0.26	U	1	0.26	0.26	U	1	0.26
1,1-Dichloroethene	75-35-4	8260D	µg/L	65 (12)	0.26	U	1	0.26	0.26	U	1	0.26
1,2,3-Trichlorobenzene	87-61-6	8260D	µg/L	8 (14)	0.36	U	1	0.36	0.36	U	1	0.36
1,2,4-Trichlorobenzene	120-82-1	8260D	µg/L	30 (12)	0.37	U	1	0.37	0.37	U	1	0.37
1,2-Dibromo-3-Chloropropane	96-12-8	8260D	µg/L		0.38	U	1	0.38	0.38	U	1	0.38
1,2-Dichlorobenzene	95-50-1	8260D	µg/L	14 (12)	0.21	U	1	0.21	0.21	U	1	0.21
1,2-Dichloroethane	107-06-2	8260D	µg/L	910 (12)	0.43	U	1	0.43	0.43	U	1	0.43
1,2-Dichloropropane	78-87-5	8260D	µg/L	360 (12)	0.35	U	1	0.35	0.35	U	1	0.35
1,3-Dichlorobenzene	541-73-1	8260D	µg/L	38 (12)	0.34	U	1	0.34	0.34	U	1	0.34
1,4-Dichlorobenzene	106-46-7	8260D	µg/L	9.4 (12)	0.33	U	1	0.33	0.33	U	1	0.33
1,4-Dioxane	123-91-1	8260D	µg/L	22000 (6)	28	UJ	50	28	28	UJ	50	28
2-Butanone (MEK)	78-93-3	8260D	µg/L	7200 (14)	1.9	U	5	1.9	1.9	U	5	1.9
2-Hexanone	591-78-6	8260D	µg/L	99 (14)	1.1	U	5	1.1	1.1	U	5	1.1
4-Methyl-2-pentanone (MIBK)	108-10-1	8260D	µg/L	170 (14)	1.3	U	5	1.3	1.3	U	5	1.3
Acetone	67-64-1	8260D	µg/L	1500 (14)	4.4	U	5	4.4	4.4	U	5	4.4
Benzene	71-43-2	8260D	µg/L	114 (12)	0.2	U	1	0.2	0.2	U	1	0.2
Bromoform	75-25-2	8260D	µg/L	230 (12)	0.54	U	1	0.54	0.54	U	1	0.54
Bromomethane	74-83-9	8260D	µg/L	16 (12)	0.55	U	1	0.55	0.55	U	1	0.55
Carbon disulfide	75-15-0	8260D	µg/L	0.92 (14)	0.82	U	1	0.82	0.82	U	1	0.82
Carbon tetrachloride	56-23-5	8260D	µg/L	240 (12)	0.21	U	1	0.21	0.21	U	1	0.21
Chlorobenzene	108-90-7	8260D	µg/L	47 (12)	0.5	J	1	0.38	0.38	U	1	0.38
Chlorobromomethane	74-97-5	8260D	µg/L		0.41	U	1	0.41	0.41	U	1	0.41
Chlorodibromomethane	124-48-1	8260D	µg/L		0.28	U	1	0.28	0.28	U	1	0.28
Chloroethane	75-00-3	8260D	µg/L		0.32	U	1	0.32	0.32	U	1	0.32
Chloroform	67-66-3	8260D	µg/L	140 (12)	0.33	U	1	0.33	0.33	U	1	0.33
Chloromethane	74-87-3	8260D	µg/L		0.4	U	1	0.4	0.4	U	1	0.4
cis-1,2-Dichloroethene	156-59-2	8260D	µg/L	590 (14)	0.22	U	1	0.22	0.22	U	1	0.22
cis-1,3-Dichloropropene	10061-01-5	8260D	µg/L	0.055 (14)	0.22	U	1	0.22	0.22	U	1	0.22
Cyclohexane	110-82-7	8260D	µg/L		0.32	U	1	0.32	0.32	U	1	0.32
Dichlorobromomethane	75-27-4	8260D	µg/L		0.34	U	1	0.34	0.34	U	1	0.34
Dichlorodifluoromethane	75-71-8	8260D	µg/L		0.31	U	1	0.31	0.31	U	1	0.31
Ethylbenzene	100-41-4	8260D	µg/L	14 (12)	0.3	U	1	0.3	0.3	U	1	0.3
Ethylene Dibromide	106-93-4	8260D	µg/L		0.5	U	1	0.5	0.5	U	1	0.5
Isopropylbenzene	98-82-8	8260D	µg/L		0.34	U	1	0.34	0.34	U	1	0.34
Methyl acetate	79-20-9	8260D	µg/L		0.79	U	5	0.79	0.79	U	5	0.79
Methyl tert-butyl ether	1634-04-4	8260D	µg/L	51000 (12)	0.22	U	1	0.22	0.22	U	1	0.22
Methylcyclohexane	108-87-2	8260D	µg/L		0.71	U	1	0.71	0.71	U	1	0.71
Methylene Chloride	75-09-2	8260D	µg/L	940 (12)	0.59	J	1	0.32	0.85	J	1	0.32
m-Xylene & p-Xylene	179601-23-1	8260D	µg/L	1.8 (14)	0.3	U	1	0.3	0.3	U	1	0.3
o-Xylene	95-47-6	8260D	µg/L	13 (14)	0.36	U	1	0.36	0.36	U	1	0.36
Styrene	100-42-5	8260D	µg/L	32 (14)	0.42	U	1	0.42	0.42	U	1	0.42
Tetrachloroethene	127-18-4	8260D	µg/L	45 (12)	0.25	U	1	0.25	0.25	U	1	0.25
Toluene	108-88-3	8260D	µg/L	253 (12)	0.38	U	1	0.38	0.38	U	1	0.38
trans-1,2-Dichloroethene	156-60-5	8260D	µg/L	970 (12)	0.24	U	1	0.24	0.24	U	1	0.24
trans-1,3-Dichloropropene	10061-02-6	8260D	µg/L	0.055 (14)	0.22	U	1	0.22	0.22	U	1	0.22
Trichloroethene	79-01-6	8260D	µg/L	47 (12)	0.31	U	1	0.31	0.31	U	1	0.31
Trichlorofluoromethane	75-69-4	8260D	µg/L		0.32	U	1	0.32	0.32	U	1	0.32
Vinyl chloride	75-01-4	8260D	µg/L	930 (12)	0.17	U	1	0.17	0.17	U	1	0.17
1,2-Dibromo-3-Chloropropane	96-12-8	8260D SIM	µg/L		0.38	U	1	0.38	0.38	U	1	0.38
1,4-Dioxane	123-91-1	8260D SIM	µg/L	22000 (6)	28	UJ	50	28	28	UJ	50	28
Ethylene Dibromide	106-93-4	8260D SIM	µg/L		0.5	U	1	0.5	0.5	U	1	0.5

Table 5.20 - Pore Water: Semi-Volatile Organic Compounds (SVOCs) Analytical Results

Rolling Knolls Landfill

Sample Name				ESC's	PW01_1.5-2.5					PW02_1.5-2.5					PW03_1.5-2.5					PW05_1.0-2.0					PW06.1_1.0-2.0				
Sample Date/Time					05/14/2021 15:00					05/16/2021 15:00					05/14/2021 17:05					05/16/2021 11:05					05/16/2021 13:20				
Latitude				Screening Criteria	40.72335535					40.72342503					40.72348017					40.72273853					40.72279294				
Longitude					-74.4485393					-74.44713409					-74.44733933					-74.44624019					-74.44605059				
Lab Sample Name					GS-S-PWT01-1.5-2.5					GS-S-PWT02-1.5-2.5					GS-S-PWT03-1.5-2.5					GS-S-PWT05-1.0-2.0					GS-S-PWT06-1.0-2.0				
Lab Sample Number					460-234559-1					460-234561-3					460-234559-2					460-234561-2					460-234561-1				
Lab Report Number(s)					460-234559-1					460-234561-1					460-234559-1					460-234561-1					460-234561-1				
Analyte	CAS	Method	Units		Result	LDC Flag	RL	MDL (EDL)	ESC	Result	LDC Flag	RL	MDL (EDL)	ESC	Result	LDC Flag	RL	MDL (EDL)	ESC	Result	LDC Flag	RL	MDL (EDL)	ESC	Result	LDC Flag	RL	MDL (EDL)	ESC
1,1'-Biphenyl	92-52-4	8270E	mg/L		0.0012	U	0.01	0.0012		0.0012	U	0.01	0.0012		0.0012	U	0.01	0.0012		0.0012	UJ	0.01	0.0012		0.0012	U	0.01	0.0012	
1,2,4,5-Tetrachlorobenzene	95-94-3	8270E	mg/L	0.003 (12)	0.0012	U	0.01	0.0012	0.003	0.0012	U	0.01	0.0012	0.003	0.0012	U	0.01	0.0012	0.003	0.0012	UJ	0.01	0.0012	0.003	0.0012	U	0.01	0.0012	0.003
2,2'-oxybis[1-chloropropane]	108-60-1	8270E	mg/L		0.00063	U	0.01	0.00063		0.00063	U	0.01	0.00063		0.00063	U	0.01	0.00063		0.00063	UJ	0.01	0.00063		0.00063	U	0.01	0.00063	
2,3,4,6-Tetrachlorophenol	58-90-2	8270E	mg/L	0.0012 (6)	0.00075	U	0.01	0.00075	0.0012	0.00075	U	0.01	0.00075	0.0012	0.00075	UJ	0.01	0.00075	0.0012	0.00075	UJ	0.01	0.00075	0.0012	0.00075	U	0.01	0.00075	0.0012
2,4,5-Trichlorophenol	95-95-4	8270E	mg/L		0.00088	U	0.01	0.00088		0.00088	U	0.01	0.00088		0.00088	UJ	0.01	0.00088		0.00088	UJ	0.01	0.00088		0.00088	U	0.01	0.00088	
2,4,6-Trichlorophenol	88-06-2	8270E	mg/L	0.0049 (12)	0.00086	U	0.01	0.00086	0.0049	0.00086	U	0.01	0.00086	0.0049	0.00086	UJ	0.01	0.00086	0.0049	0.00086	UJ	0.01	0.00086	0.0049	0.00086	U	0.01	0.00086	0.0049
2,4-Dichlorophenol	120-83-2	8270E	mg/L	0.011 (12)	0.0011	U	0.01	0.0011	0.011	0.0011	U	0.01	0.0011	0.011	0.0011	UJ	0.01	0.0011	0.011	0.0011	UJ	0.01	0.0011	0.011	0.0011	U	0.01	0.0011	0.011
2,4-Dimethylphenol	105-67-9	8270E	mg/L	0.1 (12)	0.00062	U	0.01	0.00062	0.1	0.00062	U	0.01	0.00062	0.1	0.00062	U	0.01	0.00062	0.1	0.00062	UJ	0.01	0.00062	0.1	0.00062	U	0.01	0.00062	0.1
2,4-Dinitrophenol	51-28-5	8270E	mg/L	0.019 (12)	0.0026	U	0.02	0.0026	0.019	0.0026	U	0.02	0.0026	0.019	0.0026	UJ	0.02	0.0026	0.019	0.0026	UJ	0.02	0.0026	0.019	0.0026	U	0.02	0.0026	0.019
2,4-Dinitrotoluene	121-14-2	8270E	mg/L	0.044 (12)	0.001	U	0.002	0.001	0.044	0.001	U	0.002	0.001	0.044	0.001	U	0.002	0.001	0.044	0.001	UJ	0.002	0.001	0.044	0.001	U	0.002	0.001	0.044
2,6-Dinitrotoluene	606-20-2	8270E	mg/L	0.23 (14)	0.00083	U	0.002	0.00083	0.23	0.00083	U	0.002	0.00083	0.23	0.00083	U	0.002	0.00083	0.23	0.00083	UJ	0.002	0.00083	0.23	0.00083	U	0.002	0.00083	0.23
2-Chloronaphthalene	91-58-7	8270E	mg/L	0.000396 (12)	0.0012	U	0.01	0.0012	0.000396	0.0012	U	0.01	0.0012	0.000396	0.0012	U	0.01	0.0012	0.000396	0.0012	UJ	0.01	0.0012	0.000396	0.0012	U	0.01	0.0012	0.000396
2-Chlorophenol	95-57-8	8270E	mg/L	0.024 (12)	0.00038	U	0.01	0.00038	0.024	0.00038	U	0.01	0.00038	0.024	0.00038	UJ	0.01	0.00038	0.024	0.00038	UJ	0.01	0.00038	0.024	0.00038	U	0.01	0.00038	0.024
2-Methylnaphthalene	91-57-6	8270E	mg/L	0.33 (12)	0.00053	U	0.01	0.00053	0.33	0.00053	U	0.01	0.00053	0.33	0.00053	U	0.01	0.00053	0.33	0.00053	UJ	0.01	0.00053	0.33	0.00053	U	0.01	0.00053	0.33
2-Methylphenol	95-48-7	8270E	mg/L	0.013 (14)	0.00067	U	0.01	0.00067	0.013	0.00067	U	0.01	0.00067	0.013	0.00067	U	0.01	0.00067	0.013	0.00067	UJ	0.01	0.00067	0.013	0.00067	U	0.01	0.00067	0.013
2-Nitroaniline	88-74-4	8270E	mg/L		0.00047	U	0.01	0.00047		0.00047	U	0.01	0.00047		0.00047	U	0.01	0.00047		0.00047	UJ	0.01	0.00047		0.00047	U	0.01	0.00047	
2-Nitrophenol	88-75-5	8270E	mg/L	0.06 (14)	0.00075	U	0.01	0.00075	0.06	0.00075	U	0.01	0.00075	0.06	0.00075	UJ	0.01	0.00075	0.06	0.00075	UJ	0.01	0.00075	0.06	0.00075	U	0.01	0.00075	0.06
3,3'-Dichlorobenzidine	91-94-1	8270E	mg/L	0.0045 (12)	0.0014	U	0.01	0.0014	0.0045	0.0014	U	0.01	0.0014	0.0045	0.0014	U	0.01	0.0014	0.0045	0.0014	UJ	0.01	0.0014	0.0045	0.0014	U	0.01	0.0014	0.0045
3-Nitroaniline	99-09-2	8270E	mg/L		0.0019	U	0.01	0.0019		0.0019	U	0.01	0.0019		0.0019	UJ	0.01	0.0019		0.0019	UJ	0.01	0.0019		0.0019	U	0.01	0.0019	
4,6-Dinitro-2-methylphenol	534-52-1	8270E	mg/L		0.003	U	0.02	0.003		0.003	U	0.02	0.003		0.003	UJ	0.02	0.003		0.003	UJ	0.02	0.003		0.003	U	0.02	0.003	
4-Bromophenyl phenyl ether	101-55-3	8270E	mg/L	0.0015 (14)	0.00075	U	0.01	0.00075	0.0015	0.00075	U	0.01	0.00075	0.0015	0.00075	U	0.01	0.00075	0.0015	0.00075	UJ	0.01	0.00075	0.0015	0.00075	U	0.01	0.00075	0.0015
4-Chloro-3-methylphenol	59-50-7	8270E	mg/L		0.00058	U	0.01	0.00058		0.00058	U	0.01	0.00058		0.00058	UJ	0.01	0.00058		0.00058	UJ	0.01	0.00058		0.00058	U	0.01	0.00058	
4-Chloroaniline	106-47-8	8270E	mg/L	0.232 (6)	0.0019	U	0.01	0.0019	0.232	0.0019	U	0.01	0.0019	0.232	0.0019	UJ	0.01	0.0019	0.232	0.0019	UJ	0.01	0.0019	0.232	0.0019	U	0.01	0.0019	0.232
4-Chlorophenyl phenyl ether	7005-72-3	8270E	mg/L		0.0013	U	0.01	0.0013		0.0013	U	0.01	0.0013		0.0013	U	0.01	0.0013		0.0013	UJ	0.01	0.0013		0.0013	U	0.01	0.0013	
4-Methylphenol	106-44-5	8270E	mg/L		0.00065	U	0.01	0.00065		0.00065	U	0.01	0.00065		0.00065	U	0.01	0.00065		0.00065	UJ	0.01	0.00065		0.00065	U	0.01	0.00065	
4-Nitroaniline	100-01-6	8270E	mg/L		0.0012	U	0.01	0.0012		0.0012	U	0.01	0.0012		0.0012	U	0.01	0.0012		0.0012	UJ	0.01	0.0012		0.0012	U	0.01	0.0012	
4-Nitrophenol	100-02-7	8270E	mg/L	0.06 (14)	0.004	U	0.02	0.004	0.06	0.004	U	0.02	0.004	0.06	0.004	UJ	0.02	0.004	0.06	0.004	UJ	0.02	0.004	0.06	0.004	U	0.02	0.004	0.06
Acetophenone	98-86-2	8270E	mg/L		0.0023	U	0.01	0.0023		0.0023	U	0.01	0.0023		0.0023	U	0.01	0.0023		0.0023	UJ	0.01	0.0023		0.0023	U	0.01	0.0023	
Atrazine	1912-24-9	8270E	mg/L		0.0013	U	0.002	0.0013		0.0013	U	0.002	0.0013		0.0013	U	0.002	0.0013		0.0013	UJ	0.002	0.0013		0.0013	U	0.002	0.0013	
Benzaldehyde	100-52-7	8270E	mg/L		0.0021	UJ	0.01	0.0021		0.0021	UJ	0.01	0.0021		0.0021	UJ	0.01	0.0021		0.0021	UJ	0.01	0.0021		0.0021	UJ	0.01	0.0021	
Bis(2-chloroethoxy)methane	111-91-1	8270E	mg/L		0.00059	U	0.01	0.00059		0.00059	U	0.01	0.00059		0.00059	U	0.01	0.00059		0.00059	UJ	0.01	0.00059		0.00059	U	0.01	0.00059	
Bis(2-chloroethyl)ether	111-44-4	8270E	mg/L	1.9 (12)	0.00063	U	0.001	0.00063	1.9	0.00063	U	0.001	0.00063	1.9	0.00063	U	0.001	0.00063	1.9	0.00063	UJ	0.001	0.00063	1.9	0.00063	U	0.001	0.00063	1.9
Bis(2-ethylhexyl) phthalate	117-81-7	8270E	mg/L	0.0003 (12)	0.0008	U	0.002	0.0008	0.0003	0.0008	U	0.002	0.0008	0.0003	0.0008	U	0.002	0.0008	0.0003	0.0008	UJ	0.002	0.0008	0.0003	0.0008	U	0.002	0.0008	0.0003
Butyl benzyl phthalate	85-68-7	8270E	mg/L	0.023 (12)	0.00085	U	0.01	0.00085	0.023	0.00085	U	0.01	0.00085	0.023	0.00085	U	0.01	0.00085	0.023	0.00085	UJ	0.01	0.00085	0.023	0.00085	U	0.01	0.00085	0.023
Caprolactam	105-60-2	8270E	mg/L		0.0022	U	0.01	0.0022		0.0022	U	0.01	0.0022		0.0022	U	0.01	0.0022		0.0022	UJ	0.01	0.0022		0.0022	U	0.01	0.0022	
Carbazole	86-74-8	8270E	mg/L		0.00068	U	0.01	0.00068		0.00068	U	0.01	0.00068		0.00068	U	0.01	0.00068		0.00068	UJ	0.01	0.00068		0.00068	U	0.01	0.00068	
Dibenzofuran	132-64-9	8270E	mg/L	0.0037 (14)	0.0011	U	0.01	0.0011	0.0037	0.0011	U	0.01	0.0011	0.0037	0.0011	U	0.01	0.0011	0.0037	0.0011	UJ	0.01	0.0011	0.0037	0.0011	U	0.01	0.0011	0.0037
Diethyl phthalate	84-66-2	8270E	mg/L	0.11 (12)	0.00098	U	0.01	0.00098	0.11	0.00098	U	0.01	0.00098	0.11	0.00098	U	0.01	0.00098	0.11	0.00098	UJ	0.01	0.00098	0.11	0.00098	U	0.01	0.00098	0.11
Dimethyl phthalate	131-11-3	8270E	mg/L	0.003 (14)	0.00077	U	0.01	0.00077	0.003	0.00077	U	0.01	0.00077	0.003	0.00077	U	0.01	0.00077	0.003	0.00077	UJ	0.01	0.00077	0.003	0.00077	U	0.01	0.00077	0.003
Di-n-butyl phthalate	84-74-2	8270E	mg/L	0.0097 (12)	0.00084	U	0.01	0.00084	0.0097	0.00084	U	0.01	0.00084	0.0097	0.00084	U	0.01	0.00084	0.0097	0.00084	UJ	0.01	0.00084	0.0097	0.00084	U	0.01	0.00084	0.0097
Di-n-octyl phthalate	117-84-0	8270E	mg/L	0.003 (14)	0.00075	UJ	0.01	0.00075	0.003	0.00075	U	0.01	0.00075	0.003	0.00075	UJ	0.01	0.00075	0.003	0.00075	UJ	0.01	0.00075	0.003	0.00075	U	0.01	0.00075	0.003
Hexachlorobenzene	118-74-1	8270E	mg/L	0.0000003 (12)	0.0004	U	0.001	0.0004	0.0000003	0.0004	U	0.001	0.0004	0.0000003	0.0004	U	0.001	0.0004	0.0000003	0.0004	UJ	0.001	0.0004	0.0000003	0.0004	U	0.001	0.0004	0.0000003
Hexachlorobutadiene	87-68-3	8270E	mg/L	0.000053 (12)	0.00078	U	0.001	0.00078	0.000053	0.00078	U	0.001	0.00078	0.000053	0.00078	U	0.001	0.00078	0.000053	0.00078	UJ	0.001	0.00078	0.000053	0.00078	U	0.001	0.00078	0.000053
Hexachlorocyclopentadiene	77-47-4	8270E	mg/L	0.077 (12)	0.0036	U	0.01	0.0036	0.077	0.0036	U	0.01	0.0036	0.077	0.0036	U	0.01	0.0036	0.077	0.0036	UJ	0.01	0.0036	0.077	0.0036	U	0.01	0.0036	0.077
Hexachloroethane	67-72-1	8270E	mg/L	0.008 (12)	0.0008	U	0.002	0.0008	0.008	0.0008	U	0.002	0.0008	0.008	0.0008	U	0.002	0.0008	0.008	0.0008	UJ	0.002	0.0008	0.008	0.0008	U	0.002	0.0008	0.008
Isophorone	78-59-1	8270E	mg/L	0.92 (12)	0.0008	U	0.01	0.0008	0.92	0.0008	U	0.01	0.0008	0.92	0.0008	U	0.01	0.0008	0.92	0.0008	UJ	0.01	0.0008	0.92	0.0008	U	0.01	0.0008	0.92
Nitrobenzene	98-95-3	8270E	mg/L	0.22 (12)	0.00057	U	0.001	0.00057	0.22	0.00057	U	0.001	0.00057	0.22	0.00057	U	0.001	0.00057	0.22	0.00057	UJ	0.001	0.00057	0.22	0.00057	U	0.001	0.00057	0.22
N-Nitrosodi-n-propylamine	621-64-7	8270E	mg/L		0.00043	U	0.001	0.00043		0.00043	U	0.001	0.00043		0.00043	U	0.001	0.00043		0.00043	UJ	0.001	0.00043		0.00043	U	0.001	0.00043	
N-Nitrosodiphenylamine	86-30-6	8270E	mg/L		0.00089	U	0.01	0.00089		0.00089	U	0.01	0.00089		0.00089	U	0.01	0.00089		0.00089	UJ	0.01	0.00089		0.00089	U	0.01	0.00089	
Pentachlorophenol	87-86-5	8270E	mg/L	pH Calc (12)	0.0014	U	0.02	0.0014	No Calc	0.0014	U	0.02	0.0014	No Calc	0.0014	UJ	0.02	0.0014	17.21	0.0014	UJ	0.02	0.0014	No Calc	0.0014	U	0.02	0.0014	No Calc
Phenol	108-95-2	8270E	mg/L	0.18 (12)	0.00029	U	0.01	0.00029	0.18	0.00029	U	0.01	0.00029	0.18	0.00029	UJ	0.01	0.00029	0.18	0.00029	UJ	0.01	0.00029	0.18	0.00029	U	0.01	0.00029	0.18
Polycyclic Aromatic Hydrocarbons (PAHs)																													
Acenaphthene	83-32-9	8270E	mg/L	0.038 (12)	0.0011	U	0.01	0.0011	0.038	0.0011	U	0.01	0.0011	0.038	0.0011	U	0.01	0.0011	0.038	0.0011	UJ	0.01	0.0011	0.038	0.0011	U	0.01	0.0011	0.038
Acenaphthylene	208-96-8	8270E	mg/L	4.84 (12)	0.00082	U	0.01	0.00082	4.84	0.00082	U	0.01	0.00082	4.84	0.00082	U	0.01	0.00082	4.84	0.00082	UJ	0.01	0.00082	4.84	0.00082	U	0.01	0.00082	4.84
Anthracene	120-12-7	8270E	mg/L	0.000035 (12)	0.0013	U	0.01	0.0013	0.000035	0.0013	U	0.01	0.0013	0.000035	0.0013	U	0.01	0.0013	0.000035	0.0013	UJ	0.01	0.0013	0.000035	0.0013	U	0.01	0.0013	0.000035
Fluorene	86-73-7	8270E	mg/L	0.019 (12)	0.00091	U	0.01	0.00091	0.019	0.00091	U	0.01	0.00091	0.019	0.00091	U	0.01	0.00091	0.019	0.00091	UJ	0.01	0.00091	0.019	0.00091	U	0.01	0.00091	0.019
Naphthalene	91-20-3	8270E	mg/L	0.013 (12)	0.00054	U	0.002	0.00054	0.013	0.00054	U	0.002	0.00054	0.013	0.00054	U	0.002	0.00054	0.013	0.00054	UJ	0.002	0.00054	0.013	0.00054	U	0.002	0.00054	0.013
Phenanthrene	85-01-8	8270E	mg/L	0.0036 (12)	0.0013	U	0.01	0.0013	0.0036	0.0013	U	0.01	0.0013	0.0036	0.0013	U	0.01	0.0013	0.0036	0.0013	UJ	0.01	0.0013	0.0036	0.0013	U	0.01	0.0013	0.0036
Benzo[a]anthracene	56-55-3	8270E SIM	mg/L	0.000025 (12)	0.00059	U	0.001	0.00059	0.000025	0.00059	U	0.001	0.00059	0.000025	0.00059	U	0.001	0.00059	0.000025	0.00059	UJ	0.001	0.00059	0.000025	0.00059	U	0.001	0.00059	0.000025
Benzo[a]pyrene	50-32-8	8270E SIM	mg/L	0.000014 (12)	0.00041	UJ	0.001	0.00041	0.000014	0.00041	U	0.001	0.00041	0.000014	0.00041	UJ	0.001	0.00041	0.000014	0.00041	UJ	0.001	0.00041	0.000014	0.00041	U	0.001	0.00041	0.000014
Benzo[b]fluoranthene	205-99-2	8270E SIM	mg/L	0.00907 (12)	0.00068	U	0.002	0.00068	0.00907	0.00068	U	0.002	0.00068	0.00907	0.00068	U	0.002	0.00068	0.00907	0.00068	UJ	0.002	0.00068	0.00907	0.00068	U	0.002	0.00068	0.00907
Benzo[g,h,i]perylene	191-24-2	8270E SIM	mg/L	0.00764 (12)	0.0007	U	0.01	0.0007	0.00764	0.0007	U	0.01	0.0007	0.00764	0.0007	U	0.01	0.0007	0.00764	0.0007	UJ	0.01	0.0007	0.00764	0.0007	U	0.01	0.0007	0.00764
Benzo[k]fluoranthene	207-08-9	8270E SIM	mg/L	0.0000041 (14)	0.00067	U	0.001	0.00067	0.0000041	0.00067	U	0.001	0.00067	0.0000041	0.00067	U	0.001	0.00067	0.0000041	0.00067	UJ	0.001	0.00067	0.0000041	0.00067	U	0.001	0.00067	0.0000041
Chrysene	218-01-9	8270E	mg/L	0.0000018 (14)	0.00091	U	0.002	0.00091	0.0000018	0.00091	U	0.002	0.00091	0.0000018	0.00091	U	0.002	0.00091	0.0000018	0.00091	UJ	0.002	0.00091	0.0000018	0.00091	U	0.002	0.00091	0.0000018
Dibenz(a,h)anthracene	53-70-3	8270E SIM	mg/L	0.0000034 (14)	0.00072	U	0.001	0.00072	0.0000034	0.00072	U	0.001	0.00072	0.0000034	0.00072	U	0.001	0.00072	0.0000034	0.00072	UJ	0.001	0.00072	0.0000034	0.00072	U	0.001	0.00072	0.0000034
Fluoranthene	206-44-0	8270E	mg/L	0.0019 (12)	0.00084	U	0.01	0.00084	0.0019	0.00084	U	0.01	0.00084	0.0019	0.00084	U	0.01	0.00084	0.0019	0.00084	UJ	0.01	0.00084	0.0019	0.00084	U	0.01	0.00084	0.0019
Indeno[1,2,3-cd]pyrene	193-39-5	8270E SIM	mg/L	0.00431 (12)	0.00094	U	0.002	0.00094	0.00431	0.00094	U	0.002	0.00094	0.00431	0.00094	U	0.002	0.00094	0.00431	0.00094	UJ	0.002	0.00094	0.00431	0.00094	U	0.002	0.00094	0.00431
Pyrene	129-00-0	8270E	mg/L	0.0003 (12)	0.0016	U	0.01	0.0016	0.0003	0.0016	U	0.01	0.0016	0.0003	0.0016	U	0.01	0.0016	0.0003	0.0016	UJ	0.01	0.0016	0.0003	0.0016	U	0.01	0.0016	0.0003

Table 5.20 - Pore Water: Semi-Volatile Organic Compounds (SVOCs) An

Rolling Knolls Landfill

Sample Name				ESC's	PW06.2_0.1-1.1					PW07_0.1-1.1					PW08_0.1-1.1					PW09_0.1-1.1					PW11_0.1-1.1				
Sample Date/Time					05/17/2021 09:25					05/17/2021 10:31					05/17/2021 13:00					05/17/2021 15:26					05/18/2021 11:05				
Latitude				Screening Criteria	40.72246175					40.72236214					40.72182294					40.72166473					40.72137772				
Longitude					-74.44573414					-74.44587602					-74.44481466					-74.44497878					-74.44406378				
Lab Sample Name					GS-S-PWT06_0.1-1.1					GS-S-PWT07_0.1-1.1					GS-S-PWT08_0.1-1.1					GS-S-PWT09_0.1-1.1					GS-S-PWT11_0.1-1.1				
Lab Sample Number					460-234970-1					460-234970-2					460-234969-1					460-234970-3					460-234971-2				
Lab Report Number(s)					460-234970-1					460-234970-1					460-234969-1					460-234970-1					460-234971-1				
Analyte	CAS	Method	Units		Result	LDC Flag	RL	MDL (EDL)	ESC	Result	LDC Flag	RL	MDL (EDL)	ESC	Result	LDC Flag	RL	MDL (EDL)	ESC	Result	LDC Flag	RL	MDL (EDL)	ESC	Result	LDC Flag	RL	MDL (EDL)	ESC
1,1'-Biphenyl	92-52-4	8270E	mg/L		0.0012	U	0.01	0.0012		0.0012	U	0.01	0.0012		0.0012	U	0.01	0.0012		0.0012	U	0.01	0.0012		0.0012	U	0.01	0.0012	
1,2,4,5-Tetrachlorobenzene	95-94-3	8270E	mg/L	0.003 (12)	0.0012	U	0.01	0.0012	0.003	0.0012	U	0.01	0.0012	0.003	0.0012	U	0.01	0.0012	0.003	0.0012	U	0.01	0.0012	0.003	0.0012	U	0.01	0.0012	0.003
2,2'-oxybis[1-chloropropane]	108-60-1	8270E	mg/L		0.00063	UJ	0.01	0.00063		0.00063	UJ	0.01	0.00063		0.00063	UJ	0.01	0.00063		0.00063	UJ	0.01	0.00063		0.00063	U	0.01	0.00063	
2,3,4,6-Tetrachlorophenol	58-90-2	8270E	mg/L	0.0012 (6)	0.00075	U	0.01	0.00075	0.0012	0.00075	U	0.01	0.00075	0.0012	0.00075	U	0.01	0.00075	0.0012	0.00075	U	0.01	0.00075	0.0012	0.00075	U	0.01	0.00075	0.0012
2,4,5-Trichlorophenol	95-95-4	8270E	mg/L		0.00088	U	0.01	0.00088		0.00088	U	0.01	0.00088		0.00088	U	0.01	0.00088		0.00088	U	0.01	0.00088		0.00088	U	0.01	0.00088	
2,4,6-Trichlorophenol	88-06-2	8270E	mg/L	0.0049 (12)	0.00086	U	0.01	0.00086	0.0049	0.00086	U	0.01	0.00086	0.0049	0.00086	U	0.01	0.00086	0.0049	0.00086	U	0.01	0.00086	0.0049	0.00086	U	0.01	0.00086	0.0049
2,4-Dichlorophenol	120-83-2	8270E	mg/L	0.011 (12)	0.0011	U	0.01	0.0011	0.011	0.0011	U	0.01	0.0011	0.011	0.0011	U	0.01	0.0011	0.011	0.0011	U	0.01	0.0011	0.011	0.0011	U	0.01	0.0011	0.011
2,4-Dimethylphenol	105-67-9	8270E	mg/L	0.1 (12)	0.00062	U	0.01	0.00062	0.1	0.00062	U	0.01	0.00062	0.1	0.00062	U	0.01	0.00062	0.1	0.00062	U	0.01	0.00062	0.1	0.00062	U	0.01	0.00062	0.1
2,4-Dinitrophenol	51-28-5	8270E	mg/L	0.019 (12)	0.0026	UJ	0.02	0.0026	0.019	0.0026	UJ	0.02	0.0026	0.019	0.0026	UJ	0.02	0.0026	0.019	0.0026	UJ	0.02	0.0026	0.019	0.0026	U	0.02	0.0026	0.019
2,4-Dinitrotoluene	121-14-2	8270E	mg/L	0.044 (12)	0.001	UJ	0.002	0.001	0.044	0.001	UJ	0.002	0.001	0.044	0.001	UJ	0.002	0.001	0.044	0.001	UJ	0.002	0.001	0.044	0.001	U	0.002	0.001	0.044
2,6-Dinitrotoluene	606-20-2	8270E	mg/L	0.23 (14)	0.00083	U	0.002	0.00083	0.23	0.00083	U	0.002	0.00083	0.23	0.00083	U	0.002	0.00083	0.23	0.00083	U	0.002	0.00083	0.23	0.00083	U	0.002	0.00083	0.23
2-Chloronaphthalene	91-58-7	8270E	mg/L	0.000396 (12)	0.0012	U	0.01	0.0012	0.000396	0.0012	U	0.01	0.0012	0.000396	0.0012	U	0.01	0.0012	0.000396	0.0012	U	0.01	0.0012	0.000396	0.0012	U	0.01	0.0012	0.000396
2-Chlorophenol	95-57-8	8270E	mg/L	0.024 (12)	0.00038	U	0.01	0.00038	0.024	0.00038	U	0.01	0.00038	0.024	0.00038	U	0.01	0.00038	0.024	0.00038	U	0.01	0.00038	0.024	0.00038	U	0.01	0.00038	0.024
2-Methylnaphthalene	91-57-6	8270E	mg/L	0.33 (12)	0.00053	U	0.01	0.00053	0.33	0.00053	U	0.01	0.00053	0.33	0.00053	U	0.01	0.00053	0.33	0.00053	U	0.01	0.00053	0.33	0.00053	U	0.01	0.00053	0.33
2-Methylphenol	95-48-7	8270E	mg/L	0.013 (14)	0.00067	U	0.01	0.00067	0.013	0.00067	U	0.01	0.00067	0.013	0.00067	U	0.01	0.00067	0.013	0.00067	U	0.01	0.00067	0.013	0.00067	U	0.01	0.00067	0.013
2-Nitroaniline	88-74-4	8270E	mg/L		0.00047	UJ	0.01	0.00047		0.00047	UJ	0.01	0.00047		0.00047	UJ	0.01	0.00047		0.00047	UJ	0.01	0.00047		0.00047	U	0.01	0.00047	
2-Nitrophenol	88-75-5	8270E	mg/L	0.06 (14)	0.00075	U	0.01	0.00075	0.06	0.00075	U	0.01	0.00075	0.06	0.00075	U	0.01	0.00075	0.06	0.00075	U	0.01	0.00075	0.06	0.00075	U	0.01	0.00075	0.06
3,3'-Dichlorobenzidine	91-94-1	8270E	mg/L	0.0045 (12)	0.0014	U	0.01	0.0014	0.0045	0.0014	U	0.01	0.0014	0.0045	0.0014	U	0.01	0.0014	0.0045	0.0014	U	0.01	0.0014	0.0045	0.0014	U	0.01	0.0014	0.0045
3-Nitroaniline	99-09-2	8270E	mg/L		0.0019	UJ	0.01	0.0019		0.0019	UJ	0.01	0.0019		0.0019	UJ	0.01	0.0019		0.0019	UJ	0.01	0.0019		0.0019	U	0.01	0.0019	
4,6-Dinitro-2-methylphenol	534-52-1	8270E	mg/L		0.003	UJ	0.02	0.003		0.003	UJ	0.02	0.003		0.003	UJ	0.02	0.003		0.003	UJ	0.02	0.003		0.003	U	0.02	0.003	
4-Bromophenyl phenyl ether	101-55-3	8270E	mg/L	0.0015 (14)	0.00075	U	0.01	0.00075	0.0015	0.00075	U	0.01	0.00075	0.0015	0.00075	U	0.01	0.00075	0.0015	0.00075	U	0.01	0.00075	0.0015	0.00075	U	0.01	0.00075	0.0015
4-Chloro-3-methylphenol	59-50-7	8270E	mg/L		0.00058	U	0.01	0.00058		0.00058	U	0.01	0.00058		0.00058	U	0.01	0.00058		0.00058	U	0.01	0.00058		0.00058	U	0.01	0.00058	
4-Chloroaniline	106-47-8	8270E	mg/L	0.232 (6)	0.0019	U	0.01	0.0019	0.232	0.0019	U	0.01	0.0019	0.232	0.0019	U	0.01	0.0019	0.232	0.0019	U	0.01	0.0019	0.232	0.0019	U	0.01	0.0019	0.232
4-Chlorophenyl phenyl ether	7005-72-3	8270E	mg/L		0.0013	U	0.01	0.0013		0.0013	U	0.01	0.0013		0.0013	U	0.01	0.0013		0.0013	U	0.01	0.0013		0.0013	U	0.01	0.0013	
4-Methylphenol	106-44-5	8270E	mg/L		0.00065	U	0.01	0.00065		0.00065	U	0.01	0.00065		0.00065	U	0.01	0.00065		0.00065	U	0.01	0.00065		0.00065	U	0.01	0.00065	
4-Nitroaniline	100-01-6	8270E	mg/L		0.0012	UJ	0.01	0.0012		0.0012	UJ	0.01	0.0012		0.0012	UJ	0.01	0.0012		0.0012	UJ	0.01	0.0012		0.0012	U	0.01	0.0012	
4-Nitrophenol	100-02-7	8270E	mg/L	0.06 (14)	0.004	UJ	0.02	0.004	0.06	0.004	UJ	0.02	0.004	0.06	0.004	UJ	0.02	0.004	0.06	0.004	UJ	0.02	0.004	0.06	0.004	U	0.02	0.004	0.06
Acetophenone	98-86-2	8270E	mg/L		0.0023	U	0.01	0.0023		0.0023	U	0.01	0.0023		0.0023	U	0.01	0.0023		0.0023	U	0.01	0.0023		0.0023	U	0.01	0.0023	
Atrazine	1912-24-9	8270E	mg/L		0.0013	U	0.002	0.0013		0.0013	U	0.002	0.0013		0.0013	U	0.002	0.0013		0.0013	U	0.002	0.0013		0.0013	U	0.002	0.0013	
Benzaldehyde	100-52-7	8270E	mg/L		0.0021	UJ	0.01	0.0021		0.0021	UJ	0.01	0.0021		0.0021	UJ	0.01	0.0021		0.0021	UJ	0.01	0.0021		0.0021	UJ	0.01	0.0021	
Bis(2-chloroethoxy)methane	111-91-1	8270E	mg/L		0.00059	U	0.01	0.00059		0.00059	U	0.01	0.00059		0.00059	U	0.01	0.00059		0.00059	U	0.01	0.00059		0.00059	U	0.01	0.00059	
Bis(2-chloroethyl)ether	111-44-4	8270E	mg/L	1.9 (12)	0.00063	U	0.001	0.00063	1.9	0.00063	U	0.001	0.00063	1.9	0.00063	U	0.001	0.00063	1.9	0.00063	U	0.001	0.00063	1.9	0.00063	U	0.001	0.00063	1.9
Bis(2-ethylhexyl) phthalate	117-81-7	8270E	mg/L	0.0003 (12)	0.0008	U	0.002	0.0008	0.0003	0.0008	U	0.002	0.0008	0.0003	0.0008	U	0.002	0.0008	0.0003	0.0008	U	0.002	0.0008	0.0003	0.0008	U	0.002	0.0008	0.0003
Butyl benzyl phthalate	85-68-7	8270E	mg/L	0.023 (12)	0.00085	U	0.01	0.00085	0.023	0.00085	U	0.01	0.00085	0.023	0.00085	U	0.01	0.00085	0.023	0.00085	U	0.01	0.00085	0.023	0.00085	U	0.01	0.00085	0.023
Caprolactam	105-60-2	8270E	mg/L		0.0022	UJ	0.01	0.0022		0.0022	UJ	0.01	0.0022		0.0022	UJ	0.01	0.0022		0.0022	UJ	0.01	0.0022		0.0022	U	0.01	0.0022	
Carbazole	86-74-8	8270E	mg/L		0.00068	U	0.01	0.00068		0.00068	U	0.01	0.00068		0.00068	U	0.01	0.00068		0.00068	U	0.01	0.00068		0.00068	U	0.01	0.00068	
Dibenzofuran	132-64-9	8270E	mg/L	0.0037 (14)	0.0011	U	0.01	0.0011	0.0037	0.0011	U	0.01	0.0011	0.0037	0.0011	U	0.01	0.0011	0.0037	0.0011	U	0.01	0.0011	0.0037	0.0011	U	0.01	0.0011	0.0037
Diethyl phthalate	84-66-2	8270E	mg/L	0.11 (12)	0.00098	U	0.01	0.00098	0.11	0.00098	U	0.01	0.00098	0.11	0.00098	U	0.01	0.00098	0.11	0.00098	U	0.01	0.00098	0.11	0.00098	U	0.01	0.00098	0.11
Dimethyl phthalate	131-11-3	8270E	mg/L	0.003 (14)	0.00077	U	0.01	0.00077	0.003	0.00077	U	0.01	0.00077	0.003	0.00077	U	0.01	0.00077	0.003	0.00077	U	0.01	0.00077	0.003	0.00077	U	0.01	0.00077	0.003
Di-n-butyl phthalate	84-74-2	8270E	mg/L	0.0097 (12)	0.00084	U	0.01	0.00084	0.0097	0.00084	U	0.01	0.00084	0.0097	0.00084	U	0.01	0.00084	0.0097	0.00084	U	0.01	0.00084	0.0097	0.00084	U	0.01	0.00084	0.0097
Di-n-octyl phthalate	117-84-0	8270E	mg/L	0.003 (14)	0.00075	UJ	0.01	0.00075	0.003	0.00075	UJ	0.01	0.00075	0.003	0.00075	UJ	0.01	0.00075	0.003	0.00075	UJ	0.01	0.00075	0.003	0.00075	U	0.01	0.00075	0.003
Hexachlorobenzene	118-74-1	8270E	mg/L	0.0000003 (12)	0.0004	U	0.001	0.0004	0.0000003	0.0004	U	0.001	0.0004	0.0000003	0.0004	U	0.001	0.0004	0.0000003	0.0004	U	0.001	0.0004	0.0000003	0.0004	U	0.001	0.0004	0.0000003
Hexachlorobutadiene	87-68-3	8270E	mg/L	0.000053 (12)	0.00078	U	0.001	0.00078	0.000053	0.00078	U	0.001	0.00078	0.000053	0.00078	U	0.001	0.00078	0.000053	0.00078	U	0.001	0.00078	0.000053	0.00078	U	0.001	0.00078	0.000053
Hexachlorocyclopentadiene	77-47-4	8270E	mg/L	0.077 (12)	0.0036	U	0.01	0.0036	0.077	0.0036	U	0.01	0.0036	0.077	0.0036	U	0.01	0.0036	0.077	0.0036	U	0.01	0.0036	0.077	0.0036	U	0.01	0.0036	0.077
Hexachloroethane	67-72-1	8270E	mg/L	0.008 (12)	0.0008	U	0.002	0.0008	0.008	0.0008	U	0.002	0.0008	0.008	0.0008	U	0.002	0.0008	0.008	0.0008	U	0.002	0.0008	0.008	0.0008	U	0.002	0.0008	0.008
Isophorone	78-59-1	8270E	mg/L	0.92 (12)	0.0008	U	0.01	0.0008	0.92	0.0008	U	0.01	0.0008	0.92	0.0008	U	0.01	0.0008	0.92	0.0008	U	0.01	0.0008	0.92	0.0008	U	0.01	0.0008	0.92
Nitrobenzene	98-95-3	8270E	mg/L	0.22 (12)	0.00057	U	0.001	0.00057	0.22	0.00057	U	0.001	0.00057	0.22	0.00057	U	0.001	0.00057	0.22	0.00057	U	0.001	0.00057	0.22	0.00057	U	0.001	0.00057	0.22
N-Nitrosodi-n-propylamine	621-64-7	8270E	mg/L		0.00043	UJ	0.001	0.00043		0.00043	UJ	0.001	0.00043		0.00043	UJ	0.001	0.00043		0.00043	UJ	0.001	0.00043		0.00043	U	0.001	0.00043	
N-Nitrosodiphenylamine	86-30-6	8270E	mg/L		0.00089	U	0.01	0.00089		0.00089	U	0.01	0.00089		0.00089	U	0.01	0.00089		0.00089	U	0.01	0.00089		0.00089	U	0.01	0.00089	
Pentachlorophenol	87-86-5	8270E	mg/L	pH Calc (12)	0.0014	U	0.02	0.0014	No Calc	0.0014	U	0.02	0.0014	No Calc	0.0014	U	0.02	0.0014	No Calc	0.0014	U	0.02	0.0014	No Calc	0.000071	U	0.0002	0.000071	No Calc
Phenol	108-95-2	8270E	mg/L	0.18 (12)	0.00029	U	0.01	0.00029	0.18	0.00029	U	0.01	0.00029	0.18	0.00029	U	0.01	0.00029	0.18	0.00029	U	0.01	0.00029	0.18	0.00029	U	0.01	0.00029	0.18
Polycyclic Aromatic Hydrocarbons (PAHs)																													
Acenaphthene	83-32-9	8270E	mg/L	0.038 (12)	0.0011	U	0.01	0.0011	0.038	0.0011	U	0.01	0.0011	0.038	0.0011	U	0.01	0.0011	0.038	0.0011	U	0.01	0.0011	0.038	0.000014	J	0.00005	0.000014	0.038
Acenaphthylene	208-96-8	8270E	mg/L	4.84 (12)	0.00082	U	0.01	0.00082	4.84	0.00082	U	0.01	0.00082	4.84	0.00082	U	0.01	0.00082	4.84	0.00082	U	0.01	0.00082	4.84	0.000015	U	0.00005	0.000015	4.84
Anthracene	120-12-7	8270E	mg/L	0.000035 (12)	0.0013	U	0.01	0.0013	0.000035	0.0013	U	0.01	0.0013	0.000035	0.0013	U	0.01	0.0013	0.000035	0.0013	U	0.01	0.0013	0.000035	0.000025	U	0.00005	0.000025	0.000035
Fluorene	86-73-7	8270E	mg/L	0.019 (12)	0.00091	U	0.01	0.00091	0.019	0.00091	U	0.01	0.00091	0.019	0.00091	U	0.01	0.00091	0.019	0.00091	U	0.01	0.00091	0.019	0.000016	J	0.00005	0.000012	0.019
Naphthalene	91-20-3	8270E	mg/L	0.013 (12)	0.00054	U	0.002	0.00054	0.013	0.00054	U	0.002	0.00054	0.013	0.00054	U	0.002	0.00054	0.013	0.00054	U	0.002	0.00054	0.013	0.00018	J	0.0002	0.00012	0.013
Phenanthrene	85-01-8	8270E	mg/L	0.0036 (12)	0.0013	U	0.01	0.0013	0.0036	0.0013	U	0.01	0.0013	0.0036	0.0013	U	0.01	0.0013	0.0036	0.0013	U	0.01	0.0013	0.0036	0.000035	J	0.00005	0.000022	0.0036
Benzo[a]anthracene	56-55-3	8270E SIM	mg/L	0.000025 (12)	0.00059	U	0.001	0.00059	0.000025	0.00059	U	0.001	0.00059	0.000025	0.00059	U	0.001	0.00059	0.000025	0.00059	U	0.001	0.00059	0.000025	0.000016	U	0.00005	0.000016	0.000025
Benzo[a]pyrene	50-32-8	8270E SIM	mg/L	0.000014 (12)	0.00041	UJ	0.001	0.00041	0.000014	0.00041	UJ	0.001	0.00041	0.000014	0.00041	UJ	0.001	0.00041	0.000014	0.00041	UJ	0.001	0.00041	0.000014	0.000022	U	0.00005	0.000022	0.000014
Benzo[b]fluoranthene	205-99-2	8270E SIM	mg/L	0.00907 (12)	0.00068	U	0.002	0.00068	0.00907	0.00068	U	0.002	0.00068	0.00907	0.00068	U	0.002	0.00068	0.00907	0.00068	U	0.002	0.00068	0.00907	0.000024	U	0.00005	0.000024	0.00907
Benzo[g,h,i]perylene	191-24-2	8270E SIM	mg/L	0.00764 (12)	0.0007	U	0.01	0.0007	0.00764	0.0007	U	0.01	0.0007	0.00764	0.0007	U	0.01	0.0007	0.00764	0.0007	U	0.01	0.0007	0.00764	0.000035	UJ	0.00005	0.000035	0.00764
Benzo[k]fluoranthene	207-08-9	8270E SIM	mg/L	0.0000041 (14)	0.00067	U	0.001	0.00067	0.0000041	0.00067	U	0.001	0.00067	0.0000041	0.00067	U	0.001	0.00067	0.0000041	0.00067	U	0.001	0.00067	0.0000041	0.000028	U	0.00005	0.000028	0.0000041
Chrysene	218-01-9	8270E	mg/L	0.0000018 (14)	0.00091	UJ	0.002	0.00091	0.0000018	0.00091	UJ	0.002	0.00091	0.0000018	0.00091	UJ	0.002	0.00091	0.0000018	0.00091	UJ	0.002	0.00091	0.0000018	0.00003	U	0.00005	0.00003	0.0000018
Dibenz(a,h)anthracene	53-70-3	8270E SIM	mg/L	0.0000034 (14)	0.00072	U	0.001	0.00072	0.0000034	0.00072	U	0.001	0.00072	0.0000034	0.00072	U	0.001	0.00072	0.0000034	0.00072	U	0.001	0.00072	0.0000034	0.00002	UJ	0.00005	0.00002	0.0000034
Fluoranthene	206-44-0	8270E	mg/L	0.0019 (12)	0.00084	U	0.01	0.00084	0.0019	0.00084	U	0.01	0.00084	0.0019	0.00084	U	0.01	0.00084	0.0019	0.00084	U	0.01	0.00084	0.0019	0.000039	U	0.00005	0.000039	0.0019
Indeno[1,2,3-cd]pyrene	193-39-5	8270E SIM	mg/L	0.00431 (12)	0.00094	U	0.002	0.00094	0.00431	0.00094	U	0.002	0.00094	0.00431	0.00094	U	0.002	0.00094	0.00431	0.00094	U	0.002	0.00094	0.00431	0.000036	UJ	0.00005	0.000036	0.00431
Pyrene	129-00-0	8270E	mg/L	0.0003 (12)	0.0016	U	0.01	0.0016	0.0003	0.0016	U	0.01	0.0016	0.0003	0.0016	U	0.01	0.0016	0.0003	0.0016	U	0.01	0.0016	0.0003	0.000031	U	0.00005	0.000031	0.0003

Table 5.20 - Pore Water: Semi-Volatile Organic Compounds (SVOCs) An (continued)

Rolling Knolls Landfill

Sample Name				ESC's	PW12_0.1-1.1					PW13_0.1-1.1					PW14_0.1-1.1					PW15_0.1-1.1					PW16_0.1-1.1				
Sample Date/Time					05/18/2021 12:30					05/18/2021 14:30					05/19/2021 10:00					05/19/2021 12:30					05/19/2021 14:00				
Latitude				Screening Criteria	40.72190822					40.72201291					40.72248719					40.7230347					40.72345333				
Longitude					-74.44321078					-74.44347746					-74.44316647					-74.44314728					-74.44320064				
Lab Sample Name					GS-S-PWT12_0.1-1.1					GS-S-PWT13_0.1-1.1					GS-S-PWT014-0.1-1.1					GS-S-PWT015-0.1-1.1					GS-S-PWT016-0.1-1.1				
Lab Sample Number					460-234969-2					460-234969-3					460-234972-2					460-235250-1					460-235250-2				
Lab Report Number(s)					460-234969-1					460-234969-1					460-234972-1					460-235250-1					460-235250-1				
Analyte	CAS	Method	Units		Result	LDC Flag	RL	MDL (EDL)	ESC	Result	LDC Flag	RL	MDL (EDL)	ESC	Result	LDC Flag	RL	MDL (EDL)	ESC	Result	LDC Flag	RL	MDL (EDL)	ESC	Result	LDC Flag	RL	MDL (EDL)	ESC
1,1'-Biphenyl	92-52-4	8270E	mg/L		0.0012	U	0.01	0.0012		0.0012	U	0.01	0.0012		0.0012	U	0.01	0.0012		0.0012	U	0.01	0.0012		0.0012	U	0.01	0.0012	
1,2,4,5-Tetrachlorobenzene	95-94-3	8270E	mg/L	0.003 (12)	0.0012	U	0.01	0.0012	0.003	0.0012	U	0.01	0.0012	0.003	0.0012	U	0.01	0.0012	0.003	0.0012	U	0.01	0.0012	0.003	0.0012	U	0.01	0.0012	0.003
2,2'-oxybis[1-chloropropane]	108-60-1	8270E	mg/L		0.00063	UJ	0.01	0.00063		0.00063	UJ	0.01	0.00063		0.00063	U	0.01	0.00063		0.00063	UJ	0.01	0.00063		0.00063	UJ	0.01	0.00063	
2,3,4,6-Tetrachlorophenol	58-90-2	8270E	mg/L	0.0012 (6)	0.00075	U	0.01	0.00075	0.0012	0.00075	U	0.01	0.00075	0.0012	0.00075	U	0.01	0.00075	0.0012	0.00075	U	0.01	0.00075	0.0012	0.00075	U	0.01	0.00075	0.0012
2,4,5-Trichlorophenol	95-95-4	8270E	mg/L		0.00088	U	0.01	0.00088		0.00088	U	0.01	0.00088		0.00088	U	0.01	0.00088		0.00088	U	0.01	0.00088		0.00088	U	0.01	0.00088	
2,4,6-Trichlorophenol	88-06-2	8270E	mg/L	0.0049 (12)	0.00086	U	0.01	0.00086	0.0049	0.00086	U	0.01	0.00086	0.0049	0.00086	U	0.01	0.00086	0.0049	0.00086	U	0.01	0.00086	0.0049	0.00086	U	0.01	0.00086	0.0049
2,4-Dichlorophenol	120-83-2	8270E	mg/L	0.011 (12)	0.0011	U	0.01	0.0011	0.011	0.0011	U	0.01	0.0011	0.011	0.0011	U	0.01	0.0011	0.011	0.0011	U	0.01	0.0011	0.011	0.0011	U	0.01	0.0011	0.011
2,4-Dimethylphenol	105-67-9	8270E	mg/L	0.1 (12)	0.00062	U	0.01	0.00062	0.1	0.00062	U	0.01	0.00062	0.1	0.00062	U	0.01	0.00062	0.1	0.00062	U	0.01	0.00062	0.1	0.00062	U	0.01	0.00062	0.1
2,4-Dinitrophenol	51-28-5	8270E	mg/L	0.019 (12)	0.0026	UJ	0.02	0.0026	0.019	0.0026	UJ	0.02	0.0026	0.019	0.0026	U	0.02	0.0026	0.019	0.0026	UJ	0.02	0.0026	0.019	0.0026	UJ	0.02	0.0026	0.019
2,4-Dinitrotoluene	121-14-2	8270E	mg/L	0.044 (12)	0.001	UJ	0.002	0.001	0.044	0.001	UJ	0.002	0.001	0.044	0.001	U	0.002	0.001	0.044	0.001	U	0.002	0.001	0.044	0.001	U	0.002	0.001	0.044
2,6-Dinitrotoluene	606-20-2	8270E	mg/L	0.23 (14)	0.00083	U	0.002	0.00083	0.23	0.00083	U	0.002	0.00083	0.23	0.00083	U	0.002	0.00083	0.23	0.00083	U	0.002	0.00083	0.23	0.00083	U	0.002	0.00083	0.23
2-Chloronaphthalene	91-58-7	8270E	mg/L	0.000396 (12)	0.0012	U	0.01	0.0012	0.000396	0.0012	U	0.01	0.0012	0.000396	0.0012	U	0.01	0.0012	0.000396	0.0012	U	0.01	0.0012	0.000396	0.0012	U	0.01	0.0012	0.000396
2-Chlorophenol	95-57-8	8270E	mg/L	0.024 (12)	0.00038	U	0.01	0.00038	0.024	0.00038	U	0.01	0.00038	0.024	0.00038	U	0.01	0.00038	0.024	0.00038	U	0.01	0.00038	0.024	0.00038	U	0.01	0.00038	0.024
2-Methylnaphthalene	91-57-6	8270E	mg/L	0.33 (12)	0.00053	U	0.01	0.00053	0.33	0.00053	U	0.01	0.00053	0.33	0.00053	U	0.01	0.00053	0.33	0.00053	U	0.01	0.00053	0.33	0.00053	U	0.01	0.00053	0.33
2-Methylphenol	95-48-7	8270E	mg/L	0.013 (14)	0.00067	U	0.01	0.00067	0.013	0.00067	U	0.01	0.00067	0.013	0.00067	U	0.01	0.00067	0.013	0.00067	U	0.01	0.00067	0.013	0.00067	U	0.01	0.00067	0.013
2-Nitroaniline	88-74-4	8270E	mg/L		0.00047	UJ	0.01	0.00047		0.00047	UJ	0.01	0.00047		0.00047	U	0.01	0.00047		0.00047	U	0.01	0.00047		0.00047	U	0.01	0.00047	
2-Nitrophenol	88-75-5	8270E	mg/L	0.06 (14)	0.00075	U	0.01	0.00075	0.06	0.00075	U	0.01	0.00075	0.06	0.00075	U	0.01	0.00075	0.06	0.00075	U	0.01	0.00075	0.06	0.00075	U	0.01	0.00075	0.06
3,3'-Dichlorobenzidine	91-94-1	8270E	mg/L	0.0045 (12)	0.0014	U	0.01	0.0014	0.0045	0.0014	U	0.01	0.0014	0.0045	0.0014	U	0.01	0.0014	0.0045	0.0014	U	0.01	0.0014	0.0045	0.0014	U	0.01	0.0014	0.0045
3-Nitroaniline	99-09-2	8270E	mg/L		0.0019	UJ	0.01	0.0019		0.0019	UJ	0.01	0.0019		0.0019	U	0.01	0.0019		0.0019	U	0.01	0.0019		0.0019	U	0.01	0.0019	
4,6-Dinitro-2-methylphenol	534-52-1	8270E	mg/L		0.003	UJ	0.02	0.003		0.003	UJ	0.02	0.003		0.003	U	0.02	0.003		0.003	U	0.02	0.003		0.003	U	0.02	0.003	
4-Bromophenyl phenyl ether	101-55-3	8270E	mg/L	0.0015 (14)	0.00075	U	0.01	0.00075	0.0015	0.00075	U	0.01	0.00075	0.0015	0.00075	U	0.01	0.00075	0.0015	0.00075	U	0.01	0.00075	0.0015	0.00075	U	0.01	0.00075	0.0015
4-Chloro-3-methylphenol	59-50-7	8270E	mg/L		0.00058	U	0.01	0.00058		0.00058	U	0.01	0.00058		0.00058	U	0.01	0.00058		0.00058	U	0.01	0.00058		0.00058	U	0.01	0.00058	
4-Chloroaniline	106-47-8	8270E	mg/L	0.232 (6)	0.0019	U	0.01	0.0019	0.232	0.0019	U	0.01	0.0019	0.232	0.0019	U	0.01	0.0019	0.232	0.0019	U	0.01	0.0019	0.232	0.0019	U	0.01	0.0019	0.232
4-Chlorophenyl phenyl ether	7005-72-3	8270E	mg/L		0.0013	U	0.01	0.0013		0.0013	U	0.01	0.0013		0.0013	U	0.01	0.0013		0.0013	U	0.01	0.0013		0.0013	U	0.01	0.0013	
4-Methylphenol	106-44-5	8270E	mg/L		0.00065	U	0.01	0.00065		0.00065	U	0.01	0.00065		0.00065	U	0.01	0.00065		0.00065	U	0.01	0.00065		0.00065	U	0.01	0.00065	
4-Nitroaniline	100-01-6	8270E	mg/L		0.0012	UJ	0.01	0.0012		0.0012	UJ	0.01	0.0012		0.0012	U	0.01	0.0012		0.0012	U	0.01	0.0012		0.0012	U	0.01	0.0012	
4-Nitrophenol	100-02-7	8270E	mg/L	0.06 (14)	0.004	UJ	0.02	0.004	0.06	0.004	UJ	0.02	0.004	0.06	0.004	U	0.02	0.004	0.06	0.004	U	0.02	0.004	0.06	0.004	U	0.02	0.004	0.06
Acetophenone	98-86-2	8270E	mg/L		0.0023	U	0.01	0.0023		0.0023	U	0.01	0.0023		0.0023	U	0.01	0.0023		0.0023	U	0.01	0.0023		0.0023	U	0.01	0.0023	
Atrazine	1912-24-9	8270E	mg/L		0.0013	U	0.002	0.0013		0.0013	U	0.002	0.0013		0.0013	U	0.002	0.0013		0.0013	U	0.002	0.0013		0.0013	U	0.002	0.0013	
Benzaldehyde	100-52-7	8270E	mg/L		0.0021	UJ	0.01	0.0021		0.0021	UJ	0.01	0.0021		0.0021	UJ	0.01	0.0021		0.0021	UJ	0.01	0.0021		0.0021	UJ	0.01	0.0021	
Bis(2-chloroethoxy)methane	111-91-1	8270E	mg/L		0.00059	U	0.01	0.00059		0.00059	U	0.01	0.00059		0.00059	U	0.01	0.00059		0.00059	U	0.01	0.00059		0.00059	U	0.01	0.00059	
Bis(2-chloroethyl)ether	111-44-4	8270E	mg/L	1.9 (12)	0.00063	U	0.001	0.00063	1.9	0.00063	U	0.001	0.00063	1.9	0.00063	U	0.001	0.00063	1.9	0.00063	U	0.001	0.00063	1.9	0.00063	U	0.001	0.00063	1.9
Bis(2-ethylhexyl) phthalate	117-81-7	8270E	mg/L	0.0003 (12)	0.0008	U	0.002	0.0008	0.0003	0.0008	U	0.002	0.0008	0.0003	0.0018	J	0.002	0.0008	0.0003	0.0008	U	0.002	0.0008	0.0003	0.0008	U	0.002	0.0008	0.0003
Butyl benzyl phthalate	85-68-7	8270E	mg/L	0.023 (12)	0.00085	U	0.01	0.00085	0.023	0.00085	U	0.01	0.00085	0.023	0.00085	U	0.01	0.00085	0.023	0.00085	U	0.01	0.00085	0.023	0.00085	U	0.01	0.00085	0.023
Caprolactam	105-60-2	8270E	mg/L		0.0022	UJ	0.01	0.0022		0.0022	UJ	0.01	0.0022		0.0022	U	0.01	0.0022		0.0022	U	0.01	0.0022		0.0022	U	0.01	0.0022	
Carbazole	86-74-8	8270E	mg/L		0.00068	U	0.01	0.00068		0.00068	U	0.01	0.00068		0.00068	U	0.01	0.00068		0.00068	U	0.01	0.00068		0.00068	U	0.01	0.00068	
Dibenzofuran	132-64-9	8270E	mg/L	0.0037 (14)	0.0011	U	0.01	0.0011	0.0037	0.0011	U	0.01	0.0011	0.0037	0.0011	U	0.01	0.0011	0.0037	0.0011	U	0.01	0.0011	0.0037	0.0011	U	0.01	0.0011	0.0037
Diethyl phthalate	84-66-2	8270E	mg/L	0.11 (12)	0.00098	U	0.01	0.00098	0.11	0.00098	U	0.01	0.00098	0.11	0.00098	U	0.01	0.00098	0.11	0.00098	U	0.01	0.00098	0.11	0.00098	U	0.01	0.00098	0.11
Dimethyl phthalate	131-11-3	8270E	mg/L	0.003 (14)	0.00077	U	0.01	0.00077	0.003	0.00077	U	0.01	0.00077	0.003	0.00077	U	0.01	0.00077	0.003	0.00077	U	0.01	0.00077	0.003	0.00077	U	0.01	0.00077	0.003
Di-n-butyl phthalate	84-74-2	8270E	mg/L	0.0097 (12)	0.00084	U	0.01	0.00084	0.0097	0.00084	U	0.01	0.00084	0.0097	0.00084	U	0.01	0.00084	0.0097	0.00084	U	0.01	0.00084	0.0097	0.00084	U	0.01	0.00084	0.0097
Di-n-octyl phthalate	117-84-0	8270E	mg/L	0.003 (14)	0.00075	UJ	0.01	0.00075	0.003	0.00075	UJ	0.01	0.00075	0.003	0.00075	U	0.01	0.00075	0.003	0.00075	U	0.01	0.00075	0.003	0.00075	U	0.01	0.00075	0.003
Hexachlorobenzene	118-74-1	8270E	mg/L	0.0000003 (12)	0.0004	U	0.001	0.0004	0.0000003	0.0004	U	0.001	0.0004	0.0000003	0.0004	U	0.001	0.0004	0.0000003	0.0004	U	0.001	0.0004	0.0000003	0.0004	U	0.001	0.0004	0.0000003
Hexachlorobutadiene	87-68-3	8270E	mg/L	0.000053 (12)	0.00078	U	0.001	0.00078	0.000053	0.00078	U	0.001	0.00078	0.000053	0.00078	U	0.001	0.00078	0.000053	0.00078	U	0.001	0.00078	0.000053	0.00078	U	0.001	0.00078	0.000053
Hexachlorocyclopentadiene	77-47-4	8270E	mg/L	0.077 (12)	0.0036	U	0.01	0.0036	0.077	0.0036	U	0.01	0.0036	0.077	0.0036	U	0.01	0.0036	0.077	0.0036	U	0.01	0.0036	0.077	0.0036	U	0.01	0.0036	0.077
Hexachloroethane	67-72-1	8270E	mg/L	0.008 (12)	0.0008	U	0.002	0.0008	0.008	0.0008	U	0.002	0.0008	0.008	0.0008	U	0.002	0.0008	0.008	0.0008	U	0.002	0.0008	0.008	0.0008	U	0.002	0.0008	0.008
Isophorone	78-59-1	8270E	mg/L	0.92 (12)	0.0008	U	0.01	0.0008	0.92	0.0008	U	0.01	0.0008	0.92	0.0008	U	0.01	0.0008	0.92	0.0008	U	0.01	0.0008	0.92	0.0008	U	0.01	0.0008	0.92
Nitrobenzene	98-95-3	8270E	mg/L	0.22 (12)	0.00057	U	0.001	0.00057	0.22	0.00057	U	0.001	0.00057	0.22	0.00057	U	0.001	0.00057	0.22	0.00057	U	0.001	0.00057	0.22	0.00057	U	0.001	0.00057	0.22
N-Nitrosodi-n-propylamine	621-64-7	8270E	mg/L		0.00043	UJ	0.001	0.00043		0.00043	UJ	0.001	0.00043		0.00043	U	0.001	0.00043		0.00043	U	0.001	0.00043		0.00043	U	0.001	0.00043	
N-Nitrosodiphenylamine	86-30-6	8270E	mg/L		0.00089	U	0.01	0.00089		0.00089	U	0.01	0.00089		0.00089	U	0.01	0.00089		0.00089	U	0.01	0.00089		0.00089	U	0.01	0.00089	
Pentachlorophenol	87-86-5	8270E	mg/L	pH Calc (12)	0.000071	UJ	0.0002	0.000071	10.95	0.000071	U	0.0002	0.000071	6.63	0.0014	U	0.02	0.0014	No Calc	0.000071	UJ	0.0002	0.071	8.27	0.000071	UJ	0.0002	0.000071	No Calc
Phenol	108-95-2	8270E	mg/L	0.18 (12)	0.00029	U	0.01	0.00029	0.18	0.00029	U	0.01	0.00029	0.18	0.00029	U	0.01	0.00029	0.18	0.00029	U	0.01	0.00029	0.18	0.00029	U	0.01	0.00029	0.18
Polycyclic Aromatic Hydrocarbons (PAHs)																													
Acenaphthene	83-32-9	8270E	mg/L	0.038 (12)	0.000014	U	0.00005	0.000014	0.038	0.000014	U	0.00005	0.000014	0.038	0.0011	U	0.01	0.0011	0.038	0.000014	U	0.00005	0.014	0.038	0.000014	U	0.00005	0.000014	0.038
Acenaphthylene	208-96-8	8270E	mg/L	4.84 (12)	0.000015	U	0.00005	0.000015	4.84	0.000015	U	0.00005	0.000015	4.84	0.00082	U	0.01	0.00082	4.84	0.000015	U	0.00005	0.015	4.84	0.000015	U	0.00005	0.000015	4.84
Anthracene	120-12-7	8270E	mg/L	0.000035 (12)	0.000025	U	0.00005	0.000025	0.000035	0.000025	UJ	0.00005	0.000025	0.000035	0.0013	U	0.01	0.0013	0.000035	0.000025	U	0.00005	0.025	0.000035	0.000025	U	0.00005	0.000025	0.000035
Fluorene	86-73-7	8270E	mg/L	0.019 (12)	0.000017	J	0.00005	0.000012	0.019	0.000012	U	0.00005	0.000012	0.019	0.00091	U	0.01	0.00091	0.019	0.000012	U	0.00005	0.012	0.019	0.000012	U	0.00005	0.000012	0.019
Naphthalene	91-20-3	8270E	mg/L	0.013 (12)	0.00012	U	0.0002	0.00012	0.013	0.00012	U	0.0002	0.00012	0.013	0.00054	U	0.002	0.00054	0.013	0.00012	U	0.0002	0.12	0.013	0.00012	U	0.0002	0.00012	0.013
Phenanthrene	85-01-8	8270E	mg/L	0.0036 (12)	0.000022	U	0.00005	0.000022	0.0036	0.000022	UJ	0.00005	0.000022	0.0036	0.0013	U	0.01	0.0013	0.0036	0.000022	UJ	0.00005	0.022	0.0036	0.000022	UJ	0.00005	0.000022	0.0036
Benzo[a]anthracene	56-55-3	8270E SIM	mg/L	0.000025 (12)	0.000016	U	0.00005	0.000016	0.000025	0.000016	U	0.00005	0.000016	0.000025	0.00059	U	0.001	0.00059	0.000025	0.000016	UJ	0.00005	0.000016	0.000025	0.000016	UJ	0.00005	0.000016	0.000025
Benzo[a]pyrene	50-32-8	8270E SIM	mg/L	0.000014 (12)	0.000022	UJ	0.00005	0.000022	0.000014	0.000022	U	0.00005	0.000022	0.000014	0.00041	U	0.001	0.00041	0.000014	0.000022	U	0.00005	0.000022	0.000014	0.000022	U	0.00005	0.000022	0.000014
Benzo[b]fluoranthene	205-99-2	8270E SIM	mg/L	0.00907 (12)	0.000024	U	0.00005	0.000024	0.00907	0.000024	UJ	0.00005	0.000024	0.00907	0.00068	U	0.002	0.00068	0.00907	0.000024	U	0.00005	0.000024	0.00907	0.000024	U	0.00005	0.000024	0.00907
Benzo[g,h,i]perylene	191-24-2	8270E SIM	mg/L	0.00764 (12)	0.000035	UJ	0.00005	0.000035	0.00764	0.000035	U	0.00005	0.000035	0.00764	0.0007	U	0.01	0.0007	0.00764	0.000035	U	0.00005	0.000035	0.00764	0.000035	U	0.00005	0.000035	0.00764
Benzo[k]fluoranthene	207-08-9	8270E SIM	mg/L	0.0000041 (14)	0.000028	U	0.00005	0.000028	0.0000041	0.000028	U	0.00005	0.000028	0.0000041	0.00067	U	0.001	0.00067	0.0000041	0.000028	U	0.00005	0.000028	0.0000041	0.000028	U	0.00005	0.000028	0.0000041
Chrysene	218-01-9	8270E	mg/L	0.0000018 (14)	0.00003	U	0.00005	0.00003	0.0000018	0.00003	U	0.00005	0.00003	0.0000018	0.00091	UJ	0.002	0.00091	0.0000018	0.00003	U	0.00005	0.00003	0.0000018	0.00003	U	0.00005	0.00003	0.0000018
Dibenz(a,h)anthracene	53-70-3	8270E SIM	mg/L	0.0000034 (14)	0.00002	U	0.00005	0.00002	0.0000034	0.00002	U	0.00005	0.00002	0.0000034	0.00072	U	0.001	0.00072	0.0000034	0.00002	U	0.00005	0.00002	0.0000034	0.00002	U	0.00005	0.00002	0.0000034
Fluoranthene	206-44-0	8270E	mg/L	0.0019 (12)	0.000039	U	0.00005	0.000039	0.0019	0.000039	U	0.00005	0.000039	0.0019	0.00084	U	0.01	0.00084	0.0019	0.000039	UJ	0.00005	0.000039	0.0019	0.000039	U	0.00005	0.000039	0.0019
Indeno[1,2,3-cd]pyrene	193-39-5	8270E SIM	mg/L	0.00431 (12)	0.000036	UJ	0.00005	0.000036	0.00431	0.000036	UJ	0.00005	0.000036	0.00431	0.00094	U	0.002	0.00094	0.00431	0.000036	U	0.00005	0.000036	0.00431	0.000036	U	0.00005	0.000036	0.00431
Pyrene	129-00-0	8270E	mg/L	0.0003 (12)	0.000031	U	0.00005	0.000031	0.0003	0.000031	U	0.00005	0.000031	0.0003	0.0016	U	0.01	0.0016	0.0003	0.000031	U	0.00005	0.000031	0.0003	0.000031	U	0.00005	0.000031	0.0003

Table 5.20 - Pore Water: Semi-Volatile Organic Compounds (SVOCs) An (continued)

Rolling Knolls Landfill

Sample Name				ESC's	PW17_0.1-1.1					PW19_0.1-1.1					PW20_0.1-1.1					PW21_0.1-1.1					PW22_0.1-1.1				
Sample Date/Time					05/20/2021 09:38					05/20/2021 11:34					05/20/2021 16:30					05/21/2021 08:43					05/21/2021 09:10				
Latitude				Screening Criteria	40.72380268					40.72418595					40.72413425					40.72457915					40.72444765				
Longitude					-74.44314573					-74.44291979					-74.44283622					-74.44297636					-74.44258986				
Lab Sample Name					GS-S-PWT017-0.1-1.1					GS-S-PWT019-0.1-1.1					GS-S-PWT020-0.1-1.1					GS-S-PWT021-0.1-1.1					GS-S-PWT22-0.1-1.1				
Lab Sample Number					460-234972-1					460-235250-3					460-235250-4					460-235398-1					460-235399-4				
Lab Report Number(s)					460-234972-1					460-235250-1					460-235250-1					460-235398-1					460-235399-1				
Analyte	CAS	Method	Units		Result	LDC Flag	RL	MDL (EDL)	ESC	Result	LDC Flag	RL	MDL (EDL)	ESC	Result	LDC Flag	RL	MDL (EDL)	ESC	Result	LDC Flag	RL	MDL (EDL)	ESC	Result	LDC Flag	RL	MDL (EDL)	ESC
1,1'-Biphenyl	92-52-4	8270E	mg/L		0.0012	U	0.01	0.0012		0.0012	U	0.01	0.0012		0.0012	U	0.01	0.0012		0.0012	U	0.01	0.0012		0.0012	U	0.01	0.0012	
1,2,4,5-Tetrachlorobenzene	95-94-3	8270E	mg/L	0.003 (12)	0.0012	U	0.01	0.0012	0.003	0.0012	U	0.01	0.0012	0.003	0.0012	U	0.01	0.0012	0.003	0.0012	U	0.01	0.0012	0.003	0.0012	U	0.01	0.0012	0.003
2,2'-oxybis[1-chloropropane]	108-60-1	8270E	mg/L		0.00063	U	0.01	0.00063		0.00063	UJ	0.01	0.00063		0.00063	UJ	0.01	0.00063		0.00063	UJ	0.01	0.00063		0.00063	UJ	0.01	0.00063	
2,3,4,6-Tetrachlorophenol	58-90-2	8270E	mg/L	0.0012 (6)	0.00075	U	0.01	0.00075	0.0012	0.00075	U	0.01	0.00075	0.0012	0.00075	U	0.01	0.00075	0.0012	0.00075	U	0.01	0.00075	0.0012	0.00075	U	0.01	0.00075	0.0012
2,4,5-Trichlorophenol	95-95-4	8270E	mg/L		0.00088	U	0.01	0.00088		0.00088	U	0.01	0.00088		0.00088	U	0.01	0.00088		0.00088	U	0.01	0.00088		0.00088	U	0.01	0.00088	
2,4,6-Trichlorophenol	88-06-2	8270E	mg/L	0.0049 (12)	0.00086	U	0.01	0.00086	0.0049	0.00086	U	0.01	0.00086	0.0049	0.00086	U	0.01	0.00086	0.0049	0.00086	U	0.01	0.00086	0.0049	0.00086	U	0.01	0.00086	0.0049
2,4-Dichlorophenol	120-83-2	8270E	mg/L	0.011 (12)	0.0011	U	0.01	0.0011	0.011	0.0011	U	0.01	0.0011	0.011	0.0011	U	0.01	0.0011	0.011	0.0011	U	0.01	0.0011	0.011	0.0011	U	0.01	0.0011	0.011
2,4-Dimethylphenol	105-67-9	8270E	mg/L	0.1 (12)	0.00062	U	0.01	0.00062	0.1	0.00062	U	0.01	0.00062	0.1	0.00062	U	0.01	0.00062	0.1	0.00062	U	0.01	0.00062	0.1	0.00062	U	0.01	0.00062	0.1
2,4-Dinitrophenol	51-28-5	8270E	mg/L	0.019 (12)	0.0026	U	0.02	0.0026	0.019	0.0026	U	0.02	0.0026	0.019	0.0026	U	0.02	0.0026	0.019	0.0026	UJ	0.02	0.0026	0.019	0.0026	UJ	0.02	0.0026	0.019
2,4-Dinitrotoluene	121-14-2	8270E	mg/L	0.044 (12)	0.001	U	0.002	0.001	0.044	0.001	U	0.002	0.001	0.044	0.001	U	0.002	0.001	0.044	0.001	U	0.002	0.001	0.044	0.001	U	0.002	0.001	0.044
2,6-Dinitrotoluene	606-20-2	8270E	mg/L	0.23 (14)	0.00083	U	0.002	0.00083	0.23	0.00083	U	0.002	0.00083	0.23	0.00083	U	0.002	0.00083	0.23	0.00083	U	0.002	0.00083	0.23	0.00083	U	0.002	0.00083	0.23
2-Chloronaphthalene	91-58-7	8270E	mg/L	0.000396 (12)	0.0012	U	0.01	0.0012	0.000396	0.0012	U	0.01	0.0012	0.000396	0.0012	U	0.01	0.0012	0.000396	0.0012	U	0.01	0.0012	0.000396	0.0012	U	0.01	0.0012	0.000396
2-Chlorophenol	95-57-8	8270E	mg/L	0.024 (12)	0.00038	U	0.01	0.00038	0.024	0.00038	U	0.01	0.00038	0.024	0.00038	U	0.01	0.00038	0.024	0.00038	U	0.01	0.00038	0.024	0.00038	U	0.01	0.00038	0.024
2-Methylnaphthalene	91-57-6	8270E	mg/L	0.33 (12)	0.00053	U	0.01	0.00053	0.33	0.00053	U	0.01	0.00053	0.33	0.00053	U	0.01	0.00053	0.33	0.00053	U	0.01	0.00053	0.33	0.00053	U	0.01	0.00053	0.33
2-Methylphenol	95-48-7	8270E	mg/L	0.013 (14)	0.00067	U	0.01	0.00067	0.013	0.00067	U	0.01	0.00067	0.013	0.00067	U	0.01	0.00067	0.013	0.00067	U	0.01	0.00067	0.013	0.00067	U	0.01	0.00067	0.013
2-Nitroaniline	88-74-4	8270E	mg/L		0.00047	U	0.01	0.00047		0.00047	U	0.01	0.00047		0.00047	U	0.01	0.00047		0.00047	U	0.01	0.00047		0.00047	U	0.01	0.00047	
2-Nitrophenol	88-75-5	8270E	mg/L	0.06 (14)	0.00075	U	0.01	0.00075	0.06	0.00075	U	0.01	0.00075	0.06	0.00075	U	0.01	0.00075	0.06	0.00075	U	0.01	0.00075	0.06	0.00075	U	0.01	0.00075	0.06
3,3'-Dichlorobenzidine	91-94-1	8270E	mg/L	0.0045 (12)	0.0014	U	0.01	0.0014	0.0045	0.0014	U	0.01	0.0014	0.0045	0.0014	U	0.01	0.0014	0.0045	0.0014	U	0.01	0.0014	0.0045	0.0014	U	0.01	0.0014	0.0045
3-Nitroaniline	99-09-2	8270E	mg/L		0.0019	U	0.01	0.0019		0.0019	U	0.01	0.0019		0.0019	U	0.01	0.0019		0.0019	U	0.01	0.0019		0.0019	U	0.01	0.0019	
4,6-Dinitro-2-methylphenol	534-52-1	8270E	mg/L		0.003	U	0.02	0.003		0.003	U	0.02	0.003		0.003	U	0.02	0.003		0.003	UJ	0.02	0.003		0.003	UJ	0.02	0.003	
4-Bromophenyl phenyl ether	101-55-3	8270E	mg/L	0.0015 (14)	0.00075	U	0.01	0.00075	0.0015	0.00075	U	0.01	0.00075	0.0015	0.00075	U	0.01	0.00075	0.0015	0.00075	U	0.01	0.00075	0.0015	0.00075	U	0.01	0.00075	0.0015
4-Chloro-3-methylphenol	59-50-7	8270E	mg/L		0.00058	U	0.01	0.00058		0.00058	U	0.01	0.00058		0.00058	U	0.01	0.00058		0.00058	U	0.01	0.00058		0.00058	U	0.01	0.00058	
4-Chloroaniline	106-47-8	8270E	mg/L	0.232 (6)	0.0019	U	0.01	0.0019	0.232	0.0019	U	0.01	0.0019	0.232	0.0019	U	0.01	0.0019	0.232	0.0019	U	0.01	0.0019	0.232	0.0019	U	0.01	0.0019	0.232
4-Chlorophenyl phenyl ether	7005-72-3	8270E	mg/L		0.0013	U	0.01	0.0013		0.0013	U	0.01	0.0013		0.0013	U	0.01	0.0013		0.0013	U	0.01	0.0013		0.0013	U	0.01	0.0013	
4-Methylphenol	106-44-5	8270E	mg/L		0.00065	U	0.01	0.00065		0.00065	U	0.01	0.00065		0.00065	U	0.01	0.00065		0.00065	U	0.01	0.00065		0.00065	U	0.01	0.00065	
4-Nitroaniline	100-01-6	8270E	mg/L		0.0012	U	0.01	0.0012		0.0012	U	0.01	0.0012		0.0012	U	0.01	0.0012		0.0012	U	0.01	0.0012		0.0012	U	0.01	0.0012	
4-Nitrophenol	100-02-7	8270E	mg/L	0.06 (14)	0.004	U	0.02	0.004	0.06	0.004	U	0.02	0.004	0.06	0.004	U	0.02	0.004	0.06	0.004	U	0.02	0.004	0.06	0.004	U	0.02	0.004	0.06
Acetophenone	98-86-2	8270E	mg/L		0.0023	U	0.01	0.0023		0.0023	U	0.01	0.0023		0.0023	U	0.01	0.0023		0.0023	U	0.01	0.0023		0.0023	U	0.01	0.0023	
Atrazine	1912-24-9	8270E	mg/L		0.0013	U	0.002	0.0013		0.0013	U	0.002	0.0013		0.0013	U	0.002	0.0013		0.0013	U	0.002	0.0013		0.0013	U	0.002	0.0013	
Benzaldehyde	100-52-7	8270E	mg/L		0.0021	UJ	0.01	0.0021		0.0021	UJ	0.01	0.0021		0.0021	UJ	0.01	0.0021		0.0021	UJ	0.01	0.0021		0.0021	UJ	0.01	0.0021	
Bis(2-chloroethoxy)methane	111-91-1	8270E	mg/L		0.00059	U	0.01	0.00059		0.00059	U	0.01	0.00059		0.00059	U	0.01	0.00059		0.00059	U	0.01	0.00059		0.00059	U	0.01	0.00059	
Bis(2-chloroethyl)ether	111-44-4	8270E	mg/L	1.9 (12)	0.00063	U	0.001	0.00063	1.9	0.00063	U	0.001	0.00063	1.9	0.00063	U	0.001	0.00063	1.9					1.9	0.00063	U	0.001	0.00063	1.9
Bis(2-ethylhexyl) phthalate	117-81-7	8270E	mg/L	0.0003 (12)	0.0008	U	0.002	0.0008	0.0003	0.0008	U	0.002	0.0008	0.0003	0.0008	U	0.002	0.0008	0.0003	0.0008	U	0.002	0.0008	0.0003	0.0008	U	0.002	0.0008	0.0003
Butyl benzyl phthalate	85-68-7	8270E	mg/L	0.023 (12)	0.00085	U	0.01	0.00085	0.023	0.00085	U	0.01	0.00085	0.023	0.00085	U	0.01	0.00085	0.023	0.00085	U	0.01	0.00085	0.023	0.00085	U	0.01	0.00085	0.023
Caprolactam	105-60-2	8270E	mg/L		0.0022	U	0.01	0.0022		0.0022	U	0.01	0.0022		0.0022	U	0.01	0.0022		0.0022	U	0.01	0.0022		0.0022	U	0.01	0.0022	
Carbazole	86-74-8	8270E	mg/L		0.00068	U	0.01	0.00068		0.00068	U	0.01	0.00068		0.00068	U	0.01	0.00068		0.00068	U	0.01	0.00068		0.00068	U	0.01	0.00068	
Dibenzofuran	132-64-9	8270E	mg/L	0.0037 (14)	0.0011	U	0.01	0.0011	0.0037	0.0011	U	0.01	0.0011	0.0037	0.0011	U	0.01	0.0011	0.0037	0.0011	U	0.01	0.0011	0.0037	0.0011	U	0.01	0.0011	0.0037
Diethyl phthalate	84-66-2	8270E	mg/L	0.11 (12)	0.00098	U	0.01	0.00098	0.11	0.00098	U	0.01	0.00098	0.11	0.00098	U	0.01	0.00098	0.11	0.00098	U	0.01	0.00098	0.11	0.00098	U	0.01	0.00098	0.11
Dimethyl phthalate	131-11-3	8270E	mg/L	0.003 (14)	0.00077	U	0.01	0.00077	0.003	0.00077	U	0.01	0.00077	0.003	0.00077	U	0.01	0.00077	0.003	0.00077	U	0.01	0.00077	0.003	0.00077	U	0.01	0.00077	0.003
Di-n-butyl phthalate	84-74-2	8270E	mg/L	0.0097 (12)	0.00084	U	0.01	0.00084	0.0097	0.00084	U	0.01	0.00084	0.0097	0.00084	U	0.01	0.00084	0.0097	0.00084	U	0.01	0.00084	0.0097	0.00084	U	0.01	0.00084	0.0097
Di-n-octyl phthalate	117-84-0	8270E	mg/L	0.003 (14)	0.00075	U	0.01	0.00075	0.003	0.00075	U	0.01	0.00075	0.003	0.00075	U	0.01	0.00075	0.003	0.00075	U	0.01	0.00075	0.003	0.00075	U	0.01	0.00075	0.003
Hexachlorobenzene	118-74-1	8270E	mg/L	0.0000003 (12)	0.0004	U	0.001	0.0004	0.0000003	0.0004	U	0.001	0.0004	0.0000003	0.0004	U	0.001	0.0004	0.0000003	0.0004	U	0.001	0.0004	0.0000003	0.0004	U	0.001	0.0004	0.0000003
Hexachlorobutadiene	87-68-3	8270E	mg/L	0.000053 (12)	0.00078	U	0.001	0.00078	0.000053	0.00078	U	0.001	0.00078	0.000053	0.00078	U	0.001	0.00078	0.000053	0.00078	U	0.001	0.00078	0.000053	0.00078	U	0.001	0.00078	0.000053
Hexachlorocyclopentadiene	77-47-4	8270E	mg/L	0.077 (12)	0.0036	U	0.01	0.0036	0.077	0.0036	U	0.01	0.0036	0.077	0.0036	U	0.01	0.0036	0.077	0.0036	U	0.01	0.0036	0.077	0.0036	U	0.01	0.0036	0.077
Hexachloroethane	67-72-1	8270E	mg/L	0.008 (12)	0.0008	U	0.002	0.0008	0.008	0.0008	U	0.002	0.0008	0.008	0.0008	U	0.002	0.0008	0.008	0.0008	U	0.002	0.0008	0.008	0.0008	U	0.002	0.0008	0.008
Isophorone	78-59-1	8270E	mg/L	0.92 (12)	0.0008	U	0.01	0.0008	0.92	0.0008	U	0.01	0.0008	0.92	0.0008	U	0.01	0.0008	0.92	0.0008	U	0.01	0.0008	0.92	0.0008	U	0.01	0.0008	0.92
Nitrobenzene	98-95-3	8270E	mg/L	0.22 (12)	0.00057	U	0.001	0.00057	0.22	0.00057	U	0.001	0.00057	0.22	0.00057	U	0.001	0.00057	0.22	0.00057	U	0.001	0.00057	0.22	0.00057	U	0.001	0.00057	0.22
N-Nitrosodi-n-propylamine	621-64-7	8270E	mg/L		0.00043	U	0.001	0.00043		0.00043	U	0.001	0.00043		0.00043	U	0.001	0.00043		0.00043	U	0.001	0.00043		0.00043	U	0.001	0.00043	
N-Nitrosodiphenylamine	86-30-6	8270E	mg/L		0.00089	U	0.01	0.00089		0.00089	U	0.01	0.00089		0.00089	U	0.01	0.00089		0.00089	U	0.01	0.00089		0.00089	U	0.01	0.00089	
Pentachlorophenol	87-86-5	8270E	mg/L	pH Calc (12)	0.0014	U	0.02	0.0014	5.21	0.000071	UJ	0.0002	0.071	No Calc	0.000071	UJ	0.0002	0.000071	11.29	0.000071	U	0.0002	0.000071	1.62	0.000071	U	0.0002	0.000071	1.50
Phenol	108-95-2	8270E	mg/L	0.18 (12)	0.00029	U	0.01	0.00029	0.18	0.00029	U	0.01	0.00029	0.18	0.00029	U	0.01	0.00029	0.18	0.00029	U	0.01	0.00029	0.18	0.00029	U	0.01	0.00029	0.18
Polycyclic Aromatic Hydrocarbons (PAHs)																													
Acenaphthene	83-32-9	8270E	mg/L	0.038 (12)	0.0011	U	0.01	0.0011	0.038	0.000014	U	0.00005	0.014	0.038	0.000027	J	0.00005	0.000014	0.038	0.000014	U	0.00005	0.000014	0.038	0.000014	U	0.00005	0.000014	0.038
Acenaphthylene	208-96-8	8270E	mg/L	4.84 (12)	0.00082	U	0.01	0.00082	4.84	0.000015	U	0.00005	0.015	4.84	0.000019	J	0.00005	0.000015	4.84	0.000015	U	0.00005	0.000015	4.84	0.000015	U	0.00005	0.000015	4.84
Anthracene	120-12-7	8270E	mg/L	0.000035 (12)	0.0013	U	0.01	0.0013	0.000035	0.000025	U	0.00005	0.025	0.000035	**0.000078**		0.00005	0.000025	0.000035	0.000025	U	0.00005	0.000025	0.000035	0.000025	U	0.00005	0.000025	0.000035
Fluorene	86-73-7	8270E	mg/L	0.019 (12)	0.00091	U	0.01	0.00091	0.019	0.000012	U	0.00005	0.012	0.019	0.000077		0.00005	0.000012	0.019	0.000012	U	0.00005	0.000012	0.019	0.000012	U	0.00005	0.000012	0.019
Naphthalene	91-20-3	8270E	mg/L	0.013 (12)	0.00054	U	0.002	0.00054	0.013	0.00012	U	0.0002	0.12	0.013	0.00012	U	0.0002	0.00012	0.013	0.00012	U	0.0002	0.00012	0.013	0.00012	U	0.0002	0.00012	0.013
Phenanthrene	85-01-8	8270E	mg/L	0.0036 (12)	0.0013	U	0.01	0.0013	0.0036	0.000022	UJ	0.00005	0.022	0.0036	0.000046	UJ	0.00005	0.000022	0.0036	0.000022	U	0.00005	0.000022	0.0036	0.000022	U	0.00005	0.000022	0.0036
Benzo[a]anthracene	56-55-3	8270E SIM	mg/L	0.000025 (12)	0.00059	U	0.001	0.00059	0.000025	0.000016	UJ	0.00005	0.000016	0.000025	**0.000043**	J	0.00005	0.000016	0.000025	0.000016	U	0.00005	0.000016	0.000025	0.000016	U	0.00005	0.000016	0.000025
Benzo[a]pyrene	50-32-8	8270E SIM	mg/L	0.000014 (12)	0.00041	U	0.001	0.00041	0.000014	0.000022	U	0.00005	0.000022	0.000014	**0.000034**	J	0.00005	0.000022	0.000014	0.000022	U	0.00005	0.000022	0.000014	0.000022	U	0.00005	0.000022	0.000014
Benzo[b]fluoranthene	205-99-2	8270E SIM	mg/L	0.00907 (12)	0.00068	U	0.002	0.00068	0.00907	0.000024	U	0.00005	0.000024	0.00907	0.000049	J	0.00005	0.000024	0.00907	0.000024	U	0.00005	0.000024	0.00907	0.000024	U	0.00005	0.000024	0.00907
Benzo[g,h,i]perylene	191-24-2	8270E SIM	mg/L	0.00764 (12)	0.0007	U	0.01	0.0007	0.00764	0.000035	U	0.00005	0.000035	0.00764	0.000052		0.00005	0.000035	0.00764	0.000035	U	0.00005	0.000035	0.00764	0.000035	U	0.00005	0.000035	0.00764
Benzo[k]fluoranthene	207-08-9	8270E SIM	mg/L	0.0000041 (14)	0.00067	U	0.001	0.00067	0.0000041	0.000028	U	0.00005	0.000028	0.0000041	**0.000054**		0.00005	0.000028	0.0000041	0.000028	U	0.00005	0.000028	0.0000041	0.000028	U	0.00005	0.000028	0.0000041
Chrysene	218-01-9	8270E	mg/L	0.0000018 (14)	0.00091	UJ	0.002	0.00091	0.0000018	0.00003	U	0.00005	0.00003	0.0000018	**0.000053**		0.00005	0.00003	0.0000018	0.00003	U	0.00005	0.00003	0.0000018	0.00003	U	0.00005	0.00003	0.0000018
Dibenz(a,h)anthracene	53-70-3	8270E SIM	mg/L	0.0000034 (14)	0.00072	U	0.001	0.00072	0.0000034	0.00002	U	0.00005	0.00002	0.0000034	**0.000061**		0.00005	0.00002	0.0000034	0.00002	UJ	0.00005	0.00002	0.0000034	0.00002	UJ	0.00005	0.00002	0.0000034
Fluoranthene	206-44-0	8270E	mg/L	0.0019 (12)	0.00084	U	0.01	0.00084	0.0019	0.000039	UJ	0.00005	0.000039	0.0019	0.000055	J	0.00005	0.000039	0.0019	0.000039	U	0.00005	0.000039	0.0019	0.000039	U	0.00005	0.000039	0.0019
Indeno[1,2,3-cd]pyrene	193-39-5	8270E SIM	mg/L	0.00431 (12)	0.00094	U	0.002	0.00094	0.00431	0.000036	U	0.00005	0.000036	0.00431	0.000058		0.00005	0.000036	0.00431	0.000036	UJ	0.00005	0.000036	0.00431	0.000036	UJ	0.00005	0.000036	0.00431
Pyrene	129-00-0	8270E	mg/L	0.0003 (12)	0.0016	U	0.01	0.0016	0.0003	0.000031	U	0.00005	0.000031	0.0003	0.000061		0.00005	0.000031	0.0003	0.000031	U	0.00005	0.000031	0.0003	0.000031	U	0.00005	0.000031	0.0003

Table 5.20 - Pore Water: Semi-Volatile Organic Compounds (SVOCs) An (continued)

Rolling Knolls Landfill

Sample Name				ESC's	PW102_0.1-1.1 (PW22_0.1-1.1 duplicate)					PW23_0.2-1.2					PW24_0.1-1.1					PW26_0.1-1.1					PW27_0.1-1.1				
Sample Date/Time					05/21/2021 09:10					05/21/2021 12:37					05/21/2021 13:08					05/23/2021 12:00					05/24/2021 09:00				
Latitude				Screening Criteria	40.72444765					40.7247828					40.72489946					40.72504571					40.72541272				
Longitude					-74.44258986					-74.44247662					-74.44253506					-74.44201259					-74.44125584				
Lab Sample Name					GS-S-PWT102-0.1-1.1					GS-S-PWT23-0.2-1.2					GS-S-PWT24-0.1-1.1					GS-S-PWT026-0.1-1.1					GS-S-PWT27-0.1-1.1				
Lab Sample Number					460-235399-5					460-235398-2					460-235399-3					460-235399-1					460-235498-3				
Lab Report Number(s)					460-235399-1					460-235398-1					460-235399-1					460-235399-1					460-235498-1				
Analyte	CAS	Method	Units		Result	LDC Flag	RL	MDL (EDL)	ESC	Result	LDC Flag	RL	MDL (EDL)	ESC	Result	LDC Flag	RL	MDL (EDL)	ESC	Result	LDC Flag	RL	MDL (EDL)	ESC	Result	LDC Flag	RL	MDL (EDL)	ESC
1,1'-Biphenyl	92-52-4	8270E	mg/L		0.0012	U	0.01	0.0012		0.0012	U	0.01	0.0012		0.0012	U	0.01	0.0012		0.0012	U	0.01	0.0012		0.0012	U	0.01	0.0012	
1,2,4,5-Tetrachlorobenzene	95-94-3	8270E	mg/L	0.003 (12)	0.0012	U	0.01	0.0012	0.003	0.0012	U	0.01	0.0012	0.003	0.0012	U	0.01	0.0012	0.003	0.0012	U	0.01	0.0012	0.003	0.0012	U	0.01	0.0012	0.003
2,2'-oxybis[1-chloropropane]	108-60-1	8270E	mg/L		0.00063	UJ	0.01	0.00063		0.00063	UJ	0.01	0.00063		0.00063	UJ	0.01	0.00063		0.00063	U	0.01	0.00063		0.00063	U	0.01	0.00063	
2,3,4,6-Tetrachlorophenol	58-90-2	8270E	mg/L	0.0012 (6)	0.00075	U	0.01	0.00075	0.0012	0.00075	U	0.01	0.00075	0.0012	0.00075	U	0.01	0.00075	0.0012	0.00075	U	0.01	0.00075	0.0012	0.00075	U	0.01	0.00075	0.0012
2,4,5-Trichlorophenol	95-95-4	8270E	mg/L		0.00088	U	0.01	0.00088		0.00088	U	0.01	0.00088		0.00088	U	0.01	0.00088		0.00088	U	0.01	0.00088		0.00088	U	0.01	0.00088	
2,4,6-Trichlorophenol	88-06-2	8270E	mg/L	0.0049 (12)	0.00086	U	0.01	0.00086	0.0049	0.00086	U	0.01	0.00086	0.0049	0.00086	U	0.01	0.00086	0.0049	0.00086	U	0.01	0.00086	0.0049	0.00086	U	0.01	0.00086	0.0049
2,4-Dichlorophenol	120-83-2	8270E	mg/L	0.011 (12)	0.0011	U	0.01	0.0011	0.011	0.0011	U	0.01	0.0011	0.011	0.0011	U	0.01	0.0011	0.011	0.0011	U	0.01	0.0011	0.011	0.0011	U	0.01	0.0011	0.011
2,4-Dimethylphenol	105-67-9	8270E	mg/L	0.1 (12)	0.00062	U	0.01	0.00062	0.1	0.00062	U	0.01	0.00062	0.1	0.00062	U	0.01	0.00062	0.1	0.00062	U	0.01	0.00062	0.1	0.00062	U	0.01	0.00062	0.1
2,4-Dinitrophenol	51-28-5	8270E	mg/L	0.019 (12)	0.0026	UJ	0.02	0.0026	0.019	0.0026	UJ	0.02	0.0026	0.019	0.0026	UJ	0.02	0.0026	0.019	0.0026	U	0.02	0.0026	0.019	0.0026	U	0.02	0.0026	0.019
2,4-Dinitrotoluene	121-14-2	8270E	mg/L	0.044 (12)	0.001	U	0.002	0.001	0.044	0.001	U	0.002	0.001	0.044	0.001	U	0.002	0.001	0.044	0.001	U	0.002	0.001	0.044	0.001	U	0.002	0.001	0.044
2,6-Dinitrotoluene	606-20-2	8270E	mg/L	0.23 (14)	0.00083	U	0.002	0.00083	0.23	0.00083	U	0.002	0.00083	0.23	0.00083	U	0.002	0.00083	0.23	0.00083	U	0.002	0.00083	0.23	0.00083	U	0.002	0.00083	0.23
2-Chloronaphthalene	91-58-7	8270E	mg/L	0.000396 (12)	0.0012	U	0.01	0.0012	0.000396	0.0012	U	0.01	0.0012	0.000396	0.0012	U	0.01	0.0012	0.000396	0.0012	U	0.01	0.0012	0.000396	0.0012	U	0.01	0.0012	0.000396
2-Chlorophenol	95-57-8	8270E	mg/L	0.024 (12)	0.00038	U	0.01	0.00038	0.024	0.00038	U	0.01	0.00038	0.024	0.00038	U	0.01	0.00038	0.024	0.00038	U	0.01	0.00038	0.024	0.00038	U	0.01	0.00038	0.024
2-Methylnaphthalene	91-57-6	8270E	mg/L	0.33 (12)	0.00053	U	0.01	0.00053	0.33	0.00053	U	0.01	0.00053	0.33	0.00053	U	0.01	0.00053	0.33	0.00053	U	0.01	0.00053	0.33	0.00053	U	0.01	0.00053	0.33
2-Methylphenol	95-48-7	8270E	mg/L	0.013 (14)	0.00067	U	0.01	0.00067	0.013	0.00067	U	0.01	0.00067	0.013	0.00067	U	0.01	0.00067	0.013	0.00067	U	0.01	0.00067	0.013	0.00067	U	0.01	0.00067	0.013
2-Nitroaniline	88-74-4	8270E	mg/L		0.00047	U	0.01	0.00047		0.00047	U	0.01	0.00047		0.00047	U	0.01	0.00047		0.00047	U	0.01	0.00047		0.00047	U	0.01	0.00047	
2-Nitrophenol	88-75-5	8270E	mg/L	0.06 (14)	0.00075	U	0.01	0.00075	0.06	0.00075	U	0.01	0.00075	0.06	0.00075	U	0.01	0.00075	0.06	0.00075	U	0.01	0.00075	0.06	0.00075	U	0.01	0.00075	0.06
3,3'-Dichlorobenzidine	91-94-1	8270E	mg/L	0.0045 (12)	0.0014	U	0.01	0.0014	0.0045	0.0014	U	0.01	0.0014	0.0045	0.0014	U	0.01	0.0014	0.0045	0.0014	U	0.01	0.0014	0.0045	0.0014	U	0.01	0.0014	0.0045
3-Nitroaniline	99-09-2	8270E	mg/L		0.0019	U	0.01	0.0019		0.0019	U	0.01	0.0019		0.0019	U	0.01	0.0019		0.0019	U	0.01	0.0019		0.0019	U	0.01	0.0019	
4,6-Dinitro-2-methylphenol	534-52-1	8270E	mg/L		0.003	UJ	0.02	0.003		0.003	UJ	0.02	0.003		0.003	UJ	0.02	0.003		0.003	U	0.02	0.003		0.003	U	0.02	0.003	
4-Bromophenyl phenyl ether	101-55-3	8270E	mg/L	0.0015 (14)	0.00075	U	0.01	0.00075	0.0015	0.00075	U	0.01	0.00075	0.0015	0.00075	U	0.01	0.00075	0.0015	0.00075	U	0.01	0.00075	0.0015	0.00075	U	0.01	0.00075	0.0015
4-Chloro-3-methylphenol	59-50-7	8270E	mg/L		0.00058	U	0.01	0.00058		0.00058	U	0.01	0.00058		0.00058	U	0.01	0.00058		0.00058	U	0.01	0.00058		0.00058	U	0.01	0.00058	
4-Chloroaniline	106-47-8	8270E	mg/L	0.232 (6)	0.0019	U	0.01	0.0019	0.232	0.0019	U	0.01	0.0019	0.232	0.0019	U	0.01	0.0019	0.232	0.0019	U	0.01	0.0019	0.232	0.0019	U	0.01	0.0019	0.232
4-Chlorophenyl phenyl ether	7005-72-3	8270E	mg/L		0.0013	U	0.01	0.0013		0.0013	U	0.01	0.0013		0.0013	U	0.01	0.0013		0.0013	U	0.01	0.0013		0.0013	U	0.01	0.0013	
4-Methylphenol	106-44-5	8270E	mg/L		0.00065	U	0.01	0.00065		0.00065	U	0.01	0.00065		0.00065	U	0.01	0.00065		0.00065	U	0.01	0.00065		0.00065	U	0.01	0.00065	
4-Nitroaniline	100-01-6	8270E	mg/L		0.0012	U	0.01	0.0012		0.0012	U	0.01	0.0012		0.0012	U	0.01	0.0012		0.0012	U	0.01	0.0012		0.0012	U	0.01	0.0012	
4-Nitrophenol	100-02-7	8270E	mg/L	0.06 (14)	0.004	U	0.02	0.004	0.06	0.004	U	0.02	0.004	0.06	0.004	U	0.02	0.004	0.06	0.004	U	0.02	0.004	0.06	0.004	U	0.02	0.004	0.06
Acetophenone	98-86-2	8270E	mg/L		0.0023	U	0.01	0.0023		0.0023	U	0.01	0.0023		0.0023	U	0.01	0.0023		0.0023	U	0.01	0.0023		0.0023	U	0.01	0.0023	
Atrazine	1912-24-9	8270E	mg/L		0.0013	U	0.002	0.0013		0.0013	U	0.002	0.0013		0.0013	U	0.002	0.0013		0.0013	U	0.002	0.0013		0.0013	U	0.002	0.0013	
Benzaldehyde	100-52-7	8270E	mg/L		0.0021	UJ	0.01	0.0021		0.0021	UJ	0.01	0.0021		0.0021	UJ	0.01	0.0021		0.0021	UJ	0.01	0.0021		0.0021	UJ	0.01	0.0021	
Bis(2-chloroethoxy)methane	111-91-1	8270E	mg/L		0.00059	U	0.01	0.00059		0.00059	U	0.01	0.00059		0.00059	U	0.01	0.00059		0.00059	U	0.01	0.00059		0.00059	U	0.01	0.00059	
Bis(2-chloroethyl)ether	111-44-4	8270E	mg/L	1.9 (12)	0.00063	U	0.001	0.00063	1.9					1.9	0.00063	U	0.001	0.00063	1.9	0.00063	U	0.001	0.00063	1.9	0.00063	U	0.001	0.00063	1.9
Bis(2-ethylhexyl) phthalate	117-81-7	8270E	mg/L	0.0003 (12)	0.0008	U	0.002	0.0008	0.0003	0.0008	U	0.002	0.0008	0.0003	0.0008	U	0.002	0.0008	0.0003	0.0008	U	0.002	0.0008	0.0003	0.0008	U	0.002	0.0008	0.0003
Butyl benzyl phthalate	85-68-7	8270E	mg/L	0.023 (12)	0.00085	U	0.01	0.00085	0.023	0.00085	U	0.01	0.00085	0.023	0.00085	U	0.01	0.00085	0.023	0.00085	U	0.01	0.00085	0.023	0.00085	U	0.01	0.00085	0.023
Caprolactam	105-60-2	8270E	mg/L		0.0022	U	0.01	0.0022		0.0022	U	0.01	0.0022		0.0022	U	0.01	0.0022		0.0022	UJ	0.01	0.0022		0.0022	U	0.01	0.0022	
Carbazole	86-74-8	8270E	mg/L		0.00068	U	0.01	0.00068		0.00068	U	0.01	0.00068		0.00068	U	0.01	0.00068		0.00068	U	0.01	0.00068		0.00068	U	0.01	0.00068	
Dibenzofuran	132-64-9	8270E	mg/L	0.0037 (14)	0.0011	U	0.01	0.0011	0.0037	0.0011	U	0.01	0.0011	0.0037	0.0011	U	0.01	0.0011	0.0037	0.0011	U	0.01	0.0011	0.0037	0.0011	U	0.01	0.0011	0.0037
Diethyl phthalate	84-66-2	8270E	mg/L	0.11 (12)	0.00098	U	0.01	0.00098	0.11	0.00098	U	0.01	0.00098	0.11	0.00098	U	0.01	0.00098	0.11	0.00098	U	0.01	0.00098	0.11	0.00098	U	0.01	0.00098	0.11
Dimethyl phthalate	131-11-3	8270E	mg/L	0.003 (14)	0.00077	U	0.01	0.00077	0.003	0.00077	U	0.01	0.00077	0.003	0.00077	U	0.01	0.00077	0.003	0.00077	U	0.01	0.00077	0.003	0.00077	U	0.01	0.00077	0.003
Di-n-butyl phthalate	84-74-2	8270E	mg/L	0.0097 (12)	0.00084	U	0.01	0.00084	0.0097	0.00084	U	0.01	0.00084	0.0097	0.00084	U	0.01	0.00084	0.0097	0.00084	U	0.01	0.00084	0.0097	0.00084	U	0.01	0.00084	0.0097
Di-n-octyl phthalate	117-84-0	8270E	mg/L	0.003 (14)	0.00075	U	0.01	0.00075	0.003	0.00075	U	0.01	0.00075	0.003	0.00075	U	0.01	0.00075	0.003	0.00075	UJ	0.01	0.00075	0.003	0.00075	U	0.01	0.00075	0.003
Hexachlorobenzene	118-74-1	8270E	mg/L	0.0000003 (12)	0.0004	U	0.001	0.0004	0.0000003	0.0004	U	0.001	0.0004	0.0000003	0.0004	U	0.001	0.0004	0.0000003	0.0004	U	0.001	0.0004	0.0000003	0.0004	U	0.001	0.0004	0.0000003
Hexachlorobutadiene	87-68-3	8270E	mg/L	0.000053 (12)	0.00078	U	0.001	0.00078	0.000053	0.00078	U	0.001	0.00078	0.000053	0.00078	U	0.001	0.00078	0.000053	0.00078	U	0.001	0.00078	0.000053	0.00078	U	0.001	0.00078	0.000053
Hexachlorocyclopentadiene	77-47-4	8270E	mg/L	0.077 (12)	0.0036	U	0.01	0.0036	0.077	0.0036	U	0.01	0.0036	0.077	0.0036	U	0.01	0.0036	0.077	0.0036	U	0.01	0.0036	0.077	0.0036	U	0.01	0.0036	0.077
Hexachloroethane	67-72-1	8270E	mg/L	0.008 (12)	0.0008	U	0.002	0.0008	0.008	0.0008	U	0.002	0.0008	0.008	0.0008	U	0.002	0.0008	0.008	0.0008	U	0.002	0.0008	0.008	0.0008	U	0.002	0.0008	0.008
Isophorone	78-59-1	8270E	mg/L	0.92 (12)	0.0008	U	0.01	0.0008	0.92	0.0008	U	0.01	0.0008	0.92	0.0008	U	0.01	0.0008	0.92	0.0008	U	0.01	0.0008	0.92	0.0008	U	0.01	0.0008	0.92
Nitrobenzene	98-95-3	8270E	mg/L	0.22 (12)	0.00057	U	0.001	0.00057	0.22	0.00057	U	0.001	0.00057	0.22	0.00057	U	0.001	0.00057	0.22	0.00057	U	0.001	0.00057	0.22	0.00057	U	0.001	0.00057	0.22
N-Nitrosodi-n-propylamine	621-64-7	8270E	mg/L		0.00043	U	0.001	0.00043		0.00043	U	0.001	0.00043		0.00043	U	0.001	0.00043		0.00043	U	0.001	0.00043		0.00043	U	0.001	0.00043	
N-Nitrosodiphenylamine	86-30-6	8270E	mg/L		0.00089	U	0.01	0.00089		0.00089	U	0.01	0.00089		0.00089	U	0.01	0.00089		0.00089	U	0.01	0.00089		0.00089	U	0.01	0.00089	
Pentachlorophenol	87-86-5	8270E	mg/L	pH Calc (12)	0.000071	U	0.0002	0.000071	1.50	0.000071	U	0.0002	0.000071	7.86	0.000071	U	0.0002	0.000071	6.43	0.000071	UJ	0.0002	0.000071	7.86	0.000071	UJ	0.0002	0.000071	5.93
Phenol	108-95-2	8270E	mg/L	0.18 (12)	0.00029	U	0.01	0.00029	0.18	0.00029	U	0.01	0.00029	0.18	0.00029	U	0.01	0.00029	0.18	0.00029	U	0.01	0.00029	0.18	0.00029	U	0.01	0.00029	0.18
Polycyclic Aromatic Hydrocarbons (PAHs)																													
Acenaphthene	83-32-9	8270E	mg/L	0.038 (12)	0.000063		0.00005	0.000014	0.038	0.000014	U	0.00005	0.000014	0.038	0.000014	U	0.00005	0.014	0.038	0.000014	UJ	0.00005	0.000014	0.038	0.000014	UJ	0.00005	0.014	0.038
Acenaphthylene	208-96-8	8270E	mg/L	4.84 (12)	0.000048	J	0.00005	0.000015	4.84	0.000015	U	0.00005	0.000015	4.84	0.000015	U	0.00005	0.015	4.84	0.000015	U	0.00005	0.000015	4.84	0.000015	U	0.00005	0.015	4.84
Anthracene	120-12-7	8270E	mg/L	0.000035 (12)	0.000091		0.00005	0.000025	0.000035	0.000025	U	0.00005	0.000025	0.000035	0.000025	U	0.00005	0.025	0.000035	0.000025	U	0.00005	0.000025	0.000035	0.000025	UJ	0.00005	0.025	0.000035
Fluorene	86-73-7	8270E	mg/L	0.019 (12)	0.000072		0.00005	0.000012	0.019	0.000012	U	0.00005	0.000012	0.019	0.000012	U	0.00005	0.012	0.019	0.000013	J	0.00005	0.000012	0.019	0.000012	UJ	0.00005	0.012	0.019
Naphthalene	91-20-3	8270E	mg/L	0.013 (12)	0.00012	U	0.0002	0.00012	0.013	0.00012	U	0.0002	0.00012	0.013	0.00012	U	0.0002	0.12	0.013	0.00012	U	0.0002	0.00012	0.013	0.00012	U	0.0002	0.12	0.013
Phenanthrene	85-01-8	8270E	mg/L	0.0036 (12)	0.000088		0.00005	0.000022	0.0036	0.000022	U	0.00005	0.000022	0.0036	0.000022	U	0.00005	0.000022	0.0036	0.000022	U	0.00005	0.000022	0.0036	0.000022	U	0.00005	0.022	0.0036
Benzo[a]anthracene	56-55-3	8270E SIM	mg/L	0.000025 (12)	0.000094		0.00005	0.000016	0.000025	0.000016	U	0.00005	0.000016	0.000025	0.000016	U	0.00005	0.000016	0.000025	0.000016	U	0.00005	0.000016	0.000025	0.000016	U	0.00005	0.000016	0.000025
Benzo[a]pyrene	50-32-8	8270E SIM	mg/L	0.000014 (12)	0.00011		0.00005	0.000022	0.000014	0.000022	U	0.00005	0.000022	0.000014	0.000022	U	0.00005	0.000022	0.000014	0.000022	U	0.00005	0.000022	0.000014	0.000022	U	0.00005	0.000022	0.000014
Benzo[b]fluoranthene	205-99-2	8270E SIM	mg/L	0.00907 (12)	0.000087		0.00005	0.000024	0.00907	0.000024	U	0.00005	0.000024	0.00907	0.000024	U	0.00005	0.000024	0.00907	0.000024	U	0.00005	0.000024	0.00907	0.000024	U	0.00005	0.000024	0.00907
Benzo[g,h,i]perylene	191-24-2	8270E SIM	mg/L	0.00764 (12)	0.0001		0.00005	0.000035	0.00764	0.000035	U	0.00005	0.000035	0.00764	0.000035	U	0.00005	0.000035	0.00764	0.000035	U	0.00005	0.000035	0.00764	0.000035	U	0.00005	0.000035	0.00764
Benzo[k]fluoranthene	207-08-9	8270E SIM	mg/L	0.0000041 (14)	0.000093		0.00005	0.000028	0.0000041	0.000028	U	0.00005	0.000028	0.0000041	0.000028	U	0.00005	0.000028	0.0000041	0.000028	U	0.00005	0.000028	0.0000041	0.000028	U	0.00005	0.000028	0.0000041
Chrysene	218-01-9	8270E	mg/L	0.0000018 (14)	0.000092		0.00005	0.00003	0.0000018	0.00003	U	0.00005	0.00003	0.0000018	0.00003	U	0.00005	0.00003	0.0000018	0.00003	U	0.00005	0.00003	0.0000018	0.00003	U	0.00005	0.00003	0.0000018
Dibenz(a,h)anthracene	53-70-3	8270E SIM	mg/L	0.0000034 (14)	0.000094	J	0.00005	0.00002	0.0000034	0.00002	UJ	0.00005	0.00002	0.0000034	0.00002	UJ	0.00005	0.00002	0.0000034	0.00002	U	0.00005	0.00002	0.0000034	0.00002	U	0.00005	0.00002	0.0000034
Fluoranthene	206-44-0	8270E	mg/L	0.0019 (12)	0.000089		0.00005	0.000039	0.0019	0.000039	U	0.00005	0.000039	0.0019	0.000039	U	0.00005	0.000039	0.0019	0.000039	U	0.00005	0.000039	0.0019	0.000039	U	0.00005	0.000039	0.0019
Indeno[1,2,3-cd]pyrene	193-39-5	8270E SIM	mg/L	0.00431 (12)	0.000098	J	0.00005	0.000036	0.00431	0.000036	UJ	0.00005	0.000036	0.00431	0.000036	UJ	0.00005	0.000036	0.00431	0.000036	U	0.00005	0.000036	0.00431	0.000036	U	0.00005	0.000036	0.00431
Pyrene	129-00-0	8270E	mg/L	0.0003 (12)	0.000094		0.00005	0.000031	0.0003	0.000031	U	0.00005	0.000031	0.0003	0.000031	U	0.00005	0.000031	0.0003	0.000031	U	0.00005	0.000033	0.0003	0.000031	U	0.00005	0.000031	0.0003

Table 5.20 - Pore Water: Semi-Volatile Organic Compounds (SVOCs) An (continued)

Rolling Knolls Landfill

Sample Name				ESC's	PW29_0.2-1.2				PW30_0.1-1.1				PW31_0.1-1.1				PW32_0.3-1.3				PW33_0.1-1.1			
Sample Date/Time					05/24/2021 11:12				05/24/2021 11:30				05/24/2021 16:00				05/24/2021 17:00				05/25/2021 10:20			
Latitude				Screening Criteria	40.7258865				40.72580561				40.7274107				40.72740334				40.72829546			
Longitude					-74.44140482				-74.44119472				-74.43949673				-74.43971321				-74.44055948			
Lab Sample Name					GS-S-PWT029-0.2-1.2				GS-S-PWT30-0.1-1.1				GS-S-PWT31.0-1-1.1				GS-N-PWT032-0.3-1.3				GS-N-PWT33_0.1-1.1			
Lab Sample Number					460-235438-1				460-235498-4				460-235438-2				460-235498-1				460-235492-1			
Lab Report Number(s)					460-235438-1				460-235498-1				460-235438-1				460-235498-1				460-235492-1			
Analyte	CAS	Method	Units		Result	LDC Flag	RL	MDL (EDL)	ESC	Result	LDC Flag	RL	MDL (EDL)	ESC	Result	LDC Flag	RL	MDL (EDL)	ESC	Result	LDC Flag	RL	MDL (EDL)	ESC	Result	LDC Flag	RL	MDL (EDL)	ESC
1,1'-Biphenyl	92-52-4	8270E	mg/L		0.0012	U	0.01	0.0012		0.0012	U	0.01	0.0012		0.0012	U	0.01	0.0012		0.0012	U	0.01	0.0012		0.0012	U	0.01	0.0012	
1,2,4,5-Tetrachlorobenzene	95-94-3	8270E	mg/L	0.003 (12)	0.0012	U	0.01	0.0012	0.003	0.0012	U	0.01	0.0012	0.003	0.0012	U	0.01	0.0012	0.003	0.0012	U	0.01	0.0012	0.003	0.0012	U	0.01	0.0012	0.003
2,2'-oxybis[1-chloropropane]	108-60-1	8270E	mg/L		0.00063	U	0.01	0.00063		0.00063	U	0.01	0.00063		0.00063	U	0.01	0.00063		0.00063	U	0.01	0.00063		0.00063	UJ	0.01	0.00063	
2,3,4,6-Tetrachlorophenol	58-90-2	8270E	mg/L	0.0012 (6)	0.00075	U	0.01	0.00075	0.0012	0.00075	U	0.01	0.00075	0.0012	0.00075	U	0.01	0.00075	0.0012	0.00075	U	0.01	0.00075	0.0012	0.00075	U	0.01	0.00075	0.0012
2,4,5-Trichlorophenol	95-95-4	8270E	mg/L		0.00088	U	0.01	0.00088		0.00088	U	0.01	0.00088		0.00088	U	0.01	0.00088		0.00088	U	0.01	0.00088		0.00088	U	0.01	0.00088	
2,4,6-Trichlorophenol	88-06-2	8270E	mg/L	0.0049 (12)	0.00086	U	0.01	0.00086	0.0049	0.00086	U	0.01	0.00086	0.0049	0.00086	U	0.01	0.00086	0.0049	0.00086	U	0.01	0.00086	0.0049	0.00086	U	0.01	0.00086	0.0049
2,4-Dichlorophenol	120-83-2	8270E	mg/L	0.011 (12)	0.0011	U	0.01	0.0011	0.011	0.0011	U	0.01	0.0011	0.011	0.0011	U	0.01	0.0011	0.011	0.0011	U	0.01	0.0011	0.011	0.0011	U	0.01	0.0011	0.011
2,4-Dimethylphenol	105-67-9	8270E	mg/L	0.1 (12)	0.00062	U	0.01	0.00062	0.1	0.00062	U	0.01	0.00062	0.1	0.00062	U	0.01	0.00062	0.1	0.00062	U	0.01	0.00062	0.1	0.00062	U	0.01	0.00062	0.1
2,4-Dinitrophenol	51-28-5	8270E	mg/L	0.019 (12)	0.0026	U	0.02	0.0026	0.019	0.0026	U	0.02	0.0026	0.019	0.0026	U	0.02	0.0026	0.019	0.0026	U	0.02	0.0026	0.019	0.0026	UJ	0.02	0.0026	0.019
2,4-Dinitrotoluene	121-14-2	8270E	mg/L	0.044 (12)	0.001	U	0.002	0.001	0.044	0.001	U	0.002	0.001	0.044	0.001	U	0.002	0.001	0.044	0.001	U	0.002	0.001	0.044	0.001	U	0.002	0.001	0.044
2,6-Dinitrotoluene	606-20-2	8270E	mg/L	0.23 (14)	0.00083	U	0.002	0.00083	0.23	0.00083	U	0.002	0.00083	0.23	0.00083	U	0.002	0.00083	0.23	0.00083	U	0.002	0.00083	0.23	0.00083	U	0.002	0.00083	0.23
2-Chloronaphthalene	91-58-7	8270E	mg/L	0.000396 (12)	0.0012	U	0.01	0.0012	0.000396	0.0012	U	0.01	0.0012	0.000396	0.0012	U	0.01	0.0012	0.000396	0.0012	U	0.01	0.0012	0.000396	0.0012	U	0.01	0.0012	0.000396
2-Chlorophenol	95-57-8	8270E	mg/L	0.024 (12)	0.00038	U	0.01	0.00038	0.024	0.00038	U	0.01	0.00038	0.024	0.00038	U	0.01	0.00038	0.024	0.00038	U	0.01	0.00038	0.024	0.00038	U	0.01	0.00038	0.024
2-Methylnaphthalene	91-57-6	8270E	mg/L	0.33 (12)	0.00053	U	0.01	0.00053	0.33	0.00053	U	0.01	0.00053	0.33	0.00053	U	0.01	0.00053	0.33	0.00053	U	0.01	0.00053	0.33	0.00053	U	0.01	0.00053	0.33
2-Methylphenol	95-48-7	8270E	mg/L	0.013 (14)	0.00067	U	0.01	0.00067	0.013	0.00067	U	0.01	0.00067	0.013	0.00067	U	0.01	0.00067	0.013	0.00067	U	0.01	0.00067	0.013	0.00067	U	0.01	0.00067	0.013
2-Nitroaniline	88-74-4	8270E	mg/L		0.00047	U	0.01	0.00047		0.00047	U	0.01	0.00047		0.00047	U	0.01	0.00047		0.00047	U	0.01	0.00047		0.00047	U	0.01	0.00047	
2-Nitrophenol	88-75-5	8270E	mg/L	0.06 (14)	0.00075	U	0.01	0.00075	0.06	0.00075	U	0.01	0.00075	0.06	0.00075	U	0.01	0.00075	0.06	0.00075	U	0.01	0.00075	0.06	0.00075	U	0.01	0.00075	0.06
3,3'-Dichlorobenzidine	91-94-1	8270E	mg/L	0.0045 (12)	0.0014	U	0.01	0.0014	0.0045	0.0014	U	0.01	0.0014	0.0045	0.0014	U	0.01	0.0014	0.0045	0.0014	U	0.01	0.0014	0.0045	0.0014	U	0.01	0.0014	0.0045
3-Nitroaniline	99-09-2	8270E	mg/L		0.0019	U	0.01	0.0019		0.0019	U	0.01	0.0019		0.0019	U	0.01	0.0019		0.0019	U	0.01	0.0019		0.0019	U	0.01	0.0019	
4,6-Dinitro-2-methylphenol	534-52-1	8270E	mg/L		0.003	U	0.02	0.003		0.003	U	0.02	0.003		0.003	U	0.02	0.003		0.003	U	0.02	0.003		0.003	U	0.02	0.003	
4-Bromophenyl phenyl ether	101-55-3	8270E	mg/L	0.0015 (14)	0.00075	U	0.01	0.00075	0.0015	0.00075	U	0.01	0.00075	0.0015	0.00075	U	0.01	0.00075	0.0015	0.00075	U	0.01	0.00075	0.0015	0.00075	U	0.01	0.00075	0.0015
4-Chloro-3-methylphenol	59-50-7	8270E	mg/L		0.00058	U	0.01	0.00058		0.00058	U	0.01	0.00058		0.00058	U	0.01	0.00058		0.00058	U	0.01	0.00058		0.00058	U	0.01	0.00058	
4-Chloroaniline	106-47-8	8270E	mg/L	0.232 (6)	0.0019	U	0.01	0.0019	0.232	0.0019	U	0.01	0.0019	0.232	0.0019	U	0.01	0.0019	0.232	0.0019	U	0.01	0.0019	0.232	0.0019	U	0.01	0.0019	0.232
4-Chlorophenyl phenyl ether	7005-72-3	8270E	mg/L		0.0013	U	0.01	0.0013		0.0013	U	0.01	0.0013		0.0013	U	0.01	0.0013		0.0013	U	0.01	0.0013		0.0013	U	0.01	0.0013	
4-Methylphenol	106-44-5	8270E	mg/L		0.00065	U	0.01	0.00065		0.00065	U	0.01	0.00065		0.00065	U	0.01	0.00065		0.00065	U	0.01	0.00065		0.00065	U	0.01	0.00065	
4-Nitroaniline	100-01-6	8270E	mg/L		0.0012	U	0.01	0.0012		0.0012	U	0.01	0.0012		0.0012	U	0.01	0.0012		0.0012	U	0.01	0.0012		0.0012	UJ	0.01	0.0012	
4-Nitrophenol	100-02-7	8270E	mg/L	0.06 (14)	0.004	U	0.02	0.004	0.06	0.004	U	0.02	0.004	0.06	0.004	U	0.02	0.004	0.06	0.004	U	0.02	0.004	0.06	0.004	UJ	0.02	0.004	0.06
Acetophenone	98-86-2	8270E	mg/L		0.0023	U	0.01	0.0023		0.0023	U	0.01	0.0023		0.0023	U	0.01	0.0023		0.0023	U	0.01	0.0023		0.0023	U	0.01	0.0023	
Atrazine	1912-24-9	8270E	mg/L		0.0013	U	0.002	0.0013		0.0013	U	0.002	0.0013		0.0013	U	0.002	0.0013		0.0013	U	0.002	0.0013		0.0013	U	0.002	0.0013	
Benzaldehyde	100-52-7	8270E	mg/L		0.0021	UJ	0.01	0.0021		0.0021	UJ	0.01	0.0021		0.0021	UJ	0.01	0.0021		0.0021	UJ	0.01	0.0021		0.0021	UJ	0.01	0.0021	
Bis(2-chloroethoxy)methane	111-91-1	8270E	mg/L		0.00059	U	0.01	0.00059		0.00059	U	0.01	0.00059		0.00059	U	0.01	0.00059		0.00059	U	0.01	0.00059		0.00059	U	0.01	0.00059	
Bis(2-chloroethyl)ether	111-44-4	8270E	mg/L	1.9 (12)	0.00063	U	0.001	0.00063	1.9	0.00063	U	0.001	0.00063	1.9	0.00063	U	0.001	0.00063	1.9	0.00063	U	0.001	0.00063	1.9	0.00063	U	0.001	0.00063	1.9
Bis(2-ethylhexyl) phthalate	117-81-7	8270E	mg/L	0.0003 (12)	0.0008	U	0.002	0.0008	0.0003	0.0008	U	0.002	0.0008	0.0003	0.0008	U	0.002	0.0008	0.0003	0.0008	U	0.002	0.0008	0.0003	0.0008	U	0.002	0.0008	0.0003
Butyl benzyl phthalate	85-68-7	8270E	mg/L	0.023 (12)	0.00085	U	0.01	0.00085	0.023	0.00085	U	0.01	0.00085	0.023	0.00085	U	0.01	0.00085	0.023	0.00085	U	0.01	0.00085	0.023	0.00085	U	0.01	0.00085	0.023
Caprolactam	105-60-2	8270E	mg/L		0.0022	U	0.01	0.0022		0.0022	U	0.01	0.0022		0.0022	U	0.01	0.0022		0.0022	U	0.01	0.0022		0.0022	UJ	0.01	0.0022	
Carbazole	86-74-8	8270E	mg/L		0.00068	U	0.01	0.00068		0.00068	U	0.01	0.00068		0.00068	U	0.01	0.00068		0.00068	U	0.01	0.00068		0.00068	U	0.01	0.00068	
Dibenzofuran	132-64-9	8270E	mg/L	0.0037 (14)	0.0011	U	0.01	0.0011	0.0037	0.0011	U	0.01	0.0011	0.0037	0.0011	U	0.01	0.0011	0.0037	0.0011	U	0.01	0.0011	0.0037	0.0011	U	0.01	0.0011	0.0037
Diethyl phthalate	84-66-2	8270E	mg/L	0.11 (12)	0.00098	U	0.01	0.00098	0.11	0.00098	U	0.01	0.00098	0.11	0.00098	U	0.01	0.00098	0.11	0.00098	U	0.01	0.00098	0.11	0.00098	U	0.01	0.00098	0.11
Dimethyl phthalate	131-11-3	8270E	mg/L	0.003 (14)	0.00077	U	0.01	0.00077	0.003	0.00077	U	0.01	0.00077	0.003	0.00077	U	0.01	0.00077	0.003	0.00077	U	0.01	0.00077	0.003	0.00077	U	0.01	0.00077	0.003
Di-n-butyl phthalate	84-74-2	8270E	mg/L	0.0097 (12)	0.00084	U	0.01	0.00084	0.0097	0.00084	U	0.01	0.00084	0.0097	0.00084	U	0.01	0.00084	0.0097	0.00084	U	0.01	0.00084	0.0097	0.00084	U	0.01	0.00084	0.0097
Di-n-octyl phthalate	117-84-0	8270E	mg/L	0.003 (14)	0.00075	U	0.01	0.00075	0.003	0.00075	U	0.01	0.00075	0.003	0.00075	U	0.01	0.00075	0.003	0.00075	U	0.01	0.00075	0.003	0.00075	U	0.01	0.00075	0.003
Hexachlorobenzene	118-74-1	8270E	mg/L	0.0000003 (12)	0.0004	U	0.001	0.0004	0.0000003	0.0004	U	0.001	0.0004	0.0000003	0.0004	U	0.001	0.0004	0.0000003	0.0004	U	0.001	0.0004	0.0000003	0.0004	U	0.001	0.0004	0.0000003
Hexachlorobutadiene	87-68-3	8270E	mg/L	0.000053 (12)	0.00078	U	0.001	0.00078	0.000053	0.00078	U	0.001	0.00078	0.000053	0.00078	U	0.001	0.00078	0.000053	0.00078	U	0.001	0.00078	0.000053	0.00078	U	0.001	0.00078	0.000053
Hexachlorocyclopentadiene	77-47-4	8270E	mg/L	0.077 (12)	0.0036	U	0.01	0.0036	0.077	0.0036	U	0.01	0.0036	0.077	0.0036	U	0.01	0.0036	0.077	0.0036	U	0.01	0.0036	0.077	0.0036	U	0.01	0.0036	0.077
Hexachloroethane	67-72-1	8270E	mg/L	0.008 (12)	0.0008	U	0.002	0.0008	0.008	0.0008	U	0.002	0.0008	0.008	0.0008	U	0.002	0.0008	0.008	0.0008	U	0.002	0.0008	0.008	0.0008	U	0.002	0.0008	0.008
Isophorone	78-59-1	8270E	mg/L	0.92 (12)	0.0008	U	0.01	0.0008	0.92	0.0008	U	0.01	0.0008	0.92	0.0008	U	0.01	0.0008	0.92	0.0008	U	0.01	0.0008	0.92	0.0008	U	0.01	0.0008	0.92
Nitrobenzene	98-95-3	8270E	mg/L	0.22 (12)	0.00057	U	0.001	0.00057	0.22	0.00057	U	0.001	0.00057	0.22	0.00057	U	0.001	0.00057	0.22	0.00057	U	0.001	0.00057	0.22	0.00057	U	0.001	0.00057	0.22
N-Nitrosodi-n-propylamine	621-64-7	8270E	mg/L		0.00043	U	0.001	0.00043		0.00043	U	0.001	0.00043		0.00043	U	0.001	0.00043		0.00043	U	0.001	0.00043		0.00043	UJ	0.001	0.00043	
N-Nitrosodiphenylamine	86-30-6	8270E	mg/L		0.00089	U	0.01	0.00089		0.00089	U	0.01	0.00089		0.00089	U	0.01	0.00089		0.00089	U	0.01	0.00089		0.00089	U	0.01	0.00089	
Pentachlorophenol	87-86-5	8270E	mg/L	pH Calc (12)	0.0014	U	0.02	0.0014	135.09	0.000071	UJ	0.0002	0.000071	No Calc	0.0014	U	0.02	0.0014	No Calc	0.000071	UJ	0.0002	0.000071	146.40	0.000071	U	0.0002	0.000071	20.63
Phenol	108-95-2	8270E	mg/L	0.18 (12)	0.00029	U	0.01	0.00029	0.18	0.00029	U	0.01	0.00029	0.18	0.00029	U	0.01	0.00029	0.18	0.00029	U	0.01	0.00029	0.18	0.00029	U	0.01	0.00029	0.18
Polycyclic Aromatic Hydrocarbons (PAHs)																												
Acenaphthene	83-32-9	8270E	mg/L	0.038 (12)	0.0011	U	0.01	0.0011	0.038	0.000014	UJ	0.00005	0.000014	0.038	0.0011	U	0.01	0.0011	0.038	0.000049	J	0.00005	0.000014	0.038	0.000014	U	0.00005	0.000014	0.038
Acenaphthylene	208-96-8	8270E	mg/L	4.84 (12)	0.00082	U	0.01	0.00082	4.84	0.000015	U	0.00005	0.000015	4.84	0.00082	U	0.01	0.00082	4.84	0.000015	U	0.00005	0.000015	4.84	0.000015	U	0.00005	0.000015	4.84
Anthracene	120-12-7	8270E	mg/L	0.000035 (12)	0.0013	U	0.01	0.0013	0.000035	0.000025	UJ	0.00005	0.000025	0.000035	0.0013	U	0.01	0.0013	0.000035	0.000025	UJ	0.00005	0.000025	0.000035	0.000025	U	0.00005	0.000025	0.000035
Fluorene	86-73-7	8270E	mg/L	0.019 (12)	0.00091	U	0.01	0.00091	0.019	0.000012	UJ	0.00005	0.000012	0.019	0.00091	U	0.01	0.00091	0.019	0.000019	J	0.00005	0.000012	0.019	0.000014	J	0.00005	0.000012	0.019
Naphthalene	91-20-3	8270E	mg/L	0.013 (12)	0.00054	U	0.002	0.00054	0.013	0.00012	U	0.0002	0.00012	0.013	0.00054	U	0.002	0.00054	0.013	0.00012	U	0.0002	0.00012	0.013	0.00012	U	0.0002	0.00012	0.013
Phenanthrene	85-01-8	8270E	mg/L	0.0036 (12)	0.0013	U	0.01	0.0013	0.0036	0.000022	U	0.00005	0.000022	0.0036	0.0013	U	0.01	0.0013	0.0036	0.000022	U	0.00005	0.000022	0.0036	0.000022	U	0.00005	0.000022	0.0036
Benzo[a]anthracene	56-55-3	8270E SIM	mg/L	0.000025 (12)	0.00059	U	0.001	0.00059	0.000025	0.000016	U	0.00005	0.000016	0.000025	0.00059	U	0.001	0.00059	0.000025	0.000016	U	0.00005	0.000016	0.000025	0.000016	U	0.00005	0.000016	0.000025
Benzo[a]pyrene	50-32-8	8270E SIM	mg/L	0.000014 (12)	0.00041	U	0.001	0.00041	0.000014	0.000022	U	0.00005	0.000022	0.000014	0.00041	U	0.001	0.00041	0.000014	0.000022	U	0.00005	0.000022	0.000014	0.000022	U	0.00005	0.000022	0.000014
Benzo[b]fluoranthene	205-99-2	8270E SIM	mg/L	0.00907 (12)	0.00068	U	0.002	0.00068	0.00907	0.000024	U	0.00005	0.000024	0.00907	0.00068	U	0.002	0.00068	0.00907	0.000024	U	0.00005	0.000024	0.00907	0.000024	U	0.00005	0.000024	0.00907
Benzo[g,h,i]perylene	191-24-2	8270E SIM	mg/L	0.00764 (12)	0.0007	UJ	0.01	0.0007	0.00764	0.000035	U	0.00005	0.000035	0.00764	0.0007	UJ	0.01	0.0007	0.00764	0.000035	U	0.00005	0.000035	0.00764	0.000035	U	0.00005	0.000035	0.00764
Benzo[k]fluoranthene	207-08-9	8270E SIM	mg/L	0.0000041 (14)	0.00067	U	0.001	0.00067	0.0000041	0.000028	U	0.00005	0.000028	0.0000041	0.00067	U	0.001	0.00067	0.0000041	0.000028	U	0.00005	0.000028	0.0000041	0.000028	U	0.00005	0.000028	0.0000041
Chrysene	218-01-9	8270E	mg/L	0.0000018 (14)	0.00091	U	0.002	0.00091	0.0000018	0.00003	U	0.00005	0.00003	0.0000018	0.00091	U	0.002	0.00091	0.0000018	0.00003	U	0.00005	0.00003	0.0000018	0.00003	U	0.00005	0.00003	0.0000018
Dibenz(a,h)anthracene	53-70-3	8270E SIM	mg/L	0.0000034 (14)	0.00072	UJ	0.001	0.00072	0.0000034	0.00002	U	0.00005	0.00002	0.0000034	0.00072	UJ	0.001	0.00072	0.0000034	0.00002	U	0.00005	0.00002	0.0000034	0.00002	UJ	0.00005	0.00002	0.0000034
Fluoranthene	206-44-0	8270E	mg/L	0.0019 (12)	0.00084	U	0.01	0.00084	0.0019	0.00039	U	0.00005	0.00039	0.0019	0.00084	U	0.01	0.00084	0.0019	0.00039	U	0.00005	0.00039	0.0019	0.00039	U	0.00005	0.00039	0.0019
Indeno[1,2,3-cd]pyrene	193-39-5	8270E SIM	mg/L	0.00431 (12)	0.00094	UJ	0.002	0.00094	0.00431	0.00036	U	0.00005	0.00036	0.00431	0.00094	UJ	0.002	0.00094	0.00431	0.00036	U	0.00005	0.00036	0.00431	0.00036	UJ	0.00005	0.00036	0.00431
Pyrene	129-00-0	8270E	mg/L	0.0003 (12)	0.0016	U	0.01	0.0016	0.0003	0.00031	U	0.00005	0.00031	0.0003	0.0016	U	0.01	0.0016	0.0003	0.00031	U	0.00005	0.00031	0.0003	0.00031	U	0.00005	0.00031	0.0003

Table 5.20 - Pore Water: Semi-Volatile Organic Compounds (SVOCs) An (continued)

Rolling Knolls Landfill

Sample Name		ESC's	PW34_0.2-1.2					PW35_0.2-1.2					PW36_0.4-1.4					PW103_0.4-1.4 (PW36_0.4-1.4 duplicate)					PW37_0.2-1.2				
Sample Date/Time			05/25/2021 12:06					05/25/2021 13:19					05/25/2021 16:08					05/25/2021 16:08					05/26/2021 10:18				
Latitude		Screening Criteria	40.72830226					40.72937246					40.7301228					40.7301228					40.73049011				
Longitude			-74.44017466					-74.440396					-74.44071487					-74.44071487					-74.44113923				
Lab Sample Name			GS-N-PWT34-0.2-1.2					GS-N-PWT35-0.2-1.2					GS-N-PWT36-0.4-1.4					GS-N-PWT103-0.4-1.4					GS-N-PWT037-0.2-1.2				
Lab Sample Number			460-235495-1					460-235495-2					460-235495-3					460-235495-4					460-235554-1				
Lab Report Number(s)			460-235495-1					460-235495-1					460-235495-1					460-235495-1					460-235554-1				
Analyte	CAS	Method	Units		Result	LDC Flag	RL	MDL (EDL)	ESC	Result	LDC Flag	RL	MDL (EDL)	ESC	Result	LDC Flag	RL	MDL (EDL)	ESC	Result	LDC Flag	RL	MDL (EDL)	ESC	Result	LDC Flag	RL	MDL (EDL)	ESC
1,1'-Biphenyl	92-52-4	8270E	mg/L		0.0012	U	0.01	0.0012		0.0012	U	0.01	0.0012		0.0012	U	0.01	0.0012		0.0012	U	0.01	0.0012		0.0012	U	0.01	0.0012	
1,2,4,5-Tetrachlorobenzene	95-94-3	8270E	mg/L	0.003 (12)	0.0012	U	0.01	0.0012	0.003	0.0012	U	0.01	0.0012	0.003	0.0012	U	0.01	0.0012	0.003	0.0012	U	0.01	0.0012	0.003	0.0012	U	0.01	0.0012	0.003
2,2'-oxybis[1-chloropropane]	108-60-1	8270E	mg/L		0.00063	U	0.01	0.00063		0.00063	U	0.01	0.00063		0.00063	U	0.01	0.00063		0.00063	U	0.01	0.00063		0.00063	U	0.01	0.00063	
2,3,4,6-Tetrachlorophenol	58-90-2	8270E	mg/L	0.0012 (6)	0.00075	U	0.01	0.00075	0.0012	0.00075	U	0.01	0.00075	0.0012	0.00075	U	0.01	0.00075	0.0012	0.00075	U	0.01	0.00075	0.0012	0.00075	U	0.01	0.00075	0.0012
2,4,5-Trichlorophenol	95-95-4	8270E	mg/L		0.00088	U	0.01	0.00088		0.00088	U	0.01	0.00088		0.00088	U	0.01	0.00088		0.00088	U	0.01	0.00088		0.00088	U	0.01	0.00088	
2,4,6-Trichlorophenol	88-06-2	8270E	mg/L	0.0049 (12)	0.00086	U	0.01	0.00086	0.0049	0.00086	U	0.01	0.00086	0.0049	0.00086	U	0.01	0.00086	0.0049	0.00086	U	0.01	0.00086	0.0049	0.00086	U	0.01	0.00086	0.0049
2,4-Dichlorophenol	120-83-2	8270E	mg/L	0.011 (12)	0.0011	U	0.01	0.0011	0.011	0.0011	U	0.01	0.0011	0.011	0.0011	U	0.01	0.0011	0.011	0.0011	U	0.01	0.0011	0.011	0.0011	U	0.01	0.0011	0.011
2,4-Dimethylphenol	105-67-9	8270E	mg/L	0.1 (12)	0.00062	U	0.01	0.00062	0.1	0.00062	U	0.01	0.00062	0.1	0.00062	U	0.01	0.00062	0.1	0.00062	U	0.01	0.00062	0.1	0.00062	U	0.01	0.00062	0.1
2,4-Dinitrophenol	51-28-5	8270E	mg/L	0.019 (12)	0.0026	U	0.02	0.0026	0.019	0.0026	U	0.02	0.0026	0.019	0.0026	U	0.02	0.0026	0.019	0.0026	U	0.02	0.0026	0.019	0.0026	U	0.02	0.0026	0.019
2,4-Dinitrotoluene	121-14-2	8270E	mg/L	0.044 (12)	0.001	U	0.002	0.001	0.044	0.001	U	0.002	0.001	0.044	0.001	U	0.002	0.001	0.044	0.001	U	0.002	0.001	0.044	0.001	U	0.002	0.001	0.044
2,6-Dinitrotoluene	606-20-2	8270E	mg/L	0.23 (14)	0.00083	U	0.002	0.00083	0.23	0.00083	U	0.002	0.00083	0.23	0.00083	U	0.002	0.00083	0.23	0.00083	U	0.002	0.00083	0.23	0.00083	U	0.002	0.00083	0.23
2-Chloronaphthalene	91-58-7	8270E	mg/L	0.000396 (12)	0.0012	U	0.01	0.0012	0.000396	0.0012	U	0.01	0.0012	0.000396	0.0012	U	0.01	0.0012	0.000396	0.0012	U	0.01	0.0012	0.000396	0.0012	U	0.01	0.0012	0.000396
2-Chlorophenol	95-57-8	8270E	mg/L	0.024 (12)	0.00038	U	0.01	0.00038	0.024	0.00038	U	0.01	0.00038	0.024	0.00038	U	0.01	0.00038	0.024	0.00038	U	0.01	0.00038	0.024	0.00038	U	0.01	0.00038	0.024
2-Methylnaphthalene	91-57-6	8270E	mg/L	0.33 (12)	0.00053	U	0.01	0.00053	0.33	0.00053	U	0.01	0.00053	0.33	0.00053	U	0.01	0.00053	0.33	0.00053	U	0.01	0.00053	0.33	0.00053	U	0.01	0.00053	0.33
2-Methylphenol	95-48-7	8270E	mg/L	0.013 (14)	0.00067	U	0.01	0.00067	0.013	0.00067	U	0.01	0.00067	0.013	0.00067	U	0.01	0.00067	0.013	0.00067	U	0.01	0.00067	0.013	0.00067	U	0.01	0.00067	0.013
2-Nitroaniline	88-74-4	8270E	mg/L		0.00047	U	0.01	0.00047		0.00047	U	0.01	0.00047		0.00047	U	0.01	0.00047		0.00047	U	0.01	0.00047		0.00047	U	0.01	0.00047	
2-Nitrophenol	88-75-5	8270E	mg/L	0.06 (14)	0.00075	U	0.01	0.00075	0.06	0.00075	U	0.01	0.00075	0.06	0.00075	U	0.01	0.00075	0.06	0.00075	U	0.01	0.00075	0.06	0.00075	U	0.01	0.00075	0.06
3,3'-Dichlorobenzidine	91-94-1	8270E	mg/L	0.0045 (12)	0.0014	U	0.01	0.0014	0.0045	0.0014	U	0.01	0.0014	0.0045	0.0014	U	0.01	0.0014	0.0045	0.0014	U	0.01	0.0014	0.0045	0.0014	U	0.01	0.0014	0.0045
3-Nitroaniline	99-09-2	8270E	mg/L		0.0019	U	0.01	0.0019		0.0019	U	0.01	0.0019		0.0019	U	0.01	0.0019		0.0019	U	0.01	0.0019		0.0019	U	0.01	0.0019	
4,6-Dinitro-2-methylphenol	534-52-1	8270E	mg/L		0.003	U	0.02	0.003		0.003	U	0.02	0.003		0.003	U	0.02	0.003		0.003	U	0.02	0.003		0.003	U	0.02	0.003	
4-Bromophenyl phenyl ether	101-55-3	8270E	mg/L	0.0015 (14)	0.00075	U	0.01	0.00075	0.0015	0.00075	U	0.01	0.00075	0.0015	0.00075	U	0.01	0.00075	0.0015	0.00075	U	0.01	0.00075	0.0015	0.00075	U	0.01	0.00075	0.0015
4-Chloro-3-methylphenol	59-50-7	8270E	mg/L		0.00058	U	0.01	0.00058		0.00058	U	0.01	0.00058		0.00058	U	0.01	0.00058		0.00058	U	0.01	0.00058		0.00058	U	0.01	0.00058	
4-Chloroaniline	106-47-8	8270E	mg/L	0.232 (6)	0.0019	U	0.01	0.0019	0.232	0.0019	U	0.01	0.0019	0.232	0.0019	U	0.01	0.0019	0.232	0.0019	U	0.01	0.0019	0.232	0.0019	U	0.01	0.0019	0.232
4-Chlorophenyl phenyl ether	7005-72-3	8270E	mg/L		0.0013	U	0.01	0.0013		0.0013	U	0.01	0.0013		0.0013	U	0.01	0.0013		0.0013	U	0.01	0.0013		0.0013	U	0.01	0.0013	
4-Methylphenol	106-44-5	8270E	mg/L		0.00065	U	0.01	0.00065		0.00065	U	0.01	0.00065		0.00065	U	0.01	0.00065		0.00065	U	0.01	0.00065		0.0013	J	0.01	0.00065	
4-Nitroaniline	100-01-6	8270E	mg/L		0.0012	U	0.01	0.0012		0.0012	U	0.01	0.0012		0.0012	U	0.01	0.0012		0.0012	U	0.01	0.0012		0.0012	U	0.01	0.0012	
4-Nitrophenol	100-02-7	8270E	mg/L	0.06 (14)	0.004	U	0.02	0.004	0.06	0.004	U	0.02	0.004	0.06	0.004	U	0.02	0.004	0.06	0.004	U	0.02	0.004	0.06	0.004	U	0.02	0.004	0.06
Acetophenone	98-86-2	8270E	mg/L		0.0023	U	0.01	0.0023		0.0023	U	0.01	0.0023		0.0023	U	0.01	0.0023		0.0023	U	0.01	0.0023		0.0023	U	0.01	0.0023	
Atrazine	1912-24-9	8270E	mg/L		0.0013	U	0.002	0.0013		0.0013	U	0.002	0.0013		0.0013	U	0.002	0.0013		0.0013	U	0.002	0.0013		0.0013	U	0.002	0.0013	
Benzaldehyde	100-52-7	8270E	mg/L		0.0021	UJ	0.01	0.0021		0.0021	UJ	0.01	0.0021		0.0021	UJ	0.01	0.0021		0.0021	UJ	0.01	0.0021		0.0021	UJ	0.01	0.0021	
Bis(2-chloroethoxy)methane	111-91-1	8270E	mg/L		0.00059	U	0.01	0.00059		0.00059	U	0.01	0.00059		0.00059	U	0.01	0.00059		0.00059	U	0.01	0.00059		0.00059	U	0.01	0.00059	
Bis(2-chloroethyl)ether	111-44-4	8270E	mg/L	1.9 (12)	0.00063	U	0.001	0.00063	1.9	0.00063	U	0.001	0.00063	1.9	0.00063	U	0.001	0.00063	1.9	0.00063	U	0.001	0.00063	1.9	0.00063	U	0.001	0.00063	1.9
Bis(2-ethylhexyl) phthalate	117-81-7	8270E	mg/L	0.0003 (12)	0.0008	U	0.002	0.0008	0.0003	0.0008	U	0.002	0.0008	0.0003	0.0008	U	0.002	0.0008	0.0003	0.0008	U	0.002	0.0008	0.0003	0.0008	U	0.002	0.0008	0.0003
Butyl benzyl phthalate	85-68-7	8270E	mg/L	0.023 (12)	0.00085	U	0.01	0.00085	0.023	0.00085	U	0.01	0.00085	0.023	0.00085	U	0.01	0.00085	0.023	0.00085	U	0.01	0.00085	0.023	0.00085	U	0.01	0.00085	0.023
Caprolactam	105-60-2	8270E	mg/L		0.0022	U	0.01	0.0022		0.0022	U	0.01	0.0022		0.0022	U	0.01	0.0022		0.0022	U	0.01	0.0022		0.0022	UJ	0.01	0.0022	
Carbazole	86-74-8	8270E	mg/L		0.00068	U	0.01	0.00068		0.00068	U	0.01	0.00068		0.00068	U	0.01	0.00068		0.00068	U	0.01	0.00068		0.00068	U	0.01	0.00068	
Dibenzofuran	132-64-9	8270E	mg/L	0.0037 (14)	0.0011	U	0.01	0.0011	0.0037	0.0011	U	0.01	0.0011	0.0037	0.0011	U	0.01	0.0011	0.0037	0.0011	U	0.01	0.0011	0.0037	0.0011	U	0.01	0.0011	0.0037
Diethyl phthalate	84-66-2	8270E	mg/L	0.11 (12)	0.00098	U	0.01	0.00098	0.11	0.00098	U	0.01	0.00098	0.11	0.00098	U	0.01	0.00098	0.11	0.00098	U	0.01	0.00098	0.11	0.00098	U	0.01	0.00098	0.11
Dimethyl phthalate	131-11-3	8270E	mg/L	0.003 (14)	0.00077	U	0.01	0.00077	0.003	0.00077	U	0.01	0.00077	0.003	0.00077	U	0.01	0.00077	0.003	0.00077	U	0.01	0.00077	0.003	0.00077	U	0.01	0.00077	0.003
Di-n-butyl phthalate	84-74-2	8270E	mg/L	0.0097 (12)	0.00084	U	0.01	0.00084	0.0097	0.00084	U	0.01	0.00084	0.0097	0.00084	U	0.01	0.00084	0.0097	0.00084	U	0.01	0.00084	0.0097	0.00084	U	0.01	0.00084	0.0097
Di-n-octyl phthalate	117-84-0	8270E	mg/L	0.003 (14)	0.00075	U	0.01	0.00075	0.003	0.00075	U	0.01	0.00075	0.003	0.00075	U	0.01	0.00075	0.003	0.00075	U	0.01	0.00075	0.003	0.00075	U	0.01	0.00075	0.003
Hexachlorobenzene	118-74-1	8270E	mg/L	0.0000003 (12)	0.0004	U	0.001	0.0004	0.0000003	0.0004	U	0.001	0.0004	0.0000003	0.0004	U	0.001	0.0004	0.0000003	0.0004	U	0.001	0.0004	0.0000003					0.0000003
Hexachlorobutadiene	87-68-3	8270E	mg/L	0.000053 (12)	0.00078	U	0.001	0.00078	0.000053	0.00078	U	0.001	0.00078	0.000053	0.00078	U	0.001	0.00078	0.000053	0.00078	U	0.001	0.00078	0.000053	0.00078	U	0.001	0.00078	0.000053
Hexachlorocyclopentadiene	77-47-4	8270E	mg/L	0.077 (12)	0.0036	U	0.01	0.0036	0.077	0.0036	U	0.01	0.0036	0.077	0.0036	U	0.01	0.0036	0.077	0.0036	U	0.01	0.0036	0.077	0.0036	U	0.01	0.0036	0.077
Hexachloroethane	67-72-1	8270E	mg/L	0.008 (12)	0.0008	U	0.002	0.0008	0.008	0.0008	U	0.002	0.0008	0.008	0.0008	U	0.002	0.0008	0.008	0.0008	U	0.002	0.0008	0.008	0.0008	U	0.002	0.0008	0.008
Isophorone	78-59-1	8270E	mg/L	0.92 (12)	0.0008	U	0.01	0.0008	0.92	0.0008	U	0.01	0.0008	0.92	0.0008	U	0.01	0.0008	0.92	0.0008	U	0.01	0.0008	0.92	0.0008	U	0.01	0.0008	0.92
Nitrobenzene	98-95-3	8270E	mg/L	0.22 (12)	0.00057	U	0.001	0.00057	0.22	0.00057	U	0.001	0.00057	0.22	0.00057	U	0.001	0.00057	0.22	0.00057	U	0.001	0.00057	0.22	0.00057	U	0.001	0.00057	0.22
N-Nitrosodi-n-propylamine	621-64-7	8270E	mg/L		0.00043	U	0.001	0.00043		0.00043	U	0.001	0.00043		0.00043	U	0.001	0.00043		0.00043	U	0.001	0.00043		0.00043	U	0.001	0.00043	
N-Nitrosodiphenylamine	86-30-6	8270E	mg/L		0.00089	U	0.01	0.00089		0.00089	U	0.01	0.00089		0.00089	U	0.01	0.00089		0.00089	U	0.01	0.00089		0.00089	U	0.01	0.00089	
Pentachlorophenol	87-86-5	8270E	mg/L	pH Calc (12)	0.000071	U	0.0002	0.000071	No Calc	0.000071	U	0.0002	0.000071	No Calc	0.000071	U	0.0002	0.000071	14.66	0.000071	U	0.0002	0.000071	14.66	0.000071	UJ	0.0002	0.000071	No Calc
Phenol	108-95-2	8270E	mg/L	0.18 (12)	0.00029	U	0.01	0.00029	0.18	0.00029	U	0.01	0.00029	0.18	0.00029	U	0.01	0.00029	0.18	0.00029	U	0.01	0.00029	0.18	0.00029	U	0.01	0.00029	0.18
Polycyclic Aromatic Hydrocarbons (PAHs)																												
Acenaphthene	83-32-9	8270E	mg/L	0.038 (12)	0.000014	U	0.00005	0.000014	0.038	0.000014	U	0.00005	0.000014	0.038	0.000014	U	0.00005	0.000014	0.038	0.000014	U	0.00005	0.000014	0.038	0.000014	UJ	0.00005	0.000014	0.038
Acenaphthylene	208-96-8	8270E	mg/L	4.84 (12)	0.000015	U	0.00005	0.000015	4.84	0.000015	U	0.00005	0.000015	4.84	0.000015	U	0.00005	0.000015	4.84	0.000015	U	0.00005	0.000015	4.84	0.000015	UJ	0.00005	0.000015	4.84
Anthracene	120-12-7	8270E	mg/L	0.000035 (12)	0.000025	U	0.00005	0.000025	0.000035	0.000025	U	0.00005	0.000025	0.000035	0.000025	U	0.00005	0.000025	0.000035	0.000025	U	0.00005	0.000025	0.000035	0.000025	U	0.00005	0.000025	0.000035
Fluorene	86-73-7	8270E	mg/L	0.019 (12)	0.000012	U	0.00005	0.000012	0.019	0.000021	J	0.00005	0.000012	0.019	0.000012	U	0.00005	0.000012	0.019	0.000025	J	0.00005	0.000012	0.019	0.000012	U	0.00005	0.000012	0.019
Naphthalene	91-20-3	8270E	mg/L	0.013 (12)	0.00012	U	0.0002	0.00012	0.013	0.00012	U	0.0002	0.00012	0.013	0.00012	U	0.0002	0.00012	0.013	0.00012	U	0.0002	0.00012	0.013	0.00012	U	0.0002	0.00012	0.013
Phenanthrene	85-01-8	8270E	mg/L	0.0036 (12)	0.000022	UJ	0.00005	0.000022	0.0036	0.000022	UJ	0.00005	0.000022	0.0036	0.000022	UJ	0.00005	0.000022	0.0036	0.000022	UJ	0.00005	0.000022	0.0036	0.000022	UJ	0.00005	0.000022	0.0036
Benzo[a]anthracene	56-55-3	8270E SIM	mg/L	0.000025 (12)	0.000016	U	0.00005	0.000016	0.000025	0.000016	U	0.00005	0.000016	0.000025	0.000016	U	0.00005	0.000016	0.000025	0.000016	U	0.00005	0.000016	0.000025	0.000016	U	0.00005	0.000016	0.000025
Benzo[a]pyrene	50-32-8	8270E SIM	mg/L	0.000014 (12)	0.000022	U	0.00005	0.000022	0.000014	0.000022	U	0.00005	0.000022	0.000014	0.000022	U	0.00005	0.000022	0.000014	0.000022	U	0.00005	0.000022	0.000014	0.000022	U	0.00005	0.000022	0.000014
Benzo[b]fluoranthene	205-99-2	8270E SIM	mg/L	0.00907 (12)	0.000024	U	0.00005	0.000024	0.00907	0.000024	U	0.00005	0.000024	0.00907	0.000024	U	0.00005	0.000024	0.00907	0.000024	U	0.00005	0.000024	0.00907	0.000024	U	0.00005	0.000024	0.00907
Benzo[g,h,i]perylene	191-24-2	8270E SIM	mg/L	0.00764 (12)	0.000035	U	0.00005	0.000035	0.00764	0.000035	U	0.00005	0.000035	0.00764	0.000035	U	0.00005	0.000035	0.00764	0.000035	U	0.00005	0.000035	0.00764	0.000035	U	0.00005	0.000035	0.00764
Benzo[k]fluoranthene	207-08-9	8270E SIM	mg/L	0.0000041 (14)	0.000028	U	0.00005	0.000028	0.0000041	0.000028	U	0.00005	0.000028	0.0000041	0.000028	U	0.00005	0.000028	0.0000041	0.000028	U	0.00005	0.000028	0.0000041	0.000028	U	0.00005	0.000028	0.0000041
Chrysene	218-01-9	8270E	mg/L	0.0000018 (14)	0.00003	U	0.00005	0.00003	0.0000018	0.00003	U	0.00005	0.00003	0.0000018	0.00003	U	0.00005	0.00003	0.0000018	0.00003	U	0.00005	0.00003	0.0000018	0.00003	U	0.00005	0.00003	0.0000018
Dibenz(a,h)anthracene	53-70-3	8270E SIM	mg/L	0.0000034 (14)	0.00002	U	0.00005	0.00002	0.0000034	0.00002	U	0.00005	0.00002	0.0000034	0.00002	U	0.00005	0.00002	0.0000034	0.00002	U	0.00005	0.00002	0.0000034	0.00002	U	0.00005	0.00002	0.0000034
Fluoranthene	206-44-0	8270E	mg/L	0.0019 (12)	0.000039	UJ	0.00005	0.000039	0.0019	0.000039	UJ	0.00005	0.000039	0.0019	0.000039	UJ	0.00005	0.000039	0.0019	0.000039	UJ	0.00005	0.000039	0.0019	0.000039	UJ	0.00005	0.000039	0.0019
Indeno[1,2,3-cd]pyrene	193-39-5	8270E SIM	mg/L	0.00431 (12)	0.000036	U	0.00005	0.000036	0.00431	0.000036	U	0.00005	0.000036	0.00431	0.000036	U	0.00005	0.000036	0.00431	0.000036	U	0.00005	0.000036	0.00431	0.000036	U	0.00005	0.000036	0.00431
Pyrene	129-00-0	8270E	mg/L	0.0003 (12)	0.000031	UJ	0.00005	0.000031	0.0003	0.000031	UJ	0.00005	0.000031	0.0003	0.000031	UJ	0.00005	0.000031	0.0003	0.000031	UJ	0.00005	0.000031	0.0003	0.000031	UJ	0.00005	0.000031	0.0003

Table 5.20 - Pore Water: Semi-Volatile Organic Compounds (SVOCs) An (continued)

Rolling Knolls Landfill

Sample Name				ESC's	PW41_0.2-1.2					PW42_0.1-1.1					PW43_0.4-1.4					PW44_0.1-1.1					PW45_0.1-1.1				
Sample Date/Time					05/27/2021 10:44					05/27/2021 10:50					05/27/2021 13:00					06/01/2021 11:05					06/01/2021 13:50				
Latitude				Screening Criteria	40.72630201					40.7267825					40.72743339					40.72381503					40.72413479				
Longitude					-74.44023138					-74.4399115					-74.44007544					-74.44982242					-74.4444308				
Lab Sample Name					GS-N-PWT41-0.2-1.2					GS-N-PWT42-0.1-1.1					GS-N-PWT43-0.4-1.4					GS-S-PWT44-0.1-1.1					GS-S-PWT45-0.1-1.1				
Lab Sample Number					460-235584-1					460-235584-2					460-235584-3					460-235699-1					460-235699-2				
Lab Report Number(s)					460-235584-1					460-235584-1					460-235584-1					460-235699-1					460-235699-1				
Analyte	CAS	Method	Units		Result	LDC Flag	RL	MDL (EDL)	ESC	Result	LDC Flag	RL	MDL (EDL)	ESC	Result	LDC Flag	RL	MDL (EDL)	ESC	Result	LDC Flag	RL	MDL (EDL)	ESC	Result	LDC Flag	RL	MDL (EDL)	ESC
1,1'-Biphenyl	92-52-4	8270E	mg/L		0.0012	U	0.01	0.0012		0.0012	U	0.01	0.0012		0.0012	U	0.01	0.0012		0.0012	U	0.01	0.0012		0.0012	U	0.01	0.0012	
1,2,4,5-Tetrachlorobenzene	95-94-3	8270E	mg/L	0.003 (12)	0.0012	U	0.01	0.0012	0.003	0.0012	U	0.01	0.0012	0.003	0.0012	U	0.01	0.0012	0.003	0.0012	U	0.01	0.0012	0.003	0.0012	U	0.01	0.0012	0.003
2,2'-oxybis[1-chloropropane]	108-60-1	8270E	mg/L		0.00063	U	0.01	0.00063		0.00063	U	0.01	0.00063		0.00063	U	0.01	0.00063		0.00063	U	0.01	0.00063		0.00063	U	0.01	0.00063	
2,3,4,6-Tetrachlorophenol	58-90-2	8270E	mg/L	0.0012 (6)	0.00075	U	0.01	0.00075	0.0012	0.00075	U	0.01	0.00075	0.0012	0.00075	U	0.01	0.00075	0.0012	0.00075	U	0.01	0.00075	0.0012	0.00075	U	0.01	0.00075	0.0012
2,4,5-Trichlorophenol	95-95-4	8270E	mg/L		0.00088	U	0.01	0.00088		0.00088	U	0.01	0.00088		0.00088	U	0.01	0.00088		0.00088	U	0.01	0.00088		0.00088	U	0.01	0.00088	
2,4,6-Trichlorophenol	88-06-2	8270E	mg/L	0.0049 (12)	0.00086	U	0.01	0.00086	0.0049	0.00086	U	0.01	0.00086	0.0049	0.00086	U	0.01	0.00086	0.0049	0.00086	U	0.01	0.00086	0.0049	0.00086	U	0.01	0.00086	0.0049
2,4-Dichlorophenol	120-83-2	8270E	mg/L	0.011 (12)	0.0011	U	0.01	0.0011	0.011	0.0011	U	0.01	0.0011	0.011	0.0011	U	0.01	0.0011	0.011	0.0011	U	0.01	0.0011	0.011	0.0011	U	0.01	0.0011	0.011
2,4-Dimethylphenol	105-67-9	8270E	mg/L	0.1 (12)	0.00062	U	0.01	0.00062	0.1	0.00062	U	0.01	0.00062	0.1	0.00062	U	0.01	0.00062	0.1	0.00062	U	0.01	0.00062	0.1	0.00062	U	0.01	0.00062	0.1
2,4-Dinitrophenol	51-28-5	8270E	mg/L	0.019 (12)	0.0026	U	0.02	0.0026	0.019	0.0026	U	0.02	0.0026	0.019	0.0026	U	0.02	0.0026	0.019	0.0026	U	0.02	0.0026	0.019	0.0026	U	0.02	0.0026	0.019
2,4-Dinitrotoluene	121-14-2	8270E	mg/L	0.044 (12)	0.001	U	0.002	0.001	0.044	0.001	U	0.002	0.001	0.044	0.001	U	0.002	0.001	0.044	0.001	U	0.002	0.001	0.044	0.001	U	0.002	0.001	0.044
2,6-Dinitrotoluene	606-20-2	8270E	mg/L	0.23 (14)	0.00083	U	0.002	0.00083	0.23	0.00083	U	0.002	0.00083	0.23	0.00083	U	0.002	0.00083	0.23	0.00083	U	0.002	0.00083	0.23	0.00083	U	0.002	0.00083	0.23
2-Chloronaphthalene	91-58-7	8270E	mg/L	0.000396 (12)	0.0012	U	0.01	0.0012	0.000396	0.0012	U	0.01	0.0012	0.000396	0.0012	U	0.01	0.0012	0.000396	0.0012	U	0.01	0.0012	0.000396	0.0012	U	0.01	0.0012	0.000396
2-Chlorophenol	95-57-8	8270E	mg/L	0.024 (12)	0.00038	U	0.01	0.00038	0.024	0.00038	U	0.01	0.00038	0.024	0.00038	U	0.01	0.00038	0.024	0.00038	U	0.01	0.00038	0.024	0.00038	U	0.01	0.00038	0.024
2-Methylnaphthalene	91-57-6	8270E	mg/L	0.33 (12)	0.00053	U	0.01	0.00053	0.33	0.00053	U	0.01	0.00053	0.33	0.00053	U	0.01	0.00053	0.33	0.00053	U	0.01	0.00053	0.33	0.00053	U	0.01	0.00053	0.33
2-Methylphenol	95-48-7	8270E	mg/L	0.013 (14)	0.00067	U	0.01	0.00067	0.013	0.00067	U	0.01	0.00067	0.013	0.00067	U	0.01	0.00067	0.013	0.00067	U	0.01	0.00067	0.013	0.00067	U	0.01	0.00067	0.013
2-Nitroaniline	88-74-4	8270E	mg/L		0.00047	U	0.01	0.00047		0.00047	U	0.01	0.00047		0.00047	U	0.01	0.00047		0.00047	U	0.01	0.00047		0.00047	U	0.01	0.00047	
2-Nitrophenol	88-75-5	8270E	mg/L	0.06 (14)	0.00075	U	0.01	0.00075	0.06	0.00075	U	0.01	0.00075	0.06	0.00075	U	0.01	0.00075	0.06	0.00075	U	0.01	0.00075	0.06	0.00075	U	0.01	0.00075	0.06
3,3'-Dichlorobenzidine	91-94-1	8270E	mg/L	0.0045 (12)	0.0014	U	0.01	0.0014	0.0045	0.0014	U	0.01	0.0014	0.0045	0.0014	U	0.01	0.0014	0.0045	0.0014	UJ	0.01	0.0014	0.0045	0.0014	UJ	0.01	0.0014	0.0045
3-Nitroaniline	99-09-2	8270E	mg/L		0.0019	U	0.01	0.0019		0.0019	U	0.01	0.0019		0.0019	U	0.01	0.0019		0.0019	U	0.01	0.0019		0.0019	U	0.01	0.0019	
4,6-Dinitro-2-methylphenol	534-52-1	8270E	mg/L		0.003	U	0.02	0.003		0.003	U	0.02	0.003		0.003	U	0.02	0.003		0.003	U	0.02	0.003		0.003	U	0.02	0.003	
4-Bromophenyl phenyl ether	101-55-3	8270E	mg/L	0.0015 (14)	0.00075	U	0.01	0.00075	0.0015	0.00075	U	0.01	0.00075	0.0015	0.00075	U	0.01	0.00075	0.0015	0.00075	U	0.01	0.00075	0.0015	0.00075	U	0.01	0.00075	0.0015
4-Chloro-3-methylphenol	59-50-7	8270E	mg/L		0.00058	U	0.01	0.00058		0.00058	U	0.01	0.00058		0.00058	U	0.01	0.00058		0.00058	U	0.01	0.00058		0.00058	U	0.01	0.00058	
4-Chloroaniline	106-47-8	8270E	mg/L	0.232 (6)	0.0019	U	0.01	0.0019	0.232	0.0019	U	0.01	0.0019	0.232	0.0019	U	0.01	0.0019	0.232	0.0019	U	0.01	0.0019	0.232	0.0019	U	0.01	0.0019	0.232
4-Chlorophenyl phenyl ether	7005-72-3	8270E	mg/L		0.0013	U	0.01	0.0013		0.0013	U	0.01	0.0013		0.0013	U	0.01	0.0013		0.0013	U	0.01	0.0013		0.0013	U	0.01	0.0013	
4-Methylphenol	106-44-5	8270E	mg/L		0.00065	U	0.01	0.00065		0.00065	U	0.01	0.00065		0.00065	U	0.01	0.00065		0.00065	U	0.01	0.00065		0.00065	U	0.01	0.00065	
4-Nitroaniline	100-01-6	8270E	mg/L		0.0012	U	0.01	0.0012		0.0012	U	0.01	0.0012		0.0012	U	0.01	0.0012		0.0012	U	0.01	0.0012		0.0012	U	0.01	0.0012	
4-Nitrophenol	100-02-7	8270E	mg/L	0.06 (14)	0.004	U	0.02	0.004	0.06	0.004	U	0.02	0.004	0.06	0.004	U	0.02	0.004	0.06	0.004	U	0.02	0.004	0.06	0.004	U	0.02	0.004	0.06
Acetophenone	98-86-2	8270E	mg/L		0.0023	U	0.01	0.0023		0.0023	U	0.01	0.0023		0.0023	U	0.01	0.0023		0.0023	U	0.01	0.0023		0.0023	U	0.01	0.0023	
Atrazine	1912-24-9	8270E	mg/L		0.0013	U	0.002	0.0013		0.0013	U	0.002	0.0013		0.0013	U	0.002	0.0013		0.0013	U	0.002	0.0013		0.0013	U	0.002	0.0013	
Benzaldehyde	100-52-7	8270E	mg/L		0.0021	UJ	0.01	0.0021		0.0021	UJ	0.01	0.0021		0.0021	UJ	0.01	0.0021		0.0021	UJ	0.01	0.0021		0.0021	UJ	0.01	0.0021	
Bis(2-chloroethoxy)methane	111-91-1	8270E	mg/L		0.00059	U	0.01	0.00059		0.00059	U	0.01	0.00059		0.00059	U	0.01	0.00059		0.00059	U	0.01	0.00059		0.00059	U	0.01	0.00059	
Bis(2-chloroethyl)ether	111-44-4	8270E	mg/L	1.9 (12)	0.00063	U	0.001	0.00063	1.9	0.00063	U	0.001	0.00063	1.9	0.00063	U	0.001	0.00063	1.9	0.00063	U	0.001	0.00063	1.9	0.00063	U	0.001	0.00063	1.9
Bis(2-ethylhexyl) phthalate	117-81-7	8270E	mg/L	0.0003 (12)	0.0008	U	0.002	0.0008	0.0003	0.0008	U	0.002	0.0008	0.0003	0.0008	U	0.002	0.0008	0.0003	0.0008	U	0.002	0.0008	0.0003	0.0008	U	0.002	0.0008	0.0003
Butyl benzyl phthalate	85-68-7	8270E	mg/L	0.023 (12)	0.00085	U	0.01	0.00085	0.023	0.00085	U	0.01	0.00085	0.023	0.00085	U	0.01	0.00085	0.023	0.00085	U	0.01	0.00085	0.023	0.00085	U	0.01	0.00085	0.023
Caprolactam	105-60-2	8270E	mg/L		0.0022	U	0.01	0.0022		0.0022	U	0.01	0.0022		0.0022	U	0.01	0.0022		0.0022	U	0.01	0.0022		0.0022	U	0.01	0.0022	
Carbazole	86-74-8	8270E	mg/L		0.00068	U	0.01	0.00068		0.00068	U	0.01	0.00068		0.00068	U	0.01	0.00068		0.00068	U	0.01	0.00068		0.00068	U	0.01	0.00068	
Dibenzofuran	132-64-9	8270E	mg/L	0.0037 (14)	0.0011	U	0.01	0.0011	0.0037	0.0011	U	0.01	0.0011	0.0037	0.0011	U	0.01	0.0011	0.0037	0.0011	U	0.01	0.0011	0.0037	0.0011	U	0.01	0.0011	0.0037
Diethyl phthalate	84-66-2	8270E	mg/L	0.11 (12)	0.00098	U	0.01	0.00098	0.11	0.00098	U	0.01	0.00098	0.11	0.00098	U	0.01	0.00098	0.11	0.00098	U	0.01	0.00098	0.11	0.00098	U	0.01	0.00098	0.11
Dimethyl phthalate	131-11-3	8270E	mg/L	0.003 (14)	0.00077	U	0.01	0.00077	0.003	0.00077	U	0.01	0.00077	0.003	0.00077	U	0.01	0.00077	0.003	0.00077	U	0.01	0.00077	0.003	0.00077	U	0.01	0.00077	0.003
Di-n-butyl phthalate	84-74-2	8270E	mg/L	0.0097 (12)	0.00084	U	0.01	0.00084	0.0097	0.00084	U	0.01	0.00084	0.0097	0.00084	U	0.01	0.00084	0.0097	0.00084	U	0.01	0.00084	0.0097	0.00084	U	0.01	0.00084	0.0097
Di-n-octyl phthalate	117-84-0	8270E	mg/L	0.003 (14)	0.00075	U	0.01	0.00075	0.003	0.00075	U	0.01	0.00075	0.003	0.00075	U	0.01	0.00075	0.003	0.00075	U	0.01	0.00075	0.003	0.00075	U	0.01	0.00075	0.003
Hexachlorobenzene	118-74-1	8270E	mg/L	0.0000003 (12)	0.0004	U	0.001	0.0004	0.0000003	0.0004	U	0.001	0.0004	0.0000003	0.0004	U	0.001	0.0004	0.0000003	0.0004	U	0.001	0.0004	0.0000003	0.0004	U	0.001	0.0004	0.0000003
Hexachlorobutadiene	87-68-3	8270E	mg/L	0.000053 (12)	0.00078	U	0.001	0.00078	0.000053	0.00078	U	0.001	0.00078	0.000053	0.00078	U	0.001	0.00078	0.000053	0.00078	U	0.001	0.00078	0.000053	0.00078	U	0.001	0.00078	0.000053
Hexachlorocyclopentadiene	77-47-4	8270E	mg/L	0.077 (12)	0.0036	U	0.01	0.0036	0.077	0.0036	U	0.01	0.0036	0.077	0.0036	U	0.01	0.0036	0.077	0.0036	U	0.01	0.0036	0.077	0.0036	U	0.01	0.0036	0.077
Hexachloroethane	67-72-1	8270E	mg/L	0.008 (12)	0.0008	U	0.002	0.0008	0.008	0.0008	U	0.002	0.0008	0.008	0.0008	U	0.002	0.0008	0.008	0.0008	U	0.002	0.0008	0.008	0.0008	U	0.002	0.0008	0.008
Isophorone	78-59-1	8270E	mg/L	0.92 (12)	0.0008	U	0.01	0.0008	0.92	0.0008	U	0.01	0.0008	0.92	0.0008	U	0.01	0.0008	0.92	0.0008	U	0.01	0.0008	0.92	0.0008	U	0.01	0.0008	0.92
Nitrobenzene	98-95-3	8270E	mg/L	0.22 (12)	0.00057	U	0.001	0.00057	0.22	0.00057	U	0.001	0.00057	0.22	0.00057	U	0.001	0.00057	0.22	0.00057	U	0.001	0.00057	0.22	0.00057	U	0.001	0.00057	0.22
N-Nitrosodi-n-propylamine	621-64-7	8270E	mg/L		0.00043	U	0.001	0.00043		0.00043	U	0.001	0.00043		0.00043	U	0.001	0.00043		0.00043	U	0.001	0.00043		0.00043	U	0.001	0.00043	
N-Nitrosodiphenylamine	86-30-6	8270E	mg/L		0.00089	U	0.01	0.00089		0.00089	U	0.01	0.00089		0.00089	U	0.01	0.00089		0.00089	U	0.01	0.00089		0.00089	U	0.01	0.00089	
Pentachlorophenol	87-86-5	8270E	mg/L	pH Calc (12)	0.000071	U	0.0002	0.000071	9.61	0.000071	U	0.0002	0.000071	No Calc	0.000071	U	0.0002	0.071	No Calc	0.000071	UJ	0.0002	0.000071	No Calc	0.000071	UJ	0.0002	0.000071	No Calc
Phenol	108-95-2	8270E	mg/L	0.18 (12)	0.00029	U	0.01	0.00029	0.18	0.00029	U	0.01	0.00029	0.18	0.00029	U	0.01	0.00029	0.18	0.00029	U	0.01	0.00029	0.18	0.00029	U	0.01	0.00029	0.18
Polycyclic Aromatic Hydrocarbons (PAHs)																													
Acenaphthene	83-32-9	8270E	mg/L	0.038 (12)	0.000027	J	0.00005	0.000014	0.038	0.000037	J	0.00005	0.000014	0.038	0.000033	J	0.00005	0.014	0.038	0.000014	U	0.00005	0.000014	0.038	0.000014	U	0.00005	0.000014	0.038
Acenaphthylene	208-96-8	8270E	mg/L	4.84 (12)	0.000015	U	0.00005	0.000015	4.84	0.000015	U	0.00005	0.000015	4.84	0.000015	U	0.00005	0.015	4.84	0.000015	U	0.00005	0.000015	4.84	0.000015	U	0.00005	0.000015	4.84
Anthracene	120-12-7	8270E	mg/L	0.000035 (12)	0.000025	U	0.00005	0.000025	0.000035	0.000028	J	0.00005	0.000025	0.000035	0.000025	U	0.00005	0.025	0.000035	0.000025	UJ	0.00005	0.000025	0.000035	0.000025	UJ	0.00005	0.000025	0.000035
Fluorene	86-73-7	8270E	mg/L	0.019 (12)	0.000046	J	0.00005	0.000012	0.019	0.000057		0.00005	0.000012	0.019	0.000046	J	0.00005	0.012	0.019	0.000012	U	0.00005	0.000012	0.019	0.000012	U	0.00005	0.000012	0.019
Naphthalene	91-20-3	8270E	mg/L	0.013 (12)	0.00012	U	0.0002	0.00012	0.013	0.00012	U	0.0002	0.00012	0.013	0.00012	U	0.0002	0.12	0.013	0.00012	U	0.0002	0.00012	0.013	0.00012	U	0.0002	0.00012	0.013
Phenanthrene	85-01-8	8270E	mg/L	0.0036 (12)	0.000063		0.00005	0.000022	0.0036	0.000078		0.00005	0.000022	0.0036	0.000065		0.00005	0.022	0.0036	0.000025	J	0.00005	0.000022	0.0036	0.000022	UJ	0.00005	0.000022	0.0036
Benzo[a]anthracene	56-55-3	8270E SIM	mg/L	0.000025 (12)	0.000016	U	0.00005	0.000016	0.000025	0.000016	U	0.00005	0.000016	0.000025	0.000016	U	0.00005	0.000016	0.000025	0.000016	U	0.00005	0.000016	0.000025	0.000016	U	0.00005	0.000016	0.000025
Benzo[a]pyrene	50-32-8	8270E SIM	mg/L	0.000014 (12)	0.000022	U	0.00005	0.000022	0.000014	0.000022	U	0.00005	0.000022	0.000014	0.000022	U	0.00005	0.000022	0.000014	0.000022	U	0.00005	0.000022	0.000014	0.000022	U	0.00005	0.000022	0.000014
Benzo[b]fluoranthene	205-99-2	8270E SIM	mg/L	0.00907 (12)	0.000024	U	0.00005	0.000024	0.00907	0.000024	U	0.00005	0.000024	0.00907	0.000024	U	0.00005	0.000024	0.00907	0.000024	U	0.00005	0.000024	0.00907	0.000024	U	0.00005	0.000024	0.00907
Benzo[g,h,i]perylene	191-24-2	8270E SIM	mg/L	0.00764 (12)	0.000035	U	0.00005	0.000035	0.00764	0.000035	U	0.00005	0.000035	0.00764	0.000035	U	0.00005	0.000035	0.00764	0.000035	U	0.00005	0.000035	0.00764	0.000035	U	0.00005	0.000035	0.00764
Benzo[k]fluoranthene	207-08-9	8270E SIM	mg/L	0.0000041 (14)	0.000028	U	0.00005	0.000028	0.0000041	0.000028	U	0.00005	0.000028	0.0000041	0.000028	U	0.00005	0.000028	0.0000041	0.000028	U	0.00005	0.000028	0.0000041	0.000028	U	0.00005	0.000028	0.0000041
Chrysene	218-01-9	8270E	mg/L	0.0000018 (14)	0.00003	U	0.00005	0.00003	0.0000018	0.00003	U	0.00005	0.00003	0.0000018	0.00003	U	0.00005	0.00003	0.0000018	0.00003	U	0.00005	0.00003	0.0000018	0.00003	U	0.00005	0.00003	0.0000018
Dibenz(a,h)anthracene	53-70-3	8270E SIM	mg/L	0.0000034 (14)	0.00002	UJ	0.00005	0.00002	0.0000034	0.00002	UJ	0.00005	0.00002	0.0000034	0.00002	UJ	0.00005	0.00002	0.0000034	0.00002	U	0.00005	0.00002	0.0000034	0.00002	U	0.00005	0.00002	0.0000034
Fluoranthene	206-44-0	8270E	mg/L	0.0019 (12)	0.000039	U	0.00005	0.000039	0.0019	0.000039	U	0.00005	0.000039	0.0019	0.000039	U	0.00005	0.000039	0.0019	0.000039	UJ	0.00005	0.000039	0.0019	0.000039	UJ	0.00005	0.000039	0.0019
Indeno[1,2,3-cd]pyrene	193-39-5	8270E SIM	mg/L	0.00431 (12)	0.000036	UJ	0.00005	0.000036	0.00431	0.000036	UJ	0.00005	0.000036	0.00431	0.000036	UJ	0.00005	0.000036	0.00431	0.000036	U	0.00005	0.000036	0.00431	0.000036	U	0.00005	0.000036	0.00431
Pyrene	129-00-0	8270E	mg/L	0.0003 (12)	0.000031	U	0.00005	0.000031	0.0003	0.000031	U	0.00005	0.000031	0.0003	0.000031	U	0.00005	0.000031	0.0003	0.000031	U	0.00005	0.000031	0.0003	0.000031	U	0.00005	0.000031	0.0003

Table 5.20 - Pore Water: Semi-Volatile Organic Compounds (SVOCs) An (continued)

Rolling Knolls Landfill

Sample Name				ESC's	PW100_0.1-1.1 (PW45_0.1-1.1 duplicate)				PW46_0.3-1.3				PW101_0.3-1.3 (PW46-0.3-1.3 duplicate)				PW47_0.1-1.1			
Sample Date/Time					06/01/2021 13:50				06/02/2021 10:20				06/02/2021 10:20				06/02/2021 12:50			
Latitude				Screening Criteria	40.72413479				40.72975399				40.72975399				40.73048521			
Longitude					-74.4444308				-74.44129459				-74.44129459				-74.44164343			
Lab Sample Name					GS-S-PWT100-0.1-1.1				GS-N-PWT46-0.3-1.3				GS-N-PWT101-0.3-1.3				GS-PWT47-0.1-1.1			
Lab Sample Number					460-235699-3				460-235933-1				460-235933-2				460-235933-3			
Lab Report Number(s)					460-235699-1				460-235933-1				460-235933-1				460-235933-1			
Analyte	CAS	Method	Units		Result	LDC Flag	RL	MDL (EDL)	ESC	Result	LDC Flag	RL	MDL (EDL)	ESC	Result	LDC Flag	RL	MDL (EDL)	ESC	Result	LDC Flag	RL	MDL (EDL)	ESC
1,1'-Biphenyl	92-52-4	8270E	mg/L		0.0012	U	0.01	0.0012		0.0012	U	0.01	0.0012		0.0012	U	0.01	0.0012		0.0012	U	0.01	0.0012	
1,2,4,5-Tetrachlorobenzene	95-94-3	8270E	mg/L	0.003 (12)	0.0012	U	0.01	0.0012	0.003	0.0012	U	0.01	0.0012	0.003	0.0012	U	0.01	0.0012	0.003	0.0012	U	0.01	0.0012	0.003
2,2'-oxybis[1-chloropropane]	108-60-1	8270E	mg/L		0.00063	U	0.01	0.00063		0.00063	U	0.01	0.00063		0.00063	U	0.01	0.00063		0.00063	U	0.01	0.00063	
2,3,4,6-Tetrachlorophenol	58-90-2	8270E	mg/L	0.0012 (6)	0.00075	U	0.01	0.00075	0.0012	0.00075	U	0.01	0.00075	0.0012	0.00075	U	0.01	0.00075	0.0012	0.00075	U	0.01	0.00075	0.0012
2,4,5-Trichlorophenol	95-95-4	8270E	mg/L		0.00088	U	0.01	0.00088		0.00088	U	0.01	0.00088		0.00088	U	0.01	0.00088		0.00088	U	0.01	0.00088	
2,4,6-Trichlorophenol	88-06-2	8270E	mg/L	0.0049 (12)	0.00086	U	0.01	0.00086	0.0049	0.00086	U	0.01	0.00086	0.0049	0.00086	U	0.01	0.00086	0.0049	0.00086	U	0.01	0.00086	0.0049
2,4-Dichlorophenol	120-83-2	8270E	mg/L	0.011 (12)	0.0011	U	0.01	0.0011	0.011	0.0011	U	0.01	0.0011	0.011	0.0011	U	0.01	0.0011	0.011	0.0011	U	0.01	0.0011	0.011
2,4-Dimethylphenol	105-67-9	8270E	mg/L	0.1 (12)	0.00062	U	0.01	0.00062	0.1	0.00062	U	0.01	0.00062	0.1	0.00062	U	0.01	0.00062	0.1	0.00062	U	0.01	0.00062	0.1
2,4-Dinitrophenol	51-28-5	8270E	mg/L	0.019 (12)	0.0026	U	0.02	0.0026	0.019	0.0026	UJ	0.02	0.0026	0.019	0.0026	UJ	0.02	0.0026	0.019	0.0026	UJ	0.02	0.0026	0.019
2,4-Dinitrotoluene	121-14-2	8270E	mg/L	0.044 (12)	0.001	U	0.002	0.001	0.044	0.001	U	0.002	0.001	0.044	0.001	U	0.002	0.001	0.044	0.001	U	0.002	0.001	0.044
2,6-Dinitrotoluene	606-20-2	8270E	mg/L	0.23 (14)	0.00083	U	0.002	0.00083	0.23	0.00083	U	0.002	0.00083	0.23	0.00083	U	0.002	0.00083	0.23	0.00083	U	0.002	0.00083	0.23
2-Chloronaphthalene	91-58-7	8270E	mg/L	0.000396 (12)	0.0012	U	0.01	0.0012	0.000396	0.0012	U	0.01	0.0012	0.000396	0.0012	U	0.01	0.0012	0.000396	0.0012	U	0.01	0.0012	0.000396
2-Chlorophenol	95-57-8	8270E	mg/L	0.024 (12)	0.00038	U	0.01	0.00038	0.024	0.00038	U	0.01	0.00038	0.024	0.00038	U	0.01	0.00038	0.024	0.00038	U	0.01	0.00038	0.024
2-Methylnaphthalene	91-57-6	8270E	mg/L	0.33 (12)	0.00053	U	0.01	0.00053	0.33	0.00053	U	0.01	0.00053	0.33	0.00053	U	0.01	0.00053	0.33	0.00053	U	0.01	0.00053	0.33
2-Methylphenol	95-48-7	8270E	mg/L	0.013 (14)	0.00067	U	0.01	0.00067	0.013	0.00067	U	0.01	0.00067	0.013	0.00067	U	0.01	0.00067	0.013	0.00067	U	0.01	0.00067	0.013
2-Nitroaniline	88-74-4	8270E	mg/L		0.00047	U	0.01	0.00047		0.00047	U	0.01	0.00047		0.00047	U	0.01	0.00047		0.00047	U	0.01	0.00047	
2-Nitrophenol	88-75-5	8270E	mg/L	0.06 (14)	0.00075	U	0.01	0.00075	0.06	0.00075	U	0.01	0.00075	0.06	0.00075	U	0.01	0.00075	0.06	0.00075	U	0.01	0.00075	0.06
3,3'-Dichlorobenzidine	91-94-1	8270E	mg/L	0.0045 (12)	0.0014	UJ	0.01	0.0014	0.0045	0.0014	U	0.01	0.0014	0.0045	0.0014	U	0.01	0.0014	0.0045	0.0014	U	0.01	0.0014	0.0045
3-Nitroaniline	99-09-2	8270E	mg/L		0.0019	U	0.01	0.0019		0.0019	U	0.01	0.0019		0.0019	U	0.01	0.0019		0.0019	U	0.01	0.0019	
4,6-Dinitro-2-methylphenol	534-52-1	8270E	mg/L		0.003	U	0.02	0.003		0.003	UJ	0.02	0.003		0.003	UJ	0.02	0.003		0.003	UJ	0.02	0.003	
4-Bromophenyl phenyl ether	101-55-3	8270E	mg/L	0.0015 (14)	0.00075	U	0.01	0.00075	0.0015	0.00075	U	0.01	0.00075	0.0015	0.00075	U	0.01	0.00075	0.0015	0.00075	U	0.01	0.00075	0.0015
4-Chloro-3-methylphenol	59-50-7	8270E	mg/L		0.00058	U	0.01	0.00058		0.00058	U	0.01	0.00058		0.00058	U	0.01	0.00058		0.00058	U	0.01	0.00058	
4-Chloroaniline	106-47-8	8270E	mg/L	0.232 (6)	0.0019	U	0.01	0.0019	0.232	0.0019	U	0.01	0.0019	0.232	0.0019	U	0.01	0.0019	0.232	0.0019	U	0.01	0.0019	0.232
4-Chlorophenyl phenyl ether	7005-72-3	8270E	mg/L		0.0013	U	0.01	0.0013		0.0013	U	0.01	0.0013		0.0013	U	0.01	0.0013		0.0013	U	0.01	0.0013	
4-Methylphenol	106-44-5	8270E	mg/L		0.00065	U	0.01	0.00065		0.00065	U	0.01	0.00065		0.00065	U	0.01	0.00065		0.00065	U	0.01	0.00065	
4-Nitroaniline	100-01-6	8270E	mg/L		0.0012	U	0.01	0.0012		0.0012	U	0.01	0.0012		0.0012	U	0.01	0.0012		0.0012	U	0.01	0.0012	
4-Nitrophenol	100-02-7	8270E	mg/L	0.06 (14)	0.004	U	0.02	0.004	0.06	0.004	U	0.02	0.004	0.06	0.004	U	0.02	0.004	0.06	0.004	U	0.02	0.004	0.06
Acetophenone	98-86-2	8270E	mg/L		0.0023	U	0.01	0.0023		0.0023	U	0.01	0.0023		0.0023	U	0.01	0.0023		0.0023	U	0.01	0.0023	
Atrazine	1912-24-9	8270E	mg/L		0.0013	U	0.002	0.0013		0.0013	U	0.002	0.0013		0.0013	U	0.002	0.0013		0.0013	U	0.002	0.0013	
Benzaldehyde	100-52-7	8270E	mg/L		0.0021	UJ	0.01	0.0021		0.0021	UJ	0.01	0.0021		0.0021	UJ	0.01	0.0021		0.0021	UJ	0.01	0.0021	
Bis(2-chloroethoxy)methane	111-91-1	8270E	mg/L		0.00059	U	0.01	0.00059		0.00059	U	0.01	0.00059		0.00059	U	0.01	0.00059		0.00059	U	0.01	0.00059	
Bis(2-chloroethyl)ether	111-44-4	8270E	mg/L	1.9 (12)	0.00063	U	0.001	0.00063	1.9	0.00063	U	0.001	0.00063	1.9	0.00063	U	0.001	0.00063	1.9	0.00063	U	0.001	0.00063	1.9
Bis(2-ethylhexyl) phthalate	117-81-7	8270E	mg/L	0.0003 (12)	0.0008	U	0.002	0.0008	0.0003	0.0008	U	0.002	0.0008	0.0003	0.0008	U	0.002	0.0008	0.0003	0.0008	U	0.002	0.0008	0.0003
Butyl benzyl phthalate	85-68-7	8270E	mg/L	0.023 (12)	0.00085	U	0.01	0.00085	0.023	0.00085	U	0.01	0.00085	0.023	0.00085	U	0.01	0.00085	0.023	0.00085	U	0.01	0.00085	0.023
Caprolactam	105-60-2	8270E	mg/L		0.0022	U	0.01	0.0022		0.0022	U	0.01	0.0022		0.0022	U	0.01	0.0022		0.0022	U	0.01	0.0022	
Carbazole	86-74-8	8270E	mg/L		0.00068	U	0.01	0.00068		0.00068	U	0.01	0.00068		0.00068	U	0.01	0.00068		0.00068	U	0.01	0.00068	
Dibenzofuran	132-64-9	8270E	mg/L	0.0037 (14)	0.0011	U	0.01	0.0011	0.0037	0.0011	U	0.01	0.0011	0.0037	0.0011	U	0.01	0.0011	0.0037	0.0011	U	0.01	0.0011	0.0037
Diethyl phthalate	84-66-2	8270E	mg/L	0.11 (12)	0.00098	U	0.01	0.00098	0.11	0.00098	U	0.01	0.00098	0.11	0.00098	U	0.01	0.00098	0.11	0.00098	U	0.01	0.00098	0.11
Dimethyl phthalate	131-11-3	8270E	mg/L	0.003 (14)	0.00077	U	0.01	0.00077	0.003	0.00077	U	0.01	0.00077	0.003	0.00077	U	0.01	0.00077	0.003	0.00077	U	0.01	0.00077	0.003
Di-n-butyl phthalate	84-74-2	8270E	mg/L	0.0097 (12)	0.00084	U	0.01	0.00084	0.0097	0.00084	U	0.01	0.00084	0.0097	0.00084	U	0.01	0.00084	0.0097	0.00084	U	0.01	0.00084	0.0097
Di-n-octyl phthalate	117-84-0	8270E	mg/L	0.003 (14)	0.00075	U	0.01	0.00075	0.003	0.00075	UJ	0.01	0.00075	0.003	0.00075	UJ	0.01	0.00075	0.003	0.00075	UJ	0.01	0.00075	0.003
Hexachlorobenzene	118-74-1	8270E	mg/L	0.0000003 (12)	0.0004	U	0.001	0.0004	0.0000003	0.0004	U	0.001	0.0004	0.0000003	0.0004	U	0.001	0.0004	0.0000003	0.0004	U	0.001	0.0004	0.0000003
Hexachlorobutadiene	87-68-3	8270E	mg/L	0.000053 (12)	0.00078	U	0.001	0.00078	0.000053	0.00078	U	0.001	0.00078	0.000053	0.00078	U	0.001	0.00078	0.000053	0.00078	U	0.001	0.00078	0.000053
Hexachlorocyclopentadiene	77-47-4	8270E	mg/L	0.077 (12)	0.0036	U	0.01	0.0036	0.077	0.0036	U	0.01	0.0036	0.077	0.0036	U	0.01	0.0036	0.077	0.0036	U	0.01	0.0036	0.077
Hexachloroethane	67-72-1	8270E	mg/L	0.008 (12)	0.0008	U	0.002	0.0008	0.008	0.0008	U	0.002	0.0008	0.008	0.0008	U	0.002	0.0008	0.008	0.0008	U	0.002	0.0008	0.008
Isophorone	78-59-1	8270E	mg/L	0.92 (12)	0.0008	U	0.01	0.0008	0.92	0.0008	U	0.01	0.0008	0.92	0.0008	U	0.01	0.0008	0.92	0.0008	U	0.01	0.0008	0.92
Nitrobenzene	98-95-3	8270E	mg/L	0.22 (12)	0.00057	U	0.001	0.00057	0.22	0.00057	U	0.001	0.00057	0.22	0.00057	U	0.001	0.00057	0.22	0.00057	U	0.001	0.00057	0.22
N-Nitrosodi-n-propylamine	621-64-7	8270E	mg/L		0.00043	U	0.001	0.00043		0.00043	U	0.001	0.00043		0.00043	U	0.001	0.00043		0.00043	U	0.001	0.00043	
N-Nitrosodiphenylamine	86-30-6	8270E	mg/L		0.00089	U	0.01	0.00089		0.00089	U	0.01	0.00089		0.00089	U	0.01	0.00089		0.00089	U	0.01	0.00089	
Pentachlorophenol	87-86-5	8270E	mg/L	pH Calc (12)	0.000071	UJ	0.0002	0.000071	No Calc	0.0014	U	0.02	0.0014	5.00	0.0014	U	0.02	0.0014	5.00	0.0014	U	0.02	0.0014	4.57
Phenol	108-95-2	8270E	mg/L	0.18 (12)	0.00029	U	0.01	0.00029	0.18	0.00029	U	0.01	0.00029	0.18	0.00029	U	0.01	0.00029	0.18	0.00029	U	0.01	0.00029	0.18
Polycyclic Aromatic Hydrocarbons (PAHs)																								
Acenaphthene	83-32-9	8270E	mg/L	0.038 (12)	0.000014	U	0.00005	0.000014	0.038	0.0011	U	0.01	0.0011	0.038	0.0011	U	0.01	0.0011	0.038	0.0011	U	0.01	0.0011	0.038
Acenaphthylene	208-96-8	8270E	mg/L	4.84 (12)	0.000015	U	0.00005	0.000015	4.84	0.00082	U	0.01	0.00082	4.84	0.00082	U	0.01	0.00082	4.84	0.00082	U	0.01	0.00082	4.84
Anthracene	120-12-7	8270E	mg/L	0.000035 (12)	0.000025	UJ	0.00005	0.000025	0.000035	0.0013	U	0.01	0.0013	0.000035	0.0013	U	0.01	0.0013	0.000035	0.0013	U	0.01	0.0013	0.000035
Fluorene	86-73-7	8270E	mg/L	0.019 (12)	0.000012	U	0.00005	0.000012	0.019	0.00091	U	0.01	0.00091	0.019	0.00091	U	0.01	0.00091	0.019	0.00091	U	0.01	0.00091	0.019
Naphthalene	91-20-3	8270E	mg/L	0.013 (12)	0.00012	U	0.0002	0.00012	0.013	0.00054	U	0.002	0.00054	0.013	0.00054	U	0.002	0.00054	0.013	0.00054	U	0.002	0.00054	0.013
Phenanthrene	85-01-8	8270E	mg/L	0.0036 (12)	0.000022	UJ	0.00005	0.000022	0.0036	0.0013	U	0.01	0.0013	0.0036	0.0013	U	0.01	0.0013	0.0036	0.0013	U	0.01	0.0013	0.0036
Benzo[a]anthracene	56-55-3	8270E SIM	mg/L	0.000025 (12)	0.000016	U	0.00005	0.000016	0.000025	0.00059	U	0.001	0.00059	0.000025	0.00059	U	0.001	0.00059	0.000025	0.00059	U	0.001	0.00059	0.000025
Benzo[a]pyrene	50-32-8	8270E SIM	mg/L	0.000014 (12)	0.000022	U	0.00005	0.000022	0.000014	0.00041	U	0.001	0.00041	0.000014	0.00041	U	0.001	0.00041	0.000014	0.00041	U	0.001	0.00041	0.000014
Benzo[b]fluoranthene	205-99-2	8270E SIM	mg/L	0.00907 (12)	0.000024	U	0.00005	0.000024	0.00907	0.00068	U	0.002	0.00068	0.00907	0.00068	U	0.002	0.00068	0.00907	0.00068	U	0.002	0.00068	0.00907
Benzo[g,h,i]perylene	191-24-2	8270E SIM	mg/L	0.00764 (12)	0.000035	U	0.00005	0.000035	0.00764	0.0007	U	0.01	0.0007	0.00764	0.0007	U	0.01	0.0007	0.00764	0.0007	U	0.01	0.0007	0.00764
Benzo[k]fluoranthene	207-08-9	8270E SIM	mg/L	0.0000041 (14)	0.000028	U	0.00005	0.000028	0.0000041	0.00067	U	0.001	0.00067	0.0000041	0.00067	U	0.001	0.00067	0.0000041	0.00067	U	0.001	0.00067	0.0000041
Chrysene	218-01-9	8270E	mg/L	0.0000018 (14)	0.00003	U	0.00005	0.00003	0.0000018	0.00091	U	0.002	0.00091	0.0000018	0.00091	U	0.002	0.00091	0.0000018	0.00091	U	0.002	0.00091	0.0000018
Dibenz(a,h)anthracene	53-70-3	8270E SIM	mg/L	0.0000034 (14)	0.00002	U	0.00005	0.00002	0.0000034	0.00072	U	0.001	0.00072	0.0000034	0.00072	U	0.001	0.00072	0.0000034	0.00072	U	0.001	0.00072	0.0000034
Fluoranthene	206-44-0	8270E	mg/L	0.0019 (12)	0.000039	UJ	0.00005	0.000039	0.0019	0.00084	U	0.01	0.00084	0.0019	0.00084	U	0.01	0.00084	0.0019	0.00084	U	0.01	0.00084	0.0019
Indeno[1,2,3-cd]pyrene	193-39-5	8270E SIM	mg/L	0.00431 (12)	0.000036	U	0.00005	0.000036	0.00431	0.00094	U	0.002	0.00094	0.00431	0.00094	U	0.002	0.00094	0.00431	0.00094	U	0.002	0.00094	0.00431
Pyrene	129-00-0	8270E	mg/L	0.0003 (12)	0.000031	U	0.00005	0.000031	0.0003	0.0016	U	0.01	0.0016	0.0003	0.0016	U	0.01	0.0016	0.0003	0.0016	U	0.01	0.0016	0.0003

Table 5.21 - Pore Water: Pesticide Analytical Results

Rolling Knolls Landfill

Sample Name				ESC's	PW01_1.5-2.5				PW02_1.5-2.5				PW03_1.5-2.5				PW05_1.0-2.0				PW06.1_1.0-2.0				PW06.2_0.1-1.1				PW07_0.1-1.1			
Sample Date/Time					05/14/2021 15:00				05/16/2021 15:00				05/14/2021 17:05				05/16/2021 11:05				05/16/2021 13:20				05/17/2021 09:25				05/17/2021 10:31			
Latitude					40.72335535				40.72342503				40.72348017				40.72273853				40.72279294				40.72246175				40.72236214			
Longitude					-74.4485393				-74.44713409				-74.44733933				-74.44624019				-74.44605059				-74.44573414				-74.44587602			
Lab Sample Name				Screening Criteria	GS-S-PWT01-1.5-2.5				GS-S-PWT02-1.5-2.5				GS-S-PWT03-1.5-2.5				GS-S-PWT05-1.0-2.0				GS-S-PWT06-1.0-2.0				GS-S-PWT06_0.1-1.1				GS-S-PWT07_0.1-1.1			
Lab Sample Number					460-234559-1				460-234561-3				460-234559-2				460-234561-2				460-234561-1				460-234970-1				460-234970-2			
Lab Report Number(s)					460-234559-1				460-234561-1				460-234559-1				460-234561-1				460-234561-1				460-234970-1				460-234970-1			
Analyte	CAS	Method	Units		Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)
4,4'-DDD	72-54-8	8081B	µg/L	0.011 (14)	0.006	U	0.02	0.006	0.006	U	0.02	0.006	0.006	U	0.02	0.006	0.006	U	0.02	0.006	0.006	U	0.02	0.006	0.006	U	0.02	0.006	0.006	U	0.02	0.006
4,4'-DDE	72-55-9	8081B	µg/L	4.51E-09 (12)	0.002	U	0.02	0.002	0.002	U	0.02	0.002	0.002	U	0.02	0.002	0.002	U	0.02	0.002	0.002	U	0.02	0.002	0.002	U	0.02	0.002	0.002	U	0.02	0.002
4,4'-DDT	50-29-3	8081B	µg/L	0.001 (12)	0.004	U	0.02	0.004	0.004	U	0.02	0.004	0.004	U	0.02	0.004	0.004	U	0.02	0.004	0.004	U	0.02	0.004	0.004	U	0.02	0.004	0.004	U	0.02	0.004
Aldrin	309-00-2	8081B	µg/L	0.017 (12)	0.003	U	0.02	0.003	0.003	U	0.02	0.003	0.003	U	0.02	0.003	0.003	U	0.02	0.003	0.003	U	0.02	0.003	0.003	U	0.02	0.003	0.003	U	0.02	0.003
alpha-BHC	319-84-6	8081B	µg/L	12.4 (12)	0.007	U	0.02	0.007	0.007	U	0.02	0.007	0.007	U	0.02	0.007	0.007	U	0.02	0.007	0.007	U	0.02	0.007	0.007	U	0.02	0.007	0.007	U	0.02	0.007
beta-BHC	319-85-7	8081B	µg/L	0.495 (12)	0.004	U	0.02	0.004	0.004	U	0.02	0.004	0.004	U	0.02	0.004	0.004	U	0.02	0.004	0.004	U	0.02	0.004	0.004	U	0.02	0.004	0.004	U	0.02	0.004
Chlordane (technical)	12789-03-6	8081B	µg/L	0.0043 (12)	0.055	U	0.5	0.055	0.055	U	0.5	0.055	0.055	U	0.5	0.055	0.055	U	0.5	0.055	0.055	U	0.5	0.055	0.055	U	0.5	0.055	0.055	U	0.5	0.055
delta-BHC	319-86-8	8081B	µg/L	2.2 (14)	0.005	U	0.02	0.005	0.005	U	0.02	0.005	0.005	U	0.02	0.005	0.005	U	0.02	0.005	0.005	U	0.02	0.005	0.005	U	0.02	0.005	0.005	U	0.02	0.005
Dieldrin	60-57-1	8081B	µg/L	0.056 (12)	0.003	U	0.02	0.003	0.003	U	0.02	0.003	0.003	U	0.02	0.003	0.003	U	0.02	0.003	0.003	U	0.02	0.003	0.003	U	0.02	0.003	0.003	U	0.02	0.003
Endosulfan I	959-98-8	8081B	µg/L	0.003 (14)	0.002	U	0.02	0.002	0.002	U	0.02	0.002	0.002	U	0.02	0.002	0.002	U	0.02	0.002	0.002	U	0.02	0.002	0.002	U	0.02	0.002	0.002	U	0.02	0.002
Endosulfan II	33213-65-9	8081B	µg/L	0.003 (14)	0.004	U	0.02	0.004	0.004	U	0.02	0.004	0.004	U	0.02	0.004	0.004	U	0.02	0.004	0.004	U	0.02	0.004	0.004	U	0.02	0.004	0.004	U	0.02	0.004
Endosulfan sulfate	1031-07-8	8081B	µg/L	2.22 (12)	0.006	U	0.02	0.006	0.006	U	0.02	0.006	0.006	U	0.02	0.006	0.006	U	0.02	0.006	0.006	U	0.02	0.006	0.006	U	0.02	0.006	0.006	U	0.02	0.006
Endrin	72-20-8	8081B	µg/L	0.036 (12)	0.004	U	0.02	0.004	0.004	U	0.02	0.004	0.004	U	0.02	0.004	0.004	U	0.02	0.004	0.004	U	0.02	0.004	0.004	U	0.02	0.004	0.004	U	0.02	0.004
Endrin aldehyde	7421-93-4	8081B	µg/L	0.15 (12)	0.008	U	0.02	0.008	0.008	U	0.02	0.008	0.008	U	0.02	0.008	0.008	U	0.02	0.008	0.008	U	0.02	0.008	0.008	U	0.02	0.008	0.008	U	0.02	0.008
Endrin ketone	53494-70-5	8081B	µg/L	0.036 (14)	0.008	U	0.02	0.008	0.008	U	0.02	0.008	0.008	U	0.02	0.008	0.008	U	0.02	0.008	0.008	U	0.02	0.008	0.008	U	0.02	0.008	0.008	U	0.02	0.008
gamma-BHC (Lindane)	58-89-9	8081B	µg/L	0.026 (12)	0.012	U	0.02	0.012	0.012	U	0.02	0.012	0.012	U	0.02	0.012	0.012	U	0.02	0.012	0.012	U	0.02	0.012	0.012	U	0.02	0.012	0.012	U	0.02	0.012
Heptachlor	76-44-8	8081B	µg/L	0.0038 (12)	0.003	U	0.02	0.003	0.003	U	0.02	0.003	0.003	U	0.02	0.003	0.003	U	0.02	0.003	0.003	U	0.02	0.003	0.003	U	0.02	0.003	0.003	U	0.02	0.003
Heptachlor epoxide	1024-57-3	8081B	µg/L	0.0038 (12)	0.005	U	0.02	0.005	0.005	U	0.02	0.005	0.005	U	0.02	0.005	0.005	U	0.02	0.005	0.005	U	0.02	0.005	0.005	U	0.02	0.005	0.005	U	0.02	0.005
Methoxychlor	72-43-5	8081B	µg/L	0.019 (14)	0.004	U	0.02	0.004	0.004	U	0.02	0.004	0.004	U	0.02	0.004	0.004	U	0.02	0.004	0.004	U	0.02	0.004	0.004	U	0.02	0.004	0.004	U	0.02	0.004
Toxaphene	8001-35-2	8081B	µg/L	0.0002 (12)	0.11	U	0.5	0.11	0.11	U	0.5	0.11	0.11	U	0.5	0.11	0.11	U	0.5	0.11	0.11	U	0.5	0.11	0.11	U	0.5	0.11	0.11	U	0.5	0.11

Table 5.21 - Pore Water: Pesticide Analytical Results

(continued)

Rolling Knolls Landfill

	Sample Name			ESC's	PW08_0.1-1.1				PW09_0.1-1.1				PW11_0.1-1.1				PW12_0.1-1.1				PW13_0.1-1.1				PW14_0.1-1.1				PW15_0.1-1.1			
	Sample Date/Time				05/17/2021 13:00				05/17/2021 15:26				05/18/2021 11:05				05/18/2021 12:30				05/18/2021 14:30				05/19/2021 10:00				05/19/2021 12:30			
	Latitude				40.72182294				40.72166473				40.72137772				40.72190822				40.72201291				40.72248719				40.7230347			
	Longitude			Screening Criteria	-74.44481466				-74.44497878				-74.44406378				-74.44321078				-74.44347746				-74.44316647				-74.44314728			
	Lab Sample Name				GS-S-PWT08_0.1-1.1				GS-S-PWT09_0.1-1.1				GS-S-PWT11_0.1-1.1				GS-S-PWT12_0.1-1.1				GS-S-PWT13_0.1-1.1				GS-S-PWT014-0.1-1.1				GS-S-PWT015-0.1-1.1			
	Lab Sample Number				460-234969-1				460-234970-3				460-234971-2				460-234969-2				460-234969-3				460-234972-2				460-235250-1			
	Lab Report Number(s)				460-234969-1				460-234970-1				460-234971-1				460-234969-1				460-234969-1				460-234972-1				460-235250-1			
Analyte	CAS	Method	Units		Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)
4,4'-DDD	72-54-8	8081B	µg/L	0.011 (14)	0.006	U	0.02	0.006	0.006	U	0.02	0.006	0.006	U	0.02	0.006	0.006	U	0.02	0.006	0.006	U	0.02	0.006	0.006	U	0.02	0.006	0.006	U	0.02	0.006
4,4'-DDE	72-55-9	8081B	µg/L	4.51E-09 (12)	0.002	U	0.02	0.002	0.002	U	0.02	0.002	0.002	U	0.02	0.002	0.002	U	0.02	0.002	0.002	U	0.02	0.002	0.002	U	0.02	0.002	0.002	U	0.02	0.002
4,4'-DDT	50-29-3	8081B	µg/L	0.001 (12)	0.004	U	0.02	0.004	0.004	U	0.02	0.004	0.004	U	0.02	0.004	0.004	U	0.02	0.004	0.004	U	0.02	0.004	0.004	U	0.02	0.004	0.004	U	0.02	0.004
Aldrin	309-00-2	8081B	µg/L	0.017 (12)	0.003	U	0.02	0.003	0.003	U	0.02	0.003	0.003	U	0.02	0.003	0.003	U	0.02	0.003	0.003	U	0.02	0.003	0.003	U	0.02	0.003	0.003	U	0.02	0.003
alpha-BHC	319-84-6	8081B	µg/L	12.4 (12)	0.007	U	0.02	0.007	0.007	U	0.02	0.007	0.007	U	0.02	0.007	0.007	U	0.02	0.007	0.007	U	0.02	0.007	0.007	U	0.02	0.007	0.007	U	0.02	0.007
beta-BHC	319-85-7	8081B	µg/L	0.495 (12)	0.004	U	0.02	0.004	0.004	U	0.02	0.004	0.004	U	0.02	0.004	0.004	U	0.02	0.004	0.004	U	0.02	0.004	0.004	U	0.02	0.004	0.004	U	0.02	0.004
Chlordane (technical)	12789-03-6	8081B	µg/L	0.0043 (12)	0.055	U	0.5	0.055	0.055	U	0.5	0.055	0.055	U	0.5	0.055	0.055	U	0.5	0.055	0.055	U	0.5	0.055	0.055	U	0.5	0.055	0.055	U	0.5	0.055
delta-BHC	319-86-8	8081B	µg/L	2.2 (14)	0.005	U	0.02	0.005	0.005	U	0.02	0.005	0.005	U	0.02	0.005	0.005	U	0.02	0.005	0.005	U	0.02	0.005	0.005	U	0.02	0.005	0.005	U	0.02	0.005
Dieldrin	60-57-1	8081B	µg/L	0.056 (12)	0.003	U	0.02	0.003	0.003	U	0.02	0.003	0.003	U	0.02	0.003	0.003	U	0.02	0.003	0.003	U	0.02	0.003	0.003	U	0.02	0.003	0.003	U	0.02	0.003
Endosulfan I	959-98-8	8081B	µg/L	0.003 (14)	0.002	U	0.02	0.002	0.002	U	0.02	0.002	0.002	U	0.02	0.002	0.002	U	0.02	0.002	0.002	U	0.02	0.002	0.002	U	0.02	0.002	0.002	U	0.02	0.002
Endosulfan II	33213-65-9	8081B	µg/L	0.003 (14)	0.004	U	0.02	0.004	0.004	U	0.02	0.004	0.004	U	0.02	0.004	0.004	U	0.02	0.004	0.004	U	0.02	0.004	0.004	U	0.02	0.004	0.004	U	0.02	0.004
Endosulfan sulfate	1031-07-8	8081B	µg/L	2.22 (12)	0.006	U	0.02	0.006	0.006	U	0.02	0.006	0.006	U	0.02	0.006	0.006	U	0.02	0.006	0.006	U	0.02	0.006	0.006	U	0.02	0.006	0.006	U	0.02	0.006
Endrin	72-20-8	8081B	µg/L	0.036 (12)	0.004	U	0.02	0.004	0.004	U	0.02	0.004	0.004	U	0.02	0.004	0.004	U	0.02	0.004	0.004	U	0.02	0.004	0.004	U	0.02	0.004	0.004	U	0.02	0.004
Endrin aldehyde	7421-93-4	8081B	µg/L	0.15 (12)	0.008	U	0.02	0.008	0.008	U	0.02	0.008	0.008	U	0.02	0.008	0.008	U	0.02	0.008	0.008	U	0.02	0.008	0.008	U	0.02	0.008	0.008	U	0.02	0.008
Endrin ketone	53494-70-5	8081B	µg/L	0.036 (14)	0.008	U	0.02	0.008	0.008	U	0.02	0.008	0.008	U	0.02	0.008	0.008	U	0.02	0.008	0.008	U	0.02	0.008	0.008	U	0.02	0.008	0.008	U	0.02	0.008
gamma-BHC (Lindane)	58-89-9	8081B	µg/L	0.026 (12)	0.012	U	0.02	0.012	0.012	U	0.02	0.012	0.012	U	0.02	0.012	0.012	U	0.02	0.012	0.012	U	0.02	0.012	0.012	U	0.02	0.012	0.012	U	0.02	0.012
Heptachlor	76-44-8	8081B	µg/L	0.0038 (12)	0.003	U	0.02	0.003	0.003	U	0.02	0.003	0.003	U	0.02	0.003	0.003	U	0.02	0.003	0.003	U	0.02	0.003	0.003	U	0.02	0.003	0.003	U	0.02	0.003
Heptachlor epoxide	1024-57-3	8081B	µg/L	0.0038 (12)	0.005	U	0.02	0.005	0.005	U	0.02	0.005	0.005	U	0.02	0.005	0.005	U	0.02	0.005	0.005	U	0.02	0.005	0.005	U	0.02	0.005	0.005	U	0.02	0.005
Methoxychlor	72-43-5	8081B	µg/L	0.019 (14)	0.004	U	0.02	0.004	0.004	U	0.02	0.004	0.004	U	0.02	0.004	0.004	U	0.02	0.004	0.004	U	0.02	0.004	0.004	U	0.02	0.004	0.004	U	0.02	0.004
Toxaphene	8001-35-2	8081B	µg/L	0.0002 (12)	0.11	U	0.5	0.11	0.11	U	0.5	0.11	0.11	U	0.5	0.11	0.11	U	0.5	0.11	0.11	U	0.5	0.11	0.11	U	0.5	0.11	0.11	U	0.5	0.11

Table 5.21 - Pore Water: Pesticide Analytical Results

(continued)

Rolling Knolls Landfill

	Sample Name			ESC's	PW16_0.1-1.1				PW17_0.1-1.1				PW19_0.1-1.1				PW20_0.1-1.1				PW21_0.1-1.1				PW22_0.1-1.1				PW102_0.1-1.1 (PW22_0.1-1.1 duplicate)			
	Sample Date/Time				05/19/2021 14:00				05/20/2021 09:38				05/20/2021 11:34				05/20/2021 16:30				05/21/2021 08:43				05/21/2021 09:10				05/21/2021 09:10			
	Latitude				40.72345333				40.72380268				40.72418595				40.72413425				40.72457915				40.72444765				40.72444765			
	Longitude				-74.44320064				-74.44314573				-74.44291979				-74.44283622				-74.44297636				-74.44258986				-74.44258986			
	Lab Sample Name			Screening Criteria	GS-S-PWT016-0.1-1.1				GS-S-PWT017-0.1-1.1				GS-S-PWT019-0.1-1.1				GS-S-PWT020-0.1-1.1				GS-S-PWT021-0.1-1.1				GS-S-PWT22-0.1-1.1				GS-S-PWT102-0.1-1.1			
	Lab Sample Number				460-235250-2				460-234972-1				460-235250-3				460-235250-4				460-235398-1				460-235399-4				460-235399-5			
	Lab Report Number(s)				460-235250-1				460-234972-1				460-235250-1				460-235250-1				460-235398-1				460-235399-1				460-235399-1			
Analyte	CAS	Method	Units		Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)
4,4'-DDD	72-54-8	8081B	µg/L	0.011 (14)	0.006	U	0.02	0.006	0.006	U	0.02	0.006	0.006	U	0.02	0.006	0.006	U	0.02	0.006	0.006	U	0.02	0.006	0.006	U	0.02	0.006	0.006	U	0.02	0.006
4,4'-DDE	72-55-9	8081B	µg/L	4.51E-09 (12)	0.002	U	0.02	0.002	0.002	U	0.02	0.002	0.002	U	0.02	0.002	0.002	U	0.02	0.002	0.002	U	0.02	0.002	0.002	U	0.02	0.002	0.002	U	0.02	0.002
4,4'-DDT	50-29-3	8081B	µg/L	0.001 (12)	0.004	U	0.02	0.004	0.004	U	0.02	0.004	0.004	U	0.02	0.004	0.004	U	0.02	0.004	0.004	U	0.02	0.004	0.004	U	0.02	0.004	0.004	U	0.02	0.004
Aldrin	309-00-2	8081B	µg/L	0.017 (12)	0.003	U	0.02	0.003	0.003	U	0.02	0.003	0.003	U	0.02	0.003	0.003	U	0.02	0.003	0.003	U	0.02	0.003	0.003	U	0.02	0.003	0.003	U	0.02	0.003
alpha-BHC	319-84-6	8081B	µg/L	12.4 (12)	0.007	U	0.02	0.007	0.007	U	0.02	0.007	0.007	U	0.02	0.007	0.007	U	0.02	0.007	0.007	U	0.02	0.007	0.007	U	0.02	0.007	0.007	U	0.02	0.007
beta-BHC	319-85-7	8081B	µg/L	0.495 (12)	0.004	U	0.02	0.004	0.004	U	0.02	0.004	0.004	U	0.02	0.004	0.004	U	0.02	0.004	0.004	U	0.02	0.004	0.004	U	0.02	0.004	0.004	U	0.02	0.004
Chlordane (technical)	12789-03-6	8081B	µg/L	0.0043 (12)	0.055	U	0.5	0.055	0.055	U	0.5	0.055	0.055	U	0.5	0.055	0.055	U	0.5	0.055	0.055	U	0.5	0.055	0.055	U	0.5	0.055	0.055	U	0.5	0.055
delta-BHC	319-86-8	8081B	µg/L	2.2 (14)	0.005	U	0.02	0.005	0.005	U	0.02	0.005	0.005	U	0.02	0.005	0.005	U	0.02	0.005	0.005	U	0.02	0.005	0.005	U	0.02	0.005	0.005	U	0.02	0.005
Dieldrin	60-57-1	8081B	µg/L	0.056 (12)	0.003	U	0.02	0.003	0.003	U	0.02	0.003	0.003	U	0.02	0.003	0.003	U	0.02	0.003	0.003	U	0.02	0.003	0.003	U	0.02	0.003	0.003	U	0.02	0.003
Endosulfan I	959-98-8	8081B	µg/L	0.003 (14)	0.002	U	0.02	0.002	0.002	U	0.02	0.002	0.002	U	0.02	0.002	0.002	U	0.02	0.002	0.002	U	0.02	0.002	0.002	U	0.02	0.002	0.002	U	0.02	0.002
Endosulfan II	33213-65-9	8081B	µg/L	0.003 (14)	0.004	U	0.02	0.004	0.004	U	0.02	0.004	0.004	U	0.02	0.004	0.004	U	0.02	0.004	0.004	U	0.02	0.004	0.004	U	0.02	0.004	0.004	U	0.02	0.004
Endosulfan sulfate	1031-07-8	8081B	µg/L	2.22 (12)	0.006	U	0.02	0.006	0.006	U	0.02	0.006	0.006	U	0.02	0.006	0.006	U	0.02	0.006	0.006	U	0.02	0.006	0.006	U	0.02	0.006	0.006	U	0.02	0.006
Endrin	72-20-8	8081B	µg/L	0.036 (12)	0.004	U	0.02	0.004	0.004	U	0.02	0.004	0.004	U	0.02	0.004	0.004	U	0.02	0.004	0.004	U	0.02	0.004	0.004	U	0.02	0.004	0.004	U	0.02	0.004
Endrin aldehyde	7421-93-4	8081B	µg/L	0.15 (12)	0.008	U	0.02	0.008	0.008	U	0.02	0.008	0.008	U	0.02	0.008	0.008	U	0.02	0.008	0.008	U	0.02	0.008	0.008	U	0.02	0.008	0.008	U	0.02	0.008
Endrin ketone	53494-70-5	8081B	µg/L	0.036 (14)	0.008	U	0.02	0.008	0.008	U	0.02	0.008	0.008	U	0.02	0.008	0.008	U	0.02	0.008	0.008	U	0.02	0.008	0.008	U	0.02	0.008	0.008	U	0.02	0.008
gamma-BHC (Lindane)	58-89-9	8081B	µg/L	0.026 (12)	0.012	U	0.02	0.012	0.012	U	0.02	0.012	0.012	U	0.02	0.012	0.012	U	0.02	0.012	0.012	U	0.02	0.012	0.012	U	0.02	0.012	0.012	U	0.02	0.012
Heptachlor	76-44-8	8081B	µg/L	0.0038 (12)	0.003	U	0.02	0.003	0.003	U	0.02	0.003	0.003	U	0.02	0.003	0.003	U	0.02	0.003	0.003	U	0.02	0.003	0.003	U	0.02	0.003	0.003	U	0.02	0.003
Heptachlor epoxide	1024-57-3	8081B	µg/L	0.0038 (12)	0.005	U	0.02	0.005	0.005	U	0.02	0.005	0.005	U	0.02	0.005	0.005	U	0.02	0.005	0.005	U	0.02	0.005	0.005	U	0.02	0.005	0.005	U	0.02	0.005
Methoxychlor	72-43-5	8081B	µg/L	0.019 (14)	0.004	U	0.02	0.004	0.004	U	0.02	0.004	0.004	U	0.02	0.004	0.004	U	0.02	0.004	0.004	U	0.02	0.004	0.004	U	0.02	0.004	0.004	U	0.02	0.004
Toxaphene	8001-35-2	8081B	µg/L	0.0002 (12)	0.11	U	0.5	0.11	0.11	U	0.5	0.11	0.11	U	0.5	0.11	0.11	U	0.5	0.11	0.11	UJ	0.5	0.11	0.11	UJ	0.5	0.11	0.11	UJ	0.5	0.11

Table 5.21 - Pore Water: Pesticide Analytical Results

(continued)

Rolling Knolls Landfill

	Sample Name			ESC's	PW23_0.2-1.2				PW24_0.1-1.1				PW26_0.1-1.1				PW27_0.1-1.1				PW29_0.2-1.2				PW30_0.1-1.1				PW31_0.1-1.1			
	Sample Date/Time				05/21/2021 12:37				05/21/2021 13:08				05/23/2021 12:00				05/24/2021 09:00				05/24/2021 11:12				05/24/2021 11:30				05/24/2021 16:00			
	Latitude				40.7247828				40.72489946				40.72504571				40.72541272				40.7258865				40.72580561				40.7274107			
	Longitude				-74.44247662				-74.44253506				-74.44201259				-74.44125584				-74.44140482				-74.44119472				-74.43949673			
	Lab Sample Name			Screening	GS-S-PWT23-0.2-1.2				GS-S-PWT24-0.1-1.1				GS-S-PWT026-0.1-1.1				GS-S-PWT27-0.1-1.1				GS-S-PWT029-0.2-1.2				GS-S-PWT30-0.1-1.1				GS-S-PWT31.0-1-1.1			
	Lab Sample Number			Criteria	460-235398-2				460-235399-3				460-235399-1				460-235498-3				460-235438-1				460-235498-4				460-235438-2			
	Lab Report Number(s)				460-235398-1				460-235399-1				460-235399-1				460-235498-1				460-235438-1				460-235498-1				460-235438-1			
Analyte	CAS	Method	Units		Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)
4,4'-DDD	72-54-8	8081B	µg/L	0.011 (14)	0.006	U	0.02	0.006	0.006	U	0.02	0.006	0.006	U	0.02	0.006	0.006	U	0.02	0.006	0.006	U	0.02	0.006	0.006	U	0.02	0.006	0.006	U	0.02	0.006
4,4'-DDE	72-55-9	8081B	µg/L	4.51E-09 (12)	0.002	U	0.02	0.002	0.002	U	0.02	0.002	0.002	U	0.02	0.002	0.002	U	0.02	0.002	0.002	U	0.02	0.002	0.002	U	0.02	0.002	0.002	U	0.02	0.002
4,4'-DDT	50-29-3	8081B	µg/L	0.001 (12)	0.004	U	0.02	0.004	0.004	U	0.02	0.004	0.004	U	0.02	0.004	0.004	U	0.02	0.004	0.004	U	0.02	0.004	0.004	U	0.02	0.004	0.004	U	0.02	0.004
Aldrin	309-00-2	8081B	µg/L	0.017 (12)	0.003	U	0.02	0.003	0.003	U	0.02	0.003	0.003	U	0.02	0.003	0.003	U	0.02	0.003	0.003	U	0.02	0.003	0.003	U	0.02	0.003	0.003	U	0.02	0.003
alpha-BHC	319-84-6	8081B	µg/L	12.4 (12)	0.007	U	0.02	0.007	0.007	U	0.02	0.007	0.007	U	0.02	0.007	0.007	U	0.02	0.007	0.007	U	0.02	0.007	0.007	U	0.02	0.007	0.007	U	0.02	0.007
beta-BHC	319-85-7	8081B	µg/L	0.495 (12)	0.004	U	0.02	0.004	0.004	U	0.02	0.004	0.004	U	0.02	0.004	0.004	U	0.02	0.004	0.004	U	0.02	0.004	0.004	U	0.02	0.004	0.004	U	0.02	0.004
Chlordane (technical)	12789-03-6	8081B	µg/L	0.0043 (12)	0.055	U	0.5	0.055	0.055	U	0.5	0.055	0.055	U	0.5	0.055	0.055	U	0.5	0.055	0.055	U	0.5	0.055	0.055	U	0.5	0.055	0.055	U	0.5	0.055
delta-BHC	319-86-8	8081B	µg/L	2.2 (14)	0.005	U	0.02	0.005	0.005	U	0.02	0.005	0.005	U	0.02	0.005	0.005	U	0.02	0.005	0.005	U	0.02	0.005	0.005	U	0.02	0.005	0.005	U	0.02	0.005
Dieldrin	60-57-1	8081B	µg/L	0.056 (12)	0.003	U	0.02	0.003	0.003	U	0.02	0.003	0.003	U	0.02	0.003	0.003	U	0.02	0.003	0.003	U	0.02	0.003	0.003	U	0.02	0.003	0.003	U	0.02	0.003
Endosulfan I	959-98-8	8081B	µg/L	0.003 (14)	0.002	U	0.02	0.002	0.002	U	0.02	0.002	0.002	U	0.02	0.002	0.002	U	0.02	0.002	0.002	U	0.02	0.002	0.002	U	0.02	0.002	0.002	U	0.02	0.002
Endosulfan II	33213-65-9	8081B	µg/L	0.003 (14)	0.004	U	0.02	0.004	0.004	U	0.02	0.004	0.004	U	0.02	0.004	0.004	U	0.02	0.004	0.004	U	0.02	0.004	0.004	U	0.02	0.004	0.004	U	0.02	0.004
Endosulfan sulfate	1031-07-8	8081B	µg/L	2.22 (12)	0.006	U	0.02	0.006	0.006	U	0.02	0.006	0.006	U	0.02	0.006	0.006	U	0.02	0.006	0.006	U	0.02	0.006	0.006	U	0.02	0.006	0.006	U	0.02	0.006
Endrin	72-20-8	8081B	µg/L	0.036 (12)	0.004	U	0.02	0.004	0.004	U	0.02	0.004	0.004	U	0.02	0.004	0.004	U	0.02	0.004	0.004	U	0.02	0.004	0.004	U	0.02	0.004	0.004	U	0.02	0.004
Endrin aldehyde	7421-93-4	8081B	µg/L	0.15 (12)	0.008	U	0.02	0.008	0.008	U	0.02	0.008	0.008	U	0.02	0.008	0.008	U	0.02	0.008	0.008	U	0.02	0.008	0.008	U	0.02	0.008	0.008	U	0.02	0.008
Endrin ketone	53494-70-5	8081B	µg/L	0.036 (14)	0.008	U	0.02	0.008	0.008	U	0.02	0.008	0.008	U	0.02	0.008	0.008	U	0.02	0.008	0.008	U	0.02	0.008	0.008	U	0.02	0.008	0.008	U	0.02	0.008
gamma-BHC (Lindane)	58-89-9	8081B	µg/L	0.026 (12)	0.012	U	0.02	0.012	0.012	U	0.02	0.012	0.012	U	0.02	0.012	0.012	U	0.02	0.012	0.012	U	0.02	0.012	0.012	U	0.02	0.012	0.012	U	0.02	0.012
Heptachlor	76-44-8	8081B	µg/L	0.0038 (12)	0.003	U	0.02	0.003	0.003	U	0.02	0.003	0.003	U	0.02	0.003	0.003	U	0.02	0.003	0.003	U	0.02	0.003	0.003	U	0.02	0.003	0.003	U	0.02	0.003
Heptachlor epoxide	1024-57-3	8081B	µg/L	0.0038 (12)	0.005	U	0.02	0.005	0.005	U	0.02	0.005	0.005	U	0.02	0.005	0.005	U	0.02	0.005	0.005	U	0.02	0.005	0.005	U	0.02	0.005	0.005	U	0.02	0.005
Methoxychlor	72-43-5	8081B	µg/L	0.019 (14)	0.004	U	0.02	0.004	0.004	U	0.02	0.004	0.004	U	0.02	0.004	0.004	U	0.02	0.004	0.004	U	0.02	0.004	0.004	U	0.02	0.004	0.004	U	0.02	0.004
Toxaphene	8001-35-2	8081B	µg/L	0.0002 (12)	0.11	UJ	0.5	0.11	0.11	UJ	0.5	0.11	0.11	UJ	0.5	0.11	0.11	U	0.5	0.11	0.11	U	0.5	0.11	0.11	U	0.5	0.11	0.11	U	0.5	0.11

Table 5.21 - Pore Water: Pesticide Analytical Results

(continued)

Rolling Knolls Landfill

	Sample Name			ESC's	PW32_0.3-1.3				PW33_0.1-1.1				PW34_0.2-1.2				PW35_0.2-1.2				PW36_0.4-1.4				PW103_0.4-1.4 (PW36_0.4-1.4 duplicate)				PW37_0.2-1.2			
	Sample Date/Time				05/24/2021 17:00				05/25/2021 10:20				05/25/2021 12:06				05/25/2021 13:19				05/25/2021 16:08				05/25/2021 16:08				05/26/2021 10:18			
	Latitude				40.72740334				40.72829546				40.72830226				40.72937246				40.7301228				40.7301228				40.73049011			
	Longitude				-74.43971321				-74.44055948				-74.44017466				-74.440396				-74.44071487				-74.44071487				-74.44113923			
	Lab Sample Name			Screening Criteria	GS-N-PWT032-0.3-1.3				GS-N-PWT33_0.1-1.1				GS-N-PWT34-0.2-1.2				GS-N-PWT35-0.2-1.2				GS-N-PWT36-0.4-1.4				GS-N-PWT103-0.4-1.4				GS-N-PWT037-0.2-1.2			
	Lab Sample Number				460-235498-1				460-235492-1				460-235495-1				460-235495-2				460-235495-3				460-235495-4				460-235554-1			
	Lab Report Number(s)				460-235498-1				460-235492-1				460-235495-1				460-235495-1				460-235495-1				460-235495-1				460-235554-1			
Analyte	CAS	Method	Units		Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)
4,4'-DDD	72-54-8	8081B	µg/L	0.011 (14)	0.006	U	0.02	0.006	0.006	U	0.02	0.006	0.006	U	0.02	0.006	0.006	U	0.02	0.006	0.006	U	0.02	0.006	0.006	U	0.02	0.006	0.006	U	0.02	0.006
4,4'-DDE	72-55-9	8081B	µg/L	4.51E-09 (12)	0.002	U	0.02	0.002	0.002	U	0.02	0.002	0.002	U	0.02	0.002	0.002	U	0.02	0.002	0.002	U	0.02	0.002	0.002	U	0.02	0.002	0.002	U	0.02	0.002
4,4'-DDT	50-29-3	8081B	µg/L	0.001 (12)	0.004	U	0.02	0.004	0.004	U	0.02	0.004	0.004	U	0.02	0.004	0.004	U	0.02	0.004	0.004	U	0.02	0.004	0.004	U	0.02	0.004	0.004	U	0.02	0.004
Aldrin	309-00-2	8081B	µg/L	0.017 (12)	0.003	U	0.02	0.003	0.003	U	0.02	0.003	0.003	U	0.02	0.003	0.003	U	0.02	0.003	0.003	U	0.02	0.003	0.003	U	0.02	0.003	0.003	U	0.02	0.003
alpha-BHC	319-84-6	8081B	µg/L	12.4 (12)	0.007	U	0.02	0.007	0.007	U	0.02	0.007	0.007	U	0.02	0.007	0.007	U	0.02	0.007	0.007	U	0.02	0.007	0.007	U	0.02	0.007	0.007	U	0.02	0.007
beta-BHC	319-85-7	8081B	µg/L	0.495 (12)	0.004	U	0.02	0.004	0.004	U	0.02	0.004	0.004	U	0.02	0.004	0.004	U	0.02	0.004	0.004	U	0.02	0.004	0.004	U	0.02	0.004	0.004	U	0.02	0.004
Chlordane (technical)	12789-03-6	8081B	µg/L	0.0043 (12)	0.055	U	0.5	0.055	0.055	U	0.5	0.055	0.055	U	0.5	0.055	0.055	U	0.5	0.055	0.055	U	0.5	0.055	0.055	U	0.5	0.055	0.055	U	0.5	0.055
delta-BHC	319-86-8	8081B	µg/L	2.2 (14)	0.005	U	0.02	0.005	0.005	U	0.02	0.005	0.005	U	0.02	0.005	0.005	U	0.02	0.005	0.005	U	0.02	0.005	0.005	U	0.02	0.005	0.005	U	0.02	0.005
Dieldrin	60-57-1	8081B	µg/L	0.056 (12)	0.003	U	0.02	0.003	0.003	U	0.02	0.003	0.003	U	0.02	0.003	0.003	U	0.02	0.003	0.003	U	0.02	0.003	0.003	U	0.02	0.003	0.003	U	0.02	0.003
Endosulfan I	959-98-8	8081B	µg/L	0.003 (14)	0.002	U	0.02	0.002	0.002	U	0.02	0.002	0.002	U	0.02	0.002	0.002	U	0.02	0.002	0.002	U	0.02	0.002	0.002	U	0.02	0.002	0.002	U	0.02	0.002
Endosulfan II	33213-65-9	8081B	µg/L	0.003 (14)	0.004	U	0.02	0.004	0.004	U	0.02	0.004	0.004	U	0.02	0.004	0.004	U	0.02	0.004	0.004	U	0.02	0.004	0.004	U	0.02	0.004	0.004	U	0.02	0.004
Endosulfan sulfate	1031-07-8	8081B	µg/L	2.22 (12)	0.006	U	0.02	0.006	0.006	U	0.02	0.006	0.006	U	0.02	0.006	0.006	U	0.02	0.006	0.006	U	0.02	0.006	0.006	U	0.02	0.006	0.006	U	0.02	0.006
Endrin	72-20-8	8081B	µg/L	0.036 (12)	0.004	U	0.02	0.004	0.004	U	0.02	0.004	0.004	U	0.02	0.004	0.004	U	0.02	0.004	0.004	U	0.02	0.004	0.004	U	0.02	0.004	0.004	U	0.02	0.004
Endrin aldehyde	7421-93-4	8081B	µg/L	0.15 (12)	0.008	U	0.02	0.008	0.008	U	0.02	0.008	0.008	U	0.02	0.008	0.008	U	0.02	0.008	0.008	U	0.02	0.008	0.008	U	0.02	0.008	0.008	U	0.02	0.008
Endrin ketone	53494-70-5	8081B	µg/L	0.036 (14)	0.008	U	0.02	0.008	0.008	U	0.02	0.008	0.008	U	0.02	0.008	0.008	U	0.02	0.008	0.008	U	0.02	0.008	0.008	U	0.02	0.008	0.008	U	0.02	0.008
gamma-BHC (Lindane)	58-89-9	8081B	µg/L	0.026 (12)	0.012	U	0.02	0.012	0.012	U	0.02	0.012	0.012	U	0.02	0.012	0.012	U	0.02	0.012	0.012	U	0.02	0.012	0.012	U	0.02	0.012	0.012	U	0.02	0.012
Heptachlor	76-44-8	8081B	µg/L	0.0038 (12)	0.003	U	0.02	0.003	0.003	U	0.02	0.003	0.003	U	0.02	0.003	0.003	U	0.02	0.003	0.003	U	0.02	0.003	0.003	U	0.02	0.003	0.003	U	0.02	0.003
Heptachlor epoxide	1024-57-3	8081B	µg/L	0.0038 (12)	0.005	U	0.02	0.005	0.005	U	0.02	0.005	0.005	U	0.02	0.005	0.005	U	0.02	0.005	0.005	U	0.02	0.005	0.005	U	0.02	0.005	0.005	U	0.02	0.005
Methoxychlor	72-43-5	8081B	µg/L	0.019 (14)	0.004	U	0.02	0.004	0.004	U	0.02	0.004	0.004	U	0.02	0.004	0.004	U	0.02	0.004	0.004	U	0.02	0.004	0.004	U	0.02	0.004	0.004	U	0.02	0.004
Toxaphene	8001-35-2	8081B	µg/L	0.0002 (12)	0.11	U	0.5	0.11	0.11	U	0.5	0.11	0.11	U	0.5	0.11	0.11	U	0.5	0.11	0.11	U	0.5	0.11	0.11	U	0.5	0.11	0.11	U	0.5	0.11

Table 5.21 - Pore Water: Pesticide Analytical Results

(continued)

Rolling Knolls Landfill

	Sample Name			ESC's	PW41_0.2-1.2				PW42_0.1-1.1				PW43_0.4-1.4				PW44_0.1-1.1				PW45_0.1-1.1				PW100_0.1-1.1 (PW45_0.1-1.1 duplicate)				PW46_0.3-1.3			
	Sample Date/Time				05/27/2021 10:44				05/27/2021 10:50				05/27/2021 13:00				06/01/2021 11:05				06/01/2021 13:50				06/01/2021 13:50				06/02/2021 10:20			
	Latitude				40.72630201				40.7267825				40.72743339				40.72381503				40.72413479				40.72413479				40.72975399			
	Longitude				-74.44023138				-74.4399115				-74.44007544				-74.44982242				-74.4444308				-74.4444308				-74.44129459			
	Lab Sample Name			Screening Criteria	GS-N-PWT41-0.2-1.2				GS-N-PWT42-0.1-1.1				GS-N-PWT43-0.4-1.4				GS-S-PWT44-0.1-1.1				GS-S-PWT45-0.1-1.1				GS-S-PWT100-0.1-1.1				GS-N-PWT46-0.3-1.3			
	Lab Sample Number				460-235584-1				460-235584-2				460-235584-3				460-235699-1				460-235699-2				460-235699-3				460-235933-1			
	Lab Report Number(s)				460-235584-1				460-235584-1				460-235584-1				460-235699-1				460-235699-1				460-235699-1				460-235933-1			
Analyte	CAS	Method	Units		Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)
4,4'-DDD	72-54-8	8081B	µg/L	0.011 (14)	0.006	U	0.02	0.006	0.006	U	0.02	0.006	0.006	U	0.02	0.006	0.006	U	0.02	0.006	0.006	U	0.02	0.006	0.006	U	0.02	0.006	0.006	U	0.02	0.006
4,4'-DDE	72-55-9	8081B	µg/L	4.51E-09 (12)	0.002	U	0.02	0.002	0.002	U	0.02	0.002	0.002	U	0.02	0.002	0.002	U	0.02	0.002	0.002	U	0.02	0.002	0.002	U	0.02	0.002	0.002	U	0.02	0.002
4,4'-DDT	50-29-3	8081B	µg/L	0.001 (12)	0.004	U	0.02	0.004	0.004	U	0.02	0.004	0.004	U	0.02	0.004	0.004	U	0.02	0.004	0.004	U	0.02	0.004	0.004	U	0.02	0.004	0.004	U	0.02	0.004
Aldrin	309-00-2	8081B	µg/L	0.017 (12)	0.003	U	0.02	0.003	0.003	U	0.02	0.003	0.003	U	0.02	0.003	0.003	U	0.02	0.003	0.003	U	0.02	0.003	0.003	U	0.02	0.003	0.003	U	0.02	0.003
alpha-BHC	319-84-6	8081B	µg/L	12.4 (12)	0.007	U	0.02	0.007	0.007	U	0.02	0.007	0.007	U	0.02	0.007	0.007	U	0.02	0.007	0.007	U	0.02	0.007	0.007	U	0.02	0.007	0.007	U	0.02	0.007
beta-BHC	319-85-7	8081B	µg/L	0.495 (12)	0.004	U	0.02	0.004	0.004	U	0.02	0.004	0.004	U	0.02	0.004	0.004	U	0.02	0.004	0.004	U	0.02	0.004	0.004	U	0.02	0.004	0.004	U	0.02	0.004
Chlordane (technical)	12789-03-6	8081B	µg/L	0.0043 (12)	0.055	U	0.5	0.055	0.055	U	0.5	0.055	0.055	U	0.5	0.055	0.055	U	0.5	0.055	0.055	U	0.5	0.055	0.055	U	0.5	0.055	0.055	U	0.5	0.055
delta-BHC	319-86-8	8081B	µg/L	2.2 (14)	0.005	U	0.02	0.005	0.005	U	0.02	0.005	0.005	U	0.02	0.005	0.005	U	0.02	0.005	0.005	U	0.02	0.005	0.005	U	0.02	0.005	0.005	U	0.02	0.005
Dieldrin	60-57-1	8081B	µg/L	0.056 (12)	0.003	U	0.02	0.003	0.003	U	0.02	0.003	0.003	U	0.02	0.003	0.003	U	0.02	0.003	0.003	U	0.02	0.003	0.003	U	0.02	0.003	0.003	U	0.02	0.003
Endosulfan I	959-98-8	8081B	µg/L	0.003 (14)	0.002	U	0.02	0.002	0.002	U	0.02	0.002	0.002	U	0.02	0.002	0.002	U	0.02	0.002	0.002	U	0.02	0.002	0.002	U	0.02	0.002	0.002	U	0.02	0.002
Endosulfan II	33213-65-9	8081B	µg/L	0.003 (14)	0.004	U	0.02	0.004	0.004	U	0.02	0.004	0.004	U	0.02	0.004	0.004	U	0.02	0.004	0.004	U	0.02	0.004	0.004	U	0.02	0.004	0.004	U	0.02	0.004
Endosulfan sulfate	1031-07-8	8081B	µg/L	2.22 (12)	0.006	U	0.02	0.006	0.006	U	0.02	0.006	0.006	U	0.02	0.006	0.006	U	0.02	0.006	0.006	U	0.02	0.006	0.006	U	0.02	0.006	0.006	U	0.02	0.006
Endrin	72-20-8	8081B	µg/L	0.036 (12)	0.004	U	0.02	0.004	0.004	U	0.02	0.004	0.004	U	0.02	0.004	0.004	U	0.02	0.004	0.004	U	0.02	0.004	0.004	U	0.02	0.004	0.004	U	0.02	0.004
Endrin aldehyde	7421-93-4	8081B	µg/L	0.15 (12)	0.008	U	0.02	0.008	0.008	U	0.02	0.008	0.008	U	0.02	0.008	0.008	U	0.02	0.008	0.008	U	0.02	0.008	0.008	U	0.02	0.008	0.008	U	0.02	0.008
Endrin ketone	53494-70-5	8081B	µg/L	0.036 (14)	0.008	U	0.02	0.008	0.008	U	0.02	0.008	0.008	U	0.02	0.008	0.008	U	0.02	0.008	0.008	U	0.02	0.008	0.008	U	0.02	0.008	0.008	U	0.02	0.008
gamma-BHC (Lindane)	58-89-9	8081B	µg/L	0.026 (12)	0.012	U	0.02	0.012	0.012	U	0.02	0.012	0.012	U	0.02	0.012	0.012	U	0.02	0.012	0.012	U	0.02	0.012	0.012	U	0.02	0.012	0.012	U	0.02	0.012
Heptachlor	76-44-8	8081B	µg/L	0.0038 (12)	0.003	U	0.02	0.003	0.003	U	0.02	0.003	0.003	U	0.02	0.003	0.003	U	0.02	0.003	0.003	U	0.02	0.003	0.003	U	0.02	0.003	0.003	U	0.02	0.003
Heptachlor epoxide	1024-57-3	8081B	µg/L	0.0038 (12)	0.005	U	0.02	0.005	0.005	U	0.02	0.005	0.005	U	0.02	0.005	0.005	U	0.02	0.005	0.005	U	0.02	0.005	0.005	U	0.02	0.005	0.005	U	0.02	0.005
Methoxychlor	72-43-5	8081B	µg/L	0.019 (14)	0.004	U	0.02	0.004	0.004	U	0.02	0.004	0.004	U	0.02	0.004	0.004	U	0.02	0.004	0.004	U	0.02	0.004	0.004	U	0.02	0.004	0.004	U	0.02	0.004
Toxaphene	8001-35-2	8081B	µg/L	0.0002 (12)	0.11	U	0.5	0.11	0.11	U	0.5	0.11	0.11	U	0.5	0.11	0.11	U	0.5	0.11	0.11	U	0.5	0.11	0.11	U	0.5	0.11	0.11	U	0.5	0.11

Table 5.21 - Pore Water: Pesticide Analytical Results (continued)

Rolling Knolls Landfill

	Sample Name			ESC's	PW101_0.3-1.3 (PW46-0.3-1.3 duplicate)				PW47_0.1-1.1			
	Sample Date/Time				06/02/2021 10:20				06/02/2021 12:50			
	Latitude				40.72975399				40.73048521			
	Longitude				-74.44129459				-74.44164343			
	Lab Sample Name			Screening Criteria	GS-N-PWT101-0.3-1.3				GS-PWT47-0.1-1.1			
	Lab Sample Number				460-235933-2				460-235933-3			
	Lab Report Number(s)				460-235933-1				460-235933-1			
Analyte	CAS	Method	Units		Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)
4,4'-DDD	72-54-8	8081B	µg/L	0.011 (14)	0.006	U	0.02	0.006	0.006	U	0.02	0.006
4,4'-DDE	72-55-9	8081B	µg/L	4.51E-09 (12)	0.002	U	0.02	0.002	0.002	U	0.02	0.002
4,4'-DDT	50-29-3	8081B	µg/L	0.001 (12)	0.004	U	0.02	0.004	0.004	U	0.02	0.004
Aldrin	309-00-2	8081B	µg/L	0.017 (12)	0.003	U	0.02	0.003	0.003	U	0.02	0.003
alpha-BHC	319-84-6	8081B	µg/L	12.4 (12)	0.007	U	0.02	0.007	0.007	U	0.02	0.007
beta-BHC	319-85-7	8081B	µg/L	0.495 (12)	0.004	U	0.02	0.004	0.004	U	0.02	0.004
Chlordane (technical)	12789-03-6	8081B	µg/L	0.0043 (12)	0.055	U	0.5	0.055	0.055	U	0.5	0.055
delta-BHC	319-86-8	8081B	µg/L	2.2 (14)	0.005	U	0.02	0.005	0.005	U	0.02	0.005
Dieldrin	60-57-1	8081B	µg/L	0.056 (12)	0.003	U	0.02	0.003	0.003	U	0.02	0.003
Endosulfan I	959-98-8	8081B	µg/L	0.003 (14)	0.002	U	0.02	0.002	0.002	U	0.02	0.002
Endosulfan II	33213-65-9	8081B	µg/L	0.003 (14)	0.004	U	0.02	0.004	0.004	U	0.02	0.004
Endosulfan sulfate	1031-07-8	8081B	µg/L	2.22 (12)	0.006	U	0.02	0.006	0.006	U	0.02	0.006
Endrin	72-20-8	8081B	µg/L	0.036 (12)	0.004	U	0.02	0.004	0.004	U	0.02	0.004
Endrin aldehyde	7421-93-4	8081B	µg/L	0.15 (12)	0.008	U	0.02	0.008	0.008	U	0.02	0.008
Endrin ketone	53494-70-5	8081B	µg/L	0.036 (14)	0.008	U	0.02	0.008	0.008	U	0.02	0.008
gamma-BHC (Lindane)	58-89-9	8081B	µg/L	0.026 (12)	0.012	U	0.02	0.012	0.012	U	0.02	0.012
Heptachlor	76-44-8	8081B	µg/L	0.0038 (12)	0.003	U	0.02	0.003	0.003	U	0.02	0.003
Heptachlor epoxide	1024-57-3	8081B	µg/L	0.0038 (12)	0.005	U	0.02	0.005	0.005	U	0.02	0.005
Methoxychlor	72-43-5	8081B	µg/L	0.019 (14)	0.004	U	0.02	0.004	0.004	U	0.02	0.004
Toxaphene	8001-35-2	8081B	µg/L	0.0002 (12)	0.11	U	0.5	0.11	0.11	U	0.5	0.11

Table 5.22 - Pore Water: PFOA / PFAS Analytical Results

Rolling Knolls Landfill

Sample Name				ESC's		PW43_0.4-1.4				PW44_0.1-1.1				PW45_0.1-1.1				PW100_0.1-1.1 (PW45_0.1-1.1 duplicate)				PW46_0.3-1.3				PW101_0.3-1.3 (PW46-0.3-1.3 duplicate)				PW47_0.1-1.1			
Sample Date/Time					(16) N.J.A.C. 7:9C GWQS	05/27/2021 13:00				06/01/2021 11:05				06/01/2021 13:50				06/01/2021 13:50				06/02/2021 10:20				06/02/2021 10:20				06/02/2021 12:50			
Latitude						40.72743339				40.72381503				40.72413479				40.72413479				40.72975399				40.72975399				40.73048521			
Longitude						-74.44007544				-74.44982242				-74.4444308				-74.4444308				-74.44129459				-74.44129459				-74.44164343			
Lab Sample Name						GS-N-PWT43-0.4-1.4				GS-S-PWT44-0.1-1.1				GS-S-PWT45-0.1-1.1				GS-S-PWT100-0.1-1.1				GS-N-PWT46-0.3-1.3				GS-N-PWT101-0.3-1.3				GS-PWT47-0.1-1.1			
Lab Sample Number						460-235584-3				460-235699-1				460-235699-2				460-235699-3				460-235933-1				460-235933-2				460-235933-3			
Lab Report Number(s)				Screening Criteria		460-235584-1				460-235699-1				460-235699-1				460-235699-1				460-235933-1				460-235933-1				460-235933-1			
Analyte	**CAS**	**Method**	**Units**			**Result**	**LDC Flag**	**RL**	**MDL (EDL)**	**Result**	**LDC Flag**	**RL**	**MDL (EDL)**	**Result**	**LDC Flag**	**RL**	**MDL (EDL)**	**Result**	**LDC Flag**	**RL**	**MDL (EDL)**	**Result**	**LDC Flag**	**RL**	**MDL (EDL)**	**Result**	**LDC Flag**	**RL**	**MDL (EDL)**	**Result**	**LDC Flag**	**RL**	**MDL (EDL)**
6:2 FTS	27619-97-2	537	ng/L			2.04	UJ	4.08	2.04	2.13	UJ	4.25	2.13	22.5	UJ	44.9	22.5	23.5	UJ	46.9	23.5	2.16	UJ	4.33	2.16	2.2	UJ	4.39	2.2	2.21	UJ	4.42	2.21
8:2 FTS	39108-34-4	537	ng/L			0.38	U	1.63	0.38	0.39	UJ	1.7	0.39	4.14	U	18	4.14	4.32	U	18.8	4.32	0.4	UJ	1.73	0.4	0.4	UJ	1.76	0.4	0.41	UJ	1.77	0.41
NEtFOSAA	2991-50-6	537	ng/L			1.06	U	4.08	1.06	1.11	U	4.25	1.11	11.7	U	44.9	11.7	12.2	U	46.9	12.2	1.12	UJ	4.33	1.12	**2.97**	J	4.39	1.14	**3.19**	J	4.42	1.15
NMeFOSAA	2355-31-9	537	ng/L			0.98	U	4.08	0.98	1.02	U	4.25	1.02	10.8	U	44.9	10.8	11.3	U	46.9	11.3	1.04	UJ	4.33	1.04	1.05	UJ	4.39	1.05	1.06	UJ	4.42	1.06
Perfluorobutanesulfonic acid (PFBS)	375-73-5	537	ng/L	3400000 (13)		6.02		1.63	0.16	2.52		1.7	0.17	3.53	J	18	1.8	3.31	J	18.8	1.88	3.47	J	1.73	0.17	3.73	J	1.76	0.18	3.82	J	1.77	0.18
Perfluorobutanoic acid (PFBA)	375-22-4	537	ng/L	470000 (13)		17.5		4.08	1.96	7.1		4.25	2.04	21.6	U	44.9	21.6	22.5	U	46.9	22.5	11.4	J	4.33	2.08	10.3	J	4.39	2.11	10.4	J	4.42	2.12
Perfluorodecanesulfonic acid (PFDS)	335-77-3	537	ng/L			0.26	U	1.63	0.26	0.27	U	1.7	0.27	2.88	U	18	2.88	3	U	18.8	3	0.28	UJ	1.73	0.28	0.28	UJ	1.76	0.28	0.28	UJ	1.77	0.28
Perfluorodecanoic acid (PFDA)	335-76-2	537	ng/L	140000 (13)		0.64	J	1.63	0.25	0.49	J	1.7	0.26	2.79	U	18	2.79	2.91	U	18.8	2.91	0.47	J	1.73	0.27	0.42	J	1.76	0.27	0.53	J	1.77	0.27
Perfluorododecanoic acid (PFDoA)	307-55-1	537	ng/L	72000 (13)		0.45	U	1.63	0.45	0.47	U	1.7	0.47	4.94	U	18	4.94	5.16	U	18.8	5.16	0.48	UJ	1.73	0.48	0.48	UJ	1.76	0.48	0.49	UJ	1.77	0.49
Perfluoroheptanesulfonic Acid (PFHpS)	375-92-8	537	ng/L			**6.46**		1.63	0.16	**1.96**		1.7	0.16	**11.7**	J	18	1.71	**10.8**	J	18.8	1.78	**4.21**	J	1.73	0.16	**6.68**	J	1.76	0.17	**6.68**	J	1.77	0.17
Perfluoroheptanoic acid (PFHpA)	375-85-9	537	ng/L	870000 (13)		6.76		1.63	0.2	5.02		1.7	0.21	7.41	J	18	2.25	8.27	J	18.8	2.35	6.62	J	1.73	0.22	4.87	J	1.76	0.22	4.94	J	1.77	0.22
Perfluorohexanesulfonic acid (PFHxS)	355-46-4	537	ng/L			**21.3**		1.63	0.47	**7.11**		1.7	0.48	**29.1**		18	5.12	**29.5**		18.8	5.35	**11.8**	J	1.73	0.49	**15.4**	J	1.76	0.5	**15.9**	J	1.77	0.5
Perfluorohexanoic acid (PFHxA)	307-24-4	537	ng/L	2300000 (13)		6.33		1.63	0.47	4.38		1.7	0.49	5.73	J	18	5.21	5.44	U	18.8	5.44	4.9	J	1.73	0.5	4.45	J	1.76	0.51	4.2	J	1.77	0.51
Perfluorononanoic acid (PFNA)	375-95-1	537	ng/L	120000 (13)	13	4		1.63	0.22	1.99		1.7	0.23	2.43	U	18	2.43	2.66	J	18.8	2.53	2.65	J	1.73	0.23	3.26	J	1.76	0.24	3.25	J	1.77	0.24
Perfluorooctanesulfonamide (FOSA)	754-91-6	537	ng/L			0.8	U	1.63	0.8	0.83	U	1.7	0.83	8.81	U	18	8.81	9.2	U	18.8	9.2	0.85	UJ	1.73	0.85	**1.02**	J	1.76	0.86	**1.09**	J	1.77	0.87
Perfluorooctanesulfonic acid (PFOS)	1763-23-1	537	ng/L	51000 (13)	13	209		1.63	0.44	108		1.7	0.46	1130		18	4.85	1100		18.8	5.07	179	J	1.73	0.47	274	J	1.76	0.47	269	J	1.77	0.48
Perfluorooctanoic acid (PFOA)	335-67-1	537	ng/L	3900000 (13)	14	65.9		1.63	0.69	43.2		1.7	0.72	111		18	7.64	109		18.8	7.98	33.9	J	1.73	0.74	40.3	J	1.76	0.75	38.7	J	1.77	0.75
Perfluoropentanoic acid (PFPeA)	2706-90-3	537	ng/L	140000 (13)		5.11		1.63	0.4	2.98		1.7	0.42	4.73	J	18	4.4	4.92	J	18.8	4.6	4.56	J	1.73	0.42	3.49	J	1.76	0.43	3.78	J	1.77	0.43
Perfluorotetradecanoic acid (PFTeA)	376-06-7	537	ng/L			0.6	U	1.63	0.6	0.62	U	1.7	0.62	6.56	U	18	6.56	6.85	U	18.8	6.85	0.63	UJ	1.73	0.63	0.64	UJ	1.76	0.64	0.65	UJ	1.77	0.65
Perfluorotridecanoic acid (PFTrDA)	72629-94-8	537	ng/L			1.06	U	1.63	1.06	1.11	U	1.7	1.11	11.7	U	18	11.7	12.2	U	18.8	12.2	1.12	UJ	1.73	1.12	1.14	UJ	1.76	1.14	1.15	UJ	1.77	1.15
Perfluoroundecanoic acid (PFUnA)	2058-94-8	537	ng/L	49000 (13)		0.9	U	1.63	0.9	0.94	U	1.7	0.94	9.89	U	18	9.89	10.3	U	18.8	10.3	0.95	UJ	1.73	0.95	0.97	UJ	1.76	0.97	0.97	UJ	1.77	0.97

Table 5.23 - Pore Water: Summary of Exceedances

Rolling Knolls Landfill

	Sample Name			ESC's		PW01_1.5-2.5				PW02_1.5-2.5				PW03_1.5-2.5				PW04_1.0-2.0			
	Sample Date/Time					05/14/2021 15:00				05/16/2021 15:00				05/14/2021 17:05				05/16/2021 10:15			
	Latitude				(16) N.J.A.C. 7:9C GWQS	40.72335535				40.72342503				40.72348017				40.72314304			
	Longitude					-74.4485393				-74.44713409				-74.44733933				-74.44743098			
	Lab Sample Name			Screening Criteria		GS-S-PWT01-1.5-2.5				GS-S-PWT02-1.5-2.5				GS-S-PWT03-1.5-2.5				GS-S-PWD04-1.0-2.0			
	Lab Sample Number					460-234559-1				460-234561-3				460-234559-2				460-234561-4			
	Lab Report Number(s)					460-234559-1				460-234561-1				460-234559-1				460-234561-1			
Analyte	CAS	Method	Units			Result	LDC Flag	RL	MDL (EDL)	ESC	Result	LDC Flag	RL	MDL (EDL)	ESC	Result	LDC Flag	RL	MDL (EDL)	ESC	Result	LDC Flag	RL	MDL (EDL)	ESC
Semivolatile Organic Compounds (SVOCs)																									
Bis(2-ethylhexyl) phthalate	117-81-7	8270E	mg/L	0.0003 (12)		0.0008	U	0.002	0.0008	0.0003	0.0008	U	0.002	0.0008	0.0003	0.0008	U	0.002	0.0008	0.0003					
Polycyclic Aromatic Hydrocarbons (PAHs)																									
Anthracene	120-12-7	8270E	mg/L	0.000035 (12)		0.0013	U	0.01	0.0013	0.000035	0.0013	U	0.01	0.0013	0.000035	0.0013	U	0.01	0.0013	0.000035					
Benzo[a]anthracene	56-55-3	8270E SIM	mg/L	0.000025 (12)		0.00059	U	0.001	0.00059	0.000025	0.00059	U	0.001	0.00059	0.000025	0.00059	U	0.001	0.00059	0.000025					
Benzo[a]pyrene	50-32-8	8270E SIM	mg/L	0.000014 (12)		0.00041	UJ	0.001	0.00041	0.000014	0.00041	U	0.001	0.00041	0.000014	0.00041	UJ	0.001	0.00041	0.000014					
Benzo[k]fluoranthene	207-08-9	8270E SIM	mg/L	0.0000041 (14)		0.00067	U	0.001	0.00067	0.0000041	0.00067	U	0.001	0.00067	0.0000041	0.00067	U	0.001	0.00067	0.0000041					
Chrysene	218-01-9	8270E	mg/L	0.0000018 (14)		0.00091	U	0.002	0.00091	0.0000018	0.00091	U	0.002	0.00091	0.0000018	0.00091	U	0.002	0.00091	0.0000018					
Dibenz(a,h)anthracene	53-70-3	8270E SIM	mg/L	0.0000034 (14)		0.00072	U	0.001	0.00072	0.0000034	0.00072	U	0.001	0.00072	0.0000034	0.00072	U	0.001	0.00072	0.0000034					
Polyfluorinated Alkyl Substances (PFAS)																									
Perfluorooctanesulfonic acid (PFOS)	1763-23-1	537	ng/L	51000 (13)	13																				
Perfluorooctanoic acid (PFOA)	335-67-1	537	ng/L	3900000 (13)	14																				
Metals and Cyanide (Total)																									
Barium	7440-39-3	6020B	µg/L	220 (12)		185		4	0.91		**399**		4	0.91		**337**		4	0.91						
Silver	7440-22-4	6020B	µg/L	0.12 (12)		0.29	U	2	0.29		0.29	U	2	0.29		0.29	U	2	0.29						
Cyanide, Total	57-12-5	9012B	mg/L	0.0052 (12)		0.005	U	0.01	0.005		0.005	U	0.01	0.005		**0.032**		0.01	0.005						
Metals (Dissolved)																									
Barium	7440-39-3	6020B	µg/L	220 (12)		185		4	0.91	220	**418**		4	0.91	220	**234**		4	0.91	220	158		4	0.91	220
Iron	7439-89-6	6020B	µg/L	158 (14)		**1030**		120	58.2	158	**27200**		120	58.2	158	58.2	U	120	58.2	158	58.2	U	120	58.2	158
Lead	7439-92-1	6020B	µg/L	5.4 (12)		0.84	U	1.2	0.84	5.4	0.84	U	1.2	0.84	5.4	0.84	U	1.2	0.84	5.4	0.84	U	1.2	0.84	5.4
Manganese	7439-96-5	6020B	µg/L	112 (14)		**186**		8	1.5	112	**271**		8	1.5	112	48.6		8	1.5	112	3.2	J	8	1.5	112

Table 5.23 - Pore Water: Summary of Exceedances

(continued)

Rolling Knolls Landfill

Sample Name				ESC's		PW05_1.0-2.0				PW06.1_1.0-2.0				PW06.2_0.1-1.1				PW07_0.1-1.1			
Sample Date/Time						05/16/2021 11:05				05/16/2021 13:20				05/17/2021 09:25				05/17/2021 10:31			
Latitude					(16) N.J.A.C. 7:9C GWQS	40.72273853				40.72279294				40.72246175				40.72236214			
Longitude						-74.44624019				-74.44605059				-74.44573414				-74.44587602			
Lab Sample Name				Screening Criteria		GS-S-PWT05-1.0-2.0				GS-S-PWT06-1.0-2.0				GS-S-PWT06_0.1-1.1				GS-S-PWT07_0.1-1.1			
Lab Sample Number						460-234561-2				460-234561-1				460-234970-1				460-234970-2			
Lab Report Number(s)						460-234561-1				460-234561-1				460-234970-1				460-234970-1			
Analyte	**CAS**	**Method**	**Units**			**Result**	**LDC Flag**	**RL**	**MDL (EDL)**	**ESC**	**Result**	**LDC Flag**	**RL**	**MDL (EDL)**	**ESC**	**Result**	**LDC Flag**	**RL**	**MDL (EDL)**	**ESC**	**Result**	**LDC Flag**	**RL**	**MDL (EDL)**	**ESC**
Semivolatile Organic Compounds (SVOCs)																									
Bis(2-ethylhexyl) phthalate	117-81-7	8270E	mg/L	0.0003 (12)		0.0008	UJ	0.002	0.0008	0.0003	0.0008	U	0.002	0.0008	0.0003	0.0008	U	0.002	0.0008	0.0003	0.0008	U	0.002	0.0008	0.0003
Polycyclic Aromatic Hydrocarbons (PAHs)																									
Anthracene	120-12-7	8270E	mg/L	0.000035 (12)		0.0013	UJ	0.01	0.0013	0.000035	0.0013	U	0.01	0.0013	0.000035	0.0013	U	0.01	0.0013	0.000035	0.0013	U	0.01	0.0013	0.000035
Benzo[a]anthracene	56-55-3	8270E SIM	mg/L	0.000025 (12)		0.00059	UJ	0.001	0.00059	0.000025	0.00059	U	0.001	0.00059	0.000025	0.00059	U	0.001	0.00059	0.000025	0.00059	U	0.001	0.00059	0.000025
Benzo[a]pyrene	50-32-8	8270E SIM	mg/L	0.000014 (12)		0.00041	UJ	0.001	0.00041	0.000014	0.00041	U	0.001	0.00041	0.000014	0.00041	UJ	0.001	0.00041	0.000014	0.00041	UJ	0.001	0.00041	0.000014
Benzo[k]fluoranthene	207-08-9	8270E SIM	mg/L	0.0000041 (14)		0.00067	UJ	0.001	0.00067	0.0000041	0.00067	U	0.001	0.00067	0.0000041	0.00067	U	0.001	0.00067	0.0000041	0.00067	U	0.001	0.00067	0.0000041
Chrysene	218-01-9	8270E	mg/L	0.0000018 (14)		0.00091	UJ	0.002	0.00091	0.0000018	0.00091	U	0.002	0.00091	0.0000018	0.00091	UJ	0.002	0.00091	0.0000018	0.00091	UJ	0.002	0.00091	0.0000018
Dibenz(a,h)anthracene	53-70-3	8270E SIM	mg/L	0.0000034 (14)		0.00072	UJ	0.001	0.00072	0.0000034	0.00072	U	0.001	0.00072	0.0000034	0.00072	U	0.001	0.00072	0.0000034	0.00072	U	0.001	0.00072	0.0000034
Polyfluorinated Alkyl Substances (PFAS)																									
Perfluorooctanesulfonic acid (PFOS)	1763-23-1	537	ng/L	51000 (13)	13																				
Perfluorooctanoic acid (PFOA)	335-67-1	537	ng/L	3900000 (13)	14																				
Metals and Cyanide (Total)																									
Barium	7440-39-3	6020B	µg/L	220 (12)		421		4	0.91		424		4	0.91		423		4	0.91		477		4	0.91	
Silver	7440-22-4	6020B	µg/L	0.12 (12)		0.29	U	2	0.29		0.29	U	2	0.29		0.29	U	2	0.29		0.29	U	2	0.29	
Cyanide, Total	57-12-5	9012B	mg/L	0.0052 (12)		0.005	U	0.01	0.005		0.005	U	0.01	0.005		0.005	U	0.01	0.005		0.005	U	0.01	0.005	
Metals (Dissolved)																									
Barium	7440-39-3	6020B	µg/L	220 (12)		446		4	0.91	220	440		4	0.91	220	415		4	0.91	220	455		4	0.91	220
Iron	7439-89-6	6020B	µg/L	158 (14)		5370		120	58.2	158	6890		120	58.2	158	23000		120	58.2	158	57300		120	58.2	158
Lead	7439-92-1	6020B	µg/L	5.4 (12)		0.84	U	1.2	0.84	5.4	0.84	U	1.2	0.84	5.4	0.84	U	1.2	0.84	5.4	0.84	U	1.2	0.84	5.4
Manganese	7439-96-5	6020B	µg/L	112 (14)		460		8	1.5	112	220		8	1.5	112	446		8	1.5	112	700		8	1.5	112

Table 5.23 - Pore Water: Summary of Exceedances

(continued)

Rolling Knolls Landfill

Sample Name				ESC's		PW08_0.1-1.1				PW09_0.1-1.1				PW10_0.1-1.1				PW11_0.1-1.1			
Sample Date/Time					(16) N.J.A.C. 7:9C GWQS	05/17/2021 13:00				05/17/2021 15:26				05/18/2021 10:42				05/18/2021 11:05			
Latitude				Screening Criteria		40.72182294				40.72166473				40.72164542				40.72137772			
Longitude						-74.44481466				-74.44497878				-74.44442768				-74.44406378			
Lab Sample Name						GS-S-PWT08_0.1-1.1				GS-S-PWT09_0.1-1.1				GS-S-PWT10_0.1-1.1				GS-S-PWT11_0.1-1.1			
Lab Sample Number						460-234969-1				460-234970-3				460-234971-1				460-234971-2			
Lab Report Number(s)						460-234969-1				460-234970-1				460-234971-1				460-234971-1			
Analyte	CAS	Method	Units			Result	LDC Flag	RL	MDL (EDL)	ESC	Result	LDC Flag	RL	MDL (EDL)	ESC	Result	LDC Flag	RL	MDL (EDL)	ESC	Result	LDC Flag	RL	MDL (EDL)	ESC
Semivolatile Organic Compounds (SVOCs)																								
Bis(2-ethylhexyl) phthalate	117-81-7	8270E	mg/L	0.0003 (12)		0.0008	U	0.002	0.0008	0.0003	0.0008	U	0.002	0.0008	0.0003						0.0008	U	0.002	0.0008	0.0003
Polycyclic Aromatic Hydrocarbons (PAHs)																								
Anthracene	120-12-7	8270E	mg/L	0.000035 (12)		0.0013	U	0.01	0.0013	0.000035	0.0013	U	0.01	0.0013	0.000035						0.000025	U	0.00005	0.000025	0.000035
Benzo[a]anthracene	56-55-3	8270E SIM	mg/L	0.000025 (12)		0.00059	U	0.001	0.00059	0.000025	0.00059	U	0.001	0.00059	0.000025						0.000016	U	0.00005	0.000016	0.000025
Benzo[a]pyrene	50-32-8	8270E SIM	mg/L	0.000014 (12)		0.00041	UJ	0.001	0.00041	0.000014	0.00041	UJ	0.001	0.00041	0.000014						0.000022	U	0.00005	0.000022	0.000014
Benzo[k]fluoranthene	207-08-9	8270E SIM	mg/L	0.0000041 (14)		0.00067	U	0.001	0.00067	0.0000041	0.00067	U	0.001	0.00067	0.0000041						0.000028	U	0.00005	0.000028	0.0000041
Chrysene	218-01-9	8270E	mg/L	0.0000018 (14)		0.00091	UJ	0.002	0.00091	0.0000018	0.00091	UJ	0.002	0.00091	0.0000018						0.00003	U	0.00005	0.00003	0.0000018
Dibenz(a,h)anthracene	53-70-3	8270E SIM	mg/L	0.0000034 (14)		0.00072	U	0.001	0.00072	0.0000034	0.00072	U	0.001	0.00072	0.0000034						0.00002	UJ	0.00005	0.00002	0.0000034
Polyfluorinated Alkyl Substances (PFAS)																								
Perfluorooctanesulfonic acid (PFOS)	1763-23-1	537	ng/L	51000 (13)	13																			
Perfluorooctanoic acid (PFOA)	335-67-1	537	ng/L	3900000 (13)	14																			
Metals and Cyanide (Total)																								
Barium	7440-39-3	6020B	µg/L	220 (12)		264		4	0.91		258		4	0.91							208		4	0.91	
Silver	7440-22-4	6020B	µg/L	0.12 (12)		0.29	U	2	0.29		0.29	U	2	0.29							0.29	U	2	0.29	
Cyanide, Total	57-12-5	9012B	mg/L	0.0052 (12)		0.005	U	0.01	0.005		0.005	U	0.01	0.005							0.005	U	0.01	0.005	
Metals (Dissolved)																								
Barium	7440-39-3	6020B	µg/L	220 (12)		238		4	0.91	220	256		4	0.91	220	121		4	0.91	220	163		4	0.91	220
Iron	7439-89-6	6020B	µg/L	158 (14)		56900		120	58.2	158	16300		120	58.2	158	325		120	58.2	158	24600		120	58.2	158
Lead	7439-92-1	6020B	µg/L	5.4 (12)		0.84	U	1.2	0.84	5.4	0.84	U	1.2	0.84	5.4	0.84	U	1.2	0.84	5.4	0.84	U	1.2	0.84	5.4
Manganese	7439-96-5	6020B	µg/L	112 (14)		389		8	1.5	112	684		8	1.5	112	1.6	J	8	1.5	112	1110		8	1.5	112

Table 5.23 - Pore Water: Summary of Exceedances

(continued)

Rolling Knolls Landfill

Sample Name				ESC's		PW12_0.1-1.1				PW13_0.1-1.1				PW14_0.1-1.1				PW15_0.1-1.1			
Sample Date/Time					(16) N.J.A.C. 7:9C GWQS	05/18/2021 12:30				05/18/2021 14:30				05/19/2021 10:00				05/19/2021 12:30			
Latitude				Screening Criteria		40.72190822				40.72201291				40.72248719				40.7230347			
Longitude						-74.44321078				-74.44347746				-74.44316647				-74.44314728			
Lab Sample Name						GS-S-PWT12_0.1-1.1				GS-S-PWT13_0.1-1.1				GS-S-PWT014-0.1-1.1				GS-S-PWT015-0.1-1.1			
Lab Sample Number						460-234969-2				460-234969-3				460-234972-2				460-235250-1			
Lab Report Number(s)						460-234969-1				460-234969-1				460-234972-1				460-235250-1			
Analyte	CAS	Method	Units			Result	LDC Flag	RL	MDL (EDL)	ESC	Result	LDC Flag	RL	MDL (EDL)	ESC	Result	LDC Flag	RL	MDL (EDL)	ESC	Result	LDC Flag	RL	MDL (EDL)	ESC
Semivolatile Organic Compounds (SVOCs)																									
Bis(2-ethylhexyl) phthalate	117-81-7	8270E	mg/L	0.0003 (12)		0.0008	U	0.002	0.0008	0.0003	0.0008	U	0.002	0.0008	0.0003	0.0018	J	0.002	0.0008	0.0003	0.0008	U	0.002	0.0008	0.0003
Polycyclic Aromatic Hydrocarbons (PAHs)																									
Anthracene	120-12-7	8270E	mg/L	0.000035 (12)		0.000025	U	0.00005	0.000025	0.000035	0.000025	UJ	0.00005	0.000025	0.000035	0.0013	U	0.01	0.0013	0.000035	0.000025	U	0.00005	0.025	0.000035
Benzo[a]anthracene	56-55-3	8270E SIM	mg/L	0.000025 (12)		0.000016	U	0.00005	0.000016	0.000025	0.000016	U	0.00005	0.000016	0.000025	0.00059	U	0.001	0.00059	0.000025	0.000016	UJ	0.00005	0.000016	0.000025
Benzo[a]pyrene	50-32-8	8270E SIM	mg/L	0.000014 (12)		0.000022	UJ	0.00005	0.000022	0.000014	0.000022	U	0.00005	0.000022	0.000014	0.00041	U	0.001	0.00041	0.000014	0.000022	U	0.00005	0.000022	0.000014
Benzo[k]fluoranthene	207-08-9	8270E SIM	mg/L	0.0000041 (14)		0.000028	U	0.00005	0.000028	0.0000041	0.000028	U	0.00005	0.000028	0.0000041	0.00067	U	0.001	0.00067	0.0000041	0.000028	U	0.00005	0.000028	0.0000041
Chrysene	218-01-9	8270E	mg/L	0.0000018 (14)		0.00003	U	0.00005	0.00003	0.0000018	0.00003	U	0.00005	0.00003	0.0000018	0.00091	UJ	0.002	0.00091	0.0000018	0.00003	U	0.00005	0.00003	0.0000018
Dibenz(a,h)anthracene	53-70-3	8270E SIM	mg/L	0.0000034 (14)		0.00002	U	0.00005	0.00002	0.0000034	0.00002	U	0.00005	0.00002	0.0000034	0.00072	U	0.001	0.00072	0.0000034	0.00002	U	0.00005	0.00002	0.0000034
Polyfluorinated Alkyl Substances (PFAS)																									
Perfluorooctanesulfonic acid (PFOS)	1763-23-1	537	ng/L	51000 (13)	13																				
Perfluorooctanoic acid (PFOA)	335-67-1	537	ng/L	3900000 (13)	14																				
Metals and Cyanide (Total)																									
Barium	7440-39-3	6020B	µg/L	220 (12)		303		4	0.91		370		4	0.91		390		4	0.91		392		4	0.91	
Silver	7440-22-4	6020B	µg/L	0.12 (12)		0.29	U	2	0.29		0.29	U	2	0.29		0.29	U	2	0.29		0.29	U	2	0.29	
Cyanide, Total	57-12-5	9012B	mg/L	0.0052 (12)		0.005	U	0.01	0.005		0.005	U	0.01	0.005		0.005	U	0.01	0.005		0.004	U	0.01	0.004	
Metals (Dissolved)																									
Barium	7440-39-3	6020B	µg/L	220 (12)		256		4	0.91	220	383		4	0.91	220	389		4	0.91	220	408		4	0.91	220
Iron	7439-89-6	6020B	µg/L	158 (14)		24300		120	58.2	158	25600		120	58.2	158	89600		120	58.2	158	28000		120	58.2	158
Lead	7439-92-1	6020B	µg/L	5.4 (12)		0.84	U	1.2	0.84	5.4	0.84	U	1.2	0.84	5.4	0.84	U	1.2	0.84	5.4	0.84	U	1.2	0.84	5.4
Manganese	7439-96-5	6020B	µg/L	112 (14)		735		8	1.5	112	1150		8	1.5	112	331		8	1.5	112	394		8	1.5	112

Table 5.23 - Pore Water: Summary of Exceedances

(continued)

Rolling Knolls Landfill

Sample Name				ESC's		PW16_0.1-1.1				PW17_0.1-1.1				PW18_0.1-1.1				PW19_0.1-1.1			
Sample Date/Time					(16) N.J.A.C. 7:9C GWQS	05/19/2021 14:00				05/20/2021 09:38				05/20/2021 09:45				05/20/2021 11:34			
Latitude				Screening Criteria		40.72345333				40.72380268				40.7238223				40.72418595			
Longitude						-74.44320064				-74.44314573				-74.44300078				-74.44291979			
Lab Sample Name						GS-S-PWT016-0.1-1.1				GS-S-PWT017-0.1-1.1				GS-S-PWT018-0.1-1.1				GS-S-PWT019-0.1-1.1			
Lab Sample Number						460-235250-2				460-234972-1				460-234972-3				460-235250-3			
Lab Report Number(s)						460-235250-1				460-234972-1				460-234972-1				460-235250-1			
Analyte	**CAS**	**Method**	**Units**			**Result**	**LDC Flag**	**RL**	**MDL (EDL)**	**ESC**	**Result**	**LDC Flag**	**RL**	**MDL (EDL)**	**ESC**	**Result**	**LDC Flag**	**RL**	**MDL (EDL)**	**ESC**	**Result**	**LDC Flag**	**RL**	**MDL (EDL)**	**ESC**
Semivolatile Organic Compounds (SVOCs)																									
Bis(2-ethylhexyl) phthalate	117-81-7	8270E	mg/L	0.0003 (12)		0.0008	U	0.002	0.0008	0.0003	0.0008	U	0.002	0.0008	0.0003						0.0008	U	0.002	0.0008	0.0003
Polycyclic Aromatic Hydrocarbons (PAHs)																									
Anthracene	120-12-7	8270E	mg/L	0.000035 (12)		0.000025	U	0.00005	0.000025	0.000035	0.0013	U	0.01	0.0013	0.000035						0.000025	U	0.00005	0.025	0.000035
Benzo[a]anthracene	56-55-3	8270E SIM	mg/L	0.000025 (12)		0.000016	UJ	0.00005	0.000016	0.000025	0.00059	U	0.001	0.00059	0.000025						0.000016	UJ	0.00005	0.000016	0.000025
Benzo[a]pyrene	50-32-8	8270E SIM	mg/L	0.000014 (12)		0.000022	U	0.00005	0.000022	0.000014	0.00041	U	0.001	0.00041	0.000014						0.000022	U	0.00005	0.000022	0.000014
Benzo[k]fluoranthene	207-08-9	8270E SIM	mg/L	0.0000041 (14)		0.000028	U	0.00005	0.000028	0.0000041	0.00067	U	0.001	0.00067	0.0000041						0.000028	U	0.00005	0.000028	0.0000041
Chrysene	218-01-9	8270E	mg/L	0.0000018 (14)		0.00003	U	0.00005	0.00003	0.0000018	0.00091	UJ	0.002	0.00091	0.0000018						0.00003	U	0.00005	0.00003	0.0000018
Dibenz(a,h)anthracene	53-70-3	8270E SIM	mg/L	0.0000034 (14)		0.00002	U	0.00005	0.00002	0.0000034	0.00072	U	0.001	0.00072	0.0000034						0.00002	U	0.00005	0.00002	0.0000034
Polyfluorinated Alkyl Substances (PFAS)																									
Perfluorooctanesulfonic acid (PFOS)	1763-23-1	537	ng/L	51000 (13)	13																				
Perfluorooctanoic acid (PFOA)	335-67-1	537	ng/L	3900000 (13)	14																				
Metals and Cyanide (Total)																									
Barium	7440-39-3	6020B	µg/L	220 (12)		442		4	0.91		366		4	0.91		234		4	0.91		416		4	0.91	
Silver	7440-22-4	6020B	µg/L	0.12 (12)		0.29	U	2	0.29		0.29	U	2	0.29		0.29	U	2	0.29		0.29	U	2	0.29	
Cyanide, Total	57-12-5	9012B	mg/L	0.0052 (12)		0.004	U	0.01	0.004		0.005	U	0.01	0.005							0.004	U	0.01	0.004	
Metals (Dissolved)																									
Barium	7440-39-3	6020B	µg/L	220 (12)		446		4	0.91	220	345		4	0.91	220	252		4	0.91	220	420		4	0.91	220
Iron	7439-89-6	6020B	µg/L	158 (14)		36200		120	58.2	158	40600		120	58.2	158	9140		120	58.2	158	38000		120	58.2	158
Lead	7439-92-1	6020B	µg/L	5.4 (12)		0.84	U	1.2	0.84	5.4	0.84	U	1.2	0.84	5.4	0.84	U	1.2	0.84	5.4	0.84	U	1.2	0.84	5.4
Manganese	7439-96-5	6020B	µg/L	112 (14)		503		8	1.5	112	524		8	1.5	112	608		8	1.5	112	399		8	1.5	112

Table 5.23 - Pore Water: Summary of Exceedances

(continued)

Rolling Knolls Landfill

Sample Name				ESC's		PW20_0.1-1.1				PW21_0.1-1.1				PW22_0.1-1.1				PW102_0.1-1.1 (PW22_0.1-1.1 duplicate)			
Sample Date/Time						05/20/2021 16:30				05/21/2021 08:43				05/21/2021 09:10				05/21/2021 09:10			
Latitude					(16) N.J.A.C. 7:9C GWQS	40.72413425				40.72457915				40.72444765				40.72444765			
Longitude						-74.44283622				-74.44297636				-74.44258986				-74.44258986			
Lab Sample Name				Screening Criteria		GS-S-PWT020-0.1-1.1				GS-S-PWT021-0.1-1.1				GS-S-PWT22-0.1-1.1				GS-S-PWT102-0.1-1.1			
Lab Sample Number						460-235250-4				460-235398-1				460-235399-4				460-235399-5			
Lab Report Number(s)						460-235250-1				460-235398-1				460-235399-1				460-235399-1			
Analyte	**CAS**	**Method**	**Units**			**Result**	**LDC Flag**	**RL**	**MDL (EDL)**	**ESC**	**Result**	**LDC Flag**	**RL**	**MDL (EDL)**	**ESC**	**Result**	**LDC Flag**	**RL**	**MDL (EDL)**	**ESC**	**Result**	**LDC Flag**	**RL**	**MDL (EDL)**	**ESC**
Semivolatile Organic Compounds (SVOCs)																									
Bis(2-ethylhexyl) phthalate	117-81-7	8270E	mg/L	0.0003 (12)		0.0008	U	0.002	0.0008	0.0003	0.0008	U	0.002	0.0008	0.0003	0.0008	U	0.002	0.0008	0.0003	0.0008	U	0.002	0.0008	0.0003
Polycyclic Aromatic Hydrocarbons (PAHs)																									
Anthracene	120-12-7	8270E	mg/L	0.000035 (12)		0.000078		0.00005	0.000025	0.000035	0.000025	U	0.00005	0.000025	0.000035	0.000025	U	0.00005	0.000025	0.000035	0.000091		0.00005	0.000025	0.000035
Benzo[a]anthracene	56-55-3	8270E SIM	mg/L	0.000025 (12)		0.000043	J	0.00005	0.000016	0.000025	0.000016	U	0.00005	0.000016	0.000025	0.000016	U	0.00005	0.000016	0.000025	0.000094		0.00005	0.000016	0.000025
Benzo[a]pyrene	50-32-8	8270E SIM	mg/L	0.000014 (12)		0.000034	J	0.00005	0.000022	0.000014	0.000022	U	0.00005	0.000022	0.000014	0.000022	U	0.00005	0.000022	0.000014	0.00011		0.00005	0.000022	0.000014
Benzo[k]fluoranthene	207-08-9	8270E SIM	mg/L	0.0000041 (14)		0.000054		0.00005	0.000028	0.0000041	0.000028	U	0.00005	0.000028	0.0000041	0.000028	U	0.00005	0.000028	0.0000041	0.000093		0.00005	0.000028	0.0000041
Chrysene	218-01-9	8270E	mg/L	0.0000018 (14)		0.000053		0.00005	0.00003	0.0000018	0.00003	U	0.00005	0.00003	0.0000018	0.00003	U	0.00005	0.00003	0.0000018	0.000092		0.00005	0.00003	0.0000018
Dibenz(a,h)anthracene	53-70-3	8270E SIM	mg/L	0.0000034 (14)		0.000061		0.00005	0.00002	0.0000034	0.00002	UJ	0.00005	0.00002	0.0000034	0.00002	UJ	0.00005	0.00002	0.0000034	0.000094	J	0.00005	0.00002	0.0000034
Polyfluorinated Alkyl Substances (PFAS)																									
Perfluorooctanesulfonic acid (PFOS)	1763-23-1	537	ng/L	51000 (13)	13																				
Perfluorooctanoic acid (PFOA)	335-67-1	537	ng/L	3900000 (13)	14																				
Metals and Cyanide (Total)																									
Barium	7440-39-3	6020B	µg/L	220 (12)		337		4	0.91		494		4	0.91		335		4	0.91		330		4	0.91	
Silver	7440-22-4	6020B	µg/L	0.12 (12)		0.29	U	2	0.29		0.29	U	2	0.29		0.29	U	2	0.29		0.29	U	2	0.29	
Cyanide, Total	57-12-5	9012B	mg/L	0.0052 (12)		0.004	U	0.01	0.004		0.004	U	0.01	0.004		0.004	U	0.01	0.004		0.004	U	0.01	0.004	
Metals (Dissolved)																									
Barium	7440-39-3	6020B	µg/L	220 (12)		346		4	0.91	220	423		4	0.91	220	344		4	0.91	220	339		4	0.91	220
Iron	7439-89-6	6020B	µg/L	158 (14)		23000		120	58.2	158	23700		120	58.2	158	22300		120	58.2	158	22400		120	58.2	158
Lead	7439-92-1	6020B	µg/L	5.4 (12)		0.84	U	1.2	0.84	5.4	0.96	J	1.2	0.84	5.4	0.84	U	1.2	0.84	5.4	0.84	U	1.2	0.84	5.4
Manganese	7439-96-5	6020B	µg/L	112 (14)		472		8	1.5	112	178		8	1.5	112	581		8	1.5	112	582		8	1.5	112

Table 5.23 - Pore Water: Summary of Exceedances

(continued)

Rolling Knolls Landfill

Sample Name				ESC's		PW23_0.2-1.2				PW24_0.1-1.1				PW25_0.2-1.2				PW26_0.1-1.1			
Sample Date/Time						05/21/2021 12:37				05/21/2021 13:08				05/23/2021 11:48				05/23/2021 12:00			
Latitude					(16)	40.7247828				40.72489946				40.72512321				40.72504571			
Longitude					N.J.A.C. 7:9C	-74.44247662				-74.44253506				-74.44235862				-74.44201259			
Lab Sample Name				Screening	GWQS	GS-S-PWT23-0.2-1.2				GS-S-PWT24-0.1-1.1				GS-S-PWT25-0.2-1.2				GS-S-PWT026-0.1-1.1			
Lab Sample Number				Criteria		460-235398-2				460-235399-3				460-235399-2				460-235399-1			
Lab Report Number(s)						460-235398-1				460-235399-1				460-235399-1				460-235399-1			
Analyte	**CAS**	**Method**	**Units**			**Result**	**LDC Flag**	**RL**	**MDL (EDL)**	**ESC**	**Result**	**LDC Flag**	**RL**	**MDL (EDL)**	**ESC**	**Result**	**LDC Flag**	**RL**	**MDL (EDL)**	**ESC**	**Result**	**LDC Flag**	**RL**	**MDL (EDL)**	**ESC**
Semivolatile Organic Compounds (SVOCs)																									
Bis(2-ethylhexyl) phthalate	117-81-7	8270E	mg/L	0.0003 (12)		0.0008	U	0.002	0.0008	0.0003	0.0008	U	0.002	0.0008	0.0003						0.0008	U	0.002	0.0008	0.0003
Polycyclic Aromatic Hydrocarbons (PAHs)																									
Anthracene	120-12-7	8270E	mg/L	0.000035 (12)		0.000025	U	0.00005	0.000025	0.000035	0.000025	U	0.00005	0.025	0.000035						0.000025	U	0.00005	0.000025	0.000035
Benzo[a]anthracene	56-55-3	8270E SIM	mg/L	0.000025 (12)		0.000016	U	0.00005	0.000016	0.000025	0.000016	U	0.00005	0.000016	0.000025						0.000016	U	0.00005	0.000016	0.000025
Benzo[a]pyrene	50-32-8	8270E SIM	mg/L	0.000014 (12)		0.000022	U	0.00005	0.000022	0.000014	0.000022	U	0.00005	0.000022	0.000014						0.000022	U	0.00005	0.000022	0.000014
Benzo[k]fluoranthene	207-08-9	8270E SIM	mg/L	0.0000041 (14)		0.000028	U	0.00005	0.000028	0.0000041	0.000028	U	0.00005	0.000028	0.0000041						0.000028	U	0.00005	0.000028	0.0000041
Chrysene	218-01-9	8270E	mg/L	0.0000018 (14)		0.00003	U	0.00005	0.00003	0.0000018	0.00003	U	0.00005	0.00003	0.0000018						0.00003	U	0.00005	0.00003	0.0000018
Dibenz(a,h)anthracene	53-70-3	8270E SIM	mg/L	0.0000034 (14)		0.00002	UJ	0.00005	0.00002	0.0000034	0.00002	UJ	0.00005	0.00002	0.0000034						0.00002	U	0.00005	0.00002	0.0000034
Polyfluorinated Alkyl Substances (PFAS)																									
Perfluorooctanesulfonic acid (PFOS)	1763-23-1	537	ng/L	51000 (13)	13																				
Perfluorooctanoic acid (PFOA)	335-67-1	537	ng/L	3900000 (13)	14																				
Metals and Cyanide (Total)																									
Barium	7440-39-3	6020B	µg/L	220 (12)		368		4	0.91		450		4	0.91							241		4	0.91	
Silver	7440-22-4	6020B	µg/L	0.12 (12)		0.29	U	2	0.29		0.29	U	2	0.29							0.29	U	2	0.29	
Cyanide, Total	57-12-5	9012B	mg/L	0.0052 (12)		0.0096	J	0.01	0.004		0.004	U	0.01	0.004							0.004	U	0.01	0.004	
Metals (Dissolved)																									
Barium	7440-39-3	6020B	µg/L	220 (12)		358		4	0.91	220	417		4	0.91	220	279		4	0.91	220	236		4	0.91	220
Iron	7439-89-6	6020B	µg/L	158 (14)		14500		120	58.2	158	10400		120	58.2	158	11000		120	58.2	158	14800		120	58.2	158
Lead	7439-92-1	6020B	µg/L	5.4 (12)		0.84	U	1.2	0.84	5.4	0.84	U	1.2	0.84	5.4	0.84	U	1.2	0.84	5.4	0.84	U	1.2	0.84	5.4
Manganese	7439-96-5	6020B	µg/L	112 (14)		342		8	1.5	112	363		8	1.5	112	291		8	1.5	112	464		8	1.5	112

Table 5.23 - Pore Water: Summary of Exceedances

(continued)

Rolling Knolls Landfill

Sample Name				ESC's		PW27_0.1-1.1				PW28_0.1-1.1				PW29_0.2-1.2				PW30_0.1-1.1			
Sample Date/Time					(16) N.J.A.C. 7:9C GWQS	05/24/2021 09:00				05/24/2021 10:00				05/24/2021 11:12				05/24/2021 11:30			
Latitude				Screening Criteria		40.72541272				40.72552247				40.7258865				40.72580561			
Longitude						-74.44125584				-74.44165043				-74.44140482				-74.44119472			
Lab Sample Name						GS-S-PWT27-0.1-1.1				GS-S-PWT28-0.1-1.1				GS-S-PWT029-0.2-1.2				GS-S-PWT30-0.1-1.1			
Lab Sample Number						460-235498-3				460-235498-2				460-235438-1				460-235498-4			
Lab Report Number(s)						460-235498-1				460-235498-1				460-235438-1				460-235498-1			
Analyte	**CAS**	**Method**	**Units**			**Result**	**LDC Flag**	**RL**	**MDL (EDL)**	**ESC**	**Result**	**LDC Flag**	**RL**	**MDL (EDL)**	**ESC**	**Result**	**LDC Flag**	**RL**	**MDL (EDL)**	**ESC**	**Result**	**LDC Flag**	**RL**	**MDL (EDL)**	**ESC**
Semivolatile Organic Compounds (SVOCs)																									
Bis(2-ethylhexyl) phthalate	117-81-7	8270E	mg/L	0.0003 (12)		0.0008	U	0.002	0.0008	0.0003						0.0008	U	0.002	0.0008	0.0003	0.0008	U	0.002	0.0008	0.0003
Polycyclic Aromatic Hydrocarbons (PAHs)																									
Anthracene	120-12-7	8270E	mg/L	0.000035 (12)		0.000025	UJ	0.00005	0.025	0.000035						0.0013	U	0.01	0.0013	0.000035	0.000025	UJ	0.00005	0.000025	0.000035
Benzo[a]anthracene	56-55-3	8270E SIM	mg/L	0.000025 (12)		0.000016	U	0.00005	0.000016	0.000025						0.00059	U	0.001	0.00059	0.000025	0.000016	U	0.00005	0.000016	0.000025
Benzo[a]pyrene	50-32-8	8270E SIM	mg/L	0.000014 (12)		0.000022	U	0.00005	0.000022	0.000014						0.00041	U	0.001	0.00041	0.000014	0.000022	U	0.00005	0.000022	0.000014
Benzo[k]fluoranthene	207-08-9	8270E SIM	mg/L	0.0000041 (14)		0.000028	U	0.00005	0.000028	0.0000041						0.00067	U	0.001	0.00067	0.0000041	0.000028	U	0.00005	0.000028	0.0000041
Chrysene	218-01-9	8270E	mg/L	0.0000018 (14)		0.00003	U	0.00005	0.00003	0.0000018						0.00091	U	0.002	0.00091	0.0000018	0.00003	U	0.00005	0.00003	0.0000018
Dibenz(a,h)anthracene	53-70-3	8270E SIM	mg/L	0.0000034 (14)		0.00002	U	0.00005	0.00002	0.0000034						0.00072	UJ	0.001	0.00072	0.0000034	0.00002	U	0.00005	0.00002	0.0000034
Polyfluorinated Alkyl Substances (PFAS)																									
Perfluorooctanesulfonic acid (PFOS)	1763-23-1	537	ng/L	51000 (13)	13																				
Perfluorooctanoic acid (PFOA)	335-67-1	537	ng/L	3900000 (13)	14																				
Metals and Cyanide (Total)																									
Barium	7440-39-3	6020B	µg/L	220 (12)		257		4	0.91							527		4	0.91		463		4	0.91	
Silver	7440-22-4	6020B	µg/L	0.12 (12)		0.29	U	2	0.29							0.29	U	2	0.29		0.29	U	2	0.29	
Cyanide, Total	57-12-5	9012B	mg/L	0.0052 (12)		0.004	U	0.01	0.004							0.005	U	0.01	0.005		0.004	U	0.01	0.004	
Metals (Dissolved)																									
Barium	7440-39-3	6020B	µg/L	220 (12)		228		4	0.91	220	479		4	0.91	220	523		4	0.91	220	419		4	0.91	220
Iron	7439-89-6	6020B	µg/L	158 (14)		16900		120	58.2	158	39500		120	58.2	158	18300		120	58.2	158	22800		120	58.2	158
Lead	7439-92-1	6020B	µg/L	5.4 (12)		0.84	U	1.2	0.84	5.4	10.4		1.2	0.84	5.4	0.84	U	1.2	0.84	5.4	0.84	U	1.2	0.84	5.4
Manganese	7439-96-5	6020B	µg/L	112 (14)		558		8	1.5	112	688		8	1.5	112	624		8	1.5	112	434		8	1.5	112

Table 5.23 - Pore Water: Summary of Exceedances

(continued)

Rolling Knolls Landfill

Sample Name				ESC's		PW31_0.1-1.1				PW32_0.3-1.3				PW33_0.1-1.1				PW34_0.2-1.2			
Sample Date/Time						05/24/2021 16:00				05/24/2021 17:00				05/25/2021 10:20				05/25/2021 12:06			
Latitude					(16) N.J.A.C. 7:9C GWQS	40.7274107				40.72740334				40.72829546				40.72830226			
Longitude						-74.43949673				-74.43971321				-74.44055948				-74.44017466			
Lab Sample Name				Screening Criteria		GS-S-PWT31.0-1-1.1				GS-N-PWT032-0.3-1.3				GS-N-PWT33_0.1-1.1				GS-N-PWT34-0.2-1.2			
Lab Sample Number						460-235438-2				460-235498-1				460-235492-1				460-235495-1			
Lab Report Number(s)						460-235438-1				460-235498-1				460-235492-1				460-235495-1			
Analyte	**CAS**	**Method**	**Units**			**Result**	**LDC Flag**	**RL**	**MDL (EDL)**	**ESC**	**Result**	**LDC Flag**	**RL**	**MDL (EDL)**	**ESC**	**Result**	**LDC Flag**	**RL**	**MDL (EDL)**	**ESC**	**Result**	**LDC Flag**	**RL**	**MDL (EDL)**	**ESC**
Semivolatile Organic Compounds (SVOCs)																									
Bis(2-ethylhexyl) phthalate	117-81-7	8270E	mg/L	0.0003 (12)		0.0008	U	0.002	0.0008	0.0003	0.0008	U	0.002	0.0008	0.0003	0.0008	U	0.002	0.0008	0.0003	0.0008	U	0.002	0.0008	0.0003
Polycyclic Aromatic Hydrocarbons (PAHs)																									
Anthracene	120-12-7	8270E	mg/L	0.000035 (12)		0.0013	U	0.01	0.0013	0.000035	0.000025	UJ	0.00005	0.000025	0.000035	0.000025	U	0.00005	0.000025	0.000035	0.000025	U	0.00005	0.000025	0.000035
Benzo[a]anthracene	56-55-3	8270E SIM	mg/L	0.000025 (12)		0.00059	U	0.001	0.00059	0.000025	0.000016	U	0.00005	0.000016	0.000025	0.000016	U	0.00005	0.000016	0.000025	0.000016	U	0.00005	0.000016	0.000025
Benzo[a]pyrene	50-32-8	8270E SIM	mg/L	0.000014 (12)		0.00041	U	0.001	0.00041	0.000014	0.000022	U	0.00005	0.000022	0.000014	0.000022	U	0.00005	0.000022	0.000014	0.000022	U	0.00005	0.000022	0.000014
Benzo[k]fluoranthene	207-08-9	8270E SIM	mg/L	0.0000041 (14)		0.00067	U	0.001	0.00067	0.0000041	0.000028	U	0.00005	0.000028	0.0000041	0.000028	U	0.00005	0.000028	0.0000041	0.000028	U	0.00005	0.000028	0.0000041
Chrysene	218-01-9	8270E	mg/L	0.0000018 (14)		0.00091	U	0.002	0.00091	0.0000018	0.00003	U	0.00005	0.00003	0.0000018	0.00003	U	0.00005	0.00003	0.0000018	0.00003	U	0.00005	0.00003	0.0000018
Dibenz(a,h)anthracene	53-70-3	8270E SIM	mg/L	0.0000034 (14)		0.00072	UJ	0.001	0.00072	0.0000034	0.00002	U	0.00005	0.00002	0.0000034	0.00002	UJ	0.00005	0.00002	0.0000034	0.00002	U	0.00005	0.00002	0.0000034
Polyfluorinated Alkyl Substances (PFAS)																									
Perfluorooctanesulfonic acid (PFOS)	1763-23-1	537	ng/L	51000 (13)	13																				
Perfluorooctanoic acid (PFOA)	335-67-1	537	ng/L	3900000 (13)	14																				
Metals and Cyanide (Total)																									
Barium	7440-39-3	6020B	µg/L	220 (12)		202		4	0.91		225		4	0.91		435		4	0.91		74.4		4	0.91	
Silver	7440-22-4	6020B	µg/L	0.12 (12)		0.29	U	2	0.29		0.29	U	2	0.29		0.29	U	2	0.29		0.29	U	2	0.29	
Cyanide, Total	57-12-5	9012B	mg/L	0.0052 (12)		0.005	U	0.01	0.005		0.004	U	0.01	0.004		0.004	U	0.01	0.004		0.004	U	0.01	0.004	
Metals (Dissolved)																									
Barium	7440-39-3	6020B	µg/L	220 (12)		202		4	0.91	220	476		4	0.91	220	387		4	0.91	220	66.5		4	0.91	220
Iron	7439-89-6	6020B	µg/L	158 (14)		23000		120	58.2	158	38100		120	58.2	158	29200		120	58.2	158	14600		120	58.2	158
Lead	7439-92-1	6020B	µg/L	5.4 (12)		0.84	U	1.2	0.84	5.4	0.84	U	1.2	0.84	5.4	0.84	U	1.2	0.84	5.4	0.84	U	1.2	0.84	5.4
Manganese	7439-96-5	6020B	µg/L	112 (14)		996		8	1.5	112	687		8	1.5	112	802		8	1.5	112	814		8	1.5	112

Table 5.23 - Pore Water: Summary of Exceedances

(continued)

Rolling Knolls Landfill

Sample Name				ESC's		PW35_0.2-1.2				PW36_0.4-1.4				PW103_0.4-1.4 (PW36_0.4-1.4 duplicate)				PW37_0.2-1.2			
Sample Date/Time						05/25/2021 13:19				05/25/2021 16:08				05/25/2021 16:08				05/26/2021 10:18			
Latitude					(16) N.J.A.C. 7:9C GWQS	40.72937246				40.7301228				40.7301228				40.73049011			
Longitude						-74.440396				-74.44071487				-74.44071487				-74.44113923			
Lab Sample Name				Screening Criteria		GS-N-PWT35-0.2-1.2				GS-N-PWT36-0.4-1.4				GS-N-PWT103-0.4-1.4				GS-N-PWT037-0.2-1.2			
Lab Sample Number						460-235495-2				460-235495-3				460-235495-4				460-235554-1			
Lab Report Number(s)						460-235495-1				460-235495-1				460-235495-1				460-235554-1			
Analyte	**CAS**	**Method**	**Units**			**Result**	**LDC Flag**	**RL**	**MDL (EDL)**	**ESC**	**Result**	**LDC Flag**	**RL**	**MDL (EDL)**	**ESC**	**Result**	**LDC Flag**	**RL**	**MDL (EDL)**	**ESC**	**Result**	**LDC Flag**	**RL**	**MDL (EDL)**	**ESC**
Semivolatile Organic Compounds (SVOCs)																									
Bis(2-ethylhexyl) phthalate	117-81-7	8270E	mg/L	0.0003 (12)		0.0008	U	0.002	0.0008	0.0003	0.0008	U	0.002	0.0008	0.0003	0.0008	U	0.002	0.0008	0.0003	0.0008	U	0.002	0.0008	0.0003
Polycyclic Aromatic Hydrocarbons (PAHs)																									
Anthracene	120-12-7	8270E	mg/L	0.000035 (12)		0.000025	U	0.00005	0.000025	0.000035	0.000025	U	0.00005	0.000025	0.000035	0.000025	U	0.00005	0.000025	0.000035	0.000025	U	0.00005	0.000025	0.000035
Benzo[a]anthracene	56-55-3	8270E SIM	mg/L	0.000025 (12)		0.000016	U	0.00005	0.000016	0.000025	0.000016	U	0.00005	0.000016	0.000025	0.000016	U	0.00005	0.000016	0.000025	0.000016	U	0.00005	0.000016	0.000025
Benzo[a]pyrene	50-32-8	8270E SIM	mg/L	0.000014 (12)		0.000022	U	0.00005	0.000022	0.000014	0.000022	U	0.00005	0.000022	0.000014	0.000022	U	0.00005	0.000022	0.000014	0.000022	U	0.00005	0.000022	0.000014
Benzo[k]fluoranthene	207-08-9	8270E SIM	mg/L	0.0000041 (14)		0.00028	U	0.00005	0.000028	0.0000041	0.00028	U	0.00005	0.000028	0.0000041	0.00028	U	0.00005	0.000028	0.0000041	0.00028	U	0.00005	0.000028	0.0000041
Chrysene	218-01-9	8270E	mg/L	0.0000018 (14)		0.00003	U	0.00005	0.00003	0.0000018	0.00003	U	0.00005	0.00003	0.0000018	0.00003	U	0.00005	0.00003	0.0000018	0.00003	U	0.00005	0.00003	0.0000018
Dibenz(a,h)anthracene	53-70-3	8270E SIM	mg/L	0.0000034 (14)		0.00002	U	0.00005	0.00002	0.0000034	0.00002	U	0.00005	0.00002	0.0000034	0.00002	U	0.00005	0.00002	0.0000034	0.00002	U	0.00005	0.00002	0.0000034
Polyfluorinated Alkyl Substances (PFAS)																									
Perfluorooctanesulfonic acid (PFOS)	1763-23-1	537	ng/L	51000 (13)	13																				
Perfluorooctanoic acid (PFOA)	335-67-1	537	ng/L	3900000 (13)	14																				
Metals and Cyanide (Total)																									
Barium	7440-39-3	6020B	µg/L	220 (12)		90.1		4	0.91		129		4	0.91		122		4	0.91		**472**		4	0.91	
Silver	7440-22-4	6020B	µg/L	0.12 (12)		0.29	U	2	0.29		0.29	U	2	0.29		0.29	U	2	0.29		0.29	U	2	0.29	
Cyanide, Total	57-12-5	9012B	mg/L	0.0052 (12)		0.004	U	0.01	0.004		0.004	U	0.01	0.004		0.004	U	0.01	0.004		0.004	U	0.01	0.004	
Metals (Dissolved)																									
Barium	7440-39-3	6020B	µg/L	220 (12)		86.4		4	0.91	220	114		4	0.91	220	117		4	0.91	220	**446**		4	0.91	220
Iron	7439-89-6	6020B	µg/L	158 (14)		**8750**		120	58.2	158	**16500**		120	58.2	158	**16000**		120	58.2	158	**51600**		120	58.2	158
Lead	7439-92-1	6020B	µg/L	5.4 (12)		0.84	U	1.2	0.84	5.4	0.84	U	1.2	0.84	5.4	0.84	U	1.2	0.84	5.4	0.99	J	1.2	0.84	5.4
Manganese	7439-96-5	6020B	µg/L	112 (14)		**528**		8	1.5	112	**625**		8	1.5	112	**627**		8	1.5	112	**733**		8	1.5	112

Table 5.23 - Pore Water: Summary of Exceedances

(continued)

Rolling Knolls Landfill

Sample Name				ESC's		PW38_0.1-1.1				PW39_0.2-1.2				PW40_0.1-1.1				PW41_0.2-1.2			
Sample Date/Time						05/26/2021 11:40				05/26/2021 14:19				05/26/2021 14:20				05/27/2021 10:44			
Latitude					(16) N.J.A.C. 7:9C GWQS	40.73060103				40.73124949				40.73132942				40.72630201			
Longitude						-74.44084939				-74.44141117				-74.4410877				-74.44023138			
Lab Sample Name				Screening Criteria		GS-N-PWT38-0.1-1.1				GS-N-PWT39-0.2-1.2				GS-N-PWT40-0.1-1.1				GS-N-PWT41-0.2-1.2			
Lab Sample Number						460-235554-2				460-235554-4				460-235554-3				460-235584-1			
Lab Report Number(s)						460-235554-1				460-235554-1				460-235554-1				460-235584-1			
Analyte	**CAS**	**Method**	**Units**			**Result**	**LDC Flag**	**RL**	**MDL (EDL)**	**ESC**	**Result**	**LDC Flag**	**RL**	**MDL (EDL)**	**ESC**	**Result**	**LDC Flag**	**RL**	**MDL (EDL)**	**ESC**	**Result**	**LDC Flag**	**RL**	**MDL (EDL)**	**ESC**
Semivolatile Organic Compounds (SVOCs)																									
Bis(2-ethylhexyl) phthalate	117-81-7	8270E	mg/L	0.0003 (12)																	0.0008	U	0.002	0.0008	0.0003
Polycyclic Aromatic Hydrocarbons (PAHs)																									
Anthracene	120-12-7	8270E	mg/L	0.000035 (12)																	0.000025	U	0.00005	0.000025	0.000035
Benzo[a]anthracene	56-55-3	8270E SIM	mg/L	0.000025 (12)																	0.000016	U	0.00005	0.000016	0.000025
Benzo[a]pyrene	50-32-8	8270E SIM	mg/L	0.000014 (12)																	0.000022	U	0.00005	0.000022	0.000014
Benzo[k]fluoranthene	207-08-9	8270E SIM	mg/L	0.0000041 (14)																	0.000028	U	0.00005	0.000028	0.0000041
Chrysene	218-01-9	8270E	mg/L	0.0000018 (14)																	0.00003	U	0.00005	0.00003	0.0000018
Dibenz(a,h)anthracene	53-70-3	8270E SIM	mg/L	0.0000034 (14)																	0.00002	UJ	0.00005	0.00002	0.0000034
Polyfluorinated Alkyl Substances (PFAS)																									
Perfluorooctanesulfonic acid (PFOS)	1763-23-1	537	ng/L	51000 (13)	13																				
Perfluorooctanoic acid (PFOA)	335-67-1	537	ng/L	3900000 (13)	14																				
Metals and Cyanide (Total)																									
Barium	7440-39-3	6020B	µg/L	220 (12)							634		4	0.91							329		4	0.91	
Silver	7440-22-4	6020B	µg/L	0.12 (12)							0.29	U	2	0.29							0.29	U	2	0.29	
Cyanide, Total	57-12-5	9012B	mg/L	0.0052 (12)																	0.004	J	0.01	0.004	
Metals (Dissolved)																									
Barium	7440-39-3	6020B	µg/L	220 (12)		849		4	0.91	220	452		4	0.91	220	237		4	0.91	220	336		4	0.91	220
Iron	7439-89-6	6020B	µg/L	158 (14)		81200		120	58.2	158	41400		120	58.2	158	21100		120	58.2	158	41900		120	58.2	158
Lead	7439-92-1	6020B	µg/L	5.4 (12)		0.84	U	1.2	0.84	5.4	0.84	U	1.2	0.84	5.4	0.84	U	1.2	0.84	5.4	0.84	U	1.2	0.84	5.4
Manganese	7439-96-5	6020B	µg/L	112 (14)		2030		8	1.5	112	793		8	1.5	112	684		8	1.5	112	384		8	1.5	112

Table 5.23 - Pore Water: Summary of Exceedances

(continued)

Rolling Knolls Landfill

Sample Name				ESC's		PW42_0.1-1.1				PW43_0.4-1.4				PW44_0.1-1.1				PW45_0.1-1.1			
Sample Date/Time						05/27/2021 10:50				05/27/2021 13:00				06/01/2021 11:05				06/01/2021 13:50			
Latitude					(16) N.J.A.C. 7:9C GWQS	40.7267825				40.72743339				40.72381503				40.72413479			
Longitude						-74.4399115				-74.44007544				-74.44982242				-74.4444308			
Lab Sample Name				Screening Criteria		GS-N-PWT42-0.1-1.1				GS-N-PWT43-0.4-1.4				GS-S-PWT44-0.1-1.1				GS-S-PWT45-0.1-1.1			
Lab Sample Number						460-235584-2				460-235584-3				460-235699-1				460-235699-2			
Lab Report Number(s)						460-235584-1				460-235584-1				460-235699-1				460-235699-1			
Analyte	**CAS**	**Method**	**Units**			**Result**	**LDC Flag**	**RL**	**MDL (EDL)**	**ESC**	**Result**	**LDC Flag**	**RL**	**MDL (EDL)**	**ESC**	**Result**	**LDC Flag**	**RL**	**MDL (EDL)**	**ESC**	**Result**	**LDC Flag**	**RL**	**MDL (EDL)**	**ESC**
Semivolatile Organic Compounds (SVOCs)																									
Bis(2-ethylhexyl) phthalate	117-81-7	8270E	mg/L	0.0003 (12)		0.0008	U	0.002	0.0008	0.0003	0.0008	U	0.002	0.0008	0.0003	0.0008	U	0.002	0.0008	0.0003	0.0008	U	0.002	0.0008	0.0003
Polycyclic Aromatic Hydrocarbons (PAHs)																									
Anthracene	120-12-7	8270E	mg/L	0.000035 (12)		0.000028	J	0.00005	0.000025	0.000035	0.000025	U	0.00005	0.025	0.000035	0.000025	UJ	0.00005	0.000025	0.000035	0.000025	UJ	0.00005	0.000025	0.000035
Benzo[a]anthracene	56-55-3	8270E SIM	mg/L	0.000025 (12)		0.000016	U	0.00005	0.000016	0.000025	0.000016	U	0.00005	0.000016	0.000025	0.000016	U	0.00005	0.000016	0.000025	0.000016	U	0.00005	0.000016	0.000025
Benzo[a]pyrene	50-32-8	8270E SIM	mg/L	0.000014 (12)		0.000022	U	0.00005	0.000022	0.000014	0.000022	U	0.00005	0.000022	0.000014	0.000022	U	0.00005	0.000022	0.000014	0.000022	U	0.00005	0.000022	0.000014
Benzo[k]fluoranthene	207-08-9	8270E SIM	mg/L	0.0000041 (14)		0.000028	U	0.00005	0.000028	0.0000041	0.000028	U	0.00005	0.000028	0.0000041	0.000028	U	0.00005	0.000028	0.0000041	0.000028	U	0.00005	0.000028	0.0000041
Chrysene	218-01-9	8270E	mg/L	0.0000018 (14)		0.00003	U	0.00005	0.00003	0.0000018	0.00003	U	0.00005	0.00003	0.0000018	0.00003	U	0.00005	0.00003	0.0000018	0.00003	U	0.00005	0.00003	0.0000018
Dibenz(a,h)anthracene	53-70-3	8270E SIM	mg/L	0.0000034 (14)		0.00002	UJ	0.00005	0.00002	0.0000034	0.00002	UJ	0.00005	0.00002	0.0000034	0.00002	U	0.00005	0.00002	0.0000034	0.00002	U	0.00005	0.00002	0.0000034
Polyfluorinated Alkyl Substances (PFAS)																									
Perfluorooctanesulfonic acid (PFOS)	1763-23-1	537	ng/L	51000 (13)	13						209		1.63	0.44		108		1.7	0.46		1130		18	4.85	
Perfluorooctanoic acid (PFOA)	335-67-1	537	ng/L	3900000 (13)	14						65.9		1.63	0.69		43.2		1.7	0.72		111		18	7.64	
Metals and Cyanide (Total)																									
Barium	7440-39-3	6020B	µg/L	220 (12)		624		4	0.91		488		4	0.91		50		4	0.91		495		4	0.91	
Silver	7440-22-4	6020B	µg/L	0.12 (12)		0.29	U	2	0.29		0.29	U	2	0.29		0.29	U	2	0.29		0.29	U	2	0.29	
Cyanide, Total	57-12-5	9012B	mg/L	0.0052 (12)		0.013		0.01	0.004		0.028		0.01	0.004		0.021	J	0.01	0.004		0.004	U	0.01	0.004	
Metals (Dissolved)																									
Barium	7440-39-3	6020B	µg/L	220 (12)		685		4	0.91	220	525		4	0.91	220	46.2		4	0.91	220	468		4	0.91	220
Iron	7439-89-6	6020B	µg/L	158 (14)		56400		120	58.2	158	33600		120	58.2	158	2250		120	58.2	158	34900		120	58.2	158
Lead	7439-92-1	6020B	µg/L	5.4 (12)		2.2		1.2	0.84	5.4	0.84	U	1.2	0.84	5.4	1.9		1.2	0.84	5.4	0.84	U	1.2	0.84	5.4
Manganese	7439-96-5	6020B	µg/L	112 (14)		850		8	1.5	112	515		8	1.5	112	93		8	1.5	112	484		8	1.5	112

Table 5.23 - Pore Water: Summary of Exceedances

(continued)

Rolling Knolls Landfill

Sample Name				ESC's		PW100_0.1-1.1 (PW45_0.1-1.1 duplicate)				PW46_0.3-1.3				PW101_0.3-1.3 (PW46-0.3-1.3 duplicate)				PW47_0.1-1.1			
Sample Date/Time						06/01/2021 13:50				06/02/2021 10:20				06/02/2021 10:20				06/02/2021 12:50			
Latitude					(16) N.J.A.C. 7:9C GWQS	40.72413479				40.72975399				40.72975399				40.73048521			
Longitude						-74.4444308				-74.44129459				-74.44129459				-74.44164343			
Lab Sample Name				Screening Criteria		GS-S-PWT100-0.1-1.1				GS-N-PWT46-0.3-1.3				GS-N-PWT101-0.3-1.3				GS-PWT47-0.1-1.1			
Lab Sample Number						460-235699-3				460-235933-1				460-235933-2				460-235933-3			
Lab Report Number(s)						460-235699-1				460-235933-1				460-235933-1				460-235933-1			
Analyte	**CAS**	**Method**	**Units**			**Result**	**LDC Flag**	**RL**	**MDL (EDL)**	**ESC**	**Result**	**LDC Flag**	**RL**	**MDL (EDL)**	**ESC**	**Result**	**LDC Flag**	**RL**	**MDL (EDL)**	**ESC**	**Result**	**LDC Flag**	**RL**	**MDL (EDL)**	**ESC**
Semivolatile Organic Compounds (SVOCs)																									
Bis(2-ethylhexyl) phthalate	117-81-7	8270E	mg/L	0.0003 (12)		0.0008	U	0.002	0.0008	0.0003	0.0008	U	0.002	0.0008	0.0003	0.0008	U	0.002	0.0008	0.0003	0.0008	U	0.002	0.0008	0.0003
Polycyclic Aromatic Hydrocarbons (PAHs)																									
Anthracene	120-12-7	8270E	mg/L	0.000035 (12)		0.000025	UJ	0.00005	0.000025	0.000035	0.0013	U	0.01	0.0013	0.000035	0.0013	U	0.01	0.0013	0.000035	0.0013	U	0.01	0.0013	0.000035
Benzo[a]anthracene	56-55-3	8270E SIM	mg/L	0.000025 (12)		0.000016	U	0.00005	0.000016	0.000025	0.00059	U	0.001	0.00059	0.000025	0.00059	U	0.001	0.00059	0.000025	0.00059	U	0.001	0.00059	0.000025
Benzo[a]pyrene	50-32-8	8270E SIM	mg/L	0.000014 (12)		0.000022	U	0.00005	0.000022	0.000014	0.00041	U	0.001	0.00041	0.000014	0.00041	U	0.001	0.00041	0.000014	0.00041	U	0.001	0.00041	0.000014
Benzo[k]fluoranthene	207-08-9	8270E SIM	mg/L	0.0000041 (14)		0.00028	U	0.00005	0.00028	0.0000041	0.00067	U	0.001	0.00067	0.0000041	0.00067	U	0.001	0.00067	0.0000041	0.00067	U	0.001	0.00067	0.0000041
Chrysene	218-01-9	8270E	mg/L	0.0000018 (14)		0.00003	U	0.00005	0.00003	0.0000018	0.00091	U	0.002	0.00091	0.0000018	0.00091	U	0.002	0.00091	0.0000018	0.00091	U	0.002	0.00091	0.0000018
Dibenz(a,h)anthracene	53-70-3	8270E SIM	mg/L	0.0000034 (14)		0.00002	U	0.00005	0.00002	0.0000034	0.00072	U	0.001	0.00072	0.0000034	0.00072	U	0.001	0.00072	0.0000034	0.00072	U	0.001	0.00072	0.0000034
Polyfluorinated Alkyl Substances (PFAS)																									
Perfluorooctanesulfonic acid (PFOS)	1763-23-1	537	ng/L	51000 (13)	13	1100		18.8	5.07		179	J	1.73	0.47		274	J	1.76	0.47		269	J	1.77	0.48	
Perfluorooctanoic acid (PFOA)	335-67-1	537	ng/L	3900000 (13)	14	109		18.8	7.98		33.9	J	1.73	0.74		40.3	J	1.76	0.75		38.7	J	1.77	0.75	
Metals and Cyanide (Total)																									
Barium	7440-39-3	6020B	µg/L	220 (12)		414		4	0.91		389		4	0.91		392		4	0.91		408		4	0.91	
Silver	7440-22-4	6020B	µg/L	0.12 (12)		0.29	U	2	0.29		0.29	U	2	0.29		0.29	U	2	0.29		0.38	J	2	0.29	
Cyanide, Total	57-12-5	9012B	mg/L	0.0052 (12)		0.004	U	0.01	0.004		0.005	U	0.01	0.005		0.005	U	0.01	0.005		0.005	U	0.01	0.005	
Metals (Dissolved)																									
Barium	7440-39-3	6020B	µg/L	220 (12)		516		4	0.91	220	408		4	0.91	220	409		4	0.91	220	430		4	0.91	220
Iron	7439-89-6	6020B	µg/L	158 (14)		36800		120	58.2	158	51500		120	58.2	158	52000		120	58.2	158	6770		120	58.2	158
Lead	7439-92-1	6020B	µg/L	5.4 (12)		0.84	U	1.2	0.84	5.4	10.3		1.2	0.84	5.4	0.87	J	1.2	0.84	5.4	1.1	J	1.2	0.84	5.4
Manganese	7439-96-5	6020B	µg/L	112 (14)		528		8	1.5	112	782		8	1.5	112	761		8	1.5	112	1220		8	1.5	112

Table 5.24 - Surface Water: Water Quality Parameters

Rolling Knolls Landfill

	Sample Name			SW01				SW100 (SW01 duplicate)				SW02				SW03				SW04				SW05				SW06				SW07				SW08			
	Sample Date/Time			05/14/2021 09:55				05/14/2021 09:55				05/15/2021 14:00				05/14/2021 10:25				05/16/2021 14:05				05/19/2021 14:28				05/24/2021 09:33				05/24/2021 15:35				05/27/2021 14:02			
	Latitude			40.72679048				40.72679048				40.72348001				40.72638199				40.72279291				40.73189645				40.73121158				40.7274759				40.72670264			
	Longitude			-74.44034485				-74.44034485				-74.44733922				-74.44081347				-74.44605049				-74.44071437				-74.43997617				-74.43941052				-74.43975904			
	Lab Sample Name			GS-S-SWT01				GS-S-SWT100				GS-S-SWT02				GS-S-SWT03				GS-S-SWT04				GS-N-SWT05				GS-N-SWT06				GS-N-SWT07				GS-N-SWT08			
	Lab Sample Number			460-234560-2				460-234560-1				460-234545-3				460-234560-3				460-234545-4				460-234972-5				460-235444-4				460-235444-3				460-235584-4			
	Lab Report Number(s)			460-234560-1				460-234560-1				460-234545-1				460-234560-1				460-234545-1				460-234972-1				460-235444-1				460-235444-1				460-235584-1			
Analyte	CAS	Method	Units	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)
Dissolved Organic Carbon	7440-44-0	9060A	mg/L																									15		1	0.53	12.9		1	0.53	40.2		1	0.53
Alkalinity		SM 2320B	mg/L	243		5	5	236		5	5	239		5	5	250		5	5	305		5	5	97.5		5	5	134		5	5	95.2		5	5	192		5	5
Bicarbonate Alkalinity as CaCO3		SM 2320B	mg/L	243		5	5	236		5	5	239		5	5	250		5	5	305		5	5	97.5		5	5	134		5	5	95.2		5	5	192		5	5
Carbonate Alkalinity as CaCO3		SM 2320B	mg/L	5	U	5	5	5	U	5	5	5	U	5	5	5	U	5	5	5	U	5	5	5	U	5	5	5	U	5	5	5	U	5	5	5	U	5	5
Hydroxide Alkalinity		SM 2320B	mg/L	5	U	5	5	5	U	5	5	5	U	5	5	5	U	5	5	5	U	5	5	5	U	5	5	5	U	5	5	5	U	5	5	5	U	5	5
Hardness as calcium carbonate		SM 2340B	mg/L	225		33.1	33.1	230		33.1	33.1	261		33.1	33.1	246		33.1	33.1	646		33.1	33.1	114		33.1	33.1	33.1	U	33.1	33.1	76.3		33.1	33.1	99.6		33.1	33.1

Table 5.25 - Surface Water: Metals and Cyanide Analytical Results

Rolling Knolls Landfill

Sample Name				ESC's	SW01				SW100 (SW01 duplicate)				SW02				SW03				SW04			
Sample Date/Time					05/14/2021 09:55				05/14/2021 09:55				05/15/2021 14:00				05/14/2021 10:25				05/16/2021 14:05			
Latitude				Screening Criteria	40.72679048				40.72679048				40.72348001				40.72638199				40.72279291			
Longitude					-74.44034485				-74.44034485				-74.44733922				-74.44081347				-74.44605049			
Lab Sample Name					GS-S-SWT01				GS-S-SWT100				GS-S-SWT02				GS-S-SWT03				GS-S-SWT04			
Lab Sample Number					460-234560-2				460-234560-1				460-234545-3				460-234560-3				460-234545-4			
Lab Report Number(s)					460-234560-1				460-234560-1				460-234545-1				460-234560-1				460-234545-1			
Analyte	**CAS**	**Method**	**Units**		**Result**	**LDC Flag**	**RL**	**MDL (EDL)**	**ESC**	**Result**	**LDC Flag**	**RL**	**MDL (EDL)**	**ESC**	**Result**	**LDC Flag**	**RL**	**MDL (EDL)**	**ESC**	**Result**	**LDC Flag**	**RL**	**MDL (EDL)**	**ESC**	**Result**	**LDC Flag**	**RL**	**MDL (EDL)**	**ESC**
Metals (Total)																												
Aluminum	7429-90-5	6020B	µg/L		19.5	U	40	19.5		19.5	U	40	19.5		**229**		40	19.5		**47**		40	19.5		**2250**		80	39	
Antimony	7440-36-0	6020B	µg/L	80 (12)	0.76	U	2	0.76		0.76	U	2	0.76		0.76	U	2	0.76		0.76	U	2	0.76		11.9		4	1.5	
Arsenic	7440-38-2	6020B	µg/L		0.89	U	2	0.89		0.89	U	2	0.89		**2.4**		2	0.89		0.89	U	2	0.89		**32.6**		4	1.8	
Barium	7440-39-3	6020B	µg/L	220 (12)	**489**		4	0.91		**513**		4	0.91		**619**		4	0.91		**2050**		4	0.91		**3920**		8	1.8	
Beryllium	7440-41-7	6020B	µg/L	3.6 (12)	0.13	U	0.8	0.13		0.13	U	0.8	0.13		0.13	U	0.8	0.13		0.13	U	0.8	0.13		0.26	U	1.6	0.26	
Cadmium	7440-43-9	6020B	µg/L		0.39	U	2	0.39		0.39	U	2	0.39		0.39	U	2	0.39		**4.4**		2	0.39		**59.1**		4	0.77	
Calcium	7440-70-2	6020B	µg/L		**78200**		500	53.6		**79900**		500	53.6		**92000**		500	53.6		**89000**		500	53.6		**238000**		1000	107	
Chromium	7440-47-3	6020B	µg/L	42 (12)	2.5	U	4	2.5		2.5	U	4	2.5		2.5	U	4	2.5		2.5	U	4	2.5		**49.5**		8	5	
Cobalt	7440-48-4	6020B	µg/L	24 (12)	3.4	J	4	0.71		3.8	J	4	0.71		3.6	J	4	0.71		5.6		4	0.71		22.3		8	1.4	
Copper	7440-50-8	6020B	µg/L		**8.1**		4	2.5		**7.7**		4	2.5		**6.3**		4	2.5		**64.1**		4	2.5		**1210**		8	4.9	
Iron	7439-89-6	6020B	µg/L		**15200**		120	58.2		**13800**		120	58.2		**42900**		120	58.2		**204000**		120	58.2		**602000**		240	116	
Lead	7439-92-1	6020B	µg/L		**4.9**		1.2	0.84		**4.5**		1.2	0.84		**4.7**		1.2	0.84		**10.7**		1.2	0.84		**1320**		2.4	1.7	
Magnesium	7439-95-4	6020B	µg/L		**7280**		200	46.9		**7460**		200	46.9		**7610**		200	46.9		**5910**		200	46.9		**12500**		400	93.8	
Manganese	7439-96-5	6020B	µg/L		**734**		8	1.5		**780**		8	1.5		**782**		8	1.5		**791**		8	1.5		**1310**		16	2.9	
Nickel	7440-02-0	6020B	µg/L		**21.5**		4	0.91		**21.4**		4	0.91		**9.5**		4	0.91		**32.1**		4	0.91		**202**		8	1.8	
Potassium	7440-09-7	6020B	µg/L		**4270**		200	112		**4370**		200	112		**5110**		200	112		**3150**		200	112		**8010**		400	224	
Selenium	7782-49-2	6020B	µg/L		0.59	U	2.5	0.59		0.59	U	2.5	0.59		0.59	U	2.5	0.59		0.59	U	2.5	0.59		**3.3**	J	5	1.2	
Silver	7440-22-4	6020B	µg/L	0.12 (12)	0.29	U	2	0.29		0.29	U	2	0.29		0.29	U	2	0.29		0.29	U	2	0.29		**9.5**		4	0.58	
Sodium	7440-23-5	6020B	µg/L		**5820**		500	163		**5940**		500	163		**5650**		500	163		**5020**		500	163		**7350**		1000	326	
Thallium	7440-28-0	6020B	µg/L	10 (12)	0.21	U	0.8	0.21		0.21	U	0.8	0.21		0.21	U	0.8	0.21		0.21	U	0.8	0.21		0.42	U	1.6	0.42	
Vanadium	7440-62-2	6020B	µg/L	12 (12)	0.68	U	4	0.68		0.68	U	4	0.68		1.1	J	4	0.68		0.68	U	4	0.68		**31.7**		8	1.4	
Zinc	7440-66-6	6020B	µg/L		**47.7**		16	6.5		**52.6**		16	6.5		**58.5**		16	6.5		**171**		16	6.5		**8480**		32	13	
Mercury	7439-97-6	7470A	µg/L		0.091	U	0.2	0.091		0.091	U	0.2	0.091		0.091	U	0.2	0.091		**0.72**		0.2	0.091		**8.1**		0.2	0.091	
Cyanide, Total	57-12-5	9012B	mg/L	0.0052 (12)	0.005	U	0.01	0.005		0.005	U	0.01	0.005		0.005	U	0.01	0.005		**0.0065**	J	0.01	0.005		**0.01**		0.01	0.005	
Metals (Dissolved)																												
Aluminum	7429-90-5	6020B	µg/L	100 (15)	19.5	U	40	19.5	100	19.5	U	40	19.5	100	19.5	U	40	19.5	100	19.5	U	40	19.5	100	19.5	U	40	19.5	100
Antimony	7440-36-0	6020B	µg/L	80 (12)	0.76	U	2	0.76	80	0.76	U	2	0.76	80	0.76	U	2	0.76	80	0.76	U	2	0.76	80	0.76	U	2	0.76	80
Arsenic	7440-38-2	6020B	µg/L	150 (12)	0.89	U	2	0.89	150	0.89	U	2	0.89	150	0.89	U	2	0.89	150	0.89	U	2	0.89	150	0.89	U	2	0.89	150
Barium	7440-39-3	6020B	µg/L	220 (12)	**382**		4	0.91	220	**386**		4	0.91	220	**319**		4	0.91	220	**446**		4	0.91	220	**464**		4	0.91	220
Beryllium	7440-41-7	6020B	µg/L	3.6 (12)	0.13	U	0.8	0.13	3.6	0.13	U	0.8	0.13	3.6	0.13	U	0.8	0.13	3.6	0.13	U	0.8	0.13	3.6	0.13	U	0.8	0.13	3.6
Cadmium	7440-43-9	6020B	µg/L	Hard calc (12)	0.39	U	2	0.39	0.32	0.39	U	2	0.39	0.33	0.39	U	2	0.39	0.36	0.39	U	2	0.39	0.34	0.39	U	2	0.39	0.70
Calcium	7440-70-2	6020B	µg/L		79000		500	53.6		77300		500	53.6		83000		500	53.6		78900		500	53.6		102000		500	53.6	
Chromium	7440-47-3	6020B	µg/L	42 (12)	2.5	U	4	2.5	42	2.5	U	4	2.5	42	2.5	U	4	2.5	42	2.5	U	4	2.5	42	2.5	U	4	2.5	42
Cobalt	7440-48-4	6020B	µg/L	24 (12)	0.71	U	4	0.71	24	0.71	U	4	0.71	24	0.71	U	4	0.71	24	0.71	U	4	0.71	24	0.71	U	4	0.71	24
Copper	7440-50-8	6020B	µg/L	Hard calc (12)	4.5		4	2.5	16.94	2.9	J	4	2.5	17.26	2.5	U	4	2.5	19.23	3.9	J	4	2.5	18.28	2.6	J	4	2.5	41.71
Iron	7439-89-6	6020B	µg/L	158 (14)	58.2	U	120	58.2	158	58.2	U	120	58.2	158	58.2	U	120	58.2	158	58.2	U	120	58.2	158	58.2	U	120	58.2	158
Lead	7439-92-1	6020B	µg/L	5.4 (12)	0.84	U	1.2	0.84	5.4	0.84	U	1.2	0.84	5.4	0.84	U	1.2	0.84	5.4	0.84	U	1.2	0.84	5.4	0.84	U	1.2	0.84	5.4
Magnesium	7439-95-4	6020B	µg/L		7220		200	46.9		7360		200	46.9		7050		200	46.9		6380		200	46.9		9990		200	46.9	
Manganese	7439-96-5	6020B	µg/L	112 (14)	1.5	U	8	1.5	112	1.9	J	8	1.5	112	**157**		8	1.5	112	1.5	U	8	1.5	112	25.8		8	1.5	112
Nickel	7440-02-0	6020B	µg/L	Hard calc (12)	10.3		4	0.91	87.64	13.4		4	0.91	89.28	5.4		4	0.91	99.36	4.1		4	0.91	94.51	4.9		4	0.91	213.89
Potassium	7440-09-7	6020B	µg/L		4160		200	112		4140		200	112		5170		200	112		3520		200	112		7090		200	112	
Selenium	7782-49-2	6020B	µg/L	5 (12)	0.59	U	2.5	0.59	5	0.59	U	2.5	0.59	5	0.59	U	2.5	0.59	5	0.59	U	2.5	0.59	5	0.59	U	2.5	0.59	5
Silver	7440-22-4	6020B	µg/L	0.12 (12)	0.29	U	2	0.29	0.12	0.29	U	2	0.29	0.12	0.29	U	2	0.29	0.12	0.29	U	2	0.29	0.12	0.29	U	2	0.29	0.12
Sodium	7440-23-5	6020B	µg/L		5590		500	163		5520		500	163		5250		500	163		5050		500	163		6980		500	163	
Thallium	7440-28-0	6020B	µg/L	0.03 (14)	0.21	U	0.8	0.21	0.03	0.21	U	0.8	0.21	0.03	0.21	U	0.8	0.21	0.03	0.21	U	0.8	0.21	0.03	0.21	U	0.8	0.21	0.03
Vanadium	7440-62-2	6020B	µg/L	12 (12)	0.68	U	4	0.68	12	0.68	U	4	0.68	12	0.68	U	4	0.68	12	0.68	U	4	0.68	12	0.68	U	4	0.68	12
Zinc	7440-66-6	6020B	µg/L	Hard calc (12)	26.6		16	6.5	226.28	28		16	6.5	230.53	8.8	J	16	6.5	256.60	6.5	U	16	6.5	244.05	27.5		16	6.5	553.03
Mercury	7439-97-6	7470A	µg/L	0.77 (12)	0.091	U	0.2	0.091	0.77	0.091	U	0.2	0.091	0.77	0.091	U	0.2	0.091	0.77	0.091	U	0.2	0.091	0.77	0.091	U	0.2	0.091	0.77

Table 5.25 - Surface Water: Metals and Cyanide Analytical Result (continued)

Rolling Knolls Landfill

Sample Name				ESC's	SW05				SW06				SW07				SW08			
Sample Date/Time					05/19/2021 14:28				05/24/2021 09:33				05/24/2021 15:35				05/27/2021 14:02			
Latitude				Screening Criteria	40.73189645				40.73121158				40.7274759				40.72670264			
Longitude					-74.44071437				-74.43997617				-74.43941052				-74.43975904			
Lab Sample Name					GS-N-SWT05				GS-N-SWT06				GS-N-SWT07				GS-N-SWT08			
Lab Sample Number					460-234972-5				460-235444-4				460-235444-3				460-235584-4			
Lab Report Number(s)					460-234972-1				460-235444-1				460-235444-1				460-235584-1			
Analyte	CAS	Method	Units		Result	LDC Flag	RL	MDL (EDL)	ESC	Result	LDC Flag	RL	MDL (EDL)	ESC	Result	LDC Flag	RL	MDL (EDL)	ESC	Result	LDC Flag	RL	MDL (EDL)	ESC
Metals (Total)																								
Aluminum	7429-90-5	6020B	µg/L		**819**		40	19.5		**1120**		40	19.5		**328**		40	19.5		**861**		40	19.5	
Antimony	7440-36-0	6020B	µg/L	80 (12)	0.76	U	2	0.76		0.76	U	2	0.76		0.76	U	2	0.76		0.76	U	2	0.76	
Arsenic	7440-38-2	6020B	µg/L		**1.9**	J	2	0.89		**2.2**		2	0.89		**3**		2	0.89		**14**		2	0.89	
Barium	7440-39-3	6020B	µg/L	220 (12)	123		4	0.91		171		4	0.91		204		4	0.91		**859**		4	0.91	
Beryllium	7440-41-7	6020B	µg/L	3.6 (12)	0.13	U	0.8	0.13		0.13	U	0.8	0.13		0.13	U	0.8	0.13		0.13	U	0.8	0.13	
Cadmium	7440-43-9	6020B	µg/L		**0.6**	J	2	0.39		**2.2**		2	0.39		0.39	U	2	0.39		**0.5**	J	2	0.39	
Calcium	7440-70-2	6020B	µg/L		**35300**		500	53.6		**9300**		500	53.6		**24500**		500	53.6		**35000**		500	53.6	
Chromium	7440-47-3	6020B	µg/L	42 (12)	2.5	U	4	2.5		3	J	4	2.5		2.5	U	4	2.5		6.7		4	2.5	
Cobalt	7440-48-4	6020B	µg/L	24 (12)	1.9	J	4	0.71		1.8	J	4	0.71		1.5	J	4	0.71		5.4		4	0.71	
Copper	7440-50-8	6020B	µg/L		**10.2**		4	2.5		**33.1**		4	2.5		**4.8**		4	2.5		**16**		4	2.5	
Iron	7439-89-6	6020B	µg/L		**5540**		120	58.2		**37600**		120	58.2		**65400**		120	58.2		**192000**		120	58.2	
Lead	7439-92-1	6020B	µg/L		**30.7**		1.2	0.84		**31.8**		1.2	0.84		**5.9**		1.2	0.84		**15.8**		1.2	0.84	
Magnesium	7439-95-4	6020B	µg/L		**6250**		200	46.9		**883**		200	46.9		**3680**		200	46.9		**2960**		200	46.9	
Manganese	7439-96-5	6020B	µg/L		**592**		8	1.5		**583**		8	1.5		**832**		8	1.5		**540**		8	1.5	
Nickel	7440-02-0	6020B	µg/L		**4.8**		4	0.91		**10.3**		4	0.91		**3.9**	J	4	0.91		**31.5**		4	0.91	
Potassium	7440-09-7	6020B	µg/L		**1790**		200	112		**434**		200	112		**1410**		200	112		**1690**		200	112	
Selenium	7782-49-2	6020B	µg/L		0.59	U	2.5	0.59		**0.76**	J	2.5	0.59		0.59	U	2.5	0.59		**0.7**	J	2.5	0.59	
Silver	7440-22-4	6020B	µg/L	0.12 (12)	0.29	U	2	0.29		**0.46**	J	2	0.29		0.29	U	2	0.29		0.29	U	2	0.29	
Sodium	7440-23-5	6020B	µg/L		**29800**		500	163		**1580**		500	163		**15100**		500	163		**2870**		500	163	
Thallium	7440-28-0	6020B	µg/L	10 (12)	0.21	U	0.8	0.21		0.21	U	0.8	0.21		0.21	U	0.8	0.21		0.21	U	0.8	0.21	
Vanadium	7440-62-2	6020B	µg/L	12 (12)	4.3		4	0.68		7		4	0.68		3	J	4	0.68		7.1		4	0.68	
Zinc	7440-66-6	6020B	µg/L		**113**		16	6.5		**137**		16	6.5		**23.4**		16	6.5		**153**		16	6.5	
Mercury	7439-97-6	7470A	µg/L		**0.14**	J	0.2	0.091		**0.79**	J	0.2	0.091		0.091	J	0.2	0.091		**0.16**	J	0.2	0.091	
Cyanide, Total	57-12-5	9012B	mg/L	0.0052 (12)	0.005	U	0.01	0.005		0.005	U	0.01	0.005		0.005	U	0.01	0.005		**0.011**		0.01	0.004	
Metals (Dissolved)																								
Aluminum	7429-90-5	6020B	µg/L	100 (15)						19.5	U	40	19.5	100	33.8	J	40	19.5	100	19.5	U	40	19.5	100
Antimony	7440-36-0	6020B	µg/L	80 (12)						0.76	U	2	0.76	80	0.76	U	2	0.76	80	0.76	U	2	0.76	80
Arsenic	7440-38-2	6020B	µg/L	150 (12)						0.89	U	2	0.89	150	0.89	U	2	0.89	150	0.89	U	2	0.89	150
Barium	7440-39-3	6020B	µg/L	220 (12)						106		4	0.91	220	62.2		4	0.91	220	**226**		4	0.91	220
Beryllium	7440-41-7	6020B	µg/L	3.6 (12)						0.13	U	0.8	0.13	3.6	0.13	U	0.8	0.13	3.6	0.13	U	0.8	0.13	3.6
Cadmium	7440-43-9	6020B	µg/L	Hard calc (12)						0.39	U	2	0.39	0.08	0.39	U	2	0.39	0.14	0.39	U	2	0.39	0.18
Calcium	7440-70-2	6020B	µg/L							39000		500	53.6		27700		500	53.6		57700		500	53.6	
Chromium	7440-47-3	6020B	µg/L	42 (12)						2.5	U	4	2.5	42	2.5	U	4	2.5	42	2.5	U	4	2.5	42
Cobalt	7440-48-4	6020B	µg/L	24 (12)						0.71	U	4	0.71	24	0.71	U	4	0.71	24	0.71	U	4	0.71	24
Copper	7440-50-8	6020B	µg/L	Hard calc (12)						2.5	U	4	2.5	3.29	2.5	U	4	2.5	6.72	2.5	U	4	2.5	8.44
Iron	7439-89-6	6020B	µg/L	158 (14)						58.2	U	120	58.2	158	**310**		120	58.2	158	58.2	U	120	58.2	158
Lead	7439-92-1	6020B	µg/L	5.4 (12)						0.84	U	1.2	0.84	5.4	0.84	U	1.2	0.84	5.4	0.84	U	1.2	0.84	5.4
Magnesium	7439-95-4	6020B	µg/L							6370		200	46.9		5970		200	46.9		6030		200	46.9	
Manganese	7439-96-5	6020B	µg/L	112 (14)						5.7	J	8	1.5	112	21.8		8	1.5	112	**214**		8	1.5	112
Nickel	7440-02-0	6020B	µg/L	Hard calc (12)						2.1	J	4	0.91	17.32	1.7	J	4	0.91	35.10	3.7		4	0.91	43.98
Potassium	7440-09-7	6020B	µg/L							1680		200	112		2720		200	112		3520		200	112	
Selenium	7782-49-2	6020B	µg/L	5 (12)						0.59	U	2.5	0.59	5	0.59	U	2.5	0.59	5	0.59	U	2.5	0.59	5
Silver	7440-22-4	6020B	µg/L	0.12 (12)						0.29	U	2	0.29	0.12	0.29	U	2	0.29	0.12	0.29	U	2	0.29	0.12
Sodium	7440-23-5	6020B	µg/L							17900		500	163		34100		500	163		6600		500	163	
Thallium	7440-28-0	6020B	µg/L	0.03 (14)						0.21	U	0.8	0.21	0.03	0.21	U	0.8	0.21	0.03	0.21	U	0.8	0.21	0.03
Vanadium	7440-62-2	6020B	µg/L	12 (12)						0.68	U	4	0.68	12	0.68	U	4	0.68	12	0.68	U	4	0.68	12
Zinc	7440-66-6	6020B	µg/L	Hard calc (12)						6.6	J	16	6.5	44.61	6.5	U	16	6.5	90.51	13.2	J	16	6.5	113.44
Mercury	7439-97-6	7470A	µg/L	0.77 (12)						0.091	UJ	0.2	0.091	0.77	0.091	UJ	0.2	0.091	0.77	0.11	J	0.2	0.091	0.77

Table 5.26 - Surface Water: Volatile Organic Compounds (VOCs) Analytical Results

Rolling Knolls Landfill

	Sample Name			ESC's	SW01				SW100 (SW01 duplicate)				SW03			
	Sample Date/Time				05/14/2021 09:55				05/14/2021 09:55				05/14/2021 10:25			
	Latitude			Screening Criteria	40.72679048				40.72679048				40.72638199			
	Longitude				-74.44034485				-74.44034485				-74.44081347			
	Lab Sample Name				GS-S-SWT01				GS-S-SWT100				GS-S-SWT03			
	Lab Sample Number				460-234560-2				460-234560-1				460-234560-3			
	Lab Report Number(s)				460-234560-1				460-234560-1				460-234560-1			
Analyte	CAS	Method	Units		Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)
1,1,1-Trichloroethane	71-55-6	8260D	µg/L	76 (12)	0.24	U	1	0.24	0.24	U	1	0.24	0.24	U	1	0.24
1,1,2,2-Tetrachloroethane	79-34-5	8260D	µg/L	380 (12)	0.37	U	1	0.37	0.37	U	1	0.37	0.37	U	1	0.37
1,1,2-Trichloro-1,2,2-trifluoroethane	76-13-1	8260D	µg/L		0.31	U	1	0.31	0.31	U	1	0.31	0.31	U	1	0.31
1,1,2-Trichloroethane	79-00-5	8260D	µg/L	500 (12)	0.2	U	1	0.2	0.2	U	1	0.2	0.2	U	1	0.2
1,1-Dichloroethane	75-34-3	8260D	µg/L	47 (14)	0.26	U	1	0.26	0.26	U	1	0.26	0.26	U	1	0.26
1,1-Dichloroethene	75-35-4	8260D	µg/L	65 (12)	0.26	U	1	0.26	0.26	U	1	0.26	0.26	U	1	0.26
1,2,3-Trichlorobenzene	87-61-6	8260D	µg/L	8 (14)	0.36	U	1	0.36	0.36	U	1	0.36	0.36	U	1	0.36
1,2,4-Trichlorobenzene	120-82-1	8260D	µg/L	30 (12)	0.37	U	1	0.37	0.37	U	1	0.37	0.37	U	1	0.37
1,2-Dibromo-3-Chloropropane	96-12-8	8260D	µg/L		0.38	U	1	0.38	0.38	U	1	0.38	0.38	U	1	0.38
1,2-Dichlorobenzene	95-50-1	8260D	µg/L	14 (12)	0.21	U	1	0.21	0.21	U	1	0.21	0.21	U	1	0.21
1,2-Dichloroethane	107-06-2	8260D	µg/L	910 (12)	0.43	U	1	0.43	0.43	U	1	0.43	0.43	U	1	0.43
1,2-Dichloropropane	78-87-5	8260D	µg/L	360 (12)	0.35	U	1	0.35	0.35	U	1	0.35	0.35	U	1	0.35
1,3-Dichlorobenzene	541-73-1	8260D	µg/L	38 (12)	0.34	U	1	0.34	0.34	U	1	0.34	0.34	U	1	0.34
1,4-Dichlorobenzene	106-46-7	8260D	µg/L	9.4 (12)	0.33	U	1	0.33	0.33	U	1	0.33	0.33	U	1	0.33
1,4-Dioxane	123-91-1	8260D	µg/L	22000 (6)	28	U	50	28	28	U	50	28	28	U	50	28
2-Butanone (MEK)	78-93-3	8260D	µg/L	7200 (14)	1.9	U	5	1.9	1.9	U	5	1.9	1.9	U	5	1.9
2-Hexanone	591-78-6	8260D	µg/L	99 (14)	1.1	U	5	1.1	1.1	U	5	1.1	1.1	U	5	1.1
4-Methyl-2-pentanone (MIBK)	108-10-1	8260D	µg/L	170 (14)	1.3	U	5	1.3	1.3	U	5	1.3	1.3	U	5	1.3
Acetone	67-64-1	8260D	µg/L	1500 (14)	6.8		5	4.4	6.5		5	4.4	4.4	U	5	4.4
Benzene	71-43-2	8260D	µg/L	114 (12)	0.2	U	1	0.2	0.2	U	1	0.2	0.2	U	1	0.2
Bromoform	75-25-2	8260D	µg/L	230 (12)	0.54	U	1	0.54	0.54	U	1	0.54	0.54	U	1	0.54
Bromomethane	74-83-9	8260D	µg/L	16 (12)	0.55	U	1	0.55	0.55	U	1	0.55	0.55	U	1	0.55
Carbon disulfide	75-15-0	8260D	µg/L	0.92 (14)	0.82	U	1	0.82	0.82	U	1	0.82	0.82	U	1	0.82
Carbon tetrachloride	56-23-5	8260D	µg/L	240 (12)	0.21	U	1	0.21	0.21	U	1	0.21	0.21	U	1	0.21
Chlorobenzene	108-90-7	8260D	µg/L	47 (12)	0.38	U	1	0.38	0.38	U	1	0.38	0.38	U	1	0.38
Chlorobromomethane	74-97-5	8260D	µg/L		0.41	U	1	0.41	0.41	U	1	0.41	0.41	U	1	0.41
Chlorodibromomethane	124-48-1	8260D	µg/L		0.28	U	1	0.28	0.28	U	1	0.28	0.28	U	1	0.28
Chloroethane	75-00-3	8260D	µg/L		0.32	U	1	0.32	0.32	U	1	0.32	0.32	U	1	0.32
Chloroform	67-66-3	8260D	µg/L	140 (12)	0.33	U	1	0.33	0.33	U	1	0.33	0.33	U	1	0.33
Chloromethane	74-87-3	8260D	µg/L		0.4	U	1	0.4	0.4	U	1	0.4	0.4	U	1	0.4
cis-1,2-Dichloroethene	156-59-2	8260D	µg/L	590 (14)	0.22	U	1	0.22	0.22	U	1	0.22	0.22	U	1	0.22
cis-1,3-Dichloropropene	10061-01-5	8260D	µg/L	0.055 (14)	0.22	U	1	0.22	0.22	U	1	0.22	0.22	U	1	0.22
Cyclohexane	110-82-7	8260D	µg/L		0.32	U	1	0.32	0.32	U	1	0.32	0.32	U	1	0.32
Dichlorobromomethane	75-27-4	8260D	µg/L		0.34	U	1	0.34	0.34	U	1	0.34	0.34	U	1	0.34
Dichlorodifluoromethane	75-71-8	8260D	µg/L		0.31	U	1	0.31	0.31	U	1	0.31	0.31	U	1	0.31
Ethylbenzene	100-41-4	8260D	µg/L	14 (12)	0.3	U	1	0.3	0.3	U	1	0.3	0.3	U	1	0.3
Ethylene Dibromide	106-93-4	8260D	µg/L		0.5	U	1	0.5	0.5	U	1	0.5	0.5	U	1	0.5
Isopropylbenzene	98-82-8	8260D	µg/L		0.34	U	1	0.34	0.34	U	1	0.34	0.34	U	1	0.34
Methyl acetate	79-20-9	8260D	µg/L		0.79	U	5	0.79	0.79	U	5	0.79	0.79	U	5	0.79
Methyl tert-butyl ether	1634-04-4	8260D	µg/L	51000 (12)	0.22	U	1	0.22	0.22	U	1	0.22	0.22	U	1	0.22
Methylcyclohexane	108-87-2	8260D	µg/L		0.71	U	1	0.71	0.71	U	1	0.71	0.71	U	1	0.71
Methylene Chloride	75-09-2	8260D	µg/L	940 (12)	4.3		1	0.32	4.6		1	0.32	0.6	U	1	0.32
m-Xylene & p-Xylene	179601-23-1	8260D	µg/L	1.8 (14)	0.3	U	1	0.3	0.3	U	1	0.3	0.3	U	1	0.3
o-Xylene	95-47-6	8260D	µg/L	13 (14)	0.36	U	1	0.36	0.36	U	1	0.36	0.36	U	1	0.36
Styrene	100-42-5	8260D	µg/L	32 (14)	0.42	U	1	0.42	0.42	U	1	0.42	0.42	U	1	0.42
Tetrachloroethene	127-18-4	8260D	µg/L	45 (12)	0.25	U	1	0.25	0.25	U	1	0.25	0.25	U	1	0.25
Toluene	108-88-3	8260D	µg/L	253 (12)	0.38	U	1	0.38	0.38	U	1	0.38	0.38	U	1	0.38
trans-1,2-Dichloroethene	156-60-5	8260D	µg/L	970 (12)	0.24	U	1	0.24	0.24	U	1	0.24	0.24	U	1	0.24
trans-1,3-Dichloropropene	10061-02-6	8260D	µg/L	0.055 (14)	0.22	U	1	0.22	0.22	U	1	0.22	0.22	U	1	0.22
Trichloroethene	79-01-6	8260D	µg/L	47 (12)	0.31	U	1	0.31	0.31	U	1	0.31	0.31	U	1	0.31
Trichlorofluoromethane	75-69-4	8260D	µg/L		0.32	U	1	0.32	0.32	U	1	0.32	0.32	U	1	0.32
Vinyl chloride	75-01-4	8260D	µg/L	930 (12)	0.17	U	1	0.17	0.17	U	1	0.17	0.17	U	1	0.17
1,2-Dibromo-3-Chloropropane	96-12-8	8260D SIM	µg/L		0.38	U	1	0.38	0.38	U	1	0.38	0.38	U	1	0.38
1,4-Dioxane	123-91-1	8260D SIM	µg/L	22000 (6)	28	U	50	28	28	U	50	28	28	U	50	28
Ethylene Dibromide	106-93-4	8260D SIM	µg/L		0.5	U	1	0.5	0.5	U	1	0.5	0.5	U	1	0.5

Table 5.27 - Surface Water: Semi-Volatile Organic Compounds (SVOCs) Analytical Results

Rolling Knolls Landfill

	Sample Name			ESC's	SW01					SW100 (SW01 duplicate)					SW02					SW03					SW04				
	Sample Date/Time				05/14/2021 09:55					05/14/2021 09:55					05/15/2021 14:00					05/14/2021 10:25					05/16/2021 14:05				
	Latitude				40.72679048					40.72679048					40.72348001					40.72638199					40.72279291				
	Longitude			Screening Criteria	-74.44034485					-74.44034485					-74.44733922					-74.44081347					-74.44605049				
	Lab Sample Name				GS-S-SWT01					GS-S-SWT100					GS-S-SWT02					GS-S-SWT03					GS-S-SWT04				
	Lab Sample Number				460-234560-2					460-234560-1					460-234545-3					460-234560-3					460-234545-4				
	Lab Report Number(s)				460-234560-1					460-234560-1					460-234545-1					460-234560-1					460-234545-1				
Analyte	CAS	Method	Units		Result	LDC Flag	RL	MDL (EDL)	ESC	Result	LDC Flag	RL	MDL (EDL)	ESC	Result	LDC Flag	RL	MDL (EDL)	ESC	Result	LDC Flag	RL	MDL (EDL)	ESC	Result	LDC Flag	RL	MDL (EDL)	ESC
1,1'-Biphenyl	92-52-4	8270E	mg/L		0.0012	U	0.01	0.0012		0.0012	U	0.01	0.0012		0.0012	U	0.01	0.0012		0.0012	U	0.01	0.0012		0.0012	U	0.01	0.0012	
1,2,4,5-Tetrachlorobenzene	95-94-3	8270E	mg/L	0.003 (12)	0.0012	U	0.01	0.0012	0.003	0.0012	U	0.01	0.0012	0.003	0.0012	U	0.01	0.0012	0.003	0.0012	U	0.01	0.0012	0.003	0.0012	U	0.01	0.0012	0.003
2,2'-oxybis[1-chloropropane]	108-60-1	8270E	mg/L		0.00063	U	0.01	0.00063		0.00063	U	0.01	0.00063		0.00063	U	0.01	0.00063		0.00063	U	0.01	0.00063		0.00063	U	0.01	0.00063	
2,3,4,6-Tetrachlorophenol	58-90-2	8270E	mg/L	0.0012 (6)	0.00075	U	0.01	0.00075	0.0012	0.00075	U	0.01	0.00075	0.0012	0.00075	U	0.01	0.00075	0.0012	0.00075	U	0.01	0.00075	0.0012	0.00075	U	0.01	0.00075	0.0012
2,4,5-Trichlorophenol	95-95-4	8270E	mg/L		0.00088	U	0.01	0.00088		0.00088	U	0.01	0.00088		0.00088	U	0.01	0.00088		0.00088	U	0.01	0.00088		0.00088	U	0.01	0.00088	
2,4,6-Trichlorophenol	88-06-2	8270E	mg/L	0.0049 (12)	0.00086	U	0.01	0.00086	0.0049	0.00086	U	0.01	0.00086	0.0049	0.00086	U	0.01	0.00086	0.0049	0.00086	U	0.01	0.00086	0.0049	0.00086	U	0.01	0.00086	0.0049
2,4-Dichlorophenol	120-83-2	8270E	mg/L	0.011 (12)	0.0011	U	0.01	0.0011	0.011	0.0011	U	0.01	0.0011	0.011	0.0011	U	0.01	0.0011	0.011	0.0011	U	0.01	0.0011	0.011	0.0011	U	0.01	0.0011	0.011
2,4-Dimethylphenol	105-67-9	8270E	mg/L	0.1 (12)	0.00062	U	0.01	0.00062	0.1	0.00062	U	0.01	0.00062	0.1	0.00062	U	0.01	0.00062	0.1	0.00062	U	0.01	0.00062	0.1	0.00062	U	0.01	0.00062	0.1
2,4-Dinitrophenol	51-28-5	8270E	mg/L	0.019 (12)	0.0026	U	0.02	0.0026	0.019	0.0026	U	0.02	0.0026	0.019	0.0026	U	0.02	0.0026	0.019	0.0026	U	0.02	0.0026	0.019	0.0026	U	0.02	0.0026	0.019
2,4-Dinitrotoluene	121-14-2	8270E	mg/L	0.044 (12)	0.001	U	0.002	0.001	0.044	0.001	U	0.002	0.001	0.044	0.001	U	0.002	0.001	0.044	0.001	U	0.002	0.001	0.044	0.001	U	0.002	0.001	0.044
2,6-Dinitrotoluene	606-20-2	8270E	mg/L	0.23 (14)	0.00083	U	0.002	0.00083	0.23	0.00083	U	0.002	0.00083	0.23	0.00083	U	0.002	0.00083	0.23	0.00083	U	0.002	0.00083	0.23	0.00083	U	0.002	0.00083	0.23
2-Chloronaphthalene	91-58-7	8270E	mg/L	0.000396 (12)	0.0012	U	0.01	0.0012	0.000396	0.0012	U	0.01	0.0012	0.000396	0.0012	U	0.01	0.0012	0.000396	0.0012	U	0.01	0.0012	0.000396	0.0012	U	0.01	0.0012	0.000396
2-Chlorophenol	95-57-8	8270E	mg/L	0.024 (12)	0.00038	U	0.01	0.00038	0.024	0.00038	U	0.01	0.00038	0.024	0.00038	U	0.01	0.00038	0.024	0.00038	U	0.01	0.00038	0.024	0.00038	U	0.01	0.00038	0.024
2-Methylnaphthalene	91-57-6	8270E	mg/L	0.33 (12)	0.00053	U	0.01	0.00053	0.33	0.00053	U	0.01	0.00053	0.33	0.00053	U	0.01	0.00053	0.33	0.00053	U	0.01	0.00053	0.33	0.00053	U	0.01	0.00053	0.33
2-Methylphenol	95-48-7	8270E	mg/L	0.013 (14)	0.00067	U	0.01	0.00067	0.013	0.00067	U	0.01	0.00067	0.013	0.00067	U	0.01	0.00067	0.013	0.00067	U	0.01	0.00067	0.013	0.00067	U	0.01	0.00067	0.013
2-Nitroaniline	88-74-4	8270E	mg/L		0.00047	U	0.01	0.00047		0.00047	U	0.01	0.00047		0.00047	U	0.01	0.00047		0.00047	U	0.01	0.00047		0.00047	U	0.01	0.00047	
2-Nitrophenol	88-75-5	8270E	mg/L	0.06 (14)	0.00075	U	0.01	0.00075	0.06	0.00075	U	0.01	0.00075	0.06	0.00075	U	0.01	0.00075	0.06	0.00075	U	0.01	0.00075	0.06	0.00075	U	0.01	0.00075	0.06
3,3'-Dichlorobenzidine	91-94-1	8270E	mg/L	0.0045 (12)	0.0014	U	0.01	0.0014	0.0045	0.0014	U	0.01	0.0014	0.0045	0.0014	U	0.01	0.0014	0.0045	0.0014	U	0.01	0.0014	0.0045	0.0014	U	0.01	0.0014	0.0045
3-Nitroaniline	99-09-2	8270E	mg/L		0.0019	U	0.01	0.0019		0.0019	U	0.01	0.0019		0.0019	U	0.01	0.0019		0.0019	U	0.01	0.0019		0.0019	U	0.01	0.0019	
4,6-Dinitro-2-methylphenol	534-52-1	8270E	mg/L		0.003	U	0.02	0.003		0.003	U	0.02	0.003		0.003	U	0.02	0.003		0.003	U	0.02	0.003		0.003	U	0.02	0.003	
4-Bromophenyl phenyl ether	101-55-3	8270E	mg/L	0.0015 (14)	0.00075	U	0.01	0.00075	0.0015	0.00075	U	0.01	0.00075	0.0015	0.00075	U	0.01	0.00075	0.0015	0.00075	U	0.01	0.00075	0.0015	0.00075	U	0.01	0.00075	0.0015
4-Chloro-3-methylphenol	59-50-7	8270E	mg/L		0.00058	U	0.01	0.00058		0.00058	U	0.01	0.00058		0.00058	U	0.01	0.00058		0.00058	U	0.01	0.00058		0.00058	U	0.01	0.00058	
4-Chloroaniline	106-47-8	8270E	mg/L	0.232 (6)	0.0019	U	0.01	0.0019	0.232	0.0019	U	0.01	0.0019	0.232	0.0019	U	0.01	0.0019	0.232	0.0019	U	0.01	0.0019	0.232	0.0019	U	0.01	0.0019	0.232
4-Chlorophenyl phenyl ether	7005-72-3	8270E	mg/L		0.0013	U	0.01	0.0013		0.0013	U	0.01	0.0013		0.0013	U	0.01	0.0013		0.0013	U	0.01	0.0013		0.0013	U	0.01	0.0013	
4-Methylphenol	106-44-5	8270E	mg/L		0.00065	U	0.01	0.00065		0.00065	U	0.01	0.00065		0.00065	U	0.01	0.00065		0.00065	U	0.01	0.00065		0.00065	U	0.01	0.00065	
4-Nitroaniline	100-01-6	8270E	mg/L		0.0012	U	0.01	0.0012		0.0012	U	0.01	0.0012		0.0012	U	0.01	0.0012		0.0012	U	0.01	0.0012		0.0012	U	0.01	0.0012	
4-Nitrophenol	100-02-7	8270E	mg/L	0.06 (14)	0.004	UJ	0.02	0.004	0.06	0.004	UJ	0.02	0.004	0.06	0.004	U	0.02	0.004	0.06	0.004	UJ	0.02	0.004	0.06	0.004	U	0.02	0.004	0.06
Acetophenone	98-86-2	8270E	mg/L		0.0023	U	0.01	0.0023		0.0023	U	0.01	0.0023		0.0023	U	0.01	0.0023		0.0023	U	0.01	0.0023		0.0023	U	0.01	0.0023	
Atrazine	1912-24-9	8270E	mg/L		0.0013	U	0.002	0.0013		0.0013	U	0.002	0.0013		0.0013	U	0.002	0.0013		0.0013	U	0.002	0.0013		0.0013	U	0.002	0.0013	
Benzaldehyde	100-52-7	8270E	mg/L		0.0021	UJ	0.01	0.0021		0.0021	UJ	0.01	0.0021		0.0021	UJ	0.01	0.0021		0.0021	UJ	0.01	0.0021		0.0021	UJ	0.01	0.0021	
Bis(2-chloroethoxy)methane	111-91-1	8270E	mg/L		0.00059	U	0.01	0.00059		0.00059	U	0.01	0.00059		0.00059	U	0.01	0.00059		0.00059	U	0.01	0.00059		0.00059	U	0.01	0.00059	
Bis(2-chloroethyl)ether	111-44-4	8270E	mg/L	1.9 (12)	0.00063	U	0.001	0.00063	1.9	0.00063	U	0.001	0.00063	1.9	0.00063	U	0.001	0.00063	1.9	0.00063	U	0.001	0.00063	1.9	0.00063	U	0.001	0.00063	1.9
Bis(2-ethylhexyl) phthalate	117-81-7	8270E	mg/L	0.0003 (12)	0.0008	U	0.002	0.0008	0.0003	0.0008	U	0.002	0.0008	0.0003	0.0008	U	0.002	0.0008	0.0003	0.0008	U	0.002	0.0008	0.0003	0.0008	U	0.002	0.0008	0.0003
Butyl benzyl phthalate	85-68-7	8270E	mg/L	0.023 (12)	0.00085	U	0.01	0.00085	0.023	0.00085	U	0.01	0.00085	0.023	0.00085	U	0.01	0.00085	0.023	0.00085	U	0.01	0.00085	0.023	0.00085	U	0.01	0.00085	0.023
Caprolactam	105-60-2	8270E	mg/L		0.0022	UJ	0.01	0.0022		0.0022	UJ	0.01	0.0022		0.0022	U	0.01	0.0022		0.0022	UJ	0.01	0.0022		0.0022	U	0.01	0.0022	
Carbazole	86-74-8	8270E	mg/L		0.00068	U	0.01	0.00068		0.00068	U	0.01	0.00068		0.00068	U	0.01	0.00068		0.00068	U	0.01	0.00068		0.00068	U	0.01	0.00068	
Dibenzofuran	132-64-9	8270E	mg/L	0.0037 (14)	0.0011	U	0.01	0.0011	0.0037	0.0011	U	0.01	0.0011	0.0037	0.0011	U	0.01	0.0011	0.0037	0.0011	U	0.01	0.0011	0.0037	0.0011	U	0.01	0.0011	0.0037
Diethyl phthalate	84-66-2	8270E	mg/L	0.11 (12)	0.00098	U	0.01	0.00098	0.11	0.00098	U	0.01	0.00098	0.11	0.00098	U	0.01	0.00098	0.11	0.00098	U	0.01	0.00098	0.11	0.00098	U	0.01	0.00098	0.11
Dimethyl phthalate	131-11-3	8270E	mg/L	0.003 (14)	0.00077	U	0.01	0.00077	0.003	0.00077	U	0.01	0.00077	0.003	0.00077	U	0.01	0.00077	0.003	0.00077	U	0.01	0.00077	0.003	0.00077	U	0.01	0.00077	0.003
Di-n-butyl phthalate	84-74-2	8270E	mg/L	0.0097 (12)	0.00084	U	0.01	0.00084	0.0097	0.00084	U	0.01	0.00084	0.0097	0.00084	U	0.01	0.00084	0.0097	0.00084	U	0.01	0.00084	0.0097	0.00084	U	0.01	0.00084	0.0097
Di-n-octyl phthalate	117-84-0	8270E	mg/L	0.003 (14)	0.00075	UJ	0.01	0.00075	0.003	0.00075	UJ	0.01	0.00075	0.003	0.00075	U	0.01	0.00075	0.003	0.00075	UJ	0.01	0.00075	0.003	0.00075	U	0.01	0.00075	0.003
Hexachlorobenzene	118-74-1	8270E	mg/L	0.0000003 (12)	0.0004	U	0.001	0.0004	0.0000003	0.0004	U	0.001	0.0004	0.0000003	0.0004	U	0.001	0.0004	0.0000003	0.0004	U	0.001	0.0004	0.0000003	0.0004	U	0.001	0.0004	0.0000003
Hexachlorobutadiene	87-68-3	8270E	mg/L	0.000053 (12)	0.00078	U	0.001	0.00078	0.000053	0.00078	U	0.001	0.00078	0.000053	0.00078	U	0.001	0.00078	0.000053	0.00078	U	0.001	0.00078	0.000053	0.00078	U	0.001	0.00078	0.000053
Hexachlorocyclopentadiene	77-47-4	8270E	mg/L	0.077 (12)	0.0036	U	0.01	0.0036	0.077	0.0036	U	0.01	0.0036	0.077	0.0036	UJ	0.01	0.0036	0.077	0.0036	U	0.01	0.0036	0.077	0.0036	UJ	0.01	0.0036	0.077
Hexachloroethane	67-72-1	8270E	mg/L	0.008 (12)	0.0008	U	0.002	0.0008	0.008	0.0008	U	0.002	0.0008	0.008	0.0008	U	0.002	0.0008	0.008	0.0008	U	0.002	0.0008	0.008	0.0008	U	0.002	0.0008	0.008
Isophorone	78-59-1	8270E	mg/L	0.92 (12)	0.0008	U	0.01	0.0008	0.92	0.0008	U	0.01	0.0008	0.92	0.0008	U	0.01	0.0008	0.92	0.0008	U	0.01	0.0008	0.92	0.0008	U	0.01	0.0008	0.92
Nitrobenzene	98-95-3	8270E	mg/L	0.22 (12)	0.00057	U	0.001	0.00057	0.22	0.00057	U	0.001	0.00057	0.22	0.00057	U	0.001	0.00057	0.22	0.00057	U	0.001	0.00057	0.22	0.00057	U	0.001	0.00057	0.22
N-Nitrosodi-n-propylamine	621-64-7	8270E	mg/L		0.00043	U	0.001	0.00043		0.00043	U	0.001	0.00043		0.00043	U	0.001	0.00043		0.00043	U	0.001	0.00043		0.00043	U	0.001	0.00043	
N-Nitrosodiphenylamine	86-30-6	8270E	mg/L		0.00089	U	0.01	0.00089		0.00089	U	0.01	0.00089		0.00089	U	0.01	0.00089		0.00089	U	0.01	0.00089		0.00089	U	0.01	0.00089	
Pentachlorophenol	87-86-5	8270E	mg/L	pH Calc (12)	0.0014	U	0.02	0.0014	No Calc	0.0014	U	0.02	0.0014	No Calc	0.0014	U	0.02	0.0014	No Calc	0.0014	U	0.02	0.0014	No Calc	0.0014	U	0.02	0.0014	No Calc
Phenol	108-95-2	8270E	mg/L	0.18 (12)	0.00029	U	0.01	0.00029	0.18	0.00029	U	0.01	0.00029	0.18	0.00029	U	0.01	0.00029	0.18	0.00029	U	0.01	0.00029	0.18	0.00029	U	0.01	0.00029	0.18

Table 5.27 - Surface Water: Semi-Volatile Organic Compounds (SVOCs) Analytical Results

Rolling Knolls Landfill

	Sample Name	ESC's	SW01	SW100 (SW01 duplicate)	SW02	SW03	SW04
	Sample Date/Time		05/14/2021 09:55	05/14/2021 09:55	05/15/2021 14:00	05/14/2021 10:25	05/16/2021 14:05
	Latitude		40.72679048	40.72679048	40.72348001	40.72638199	40.72279291
	Longitude		-74.44034485	-74.44034485	-74.44733922	-74.44081347	-74.44605049
	Lab Sample Name	Screening Criteria	GS-S-SWT01	GS-S-SWT100	GS-S-SWT02	GS-S-SWT03	GS-S-SWT04
	Lab Sample Number		460-234560-2	460-234560-1	460-234545-3	460-234560-3	460-234545-4
	Lab Report Number(s)		460-234560-1	460-234560-1	460-234545-1	460-234560-1	460-234545-1

Analyte	CAS	Method	Units		Result	LDC Flag	RL	MDL (EDL)	ESC	Result	LDC Flag	RL	MDL (EDL)	ESC	Result	LDC Flag	RL	MDL (EDL)	ESC	Result	LDC Flag	RL	MDL (EDL)	ESC	Result	LDC Flag	RL	MDL (EDL)	ESC
Polycyclic Aromatic Hydrocarbons (PAHs)																												
Acenaphthene	83-32-9	8270E	mg/L	0.038 (12)	0.0011	U	0.01	0.0011	0.038	0.0011	U	0.01	0.0011	0.038	0.0011	U	0.01	0.0011	0.038	0.0011	U	0.01	0.0011	0.038	0.0011	U	0.01	0.0011	0.038
Acenaphthylene	208-96-8	8270E	mg/L	4.84 (12)	0.00082	U	0.01	0.00082	4.84	0.00082	U	0.01	0.00082	4.84	0.00082	U	0.01	0.00082	4.84	0.00082	U	0.01	0.00082	4.84	0.00082	U	0.01	0.00082	4.84
Anthracene	120-12-7	8270E	mg/L	0.000035 (12)	0.0013	U	0.01	0.0013	0.000035	0.0013	U	0.01	0.0013	0.000035	0.0013	U	0.01	0.0013	0.000035	0.0013	U	0.01	0.0013	0.000035	0.0013	U	0.01	0.0013	0.000035
Fluorene	86-73-7	8270E	mg/L	0.019 (12)	0.00091	U	0.01	0.00091	0.019	0.00091	U	0.01	0.00091	0.019	0.00091	U	0.01	0.00091	0.019	0.00091	U	0.01	0.00091	0.019	0.00091	U	0.01	0.00091	0.019
Naphthalene	91-20-3	8270E	mg/L	0.013 (12)	0.00054	U	0.002	0.00054	0.013	0.00054	U	0.002	0.00054	0.013	0.00054	U	0.002	0.00054	0.013	0.00054	U	0.002	0.00054	0.013	0.00054	U	0.002	0.00054	0.013
Phenanthrene	85-01-8	8270E	mg/L	0.0036 (12)	0.0013	U	0.01	0.0013	0.0036	0.0013	U	0.01	0.0013	0.0036	0.0013	U	0.01	0.0013	0.0036	0.0013	U	0.01	0.0013	0.0036	0.0013	U	0.01	0.0013	0.0036
Benzo[a]anthracene	56-55-3	8270E SIM	mg/L	0.000025 (12)	0.00059	U	0.001	0.00059	0.000025	0.00059	U	0.001	0.00059	0.000025	0.00059	U	0.001	0.00059	0.000025	0.00059	U	0.001	0.00059	0.000025	0.00059	U	0.001	0.00059	0.000025
Benzo[a]pyrene	50-32-8	8270E SIM	mg/L	0.000014 (12)	0.00041	U	0.001	0.00041	0.000014	0.00041	U	0.001	0.00041	0.000014	0.00041	UJ	0.001	0.00041	0.000014	0.00041	U	0.001	0.00041	0.000014	0.00041	UJ	0.001	0.00041	0.000014
Benzo[b]fluoranthene	205-99-2	8270E SIM	mg/L	0.00907 (12)	0.00068	U	0.002	0.00068	0.00907	0.00068	U	0.002	0.00068	0.00907	0.00068	U	0.002	0.00068	0.00907	0.00068	U	0.002	0.00068	0.00907	0.00068	U	0.002	0.00068	0.00907
Benzo[g,h,i]perylene	191-24-2	8270E SIM	mg/L	0.00764 (12)	0.0007	U	0.01	0.0007	0.00764	0.0007	U	0.01	0.0007	0.00764	0.0007	U	0.01	0.0007	0.00764	0.0007	U	0.01	0.0007	0.00764	0.0007	U	0.01	0.0007	0.00764
Benzo[k]fluoranthene	207-08-9	8270E SIM	mg/L	0.0000041 (14)	0.00067	U	0.001	0.00067	0.0000041	0.00067	U	0.001	0.00067	0.0000041	0.00067	U	0.001	0.00067	0.0000041	0.00067	U	0.001	0.00067	0.0000041	0.00067	U	0.001	0.00067	0.0000041
Chrysene	218-01-9	8270E	mg/L	0.0000018 (14)	0.00091	U	0.002	0.00091	0.0000018	0.00091	U	0.002	0.00091	0.0000018	0.00091	U	0.002	0.00091	0.0000018	0.00091	U	0.002	0.00091	0.0000018	0.00091	U	0.002	0.00091	0.0000018
Dibenz(a,h)anthracene	53-70-3	8270E SIM	mg/L	0.0000034 (14)	0.00072	U	0.001	0.00072	0.0000034	0.00072	U	0.001	0.00072	0.0000034	0.00072	U	0.001	0.00072	0.0000034	0.00072	U	0.001	0.00072	0.0000034	0.00072	U	0.001	0.00072	0.0000034
Fluoranthene	206-44-0	8270E	mg/L	0.0019 (12)	0.00084	U	0.01	0.00084	0.0019	0.00084	U	0.01	0.00084	0.0019	0.00084	U	0.01	0.00084	0.0019	0.00084	U	0.01	0.00084	0.0019	0.00084	U	0.01	0.00084	0.0019
Indeno[1,2,3-cd]pyrene	193-39-5	8270E SIM	mg/L	0.00431 (12)	0.00094	U	0.002	0.00094	0.00431	0.00094	U	0.002	0.00094	0.00431	0.00094	U	0.002	0.00094	0.00431	0.00094	U	0.002	0.00094	0.00431	0.00094	U	0.002	0.00094	0.00431
Pyrene	129-00-0	8270E	mg/L	0.0003 (12)	0.0016	U	0.01	0.0016	0.0003	0.0016	U	0.01	0.0016	0.0003	0.0016	U	0.01	0.0016	0.0003	0.0016	U	0.01	0.0016	0.0003	0.0016	U	0.01	0.0016	0.0003

Table 5.27 - Surface Water: Semi-Volatile Organic Compounds (SVOCs) Analytical Results

(continued)

Rolling Knolls Landfill

	Sample Name			ESC's	SW05					SW06					SW07					SW08				
	Sample Date/Time				05/19/2021 14:28					05/24/2021 09:33					05/24/2021 15:35					05/27/2021 14:02				
	Latitude				40.73189645					40.73121158					40.7274759					40.72670264				
	Longitude			Screening Criteria	-74.44071437					-74.43997617					-74.43941052					-74.43975904				
	Lab Sample Name				GS-N-SWT05					GS-N-SWT06					GS-N-SWT07					GS-N-SWT08				
	Lab Sample Number				460-234972-5					460-235444-4					460-235444-3					460-235584-4				
	Lab Report Number(s)				460-234972-1					460-235444-1					460-235444-1					460-235584-1				
Analyte	CAS	Method	Units		Result	LDC Flag	RL	MDL (EDL)	ESC	Result	LDC Flag	RL	MDL (EDL)	ESC	Result	LDC Flag	RL	MDL (EDL)	ESC	Result	LDC Flag	RL	MDL (EDL)	ESC
1,1'-Biphenyl	92-52-4	8270E	mg/L		0.0012	U	0.01	0.0012		0.0012	U	0.01	0.0012		0.0012	U	0.01	0.0012		0.0012	U	0.01	0.0012	
1,2,4,5-Tetrachlorobenzene	95-94-3	8270E	mg/L	0.003 (12)	0.0012	U	0.01	0.0012	0.003	0.0012	U	0.01	0.0012	0.003	0.0012	U	0.01	0.0012	0.003	0.0012	U	0.01	0.0012	0.003
2,2'-oxybis[1-chloropropane]	108-60-1	8270E	mg/L		0.00063	UJ	0.01	0.00063		0.00063	U	0.01	0.00063		0.00063	U	0.01	0.00063		0.00063	U	0.01	0.00063	
2,3,4,6-Tetrachlorophenol	58-90-2	8270E	mg/L	0.0012 (6)	0.00075	U	0.01	0.00075	0.0012	0.00075	U	0.01	0.00075	0.0012	0.00075	U	0.01	0.00075	0.0012	0.00075	U	0.01	0.00075	0.0012
2,4,5-Trichlorophenol	95-95-4	8270E	mg/L		0.00088	U	0.01	0.00088		0.00088	U	0.01	0.00088		0.00088	U	0.01	0.00088		0.00088	U	0.01	0.00088	
2,4,6-Trichlorophenol	88-06-2	8270E	mg/L	0.0049 (12)	0.00086	U	0.01	0.00086	0.0049	0.00086	U	0.01	0.00086	0.0049	0.00086	U	0.01	0.00086	0.0049	0.00086	U	0.01	0.00086	0.0049
2,4-Dichlorophenol	120-83-2	8270E	mg/L	0.011 (12)	0.0011	U	0.01	0.0011	0.011	0.0011	U	0.01	0.0011	0.011	0.0011	U	0.01	0.0011	0.011	0.0011	U	0.01	0.0011	0.011
2,4-Dimethylphenol	105-67-9	8270E	mg/L	0.1 (12)	0.00062	U	0.01	0.00062	0.1	0.00062	U	0.01	0.00062	0.1	0.00062	U	0.01	0.00062	0.1	0.00062	U	0.01	0.00062	0.1
2,4-Dinitrophenol	51-28-5	8270E	mg/L	0.019 (12)	0.0026	UJ	0.02	0.0026	0.019	0.0026	UJ	0.02	0.0026	0.019	0.0026	UJ	0.02	0.0026	0.019	0.0026	U	0.02	0.0026	0.019
2,4-Dinitrotoluene	121-14-2	8270E	mg/L	0.044 (12)	0.001	U	0.002	0.001	0.044	0.001	U	0.002	0.001	0.044	0.001	U	0.002	0.001	0.044	0.001	U	0.002	0.001	0.044
2,6-Dinitrotoluene	606-20-2	8270E	mg/L	0.23 (14)	0.00083	U	0.002	0.00083	0.23	0.00083	U	0.002	0.00083	0.23	0.00083	U	0.002	0.00083	0.23	0.00083	U	0.002	0.00083	0.23
2-Chloronaphthalene	91-58-7	8270E	mg/L	0.000396 (12)	0.0012	U	0.01	0.0012	0.000396	0.0012	U	0.01	0.0012	0.000396	0.0012	U	0.01	0.0012	0.000396	0.0012	U	0.01	0.0012	0.000396
2-Chlorophenol	95-57-8	8270E	mg/L	0.024 (12)	0.00038	U	0.01	0.00038	0.024	0.00038	U	0.01	0.00038	0.024	0.00038	U	0.01	0.00038	0.024	0.00038	U	0.01	0.00038	0.024
2-Methylnaphthalene	91-57-6	8270E	mg/L	0.33 (12)	0.00053	U	0.01	0.00053	0.33	0.00053	U	0.01	0.00053	0.33	0.00053	U	0.01	0.00053	0.33	0.00053	U	0.01	0.00053	0.33
2-Methylphenol	95-48-7	8270E	mg/L	0.013 (14)	0.00067	U	0.01	0.00067	0.013	0.00067	U	0.01	0.00067	0.013	0.00067	U	0.01	0.00067	0.013	0.00067	U	0.01	0.00067	0.013
2-Nitroaniline	88-74-4	8270E	mg/L		0.00047	U	0.01	0.00047		0.00047	U	0.01	0.00047		0.00047	U	0.01	0.00047		0.00047	U	0.01	0.00047	
2-Nitrophenol	88-75-5	8270E	mg/L	0.06 (14)	0.00075	U	0.01	0.00075	0.06	0.00075	U	0.01	0.00075	0.06	0.00075	U	0.01	0.00075	0.06	0.00075	U	0.01	0.00075	0.06
3,3'-Dichlorobenzidine	91-94-1	8270E	mg/L	0.0045 (12)	0.0014	U	0.01	0.0014	0.0045	0.0014	U	0.01	0.0014	0.0045	0.0014	U	0.01	0.0014	0.0045	0.0014	U	0.01	0.0014	0.0045
3-Nitroaniline	99-09-2	8270E	mg/L		0.0019	U	0.01	0.0019		0.0019	U	0.01	0.0019		0.0019	U	0.01	0.0019		0.0019	U	0.01	0.0019	
4,6-Dinitro-2-methylphenol	534-52-1	8270E	mg/L		0.003	U	0.02	0.003		0.003	U	0.02	0.003		0.003	U	0.02	0.003		0.003	U	0.02	0.003	
4-Bromophenyl phenyl ether	101-55-3	8270E	mg/L	0.0015 (14)	0.00075	U	0.01	0.00075	0.0015	0.00075	U	0.01	0.00075	0.0015	0.00075	U	0.01	0.00075	0.0015	0.00075	U	0.01	0.00075	0.0015
4-Chloro-3-methylphenol	59-50-7	8270E	mg/L		0.00058	U	0.01	0.00058		0.00058	U	0.01	0.00058		0.00058	U	0.01	0.00058		0.00058	U	0.01	0.00058	
4-Chloroaniline	106-47-8	8270E	mg/L	0.232 (6)	0.0019	U	0.01	0.0019	0.232	0.0019	U	0.01	0.0019	0.232	0.0019	U	0.01	0.0019	0.232	0.0019	U	0.01	0.0019	0.232
4-Chlorophenyl phenyl ether	7005-72-3	8270E	mg/L		0.0013	U	0.01	0.0013		0.0013	U	0.01	0.0013		0.0013	U	0.01	0.0013		0.0013	U	0.01	0.0013	
4-Methylphenol	106-44-5	8270E	mg/L		0.00065	U	0.01	0.00065		0.00065	U	0.01	0.00065		0.00065	U	0.01	0.00065		0.00065	U	0.01	0.00065	
4-Nitroaniline	100-01-6	8270E	mg/L		0.0012	U	0.01	0.0012		0.0012	U	0.01	0.0012		0.0012	U	0.01	0.0012		0.0012	U	0.01	0.0012	
4-Nitrophenol	100-02-7	8270E	mg/L	0.06 (14)	0.004	U	0.02	0.004	0.06	0.004	U	0.02	0.004	0.06	0.004	U	0.02	0.004	0.06	0.004	U	0.02	0.004	0.06
Acetophenone	98-86-2	8270E	mg/L		0.0023	U	0.01	0.0023		0.0023	U	0.01	0.0023		0.0023	U	0.01	0.0023		0.0023	U	0.01	0.0023	
Atrazine	1912-24-9	8270E	mg/L		0.0013	U	0.002	0.0013		0.0013	U	0.002	0.0013		0.0013	U	0.002	0.0013		0.0013	U	0.002	0.0013	
Benzaldehyde	100-52-7	8270E	mg/L		0.0021	UJ	0.01	0.0021		0.0021	UJ	0.01	0.0021		0.0021	UJ	0.01	0.0021		0.0021	UJ	0.01	0.0021	
Bis(2-chloroethoxy)methane	111-91-1	8270E	mg/L		0.00059	U	0.01	0.00059		0.00059	U	0.01	0.00059		0.00059	U	0.01	0.00059		0.00059	U	0.01	0.00059	
Bis(2-chloroethyl)ether	111-44-4	8270E	mg/L	1.9 (12)	0.00063	U	0.001	0.00063	1.9	0.00063	U	0.001	0.00063	1.9	0.00063	U	0.001	0.00063	1.9	0.00063	U	0.001	0.00063	1.9
Bis(2-ethylhexyl) phthalate	117-81-7	8270E	mg/L	0.0003 (12)	0.0008	U	0.002	0.0008	0.0003	0.0008	U	0.002	0.0008	0.0003	0.0008	U	0.002	0.0008	0.0003	0.0008	U	0.002	0.0008	0.0003
Butyl benzyl phthalate	85-68-7	8270E	mg/L	0.023 (12)	0.00085	U	0.01	0.00085	0.023	0.00085	U	0.01	0.00085	0.023	0.00085	U	0.01	0.00085	0.023	0.00085	U	0.01	0.00085	0.023
Caprolactam	105-60-2	8270E	mg/L		0.0022	U	0.01	0.0022		0.0022	U	0.01	0.0022		0.0022	U	0.01	0.0022		0.0022	U	0.01	0.0022	
Carbazole	86-74-8	8270E	mg/L		0.00068	U	0.01	0.00068		0.00068	U	0.01	0.00068		0.00068	U	0.01	0.00068		0.00068	U	0.01	0.00068	
Dibenzofuran	132-64-9	8270E	mg/L	0.0037 (14)	0.0011	U	0.01	0.0011	0.0037	0.0011	U	0.01	0.0011	0.0037	0.0011	U	0.01	0.0011	0.0037	0.0011	U	0.01	0.0011	0.0037
Diethyl phthalate	84-66-2	8270E	mg/L	0.11 (12)	0.00098	U	0.01	0.00098	0.11	0.00098	U	0.01	0.00098	0.11	0.00098	U	0.01	0.00098	0.11	0.00098	U	0.01	0.00098	0.11
Dimethyl phthalate	131-11-3	8270E	mg/L	0.003 (14)	0.00077	U	0.01	0.00077	0.003	0.00077	U	0.01	0.00077	0.003	0.00077	U	0.01	0.00077	0.003	0.00077	U	0.01	0.00077	0.003
Di-n-butyl phthalate	84-74-2	8270E	mg/L	0.0097 (12)	0.00084	U	0.01	0.00084	0.0097	0.00084	U	0.01	0.00084	0.0097	0.00084	U	0.01	0.00084	0.0097	0.00084	U	0.01	0.00084	0.0097
Di-n-octyl phthalate	117-84-0	8270E	mg/L	0.003 (14)	0.00075	U	0.01	0.00075	0.003	0.00075	U	0.01	0.00075	0.003	0.00075	U	0.01	0.00075	0.003	0.00075	U	0.01	0.00075	0.003
Hexachlorobenzene	118-74-1	8270E	mg/L	0.0000003 (12)	0.0004	U	0.001	0.0004	0.0000003	0.0004	U	0.001	0.0004	0.0000003	0.0004	U	0.001	0.0004	0.0000003	0.0004	U	0.001	0.0004	0.0000003
Hexachlorobutadiene	87-68-3	8270E	mg/L	0.000053 (12)	0.00078	U	0.001	0.00078	0.000053	0.00078	U	0.001	0.00078	0.000053	0.00078	U	0.001	0.00078	0.000053	0.00078	U	0.001	0.00078	0.000053
Hexachlorocyclopentadiene	77-47-4	8270E	mg/L	0.077 (12)	0.0036	U	0.01	0.0036	0.077	0.0036	U	0.01	0.0036	0.077	0.0036	U	0.01	0.0036	0.077	0.0036	U	0.01	0.0036	0.077
Hexachloroethane	67-72-1	8270E	mg/L	0.008 (12)	0.0008	U	0.002	0.0008	0.008	0.0008	U	0.002	0.0008	0.008	0.0008	U	0.002	0.0008	0.008	0.0008	U	0.002	0.0008	0.008
Isophorone	78-59-1	8270E	mg/L	0.92 (12)	0.0008	U	0.01	0.0008	0.92	0.0008	U	0.01	0.0008	0.92	0.0008	U	0.01	0.0008	0.92	0.0008	U	0.01	0.0008	0.92
Nitrobenzene	98-95-3	8270E	mg/L	0.22 (12)	0.00057	U	0.001	0.00057	0.22	0.00057	U	0.001	0.00057	0.22	0.00057	U	0.001	0.00057	0.22	0.00057	U	0.001	0.00057	0.22
N-Nitrosodi-n-propylamine	621-64-7	8270E	mg/L		0.00043	U	0.001	0.00043		0.00043	U	0.001	0.00043		0.00043	U	0.001	0.00043		0.00043	U	0.001	0.00043	
N-Nitrosodiphenylamine	86-30-6	8270E	mg/L		0.00089	U	0.01	0.00089		0.00089	U	0.01	0.00089		0.00089	U	0.01	0.00089		0.00089	U	0.01	0.00089	
Pentachlorophenol	87-86-5	8270E	mg/L	pH Calc (12)	0.0014	U	0.02	0.0014	No Calc	0.0014	U	0.02	0.0014	No Calc	0.0014	U	0.02	0.0014	No Calc	0.000071	UJ	0.0002	0.000071	No Calc
Phenol	108-95-2	8270E	mg/L	0.18 (12)	0.00029	U	0.01	0.00029	0.18	0.00029	U	0.01	0.00029	0.18	0.00029	U	0.01	0.00029	0.18	0.00029	U	0.01	0.00029	0.18

Table 5.27 - Surface Water: Semi-Volatile Organic Compounds (SVOCs) Analytical Results

(continued)

Rolling Knolls Landfill

	Sample Name			ESC's	SW05					SW06					SW07					SW08				
	Sample Date/Time				05/19/2021 14:28					05/24/2021 09:33					05/24/2021 15:35					05/27/2021 14:02				
	Latitude			Screening Criteria	40.73189645					40.73121158					40.7274759					40.72670264				
	Longitude				-74.44071437					-74.43997617					-74.43941052					-74.43975904				
	Lab Sample Name				GS-N-SWT05					GS-N-SWT06					GS-N-SWT07					GS-N-SWT08				
	Lab Sample Number				460-234972-5					460-235444-4					460-235444-3					460-235584-4				
	Lab Report Number(s)				460-234972-1					460-235444-1					460-235444-1					460-235584-1				
Analyte	CAS	Method	Units		Result	LDC Flag	RL	MDL (EDL)	ESC	Result	LDC Flag	RL	MDL (EDL)	ESC	Result	LDC Flag	RL	MDL (EDL)	ESC	Result	LDC Flag	RL	MDL (EDL)	ESC
Polycyclic Aromatic Hydrocarbons (PAHs)																								
Acenaphthene	83-32-9	8270E	mg/L	0.038 (12)	0.0011	U	0.01	0.0011	0.038	0.0011	U	0.01	0.0011	0.038	0.0011	U	0.01	0.0011	0.038	0.000041	J	0.00005	0.000014	0.038
Acenaphthylene	208-96-8	8270E	mg/L	4.84 (12)	0.00082	U	0.01	0.00082	4.84	0.00082	U	0.01	0.00082	4.84	0.00082	U	0.01	0.00082	4.84	0.000015	U	0.00005	0.000015	4.84
Anthracene	120-12-7	8270E	mg/L	0.000035 (12)	0.0013	U	0.01	0.0013	0.000035	0.0013	U	0.01	0.0013	0.000035	0.0013	U	0.01	0.0013	0.000035	0.000025	U	0.00005	0.000025	0.000035
Fluorene	86-73-7	8270E	mg/L	0.019 (12)	0.00091	U	0.01	0.00091	0.019	0.00091	U	0.01	0.00091	0.019	0.00091	U	0.01	0.00091	0.019	0.00006	J	0.00005	0.000012	0.019
Naphthalene	91-20-3	8270E	mg/L	0.013 (12)	0.00054	U	0.002	0.00054	0.013	0.00054	U	0.002	0.00054	0.013	0.00054	U	0.002	0.00054	0.013	0.00012	U	0.0002	0.00012	0.013
Phenanthrene	85-01-8	8270E	mg/L	0.0036 (12)	0.0013	U	0.01	0.0013	0.0036	0.0013	U	0.01	0.0013	0.0036	0.0013	U	0.01	0.0013	0.0036	0.000062		0.00005	0.000022	0.0036
Benzo[a]anthracene	56-55-3	8270E SIM	mg/L	0.000025 (12)	0.00059	U	0.001	0.00059	0.000025	0.00059	U	0.001	0.00059	0.000025	0.00059	U	0.001	0.00059	0.000025	0.000016	U	0.00005	0.000016	0.000025
Benzo[a]pyrene	50-32-8	8270E SIM	mg/L	0.000014 (12)	0.00041	U	0.001	0.00041	0.000014	0.00041	U	0.001	0.00041	0.000014	0.00041	U	0.001	0.00041	0.000014	0.000022	U	0.00005	0.000022	0.000014
Benzo[b]fluoranthene	205-99-2	8270E SIM	mg/L	0.00907 (12)	0.00068	U	0.002	0.00068	0.00907	0.00068	U	0.002	0.00068	0.00907	0.00068	U	0.002	0.00068	0.00907	0.000024	U	0.00005	0.000024	0.00907
Benzo[g,h,i]perylene	191-24-2	8270E SIM	mg/L	0.00764 (12)	0.0007	U	0.01	0.0007	0.00764	0.0007	U	0.01	0.0007	0.00764	0.0007	U	0.01	0.0007	0.00764	0.000035	U	0.00005	0.000035	0.00764
Benzo[k]fluoranthene	207-08-9	8270E SIM	mg/L	0.0000041 (14)	0.00067	U	0.001	0.00067	0.0000041	0.00067	U	0.001	0.00067	0.0000041	0.00067	U	0.001	0.00067	0.0000041	0.000028	U	0.00005	0.000028	0.0000041
Chrysene	218-01-9	8270E	mg/L	0.0000018 (14)	0.00091	U	0.002	0.00091	0.0000018	0.00091	U	0.002	0.00091	0.0000018	0.00091	U	0.002	0.00091	0.0000018	0.00003	U	0.00005	0.00003	0.0000018
Dibenz(a,h)anthracene	53-70-3	8270E SIM	mg/L	0.0000034 (14)	0.00072	U	0.001	0.00072	0.0000034	0.00072	U	0.001	0.00072	0.0000034	0.00072	U	0.001	0.00072	0.0000034	0.00002	U	0.00005	0.00002	0.0000034
Fluoranthene	206-44-0	8270E	mg/L	0.0019 (12)	0.00084	U	0.01	0.00084	0.0019	0.00084	U	0.01	0.00084	0.0019	0.00084	U	0.01	0.00084	0.0019	0.000039	U	0.00005	0.000039	0.0019
Indeno[1,2,3-cd]pyrene	193-39-5	8270E SIM	mg/L	0.00431 (12)	0.00094	U	0.002	0.00094	0.00431	0.00094	U	0.002	0.00094	0.00431	0.00094	U	0.002	0.00094	0.00431	0.000036	U	0.00005	0.000036	0.00431
Pyrene	129-00-0	8270E	mg/L	0.0003 (12)	0.0016	U	0.01	0.0016	0.0003	0.0016	U	0.01	0.0016	0.0003	0.0016	U	0.01	0.0016	0.0003	0.000031	U	0.00005	0.000031	0.0003

Table 5.28 - Surface Water: Pesticide Analytical Results

Rolling Knolls Landfill

Sample Name				ESC's	SW01				SW100 (SW01 duplicate)				SW02				SW03				SW04				SW05				SW06				SW07				SW08			
Sample Date/Time					05/14/2021 09:55				05/14/2021 09:55				05/15/2021 14:00				05/14/2021 10:25				05/16/2021 14:05				05/19/2021 14:28				05/24/2021 09:33				05/24/2021 15:35				05/27/2021 14:02			
Latitude				Screening Criteria	40.72679048				40.72679048				40.72348001				40.72638199				40.72279291				40.73189645				40.73121158				40.7274759				40.72670264			
Longitude					-74.44034485				-74.44034485				-74.44733922				-74.44081347				-74.44605049				-74.44071437				-74.43997617				-74.43941052				-74.43975904			
Lab Sample Name					GS-S-SWT01				GS-S-SWT100				GS-S-SWT02				GS-S-SWT03				GS-S-SWT04				GS-N-SWT05				GS-N-SWT06				GS-N-SWT07				GS-N-SWT08			
Lab Sample Number					460-234560-2				460-234560-1				460-234545-3				460-234560-3				460-234545-4				460-234972-5				460-235444-4				460-235444-3				460-235584-4			
Lab Report Number(s)					460-234560-1				460-234560-1				460-234545-1				460-234560-1				460-234545-1				460-234972-1				460-235444-1				460-235444-1				460-235584-1			
Analyte	CAS	Method	Units		Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)
4,4'-DDD	72-54-8	8081B	µg/L	0.011 (14)	0.006	U	0.02	0.006	0.006	U	0.02	0.006	0.006	U	0.02	0.006	0.006	U	0.02	0.006	0.006	U	0.02	0.006	0.006	U	0.02	0.006	0.006	U	0.02	0.006	0.006	U	0.02	0.006	0.006	U	0.02	0.006
4,4'-DDE	72-55-9	8081B	µg/L	4.51E-09 (12)	0.002	U	0.02	0.002	0.002	U	0.02	0.002	0.002	U	0.02	0.002	0.002	U	0.02	0.002	0.002	U	0.02	0.002	0.002	U	0.02	0.002	0.002	U	0.02	0.002	0.002	U	0.02	0.002	0.002	U	0.02	0.002
4,4'-DDT	50-29-3	8081B	µg/L	0.001 (12)	0.088		0.02	0.004	0.025		0.02	0.004	0.004	U	0.02	0.004	0.004	U	0.02	0.004	0.004	U	0.02	0.004	0.004	U	0.02	0.004	0.004	U	0.02	0.004	0.004	U	0.02	0.004	0.004	U	0.02	0.004
Aldrin	309-00-2	8081B	µg/L	0.017 (12)	0.003	U	0.02	0.003	0.003	U	0.02	0.003	0.003	U	0.02	0.003	0.003	U	0.02	0.003	0.003	U	0.02	0.003	0.003	U	0.02	0.003	0.003	U	0.02	0.003	0.003	U	0.02	0.003	0.003	U	0.02	0.003
alpha-BHC	319-84-6	8081B	µg/L	12.4 (12)	0.007	U	0.02	0.007	0.007	U	0.02	0.007	0.007	U	0.02	0.007	0.007	U	0.02	0.007	0.007	U	0.02	0.007	0.007	U	0.02	0.007	0.007	U	0.02	0.007	0.007	U	0.02	0.007	0.007	U	0.02	0.007
beta-BHC	319-85-7	8081B	µg/L	0.495 (12)	0.004	U	0.02	0.004	0.004	U	0.02	0.004	0.004	U	0.02	0.004	0.004	U	0.02	0.004	0.004	U	0.02	0.004	0.004	U	0.02	0.004	0.004	U	0.02	0.004	0.004	U	0.02	0.004	0.004	U	0.02	0.004
Chlordane (technical)	12789-03-6	8081B	µg/L	0.0043 (12)	0.055	U	0.5	0.055	0.055	U	0.5	0.055	0.055	U	0.5	0.055	0.055	U	0.5	0.055	0.055	U	0.5	0.055	0.055	U	0.5	0.055	0.055	U	0.5	0.053	0.055	U	0.5	0.055	0.055	U	0.5	0.055
delta-BHC	319-86-8	8081B	µg/L	2.2 (14)	0.005	U	0.02	0.005	0.005	U	0.02	0.005	0.005	U	0.02	0.005	0.005	U	0.02	0.005	0.005	U	0.02	0.005	0.005	U	0.02	0.005	0.005	U	0.02	0.005	0.005	U	0.02	0.005	0.005	U	0.02	0.005
Dieldrin	60-57-1	8081B	µg/L	0.056 (12)	0.003	U	0.02	0.003	0.003	U	0.02	0.003	0.003	U	0.02	0.003	0.003	U	0.02	0.003	0.003	U	0.02	0.003	0.003	U	0.02	0.003	0.003	U	0.02	0.003	0.003	U	0.02	0.003	0.003	U	0.02	0.003
Endosulfan I	959-98-8	8081B	µg/L	0.003 (14)	0.002	U	0.02	0.002	0.002	U	0.02	0.002	0.002	U	0.02	0.002	0.002	U	0.02	0.002	0.002	U	0.02	0.002	0.002	U	0.02	0.002	0.002	U	0.02	0.002	0.002	U	0.02	0.002	0.002	U	0.02	0.002
Endosulfan II	33213-65-9	8081B	µg/L	0.003 (14)	0.004	U	0.02	0.004	0.004	U	0.02	0.004	0.004	U	0.02	0.004	0.004	U	0.02	0.004	0.004	U	0.02	0.004	0.004	U	0.02	0.004	0.004	U	0.02	0.004	0.004	U	0.02	0.004	0.004	U	0.02	0.004
Endosulfan sulfate	1031-07-8	8081B	µg/L	2.22 (12)	0.006	U	0.02	0.006	0.006	U	0.02	0.006	0.006	U	0.02	0.006	0.006	U	0.02	0.006	0.006	U	0.02	0.006	0.006	U	0.02	0.006	0.006	U	0.02	0.006	0.006	U	0.02	0.006	0.006	U	0.02	0.006
Endrin	72-20-8	8081B	µg/L	0.036 (12)	0.004	U	0.02	0.004	0.004	U	0.02	0.004	0.004	U	0.02	0.004	0.004	U	0.02	0.004	0.004	U	0.02	0.004	0.004	U	0.02	0.004	0.004	U	0.02	0.004	0.004	U	0.02	0.004	0.004	U	0.02	0.004
Endrin aldehyde	7421-93-4	8081B	µg/L	0.15 (12)	0.008	U	0.02	0.008	0.008	U	0.02	0.008	0.008	U	0.02	0.008	0.008	U	0.02	0.008	0.008	U	0.02	0.008	0.008	U	0.02	0.008	0.008	U	0.02	0.008	0.008	U	0.02	0.008	0.008	U	0.02	0.008
Endrin ketone	53494-70-5	8081B	µg/L	0.036 (14)	0.008	U	0.02	0.008	0.008	U	0.02	0.008	0.008	U	0.02	0.008	0.008	U	0.02	0.008	0.008	U	0.02	0.008	0.008	U	0.02	0.008	0.008	U	0.02	0.008	0.008	U	0.02	0.008	0.008	U	0.02	0.008
gamma-BHC (Lindane)	58-89-9	8081B	µg/L	0.026 (12)	0.012	U	0.02	0.012	0.012	U	0.02	0.012	0.012	U	0.02	0.012	0.012	U	0.02	0.012	0.012	U	0.02	0.012	0.012	U	0.02	0.012	0.012	U	0.02	0.012	0.012	U	0.02	0.012	0.012	U	0.02	0.012
Heptachlor	76-44-8	8081B	µg/L	0.0038 (12)	0.003	U	0.02	0.003	0.003	U	0.02	0.003	0.003	U	0.02	0.003	0.003	U	0.02	0.003	0.003	U	0.02	0.003	0.003	U	0.02	0.003	0.003	U	0.02	0.003	0.003	U	0.02	0.003	0.003	U	0.02	0.003
Heptachlor epoxide	1024-57-3	8081B	µg/L	0.0038 (12)	0.005	U	0.02	0.005	0.005	U	0.02	0.005	0.005	U	0.02	0.005	0.005	U	0.02	0.005	0.005	U	0.02	0.005	0.005	U	0.02	0.005	0.005	U	0.02	0.005	0.005	U	0.02	0.005	0.005	U	0.02	0.005
Methoxychlor	72-43-5	8081B	µg/L	0.019 (14)	0.004	U	0.02	0.004	0.004	U	0.02	0.004	0.004	U	0.02	0.004	0.004	U	0.02	0.004	0.004	U	0.02	0.004	0.004	UJ	0.02	0.004	0.004	U	0.02	0.004	0.004	U	0.02	0.004	0.004	U	0.02	0.004
Toxaphene	8001-35-2	8081B	µg/L	0.0002 (12)	0.11	U	0.5	0.11	0.11	U	0.5	0.11	0.11	U	0.5	0.11	0.11	U	0.5	0.11	0.11	U	0.5	0.11	0.11	U	0.5	0.11	0.11	U	0.5	0.11	0.11	U	0.5	0.11	0.11	U	0.5	0.11

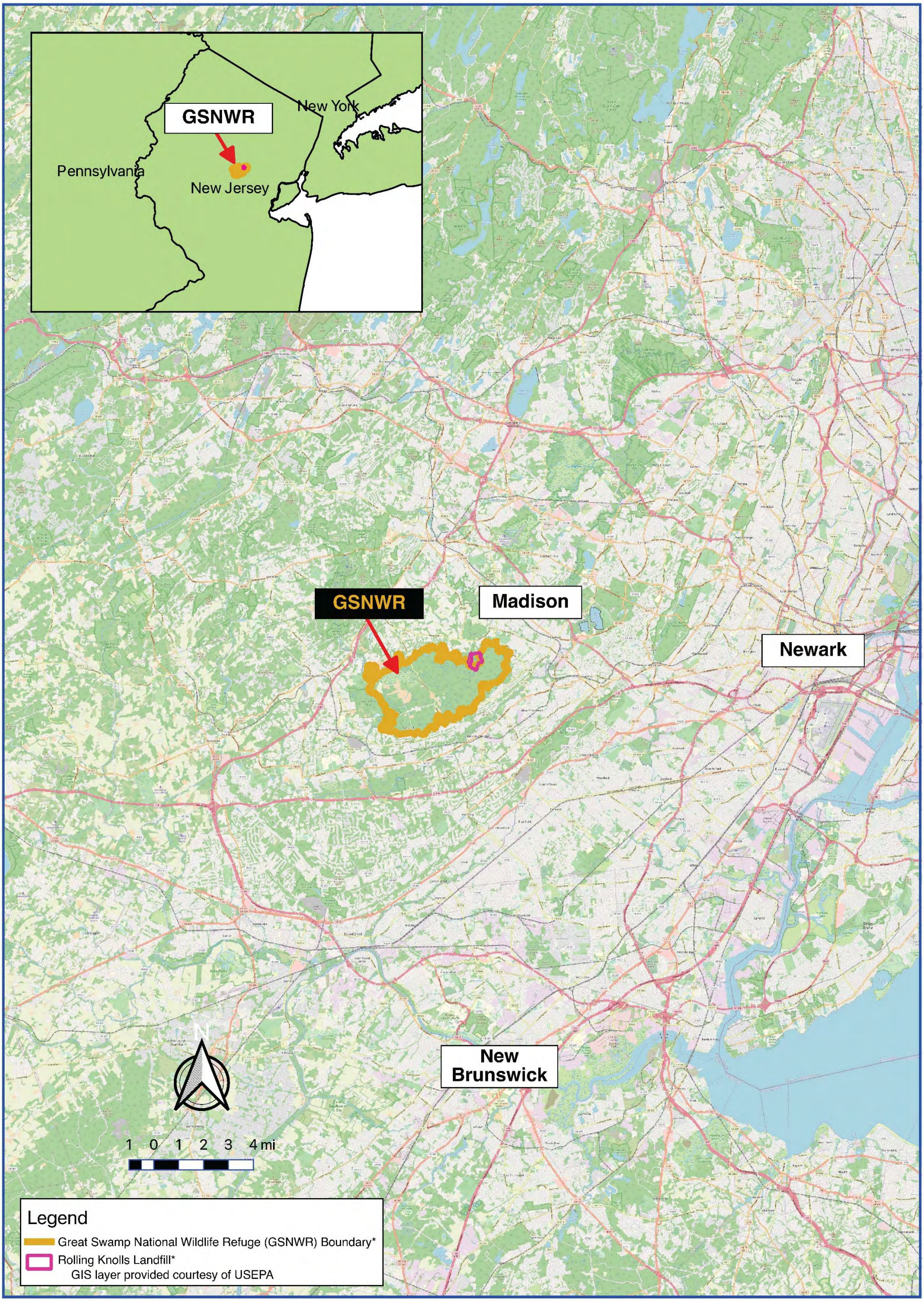
Table 5.29 - Surface Water: Summary of Exceedances

Rolling Knolls Landfill

Sample Name				ESC's	SW01				SW100 (SW01 duplicate)				SW02				SW03				SW04				SW05				SW06				SW07				SW08			
Sample Date/Time				Pore Water	05/14/2021 09:55				05/14/2021 09:55				05/15/2021 14:00				05/14/2021 10:25				05/16/2021 14:05				05/19/2021 14:28				05/24/2021 09:33				05/24/2021 15:35				05/27/2021 14:02			
Latitude				Screening Criteria	40.72679048				40.72679048				40.72348001				40.72638199				40.72279291				40.73189645				40.73121158				40.7274759				40.72670264			
Longitude					-74.44034485				-74.44034485				-74.44733922				-74.44081347				-74.44605049				-74.44071437				-74.43997617				-74.43941052				-74.43975904			
Lab Sample Name					GS-S-SWT01				GS-S-SWT100				GS-S-SWT02				GS-S-SWT03				GS-S-SWT04				GS-N-SWT05				GS-N-SWT06				GS-N-SWT07				GS-N-SWT08			
Lab Sample Number					460-234560-2				460-234560-1				460-234545-3				460-234560-3				460-234545-4				460-234972-5				460-235444-4				460-235444-3				460-235584-4			
Lab Report Number(s)					460-234560-1				460-234560-1				460-234545-1				460-234560-1				460-234545-1				460-234972-1				460-235444-1				460-235444-1				460-235584-1			
Analyte	CAS	Method	Units		Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)	Result	LDC Flag	RL	MDL (EDL)
Organochlorine Pesticides																																								
4,4'-DDT	50-29-3	8081B	µg/L	0.001 (12)	0.088		0.02	0.004	0.025		0.02	0.004	0.004	U	0.02	0.004	0.004	U	0.02	0.004	0.004	U	0.02	0.004	0.004	U	0.02	0.004	0.004	U	0.02	0.004	0.004	U	0.02	0.004	0.004	U	0.02	0.004
Metals and Cyanide (Total)																																								
Barium	7440-39-3	6020B	µg/L	220 (12)	489		4	0.91	513		4	0.91	619		4	0.91	2050		4	0.91	3920		8	1.8	123		4	0.91	171		4	0.91	204		4	0.91	859		4	0.91
Chromium	7440-47-3	6020B	µg/L	42 (12)	2.5	U	4	2.5	2.5	U	4	2.5	2.5	U	4	2.5	2.5	U	4	2.5	49.5		8	5	2.5	U	4	2.5	3	J	4	2.5	2.5	U	4	2.5	6.7		4	2.5
Silver	7440-22-4	6020B	µg/L	0.12 (12)	0.29	U	2	0.29	0.29	U	2	0.29	0.29	U	2	0.29	0.29	U	2	0.29	9.5		4	0.58	0.29	U	2	0.29	0.46	J	2	0.29	0.29	U	2	0.29	0.29	U	2	0.29
Vanadium	7440-62-2	6020B	µg/L	12 (12)	0.68	U	4	0.68	0.68	U	4	0.68	1.1	J	4	0.68	0.68	U	4	0.68	31.7		8	1.4	4.3		4	0.68	7		4	0.68	3	J	4	0.68	7.1		4	0.68
Cyanide, Total	57-12-5	9012B	mg/L	0.0052 (12)	0.005	U	0.01	0.005	0.005	U	0.01	0.005	0.005	U	0.01	0.005	0.0065	J	0.01	0.005	0.01		0.01	0.005	0.005	U	0.01	0.005	0.005	U	0.01	0.005	0.005	U	0.01	0.005	0.011		0.01	0.004
Metals (Dissolved)																																								
Barium	7440-39-3	6020B	µg/L	220 (12)	382		4	0.91	386		4	0.91	319		4	0.91	446		4	0.91	464		4	0.91					106		4	0.91	62.2		4	0.91	226		4	0.91
Iron	7439-89-6	6020B	µg/L	158 (14)	58.2	U	120	58.2	58.2	U	120	58.2	58.2	U	120	58.2	58.2	U	120	58.2	58.2	U	120	58.2					58.2	U	120	58.2	310		120	58.2	58.2	U	120	58.2
Manganese	7439-96-5	6020B	µg/L	112 (14)	1.5	U	8	1.5	1.9	J	8	1.5	157		8	1.5	1.5	U	8	1.5	25.8		8	1.5					5.7	J	8	1.5	21.8		8	1.5	214		8	1.5

FIGURES

Filename: Figure 2.01 – Site Location Map 2021.10.11_0900.docx



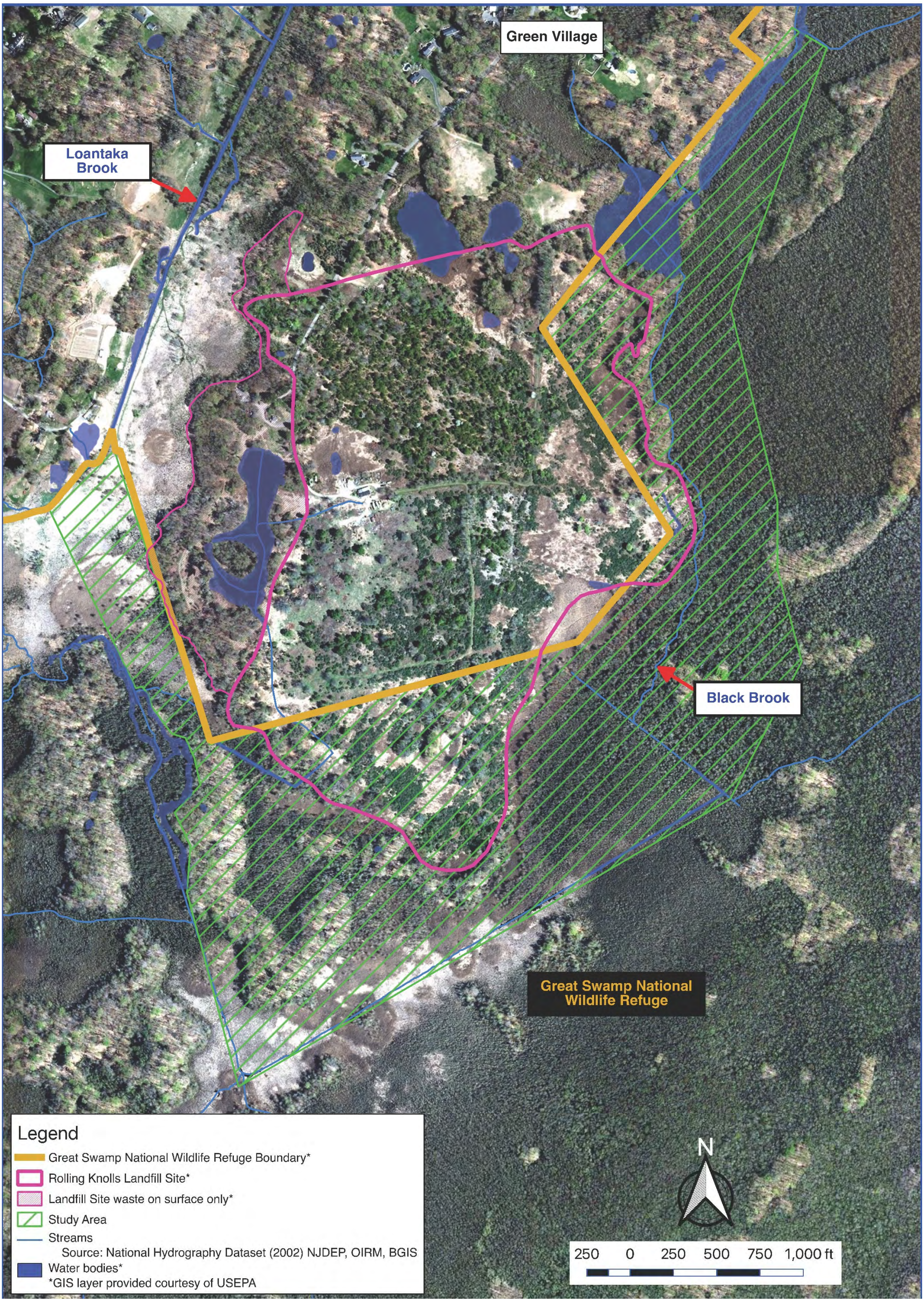
APPLIED INTELLECT

FIGURE NAME: **Site Location Map**

FIGURE NUMBER: **2.1**

PROJECT NAME: **Data Gaps Site Characterization**
Rolling Knolls Landfill

Filename: Figure 2.02 – Site Map 2021.11.16_1526.docx



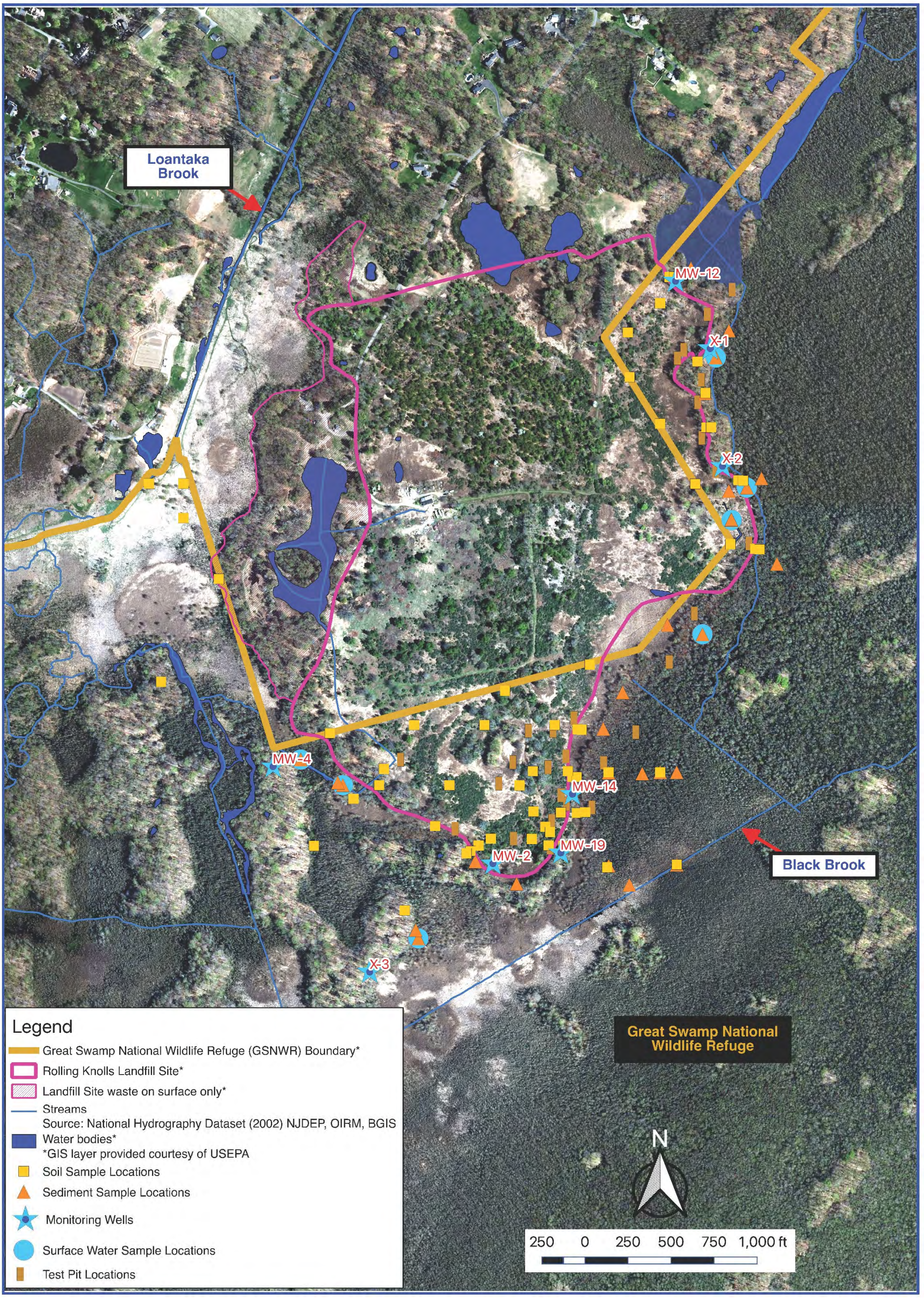
APPLIED INTELLECT

FIGURE NAME: **Site Map**

FIGURE NUMBER: **2.2**

PROJECT NAME: **Data Gaps Site Characterization**
Rolling Knolls Landfill

Filename: Figure 2.03 – Historical Sample Locations 2021.10.11_0900.docx



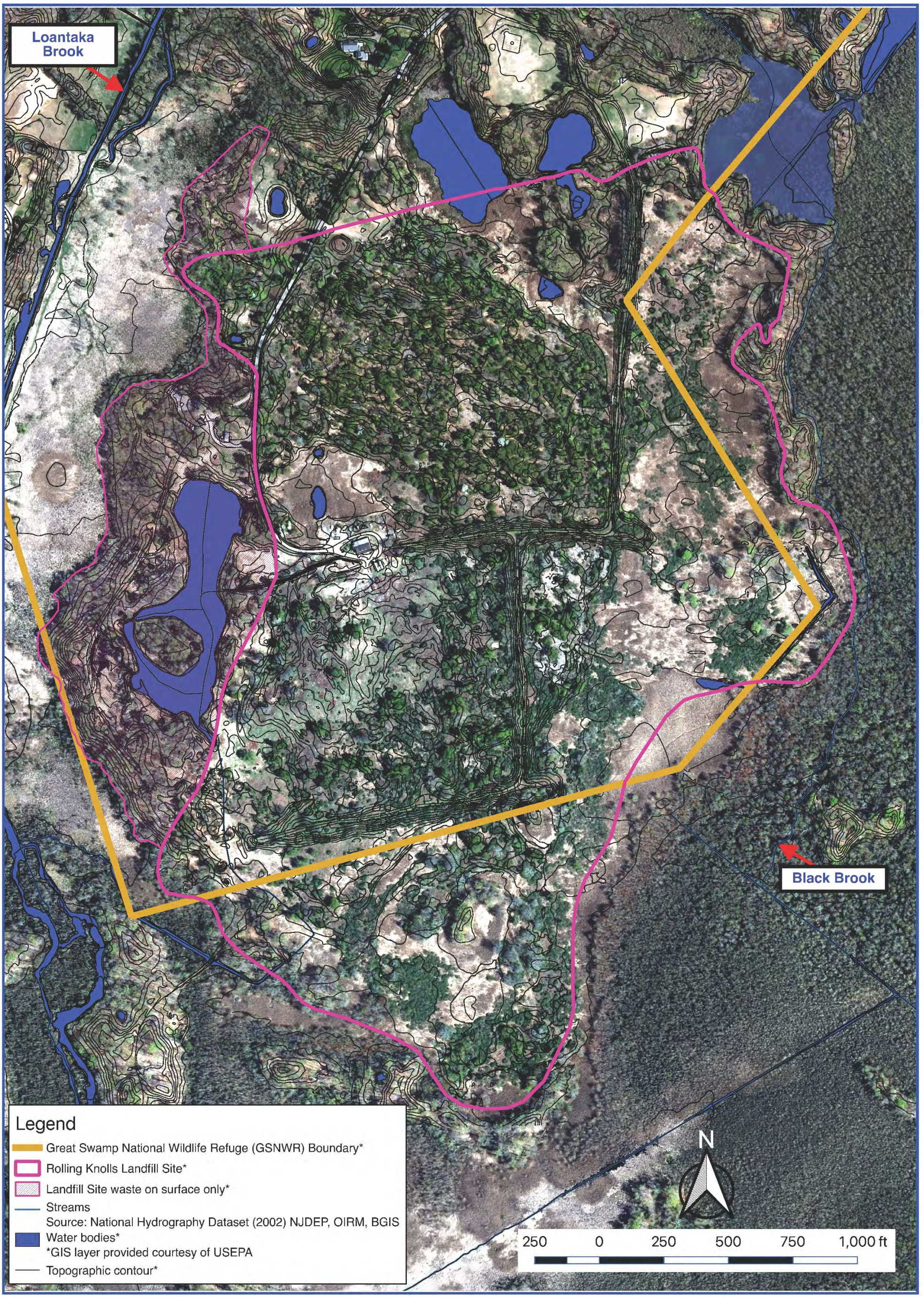
APPLIED INTELLECT

FIGURE NAME: **Historical Sample Locations**

PROJECT NAME: **Data Gaps Site Characterization**
Rolling Knolls Landfill

FIGURE NUMBER: **2.3**

Filename: Figure 3.01 – Topographic Map 2021.10.11_0900.docx



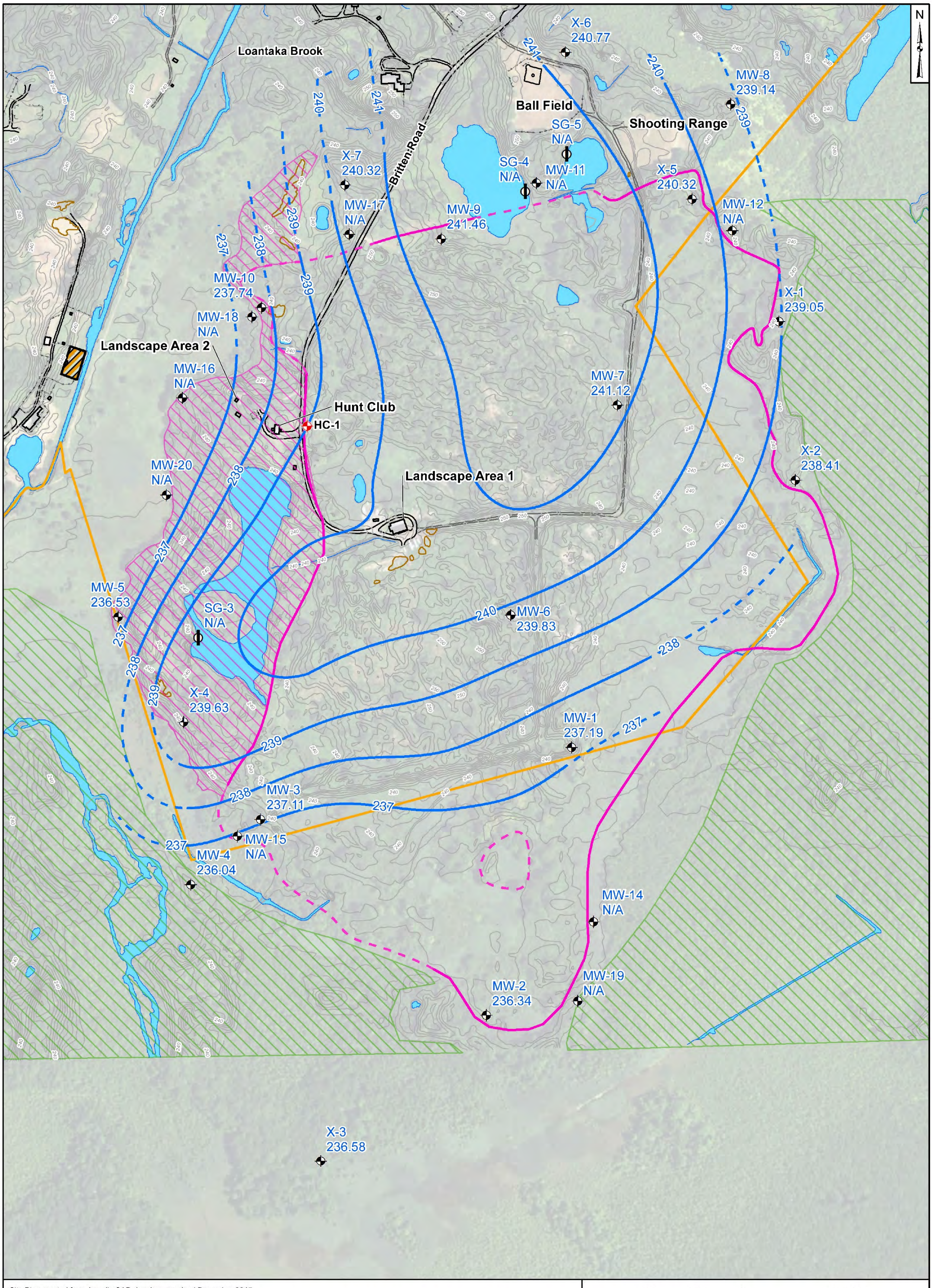
APPLIED INTELLECT

FIGURE NAME: **Topographic Map**

PROJECT NAME: **Data Gaps Site Characterization**
Rolling Knolls Landfill

FIGURE NUMBER: **3.1**

Filename: Figure 3.02 – GW Contour Map 2021.11.16_1537.docx



Site Plan created from Arcadis CAD drawings received December 2015.
Aerial imagery accessed via ArcGIS Online and provided by the United States Department of Agriculture on 27 April 2017. Image is dated 31 July 2015.

400 200 0 400 Feet

APPLIED INTELLECT

FIGURE NAME:
Groundwater Contour Map
December 8, 2014

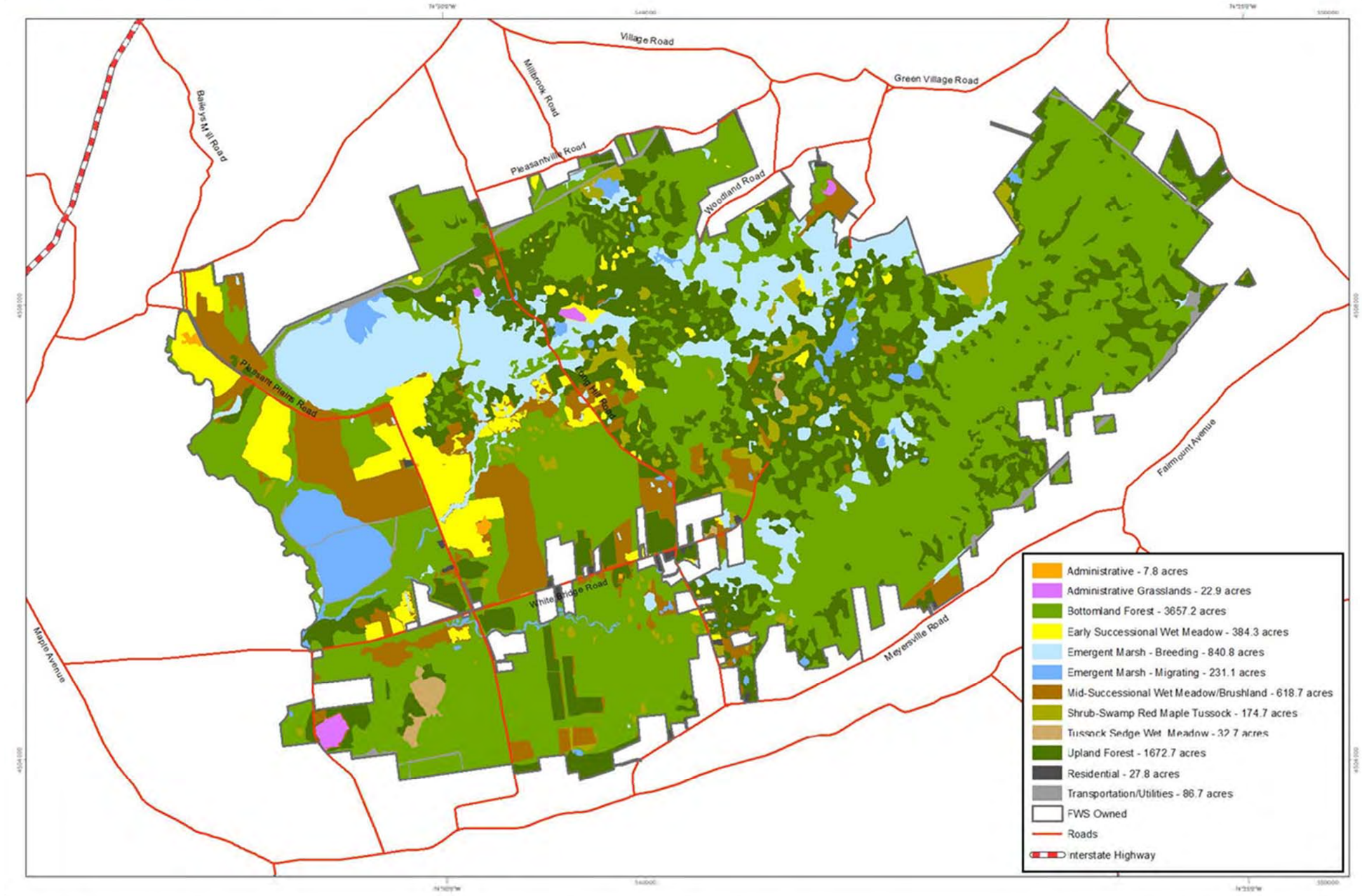
PROJECT NAME:
Data Gaps Site Characterization
Rolling Knolls Landfill

FIGURE NUMBER:
3.2

U.S. Fish & Wildlife Service

Anticipated Habitat Types and Management Areas

Great Swamp National Wildlife Refuge



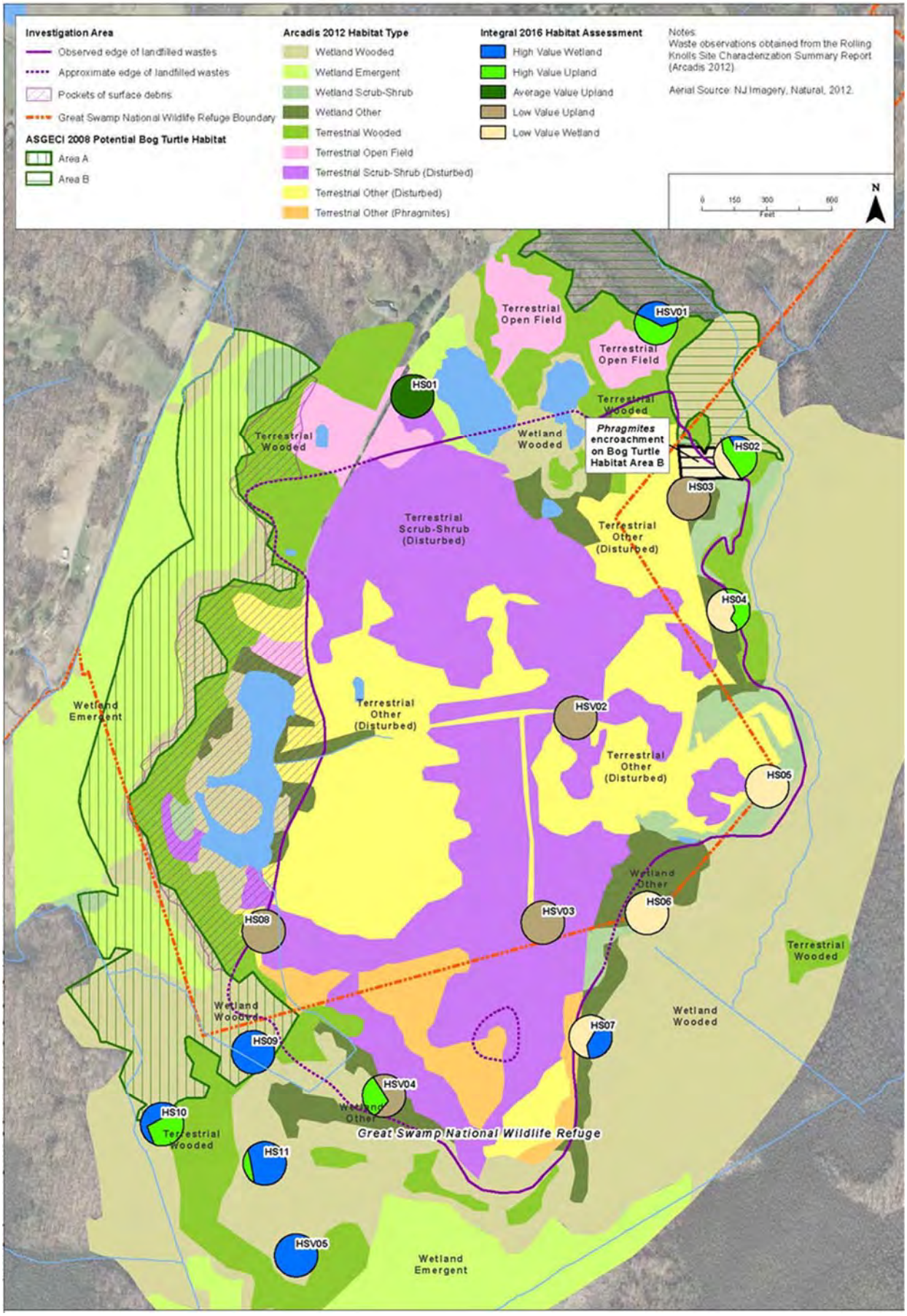
APPLIED INTELLECT

FIGURE NAME: **Cover Types (2014 USFS CCP)**

PROJECT NAME: **Rolling Knolls Landfill Data Gaps Site Characterization**

FIGURE NUMBER: **3.3**

Filename: Figure 3.03 – Cover Types 2021.11_1532.docx



APPLIED INTELLECT

FIGURE NAME:

Habitat Map
(2016 Integral BERA)

PROJECT NAME:

Rolling Knolls Landfill Data Gaps Site Characterization

FIGURE NUMBER:

3.4

Filename: Figure 3.04 – Habitat Map 2021.11.17_1735.docx

FILE LOCATION:Rolling Knolls Figures.mpx

X Coordinate	Y Coordinate
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X Coordinate	Y Coordinate
508039.918300813	691293.327835266

X Coordinate	Y Coordinate
508783.013768357	689888.525690855

LEGEND

- Observed Drum Location
- Great Swamp National Wildlife Refuge Boundary
- Rolling Knolls Landfill Boundary
- Stream
- Surface Water Features
- Surface Debris Area as Described in the Remedial Investigation

0 500 1,000 Feet

X Coordinate	Y Coordinate
508806.969090341	689889.679067322

X Coordinate	Y Coordinate
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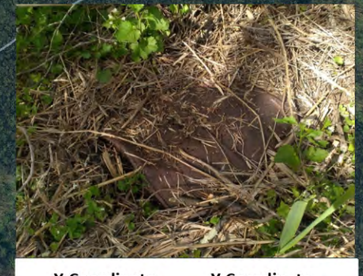

X Coordinate	Y Coordinate
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X Coordinate	Y Coordinate
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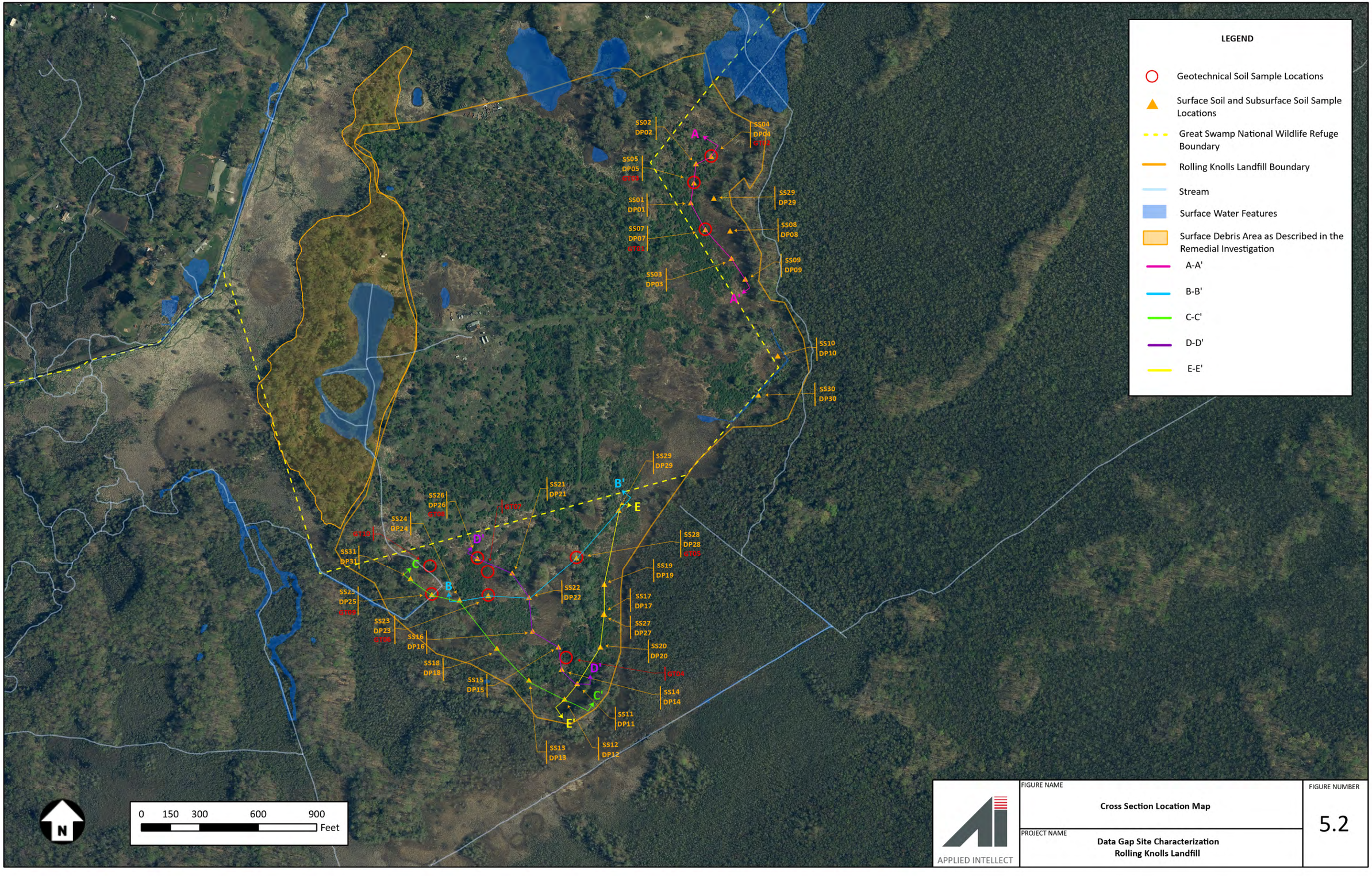
N

APPLIED INTELLECT

FIGURE NAME	FIGURE NUMBER
Observed Drum Locations	5.1
PROJECT NAME: Data Gap Site Characterization Rolling Knolls Landfill	

File Location: Rolling Knolls.mpx



A

A'

SS03 / DP03

SS09 / DP09

SS07 / DP07 / GT01

SS04 / DP04 / GT02

SS05 / DP05 / GT03

SS01 / DP01

SS02 / DP02

240

220

~Feet AMSL

LEGEND

- Landfill
- Organic Silt / Clay (OL)
- Silty Sand (SM)
- Clay (CL)
- Clay (CH)
- Undefined

0 100 200 300 400 500 600 700 800

Horizontal Distance (feet)

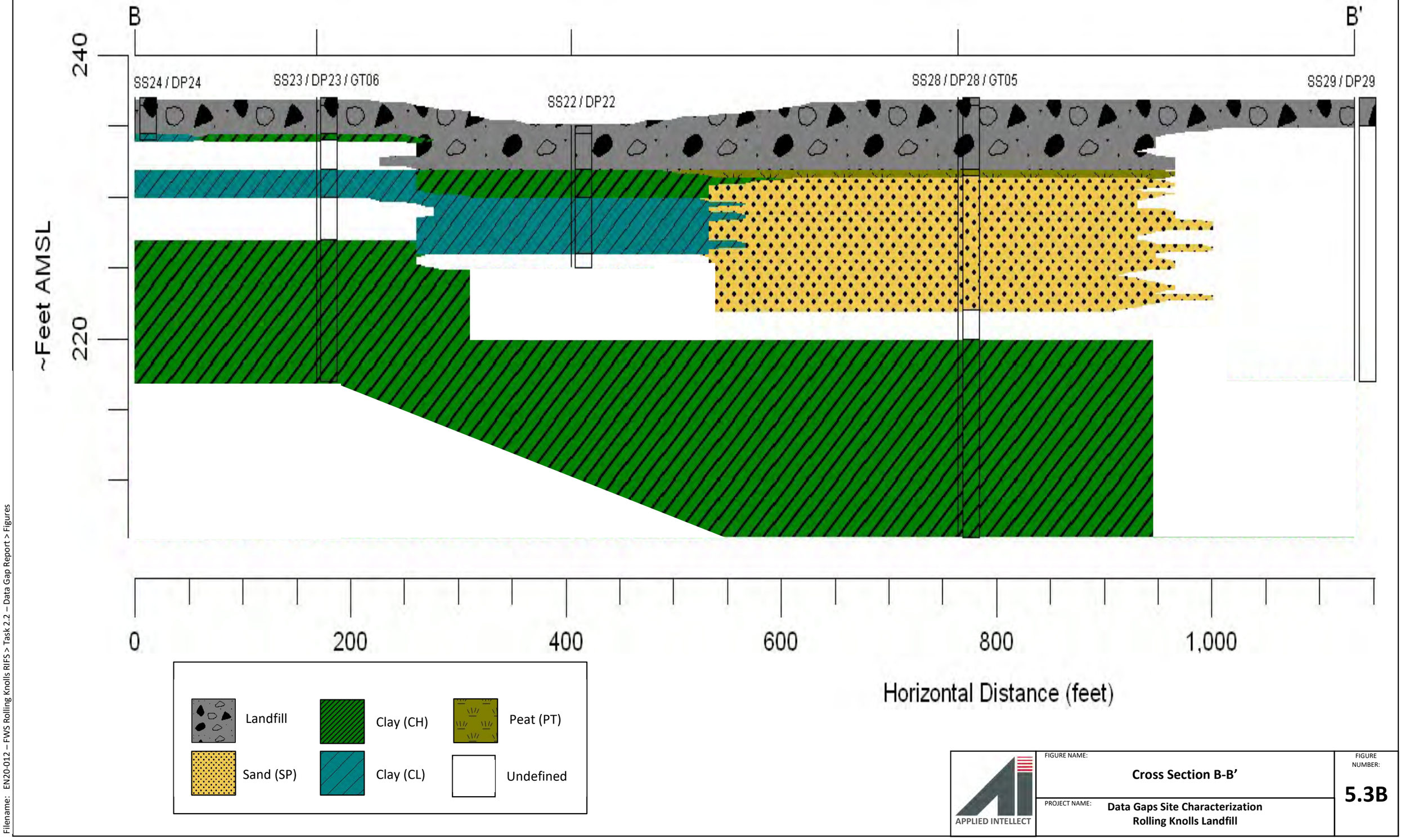
APPLIED INTELLECT

FIGURE NAME: **Cross Section A-A'**

PROJECT NAME: **Data Gaps Site Characterization Rolling Knolls Landfill**

FIGURE NUMBER: **5.3A**

Filename: EN20-012 – FWS Rolling Knolls RIFS > Task 2.2 – Data Gap Report > Figures



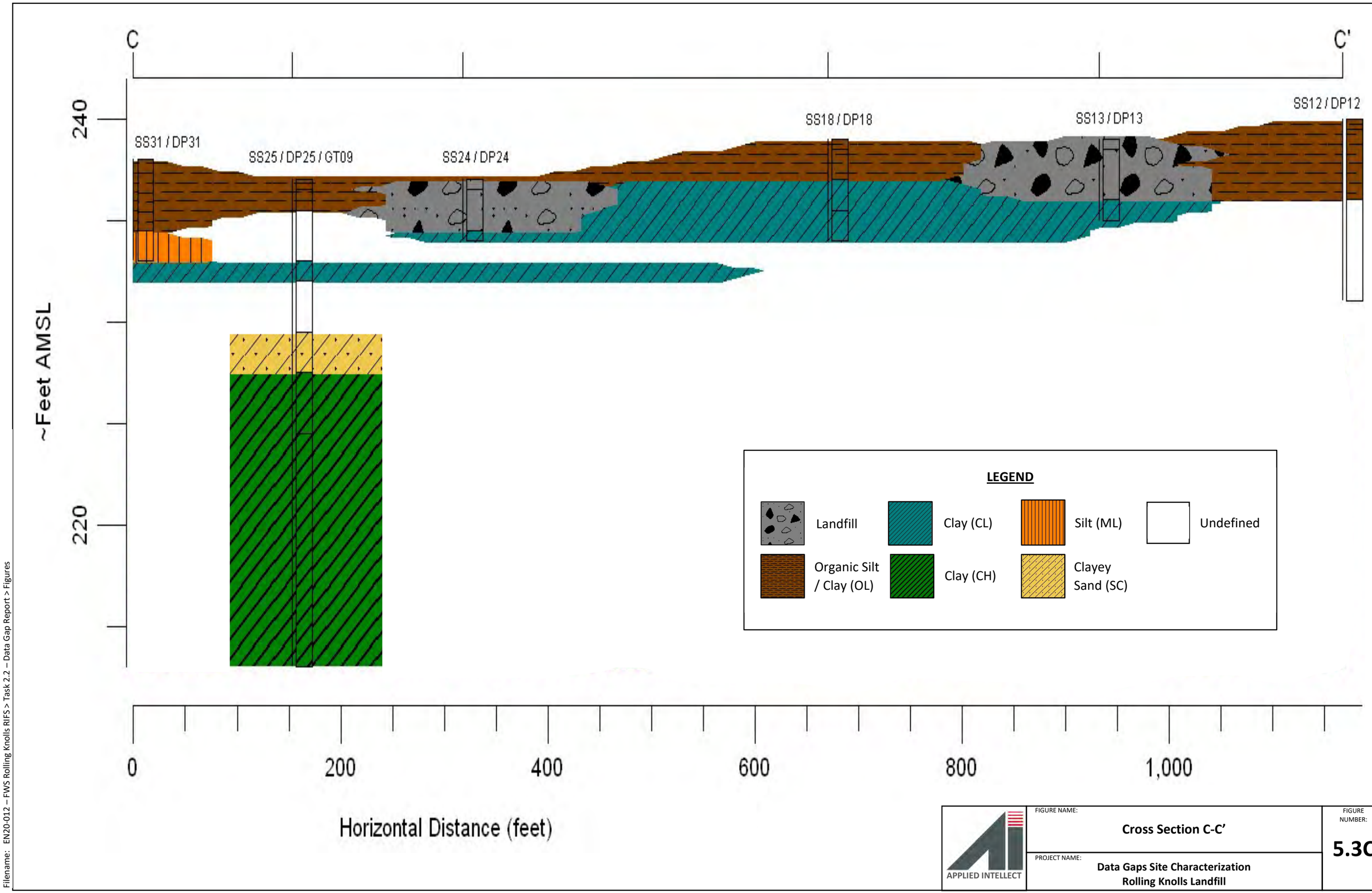
APPLIED INTELLECT

FIGURE NAME: **Cross Section B-B'**

PROJECT NAME: **Data Gaps Site Characterization**
Rolling Knolls Landfill

FIGURE NUMBER: **5.3B**

Filename: EN20-012 – FWS Rolling Knolls RIFS > Task 2.2 – Data Gap Report > Figures



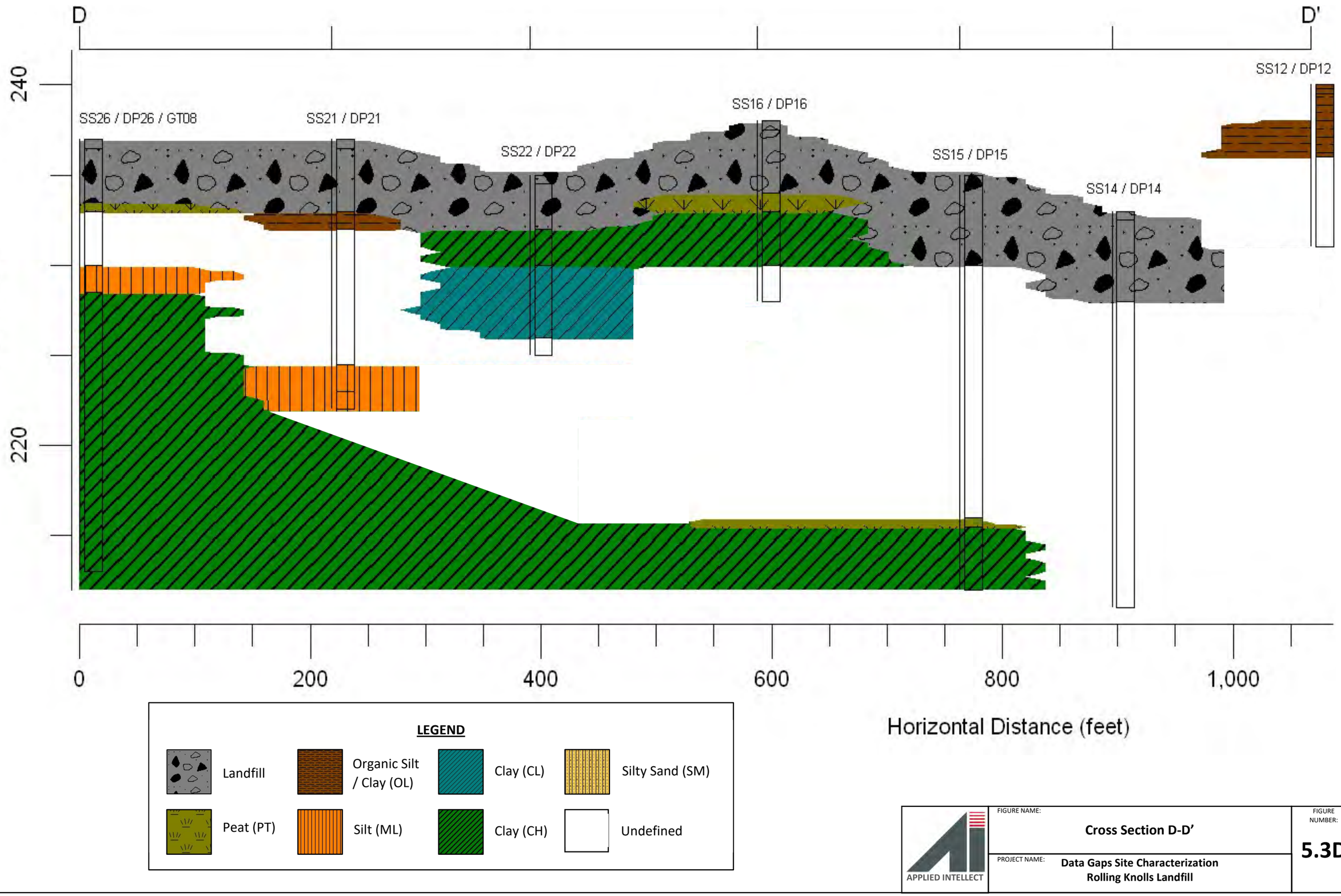
Filename: EN20-012 – FWS Rolling Knolls RIFS > Task 2.2 – Data Gap Report > Figures

APPLIED INTELLECT

FIGURE NAME: **Cross Section C-C'**

PROJECT NAME: **Data Gaps Site Characterization Rolling Knolls Landfill**

FIGURE NUMBER: **5.3C**



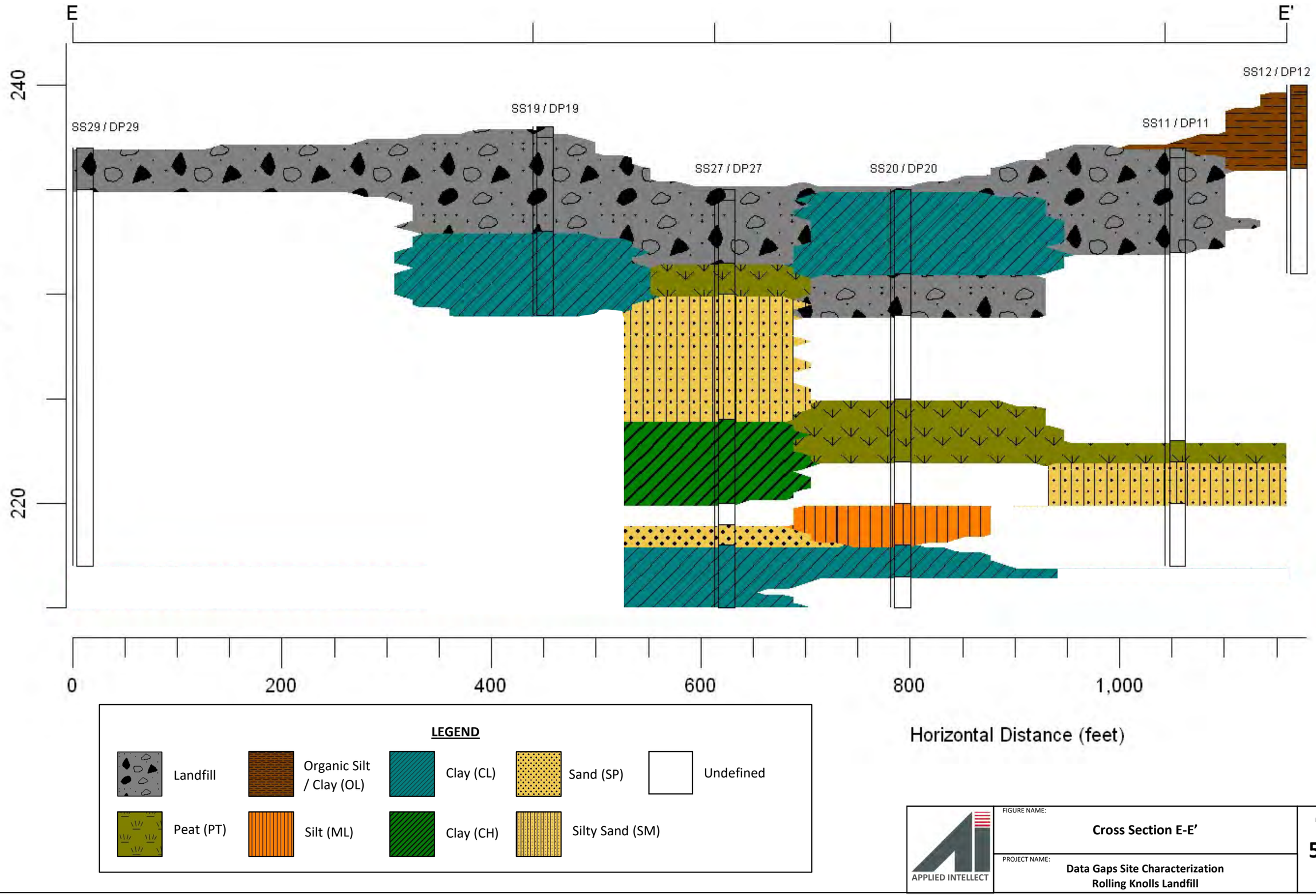
APPLIED INTELLECT

FIGURE NAME: **Cross Section D-D'**

PROJECT NAME: **Data Gaps Site Characterization Rolling Knolls Landfill**

FIGURE NUMBER: **5.3D**

Filename: EN20-012 – FWS Rolling Knolls RIFS > Task 2.2 – Data Gap Report > Figures



APPLIED INTELLECT

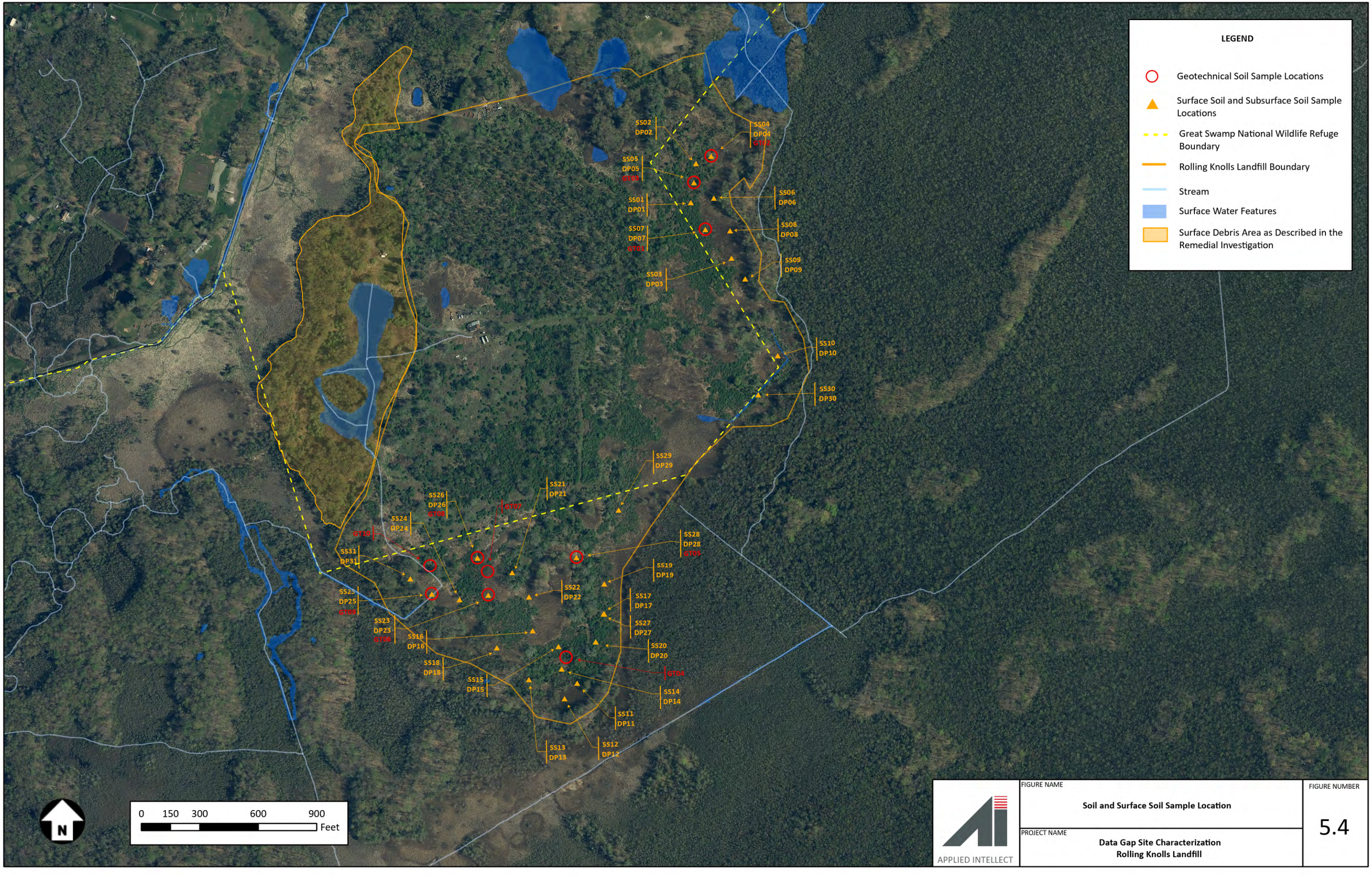
FIGURE NAME: **Cross Section E-E'**

PROJECT NAME: **Data Gaps Site Characterization Rolling Knolls Landfill**

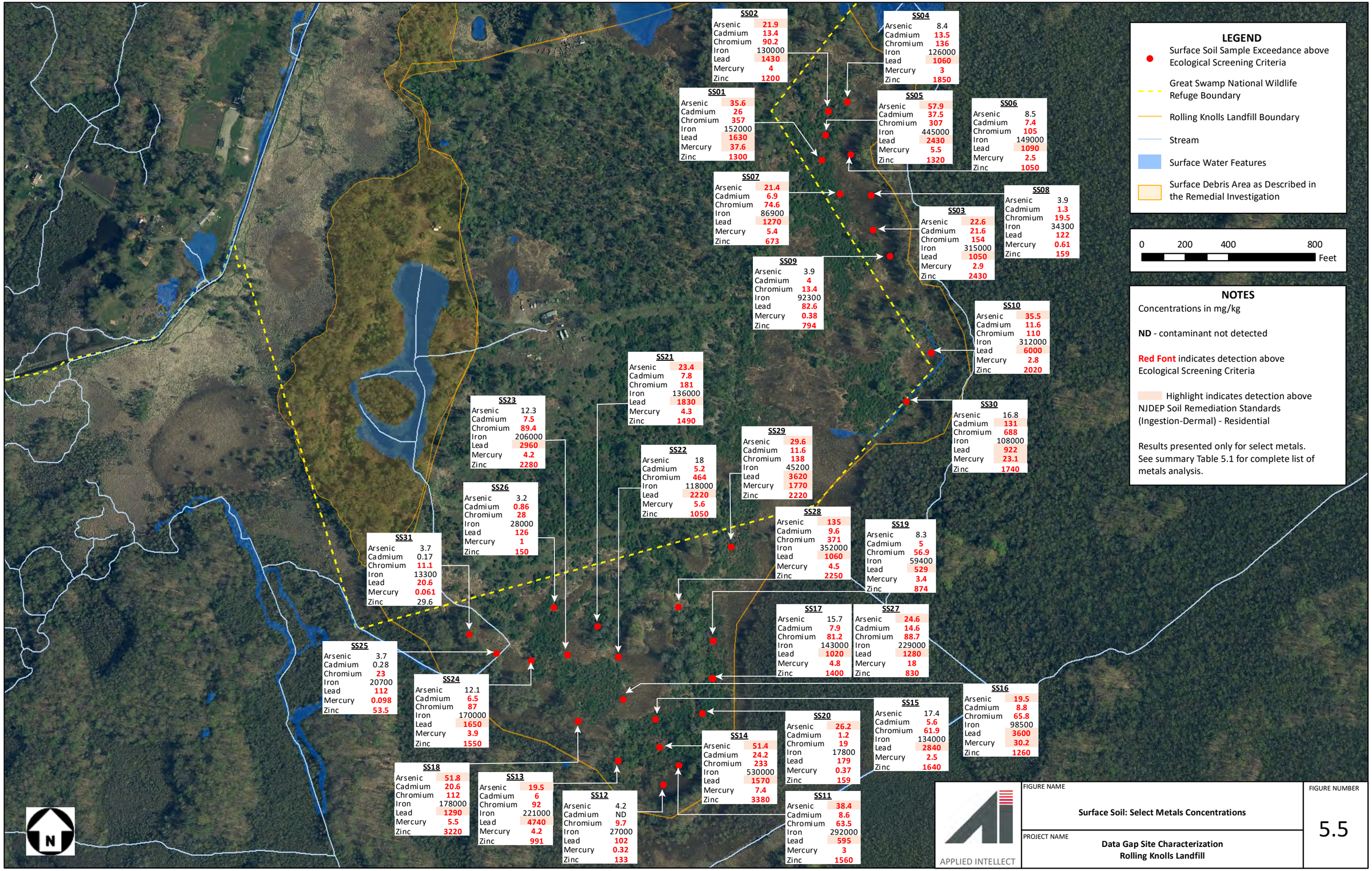
FIGURE NUMBER: **5.3E**

Filename: EN20-012 – FWS Rolling Knolls RIFS > Task 2.2 – Data Gap Report > Figures

File Location: Rolling Knolls.mpx



FILE LOCATION: \\trihydro.com\clients\0toB\AppliedIntellect\GIS\USFWS_Rolling_Hills\Mapping\DataGapRPT\Fig5.5_SS_Metals.mxd



FILE LOCATION: \\trihydro.com\clients\0toB\AppliedIntellect\GIS\USFWS_Rolling_Hills\Mapping\DataGapRPT\Fig5.6_SS_PAHs.mxd

SS02
Low Molecular Weight PAHs 198
High Molecular Weight PAHs 342

SS04
Low Molecular Weight PAHs 2652
High Molecular Weight PAHs **1785**

SS05
Low Molecular Weight PAHs 2692
High Molecular Weight PAHs 530

SS06
Low Molecular Weight PAHs 153.5
High Molecular Weight PAHs 237

SS01
Low Molecular Weight PAHs 758
High Molecular Weight PAHs **5120**

SS08
Low Molecular Weight PAHs 108.3
High Molecular Weight PAHs 280

SS07
Low Molecular Weight PAHs 303
High Molecular Weight PAHs 855

SS03
Low Molecular Weight PAHs 66.2
High Molecular Weight PAHs 696.6

SS09
Low Molecular Weight PAHs 86.2
High Molecular Weight PAHs 213

SS10
Low Molecular Weight PAHs 287.3
High Molecular Weight PAHs 329

SS30
Low Molecular Weight PAHs 782.5
High Molecular Weight PAHs **3271**

SS21
Low Molecular Weight PAHs 127
High Molecular Weight PAHs 612

SS22
Low Molecular Weight PAHs 1742
High Molecular Weight PAHs **2071**

SS23
Low Molecular Weight PAHs 122
High Molecular Weight PAHs 310

SS26
Low Molecular Weight PAHs 75.1
High Molecular Weight PAHs 156.7

SS29
Low Molecular Weight PAHs 637
High Molecular Weight PAHs 1041

SS31
Low Molecular Weight PAHs 82.5
High Molecular Weight PAHs 181.7

SS28
Low Molecular Weight PAHs 1065
High Molecular Weight PAHs **1116**

SS19
Low Molecular Weight PAHs 92.9
High Molecular Weight PAHs 230

SS25
Low Molecular Weight PAHs 87.6
High Molecular Weight PAHs 174.6

SS27
Low Molecular Weight PAHs 154.1
High Molecular Weight PAHs 852

SS24
Low Molecular Weight PAHs 102.8
High Molecular Weight PAHs 260

SS17
Low Molecular Weight PAHs 208.1
High Molecular Weight PAHs 675

SS18
Low Molecular Weight PAHs 527
High Molecular Weight PAHs **4285**

SS20
Low Molecular Weight PAHs 69.6
High Molecular Weight PAHs 304

SS16
Low Molecular Weight PAHs 123.1
High Molecular Weight PAHs 308

SS11
Low Molecular Weight PAHs 339
High Molecular Weight PAHs 762

SS13
Low Molecular Weight PAHs 65.7
High Molecular Weight PAHs 168.4

SS12
Low Molecular Weight PAHs 266
High Molecular Weight PAHs 667

SS15
Low Molecular Weight PAHs 342.2
High Molecular Weight PAHs 390

SS14
Low Molecular Weight PAHs 178.9
High Molecular Weight PAHs 241

LEGEND

- Surface Soil Sample Exceedance above Ecological Screening Criteria
- Surface Soil Sample at/below Ecological Screening Criteria
- Great Swamp National Wildlife Refuge Boundary
- Rolling Knolls Landfill Boundary
- Stream
- Surface Water Features
- Surface Debris Area as Described in the Remedial Investigation

0 200 400 800 Feet

NOTES

Concentrations in µg/kg

Red Font indicates detection above Ecological Screening Criteria

N

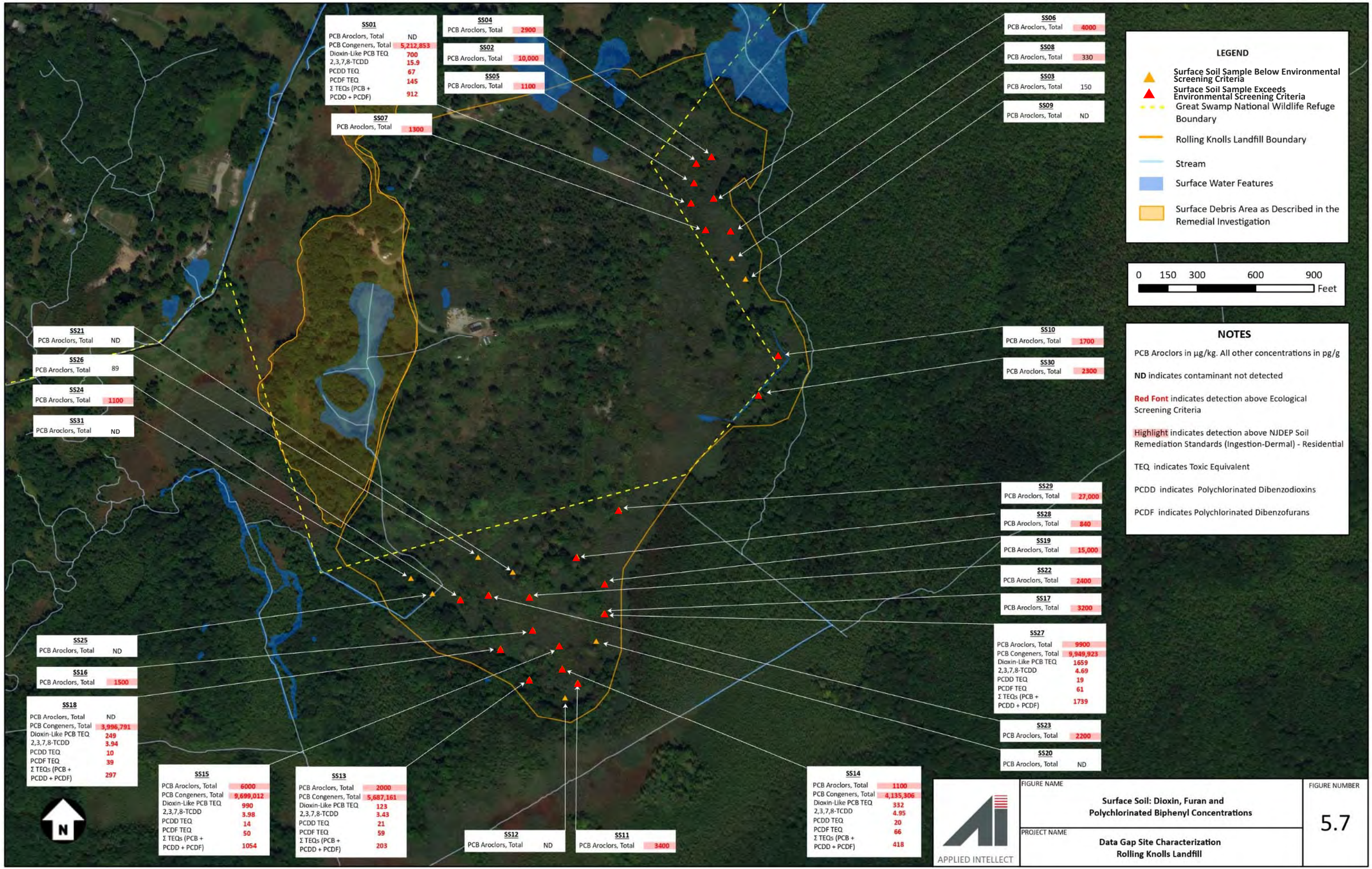
APPLIED INTELLECT

FIGURE NAME
Surface Soil: Polycyclic Aromatic Hydrocarbons (Low and High Molecular Weight) Concentrations

FIGURE NUMBER
5.6

PROJECT NAME
Data Gap Site Characterization
Rolling Knolls Landfill

File Location: Rolling Knolls.mpx



NOTES

PCB Aroclors in µg/kg. All other concentrations in pg/g

ND indicates contaminant not detected

Red Font indicates detection above Ecological Screening Criteria

Highlight indicates detection above NJDEP Soil Remediation Standards (Ingestion-Dermal) - Residential

TEQ indicates Toxic Equivalent

PCDD indicates Polychlorinated Dibenzodioxins

PCDF indicates Polychlorinated Dibenzofurans

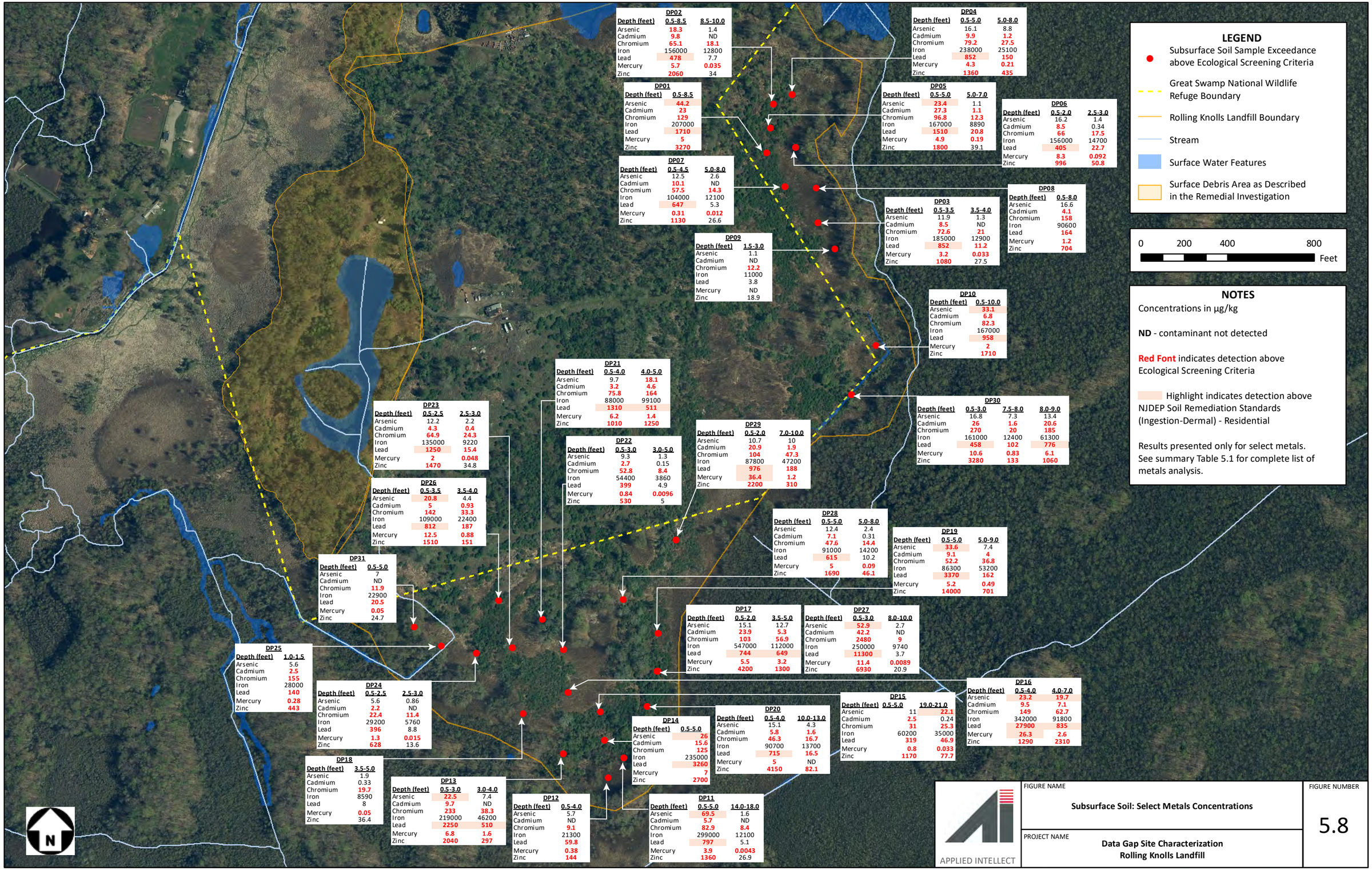
APPLIED INTELLECT

FIGURE NAME
Surface Soil: Dioxin, Furan and Polychlorinated Biphenyl Concentrations

PROJECT NAME
Data Gap Site Characterization Rolling Knolls Landfill

FIGURE NUMBER
5.7

FILE LOCATION: \\trihydro.com\clients\0toB\AppliedIntellect\GIS\USFWS_Rolling_Hills\Mapping\DataGapRPT\Fig5.8_DP_Metals.mxd



DP02

Depth (feet)	0.5-8.5	8.5-10.0
Arsenic	18.3	1.4
Cadmium	9.8	ND
Chromium	65.1	18.1
Iron	156000	12800
Lead	478	7.7
Mercury	5.7	0.035
Zinc	2060	34

DP04

Depth (feet)	0.5-5.0	5.0-8.0
Arsenic	16.1	8.8
Cadmium	9.9	1.2
Chromium	79.2	27.5
Iron	238000	25100
Lead	852	150
Mercury	4.3	0.21
Zinc	1360	435

DP01

Depth (feet)	0.5-8.5
Arsenic	44.2
Cadmium	23
Chromium	129
Iron	207000
Lead	1710
Mercury	5
Zinc	3270

DP05

Depth (feet)	0.5-5.0	5.0-7.0
Arsenic	23.4	1.1
Cadmium	27.3	1.1
Chromium	96.8	12.3
Iron	167000	8890
Lead	1510	20.8
Mercury	4.9	0.19
Zinc	1800	39.1

DP06

Depth (feet)	0.5-2.0	2.5-3.0
Arsenic	16.2	1.4
Cadmium	8.5	0.34
Chromium	66	17.5
Iron	156000	14700
Lead	405	22.7
Mercury	8.3	0.092
Zinc	996	50.8

DP07

Depth (feet)	0.5-4.5	5.0-8.0
Arsenic	12.5	2.6
Cadmium	10.1	ND
Chromium	57.5	14.3
Iron	104000	12100
Lead	647	5.3
Mercury	0.31	0.012
Zinc	1130	26.6

DP08

Depth (feet)	0.5-8.0
Arsenic	16.6
Cadmium	4.1
Chromium	158
Iron	90600
Lead	164
Mercury	1.2
Zinc	704

DP03

Depth (feet)	0.5-3.5	3.5-4.0
Arsenic	11.9	1.3
Cadmium	8.5	ND
Chromium	72.6	21
Iron	185000	12900
Lead	852	11.2
Mercury	3.2	0.033
Zinc	1080	27.5

DP09

Depth (feet)	1.5-3.0
Arsenic	1.1
Cadmium	ND
Chromium	12.2
Iron	11000
Lead	3.8
Mercury	ND
Zinc	18.9

DP10

Depth (feet)	0.5-10.0
Arsenic	33.1
Cadmium	6.8
Chromium	82.3
Iron	167000
Lead	958
Mercury	2
Zinc	1710

DP21

Depth (feet)	0.5-4.0	4.0-5.0
Arsenic	9.7	18.1
Cadmium	3.2	4.6
Chromium	75.8	164
Iron	88000	99100
Lead	1310	511
Mercury	6.2	1.4
Zinc	1010	1250

DP23

Depth (feet)	0.5-2.5	2.5-3.0
Arsenic	12.2	2.2
Cadmium	4.3	0.4
Chromium	64.9	24.3
Iron	135000	9220
Lead	1250	15.4
Mercury	2	0.048
Zinc	1470	34.8

DP22

Depth (feet)	0.5-3.0	3.0-5.0
Arsenic	9.3	1.3
Cadmium	2.7	0.15
Chromium	52.8	8.4
Iron	54400	3860
Lead	399	4.9
Mercury	0.84	0.0096
Zinc	530	5

DP29

Depth (feet)	0.5-2.0	7.0-10.0
Arsenic	10.7	10
Cadmium	20.9	1.9
Chromium	104	47.3
Iron	87800	47200
Lead	976	188
Mercury	36.4	1.2
Zinc	2200	310

DP30

Depth (feet)	0.5-3.0	7.5-8.0	8.0-9.0
Arsenic	16.8	7.3	13.4
Cadmium	26	1.6	20.6
Chromium	270	20	185
Iron	161000	12400	61300
Lead	458	102	776
Mercury	10.6	0.83	6.1
Zinc	3280	133	1060

DP26

Depth (feet)	0.5-3.5	3.5-4.0
Arsenic	20.8	4.4
Cadmium	5	0.93
Chromium	142	33.3
Iron	109000	22400
Lead	812	187
Mercury	12.5	0.88
Zinc	1510	151

DP28

Depth (feet)	0.5-5.0	5.0-8.0
Arsenic	12.4	2.4
Cadmium	7.1	0.31
Chromium	47.6	14.4
Iron	91000	14200
Lead	615	10.2
Mercury	5	0.09
Zinc	1690	46.1

DP19

Depth (feet)	0.5-5.0	5.0-9.0
Arsenic	33.6	7.4
Cadmium	9.1	4
Chromium	52.2	36.8
Iron	86300	53200
Lead	3370	162
Mercury	5.2	0.49
Zinc	14000	701

DP31

Depth (feet)	0.5-5.0
Arsenic	7
Cadmium	ND
Chromium	11.9
Iron	22900
Lead	20.5
Mercury	0.05
Zinc	24.7

DP17

Depth (feet)	0.5-2.0	3.5-5.0
Arsenic	15.1	12.7
Cadmium	23.9	5.3
Chromium	103	56.9
Iron	547000	112000
Lead	744	649
Mercury	5.5	3.2
Zinc	4200	1300

DP27

Depth (feet)	0.5-3.0	8.0-10.0
Arsenic	52.9	2.7
Cadmium	42.2	ND
Chromium	2480	9
Iron	250000	9740
Lead	11300	3.7
Mercury	11.4	0.0089
Zinc	6930	20.9

DP25

Depth (feet)	1.0-1.5
Arsenic	5.6
Cadmium	2.5
Chromium	155
Iron	28000
Lead	140
Mercury	0.28
Zinc	443

DP24

Depth (feet)	0.5-2.5	2.5-3.0
Arsenic	5.6	0.86
Cadmium	2.2	ND
Chromium	22.4	11.4
Iron	29200	5760
Lead	396	8.8
Mercury	1.3	0.015
Zinc	628	13.6

DP20

Depth (feet)	0.5-4.0	10.0-13.0
Arsenic	15.1	4.3
Cadmium	5.8	1.6
Chromium	46.3	16.7
Iron	90700	13700
Lead	715	16.5
Mercury	5	ND
Zinc	4150	82.1

DP15

Depth (feet)	0.5-5.0	19.0-21.0
Arsenic	11	22.1
Cadmium	2.5	0.24
Chromium	31	25.3
Iron	60200	35000
Lead	319	46.9
Mercury	0.8	0.033
Zinc	1170	77.7

DP16

Depth (feet)	0.5-4.0	4.0-7.0
Arsenic	23.2	19.7
Cadmium	9.5	7.1
Chromium	149	62.7
Iron	342000	91800
Lead	27900	835
Mercury	26.3	2.6
Zinc	1290	2310

DP18

Depth (feet)	3.5-5.0
Arsenic	1.9
Cadmium	0.33
Chromium	19.7
Iron	8590
Lead	8
Mercury	0.05
Zinc	36.4

DP13

Depth (feet)	0.5-3.0	3.0-4.0
Arsenic	22.5	7.4
Cadmium	9.7	ND
Chromium	233	38.3
Iron	219000	46200
Lead	2250	510
Mercury	6.8	1.6
Zinc	2040	297

DP12

Depth (feet)	0.5-4.0
Arsenic	5.7
Cadmium	ND
Chromium	9.1
Iron	21300
Lead	59.8
Mercury	0.38
Zinc	144

DP14

Depth (feet)	0.5-5.0
Arsenic	26
Cadmium	15.6
Chromium	125
Iron	235000
Lead	3260
Mercury	7
Zinc	2700

DP11

Depth (feet)	0.5-5.0	14.0-18.0
Arsenic	69.5	1.6
Cadmium	5.7	ND
Chromium	82.9	8.4
Iron	299000	12100
Lead	797	5.1
Mercury	3.9	0.0043
Zinc	1360	26.9

LEGEND

- Subsurface Soil Sample Exceedance above Ecological Screening Criteria
- Great Swamp National Wildlife Refuge Boundary
- Rolling Knolls Landfill Boundary
- Stream
- Surface Water Features
- Surface Debris Area as Described in the Remedial Investigation

0 200 400 800 Feet

NOTES

Concentrations in µg/kg

ND - contaminant not detected

Red Font indicates detection above Ecological Screening Criteria

Highlight indicates detection above NJDEP Soil Remediation Standards (Ingestion-Dermal) - Residential

Results presented only for select metals. See summary Table 5.1 for complete list of metals analysis.

APPLIED INTELLECT

FIGURE NAME

Subsurface Soil: Select Metals Concentrations

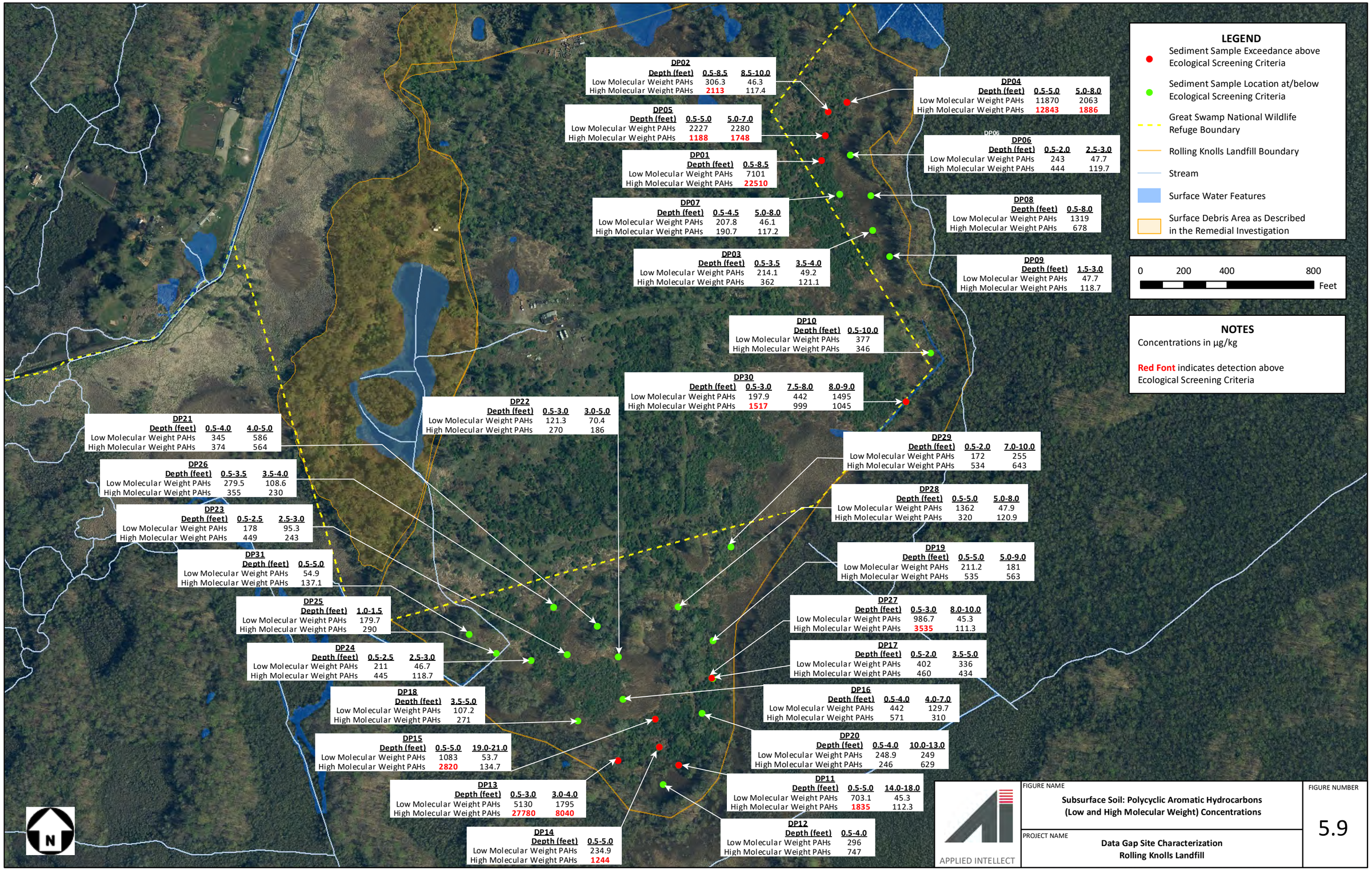
PROJECT NAME

Data Gap Site Characterization
Rolling Knolls Landfill

FIGURE NUMBER

5.8

FILE LOCATION: \\trihydro.com\clients\0toB\AppliedIntellect\GIS\USFWS_Rolling_Hills\Mapping\DataGapRPT\Fig5.9_DP_PAHs.mxd



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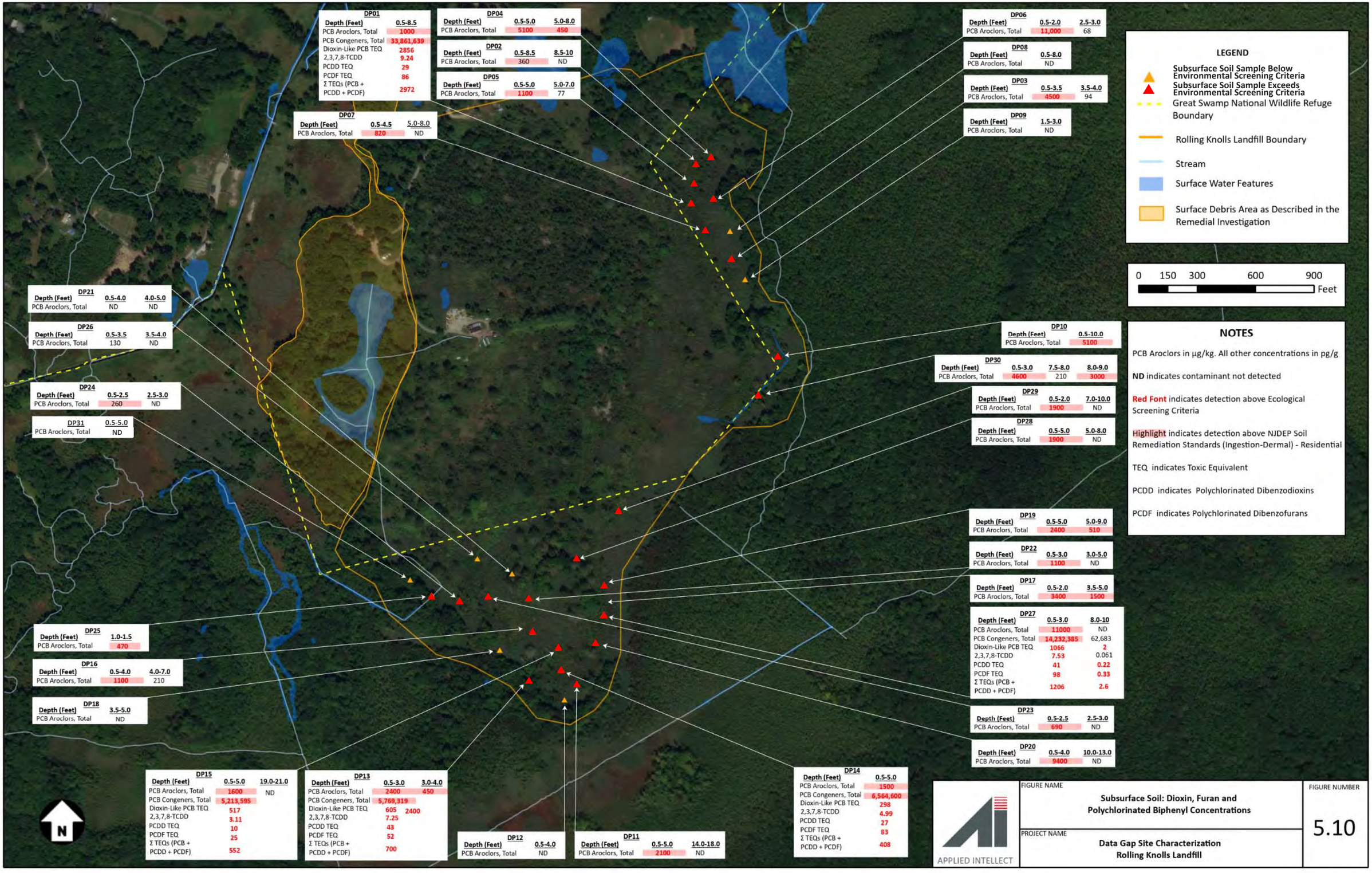


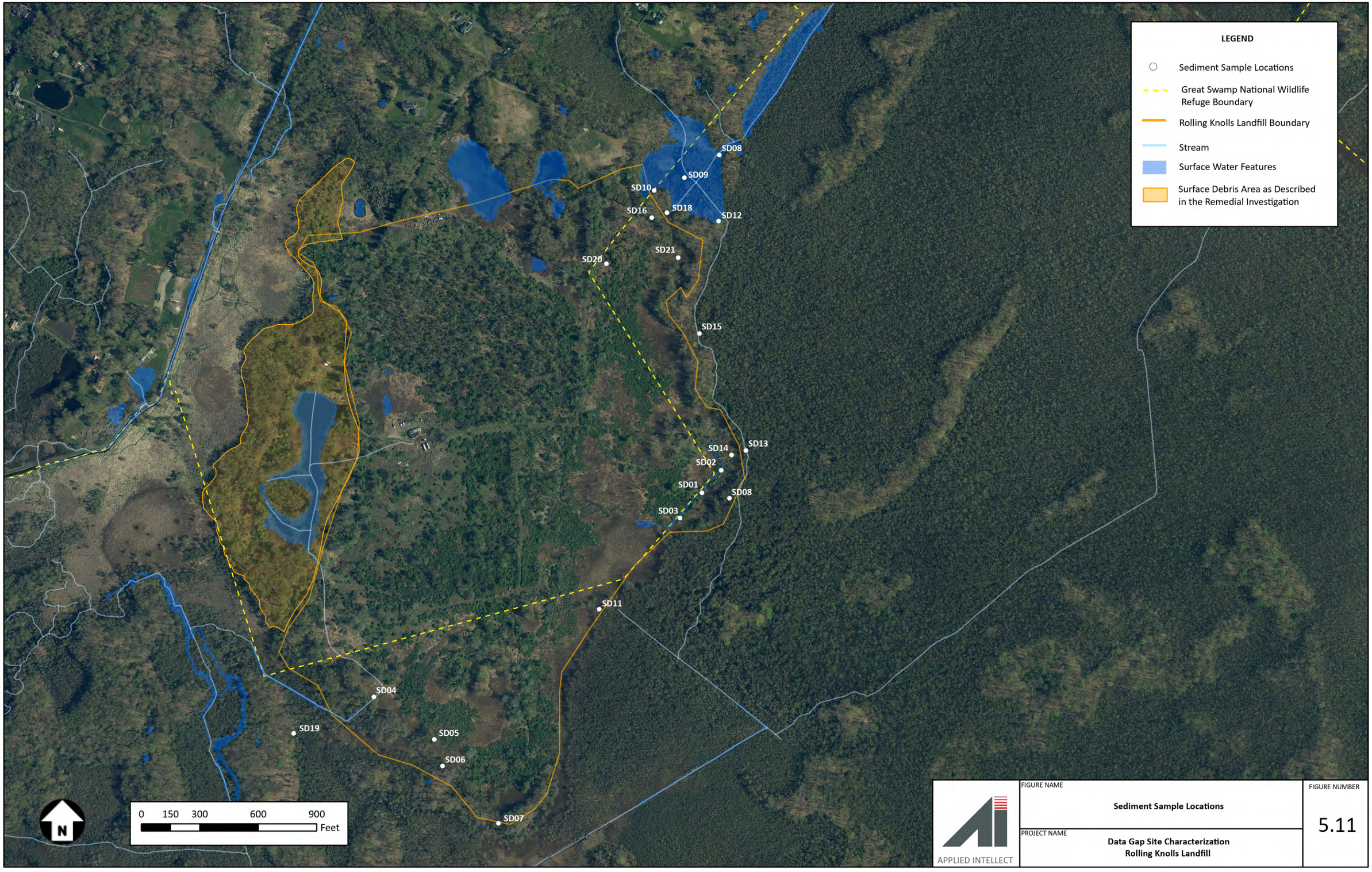
APPLIED INTELLECT

FIGURE NAME
Subsurface Soil: Dioxin, Furan and Polychlorinated Biphenyl Concentrations

PROJECT NAME
Data Gap Site Characterization Rolling Knolls Landfill

FIGURE NUMBER
5.10

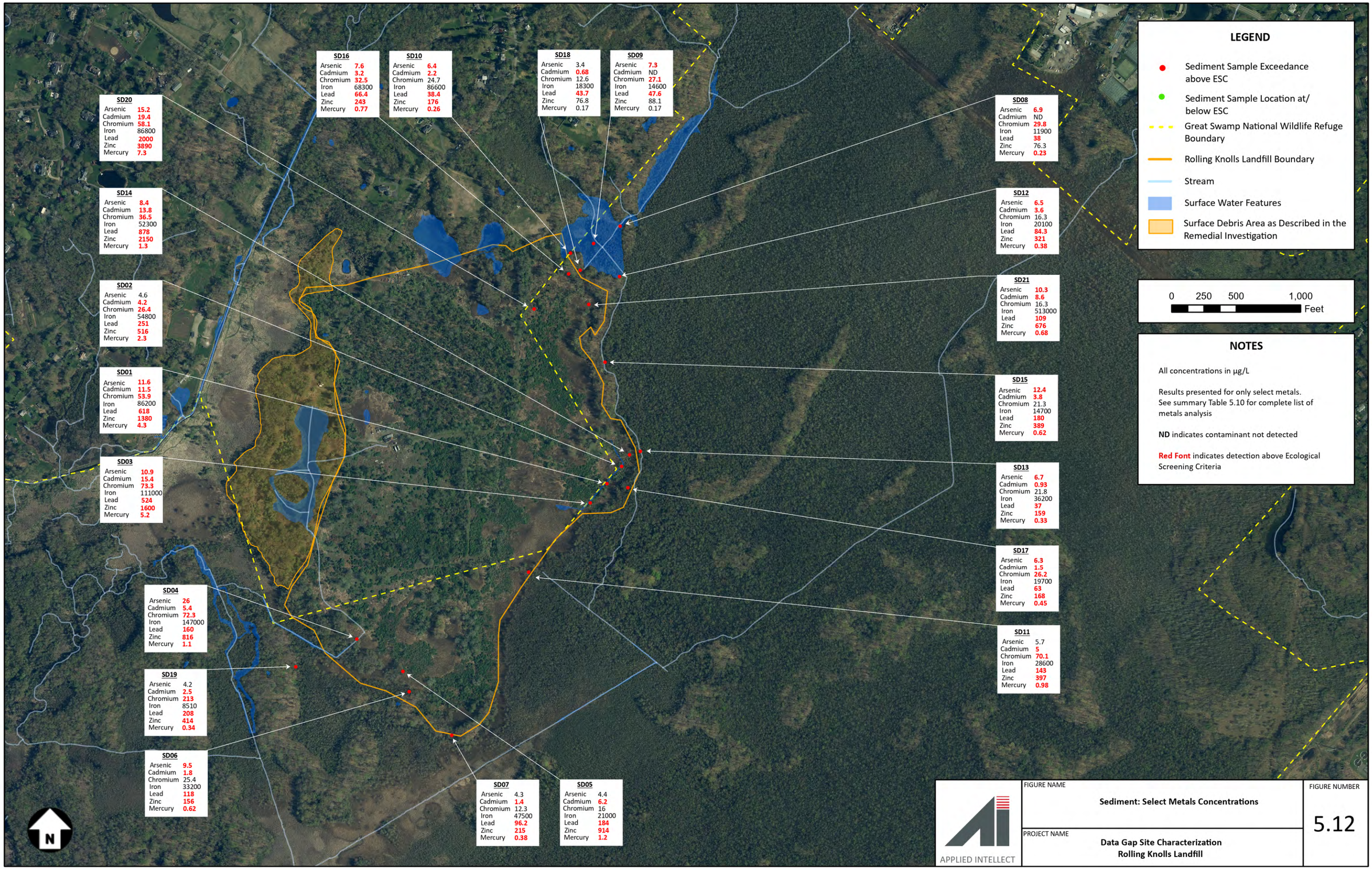
File Location: Rolling Knolls.mpx



APPLIED INTELLECT

FIGURE NAME	FIGURE NUMBER
Sediment Sample Locations	5.11
PROJECT NAME: Data Gap Site Characterization Rolling Knolls Landfill	

FILE LOCATION: Rolling Knolls Figures.mpx



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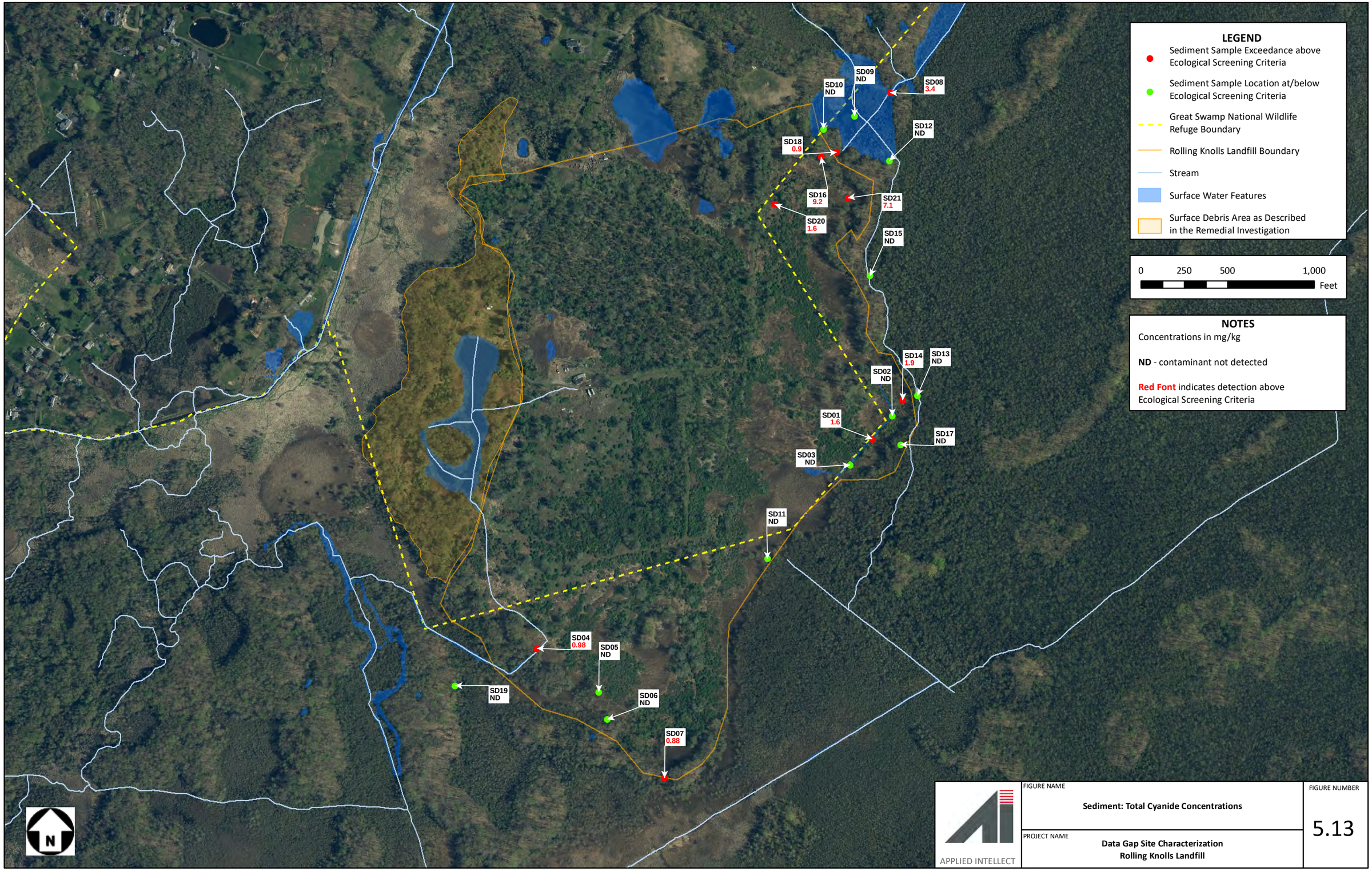


LEGEND

- Sediment Sample Exceedance above Ecological Screening Criteria
- Sediment Sample Location at/below Ecological Screening Criteria
- Great Swamp National Wildlife Refuge Boundary
- Rolling Knolls Landfill Boundary
- Stream
- Surface Water Features
- Surface Debris Area as Described in the Remedial Investigation

0 250 500 1,000 Feet

NOTES

Concentrations in mg/kg

ND - contaminant not detected

Red Font indicates detection above Ecological Screening Criteria

APPLIED INTELLECT

FIGURE NAME

Sediment: Total Cyanide Concentrations

PROJECT NAME

Data Gap Site Characterization
Rolling Knolls Landfill

FIGURE NUMBER

5.13

FILE LOCATION: \\trihydro.com\clients\0toB\AppliedIntellect\GIS\USFWS_Rolling_Hills\Mapping\DataGapRPT\Fig5.14_Sed_SEM-AVS.mxd

SD09
ΣSEM–AVS 2.3
(ΣSEM-AVS)/foc 11.3

SD08
ΣSEM–AVS -0.5
(ΣSEM-AVS)/foc -3.1

SD10
ΣSEM–AVS 40.4
(ΣSEM-AVS)/foc 221.9

SD18
ΣSEM–AVS -0.4
(ΣSEM-AVS)/foc -10.7

SD16
ΣSEM–AVS 6.0
(ΣSEM-AVS)/foc 97.5

SD12
ΣSEM–AVS -15.3
(ΣSEM-AVS)/foc -158.4

SD20
ΣSEM–AVS 90.7
(ΣSEM-AVS)/foc 652.8

SD21
ΣSEM–AVS 4.6
(ΣSEM-AVS)/foc 65.1

SD15
ΣSEM–AVS 2.7
(ΣSEM-AVS)/foc 13.4

SD13
ΣSEM–AVS 0.6
(ΣSEM-AVS)/foc 2.0

SD14
ΣSEM–AVS 42.4
(ΣSEM-AVS)/foc 457.0

SD02
ΣSEM–AVS 7.7
(ΣSEM-AVS)/foc 57.9

SD01
ΣSEM–AVS 55.9
(ΣSEM-AVS)/foc 385.8

SD17
ΣSEM–AVS 1.1
(ΣSEM-AVS)/foc 4.9

SD03
ΣSEM–AVS 57.5
(ΣSEM-AVS)/foc 264.7

SD11
ΣSEM–AVS -3.4
(ΣSEM-AVS)/foc -9.9

SD04
ΣSEM–AVS 5.0
(ΣSEM-AVS)/foc 51.6

SD05
ΣSEM–AVS 22.9
(ΣSEM-AVS)/foc 181.9

SD19
ΣSEM–AVS 7.9
(ΣSEM-AVS)/foc 63.9

SD06
ΣSEM–AVS 0.8
(ΣSEM-AVS)/foc 3.5

SD07
ΣSEM–AVS 0.8
(ΣSEM-AVS)/foc 5.7

LEGEND

- Sediment Sample Exceedance above Ecological Screening Criteria
- Sediment Sample Location at/below Ecological Screening Criteria
- Great Swamp National Wildlife Refuge Boundary
- Rolling Knolls Landfill Boundary
- Stream
- Surface Water Features
- Surface Debris Area as Described in the Remedial Investigation

0 250 500 1,000 Feet

NOTES

ΣSEM–AVS and (ΣSEM-AVS)/foc concentrations in µmol/g

Red Font indicates the potential for toxicity to benthic invertebrates

N

APPLIED INTELLECT

FIGURE NAME
Sediment: Simultaneously Extracted Metals/ Acid-Volatile Sulfide (SEM-AVS) Analysis

PROJECT NAME
Data Gap Site Characterization Rolling Knolls Landfill

FIGURE NUMBER
5.14

FILE LOCATION: \\trihydro.com\clients\0toB\AppliedIntellect\GIS\USFWS_Rolling_Hills\Mapping\DataGapRPT\Fig5.15_Sed_PAHs.mxd

SD08 660
SD09 1065
SD10 586
SD12 1100
SD18 395.3
SD16 800
SD21 688
SD20 16921
SD15 1598
SD14 697
SD13 1383
SD02 830
SD01 788
SD17 1043
SD03 848
SD11 1282
SD04 494
SD19 885
SD05 486
SD06 825
SD07 565

LEGEND

- Sediment Sample Exceedance above Ecological Screening Criteria
- Sediment Sample Location at/below Ecological Screening Criteria
- Great Swamp National Wildlife Refuge Boundary
- Rolling Knolls Landfill Boundary
- Stream
- Surface Water Features
- Surface Debris Area as Described in the Remedial Investigation

0 250 500 1,000 Feet

NOTES

Concentrations in µg/kg

Red Font indicates detection above Ecological Screening Criteria

N

APPLIED INTELLECT

FIGURE NAME

Sediment: Total Polycyclic Aromatic Hydrocarbon Concentrations

PROJECT NAME

Data Gap Site Characterization Rolling Knolls Landfill

FIGURE NUMBER

5.15

FILE LOCATION: \\trihydro.com\clients\0toB\AppliedIntellect\GIS\USFWS_Rolling_Hills\Mapping\DataGapRPT\Fig5.16_Sed_PCBs.mxd

SD09
PCB Aroclor 1248 ND

SD08
PCB Aroclor 1248 ND

SD10
PCB Aroclor 1248 ND

SD18
PCB Aroclor 1248 ND

SD16
PCB Aroclor 1248 340

SD12
PCB Aroclor 1248 ND

SD20

PCB Aroclor 1248	ND
PCB Congeners, Total	2,945,882
Dioxin-Like PCB TEQ	803

SD21
PCB Aroclor 1248 ND

SD15
PCB Aroclor 1248 ND

SD14
PCB Aroclor 1248 ND

SD13
PCB Aroclor 1248 ND

SD01

PCB Aroclor 1248	700
PCB Congeners, Total	5,171,284
Dioxin-Like PCB TEQ	400

SD02

PCB Aroclor 1248	1,200
PCB Congeners, Total	1,710,494
Dioxin-Like PCB TEQ	136
2,3,7,8-TCDD	5.11
PCDD TEQ	11.5
PCDF TEQ	41.4
Σ TEQs (PCB + PCDD + PCDF)	188.9

SD03

PCB Aroclor 1248	1,200
PCB Congeners, Total	7,532,339
Dioxin-Like PCB TEQ	518

SD17
PCB Aroclor 1248 ND

SD11
PCB Aroclor 1248 ND

SD19
PCB Aroclor 1248 ND

LEGEND

- Sediment Sample Exceedance above Ecological Screening Criteria
- Sediment Sample Location at/below Ecological Screening Criteria
- Great Swamp National Wildlife Refuge Boundary
- Rolling Knolls Landfill Boundary
- Stream
- Surface Water Features
- Surface Debris Area as Described in the Remedial Investigation

0 250 500 1,000 Feet

NOTES

PCB Aroclors concentrations in µg/kg
All other concentrations in pg/g

ND - contaminant not detected
TEQ - Toxic Equivalent
PCDD - Polychlorinated Dibenzodioxins
PCDF - Polychlorinated Dibenzofurans

Red Font indicates detection above Ecological Screening Criteria

N

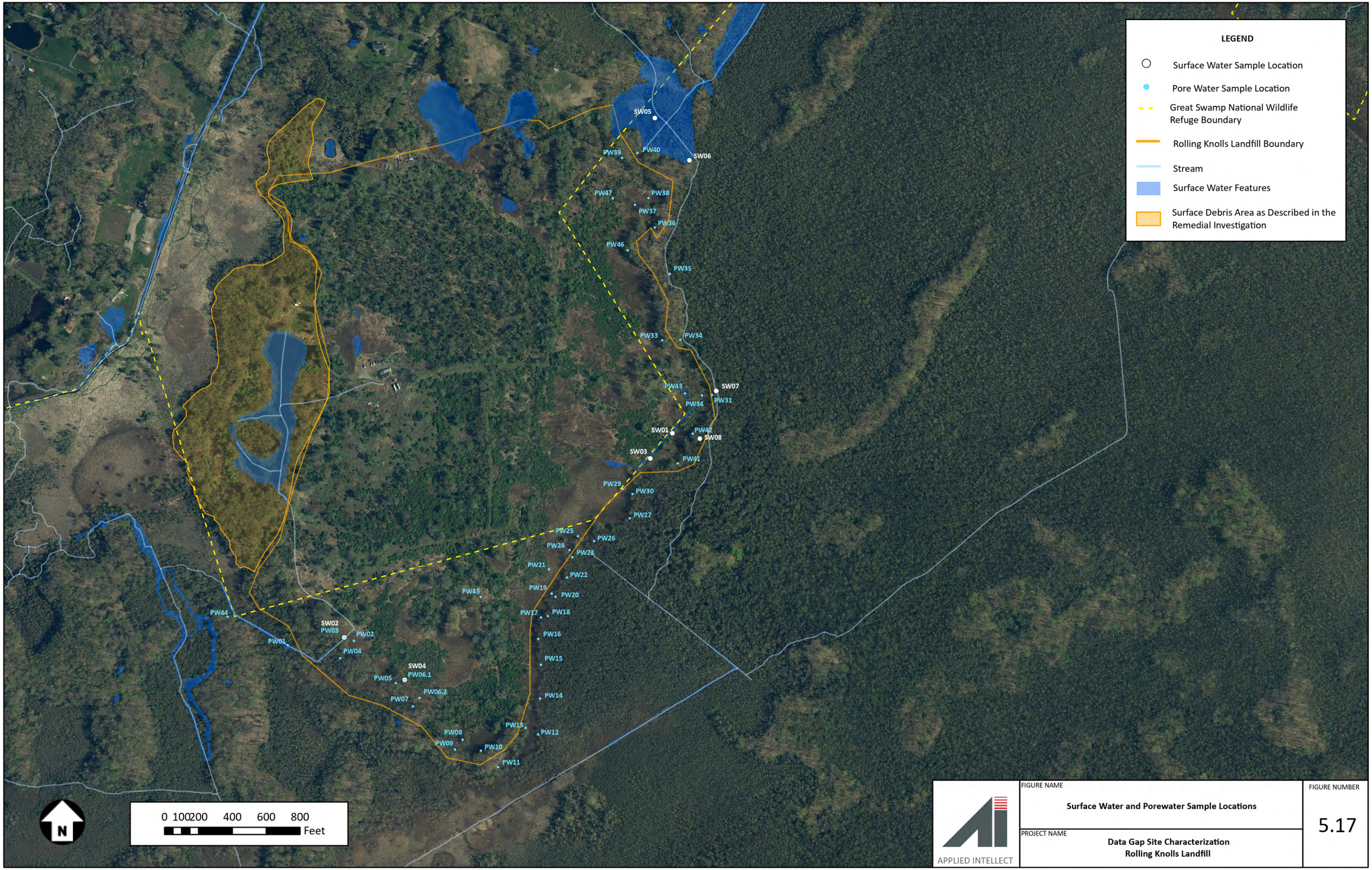
APPLIED INTELLECT

FIGURE NAME
Sediment: Dioxin, Furan, and Polychlorinated Biphenyl Concentrations

PROJECT NAME
Data Gap Site Characterization Rolling Knolls Landfill

FIGURE NUMBER
5.16

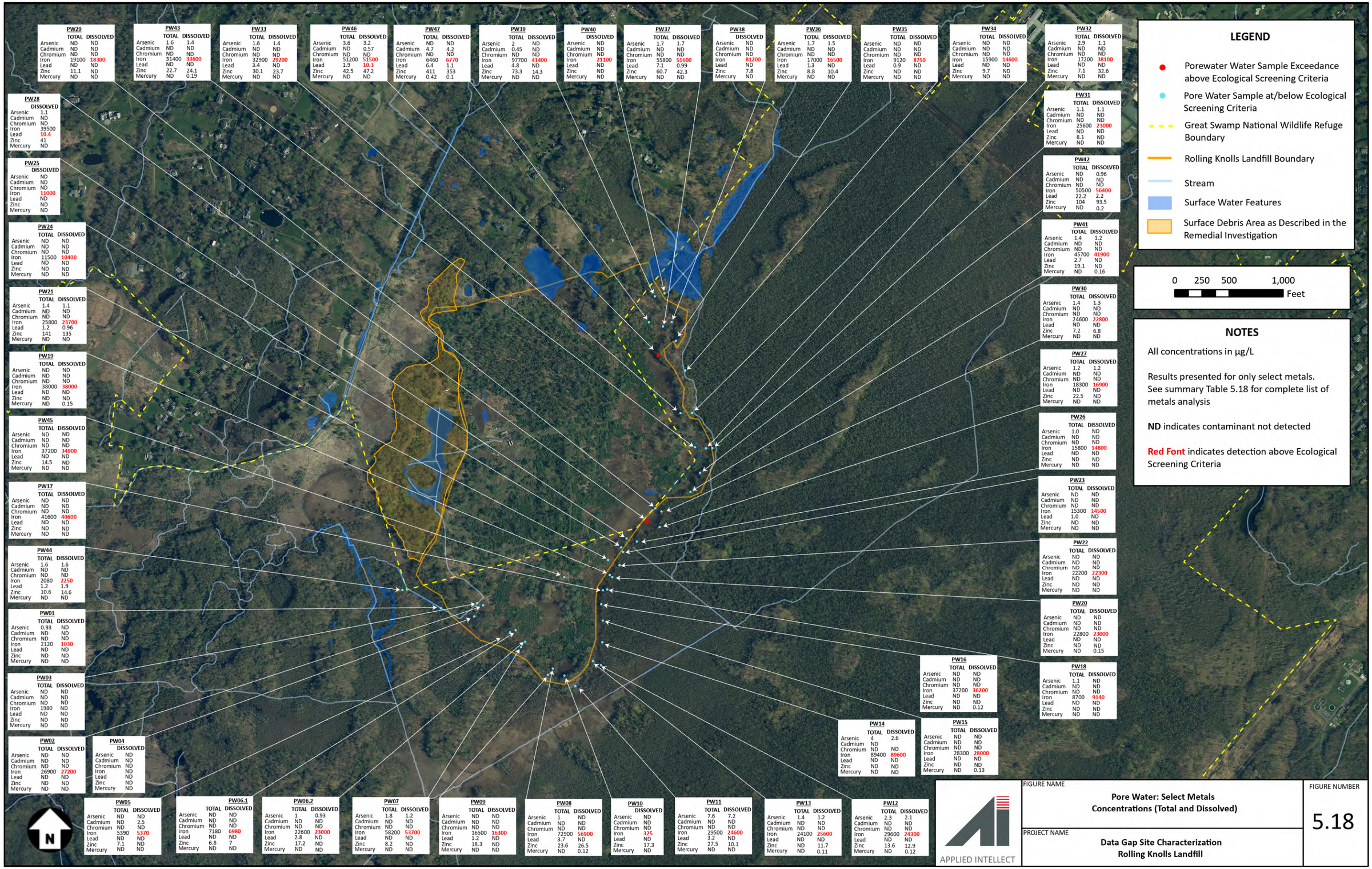
File Location: Rolling Knolls.mpx



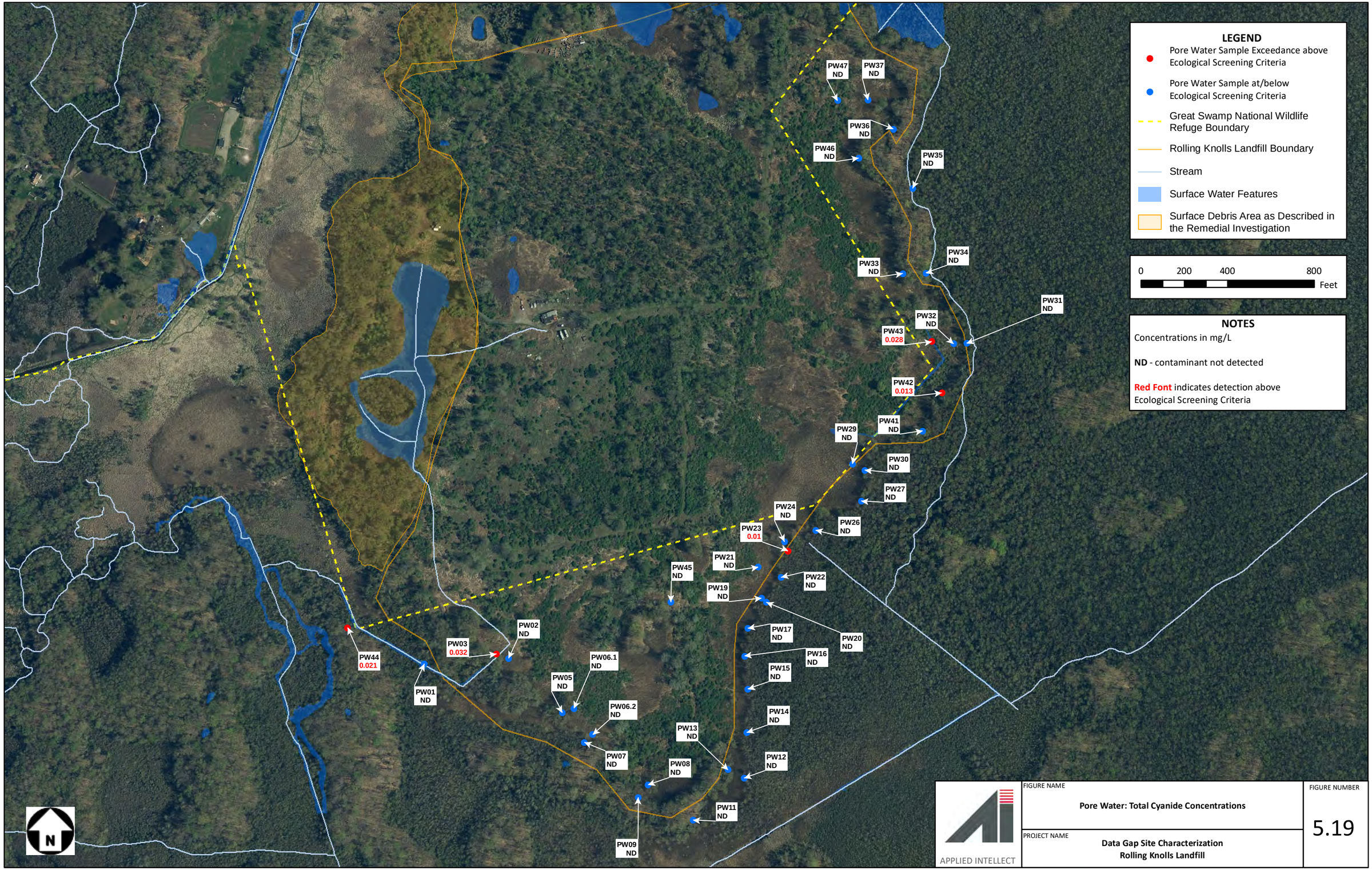
APPLIED INTELLECT

FIGURE NAME	Surface Water and Porewater Sample Locations
PROJECT NAME	Data Gap Site Characterization Rolling Knolls Landfill
FIGURE NUMBER	5.17

FILE LOCATION: Rolling Knolls Figures.mpx



FILE LOCATION: \\trihydro.com\clients\0toB\AppliedIntellect\GIS\USFWS_Rolling_Hills\Mapping\DataGapRPT\Fig5.19_PW_Cn.mxd



APPLIED INTELLECT

FIGURE NAME
Pore Water: Total Cyanide Concentrations

PROJECT NAME
Data Gap Site Characterization
Rolling Knolls Landfill

FIGURE NUMBER
5.19

FILE LOCATION:Rolling Knolls Figures.mpx

SW05

	TOTAL
Arsenic	1.9
Cadmium	0.6
Chromium	ND
Barium	123
Lead	30.7
Mercury	0.14
Zinc	113

SW01

	TOTAL	DISSOLVED
Arsenic	ND	ND
Cadmium	ND	ND
Chromium	ND	ND
Barium	489	382
Lead	4.9	ND
Mercury	ND	ND
Zinc	47.7	26.6

SW03

	TOTAL	DISSOLVED
Arsenic	ND	ND
Cadmium	4.4	ND
Chromium	ND	ND
Barium	2050	446
Lead	10.7	ND
Mercury	0.72	ND
Zinc	171	ND

SW02

	TOTAL	DISSOLVED
Arsenic	2.4	ND
Cadmium	ND	ND
Chromium	ND	ND
Barium	619	319
Lead	4.7	ND
Mercury	ND	ND
Zinc	58.5	8.8

SW06

	TOTAL	DISSOLVED
Arsenic	2.2	ND
Cadmium	2.2	ND
Chromium	3	ND
Barium	171	106
Lead	31.8	ND
Mercury	0.79	ND
Zinc	137	6.6

SW07

	TOTAL	DISSOLVED
Arsenic	3	ND
Cadmium	ND	ND
Chromium	ND	ND
Barium	204	62.2
Lead	5.9	ND
Mercury	ND	ND
Zinc	23.4	ND

SW08

	TOTAL	DISSOLVED
Arsenic	14	ND
Cadmium	0.5	ND
Chromium	6.7	ND
Barium	859	226
Lead	15.8	ND
Mercury	0.16	0.11
Zinc	153	13.2

SW04

	TOTAL	DISSOLVED
Arsenic	32.6	ND
Cadmium	59.1	ND
Chromium	49.5	ND
Barium	3920	464
Lead	1320	ND
Mercury	8.1	ND
Zinc	8480	27.5

LEGEND

- Surface Water Sample Exceedance above Ecological Screening Criteria
- Surface Water Sample at/below Ecological Screening Criteria
- Great Swamp National Wildlife Refuge Boundary
- Rolling Knolls Landfill Boundary
- Stream
- Surface Water Features
- Surface Debris Area as Described in the Remedial Investigation

0 375 750 1,500 Feet

NOTES

All concentrations in µg/L

Results presented for only select metals. See summary Table 5.25 for complete list of metals analysis

ND indicates contaminant not detected

Red Font indicates detection above Ecological Screening Criteria

N

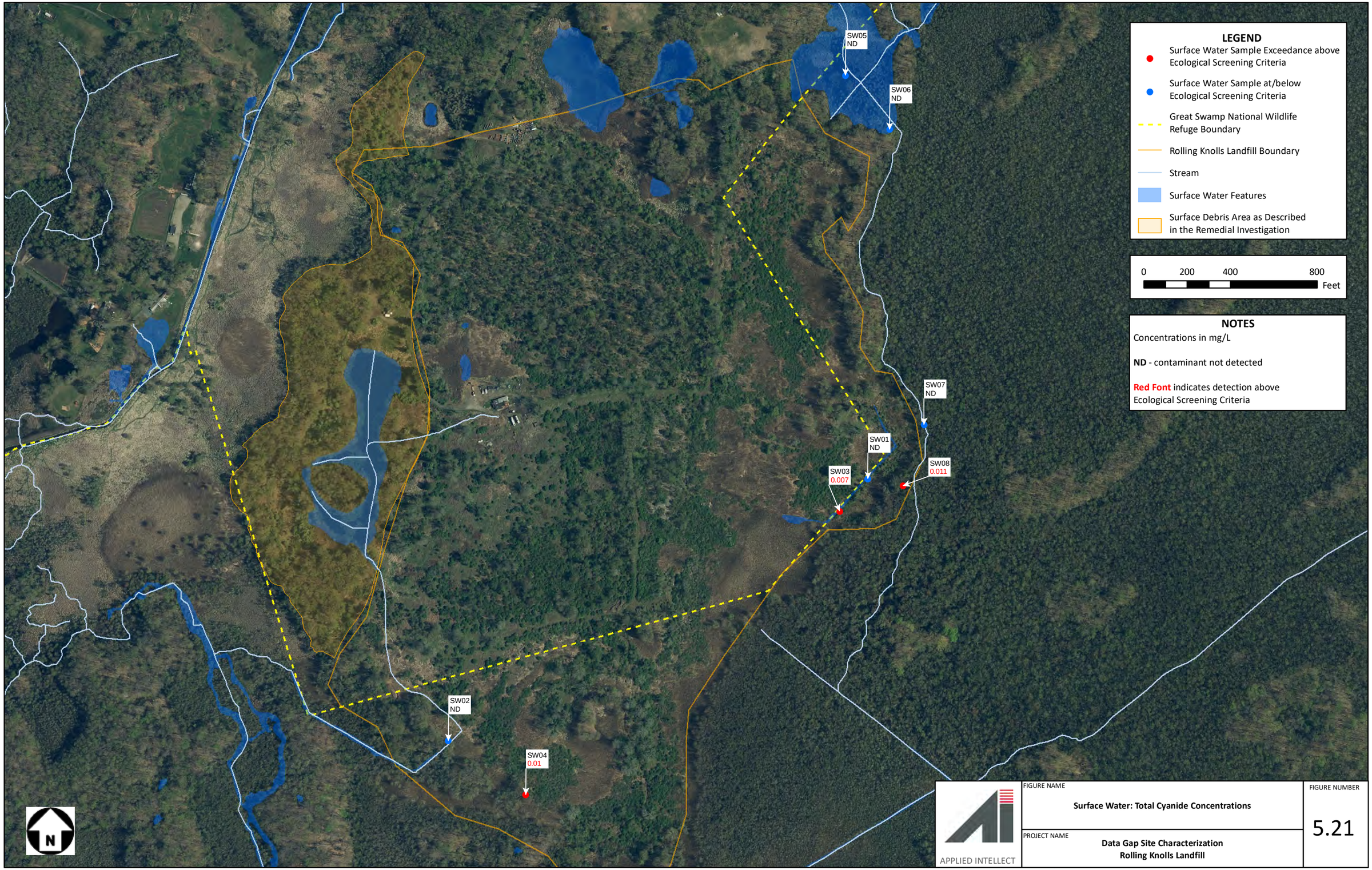
APPLIED INTELLECT

FIGURE NAME: **Surface Water: Select Metals Concentrations (Total and Dissolved)**

PROJECT NAME: **Data Gap Site Characterization Rolling Knolls Landfill**

FIGURE NUMBER: **5.20**

FILE LOCATION: \\trihydro.com\clients\0toB\AppliedIntellect\GIS\USFWS_Rolling_Hills\Mapping\DataGapRPT\Fig5.21_SW_Cn.mxd



LEGEND

- Surface Water Sample Exceedance above Ecological Screening Criteria
- Surface Water Sample at/below Ecological Screening Criteria
- Great Swamp National Wildlife Refuge Boundary
- Rolling Knolls Landfill Boundary
- Stream
- Surface Water Features
- Surface Debris Area as Described in the Remedial Investigation

0 200 400 800 Feet

NOTES

Concentrations in mg/L

ND - contaminant not detected

Red Font indicates detection above Ecological Screening Criteria

APPLIED INTELLECT

FIGURE NAME

Surface Water: Total Cyanide Concentrations

PROJECT NAME

Data Gap Site Characterization
Rolling Knolls Landfill

FIGURE NUMBER

5.21

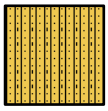
APPENDIX A

Appendix A – Borehole Logs

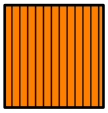
UNIFIED SOIL CLASSIFICATION SYSTEM (USCS)

Landfill: Contain landfill debris

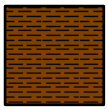
Sand (SP) – Poorly graded (uniform) sand


Silty Sand (SM) – Sand with non-plastic fines

Clayey Sand (SC) – Sand with plastic fines

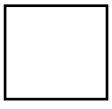

Silt (ML) – Non-plastic inorganic fines

Clay (CL) – Low to medium plasticity inorganic fines


Organic Silt / Clay (OL) – Organic silts and silty clays with low plasticity

Clay (CH) – High plasticity inorganic fines

Peat (PT) – Highly organic soils


Undefined – Undetermined soil type due to insufficient recovery

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Golden, Colorado 80401

BOREHOLE LOG

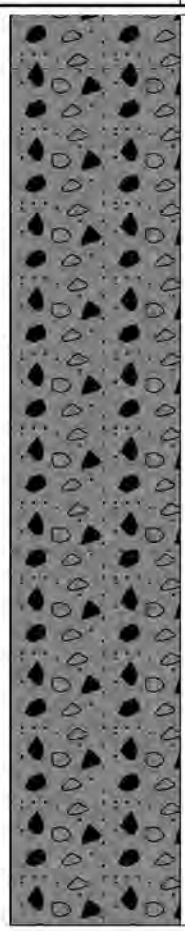
BOREHOLE # **SS01 / DP01**
TOTAL DEPTH: **8.5 feet**
DEPTH TO WATER: **1 foot**

PROJECT INFORMATION

CLIENT:	**USFWS**
PROJECT:	**Rolling Knolls Data Gap**
PROJECT LOCATION:	**Green Village, NJ**
PROJECT #	**EN20.012**
PROJECT MANAGER:	**Raymond Miskines**
LOGGED BY:	**Jeff Hart**
BEGIN DATE:	**5/11/2021**
END DATE:	**5/11/2021**

DRILLING INFORMATION

DRILLING CO.:	**SGS - West Creek, NJ**
DRILLER:	**Joe Flannery**
RIG TYPE:	**NA**
METHOD OF DRILLING:	**Hand Auger**
SAMPLING METHODS:	**Hand Auger**
LATITUDE:	**40.7297321**
LONGITUTDE:	**-74.4419101**
ESTIMATED FEET AMSL:	**238**

DEPTH	SOIL SYMBOLS	USCS	SOIL DESCRIPTION	SAMPLE DESIGNATION	Recovery	PID (ppm)
0		Landfill	Fill: Landfill Debris w/ silt & clay, dark brown, non-plastic, organic matter, landfill debris (plastic, metal, glass)	SS01 & SS100		
			Fill: Landfill Debris w/ silt, dark brown, non-plastic, slight iridescence, saturated, landfill debris (newspaper, plastic wire). Refusal at 3' bgs in 8 holes, until breakthrough to 5' bgs	DP01_0.5-5.0 DP100_0.5-5.0		0.0 0.0
5			Fill: Landfill Debris w/ silt, dark brown, saturated, landfill debris (carpeting, glass, metal). Refusal @ 8.5' bgs			

NOTES: No native soil sample due to multiple refusals @ 8.5' bgs

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2801 Youngfield Street, Suite 240
Golden, Colorado 80401

BOREHOLE LOG

BOREHOLE # **SS02 / DP02**
TOTAL DEPTH: **10 feet**
DEPTH TO WATER: **1 foot**

PROJECT INFORMATION

CLIENT:	**USFWS**
PROJECT:	**Rolling Knolls Data Gap**
PROJECT LOCATION:	**Green Village, NJ**
PROJECT #	**EN20.012**
PROJECT MANAGER:	**Raymond Miskines**
LOGGED BY:	**Jeff Hart**
BEGIN DATE:	**5/11/2021**
END DATE:	**5/11/2021**

DRILLING INFORMATION

DRILLING CO.:	**SGS - West Creek, NJ**
DRILLER:	**Joe Flannery**
RIG TYPE:	**NA**
METHOD OF DRILLING:	**Hand Auger**
SAMPLING METHODS:	**Hand Auger**
LATITUDE:	**40.7303542**
LONGITUTDE:	**-74.4418002**
ESTIMATED FEET AMSL:	**237**

DEPTH	SOIL SYMBOLS	USCS	SOIL DESCRIPTION	SAMPLE DESIGNATION	Recovery	PID (ppm)
0			Fill: Landfill Debris w/ silt & clay, light to dark brown, non-plastic, organic matter (roots), landfill debris (plastic, metal, glass), moist	SS02 (MS/MSD)		0.0
			Fill: Landfill Debris w/ silt, clay, fine grained sand, non-plastic, landfill debris (metal & plastic), saturated			0.0
5		Landfill		DP02_0.5-8.5 (MS/MSD)		
			CL: Clay, stiff, gray, saturated, no landfill debris			
10		CL		DP02_8.5-10.0		

NOTES: SS02 & DP02_0.5-8.5 collected as MS / MSD

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Golden, Colorado 80401

BOREHOLE LOG

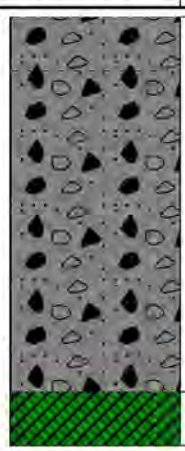
BOREHOLE # **SS03 / DP03**
TOTAL DEPTH: **4 feet**
DEPTH TO WATER: **0.2 feet**

PROJECT INFORMATION

CLIENT:	**USFWS**
PROJECT:	**Rolling Knolls Data Gap**
PROJECT LOCATION:	**Green Village, NJ**
PROJECT #	**EN20.012**
PROJECT MANAGER:	**Raymond Miskines**
LOGGED BY:	**Jeff Hart**
BEGIN DATE:	**5/11/2021**
END DATE:	**5/11/2021**

DRILLING INFORMATION

DRILLING CO.:	**SGS - West Creek, NJ**
DRILLER:	**Joe Flannery**
RIG TYPE:	**NA**
METHOD OF DRILLING:	**Hand Auger**
SAMPLING METHODS:	**Hand Auger**
LATITUDE:	**40.7288473**
LONGITUTDE:	**-74.441059**
ESTIMATED FEET AMSL:	**242**

DEPTH	SOIL SYMBOLS	USCS	SOIL DESCRIPTION	SAMPLE DESIGNATION	Recovery	PID (ppm)
0		Landfill	Fill: Landfill Debris w/ silt, reddish brown, non-plastic, organic matter, landfill debris (80% glass, metal fragments), wet	SS03		0.0
			Fill: Landfill Debris w/ silt and clay, dark brown to dark grey, some light grey silt, saturated, landfill debris (some glass fragments)	DP03_0.5-3.5		
		CH	CH: Clay, stiff, light grey, no landfill debris	DP03_3.5-4.0		

NOTES:

APPLIED INTELLECT
2801 Youngfield Street, Suite 240
Golden, Colorado 80401

BOREHOLE LOG

BOREHOLE #	SS04 / DP04 / GT02
TOTAL DEPTH:	27 feet
DEPTH TO WATER:	0.5 feet

PROJECT INFORMATION

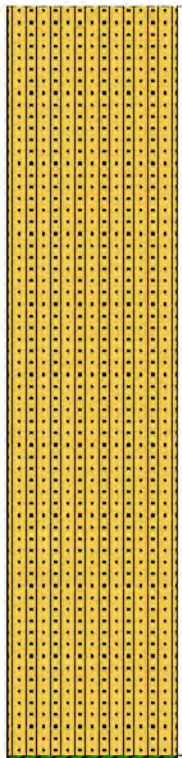
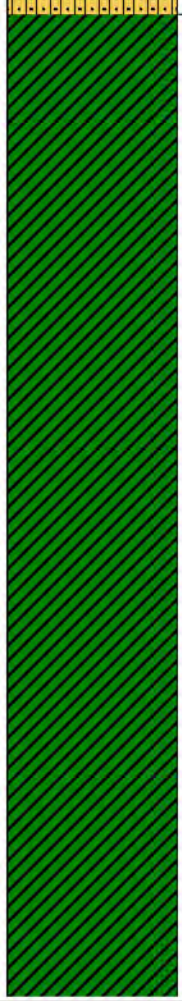
CLIENT:	USFWS
PROJECT:	Rolling Knolls Data Gap
PROJECT LOCATION:	Green Village, NJ
PROJECT #	EN20.012
PROJECT MANAGER:	Raymond Miskines
LOGGED BY:	Andy Horn
BEGIN DATE:	04/28/2021
END DATE:	04/28/2021

DRILLING INFORMATION

DRILLING CO.:	SGS - West Creek, NJ
DRILLER:	Joe Flannery
RIG TYPE:	Geoprobe 7822DT
METHOD OF DRILLING:	Direct Push / Hand Auger
SAMPLING METHODS:	Acetate Sleeve / Auger
LATITUDE:	40.7304704
LONGITUTDE:	-74.4414832
ESTIMATED FEET AMSL:	239

DEPTH	SOIL SYMBOLS	USCS	SOIL DESCRIPTION	SAMPLE DESIGNATION	Recovery	PID (ppm)
0		Landfill	Fill: Landfill Debris w/ silt, soft, dark brown (7.5YR 3/2), non-plastic, organic matter, wet, landfill debris	SS04		0.5
			Fill: Landfill Debris w/ organic silt, soft, dark brown (7.5 YR 3/2), organic matter, non-plastic, wet, significant landfill debris (broken glass)			0.9
5		SM	SM: Silty Sand w/ trace clay, loose, dark reddish gray (10R 4/1), fine grained sand, non-plastic, wet, no landfill debris	DP04_0.5-5.0		1.0
			: No Recovery	DP04_5.0-8.0		
10						

NOTES: Collocated w/ geotechnical sample GTO2. DP04_0.5-5.0 collected with hand auger due to recovery

DEPTH	SOIL SYMBOLS	USCS	SOIL DESCRIPTION	SAMPLE DESIGNATION	Recovery	PID (ppm)
15		SM	SM: Silty Sand, medium dense, dark reddish gray (10R 4/1), find to medium grained sand, loose, wet, non-plastic			
20		CH	CH: Clay w/ trace silt, stiff, dark greenish gray (5GY 4/1), moist, high plasticity	GT02_17.0-27.0		
25						

NOTES: Collocated w/ geotechnical sample GTO2. DP04_0.5-5.0 collected with hand auger due to recovery

DEPTH	SOIL SYMBOLS	USCS	SOIL DESCRIPTION	SAMPLE DESIGNATION	Recovery	PID (ppm)

NOTES: Collocated w/ geotechnical sample GTO2. DP04_0.5-5.0 collected with hand auger due to recovery

APPLIED INTELLECT
2801 Youngfield Street, Suite 240
Golden, Colorado 80401

BOREHOLE LOG

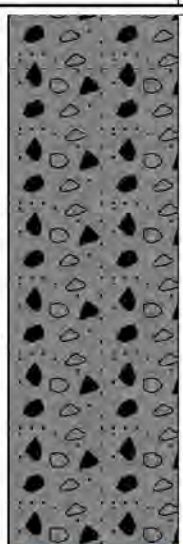
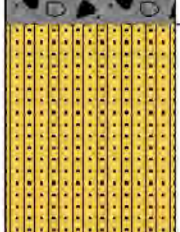
BOREHOLE # **SS05 / DP05 / GT03**
TOTAL DEPTH: **25 feet**
DEPTH TO WATER: **0.5 feet**

PROJECT INFORMATION

CLIENT:	**USFWS**
PROJECT:	**Rolling Knolls Data Gap**
PROJECT LOCATION:	**Green Village, NJ**
PROJECT #	**EN20.012**
PROJECT MANAGER:	**Raymond Miskines**
LOGGED BY:	**Andy Horn**
BEGIN DATE:	**04/29/2021**
END DATE:	**04/29/2021**

DRILLING INFORMATION

DRILLING CO.:	**SGS - West Creek, NJ**
DRILLER:	**Joe Flannery**
RIG TYPE:	**Geoprobe 7822DT**
METHOD OF DRILLING:	**Direct Push / Hand Auger**
SAMPLING METHODS:	**Acetate Sleeve / Auger**
LATITUDE:	**40.7300494**
LONGITUTDE:	**-74.4418444**
ESTIMATED FEET AMSL:	**239**

DEPTH	SOIL SYMBOLS	USCS	SOIL DESCRIPTION	SAMPLE DESIGNATION	Recovery	PID (ppm)
0		Landfill	Fill: Landfill Debris w/ silt, soft, very dark gray (7.5YR 3/1), wet, non-plastic, organic matter, landfill debris (broken glass common)	SS05		1.0
			Fill: Landfill Debris w/ organic silt, soft, very dark gray (7.5YR 3/1), wet, non-plastic, organic matter, landfill debris (broken glass & broken glass common)	DP05_0.5-5.0		0.7
5		SM	SM: Silty Sand w/ trace clay, loose, dark reddish gray (10R 4/1), fine grained sand, non-plastic, wet	DP05_5.0-7.0		1.1
			: No Recovery			
10						

NOTES: Collocated w/ geotechnical sample GT03

DEPTH	SOIL SYMBOLS	USCS	SOIL DESCRIPTION	SAMPLE DESIGNATION	Recovery	PID (ppm)
		SM	SM: Silty Sand, loose, weak red (10R 4/2), find grained sand, loose, wet, non-plastic			
15		CH	CH: Clay, ocasional sand lenses (0.5 cm thick), stiff, dark greenish gray (5GY 4/1), very fine grained sand, moist, high plasticity	GT03_16.0-25.0		
20						
25						

NOTES: Collocated w/ geotechnical sample GT03

APPLIED INTELLECT
2801 Youngfield Street, Suite 240
Golden, Colorado 80401

BOREHOLE LOG

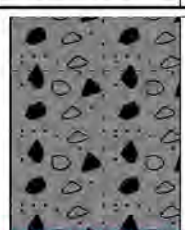
BOREHOLE # **SS06 / DP06**
TOTAL DEPTH: **3 feet**
DEPTH TO WATER: **0.2 feet**

PROJECT INFORMATION

CLIENT:	**USFWS**
PROJECT:	**Rolling Knolls Data Gap**
PROJECT LOCATION:	**Green Village, NJ**
PROJECT #	**EN20.012**
PROJECT MANAGER:	**Raymond Miskines**
LOGGED BY:	**Jeff Hart**
BEGIN DATE:	**5/13/2021**
END DATE:	**5/13/2021**

DRILLING INFORMATION

DRILLING CO.:	**SGS - West Creek, NJ**
DRILLER:	**Joe Flannery**
RIG TYPE:	**NA**
METHOD OF DRILLING:	**Hand Auger**
SAMPLING METHODS:	**Hand Auger**
LATITUDE:	**40.729803**
LONGITUTDE:	**-74.441428**
ESTIMATED FEET AMSL:	**239**

DEPTH	SOIL SYMBOLS	USCS	SOIL DESCRIPTION	SAMPLE DESIGNATION	Recovery	PID (ppm)
0		Landfill	Fill: Landfill Debris w/ silt & clay, dark brown, non-plastic, organic matter, landfill debris (plastic & glass), saturated	SS06		0.0
			Fill: Landfill Debris w/ silt and clay, dark brown, saturated, landfill debris (some glass fragments)	DP06_0.5-2.0		0.0
		CL	CL: Clay, stiff, light grey, no landfill debris	DP06_2.5-3.0 DP100_2.5-3.0		0.0

NOTES: Water observed upwelling into adjacent hole made by skid steer 0.5' bgs

APPLIED INTELLECT
2801 Youngfield Street, Suite 240
Golden, Colorado 80401

BOREHOLE LOG

BOREHOLE #	SS07 / DP07 / GT01
TOTAL DEPTH:	20 feet
DEPTH TO WATER:	0.6 feet

PROJECT INFORMATION

CLIENT:	USFWS
PROJECT:	Rolling Knolls Data Gap
PROJECT LOCATION:	Green Village, NJ
PROJECT #	EN20.012
PROJECT MANAGER:	Raymond Miskines
LOGGED BY:	Jeff Hart
BEGIN DATE:	4/28 & 5/13/2021
END DATE:	4/28 & 5/13/2021

DRILLING INFORMATION

DRILLING CO.:	SGS - West Creek, NJ
DRILLER:	Joe Flannery
RIG TYPE:	Geoprobe 7822DT
METHOD OF DRILLING:	Direct Push / Hand Auger
SAMPLING METHODS:	Acetate Sleeve / Auger
LATITUDE:	40.7293038
LONGITUTDE:	-74.4416064
ESTIMATED FEET AMSL:	240

DEPTH	SOIL SYMBOLS	USCS	SOIL DESCRIPTION	SAMPLE DESIGNATION	Recovery	PID (ppm)
0		Landfill	Fill: Landfill Debris w/ organic peat, soft, very dark gray (5YR 3/1), wet, non-plastic, organic matter (roots/twigs), landfill debris	SS07		1.7
			Fill: Landfill Debris w/ silt, dark brown, non-plastic, landfill debris (concentrated cloth, glass, plastic)	DP07_0.5-4.5		
5		SM	SM: Silty Sand, medium dense, dark gray (5YR 4/1), fine grained sand, wet, non-plastic	DP07_5.0-8.0 DP07_4.5-5.0		1.2
		CH	CL: Clay w/ silt, very stiff, reddish brown (5YR 4/3), slightly moist, medium plasticity			
10						

NOTES: Collocated w/ geotechnical sample GT01

DEPTH	SOIL SYMBOLS	USCS	SOIL DESCRIPTION	SAMPLE DESIGNATION	Recovery	PID (ppm)
		SM	SM: Silty Sand, trace pea gravel, medium dense, dark reddish gray (5YR 4/2), fine to medium grained sand, wet, non-plastic			1.1
15		CH	CH: Clay w/ silt, soft, dark grayish brown (10YR 4/2), moist, med to high plasticity	GT01_14.0-20.0		0.2
20						

NOTES: Collocated w/ geotechnical sample GT01

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BOREHOLE LOG

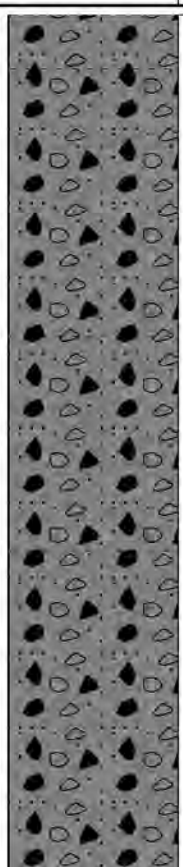
BOREHOLE # **SS08 / DP08**
TOTAL DEPTH: **10 feet**
DEPTH TO WATER: **0.2 feet (above)**

PROJECT INFORMATION

CLIENT:	**USFWS**
PROJECT:	**Rolling Knolls Data Gap**
PROJECT LOCATION:	**Green Village, NJ**
PROJECT #	**EN20.012**
PROJECT MANAGER:	**Raymond Miskines**
LOGGED BY:	**Jeff Hart**
BEGIN DATE:	**5/11/2021**
END DATE:	**5/11/2021**

DRILLING INFORMATION

DRILLING CO.:	**SGS - West Creek, NJ**
DRILLER:	**Joe Flannery**
RIG TYPE:	**NA**
METHOD OF DRILLING:	**Hand Auger**
SAMPLING METHODS:	**Hand Auger**
LATITUDE:	**40.72928382**
LONGITUTDE:	**-74.44108891**
ESTIMATED FEET AMSL:	**241**

DEPTH	SOIL SYMBOLS	USCS	SOIL DESCRIPTION	SAMPLE DESIGNATION	Recovery	PID (ppm)
0		Landfill	Fill: Landfill Debris w/ silt, dark brown, saturated, non-plastic, organic matter, landfill debris (plastic)	SS08		0.0
			Fill: Landfill Debris, dark grey, saturated, non-plastic, landfill debris (glass, plastic)			
			Fill: Landfill Debris w/ silt & clay, black, slightly plastic, saturated, landfill debris (less)	DP08_0.5-8.0		0.0
5			Fill: Landfill Debris, soft drilling, no surface recovery, refusal likely due to landfill debris			
			: No Recovery to 10' bgs			
10						

NOTES: Ground surface ~0.2 feet below water level

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BOREHOLE LOG

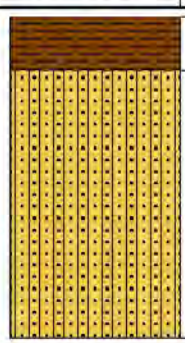
BOREHOLE # **SS09 / DP09**
TOTAL DEPTH: **3 feet**
DEPTH TO WATER: **0.3 feet**

PROJECT INFORMATION

CLIENT:	**USFWS**
PROJECT:	**Rolling Knolls Data Gap**
PROJECT LOCATION:	**Green Village, NJ**
PROJECT #	**EN20.012**
PROJECT MANAGER:	**Raymond Miskines**
LOGGED BY:	**Jeff Hart**
BEGIN DATE:	**5/13/2021**
END DATE:	**5/13/2021**

DRILLING INFORMATION

DRILLING CO.:	**SGS - West Creek, NJ**
DRILLER:	**Joe Flannery**
RIG TYPE:	**NA**
METHOD OF DRILLING:	**Hand Auger**
SAMPLING METHODS:	**Hand Auger**
LATITUDE:	**40.7285174**
LONGITUTDE:	**-74.4407729**
ESTIMATED FEET AMSL:	**241**

DEPTH	SOIL SYMBOLS	USCS	SOIL DESCRIPTION	SAMPLE DESIGNATION	Recovery	PID (ppm)
0		OL	OL: Organic silt w/ clay, brown, saturated, non-plastic, organic matter (roots), no landfill debris	SS09		0.0
		SM	SM: Silty Sand, dark grey, fine grained grading to brown, medium grained, saturated, no landfill debris,	DP09_1.5-3.0 (MS/MSD)		0.0

NOTES: No landfill debris observed (surface/subsurface), no composite (landfill interval) soil sample collected

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BOREHOLE LOG

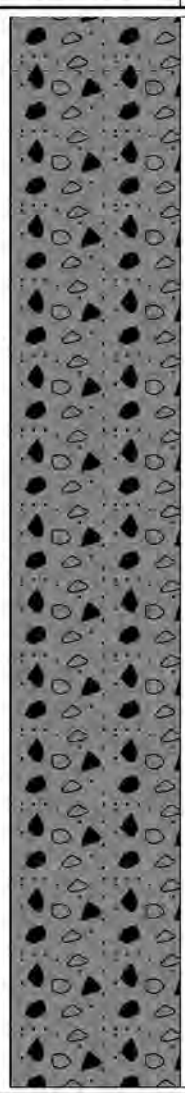
BOREHOLE # **SS10 / DP10**
TOTAL DEPTH: **10 feet**
DEPTH TO WATER: **0.5 feet**

PROJECT INFORMATION

CLIENT:	**USFWS**
PROJECT:	**Rolling Knolls Data Gap**
PROJECT LOCATION:	**Green Village, NJ**
PROJECT #	**EN20.012**
PROJECT MANAGER:	**Raymond Miskines**
LOGGED BY:	**Jeff Hart**
BEGIN DATE:	**5/13/2021**
END DATE:	**5/13/2021**

DRILLING INFORMATION

DRILLING CO.:	**SGS - West Creek, NJ**
DRILLER:	**Joe Flannery**
RIG TYPE:	**NA**
METHOD OF DRILLING:	**Hand Auger**
SAMPLING METHODS:	**Hand Auger**
LATITUDE:	**40.7272947**
LONGITUTDE:	**-74.440092**
ESTIMATED FEET AMSL:	**240**

DEPTH	SOIL SYMBOLS	USCS	SOIL DESCRIPTION	SAMPLE DESIGNATION	Recovery	PID (ppm)
0		Landfill	Fill: Landfill Debris w/ silt, dark brown, saturated, non-plastic, organic matter (roots), landfill debris (glass shards)	SS10		
			Fill: Landfill Debris w/ silt, dark brown, saturated, non-plastic, organic matter (roots), landfill debris (glass, plastic, metal)	DP10_0.5-10.0		
5						
10						

NOTES: No depth to bottom of landfill achieved to 10 feet (depth of auger extension)

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BOREHOLE LOG

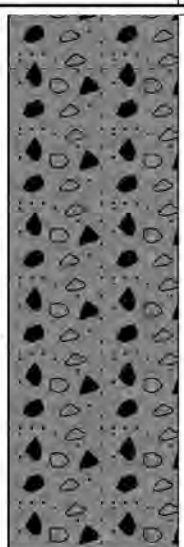
BOREHOLE #	SS11 / DP11
TOTAL DEPTH:	18 feet
DEPTH TO WATER:	0.5 feet

PROJECT INFORMATION

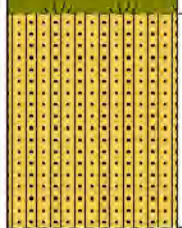
CLIENT:	USFWS
PROJECT:	Rolling Knolls Data Gap
PROJECT LOCATION:	Green Village, NJ
PROJECT #	EN20.012
PROJECT MANAGER:	Raymond Miskines
LOGGED BY:	Andy Horn
BEGIN DATE:	5/03/2021
END DATE:	5/03/2021

DRILLING INFORMATION

DRILLING CO.:	SGS - West Creek, NJ
DRILLER:	Joe Flannery
RIG TYPE:	Geoprobe 7822DT
METHOD OF DRILLING:	Direct Push / Hand Auger
SAMPLING METHODS:	Acetate Sleeve / Auger
LATITUDE:	40.7220743
LONGITUTDE:	-74.444296
ESTIMATED FEET AMSL:	237

DEPTH	SOIL SYMBOLS	USCS	SOIL DESCRIPTION	SAMPLE DESIGNATION	Recovery	PID (ppm)
0		Landfill	Fill: Landfill Debris w/ Peat, soft, very dark gray (7.5YR 3/1), wet, non-plastic, slight sheen on water, organic matter (roots), landfill debris (broken glass)	SS11		0.4
			Fill: Landfill Debris w/ Peat, soft, very dark gray (7.5YR 3/1), wet, non-plastic, landfill debris (broken glass, plastic)	DP11_0.5-5.0		0.2
5			: No Recovery			
10						

NOTES: 0.5-5.0 interval hand augered

DEPTH	SOIL SYMBOLS	USCS	SOIL DESCRIPTION	SAMPLE DESIGNATION	Recovery	PID (ppm)
15		PT	PT: w/ clay, soft, very dark gray (7.5YR 3/1), wet, non-plastic	DP11_14.0-18.0		0.0
		SM	SM: Silty Sand, loose, dark gray (7.5YR 4/1), wet, non-plastic			
20			: No Recovery to 20' bgs			

NOTES: 0.5-5.0 interval hand augered

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BOREHOLE LOG

BOREHOLE # **SS12 / DP12**
TOTAL DEPTH: **9 feet**
DEPTH TO WATER: **0.5 feet**

PROJECT INFORMATION

CLIENT:	**USFWS**
PROJECT:	**Rolling Knolls Data Gap**
PROJECT LOCATION:	**Green Village, NJ**
PROJECT #	**EN20.012**
PROJECT MANAGER:	**Raymond Miskines**
LOGGED BY:	**Jeff Hart**
BEGIN DATE:	**5/10/2021**
END DATE:	**5/10/2021**

DRILLING INFORMATION

DRILLING CO.:	**SGS - West Creek, NJ**
DRILLER:	**Joe Flannery**
RIG TYPE:	**NA**
METHOD OF DRILLING:	**Hand Auger**
SAMPLING METHODS:	**Hand Auger**
LATITUDE:	**40.7218276**
LONGITUTDE:	**-74.4445596**
ESTIMATED FEET AMSL:	**240**

DEPTH	SOIL SYMBOLS	USCS	SOIL DESCRIPTION	SAMPLE DESIGNATION	Recovery	PID (ppm)
0		OL	OL: Organic silt, soft, dark brown/black, saturated, non-plastic, organic matter, no landfill debris	SS12		0.0
		OL	OL: Organic silt, soft, black to dark brown, saturated, non-plastic, organic matter, no landfill debris	DP12_0.5-4.0		0.0
5			: No Recovery (3 attempts)			

NOTES: No observed landfill material, no composite (landfill interval) soil sample collected

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BOREHOLE LOG

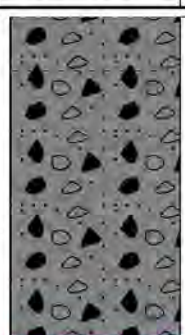
BOREHOLE # **SS13 / DP13**
TOTAL DEPTH: **4 feet**
DEPTH TO WATER: **0.5 feet**

PROJECT INFORMATION

CLIENT:	**USFWS**
PROJECT:	**Rolling Knolls Data Gap**
PROJECT LOCATION:	**Green Village, NJ**
PROJECT #	**EN20.012**
PROJECT MANAGER:	**Raymond Miskines**
LOGGED BY:	**Jeff Hart**
BEGIN DATE:	**5/10/2021**
END DATE:	**5/10/2021**

DRILLING INFORMATION

DRILLING CO.:	**SGS - West Creek, NJ**
DRILLER:	**Joe Flannery**
RIG TYPE:	**NA**
METHOD OF DRILLING:	**Hand Auger**
SAMPLING METHODS:	**Hand Auger**
LATITUDE:	**40.7221319**
LONGITUTDE:	**-74.4453061**
ESTIMATED FEET AMSL:	**239**

DEPTH	SOIL SYMBOLS	USCS	SOIL DESCRIPTION	SAMPLE DESIGNATION	Recovery	PID (ppm)
0		Landfill	Fill: Landfill Debris w/ silt & clay, brown to black, non-plastic, organic matter, landfill debris (glass, rubber)	SS13		0.0
			Fill: Landfill Debris w/ silt, brown, saturated, non-plastic, organic matter (roots), landfill debris (plastic, glass)	DP13_0.5-3.0		0.0
		CL	CL: Clay, dark brown to black, stiff, saturated, plastic, organic matter, no landfill debris	DP13_3.0-4.0		0.0

NOTES:

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BOREHOLE LOG

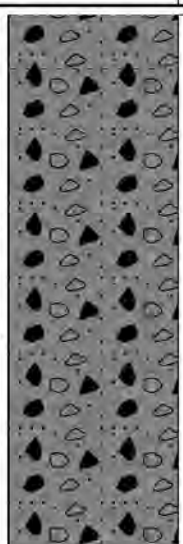
BOREHOLE #	SS14 / DP14
TOTAL DEPTH:	40 feet
DEPTH TO WATER:	0.5 feet

PROJECT INFORMATION

CLIENT:	USFWS
PROJECT:	Rolling Knolls Data Gap
PROJECT LOCATION:	Green Village, NJ
PROJECT #	EN20.012
PROJECT MANAGER:	Raymond Miskines
LOGGED BY:	Andy Horn
BEGIN DATE:	5/03/2021
END DATE:	5/03/2021

DRILLING INFORMATION

DRILLING CO.:	SGS - West Creek, NJ
DRILLER:	Joe Flannery
RIG TYPE:	Geoprobe 7822DT
METHOD OF DRILLING:	Direct Push / Hand Auger
SAMPLING METHODS:	Acetate Sleeve / Auger
LATITUDE:	40.7222989
LONGITUTDE:	-74.4446187
ESTIMATED FEET AMSL:	233

DEPTH	SOIL SYMBOLS	USCS	SOIL DESCRIPTION	SAMPLE DESIGNATION	Recovery	PID (ppm)
0		Landfill	Fill: Landfill Debris w/ Peat, soft, black (7.5YR 2.5/1), wet, non-plastic, organic matter, landfill debris (broken glass, plastic)	SS14 SS102		0.0
			Fill: Landfill Debris w/ Peat, black (7.5YR 2.5/1), organic matter (roots), landfill debris (broken glass, plastic)	DP14_0.5-5.0 DP101_0.5-5.0		0.4
5			: No Recovery to 25' bgs, offset: No Recovery to 40'			
10						

NOTES: No recovery w/ DPT 0.5-40'. Collected composite (landfill interval) soil sample w/ hand auger

DEPTH	SOIL SYMBOLS	USCS	SOIL DESCRIPTION	SAMPLE DESIGNATION	Recovery	PID (ppm)
15						
20						
25						

NOTES: No recovery w/ DPT 0.5-40'. Collected composite (landfill interval) soil sample w/ hand auger

DEPTH	SOIL SYMBOLS	USCS	SOIL DESCRIPTION	SAMPLE DESIGNATION	Recovery	PID (ppm)
30						
35						
40						

NOTES: No recovery w/ DPT 0.5-40'. Collected composite (landfill interval) soil sample w/ hand auger

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BOREHOLE LOG

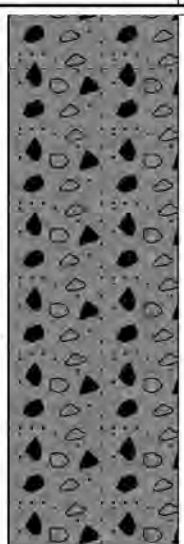
BOREHOLE # SS15 / DP15
TOTAL DEPTH: 23 feet
DEPTH TO WATER: 0.5 feet

PROJECT INFORMATION

CLIENT:	USFWS
PROJECT:	Rolling Knolls Data Gap
PROJECT LOCATION:	Green Village, NJ
PROJECT #	EN20.012
PROJECT MANAGER:	Raymond Miskines
LOGGED BY:	Andy Horn
BEGIN DATE:	5/03/2021
END DATE:	5/03/2021

DRILLING INFORMATION

DRILLING CO.:	SGS - West Creek, NJ
DRILLER:	Joe Flannery
RIG TYPE:	Geoprobe 7822DT
METHOD OF DRILLING:	Direct Push / Hand Auger
SAMPLING METHODS:	Acetate Sleeve / Auger
LATITUDE:	40.7226573
LONGITUTDE:	-74.4446863
ESTIMATED FEET AMSL:	235

DEPTH	SOIL SYMBOLS	USCS	SOIL DESCRIPTION	SAMPLE DESIGNATION	Recovery	PID (ppm)
0		Landfill	Fill: Landfill Debris w/ Peat, soft, black (7.5YR 2.5/1), wet, non-plastic, organic matter, landfill debris (broken glass)	SS15		1.8
			Fill: Landfill Debris w/ Peat, black (7.5YR 2.5/1), organic matter (roots), landfill debris (broken glass, plastic)	DP15_0.5-5.0		
5			: No Recovery to 19' bgs			
10						

NOTES: No recovery w/ DPT 0.5-19; 0.5-5 hand augered

DEPTH	SOIL SYMBOLS	USCS	SOIL DESCRIPTION	SAMPLE DESIGNATION	Recovery	PID (ppm)
15						
		PT	PT: Peat, soft, black (7.5YR 2.5/1), wet, non-plastic, organic matter			
20		CH	CH: Clay, stiff, dark greenish gray (5GY 4/1), moist, high plasticity	DP15_19.0-21.0		

NOTES: No recovery w/ DPT 0.5-19; 0.5-5 hand augered

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BOREHOLE LOG

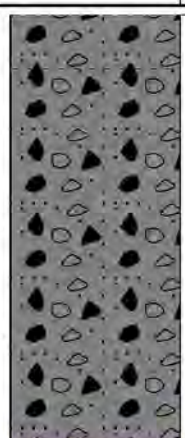
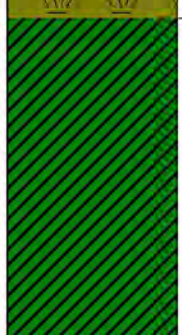
BOREHOLE # **SS16 / DP16**
TOTAL DEPTH: **10 feet**
DEPTH TO WATER: **0.5 feet**

PROJECT INFORMATION

CLIENT:	**USFWS**
PROJECT:	**Rolling Knolls Data Gap**
PROJECT LOCATION:	**Green Village, NJ**
PROJECT #	**EN20.012**
PROJECT MANAGER:	**Raymond Miskines**
LOGGED BY:	**Andy Horn**
BEGIN DATE:	**5/04/2021**
END DATE:	**5/04/2021**

DRILLING INFORMATION

DRILLING CO.:	**SGS - West Creek, NJ**
DRILLER:	**Joe Flannery**
RIG TYPE:	**Geoprobe 7822DT**
METHOD OF DRILLING:	**Direct Push / Hand Auger**
SAMPLING METHODS:	**Acetate Sleeve / Auger**
LATITUDE:	**40.7229083**
LONGITUTDE:	**-74.445227**
ESTIMATED FEET AMSL:	**238**

DEPTH	SOIL SYMBOLS	USCS	SOIL DESCRIPTION	SAMPLE DESIGNATION	Recovery	PID (ppm)
0		Landfill	Fill: Landfill Debris w/ silt, soft, very dark grayish brown (10YR 3/2), wet, non-plastic, organic matter, landfill debris (broken glass)	SS16		8.2
			Fill: Landfill Debris w/ silt, soft, very dark grayish brown (10YR 3/2), wet, non-plastic, organic matter, landfill debris (broken glass)	DP16_0.5-4.0		8.5
		PT	PT: Peat, soft, dark gray (5YR 4/1), wet, non-plastic, organic matter			11.5
5		CH	CH: Clay, soft, grayish green (5G 5/2), wet, high plasticity	DP16_4.0-7.0		
			: No Recovery			
10						

NOTES:

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BOREHOLE LOG

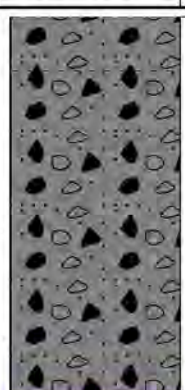
BOREHOLE # **SS17 / DP17**
TOTAL DEPTH: **5 feet**
DEPTH TO WATER: **0.5 feet**

PROJECT INFORMATION

CLIENT:	**USFWS**
PROJECT:	**Rolling Knolls Data Gap**
PROJECT LOCATION:	**Green Village, NJ**
PROJECT #	**EN20.012**
PROJECT MANAGER:	**Raymond Miskines**
LOGGED BY:	**Andy Horn**
BEGIN DATE:	**5/05/2021**
END DATE:	**5/05/2021**

DRILLING INFORMATION

DRILLING CO.:	**SGS - West Creek, NJ**
DRILLER:	**Joe Flannery**
RIG TYPE:	**NA**
METHOD OF DRILLING:	**Hand Auger**
SAMPLING METHODS:	**Hand Auger**
LATITUDE:	**40.723173**
LONGITUTDE:	**-74.443727**
ESTIMATED FEET AMSL:	**235**

DEPTH	SOIL SYMBOLS	USCS	SOIL DESCRIPTION	SAMPLE DESIGNATION	Recovery	PID (ppm)
0		Landfill	Fill: Landfill Debris w/ silt & clay, soft, dark brown (7.5YR 3/3), moist, non-plastic, organic matter, landfill debris (broken glass)	SS17		9.7
			Fill: Landfill Debris w/ silt and clay, soft, brown (7.5YR 4/3), moist, non-plastic, organic matter, landfill debris (broken glass, shiny metal shavings common)	DP17_0.5-2.0		6.8*
5		PT	PT: Peat, soft, black (5YR 2.5/1), wet, non-plastic, organic matter	DP17_3.5-5.0 DP102_3.5-5.0		4.2

NOTES: PID background 0.5, hand augered to 5' bgs; *PID background 2.6

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BOREHOLE LOG

BOREHOLE #	SS18 / DP18
TOTAL DEPTH:	5 feet
DEPTH TO WATER:	0.4 feet

PROJECT INFORMATION

CLIENT:	USFWS
PROJECT:	Rolling Knolls Data Gap
PROJECT LOCATION:	Green Village, NJ
PROJECT #	EN20.012
PROJECT MANAGER:	Raymond Miskines
LOGGED BY:	Jeff Hart
BEGIN DATE:	5/10/2021
END DATE:	5/10/2021

DRILLING INFORMATION

DRILLING CO.:	SGS - West Creek, NJ
DRILLER:	Joe Flannery
RIG TYPE:	NA
METHOD OF DRILLING:	Hand Auger
SAMPLING METHODS:	Hand Auger
LATITUDE:	40.7226388
LONGITUTDE:	-74.4459762
ESTIMATED FEET AMSL:	239

DEPTH	SOIL SYMBOLS	USCS	SOIL DESCRIPTION	SAMPLE DESIGNATION	Recovery	PID (ppm)
0		OL	OL: Organic silt, soft, dark brown, saturated, non-plastic, organic matter (roots), no landfill debris	SS18 (MS/MSD)		0.0
		OL	OL: Organic silt, soft, dark brown, saturated, non-plastic, organic matter (roots), no landfill debris			
		CL	CL: Clay w/ silt, brown, saturated, slightly plastic, little to no roots or organic matter, no landfill debris			
5		CL	CL: Clay, brown, no organics, plastic, no landfill debris	DP18_3.5-5.0		

NOTES: No landfill debris observed in hole at location

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BOREHOLE LOG

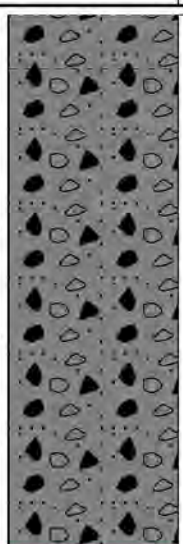
BOREHOLE # SS19 / DP19
TOTAL DEPTH: 9 feet
DEPTH TO WATER: 0.5 feet

PROJECT INFORMATION

CLIENT:	USFWS
PROJECT:	Rolling Knolls Data Gap
PROJECT LOCATION:	Green Village, NJ
PROJECT #	EN20.012
PROJECT MANAGER:	Raymond Miskines
LOGGED BY:	Jeff Hart
BEGIN DATE:	5/10/2021
END DATE:	5/10/2021

DRILLING INFORMATION

DRILLING CO.:	SGS - West Creek, NJ
DRILLER:	Joe Flannery
RIG TYPE:	NA
METHOD OF DRILLING:	Hand Auger
SAMPLING METHODS:	Hand Auger
LATITUDE:	40.7236522
LONGITUTDE:	-74.4437257
ESTIMATED FEET AMSL:	238

DEPTH	SOIL SYMBOLS	USCS	SOIL DESCRIPTION	SAMPLE DESIGNATION	Recovery	PID (ppm)
0		Landfill	Fill: Landfill Debris w/ silt, very soft, dark brown, non-plastic, organic matter, landfill debris	SS19		0.2
			Fill: Landfill Debris w/ Silty Sand, black, saturated, non-plastic, organic matter, landfill debris, poor recovery satisfied by several borings in this interval	DP19_0.5-5.0		0.0
5		CL	CL: Clay, grayish brown, saturated, plastic, no landfill debris, below landfill	DP19_5.0-9.0 (MS/MSD)		0.0

NOTES:

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BOREHOLE LOG

BOREHOLE # **SS20 / DP20**
TOTAL DEPTH: **20 feet**
DEPTH TO WATER: **0.5 feet**

PROJECT INFORMATION

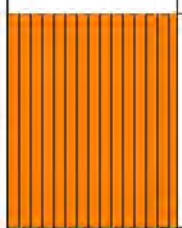
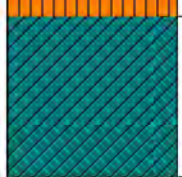
CLIENT:	**USFWS**
PROJECT:	**Rolling Knolls Data Gap**
PROJECT LOCATION:	**Green Village, NJ**
PROJECT #	**EN20.012**
PROJECT MANAGER:	**Raymond Miskines**
LOGGED BY:	**Andy Horn**
BEGIN DATE:	**5/04/2021**
END DATE:	**5/04/2021**

DRILLING INFORMATION

DRILLING CO.:	**SGS - West Creek, NJ**
DRILLER:	**Joe Flannery**
RIG TYPE:	**Geoprobe 7822DT**
METHOD OF DRILLING:	**Direct Push / Hand Auger**
SAMPLING METHODS:	**Acetate Sleeve / Auger**
LATITUDE:	**40.722731**
LONGITUTDE:	**-74.443907**
ESTIMATED FEET AMSL:	**235**

DEPTH	SOIL SYMBOLS	USCS	SOIL DESCRIPTION	SAMPLE DESIGNATION	Recovery	PID (ppm)
0		CL	CL: Clay w/ silt, sand, and trace gravel, soft, dark brown (7.5YR 3/2), moist, low plasticity	SS20		21.7
				DP20_0.5-4.0		26.2
5		OL	Fill: Landfill Debris w/ silt, soft, black (5YR 2.5/1), wet, non-plastic, landfill debris (glass fragments)			
			: No Recovery to 10' bgs			
10						

NOTES:

DEPTH	SOIL SYMBOLS	USCS	SOIL DESCRIPTION	SAMPLE DESIGNATION	Recovery	PID (ppm)
		OL	PT: Peat, soft, black (5YR 2.5/1), wet, non-plastic	DP20_10.0-13.0		19.9
			: No Recovery to 15' bgs			
15		ML	ML: Silt w/ clay, soft, dark reddish brown, wet, low plasticity, grading to (below)			
		CL	CL: Clay w/ silt, soft, dark greenish gray (5GY 4/1), wet, low plasticity			
			: No Recovery to 20' bgs			
20						

NOTES:

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BOREHOLE LOG

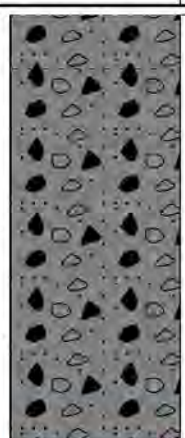
BOREHOLE # **SS21 / DP21**
TOTAL DEPTH: **15 feet**
DEPTH TO WATER: **1.0 foot**

PROJECT INFORMATION

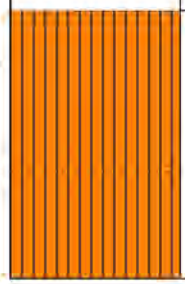
CLIENT:	**USFWS**
PROJECT:	**Rolling Knolls Data Gap**
PROJECT LOCATION:	**Green Village, NJ**
PROJECT #	**EN20.012**
PROJECT MANAGER:	**Raymond Miskines**
LOGGED BY:	**Michael A. Wicker**
BEGIN DATE:	**5/07/2021**
END DATE:	**5/07/2021**

DRILLING INFORMATION

DRILLING CO.:	**SGS - West Creek, NJ**
DRILLER:	**Joe Flannery**
RIG TYPE:	**Geoprobe 7822DT**
METHOD OF DRILLING:	**Direct Push / Hand Auger**
SAMPLING METHODS:	**Acetate Sleeve / Auger**
LATITUDE:	**40.7238344**
LONGITUTDE:	**-74.445655**
ESTIMATED FEET AMSL:	**237**

DEPTH	SOIL SYMBOLS	USCS	SOIL DESCRIPTION	SAMPLE DESIGNATION	Recovery	PID (ppm)
0		Landfill	FIll: Landfill Debris w/ silt, soft, dark brown (7.5YR 3/3), moist, non-plastic, landfill debris (broken glass, plastic fragments), capillary fringe, detritus	SS21 & SS101		8.2
			Fill: Landfill Debris w/ silt, soft, dark brown (7.5YR 3/3), wet, non-plastic, landfill debris (broken glass, plastic fragments)	DP21_0.5-4.0 (MS/MSD)		4.6
		OL	OL: Organic silt w/ clay, very soft, black (7.5YR 2.5/1), wet, low plasticity, cohesive, no landfill debris	DP21_4.0-5.0		
5			: No Recovery to 12.5' bgs			
10						

NOTES:

DEPTH	SOIL SYMBOLS	USCS	SOIL DESCRIPTION	SAMPLE DESIGNATION	Recovery	PID (ppm)
15		ML	ML: Silt, very soft, very dark brown (7.5YR 3/3), wet, non-plastic, no landfill debris ML: Silt, very soft, dark gray (7.5YR 4/1), wet, non-plastic			

NOTES:

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BOREHOLE LOG

BOREHOLE # **SS22 / DP22**
TOTAL DEPTH: **10 feet**
DEPTH TO WATER: **0.2 foot**

PROJECT INFORMATION

CLIENT:	**USFWS**
PROJECT:	**Rolling Knolls Data Gap**
PROJECT LOCATION:	**Green Village, NJ**
PROJECT #	**EN20.012**
PROJECT MANAGER:	**Raymond Miskines**
LOGGED BY:	**Andy Horn**
BEGIN DATE:	**5/04/2021**
END DATE:	**5/04/2021**

DRILLING INFORMATION

DRILLING CO.:	**SGS - West Creek, NJ**
DRILLER:	**Joe Flannery**
RIG TYPE:	**Geoprobe 7822DT**
METHOD OF DRILLING:	**Direct Push / Hand Auger**
SAMPLING METHODS:	**Acetate Sleeve / Auger**
LATITUDE:	**40.7234467**
LONGITUTDE:	**-74.4453029**
ESTIMATED FEET AMSL:	**235**

DEPTH	SOIL SYMBOLS	USCS	SOIL DESCRIPTION	SAMPLE DESIGNATION	Recovery	PID (ppm)
0			Fill: Landfill Debris w/ Peat, soft, dark gray (5YR 3/1), wet, non-plastic, landfill debris (apparent brick fragments)	SS22		16.0
		Landfill	Fill: Landfill Debris w/ Peat, soft, very dark gray (5YR 3/1), wet, non-plastic, landfill debris	DP22_0.5-3.0 DP102_0.5-3.0		15.0
		CH	CH: Clay w/ sand, soft, grayish green (5G 4/2), wet, high plasticity	DP22_3.0-5.0		18.2
5		CL	CL: Clay w/ sand, sand intervals, medium stiff, grayish green (5G 4/2), moist, medium plasticity, sandy intervals: fine to medium grained, loose, wet, non-plastic			
10			: No Recovery to 10' bgs			

NOTES: No recovery 0.5-3' w/ DPT, hand augered 0.5-3', collected duplicate sample

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BOREHOLE LOG

BOREHOLE #	SS23 / DP23 / GT06
TOTAL DEPTH:	20 feet
DEPTH TO WATER:	0.5 foot

PROJECT INFORMATION

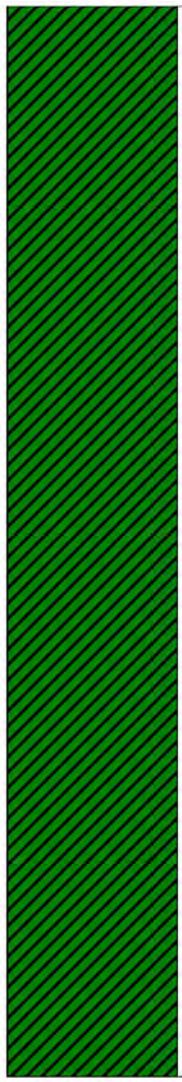
CLIENT:	USFWS
PROJECT:	Rolling Knolls Data Gap
PROJECT LOCATION:	Green Village, NJ
PROJECT #	EN20.012
PROJECT MANAGER:	Raymond Miskines
LOGGED BY:	J. Hart / M. Wicker
BEGIN DATE:	5/10 & 5/25/2021
END DATE:	5/10 & 5/25/2021

DRILLING INFORMATION

DRILLING CO.:	SGS - West Creek, NJ
DRILLER:	Joe Flannery
RIG TYPE:	NA
METHOD OF DRILLING:	Hand Auger
SAMPLING METHODS:	Hand Auger
LATITUDE:	40.7234761
LONGITUTDE:	-74.4461556
ESTIMATED FEET AMSL:	237

DEPTH	SOIL SYMBOLS	USCS	SOIL DESCRIPTION	SAMPLE DESIGNATION	Recovery	PID (ppm)
0		Landfill	Fill: Landfill Debris w/ clay & silt, reddish brown, saturated, plastic, organic matter, landfill debris (glass, plastic)	SS23		0.0
			Fill: Landfill Debris w/ clay & silt, reddish brown, saturated, plastic, organic matter, landfill debris (glass, plastic)	DP23_0.5-2.5		0.0
		CH	CH: Clay w/ silt, dark brown, grading to clay at 3' bgs, stiff, light grey, highly plastic, no landfill debris	DP23_2.5-3.0		
			: No Recovery to 5' bgs			
5		CL	CL: Clay, stiff, dark greenish gray (5GY 4/1), medium plasticity, cohesive			
			: Auger to 10' bgs; push Shelby tube 10-12'			
10						

NOTES:

DEPTH	SOIL SYMBOLS	USCS	SOIL DESCRIPTION	SAMPLE DESIGNATION	Recovery	PID (ppm)
15		CH	CH: Clay, stiff, high plasticity, cohesive	GT06_10.0-20.0		
20						

NOTES:

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BOREHOLE LOG

BOREHOLE # **SS24 / DP24**
TOTAL DEPTH: **3 feet**
DEPTH TO WATER: **0.2 foot**

PROJECT INFORMATION

CLIENT:	**USFWS**
PROJECT:	**Rolling Knolls Data Gap**
PROJECT LOCATION:	**Green Village, NJ**
PROJECT #	**EN20.012**
PROJECT MANAGER:	**Raymond Miskines**
LOGGED BY:	**Michael A. Wicker**
BEGIN DATE:	**5/14/2021**
END DATE:	**5/14/2021**

DRILLING INFORMATION

DRILLING CO.:	**SGS - West Creek, NJ**
DRILLER:	**Joe Flannery**
RIG TYPE:	**NA**
METHOD OF DRILLING:	**Hand Auger**
SAMPLING METHODS:	**Hand Auger**
LATITUDE:	**40.7234047**
LONGITUTDE:	**-74.4467553**
ESTIMATED FEET AMSL:	**237**

DEPTH	SOIL SYMBOLS	USCS	SOIL DESCRIPTION	SAMPLE DESIGNATION	Recovery	PID (ppm)
0		Landfill	Fill: Landfill Debris w/ silt & clay, soft, dark brown, wet, low plasticity, cohesive, detritus, landfill debris (glass, plastic, paper, oxidized metal)	SS24		0.0
			Fill: Landfill Debris w/ silt & clay, soft, dark brown, wet, low plasticity, cohesive, detritus, less landfill debris (glass, plastic, paper, oxidized metal) than 0-0.5' bgs	DP24_0.5-2.5		0.0
		CL	CL: Clay, soft, gray, medium plastic, cohesive, no landfill debris	DP24_2.5-3.0		

NOTES:

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BOREHOLE LOG

BOREHOLE # SS25 / DP25 / GT09
TOTAL DEPTH: 24 feet
DEPTH TO WATER: 1.0 foot

PROJECT INFORMATION

CLIENT:	USFWS
PROJECT:	Rolling Knolls Data Gap
PROJECT LOCATION:	Green Village, NJ
PROJECT #	EN20.012
PROJECT MANAGER:	Raymond Miskines
LOGGED BY:	A. Horn / M. Wicker
BEGIN DATE:	5/06 & 5/26/2021
END DATE:	5/06 & 5/26/2021

DRILLING INFORMATION

DRILLING CO.:	SGS - West Creek, NJ
DRILLER:	Joe Flannery
RIG TYPE:	Geoprobe 7822DT
METHOD OF DRILLING:	Direct Push / Hand Auger
SAMPLING METHODS:	Acetate Sleeve / Auger
LATITUDE:	40.7234932
LONGITUTDE:	-74.4473376
ESTIMATED FEET AMSL:	237

DEPTH	SOIL SYMBOLS	USCS	SOIL DESCRIPTION	SAMPLE DESIGNATION	Recovery	PID (ppm)
0		OL	OL: Organic silt w/ clay, soft, dark yellowish brown (10YR 4/4), slightly moist, medium plasticity, organic matter (roots), no landfill debris	SS25		3.5
			OL: Organic silt w/ clay, soft, dark brown (7.5YR 3/3), moist, medium plasticity, organic matter (roots), no landfill debris	DP25_1.0-1.5		2.4
			: No Recovery to 4' bgs			
		CL	CL: Clay w/ sand, soft, brown (7.5YR 4/3), wet, low-medium plasticity			
5			: No Recovery to 7.5' bgs			
		SC	SC: Sandy Clay, very dark gray (7.5YR 3/1)			
10			CH: Clay w/ sand, zones of very fine grained			

NOTES: Location moved ~150' E from original location to area near rusted drums per J. Hart. No landfill debris observed

DEPTH	SOIL SYMBOLS	USCS	SOIL DESCRIPTION	SAMPLE DESIGNATION	Recovery	PID (ppm)
			sand, medium stiff, dark greenish gray (5GY 4/1), moist, high plasticity			
			CH: Clay, stiff, dark greenish gray (5GY 4/1), slightly moist, high plasticity			
15		CH				
				GT09_14.0-24.0		
20						

NOTES: Location moved ~150' E from original location to area near rusted drums per J. Hart. No landfill debris observed

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BOREHOLE LOG

BOREHOLE # **SS26 / DP26 / GT08**
TOTAL DEPTH: **24 feet**
DEPTH TO WATER: **4.5 feet**

PROJECT INFORMATION

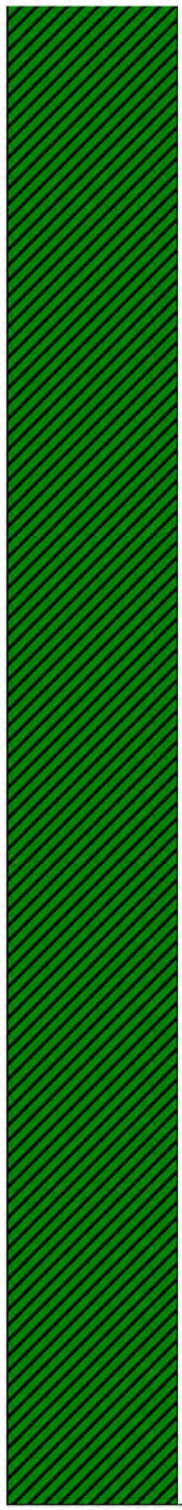
CLIENT:	**USFWS**
PROJECT:	**Rolling Knolls Data Gap**
PROJECT LOCATION:	**Green Village, NJ**
PROJECT #	**EN20.012**
PROJECT MANAGER:	**Raymond Miskines**
LOGGED BY:	**Michael A. Wicker**
BEGIN DATE:	**5/06 & 5/26/2021**
END DATE:	**5/06 & 5/26/2021**

DRILLING INFORMATION

DRILLING CO.:	**SGS - West Creek, NJ**
DRILLER:	**Joe Flannery**
RIG TYPE:	**Geoprobe 7822DT**
METHOD OF DRILLING:	**Direct Push / Hand Auger**
SAMPLING METHODS:	**Acetate Sleeve / Auger**
LATITUDE:	**40.7240722**
LONGITUTDE:	**-74.4463803**
ESTIMATED FEET AMSL:	**237**

DEPTH	SOIL SYMBOLS	USCS	SOIL DESCRIPTION	SAMPLE DESIGNATION	Recovery	PID (ppm)
0		Landfill	Fill: Landfill Debris w/ clay, silt, and sand, soft, very dark brown (7.5YR 2.5/2), moist, low plasticity, cohesive, very fine grained sand, landfill debris (broken glass, plastic fragments)	SS26		2.7
			Fill: Landfill Debris w/ Peat & clay, soft, black (2.5Y 2.5/1), very moist, non- plastic, cohesive, landfill debris (broken glass, plastic fragments)	DP26_0.5-3.5		28.8
		PT	PT: Peat w/ clay, black (2.5Y 2.5/1), very moist, non-plastic, cohesive; @ 4' bgs: Clay (CL), stiff, gray (2.5Y 5/1), medium plasticity, cohesive, no landfill debris	DP26_3.5-4.0		7.9
5			: No Recovery to 7' bgs			
		ML	ML: Silt, trace fine grained sand, soft, dark gray (7.5YR 4/1), wet, non-plastic, cohesive			
10			CH: Clay, stiff, dark gray (7.5YR 4/1), high plasticity, cohesive			

NOTES:

DEPTH	SOIL SYMBOLS	USCS	SOIL DESCRIPTION	SAMPLE DESIGNATION	Recovery	PID (ppm)
15		CH		GT08_14.0-24.0		
20						

NOTES:

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BOREHOLE LOG

BOREHOLE # SS27 / DP27
TOTAL DEPTH: 20
DEPTH TO WATER:

PROJECT INFORMATION

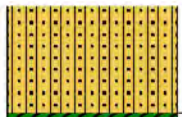
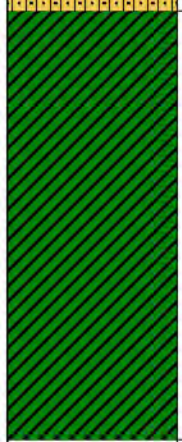
CLIENT:	USFWS
PROJECT:	Rolling Knolls Data Gap
PROJECT LOCATION:	Green Village, NJ
PROJECT #	EN20.012
PROJECT MANAGER:	Raymond Miskines
LOGGED BY:	Andy Horn
BEGIN DATE:	5/06/2021
END DATE:	5/05/2021

DRILLING INFORMATION

DRILLING CO.:	SGS - West Creek, NJ
DRILLER:	Joe Flannery
RIG TYPE:	Geoprobe 7822DT
METHOD OF DRILLING:	Direct Push / Hand Auger
SAMPLING METHODS:	Acetate Sleeve / Auger
LATITUDE:	40.7231759
LONGITUTDE:	-74.4437423
ESTIMATED FEET AMSL:	235

DEPTH	SOIL SYMBOLS	USCS	SOIL DESCRIPTION	SAMPLE DESIGNATION	Recovery	PID (ppm)
0		Landfill	Fill: Landfill Debris w/ Peat, soft, very dark gray (5YR 3/1), moist, non-plastic, landfill debris (glass fragments)	SS27		6.5
			Fill: Landfill Debris w/ Peat, soft, black (5YR 2.5/1), wet, non- plastic, landfill debris (glass fragments)	DP27_0.5-3.0		4.8
		PT	PT: Peat, soft, black (5YR 2.5/1), wet, non-plastic			3.8
5		SM	SM: Sand w/ clay, soft, dark greenish gray (5BG 4/1), wet, non-plastic, medium to coarse grained sand	DP27_8.0-10.0		
10						

NOTES: 0.2 ppm is background, drifted to 0.4. Location is littered w/ burnt tire remnants

DEPTH	SOIL SYMBOLS	USCS	SOIL DESCRIPTION	SAMPLE DESIGNATION	Recovery	PID (ppm)
						
		CH	CH: Clay, medium stiff, dark greenish gray (5BG 4/1), moist, high plasticity,			
15			: No Recovery to 16' bgs			
		SP	SP: Sand, soft, dark greenish gray (5BG 4/1), wet, non-plastic, medium grained sand			
		CL	CL: Clay, dark greenish gray, as above			
20						

NOTES: 0.2 ppm is background, drifted to 0.4. Location is littered w/ burnt tire remnants

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BOREHOLE LOG

BOREHOLE # **SS28 / DP28 / GT05**
TOTAL DEPTH: **31**
DEPTH TO WATER: **1.0 foot**

PROJECT INFORMATION

CLIENT:	**USFWS**
PROJECT:	**Rolling Knolls Data Gap**
PROJECT LOCATION:	**Green Village, NJ**
PROJECT #	**EN20.012**
PROJECT MANAGER:	**Raymond Miskines**
LOGGED BY:	**A. Horn / M. Wicker**
BEGIN DATE:	**5/05 & 5/24/2021**
END DATE:	**5/05 & 5/24/2021**

DRILLING INFORMATION

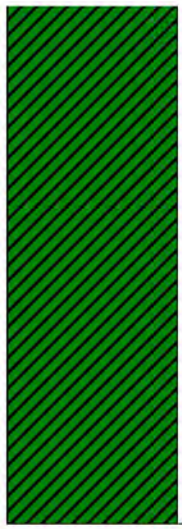
DRILLING CO.:	**SGS - West Creek, NJ**
DRILLER:	**Joe Flannery**
RIG TYPE:	**Geoprobe 7822DT**
METHOD OF DRILLING:	**Hand Auger / DPT / HSA**
SAMPLING METHODS:	**Auger / Sleeve / Shelby**
LATITUDE:	**40.7240805**
LONGITUTDE:	**-74.4443078**
ESTIMATED FEET AMSL:	**237**

DEPTH	SOIL SYMBOLS	USCS	SOIL DESCRIPTION	SAMPLE DESIGNATION	Recovery	PID (ppm)
0			Fill: Landfill Debris w/ Peat & clay, soft, dark brown (7.5YR 3/2), wet, non-plastic, landfill debris (glass fragments)	SS28		5.8
		Landfill	Fill: Landfill Debris w/ Peat, soft, black (10YR 2.5/1), wet, non- plastic, some landfill debris	DP28_0.5-5.0		4.6
5		PT	PT: Peat w/ clay, soft, very dark gray (5YR 3/1), wet			
			SP: Sand w/ clay intervals, soft, dark gray (7.5YR 4/1), wet, non-plastic	DP28_5.0-8.0		3.3
10						

NOTES: Flowing sands at 15' bgs. Did not advance further, did not encounter basal clay (return to location for GT05)

DEPTH	SOIL SYMBOLS	USCS	SOIL DESCRIPTION	SAMPLE DESIGNATION	Recovery	PID (ppm)
		SP				
15			: Advance augers to 17' bgs; collect split spoon 17-19' bgs			
			CH: Push Shelby tube 19-21' bgs; half recovery			
			CH: Clay, stiff, dark greenish gray (5GY 4/1), slightly moist, high plasticity, cohesive			
20						
		CH		GT05_21.0-31.0		
25						

NOTES: Flowing sands at 15' bgs. Did not advance further, did not encounter basal clay (return to location for GT05)

DEPTH	SOIL SYMBOLS	USCS	SOIL DESCRIPTION	SAMPLE DESIGNATION	Recovery	PID (ppm)
30				GT05_21.0-31.0		

NOTES: Flowing sands at 15' bgs. Did not advance further, did not encounter basal clay (return to location for GT05)

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BOREHOLE LOG

BOREHOLE # SS29 / DP29
TOTAL DEPTH: 20
DEPTH TO WATER: NM

PROJECT INFORMATION

CLIENT:	USFWS
PROJECT:	Rolling Knolls Data Gap
PROJECT LOCATION:	Green Village, NJ
PROJECT #	EN20.012
PROJECT MANAGER:	Raymond Miskines
LOGGED BY:	Andy Horn
BEGIN DATE:	5/06/2021
END DATE:	5/06/2021

DRILLING INFORMATION

DRILLING CO.:	SGS - West Creek, NJ
DRILLER:	Joe Flannery
RIG TYPE:	Geoprobe 7822DT
METHOD OF DRILLING:	Direct Push / Hand Auger
SAMPLING METHODS:	Acetate Sleeve / Auger
LATITUDE:	40.7248365
LONGITUTDE:	-74.4434245
ESTIMATED FEET AMSL:	237

DEPTH	SOIL SYMBOLS	USCS	SOIL DESCRIPTION	SAMPLE DESIGNATION	Recovery	PID (ppm)
0			Fill: Landfill Debris w/ Peat & silt, soft, dark brown (7.5YR 3/2), wet, non-plastic, roots, landfill debris (glass & plastic)	SS29		13.0
		Landfill	Fill: Landfill Debris w/ Peat , soft, very dark brown (7.5YR 2.5/2), wet, non- plastic	DP29_0.5-2.0		15.9
			: No Recovery to 20' bgs			
5						
				DP29_7.0-10.0		
10						

NOTES: Attempted to hand auger below 2', no recovery due to water in borehole flushing materials. Offset & cored to 20' w/ DPT, no recovery

DEPTH	SOIL SYMBOLS	USCS	SOIL DESCRIPTION	SAMPLE DESIGNATION	Recovery	PID (ppm)
15						
20						

NOTES: Attempted to hand auger below 2', no recovery due to water in borehole flushing materials. Offset & cored to 20' w/ DPT, no recovery

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Golden, Colorado 80401

BOREHOLE LOG

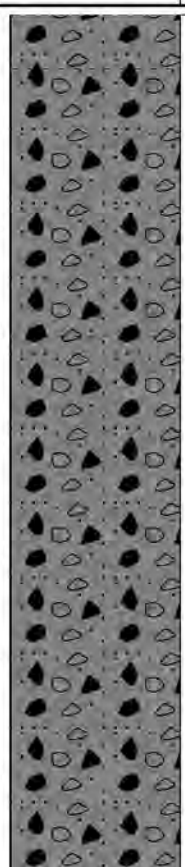
BOREHOLE # **SS30 / DP30**
TOTAL DEPTH: **9 feet**
DEPTH TO WATER: **0.5 feet**

PROJECT INFORMATION

CLIENT:	**USFWS**
PROJECT:	**Rolling Knolls Data Gap**
PROJECT LOCATION:	**Green Village, NJ**
PROJECT #	**EN20.012**
PROJECT MANAGER:	**Raymond Miskines**
LOGGED BY:	**Jeff Hart**
BEGIN DATE:	**5/13/2021**
END DATE:	**5/13/2021**

DRILLING INFORMATION

DRILLING CO.:	**SGS - West Creek, NJ**
DRILLER:	**Joe Flannery**
RIG TYPE:	**Geoprobe 7822DT**
METHOD OF DRILLING:	**Direct Push / Hand Auger**
SAMPLING METHODS:	**Acetate Sleeve / Auger**
LATITUDE:	**40.7266724**
LONGITUTDE:	**-74.4405011**
ESTIMATED FEET AMSL:	**240**

DEPTH	SOIL SYMBOLS	USCS	SOIL DESCRIPTION	SAMPLE DESIGNATION	Recovery	PID (ppm)
0		Landfill	Fill: Landfill Debris w/ silt, dark brown, non-plastic, organic material, landfill debris (glass, plastic, metal)	SS30		0.0
			Fill: Landfill Debris w/ silt, brown to dark grey, saturated, non- plastic, organic roots, landfill debris (glass, plastic)	DP30_0.5-3.0		0.0
5			Fill: Landfill Debris w/ silt, dark grey, highly organic, non-plastic, landfill debris (plastic), poor recovery	DP30_7.5-8.0		0.0
		PT	PT: Silt (Peat), dark grey, highly organic, non-plastic, no trash	DP30_8.0-9.0		0.0

NOTES: TD at 9.0 FBGS, below landfill at 8.0

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BOREHOLE LOG

BOREHOLE # **SS31 / DP31**
TOTAL DEPTH: **5 feet**
DEPTH TO WATER: **NM**

PROJECT INFORMATION

CLIENT:	**USFWS**
PROJECT:	**Rolling Knolls Data Gap**
PROJECT LOCATION:	**Green Village, NJ**
PROJECT #	**EN20.012**
PROJECT MANAGER:	**Raymond Miskines**
LOGGED BY:	**Michael A. Wicker**
BEGIN DATE:	**5/14/2021**
END DATE:	**5/14/2021**

DRILLING INFORMATION

DRILLING CO.:	**SGS - West Creek, NJ**
DRILLER:	**Joe Flannery**
RIG TYPE:	**Geoprobe 7822DT**
METHOD OF DRILLING:	**Hand Auger**
SAMPLING METHODS:	**Hand Auger**
LATITUDE:	**40.7237372**
LONGITUTDE:	**-74.4477876**
ESTIMATED FEET AMSL:	**238**

DEPTH	SOIL SYMBOLS	USCS	SOIL DESCRIPTION	SAMPLE DESIGNATION	Recovery	PID (ppm)
0		OL	OL: Organic silty clay, slightly moist, soft, very low plasticity, dark brown, slightly cohesive, contains roots, no landfill material	SS31		0.0
				DP31_0.5-5.0		0.0
		ML	ML: Silty clay, moist, soft, low plasticity, brown, cohesive, no root material, no landfill material			0.0
5						

NOTES: Did not encounter saturated zone

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BOREHOLE LOG

BOREHOLE # GT07
TOTAL DEPTH: 31
DEPTH TO WATER: 1.5 foot

PROJECT INFORMATION

CLIENT:	USFWS
PROJECT:	Rolling Knolls Data Gap
PROJECT LOCATION:	Green Village, NJ
PROJECT #	EN20.012
PROJECT MANAGER:	Raymond Miskines
LOGGED BY:	Michael A. Wicker
BEGIN DATE:	5/25/2021
END DATE:	5/25/2021

DRILLING INFORMATION

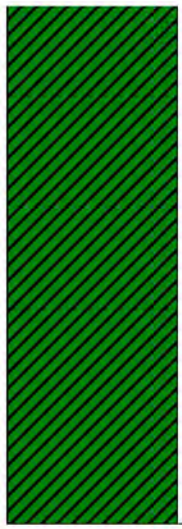
DRILLING CO.:	SGS - West Creek, NJ
DRILLER:	Joe Flannery
RIG TYPE:	Geoprobe 7822DT
METHOD OF DRILLING:	Hollow-Stem Auger
SAMPLING METHODS:	Shelby Tube
LATITUDE:	40.723836
LONGITUTDE:	-74.446156
ESTIMATED FEET AMSL:	239

DEPTH	SOIL SYMBOLS	USCS	SOIL DESCRIPTION	SAMPLE DESIGNATION	Recovery	PID (ppm)
0		Landfill	Fill: Landfill Debris w/ clay, silt, and sand, soft, very dark brown (7.5YR 2.5/2), moist, low plasticity, cohesive, very fine grained sand, landfill debris (broken glass, plastic fragments). Cuttings indicate cohesive organic silt w/ clay to 2' bgs; non-cohesive below 2' bgs			
5		PT	PT: Peat, noncohesive			
		ML	ML: Increase in cohesion/clay content			
			ML: Return to noncohesive, black (2.5Y 2.5/1)			
10						

NOTES: Lithology interpreted from auger cuttings.

DEPTH	SOIL SYMBOLS	USCS	SOIL DESCRIPTION	SAMPLE DESIGNATION	Recovery	PID (ppm)
			CL: Significant increase in cohesion/clay content, dark greenish gray (5GY 4/1), stringers forming on auger, low plasticity, soft			
		CL	CL: Split-spoon 14-16' bgs: Clay, soft-medium, dark greenish gray (5GY 4/1)			
15			CH: Auger to 19' bgs; increase in cohesion			
			CH: Full Shelby recovery			
20			CH: Full Shelby recovery, soft clay sluff			
		CH	CH: Full Shelby recovery, soft clay sluff			
25			CH: Split-spoon 25-27' bgs to confirm target clay due to significant soft clay sluff, clay confirmed	GT07_19.0-31.0		

NOTES: Lithology interpreted from auger cuttings.

DEPTH	SOIL SYMBOLS	USCS	SOIL DESCRIPTION	SAMPLE DESIGNATION	Recovery	PID (ppm)
30			CH: 22" Shelby recovery CH: Full Shelby recovery			

NOTES: Lithology interpreted from auger cuttings.

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BOREHOLE LOG

BOREHOLE # **GT10**
TOTAL DEPTH: **31**
DEPTH TO WATER: **2.5 foot**

PROJECT INFORMATION

CLIENT:	**USFWS**
PROJECT:	**Rolling Knolls Data Gap**
PROJECT LOCATION:	**Green Village, NJ**
PROJECT #	**EN20.012**
PROJECT MANAGER:	**Raymond Miskines**
LOGGED BY:	**Michael A. Wicker**
BEGIN DATE:	**5/26/2021**
END DATE:	**5/26/2021**

DRILLING INFORMATION

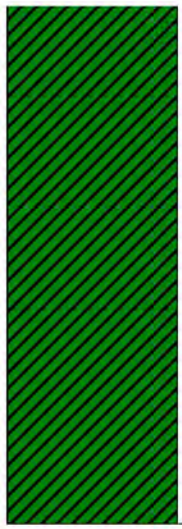
DRILLING CO.:	**SGS - West Creek, NJ**
DRILLER:	**Joe Flannery**
RIG TYPE:	**Geoprobe 7822DT**
METHOD OF DRILLING:	**Hollow-Stem Auger**
SAMPLING METHODS:	**Shelby Tube**
LATITUDE:	**40.723942**
LONGITUTDE:	**-74.447375**
ESTIMATED FEET AMSL:	**238**

DEPTH	SOIL SYMBOLS	USCS	SOIL DESCRIPTION	SAMPLE DESIGNATION	Recovery	PID (ppm)
0			: Auger to 17' bgs; Split-spoon 17-19' bgs			
5						
10						

NOTES: Lithology interpreted from auger cuttings; bentonite chips 31-1' bgs; mix grout cap at surface

DEPTH	SOIL SYMBOLS	USCS	SOIL DESCRIPTION	SAMPLE DESIGNATION	Recovery	PID (ppm)
15						
		ML	ML: Silt w/ sand, loose, gray, fine grained sand, wet, noncohesive/non-plastic			
			CH: Clay, stiff, dark greenish gray (5GY 4/1), high plasticity, cohesive			
20			CH: Recovery full Shelby (undisturbed, waxed)			
			CH: Recovery full Shelby (bulk)			
			CH: Recovery full Shelby (bulk)			
25		CH	CH: Recovery empty Shelby	GT10_19.0-31.0		

NOTES: Lithology interpreted from auger cuttings; bentonite chips 31-1' bgs; mix grout cap at surface

DEPTH	SOIL SYMBOLS	USCS	SOIL DESCRIPTION	SAMPLE DESIGNATION	Recovery	PID (ppm)
			CH: Recovery full Shelby (bulk)			
			CH: Recovery full Shelby (bulk)			
30						

NOTES: Lithology interpreted from auger cuttings; bentonite chips 31-1' bgs; mix grout cap at surface

APPENDIX B

Laboratory Analytical Reports

APPENDIX C

Data Validation Reports

APPENDIX D

Geotechnical Reports

APPENDIX E

Photo Documentation

APPENDIX E.1

General Site Photographs

APPENDIX E.2

Surface Soil and Subsurface Soil Investigation

APPENDIX E.3

Sediment, Pore water and Surface Water Investigation